 TERMS DENOTING THE EXTERNAL

1. Muzzle.
2. Race.
3. Forehead.
4. Poll.
5. Crest.
7. Gullet.
8. Windpipe.
9. Point of the Shoulder.
10. Breast or Bosom.
11. Arm.
12. Elbow.
14. Flank.
15. Sheath.
17. Withers.
19. Loins.

PARTS OF THE HORSE.

22. Dock.
23. Quarter.
24. Thigh or Gaskin.
25. Hamstring.
27. Ham or Hock.
29. Fetlock.
30. Large Pastern.
31. Small Pastern.
32. Coronet.
33. Hoof.
34. Knee.
35. Common.
36. Fetlock.
37. Heel.
38. Large Pastern.
40. Hoof.
NEW MANUAL
OF
HOMŒOPATHIC
VETERINARY MEDICINE:
OR,
THE HOMŒOPATHIC TREATMENT
OF
OTHER DOMESTIC ANIMALS.

By F. A. GUNHER.

TRANSLATED FROM THE THIRD GERMAN EDITION, WITH CONSIDERABLE
ADDITIONS.

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The want of a more extended guide than has yet appeared in the English language on Homœopathic Veterinary Practice, has induced the translation of the present work.

The Translator has deviated from the plan of the original, so far as regards the classification of the various diseases, and the treatment as applied to the different domestic animals; this arrangement will be found to render the work of more easy reference.

From the long practice the Translator has had in an English veterinary school, he is enabled to give many diseases not embraced by Gunther, which additions he believes will be valued by the public.

London, 1846.
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**HOMŒOPATHIC**

**VETERINARY MEDICINE.**

---

**PRELIMINARY REMARKS.**

Homœopathy is a term derived from the Greek, by which Hahnemann designated a medical doctrine,* founded on the immutable laws of nature, which is now spreading every day more and more throughout the civilized countries of Europe, Asia, America, and Africa, by reason of the brilliant results which it has attained within the last thirty years; and the principles of which are directly opposed to those of the old school. This old school, to which its partisans apply the flattering title of rational, but to which Hahnemann applies with more justice, that of allopathic, in order to denote in what it differs from his own, applied to the treatment of disease, means contrary to the symptoms of the latter, for instance, calorifics against cold, refrigerants against febrile heat, or substances capable in themselves of exciting a disease which bears no relation to that which they are employed to combat. This latter method is that which, properly speaking, merits the

---

*Exposition of the Homœopathic Medical Doctrine, or Organon of the Art of Healing, Svo. New York: see also the French Edition.*
name of allopathy; the other being designated by that of antipathy. Setting out from an entirely opposite principle, homoeopathy combats disease only by substances which, when taken in large doses, have the power of exciting a similar one in man in the state of health.

As far as regards the fundamental principle of homoeopathy, it is well known that without having the least suspicion of the new doctrine, persons have for a long time back taken it as their guide in the selection of several domestic means, whose efficacy is fully ascertained. Thus after burning the finger, we hold it to the fire, and in this way cure the mischief exceedingly well by the same means which would produce it on another healthy finger. In the same manner a drop of melted wax falling on the hand, is attended by no unpleasant consequences, when, notwithstanding the pain it occasions, it is allowed to cool on the spot where it has fallen, instead of its being removed the moment it has fallen. When the mower feels himself too much heated, he drinks brandy, which cools him; whilst the man who travels in winter, swallows cold beer, which is sure to warm him. A frozen limb is plunged into the snow, a thing which would be sufficient to freeze a healthy limb. Allopathy itself is indebted for many of its best results to its employment of means adapted to produce similar morbid symptoms in a person in good health; for it excites the artificial disease by vaccination in order to guard against small pox; it prescribes sulphur against the itch, mercury against syphilis, bark against certain fevers; and all these means produce in man in the state of health phenomena similar to those which, by their influence, it wishes to remove in persons who are in a state of disease.

At first view it appears extraordinary that a substance capable of exciting a certain disease in a man in good health, should also possess the power of curing this
same disease. But this phenomenon finds a satisfactory explanation in the fact repeatedly ascertained by experience, that when to a disease already present there is joined a new one having more or less affinity to it, the new disease extinguishes and removes the old one, if it equal or exceed it even by a slight degree in intensity, in the same manner as the light of the sun prevents that of the stars or of a candle from being seen; and in the same way, also, as two balls propelled with an equal force, which happen to meet, are immediately arrested in their course. From such observations it will at once become evident that the homoeopathist has to trouble himself merely about one matter; that is, to excite an artificial disease, resembling as closely as possible the natural existing disease, a condition indispensably necessary for the re-establishment of health. But as, according to a law with which everyone is acquainted, two forces destroy each other only by their being similar with respect to their effects, it is necessary to calculate whether the degree of the artificial disease excited exceeds the natural disease; but its excess in intensity must be very inconsiderable, otherwise, in place of the natural disease which would be extinguished, we should have an artificial disease which would continue; nothing then should remain of the latter, in order that the homoeopathic cure should take place. I deem it necessary to enter into some details here with respect to these two conditions.

We have just now seen that the homoeopathic physician cures by occasioning, by means of medicines, a factitious disease, resembling, as much as possible, the natural disease. The ideas sanctioned by the old school seem to warrant us in thinking that there is here a double contradiction. How? You profess to cure by exciting a new disease, and you have even recourse to medicines to produce this disease! Let us first endeavor to form a clear and distinct idea of the medicine, and of the way in which it acts on the
PRELIMINARY REMARKS.

living organism. The correctness of the homœopathic mode of proceeding will thus become as clear as day.

The idea which allopathy has transmitted to us of medicines is altogether inaccurate. Let a man fall sick, he sends for a physician. The latter writes a recipe, and prescribes a mixture of two, three, or four substances, to which he ascribes curative virtues. The patient swallows the medicine with so much the more confidence, inasmuch as, reasoning from an old saying, he fancies that a large quantity of remedies is required to overcome a violent disease. The prejudice which causes persons to attribute absolute curative properties to the substances coming from a shop, has been carried so far, that some followers of the old school, even when they felt the slightest illness, nevertheless drugged themselves with medicines in the hope of attaining something more than health. What a lamentable mistake. A medicine is some product of nature which occasions changes incompatible with the ordinary state of health in the state of the living body. Even poisons are medicines in this sense, endowed, to be sure, with a very powerful action, and a very small dose of which suffices to produce certain modifications in the system. This aptitude for producing a change in the state of the body is then the only peculiarity which distinguishes medicines from aliments. However, as nature never acts per saltum, as she always proceeds by imperceptible shades, there are also found among aliments a certain number of substances, which independently of the nutritive principle, possess within them a greater or less amount of medicinal virtue, so that very frequently, when they are taken in large quantity, they give rise to unpleasant effects by their medicinal influence, on the body, and which, though blunted by the effect of long habit, still becomes very perceptible under many circumstances. But just as aliments pass into poisons by
insensible degrees, in the same manner do poisons differ much from each other with respect to the intensity of their action. There is no absolute poison in nature; for all poisons, employed seasonably and judiciously, become medicines, just as things the most innocent in themselves, may, by being abused, become dangerous poisons.

Thus all medicines produce a change in the system, and everything which can give rise to such an effect, is a medicine. When a person, then, in good health takes a medicine, he becomes more or less ill, according to the energy of the medicinal substance; for every change in the system can only be disease in a person who is in good health, or health in a sick person; there are no means of conceiving a third case. Medicines then may also be called remedies or curative means, in so far as they modify the state of a patient, and the mission of the true physician is to know how to select them well, and to employ them judiciously.

If we seek how the modifying substance (medicine) acts on the living organism, we are led to the following propositions which happily display all the importance of the homœopathic method.

The organism, that is to say, the aggregate of all the solid and liquid parts, which, arranged in a certain order, constitute the organized body, is pervaded, during life, by a power to which we apply the name of vital force, and which causes every organ to discharge the functions to which it has been destined by nature. If this discharge of the functions goes on without disturbance or interruption, the organism is in a normal or regular state, which we call health. But if any external influence comes to disturb the vital force of such or such an organ, thus to derange or stop some one of the wheels of the organism, a circumstance which is announced by certain extraordinary phenomena or unusual sensations, we say that there is disease, and we apply the name of symptoms.
of the disease to the irregular phenomena, the sensations foreign to the state of health. Everything which may exercise a noxious influence on the vital force must then render the organism more or less diseased, according as the impression is more or less strong, and the vital force itself more or less energetic. If the attack is slight, the vital force resists it by its own reaction, and succeeds in restoring matters to the normal state; it is then said that the disease is cured by the sole efforts of nature, and in employing the latter term, the vital force is meant, which had no need of foreign aid to drive away its threatening foe. If, on the contrary, the attack is severe, and the vital force itself has become more or less debilitated, the latter can no longer suffice by itself, and it becomes necessary to come to its assistance, lest it should sink in the struggle. We bring assistance to it through medicines, which being well selected and judiciously administered, render their combination victorious.

As soon as a substance endowed with medicinal virtues reaches the organism, it introduces into it a change more or less perceptible, and more or less permanent. The first of the phenomena excited by it are known by the name of primary effects. But the vital force, which hitherto had remained purely passive, raises itself with all its might against the impression which it receives. This is what is called the secondary effect, or reaction. The effect of reaction is always to produce a change precisely the reverse of that which had been occasioned by the medicine. This proposition forms the basis of homœopathy: daily experience proves its truth. If, for instance, we plunge one arm into frozen water, it first becomes colder and paler than the other; but after it has been well rubbed with a towel, it soon becomes not only hotter and redder, but even burning, and occasionally even inflamed. Of these two phenomena, the first is
the primary effect of the cold water, and the second its secondary effect, that is to say, the result of the reaction of the organism; between these two effects there is absolute opposition. In the same manner violent exercise at first occasions heat, which is afterwards succeeded by cold. Coffee at first stimulates, then disposes to sleep; opium stupefies in the first place, then induces sleeplessness, &c. The homœopathist then acts agreeably to nature, when he opposes to each disease that medicinal substance whose primary effect it is to excite an analogous disease in man when in the state of health; for he knows that the secondary effect of this substance must produce the state opposite to the disease which he wishes to cure, that is to say health. Hence it comes to pass that, in many cases, a dose of homœopathic medicine is followed by a slight exasperation of the disease, or by what is termed homœopathic aggravation, an event which should always be considered as favorable, because it proves that the remedy has been well selected. In fact every medicinal substance, at the time of its primary action, excites in the patient a morbid state analogous to that from which the object is to relieve him; but as there is a very great analogy between these two states, and as the disease artificially excited, exceeds the natural disease somewhat in severity, it must appear to the patient that the latter is slightly aggravated. But because the primary effect has been identical, or at least as analogous as possible, the reaction cannot fail to induce the opposite state, that is to say health.

Accordingly when the homœopathic physician wishes to attack any disease whatever, he requires a medicine whose primary effect it is to excite a disease as analogous as possible, in order that the reaction may give rise to the opposite state, that is that it may restore health. It therefore becomes indispensably necessary to be well acquainted with the primary
effects of medicinal substances. But this knowledge can be acquired only by trying each substance by itself, and without any admixture, on a person in good health in doses of some strength. All the phenomena then observed in the individual experimented on, are the primary effects which we are justified in attributing to it, after they have been verified by repeated and carefully conducted experiments. Homoeopathy possesses, at this moment, about two hundred substances studied in this manner; and it never attempts to apply to the treatment of disease any substance which has not been subjected to this experimentation. Thus the cures it effects are necessary consequences, just as the farmer collects in wheat because he has sown wheat.

Circumstances are not the same with respect to the cures effected by allopathy. As the old school follows a course purely empirical, the cure, when it is obtained, is always the result of chance. A patient has fever—an intermittent fever: bark is given to him and he recovers his health. What is fever? No one knows; and hypotheses are heaped upon hypotheses on this subject. Bark cures certain fevers, this is an unquestionable fact. But what are these fevers? We are again answered by hypotheses. Why does the patient get well? We do not know. When he does not get well, why does he not recover his health? We cannot tell. Is it not true then, that the cure has been the mere effect of chance? *

But if homeopathy differs from the old school in its point of departure; since, faithful to the laws of nature, it employs those substances only whose primary effects are precisely the same as those of the disease, or at least resemble them very much, it differs still further from it in another point of view, for it

never prescribes more than one single medicine at a time, and administers it always in as small a dose as possible.

We know that allopathy makes use of mixtures more or less complex, that it opposes a particular remedy to each of the more prominent symptoms, and that it makes a mass of the entire, and confides it to the stomach. To proceed in this way is to suppose:

1. That the stomach which receives the mixture, determines its destination, that, for instance, it sends one substance to the head, another to the feet, a third God knows where.

2. That the combination of several substances, oftentimes opposed in their effects, and therefore likely to neutralize one another, does not produce a new body capable of producing an unknown action on the organism.

Common sense tells us that neither of these suppositions can be admitted: to reject them there is no need to have the slightest notion either of the nature of man, or of the laws of chemistry. But the necessary consequence is that allopathy knows not the effects of the mixtures of medicines which it employs; and that it wishes to attain an end by means regarding whose mode of acting it knows absolutely nothing. Is not this risking the health and life of men?

In order to prove that these reproaches directed against the old school are not devoid of foundation, I shall borrow from some of its own partisans the following passages, which will justify them.

1. It is an absurdity to accumulate so many simple drugs into one and the same prescription. Wretched method!—it only spoils and deteriorates the things which it thus combines. (Paracelsus.)

2. To mix together several substances in one and the same prescription, is a proof that we take nothing for our guide but hypotheses, that we abandon
the issue to the hazard of mere conjectures, and that in consequence the poor patient is always deceived for his money. (Van Helmont.)

3. If we compare the good which half a dozen legitimate children of Æsculapius have done on earth since the origin of medicine, with the evils with which so many doctors have overwhelmed the human race, it will be considered, no doubt, to have been much better that the world never knew anything of medical men. (Boerhaave.)

4. Therapeutics is but a collection of hypotheses devised by medical men. As medicine has no fixed principles, as there is nothing determinate in it, as it possesses but a small number of facts on which we can reckon, each physician has a right to follow his own opinion. Where there is no science, but merely creeds, each creed has as much value as the others. Amid the profound darkness in which physicians walk, there is not the least ray of light which can serve to direct them. When two physicians meet at the bedside of a patient who is not dangerously ill, it often happens then, as it did to Cicero’s augurs, that they have considerable difficulty in looking at each other without laughing. (Girtanner.)

5. What we know of the effects of medicines is purely empirical. All that is said of alteratives, depuratives, resolvents, incisives, is in a great measure but a figurative translation of dead nature into living nature. Up to the present time there are very few medicines with whose composition we are acquainted; at least we know nothing of the respective proportions of their constituent principles, which, however, modify in a great degree their nature and their effects. We know not how they change in the body, become solved there into their elements, and combine with each other so as to form new substances. We know not what changes they occasion in the composition and form of the organic matters, how
they excite them, what are the organs on which they act directly, and those on which they make an indirect impression: now, we must know all this in order to appreciate the connexion of the phenomena which occur from the moment when the medicines are administered, until their definite effects become declared, those by which they are made apparent to our senses, (Reil.)

6. When we wish to remove the inflammatory state, we employ not nitre alone, or sal ammoniac alone, or a vegetable acid alone, but usually several substances, called antiphlogistic, at once:—is the object to combat putridity, one of the known antiseptics is not sufficient, such as bark, the mineral acids, arnica, serpentaria, &c. when administered in large doses; we prefer to combine several of them, and we reckon on their collective effect, or rather we associate them together, because not knowing which is that which best suits the present case, we, as it were, leave to chance the care of selecting in the mixture that which is to answer the end. This is the reason, why it is so uncommon for us to have recourse to only one single medicine in order to excite sweat, to correct the blood, to remove congestions, to promote the excretions, and even to evacuate the prima vae. Our prescriptions are hardly ever simple, and consequently we have nothing positive regarding the effects peculiar to each of the substances which constitute them. In fact, our knowledge is far too limited with respect to the essential qualities of our medicines, and the numberless affinities which they develop when they are brought together, to allow us to say what will be the mode of acting of even the substance apparently the most indifferent, after it shall have been introduced into the body in combination with others. (Marcus Herz.)

7. Unfortunately we have as yet but too few certain ideas regarding the real powers of medicines, and
the modifications they effect in the human body. That which we are chiefly deficient in almost every instance, is the power of distinguishing the primary from the consecutive effects, the principal effects from those which are accessory and accidental. It is precisely from this, it follows, that we are unable, in any disease, to calculate the effects of such or such a substance, to prevent it from acting too much or too little, to obviate the useless consecutive or accessory phenomena which it may produce. Now, every one sees that this inability stamps our practice with the seal of imperfection. (*Järge.*)

8. Want of success in the treatment of diseases is always owing either to our imperfect knowledge of the latter, or to our not understanding the remedies which should be opposed to them. We not only exasperate the disease, but we even sometimes render it fatal. (*Rush.*)

9. The abuse which the *common herd* of physicians commit with medicines, of which they do not even suspect the effects, in the treatment of diseases, whose form they are seldom acquainted with, and of whose nature they are always ignorant, is attended with truly striking results. Medicine destroys more persons than it saves. (*Schmalz.*)

10. As every external agent may be a medicine and a poison, as the effect of each medicine is an oscillation of life, which may also be styled a morbid process, medicines, when employed injudiciously and unseasonably, are themselves capable of becoming causes of disease. In many cases the remedy is worse than the evil, and the physician more to be dreaded than the disease. This is more especially true of practitioners devoted to empiricism, or to false theories, who place their poor ideas above nature, who think to govern eternal laws by idle formulæ, and cannot avoid being drawn into the grossest errors by their ignorance of the organism, and of the general or
particular effects of medicines. Many diseases are cured by nature alone; and in many of those which assume an acute form, the physician must confine himself to averting noxious influences, and to combating the abnormal activity of such or such a system, or such and such an organ. Should he proceed further, whether to satisfy the patient, or to indulge his own theories, or even through cupidity, he can only do mischief. It is in this way, in fact, that artificial diseases are oftentimes produced, and that one would be warranted in saying that in many cases the consecutive chronic disease is the handiwork of the physician. So that in the present state of medical practice, patients should guard themselves from physicians as from the most dangerous poisons. (Kieser.)

11. With regard to the knowledge of the action of medicine on our body we are still in the situation of the person who wished to play the harp, or to use the pencil without having the slightest knowledge of either music or painting. That which each medicament produces, when it is alone, we no doubt see, just as we hear any one single sound when it strikes our ear; but we are entirely unable to produce a harmonious effect with medicines, either when we mix them together, or we administer them one after the other. From the circumstance that nothing has been done, up to the present time in medicine, it must not be inferred that nothing can be done; for we have some reason to think that by changing our method we shall arrive at something. Let us compare the discoveries made in physics during thousands of years, with those with which it has been enriched in the course of half a century. The germ of a science may remain for a long time in a state of stupefaction, and awaken all on a sudden. (Mises.)

12. The attacks of the homœopathists should induce

* Stapelia mixta, Leipzig, 1824, s. 100, 106, 107.
us to submit to the crucible of reason the doctrine of the internal causes of diseases, and that of the action of medicaments, both of which are still so very imperfect; to banish hypotheses from our therapeutics, and to place ourselves in a situation by the most simple processes wherein we can form a more certain judgment concerning the manner in which medicinal substances act. With our present mode of combining drugs, we shall see our hair become white, but shall never acquire experience. If homœopathy can bring us to give less medicines, to change them less frequently, not to combine them without necessity, we shall attain a more perfect knowledge of their effects, and shall be able to speak of our medical experience with less boasting than we are now unfortunately allowed to do. (*Wedekind.*)

"I know right well," said an old physician, "that seven-tenths of the patients die, not of their disease, but of the improper or excessive quantities of medicines given to them." A lady once said to the celebrated Petit: "So skilful an anatomist as you are ought certainly to cure all diseases." Petit frankly replied: "You mistake, Madam, it is with physicians, as with hackney coachmen, who know all the streets without knowing anything of what is going on within the houses."

The homœopathic physician proceeds in quite a different way from the allopathic. The former prescribes for his patients those substances only whose effects are well known to him, and he never gives more than one at a time, because he knows that from the combination of two or more bodies, when they do not neutralize each other, there results a new substance which must produce effects different from those induced by its constituent principles.

There is again an essential difference between the

* In Hufeland's Journal, 1826, No. vi., p. 3.
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two schools with respect to the doses. Homœopathy cures, as we have seen, by opposing to the natural disease an artificial one as similar to it as possible, and sufficiently intense to extinguish it by its predominance. If the fictitious disease were weaker than the natural, it would remove the latter only in part; if it were stronger, it would no doubt cause it to disappear altogether, but it would leave in its place an artificial disease, extremely similar as to symptoms, so that the patient would feel no improvement in his state.* Such is the cause of the minute doses which the homœopathic physician employs, for experience has taught him again and again, that they are sufficient in their primary effects to create symptoms analogous to those which he wishes to cure, only a little more intense, in order that the result of the consecutive effect may be the contrary, that is to say health. Frequently is the question asked: How they had this efficacy? We do not know, precisely as we know not how it happens that the magnet attracts iron. Yet much pains have been taken to explain this remarkable phenomenon, on which I think it necessary to dwell a little, because the minuteness of the doses is the point of homœopathy which has been most severely attacked by our adversaries.

Every day experience proves to us that it is substances acting in a manner rather virtual than medical, which occasion morbid modifications in the organism. Who does not know, in fact, that fright, anger, grief, care, are so many causes of diseases? Who is ignorant of the fact that a storm gives diarrhœa to some persons; that others cannot bear a cat to be near them, or a toad, without falling into a swoon? Who has not heard of the subtlety of those maxims which give rise to certain epidemics? Has there ever ex-

* Hahnemann's Organon; many of the homœopathists of the present day dissent from this doctrine.—Ed.
isted a man whose senses were acute enough to perceive agents of this kind? Why should not medicines then be indebted for their mode of acting on the organism to a power no less subtle? If they derived it only from their material mass, they could exercise it merely through the digestive organs. This set of organs, as we know, serves to separate the nutritious matter contained in the food from that which is not subservient to nutrition, and to make it pass into the current of the circulation; but it can no more cause a separation between the medicinal principles and those which are not so, than the mill, which separates the flour from the bran, has the power of developing the stimulating virtues of beer and brandy. It is not, therefore, the mass or material part of the medicine, but something inappreciable to the senses which influences the entire sensitive system, and thus produces a change in the sensations of the individual.

Three circumstances contribute to the efficaciousness of the minute doses of homœopathy.

1. The manipulations by means of which the properties of the medicinal substances are developed, and which are called dynamisations.

2. The care taken to employ the substances only in their own special sphere.

3. Lastly, the attention to remove everything which might disturb their action.

Each of these three points deserves to be examined separately.

Every one knows, or at least has heard it said, that homœopathic medicines are very much diluted, or rather dynamised. Two drops of a mixture are taken with equal parts of vegetable juice and alcohol, and they are added to ninety-eight drops of alcohol at eighty or ninety degrees, or else twenty drops of the tincture obtained from a dry plant are mixed with eighty drops of alcohol and two shakes are given to the mixture. This is what is called the first dilution,
or dynamisation. One drop of this liquid mixed with ninety-nine drops of alcohol, and treated after the same manner, yields the same dynamisation, and so on to the thirtieth. These preparations are not a mere arbitrary device: experience, the only judge in such a case, has shown that they possess indisputable efficacy, and that they are perfectly sufficient for the end proposed. We hear on all sides the charge of absurdity brought against this mode of procedure, as persons cannot conceive the possibility of any medicine acting, the presence of which cannot be discovered by any of our senses. But it is the objection itself that should be styled absurd; for what allopathic physician, be he ever so obstinate, will deny that a tile falling at the feet of a man may terrify him sufficiently to make him sick? And in this case what is the body which modifies the organism? Chagrin, miasms, a current of air, &c., produce similar effects; and yet no one says that it is contrary to common sense to admit that chagrin has caused a bilious fever, or cold a rheumatism. No one doubts that influences which are not material may act on man, because experience has convinced them that such is the case. Why then refuse to believe that the properties inherent in medicines are in the same case, when there are thousands of facts to prove it?

That this property, inherent in medicinal substances, may be disengaged and called forth by means of dynamisation, is a matter extremely probable, but still one would not like to lay it down as an article of faith. Any one may touch a disc of resin without feeling the slightest effect on his part, but let him rub or strike this electrophorus with a cat’s skin, or a fox’s tail, there is then drawn from it a number of electric sparks, which may be collected and concentrated in a Leyden jar. Is it not then a certain mode of manipulation that has called forth an imponderable force which was previously latent in inert matter? Physics
furnish us with several other similar examples. We may touch discs of zinc, copper, and carton, without feeling anything particular; but if we arrange so that a disc of carton, soaked in salt water, be interposed between those of zinc and copper, we have a galvanic pile, the wondrous power of which would be almost sufficient to restore a dead person to life. Two pieces of iron when brought together exert not the least visible action on each other; but let one of them be rubbed with a loadstone, this simple manipulation will suffice to convert it into a magnet, and to render it capable of attracting iron, and if suspended by its centre with a thread, of always turning one of its poles to the north. The astonishing properties of electricity, galvanism, and magnetism, have nothing material, and every one may convince himself with his own eyes that they are called forth by mere manipulation. Why then should not manipulations render manifest the virtues of medicinal substances? To this we may add, that these bodies are so bound up in the material substance, that the digestive organs of man have not sufficient power to set them free, whilst the employment of dynamisation sets them at liberty, and allows them to pass with more facility into the organism, in virtue of that general law, according to which every artificial mixture is more easily decomposed than a natural combination.

A second circumstance which comes in support of the efficaciousness of the homeopathic small doses is, that one has recourse to them only in the very limits of their own proper sphere. We know that the human body is so much the more disposed to receive modifying impressions from without, in proportion as the disease has already increased in it the aptitude to be affected by them. Let a person suffer from rheumatism, the least current of air will occasion him violent pain; an intense fever renders one incapable of bearing without difficulty even a very moderate tem-
perature in his apartment; cold water produces excessive pains in a person who has bad teeth, whilst it has no effect on the individual whose teeth are healthy; any kind of noise becomes insupportable when one has a headache; the least alarm will make a person whose nerves are delicate fall into a swoon, or into convulsions; and the plethoric man is struck with apoplexy by a degree of heat, which is attended with no annoyance in the generality of men. All these phenomena prove to us that the organs which have become the seat of any morbid state whatever, have for this very reason a greater predisposition to feel the effects of modifying agents (medicines,) and that a very minute dose suffices to exert a very marked influence on them. Now this appropriation of the doses to the particular sphere of action of each medicament takes place chiefly in homœopathy, the accomplished disciple of which never employs any agent without being convinced beforehand that it is capable of placing any individual in good health in a state of disease similar to that under which the person labors whom he wishes to cure. To doubt then of the efficacy of small homœopathic doses, is acting as the person would do who would refuse to believe that a drop of water, or a small current of air occasions acute pain in a man whose teeth are not healthy.

Lastly, the efficaciousness of these small doses is further insured by the care with which all those influences are removed which might disturb their action. These disturbing influences cannot reside in the medicine itself, or in other things which are independent of it; they must then be connected with things whose action is the very contrary to itself, which are, in fact, hostile to it. With respect to the first point, the homœopathic medicine contains nothing which is in the slightest degree capable of disturbing or interrupting its action. It is, in fact, simple and not mixed, as are most of those employed by the allopathic physician.
Moreover, the doses are never repeated so as to retard the cure, or to replace the natural by an artificial disease. When the allopathic practitioner prescribes bark in treating a certain species of intermittent fevers, he does right in acting so, since bark produces analogous symptoms in a healthy person; but when he makes him take a spoonful of it every two or three hours, he excites a medicinal disease similar to the natural disease which he wishes to cure, and the least that can result from this is that the cure is needlessly retarded, because for every step gained, two are lost. The homeœopathist, on the contrary, waits till the medicine has exhausted its action, and then only he administers another, according as the peculiar course of the disease requires. By these means he not only does not run the risk of destroying with one hand the good he has done with the other, but further, he avoids the inconvenience of distressing, or fatiguing the vital force by urging it to continual reactions, and thus involving it in struggles, from which, even when it is victorious, it never can come off without detriment.

Doppler, of Prague, has attempted to make us understand how a medicinal substance may still possess great powers, even when attenuation or dilution has been carried to the decillionth. According to him, a drop of the decillionth dilution contains an enormous quantity of material surfaces of the attenuated medicine, because at each trituraturion the number of these surfaces increases prodigiously; as, in his opinion, it is on the multiplicity of the points of contact of the medicinal substance with the living body that the curative power of this substance depends, it follows that a single drop of the thirtieth dilution must produce a much stronger reaction than several drops of a less minute attenuation. The high dynamisations do not differ then from the others unless in respect of the quantity of the material surfaces which they contain,
and not, as some persons will have it, with respect to the quality, so that with the first we might cure just as well as with the thirtieth, by having recourse to stronger and more frequent doses. Now this is a truth sufficiently established by experience, and the inference from which is that the essence of homœopathy depends not on the number of the doses, but only on the resemblance between the sure effects of the medicament, that is to say, those which it produces in man in a state of health, and the symptoms of the disease to the cure of which it is applied.

The knowledge of this truth is important in many respects. First it allows us to solve a problem which has given rise to many idle discussions, viz.: that of knowing what is the dilution or dynamisation which would be employed. Knowing that the high dilutions contain nothing which does not already exist in the first, and that by diluting a medicine we only attenuate it more and more; that is to say multiply its surfaces or points of contact, we are convinced that we may spare ourselves the needless trouble of having recourse to decillionths. The attenuation of substances to the millionth, or at most to the billionth, should suffice, so as not to be obliged to employ them in a form entirely gross, in large and frequently repeated doses.

In the second place it explains to us how the homœopathic aggravation so frequently observed by Hahnemann, is now-a-days very rare, so that most of the modern homœopathists are disposed to doubt it, or deny it altogether. As the usage is established of employing the lower dilutions, with which the end is attained more promptly, and with more certainty, and of prescribing medicines in frequent doses, or even by drops, it is manifest that we should no longer see the exasperation of the symptoms, or the homœopathic aggravation, which can only take place when the disease is attacked with high dilutions, that is to say, with
medicinal agents presenting a multitude of surfaces of contact, and consequently producing a very great number of symptoms peculiar to them.

But the action of a medicine may be interfered with by external circumstances, by things independent of it, and in this point of view homœopathy does everything in its power to insure the efficaciousness of its small doses. It prescribes for the patient a regimen not strict, but duly regulated; it interdicts the use of food of difficult digestion, and prohibits the employment of all those substances which, together with the nutritive matter, contain principles more or less medicinal. As the doses which it employs do not exceed the limits of that which is absolutely necessary, it will be readily conceived that the strictness it evinces in this respect is not the result of pedantry, but a precaution founded on the laws of nature. More than once it has been stated that it condemned its patients to die of hunger, that it deprived them of almost everything which can render life agreeable. This is a calumny. Many families habitually observe the homœopathic regimen without being ill, notwithstanding which they do not die either of hunger or thirst. It interdicts coffee! true, but there are thousands of instances to prove that one may very well dispense with coffee; and besides, homœopathy suppresses it only during the treatment of diseases, in the absence of which it allows every one to use it as he pleases. Besides, ought it not to be witnessed with pleasure, that by banishing gradually the use of coffee and of brandy, it labors for the happiness, health, and moral improvement of families?

A very essential difference between allopathy and homœopathy is that the latter leaves the patients who have confided themselves to it without making any attack either on their health or their purse. We shall devote a few lines to these two points, as they are of great importance.
With respect to the former, I own that I shudder involuntarily when I take up the pen to relate the ordinary consequences of allopathic treatment. But, unwilling to expose myself to the slightest suspicion of partiality, I shall allow some of the allopathic physicians themselves to speak; they will express what I should have to say in a manner that will absolutely edify the reader.

1. The history of medicine proves that persons have been correct in saying that millions of men have fallen under the blows of the physicians. The means which are employed at the present time, and which become more numerous from day to day, are a sure guaranty that in time the number of victims will be incalculable. (Bergk.)

2. One scarcely believes his eyes when he reads that Marcus increased the dose of calomel in the case of some children up to four hundred grains, and besides that he prescribed several ounces of mercurial ointment to be used in the form of friction. Eschenmeyer orders, that during the first symptoms of croup, besides blisters, calomel should be prescribed mixed with a third of golden sulphuret; he continues the same treatment during the second stage; he never remains below fifty grains of calomel, and sometimes rises to ninety grains and more; he has even gone as far as one hundred and six grains in a child six years of age, though he acknowledges that when fifty grains, taken within the space of thirty-six hours, have not produced an amendment, the patient is irretrievably lost. Yet of seven deaths which occurred in his hands, he attributes only two to the mode of treatment. If the child had been brought to it by fifty grains, we see no good reason why fifty grains more were given to it, except to hasten the catastrophe. If we reflect on these enormous doses, and on all the stimulants accompanying them, we can readily understand why, out of twenty-three children attacked with
croup, he saw seven of them die: it would be interesting to know the subsequent state of health in those who escaped. Persons complain very much of the great debility of the present generation; sufficient reason may be found in the prodigality with which physicians employ the most violent remedies. (Kruger-Hansen.)

3. In the hospital of Galata, in a population of from sixty to one hundred patients, from fifty to sixty venesections are performed, and from eight to fifteen hundred leeches are applied. A Greek physician wrote to Mavrocordato: "Ibrahim Pacha has not destroyed here so many persons as Broussais' system; and the method followed at Constantinople carries off many more individuals than would be destroyed by the entire catalogue of diseases, if left to themselves." (Kruger-Hansen.)

4. We see the melancholy results of the treatment adopted by the blind disciples of Johnson and Broussais in the East Indies. The former consider calomel as a panacea in the treatment of the fevers which prevail in these countries, as also against most other diseases, and seem to take a pleasure in supersaturating the system with it. Their mania in this respect is carried so far that they disdain all other remedies, and seem to vie with each other as to who shall prescribe the strongest doses of calomel. I actually knew a physician of distinction at Java, who went so far as to order one of his patients to take calomel on bread and butter. With respect to the followers of Broussais in this place, their mania is to exhaust the blood of those who confide themselves to their care; blood-letting is the remedy which they oppose to the great majority of diseases, and with the exception of some refrigerant and demulcent drinks, they reject almost all other means. (Weitz.)

5. What danger does not the life of a patient run, who swallows with confidence everything his physician
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prescribes for him? Since governments allow physicians to play with poisons without any responsibility, the least that should be done is, to make the patients themselves take care of their existence. I would advise them never to take that which the physician prescribes, without having first seen himself swallow the prescribed dose, in order to be certain that he has not exceeded the bounds of prudence. When they saw him hesitate, they might be sure that their life was in a fair way of being compromised. (Kruger-Hansen.)

6. When it is stated that a patient, who had taken in the afternoon the two-thirds of a mixture consisting of forty grains of tartar emetic dissolved in an ounce and half of water, was dead at six o'clock in the evening, this act of swallowing at once twenty-six grains and two-thirds of tartar emetic is considered as suicide; what name ought we to give to that of a physician who prescribes in one dose forty grains of this salt, a small quantity of which, when applied in the form of frictions to the skin, is sufficient to produce on it deep ulcerations? (Kruger-Hansen.)

These passages, borrowed from allopathic physicians, will suffice, and I am satisfied to leave to the reader the trouble of deducing his conclusions from them.

Homœopathy pursues quite a different course. It knows nothing of blood-letting, and cures persons laboring under inflammatory diseases without taking a single drop of blood from them; whilst in 1834, at Berlin, out of eight hundred and seventeen patients who died within the space of thirty-six hours, one hundred and twenty-six died of inflammations. It knows nothing of poisoning by mercury, iodine, tartar-emetic, and other such substances; it employs neither emetics, purgatives, setons, nor cauteries; it does not torture its patients with the lapis infernalis, nor with fire, and has no need to blush at the sight of so many unfortunates whom hydrargyrosis and other
medicinal diseases are compelling to progress slowly towards the tomb. It attacks not the healthy parts of the organism; it does not intentionally render them diseased, in order to attract to them the disease which is effecting other organs; but it applies to the disease itself, wherever it meets it, and has nothing in common with those, who parodying a too celebrated phrase, the end sanctifies the means, destroy whole generations.

Health and life are not the only things which homœopathy respects. It spares the purse also, and in this respect the influence which it must exert is no less considerable. Every one knows that apothecaries’ bills have become proverbial, and entire families might be cited who in the space of a year have laid out enormous sums at the shop of the druggist. Recently, again, it was ascertained on inquiry, that the clear profit of all the druggists in the kingdom of Prussia, amounted to about twelve millions of dollars, which sum divided between all the inhabitants, gave the contribution of each to amount to one dollar, so that the government saw at once the necessity of adopting measures to relieve the population of this tax. Every one must remember that at the time of the cholera, the price of those medicines which were considered as preservative or curative was doubled, even tripled, and that the government of Baden issued an ordinance for the purpose of putting a stop to this odious speculation. Homœopathy, it is understood, knows nothing of apothecaries’ bills, which reduce so many families to beggary; hence it is that the druggists take so active a part in the war which has been commenced against them, and spare no exertions to prevent its success. To be sure they have paid so dearly for their shops and their privileges that one cannot help pitying them; but is not this the ordinary course of matters here below, that there are always some persons who lose in order that the public may gain?
Should we not be mad, if in order to avoid injuring the manufacturers of beaver hats, which are both dear and heavy, we refused to countenance the modern invention of silk hats, which are more convenient and cost less?

Homœopathy possesses again another recommendation to economists and public men; it brings back men to a more simple mode of life, and one more conformable to nature; it tends to extinguish by degrees, or at least to restrict very much, a multitude of fictitious wants, as coffee, tea, spices, aromatics, &c. which render nations tributary to foreigners. Thus we see, that during the first half of the year 1833, compared to that of the preceding year, the expenditure for coffee in Europe was diminished by about thirty-one millions of francs; in the same way, the quantity of rum exported from Jamaica in 1836, did not amount to one-half, of what it was twenty years before. This result must certainly be attributed in a great measure to the influence of homœopathy, and it acquires still further importance when we think of the enormous sums which the new method prevents from being taken out of the country, in order to pay for foreign medicines. So early as 1806, Hahnemann wrote the following lines, on the occasion of a substitute for bark proposed by Breitfeld: “Let us not employ bark in enormous doses; let us not have recourse to it except where it is really necessary; let us abstain from it whenever it cannot be useful; and, still further, when it will serve only to do harm, and then we shall scarcely consume a tenth of that required at the present day; it will then cost less; for the twelve millions which Europe pays annually to America for this drug, will be reduced to one million and a half, and perhaps even, if physicians become still wiser, to the fifth of this last named sum, and all this to the great advantage of patients.” If Hahnemann could, at the present day, take up his pen on
this subject, he would have to blot out from his calculation several zeros, and probably all.

Allopathy and homeopathy differ entirely from each other with respect to the manner in which they view the portrait or image of the disease under consideration. The allopathist thinks he has done more than sufficient, when he has felt the pulse, looked at the tongue, and put a few questions with an important air; for he considers all diseases as species, the course of which he knows (or, at least, thinks he knows,) beforehand, from his system of nosology, and he submits them to a method which is the same for all the cases of that which he calls a species.

"With respect to acute diseases," says Hahnemann, "the allopathist does not treat them according to the peculiarities which they present, but solely according to the pathological name which they have received in his school, and according to the plan of proceeding traced in their books for each of these names. Thus, however different intermittent fevers may be from each other, instead of employing for each the specific remedy applicable to it, he checks them all by means of bark in large doses, repeated for several weeks. But the patient is not thereby restored to health; to be sure he no longer experiences alternations of cold and heat, but he has become ill in another way, and more so than he was during his fever; for a quinie disease has now been given to him, which will often last for several years. The followers of that which is called the rational medicine, find in like manner for the other sporadic, epidemic, and contagious diseases, names all established in their books, and for each name which they are pleased to assign to the prevailing disease, a certain plan of treatment, only modified from time to time by fashion, a plan to which the fever, though probably absolutely unknown till then, and never having existed before, must accommodate itself, whether it suit it or not. The pa-
tient who has not strength to resist, must perish." The homœopathist, on the contrary, has no nosological system, he knows nothing either of genera or species of diseases: he has not then to contend against a phantom, that is to say, a disease which exists only in his head, and with which, perhaps, the patient is not at all affected. He knows that every disease manifests itself, in some way or other, by phenomena or external symptoms, and that we cannot consider it as extinct, until all the symptoms have disappeared. But in order to enable himself to know the special nature of the disease which he wishes to cure, he studies the symptoms of it even in their minutest details; for to him a disease is but the aggregate of all the existing symptoms, the internal cause which produces it being no more accessible to our means of investigation, than that of life itself. Hence it happens that his examination extends even to circumstances apparently the most insignificant, and includes not merely that which takes place at the present moment before his eyes, but the symptoms also which presented themselves at first, the patient's mode of life, even the state of health of the members of his family, &c. When he has formed to himself an idea of the disease by as exact a research as possible of all the symptoms, he selects among the means whose effects are well known to him that one which, in its primary action, produces in man, in the state of health, the greatest possible number of the symptoms observed in his patient, so that in most cases he is able to predict the result with certainty: the allopathist, on the contrary, only makes trials; he tries whether such an agent, which in such or such a case was useful in the treatment of a certain disease may not also prove so in the present case.

Lastly, if we compare the results which homœopathy has already attained, with those which allopathy has obtained, we see experience prove that, what the
former supposes in theory, practice confirms, so as not only to satisfy the most urgent exigencies, but even to surpass very often every expectation. No living being is of course secure from death, and homoeopathic treatment sometimes fails. However, if we recollect that homoeopathy frequently undertakes the treatment of patients, on whom allopathy has already exhausted to no purpose all its magazine; that certain persons disdain its dietetic precepts, which appear to them wretched and pedantic; that others, wanting perseverance, abandon it just at the moment when it was going to relieve them, if not certainly, at least with some probability; that in many cases, the primary disease has been rendered really incurable by the medicinal diseases produced by the long-continued employment of allopathic remedies, we need not be surprised that it sometimes meets with want of success. What is certain is, that in every instance where human succor is at all available, it cures with more certainty, more promptitude, more readily, less disagreeably, and at less expense, than any other method, and that it often succeeds in restoring to health in a few days, patients whom allopathy had abandoned as incurable.

There exists at present between homoeopathy and allopathy a struggle, the end of which will be that truth shall come off triumphant, though the absolute opposition of the principles professed by the two schools, does not allow us to suppose that a settlement, properly so called, can ever be effected between them. For this reason I shall terminate this sketch by throwing a glance at the principal objections which the adversaries of homoeopathy advance against it.

The first class of adversaries includes the allopathic physicians. With them it is a vital question, for homoeopathy threatens their very existence; and after this we should not be surprised that most of the attacks by which it has been assailed have come from that quarter. To this it might be said, why do they
not adopt it? Because, as Benninghausen has shown, vanity and indolence dissuade them from doing so; for they would have to study things which have no connexion with anything which they have learned, and to put aside the principal part of the old materia medica, pathology, and therapeutics; and to devote themselves to laborious studies, as well for the purpose of imprinting on their memories the numerous symptoms occasioned by medicines, as to form to themselves a true image of each individual case of disease.

Homœopathy may be combated either in its practice, or in the principles of its system. To attack the results of its experience is impracticable, unless persons wish to deny that which may be seen and known by every one, and to reject the testimony of men, whose probity and veracity are above all suspicion. With respect to the refutation of its principles, it may be attempted in two ways: either by judging in accordance with the principles of the allopathic school, and therefore setting out with premises and suppositions which are by no means applicable to homœopathy, or by charging it with false reasoning—a charge which, at least up to the present time, none of its adversaries have been able to establish against it; many physicians also belonging to the old school, and among them men of high reputation, have long since gone over to the new one, taking care to make known to the public the motives which induced them to change sides.

A second class of adversaries embraces all those persons who find themselves affected by it in any manner in their trade. Under this head may be numbered, wine and brandy merchants, coffee vendors, grocers, victuallers, confectioners, perfumers, but chiefly druggists and apothecaries. All feel themselves more or less injured by it; so that unless they happen to be indebted to it for the recovery of their
health, or expect to derive some advantage from its success, they are its natural enemies: this circumstance explains why homœopathy experiences more difficulty in making its way among the masses, than might have been expected. Interest performs so important a part at the present day in society, that every new invention is decried by those who are alarmed for their purse. History tells us that at all times the most inveterate enemies have been those whose self-interest enkindled their passions.

Finally, a last class of adversaries includes those who, knowing nothing whatever of homœopathy, desire to display their wit at its expense, or launch out against it only from want of employment, or from the habit of speaking right and wrong at random. We know that according to the received ideas, everything which presents a sort of contradiction, even though but apparent, between the means and the end, is considered as comical and ridiculous. It was sufficient then that the principles of the homœopathist, already extraordinary in themselves, should be either a little forced or misapplied, for deriders and satirists to range themselves against them, and every one knows that the multitude is fonder of laughing than of reflecting; on the other hand, there is no lack of persons whom nothing delights more than to speak of things which they do not understand, and homœopathy having now become one of the principal subjects of conversation in societies, the opportunity has not been lost of exercising their talent and their natural bent.

These different classes of antagonists have hurled charges of every kind against homœopathy, from which it has been long since cleared in the various journals, and other writings of the day. Homœopathy, it was said, is the work of duped deceivers. But how can there be any question of deception, or of duping, when the homœopathist employs a medicine whose primary effects he has tried on healthy subjects, and when this
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medicine, administered to a patient, produces just the very effect announced beforehand? The new doctrine, it was said in another quarter, is but mere charlatanism! But is not the end of the charlatan to draw money from those whom he deceives, and to do everything for the purpose of wrapping up in impenetrable mystery the means by which he effects the illusion which permits him to extract money from people's purses? Now homœopathy has never done anything of the kind. It has disclosed all its principles in a vast multitude of writings; it has voluntarily, and on every occasion, suffered the secrets which it discovered to pass out of its hands, though from these secrets it might have been an easy matter to derive profit. Homœopathy is contrary to common sense, says another person. But are we not encompassed on every hand by effects of which we know not the causes; and yet no one has for this reason ever taken it into his head to question them? The brilliant successes of homœopathy, says this person, are achieved, not by medicines, but by the faith of the patient, whose excited imagination hopes for an extraordinary result! But can this assertion apply to young children and to common animals, in which the new method effects cures just as well as in adults? Homœopathic medicines are poisons! But does not allopathy employ the same poisons in doses many million times stronger? Has it ever happened to homœopathy to bring its patients to the brink of the grave, or even to put them into it, in consequence of employing violent remedies, and arbitrarily increasing the doses of medicines, as the allopathists so frequently do, according to the admission of some of their own party? Again, persons do not see that there is a flagrant contradiction in stating, on the one hand, that homœopathic doses can produce no effect, and on the other, that they are frightful poisons. Everything in homœopathic treatment must be referred to regimen, and the efforts of nature. But why had not kind na-
ture acted sooner in so many thousands of cases? And why did she not accomplish the cure till after the taking of the homœopathic medicine? Homœopathy starves its patients to death! Nothing can be more false. It allows every person to satisfy his appetite; it recommends even the most nutritious principles of diet, as meat, rich soups, eggs, chocolate, not aromatized, in most of those cases where allopathy interdicts them. One may readily conceive, that during the course of an homœopathic treatment, the patient should abstain from every matter which possesses any medicinal virtue; but the prohibition cannot extend to things purely analeptical and strengthening. Homœopathy never has recourse to those severe courses of treatment by starvation, from which allopathy does not recoil. Homœopathy does not cure all diseases! Certainly not; but does it not effect mild, rapid, and permanent cures, where allopathy has been unable to be of any avail? It is an odious calumny to state that it is powerless in the treatment of inflammatory diseases; even surgical diseases it removes, for the most part, with astonishing quickness, a fact which is deemed incomprehensible by its adversaries. It performs its cures with as much promptitude, certainty, and readiness, as possible; whilst allopathy either does not cure at all, or arrives at the cure by round-about ways, after having made the patient encounter serious dangers, or finally, it cures homœopathically without being aware of it. Homœopathy is the tomb of science, because it regards only the external characters (symptoms) of diseases; because it does not trouble itself in the slightest degree about their essence, and because it has no necessity either for anatomy, physiology, or pathology. No doubt homœopathy merits this reproach as a science; but where is it stated that the homœopathist must consider as superfluous the accessory sciences of medicine, though he perceives in them a great many things which cannot afford him
the slightest aid in attaining his end? Homœopathy teaches not only to appreciate the true value of the symptoms in general, but also to distinguish from each other the essential symptoms, from those which are only accessory. Here its adversaries say: "The symptoms are not the disease itself, and in order to attain a radical cure it becomes necessary to discover and combat the cause of the latter."

Perfectly well argued no doubt! But is there on the entire surface of the earth, a man who can tell us in what the essence of disease consists; what is fever, for instance, or what is inflammation? Among the allopathists who raise such fine questions, is there one who can give a satisfactory solution to them? The sort of opinion that should be entertained of their knowledge touching the causes of disease, is seen but too often, when three or four of them are heard disputing together when called in to see a patient, and each of them pronouncing such fine hypotheses, when they proceed to a post-mortem examination of the body. Homœopathy does not pretend to know the essence and cause properly so called of a disease, a thing which is denied to all mortals. It strives neither to impose on itself, nor to deceive the patient with idle conjectures about matters, which it is not given any man to know; it contents itself with obtaining an idea of that which is appreciable in a disease, its external phenomena, its symptoms, with investigating the occasional causes, so far as they can be discovered, or as they still continue to act, with tracing the development of the morbid state, and, which is the principal point in all cases, with effecting a cure, and that in general under circumstances where allopathy, by its own acknowledgment is entirely impotent. It is extremely unjust to say that it is a purely symptomatic medicine. Symptomatic medicine troubles itself only about a single symptom, that which is most complained of by the patient, and strives to combat
it by antipathic means, that is to say, it palliates it, and prevents it not from returning after some time with increased violence. Now, such a mode of proceeding belongs properly to allopathy, and is totally foreign to the principles of homœopathy.
ON THE APPLICATION OF HOMŒOPATHY
TO THE
DISEASES OF DOMESTIC ANIMALS.

Homœopathic medicines are employed either in a liquid or a dry form. A long time since I declared my opinion in favour of liquid medicines, seeing that they act with much more quickness, and consequently attain the proposed end with more facility. The dilution I usually employ* is the thirtieth, and throughout this work, this is the state of dilution to be understood, unless I shall expressly indicate some other.

To administer the medicine, one, or at most two drops of liquid are poured on a thin wafer, which is then placed on the tongue of the animal. The operation always requires two persons, when large animals, more especially horses, are the subjects of treatment. The operator places himself on the right side of the animal, grasps the lower jaw with the left hand, then, with the right hand, he draws the tongue to one side between the molars of the left side, and the assistant places the wafer on the base of this organ, as near to the pharynx as possible. For want of the wafer we may employ a small portion of stale bread. We may also mix one or two drops of the medicine with two hundred drops of water, and pour the whole into the mouth, at the same time holding

* Experience has taught, that the lower potency is the most efficacious in the treatment of animals laboring under acute diseases; but the potency frequently requires varying to meet different symptoms. In many chronic cases the higher potency should be given, although in the present state of Veterinary Homœopathy, no general rule can be laid down as to the potency.—Ed.
the head raised; the imbibition of the buccal mucous membrane being sufficient, it is desirable that the animal swallow nothing. If globules be employed, nothing is easier than to deposit them on the tongue, taking care, however, not to moisten the finger with our own saliva to make them adhere, more especially when we have been smoking a little time before. In the case of cats, into whose mouth it is not always easy to introduce the medicine immediately, it is to be mixed with a little milk which they are to be made to drink; this method is also very suitable for the pig; if globules are employed, we commence by bruising them in a small portion of clean paper, and they are then mixed with a little flour, which is to be well mixed up in milk. If the pig cannot swallow, or if it be so sick as to refuse drink, its mouth is to be opened by means of a stick, and the liquid poured into it. In case of trismus, if we do not wish to break a tooth, the medicated water is poured into the nose. Experience has proved that the result is still the same. It might also be given in the form of lavement. The animal must remain without eating, and more especially without drinking for an hour at least after it has taken the medicine, and if possible, an hour also before it.*

There is no necessity to subject animals to a particular regimen, except perhaps the lap-dog, from which, during a homoeopathic course of treatment, all aromatic or spiced food must be withheld, and only bread, oatmeal, biscuit, or milk and water must be given. Care must also be taken to put aside all the means advised by ignorant persons or charlatans, without excepting even lavements, unless they consist of pure water with a little milk or soap. It is not right that beside an animal which we may be treat-

*A small quantity of flour in a teaspoon, mixed with the medicine is one of the best methods of employing it.—E.D.
ing homœopathically, another should be placed, in the treatment of which allopathy has been employing frictions and odoriferous substances. More than one course of homœopathic treatment has failed, or at least been prolonged, in consequence of these precautions having been neglected. With respect to the horse, there are several others also which should be attended to.

As soon as a horse appears ill, it becomes necessary to allow him rest, to give him a clean litter, which should be frequently renewed, and to keep the stable well ventilated and in a state of the greatest cleanliness. During winter, the entrance of draughts of cold air should be prevented; in the summer, care should be taken that the stable be cool, that the air may circulate freely through it, but so contrived, however, that no draught of air may pass on the animal. It is very useful frequently to sprinkle the ground with cold water, especially when acute diseases are present, and when several horses are kept together. It is best to place the animal in a separate stable or loose box when it can be done. In febrile diseases grain of every kind must be withheld, but good hay may be allowed, with mashers of bran, fresh grass and tares; and in winter, red-beet, potatoes, carrots, &c. The best drink is pure water: in some diseases it is useful to have it made warm, or to add a little meal to it. To remain in a state of rest during the entire course of the disease might often prove injurious to the sick animal: if possible then, he should be made to take a little exercise every day, if it be summer, in a shady place; in winter, in the open air when the sun is up. The length of the exercise should be proportioned to his strength.

With respect to the doses of homœopathic medicines, the indications are to be followed which have been already pointed out, or given under the head of each disease. Special care should be taken not to force them; thirty years of experience have proved
that they are quite sufficient, and of this every one may satisfy himself when an opportunity offers. Too strong doses might occasion injurious effects.

Neither should a person be in too great a hurry to repeat the doses. This repetition sometimes becomes necessary; but except the cases in which I have taken care to point out the matter, it never fails to do mischief. When the person has selected the proper medicine, that one which covers the greatest possible number of symptoms, and when it is repeated without waiting for the secondary effect of the first dose, it follows that before the curative effect can be brought about, new primary effects are produced; or the latter being nothing else than a fictitious disease, analogous in its symptoms to the natural disease which was to be cured, not only is no amendment obtained, but in most cases an aggravation of the primary disease is occasioned. If the medicine has not been well selected, a repetition of the dose can no longer be of any utility; for it is evident that if a first dose has not produced the desired effect, a second and a third dose will produce it still less. It becomes necessary then, in making an exact revision of the portrait of the disease, to adopt another medicine which may be more appropriate.

But very few general rules can be laid down with respect to the repetition of homœopathic medicines. If the medicine employed produce no effect, it is clear (with the exception of some cases not to be considered here) that it has been badly selected, and that some other ought to be taken, after the lapse of the necessary time. If it act but partially, that is to say if the improvement produced remains stationary, it is repeated at the end of four, six, or eight hours; and, in acute diseases, at the end of ten, fifteen, or twenty minutes. If the medicine administered in the second instance reproduces symptoms which had been already extinguished by the preceding, the rule is to make the
latter be taken alternately with the other. When a little time after the animal has taken the dose, the disease is observed to become more virulent, we must not be alarmed, nor should we at all be anxious to have recourse to another remedy; this is almost always a homœopathic aggravation, which results from the primary effects of the medicine, and consequently the surest guaranty that we shall soon have a curative reaction. Too much hurry in such a case can only do mischief.

The moment at which the homœopathic medicine ought to be administered depends on circumstances. In acute diseases the intervals should be shorter: the remedy may either be repeated, or another which seems better, may be adopted after ten, fifteen, or twenty minutes, according to the state of the patient. But, in those which progress with less rapidity, it is necessary to wait at least twenty-four hours, and to prescribe a new medicine only when the improvement is observed to be arrested, or even to retrograde. The grand point then is, to watch the animal continually and with great attention. If at a certain time it happens to be attacked again with the same disease as that of which it has been once cured by a certain medicine, recourse must be had to the same remedy; but we must not be surprised if it do not always produce the same effect as in the first case. The rule, however, is to commence by trying it, and almost always advantage will be derived from so doing.

Among homœopathic medicines there are three, particularly, arnica, symphytum, and urtica urens, which are more especially employed externally. For this purpose we proceed in the following manner. We take a cup full of water, and pour into it from twenty-five to thirty drops of the first tincture, we shake it well, and employ the mixture for lotions, fomentations, &c. Some other substances, such as
aconitum, bryonia, silicia, iodium, ignatia, &c., are also useful occasionally for external application.

A question naturally presents itself here: must the error committed in the selection of the medicine be necessarily injurious? The answer shall be as categorical as satisfactory. Every homœopathic medicine has a circle of peculiar action, which has been assigned to it by nature. If an organ comprised in this sphere of action is affected with any disease, the small homœopathic dose effects on it a modifying impression, in the same manner as a drop of cold water, or a current of air acts on an unsound tooth and excites in it acute pains. But another homœopathic remedy, whose sphere of action does not embrace this organ, has no more effect on it than a drop of cold water or a current of air on a sound tooth. It may be objected that homœopathic medicines have been tried on persons in good health, and that even when some particular one among them exercised no appreciable influence on such or such an organ, it might, nevertheless, occasion changes in other organs, so that after all, a badly selected remedy should always do harm. The answer is quite simple: the homœopathic dynamisations act easily and promptly on a diseased organ, because the morbid state of this organ renders it very accessible to modifying influences; but the medicines which have been tried on healthy men have been employed in somewhat stronger doses of the pure tinctures, repeated daily and constantly increased, since here the dynamisations would in general be without any effect; it follows from this that in consequence of their minuteness, the homœopathic doses are incapable of doing harm, and that when we do not choose the proper remedy, the only inconvenience resulting is a trifling delay in the cure.

One of the leading circumstances which contributes to the success of the homœopathic treatment is the manner in which the picture of the disease is drawn
up, that is to say, the manner in which the group of symptoms by which it manifests itself is collected: for so far as the physician does not perfectly understand the entire of the symptoms, he has but an imperfect image of the disease, and can never be certain that the remedy he selects corresponds perfectly to the latter, that is, covers all its symptoms. But if this is one of the most important points of homœopathic practice, it is also one of the most difficult. A single symptom, however marked it may be, never represents the aggregate of all those of a disease, or never allows us to foretell the others. Very great attention is required not to neglect the precise point which is most essential.

The present state of the diseased animal is then to be compared with the greatest care with that of the state of health, for the slightest difference indicates a disturbance in the organism. In order to omit nothing, the symptoms are written down as they are observed, and an entire line is devoted to each, so that room is left for further additions or corrections: a certain order is followed in this process, that is, we must not be content merely with separating the general symptoms from the symptoms proper to the particular cases: but we should class them all according to the parts to which they are referrible. The attention is directed chiefly to the circulation, the state of the pulse, the nature of the excrements, the temperature, general and local, the seat of pain, the way in which the animal demeans itself during rest and motion. The eye is then observed, the contractions of the pupil, the prominence or depression of the eyeball, the color of the conjunctiva, &c., which are all of great assistance in many diseases, more especially in the horse.

After having collected all the symptoms, the leading ones are to be separated, that is, those which properly appertain to the present case from those which are
accessory, or from those which are met with in every disease of any severity. It often happens that the persons who call for the interference of homoeopathy for a sick animal, mention merely the want of appetite, or some other symptom purely general; no advantage can be derived from information so very vague. But by principal symptoms, those must not always be understood which are the most marked, for it very often happens that a symptom, almost unnoticed, is the precise one which characterizes the particular case in question.

Here is an instance of the course to be followed. A disease breaks out among the pigs on a common in the vicinity of my residence and carries off a great number of these animals. The examination of one exhibits the following symptoms: general debility and almost complete loss of sensibility, the hair bristling and tail pendant; the animal stumbles in walking, so that it is observed soon to remain lying down — the temperature of the body varies rapidly — difficulty of swallowing — total failure of appetite — the animal anxiously roots up its litter. Inflammatory swelling on the neck, chest, and abdomen — reddish streaks on different parts of the body, which assume a bluish tint a little time before or immediately after death — duration of the disease from one to three days. By these characters we know that the disease in question is called St. Antony's fire in pigs, and not angina, as had been at first supposed after an incomplete detail of symptoms, which circumstance rendered the homoeopathic means prescribed totally ineffectual.

Experiments have been instituted at the Veterinary School of Berlin, on the application of homoeopathy to the treatment of the diseases of domestic animals, and the public papers have eagerly announced that they had not proved favorable. Fortunately the press republished the details, which account for the result. Thus, wishing to try *pulsatilla* on a horse in good
health, ten drops of the tenth dynamisation were given to him, which produced no change. The same animal received three days after ten drops of the twentieth dynamization; then, some time after ten, twenty, and at length forty of the thirtieth, all without the slightest effect. When we recollect what has been already stated regarding experiments on organisms in a state of health, we shall not be surprised at the negative result. The Berlin School proceeded in the same way in its trials of the homoeopathic treatment: a horse presenting all the symptoms of pleurisy received thirty drops of the thirtieth dynamisation of aconite, which so aggravated the disease, that it was thought necessary the following night to bleed him to seven pounds. From what I have said of the homoeopathic doses, this result will be equally well understood, which could not fail to happen, in the same manner as throwing oil on the fire for the purpose of extinguishing it. The person who, being desirous of trying a homoeopathic medicine on the animal in a state of health, takes the thirtieth dynamisation instead of the pure tincture, which should have been administered in increasing doses, and who, in a case of disease prescribes thirty drops of this dynamisation, when a single one was all he should have given, clearly proves that he had no idea of the doctrines of the new school. It is, however, by such means that all the efforts of the government to arrive at the knowledge of the truth have been paralyzed.

AGE OF THE HORSE.

Generally speaking, the age of the horse is indeterminate and relative. It is indeterminate with respect to
wild horses, concerning which no sufficiently convincing facts can anywhere be found, as also with respect to the animals advanced in years, in which the most important characters, that is, the changes which the teeth undergo, leave us in uncertainty. It is relative in this sense especially, because the breed, the constitution, climate, mode of feeding, the care bestowed on the animal, the habits of life, and the more or less amount of labor, exert a powerful influence on him. The question then, what may be the age of a given horse, is not susceptible of receiving a general answer; one cannot be given till after several particular circumstances have been taken into account. Thus, the instances of horses which at the age of thirty years are still capable of performing useful services, although no particular care may have been bestowed on them, are not very uncommon; and one author, Rychner, states that he himself saw, in 1811, a coach horse of a Swiss breed, which was able to work still, though he had attained his forty-fifth year. In general, it is admitted that blood horses attain a greater age than others; but this opinion cannot be established by facts, as it is not allowed us to consider the characters assigned to the different ages as capable of being applied to all cases. On the one hand, though the space of six years is accorded to the first stage of a horse's life, it is not uncommon to see the adult age declare itself from the third year by the aptitude for procreation, and this power may be kept up till the age of sixteen years and more. On the other hand, if persons have supposed that the limits of old age could be extended to the twenty-sixth year, there is no lack of instances where horses are old at a much earlier period. Everything then depends here on circumstances, and even sex affords no precise data with respect to the appreciation of age.

The age of the horse is judged from his teeth, and from certain external characters which indicate the
greater or less perfection of the animal, as also from the state of his condition and strength. The surest method is to employ both means for forming our conclusions.

But in order duly to appreciate the signs of age as afforded by the teeth, it is indispensable to have an exact knowledge of their form, structure, cutting, of their increase and diminution.

The teeth of the horse are of two kinds; the one *permanent*, those which the animal possesses in his perfect state, and which he retains till death; the others *temporary*, or *milk-teeth*, which make room for the preceding after a certain time.

With respect to the *permanent* teeth, the perfect horse has forty; however, very often there are found only thirty-six, all molars, because the canine are wanting, or are very small. These forty teeth are included under three heads; incisors, canine, and molars.

The *incisors*, which occupy the anterior portion of the jaws, and which are covered by the lips, are twelve in number, six above and six below. Those in the central portion are called front-nippers, the two following the middle, and the two most external corner teeth, names which are equally applicable to the two jaws.

The *canine*, called also tusks, come after the incisors, and are four in number; two in each jaw, one on each side. It is only in males they are found perfectly developed; they are generally wanting in females.

To the canine succeed the *molars*, of which each jaw contains twelve, six on each side. They are distinguished into first, second, &c.; the first being that next to the canine, and the sixth terminating the series.

Each tooth is composed of three distinct parts, viz. the *crown*, or that part projecting out of the gum; the
neck, or that which is covered by the gum; and the root, or that which is inclosed in the alveolus.

There are also distinguished in each tooth three substances: the enamel, which covers the surface of the crown; the ivory, situate beneath it; and the cement which occupies the middle of the tooth.

In the course of years the enamel is worn away by degrees; the crown produces this effect by friction, and the tooth projects more and more out of the alveolus, so that it becomes longer, because the gum at the same time retracts. It is chiefly in the incisors that this change is remarked, a change brought on by the progress of age.

The different sorts of teeth differ very much from one another with respect to their configuration. The incisor which is curved from behind forwards, in the direction of its length presents the form of a wedge, and its crown that of a chisel. The permanent incisor is from two inches and a half to three inches in length, and when it is not worn away it presents, on its surface, a cavity called the mark, and which, as will be seen further on, furnishes very important characters for determining the horse's age. The deepest part of this depression is lost in the cavity of the root. The depression and its lower part are covered with enamel. The cavity is a little longer and deeper in the incisors of the upper than in those of the lower jaw, so that it remains a longer time visible, and is not worn so much by friction. In fact, the depression becomes smoother and smoother with years, according as the tooth itself is worn away; so that in old horses, there is nothing found in the place of the depression but a plane surface, and of a somewhat deep color, called the table.

The canine teeth, or tusks, assume the form of a cone, slightly curved backwards; in youth they have a sharp point directed backwards, and two cutting edges curved internally, between which there is a furrow. The point and edges become more and more
blunted by the progress of age, and earlier in the lower than in the upper jaw.

The molars are rather square, of a cubic form: the crown is the broadest part, and they become a little attenuated towards the root. The crown forms a surface somewhat unequal, consisting of depressions and elevations, which gradually become altered with age.

The number of the milk-teeth is twenty-four—twelve incisors, and twelve molars. Each jaw contains six of the first, and six of the second, three on each side. All these teeth are gradually pushed out by those which succeed them; the permanent tooth, situate beneath the milk-tooth, absorbs the root of the latter according as it grows, so that, when it is on the point of coming through, the crown of that whose place it is about to take falls, and it is frequently found in the manger. The order in which this phenomenon takes place, affords characters by means of which the age of the horse may be determined during the first years of his life.

The milk-teeth are situated in the same places as those to be occupied subsequently by the succeeding teeth, and they bear the same names as the latter.

As the development, renewal, and wearing of the teeth, are connected with certain stages, these changes are taken advantage of for the purpose of determining the age of the horse. However, it is not to be considered as an infallible mode of arriving at the truth; for many circumstances exercise considerable influence in this respect, and consequently render more or less fallacious the inductions drawn from it. This takes place when the object is to assign the age of an old horse, for the older the animal is, the more risk is run in committing an error.

The duration of the horse's life has been divided, according to the changes of the teeth, into three stages, which extend, the first from birth to the begin-
ning of the second year, the second to the end of the fourth year, and the last up to death.

1. During the first stage the milk-teeth are developed completely, and the first permanent molars are also seen to appear. Properly speaking, the foal must have, on coming into the world, twelve molars, of which three are on each side of each jaw; but this rule often admits of exceptions, and in feeble subjects the molars sometimes do not come out till after birth.

At the age of eight or ten days, even a little sooner in strong animals, the two front nippers pierce the gum, and always first in the upper jaw; from the third to the fifth week the central teeth are seen to appear, at first superiorly, then inferiorly, and during this time the molars are more and more developed.

Up to the sixth month the milk-teeth continue to grow, and become even; that is, they are ranged in the same direction, and the two edges of each are placed on the same level.

From the sixth to the eighth month the corner-incisors appear, of which those of the upper jaw also precede by some days those of the lower.

At the end of the first year the foal reckons twenty-four milk-teeth, viz.: twelve incisors, and twelve molars. During this time the front incisors become level, and the centrals soon after. These changes always happen some months sooner in blood horses than in common horses. The care taken of the mother during gestation and lactation, are influential in this respect; for the good nourishment which they receive facilitates and expedites the process of denticion in the young animal; whilst the want of care, cold stabling; &c., retard it, and render it more difficult in the other.

The body of the foal also presents the following changes at the end of the first year: the hair of the mane and of the tail are less curled than before; the
tail, which reached only as far as the hams, becomes longer, the gait is more confident, the fore-legs are straighter, the frontal region exhibits less prominence, and the animal exhibits more strength in its movements.

From the end of the first year to that of the second, little changes are observed in the teeth. During this time the milk-teeth are more and more worn, so that at eighteen months the mark is worn not only on the front teeth, (which already occurred,) but also in the central teeth, and the corners have lost their cutting edges. In general, the milk-teeth at this period seem less broad, because their crowns have been partly worn by friction, and the teeth themselves have been pushed out, which causes the neck or attenuated part to be more perceptible. It is worthy of notice, that the upper incisors are worn always from six to nine months later than the lower, that consequently they lose their mark later, and that they are not so much pushed out, though still they are sooner developed than those of the lower jaw.

At the end of the second year the first permanent molars are seen to appear, that is, the fourths, so that then the young animal has twenty-eight teeth: twelve incisors, twelve milk molars, and four permanent molars: these latter are seated behind the milk molars of each jaw.

2. During the second period of life, that is from the end of the second year to that of the fifth, not only do all the milk-teeth make room for the permanent teeth, but further, all the molars which are wanting pierce the gum, and towards the end of this period the permanent incisors have appeared. It is during this lapse of time that the teeth furnish the most certain characters for recognizing the age of the horse, which becomes more and more developed with respect to size, strength, and the energy of his movements.
At five years the horse has all his permanent teeth, twenty-four molars, twelve incisors, and four canines (in males; the corner teeth have become uniform.

During the second period the animal is rather frequently attacked with certain morbid affections depending on the process of dentition; mastication is difficult; he frequently has difficulty in swallowing, which prevents him from eating; the eyes become inflamed, he has a discharge at the nose, and he may even be attacked with nervous symptoms, fits of vertigo, &c.

3. During the third period, that is, from the fifth to the eighth year, all the permanent teeth are developed, the body has attained perfection with respect to size and strength; the horse is fitted for more long continued labor than before. The following years the teeth become more and more worn, the size of the body and the strength diminish gradually, and the infirmities of age become more and more marked. However, this effect takes place much sooner in some horses than in others; different circumstances exert an influence with respect to this matter, and cause the marks of age (the wearing of the teeth) to be somewhat earlier in one animal than in another.

The signs of old age are manifested earlier in high-bred horses (of English or Arabian breed) than in others. The attention paid to the animal, his feeding, the manner in which he has been worked, exercise considerable influence in this respect. As far as regards the teeth, there are several circumstances which cause them to be worn much sooner, and make the animal look older than he really is: such as, a very abundant supply of food (in grain,) the perfect correspondence of the upper and lower teeth, which makes them rub with more force, the one against the other, during mastication, and the less solidity of their texture, which renders them more liable to be worn; in this respect, it is to be observed, that in general the
substance of the teeth is more firm in high-bred horses. When circumstances of an opposite kind are met with, the teeth retain the appearance of youth for a longer period. Hence it follows, that the signs of age are much less certain during this period, and that the best connoisseur may be deceived by a year for horses not much advanced in age, and by two or three, for those more advanced in years.

At the age of five the teeth have attained their full development, though now a little worn on the front nippers; but they always continue a longer time visible in the incisors of the upper jaw than in those of the lower. The canines are now developed; they have a well-pointed summit, and cutting lateral edges: at six years old the cavity of the front incisors is filled, and the cavity of the middle incisors is growing less.

Towards the termination of the sixth year, the marks have suffered more, the cavities in the front and middle incisors of the lower jaw become obliterated; the teeth appear rounder and thicker than they were before.

At the expiration of the seventh year the marks of the incisors are more or less worn and effaced; the nippers have become narrower, and the plane of the corner teeth is flattened.

When the horse is eight years old, the cavity of the corner incisors are worn and effaced; and the teeth are longer and thicker, because they have come more out from the alveoli. The canines are neither pointed nor as curved as before, but more rounded and blunted. However, these characters can only be considered as applicable to the majority of cases, for the exceptions are numerous.

At the age of ten it may be known that the cavity of the two front incisors of the upper jaw are obliterated, a circumstance which had already occurred with respect to those of the lower jaw. At the same time these teeth (those of the upper jaw) are more thick
than broad, because they are more out of their alveoli.

The cavity of the middle teeth of the upper jaw disappears at twelve, and at fourteen or fifteen it is effaced on the corner teeth of this same jaw: these teeth also are diminished in breadth, and become thicker.

During this period of from eight to ten, up to twelve or fourteen years, the crowns of all the incisors are very much worn, more so, however, in the lower than in the upper jaw, and these teeth have escaped from their alveoli, which makes them appear more thick than broad.

The following characters may be derived from the teeth, indicative of advanced age. At fifteen the diminution in breadth of the lower incisors is more marked, as well as their increase in thickness. At seventeen and eighteen, these changes are very perceptible in the incisors of the upper jaw. Generally speaking, after the fourteenth year, the incisors assume a more horizontal direction; before that they approached nearer to the vertical.

When the horse is very old, from eighteen to twenty, his teeth present the following peculiarities: the incisors resemble angular palissades, because the gum has receded, so that the roots are almost exposed; their table has assumed a triangular form. These phenomena are observed on the lower jaw sooner than on the upper, and on the nippers sooner than on the central and corner teeth. The crowns of the incisors are also closer to one another whilst their roots are separated, which gives a pointed form to the mouth; moreover, they often become oblique, loosen, and fall out. But these characters have but a general value, and I have already remarked that they may lead into error, even an error of three years.

Other signs announce old age in the horse. The animal is stiff and heavy in his movements, his legs
seem unable to carry him, he takes only short steps, his muscles decline, however nutritious his food may be, which renders him unable to bear for any length of time either moving or work; the edges of the bones become prominent, more especially the articulations of the hind legs; the upper jaw becomes flattened, the lower one loses its breadth (becomes lower,) and the lower part of the face acquires in consequence a pointed appearance.

The mucous membrane of the nose and throat is not as red as formerly, the lower lip is pendant, the eyes are sunk in the orbit, they become dull and turbid, the power of vision diminishes; the head of the animal assumes the appearance of old age, to which the white hairs growing on the brows contribute considerably, which are remarked at an earlier period in horses whose coat is of a dark color than in others. White hairs are also seen on other parts of the body; but they must be carefully distinguished from the white spots which are observable even in young horses, either as a lusus naturæ, or on parts of the body which have been bruised, wounded, or skinned. The hoof becomes dry and brittle; the skin is wrinkled in consequence of the adipose tissue having disappeared, and the anus projects externally. Arrived at this age, the animal no longer eats, except with difficulty, very slowly, and almost always on one side. In horses which have been well treated in their youth, especially those which have not been too early worked, or which belong to a high breed, these symptoms of old age become developed at a later period, or do not attain the same degree as in those which are in the opposite case.
SLIGHT GLANCE AT THE STABLE,

WITH THE BREEDING AND MANAGEMENT OF DIFFERENT KINDS OF HORSES.

ON THE STABLE.

Where it is possible, and room is not so much an object as the comfort, and well doing of the horses, in forming the interior of the stable, the stalls should be double the size of those in general use; that is to say, about fourteen feet in breadth, and twenty in length, so as to form each into separate box stalls; the timber, of which elm is the best, should be about five feet in height, and at the bottom fitted into iron grooves, as it will prevent displacement and preserve it from decay; iron rails should be placed on the timber to the requisite height and width, so as to prevent the animal from biting his companions, either over the top or between the rails.

Paving bricks, properly cemented, form one of the best floorings in use; there should be two gratings in each box, from whence a small drain should be made to communicate with a larger drain, running lengthways of the building, to carry off the water.
Sliding-doors, running on rollers, should be placed at the back of the horses, so that the horse can be quite enclosed and still at liberty, without being disturbed; there should be six feet between the doors of the box stall and the wall, that any of the horses could be visited without disturbing their companions. Several ventilators ought to be placed through the roof, over the part that serves as a passage through the stable, with means of enlarging or decreasing the space for the passage of air, by means of a cap and pully; and air pipes should also be placed about two feet from the ground, so as to admit fresh air, and which would materially tend to the expulsion of the respired air; but the air pipes near the ground should be so contrived as not to produce a draught or current of air towards the horses, which might be avoided by giving it an upward or downward tendency; the windows should also have the means of opening. This regulation of drainage and ventilation will always prove one of the best preventives of disease, and by means of which you may manage to keep the thermometer at almost any degree, fifty-four being a good maximum, in the winter; but an intelligent groom can best regulate that, according to the horses placed under his care, as age, breed, and the former habits exercise considerable influence in this respect.

The best feeding I have found, and that now very generally adopted being oats, bruised beans, chaff from the best sweet hard hay, and clover; two trusses of the former to one of the latter, and given when feeding with oats, in small quantities, and a little hay twice a day, morning and evening. Horses should be watered three times a day, and the water ought not to be quite cold for horses kept warm with clothing, &c., that is, in the winter; it is also a good plan to dissolve a few ounces of chloride of lime in a pail of water, and throw down each drain about once a fortnight.

Pads formed of tow and soaked in water, should be
constantly kept in horses' feet when standing in the stable, by means of two thin pieces of split cane placed across the bottom of the foot, with the ends under the shoe, or the patent pads may be used.

Horses' hoofs should have three times a week, or oftener, a mixture of three parts of common seal-oil to one of tar, rubbed round their hoofs, which will prevent them from getting brittle.

Stables should frequently be well washed, and when the animals are at exercise, if none remain in, the windows and doors should be left open till their return.

As the management of horses varies so considerably, according to the use required of them, and even of those intended for the same kind of work, and also the varieties of constitutions, tempers, &c. of different horses, no general rule could be laid down with respect to the management. The treatment of both training and hunting grooms, and the plans adopted, will of course, (with those at least that well study their business) be altered accordingly, and for this reason these remarks will be very concise.

BREEDING.

It is by the proper selection of parents, that we must look forward to the value, appearance, and usefulness of the stock. With regard to thorough-bred horses, the subject has received the assistance of so many able and intelligent men, conversant with racing matters, that anything emanating from my pen would fall short of instruction on that subject. One of the principal points in breeding, is to advance, or in a manner, force the strength of the foal, so as to meet the work required in his preparation, (should he have any engagements,) at two years old, although the artificial forcing,
as it were, shortens the number of his days, and early training entails many of those diseases to which horses, particularly race-horses, are so notoriously subject; there are few, speaking comparatively to the numbers bred, that reach five years old, the adult period, with sound legs and feet; but custom has adopted early running of horses, more perhaps from pecuniary consideration than any other, the expense of keeping them being very heavy; it remains to point out to the uninitiated in such matters, the best method of bringing them forward. For this purpose, the dam before foaling, should have a paddock to herself, with a good shed, thatched, well aired and littered, and, if possible, with a southern aspect. There should be doors to the shed at one corner, with posts on rollers at the sides, to prevent the foal at play, when going in and out, from injuring itself; there should be also large lattice windows, to admit plenty of air and light; this will, as it were, bring the foal, from its infancy, used to the stable. The diet of the mother should be of the most nutritious kind; carrots, sweedies, oats, best hay, and clover should be liberally allowed; and as soon as the grass has sufficiently grown, she should also in addition to the oats, have a good supply, as it will materially add to the early development of the powers of the foal. As soon as the dam is taken away, the foal should have a companion, an old pony does very well, but there are generally other young stock that may be placed with it; he should now be handled, led about with the careson and well dressed, as it all tends to strengthen him. He should be well supplied with beans, oats, and hay, and occasionally should be given to him a few doses of calcarea carbonica, calcarea phosphorata, and silicea, to bring forward the bony structure; at the same time let him have the full liberty of going into the open air as well as being led out for an hour each day, with the careson, which will bring him ready to the trainer's hands, without
irritating and weakening the animal by breaking, sweating, and physicking, &c., as the latter only debilitates the constitution, and predispose the animal to disease, rendering the stomach and intestines irritable, and inducing costiveness; the air passages also sympathizing with the stomach, are thereby predisposed to catarrh, bronchitis, &c. Should the animal evince signs of the strangles, mercurius \( \frac{1}{2} \) should be given, followed by hepar sulphuris. Byronia, if indicated, and sulph. After sweating, chinchona should be administered; if coldness of the extremities, arsenicum; when shedding the coat, chinchona, calcarea, and silicea are useful.

To return to the choice of animals for general breeding, that is half-bred horses, the mare selected should not be less than sixteen hands high, of good temper, clean head, large eyes, small muzzle, wide between the angle of the sub-maxillary jaws, deep oblique shoulders, with large flat legs, short between the joints, and the flexor tendons standing well out, and not, as is termed, tied in under the knee, the girth should be moderately round and very deep; the back or false ribs deep, and standing well out. I do not attach so much importance to the very short back and the close approximation of the ribs to the hip, as is generally so much sought after; although confessedly, for carrying immense weights, it is a point that should not be lost sight of; but there can be no doubt of its detracting considerably from the speed of the animal. The quarters should be lengthy, wide, and muscular, the angle formed between the hips, round-bone and stifle, should be large, the thighs muscular, the hocks flattish and large, and the os calcis, or point of the hock should be prominent, and the large metatarsal or cannon bone should be rather short, constituting what is termed a well let down quarter. This kind of mare is to be met with out of the hunting stables, or coaching establishments; the animal's wind and constitution
should be well examined, and if sound, her age is not so much an object, but should not be bought, if to repay the breeder well, after fourteen years old. This kind of animal put to a thorough-bred horse of good appearance, will generally remunerate the breeder; the cost of keeping good and bad stock being the same, the trouble being the selection of a mare. A good four year old colt or filly, unbroken, well shaped, &c. being worth forty pounds according to the average price of horses; whilst for a bad looking one of the same age, it would be difficult to find a purchaser.

MANAGEMENT OF YOUNG HORSES.

In the management of young horses, one of the principal things to be observed is, not to let the change from the natural to the artificial state be too sudden, to have cool, well-drained and ventilated stables; the practice of bleeding and physicking should be abandoned; in lieu thereof, let the exercise be better proportioned, and the quantity of food gradually increased, and I make no doubt that the animals will encounter the variations of temperature, to which of necessity they must be exposed, with fewer diseases than is generally attendant on domestication. A young horse should not have less than two hours' exercise every day, with a steady well-tempered man to tutor him, either in the break or saddle; if intended for the purpose of hunting, he should be, for a week or two, practised over various kinds of fences, with a long line fastened to his bit; he may thus be rode with hounds, a man having a long line still fastened to his bit; he should then set him over light fences: but when they are difficult he should dismount and lead him over. This accustoms young horses to become steady, perfect fencers, and to make them either go at their fences full speed, as larger ditches and brooks require the
impetus of speed, or steady, as double banks, drops, and awkward timber fences.

I have known young horses very excellent fencers before they had been half a dozen times with hounds, only through their proper training; and I have seen a colt leap a hurdle with gorse five feet in height after his oats, he never having been in the breaker's hands; and most young horses will, with proper management, become good fencers. In perfecting young horses for hacks, it is necessary that they should be ridden through the streets, in crowds, and with soldiers, and made to face all kinds of vehicles; for which purpose it is necessary that a good rider, with hands and temper to boot, should be on their backs several hours daily. Although they generally are at first shy, they become weary with continual walking about in the streets, until they get accustomed to all kinds of noises, which, if good tempered they soon will, and when the horse is weary with walking, the man should frequently dismount, teach the horse to stand, and mount again.

For the purpose of harness, the means employed is, to place the young horse by the side of a well-trained old horse in the double break; those that are accustomed and kept for the purpose, are the best, and they should have daily lessons; and if required for single harness, a stout, straight-shafted, high gig is used after the animal has been a sufficient time in double harness, and in which he may take his daily lessons. The lighter the bit used, the better generally will be the horse's mouth and temper; should he pull hard, he ought to stand with the mouthing bit on in the stables, or the dumb-jockey, and fastened on each side with the pillar reins for an hour or two each day.

The summering of hunters has been a subject of much argument, some advocating the turning out in meadows; whilst others, consider the keeping of hunters in boxes the best method, and feeding them on vetches, &c.
The best management is between the two, if sheds can be procured in lowland pasture, where the horses can be well fed with oats; the exercise they then receive, together with the moisture from the grass, is decidedly more beneficial to the health of the animal and to the improvement of his feet than standing all the summer through, on straw or tan, or mould as it becomes impregnated with urine, generating ammoniacal gas, &c. The sheds should have doors, so that the animal can be shut in from tempestuous weather, or when it is excessively hot, or much tormented with flies; if the boxes face the north, it will be cooler, and they can leisurely resort to the sheds from the annoyance of flies, for which reason they should not be placed near woods. Thatch is the best roofing, as it does not impart the heat of the sun like most others in use.

Nutritious food, such as oats, should never be withheld from the hunter in summer, especially aged horses; for the loss of stimulating food in the summer will be readily seen by the wasted condition of the muscles of horses during their conditioning or preparation for the next season’s work; and which tone of muscle, old horses take a long time in recovering, although they may look well and fat when first taken up.

August, by general consent, being the month that hunters are again brought into the stables to undergo the preparation for hunting, and during that month and to the middle of September, long walking exercise every morning from five to eight o’clock should be adopted, and the horses watered out. The next step is to alternate the trot with the walk, so that they may walk two hours and trot one; but where there is cub hunting, some of the horses will be kept in from their morning’s work to go, which tends greatly to bring young horses into a proper form, as well as to make them steady. About the beginning of October, hunters
should have fast work. Horses that are of a craven disposition and gross habit of body, should sweat at least once a week, that is, take their gallop of four miles at half speed, with hood and body clothes. Light-hearted horses of a nervous disposition will not require their work so severe; generally speaking, a two mile gallop thrice a week, with a gentle canter and trot each day between, is sufficient.

Whereas the craven horse should go from three to four miles thrice a week, with a gentle canter and trot each day between. They should also walk half an hour before and after their work; if the stable is convenient, it is the best way to scrape the sweating horses in, and then let them walk out half an hour. This method should be adopted till the commencement of hunting, and the horses will be brought to a state of condition that they will require little less than walking exercise, that is if they go regularly with the hounds; for a horse that does not go oftener than once a week, a gallop is requisite on the fifth day after hunting, and on the sixth he should have a canter whilst out at his exercise, which means will ensure his lasting through a run, provided he is judiciously ridden, and his natural abilities good. The morning after hunting, a horse should have an hour's walking exercise, that is, if he is well and not lame; but on the other days the time of exercise should not be less than two hours, from eight o'clock in the morning till ten. The hours I have named have the advantage of better daylight than from six o'clock till eight, and generally it is a little warmer; it has its disadvantages, too. Some prefer the earlier hours, but the time of shutting up the stable will not be materially altered; five o'clock in the winter being a good hour to go to the stable, therefore if the horses are dressed and the men have had their breakfasts, they will then be ready to get their two hours' exercise over by ten o'clock. The horses will not require so long dressing as when they are not dressed before ex-
exercise, although many grooms prefer the earlier exercise; and where the help is insufficient, the work of the stable could not be so well performed without it was adopted.

Many an argument has been held that hunters do not require fast exercise; but I have never found horses so fit to go as those that have had plenty of fast exercise; but of course the work that horses do should always be performed under the immediate eye of a sensible and experienced person; that the best ground should be selected and the pace regulated, as many foolish persons abuse the horses placed under their charge, and do the animal more harm by what is termed giving him a gallop than a day's hunting.

In the preparation of hunters many medicaments are likely to be required, such as calcarea, silicea, and sulfur, when changing their coat. After sweating, cinchona, antimonium crudum and arsenicum; if catarrh in damp weather, dulcamara, also bryonia, sulphur, &c.; if with loose cough, mercurius, iodium, and sepia; if feverish, aconite, bryonia, &c. Twice a week, in lieu of one of his feeds of oats, the horse should have a mash of bran, which will guard against constipation.

A GLANCE AT SHOEING.

Volumes have been written on the subject of shoeing horses, and many improvements of late have taken place. I have lately introduced the use of a solution of caoutchouc mixed with fine cut cork, with the view of guarding against concussions, as it is through concussion that many of the lamenesses are caused, particularly ring bones, ossified lateral cartilages, laminitis, and disease of the navicular joint, &c. It is well calculated for recent sprains, particularly of the flexor tendons, and suspensory ligaments of the fore legs; it is to be used in lieu of leather soles, as by
its elasticity, and being quite impervious to wet, it is well adapted for the purpose for which I have introduced it, namely, to guard against concussion.* In nailing a hard, unyielding material, as iron, to the insensitive part of the horse's foot, we deprive him, in a measure, of a natural spring, as horn is elastic in a slight degree; and it is only to be wondered that foot lamenesses are not more frequent, when we consider the pace the horse is driven over the stones of the metropolis and macadamized roads, and the great weight thrown on each foot as it reaches the ground. This introduction of course would not suit the hunting field, or the race course, from the liability of being pulled off; neither is it required there, as the ground in itself is yielding.

I have found no shoes so good for hunters as the plain concave shoe, properly fitted, and they can easily be seated if the horse's sole should be too flat, so as to require it, and they are scarcely ever cast. The hunting shoes of the hind feet should be, in turning, hammered with a sledge in a mould placed on the anvil, so as to form the toe and part of the sides quite round. There has been much said with regard to the expansibility of the horse's foot, at least, the under, or part that the shoe is nailed to. I do not deny that there is expansion in that part of the foot; but it is very limited, much more so than we are induced to believe from the stress laid by many authors on the expansion of that part of the horse's foot, but the expansion is considerable from the pressure of the lateral and inferior cartilages, and those more elastic parts of the horse's foot that tend to guard against concussion.

The shoes used for hacks, carriage horses, &c., are numerous, and of late many new inventions have been introduced.

* Experience has shown that the caoutchouc wears the best without being mixed with cork.—Ed.
I have found a similar fore shoe to those I have recommended for hunters very well adapted for hacks, with the exception of being a trifle wider and longer at the heels, with the nails placed more anteriorly: and if a horse is in the habit of clicking or forging, this kind of fore-shoe would be still more called for, and the toe of the hind foot should project a little over the shoe. These shoes should always be steeled at the toe, otherwise they would wear too quickly, on account of the ground surface being narrower than that of the flat shoe.*

I think it a better plan, where caulking is used on the shoes of the hind feet of carriage horses, to have both heels turned up, as it prevents slipping more effectually when they are obliged to be suddenly pulled up, especially on the wood pavement; and another advantage derived from it is, the more equal bearing of the heels, by placing them on a parallel from the ground, as nature never intended to have one heel higher than the other; and for light work, if caulking is used, they should not be made too long. When one half is turned up, and the other thickened, it generally occurs that the one turned up is higher than the inner heel of the shoe, which is thickened, consequently the foot is uneven, and thereby rendered more liable to sprains. There is a disadvantage attending the turning up of both heels, that is, a liability to wound the coronet of the foot, but it is of very unfrequent occurrence; and horses that stand with one foot on the other whilst resting, should not have the inner heel turned up, but thickened to an equal height as the outer heel. Horses that are in the habit of cutting must be shod accordingly.

One of the most efficacious plans in the prevention of cutting, is the three-quartered shoe; it should be

* Rodway’s patent shoes are very much approved of by parties that use them extensively.
steeled at the toe and made very light and thin, without a caulking on the outside heel. There are other kinds used on some horses with advantage. The employment of the unilateral shoe is also very general for the same purpose.

That to which much importance should be attached, is the proper fitting of the shoe, and not to cut open the heels or rasp the crust thin; the heels should not be left too high, and the toes of most fore-feet require a little shortening at each shoeing, and the superfluous and broken parts of the sole should alone be taken away; but on no account to leave the sole too thin, as a bruise from a stone might occasion the animal to fall.

SYMPTOMS OF DISEASES OF THE HORSE.

The diagnosis of the diseases of the horse, without which there is no possibility of curing them, is a matter as important as it is difficult in certain cases. In order to establish it, it is necessary to subject the sick animal to an examination, which not only embraces the disease and its symptoms, but extends also to the rest of the phenomena of the animal’s peculiar life. The comparison between these two orders of symptoms, shows us how far the present state of the horse is removed from the natural condition, and allows us to establish our prognosis; for it is evident that the more the functions are altered from their normal course, the more the physiognomy of the animal differs from what it should be, the more the exterior is changed; the more the secretions and excretions have become irregular; the more serious and alarming is the character of the disease.

The examination of a sick animal presents, in some respects more, in some less of difficulty than that of a human being affected with disease. It is more difficult, inasmuch as the practitioner must often dispense
with the knowledge of the history of the case. The animal not being able to speak to inform him of his previous habits, of the injurious influences to which he was exposed, of his present feelings, of the duration of his disease, &c., and the persons who are in care of him, generally affording but very incomplete information,—we frequently obtain but very vague and unsatisfactory ideas about the case; besides that, we are not always told respecting the onset of the disease, whether such onset be really unknown, or those in charge of the animal have been too careless to inquire into it, or there may be some motive for concealing it. Another difficulty is owing to this, that the animals cannot tell us their subjective symptoms, that is to say, what they feel, the nature of their pains, &c.

But on the other hand the examination is more easy in some respects, because the animal, obedient to its instinct, expresses its sufferings by movements, attitudes, looks, sounds, &c. The phenomena themselves are much more distinctly marked, because there is not in this case as in man, the imagination to exercise any influence over them. Also everything discovered in the sick animal may be considered as a consequence of the state of the organs. The pulse and beatings of the heart, among others, afford much more precise and certain signs than in man. A practical knowledge of the symptoms of the disease constitutes what is called, in veterinary medicine, the coup d'œil, and is very necessary to the homœopathist.

It is of the utmost importance, when a sick animal is examined, carefully to collect all the symptoms, even those the least marked, and to arrange them properly; for this is almost the sole and only means of ascertaining the form of the disease; the practitioner having no other resource for this, except to take into account that which is represented externally in the animal.

The order in which we proceed to the examination is not a matter of indifference; from the manner in
which it is done, we judge of the skill of the practitioner. Thus it would be giving a very unfavorable idea of oneself to commence the examination by indicating the accessory symptoms, and then to pass to that of the essential symptoms, or to jumble and confound both orders of symptoms indiscriminately. To confine oneself to a certain order is, besides, a means for rendering the examination itself much easier.

The usage is to commence with the symptoms which are referrible to the exterior of the animal, and which, as such, first fall under the cognizance of the senses, because in many cases, they are sufficient to enable us to recognize the disease, and even to judge of its seat. To this head may be referred:—

1st. The movements and attitudes of the body and its several parts, chiefly of the head, eyes, limbs, and tail, as the animal indicates the pains he feels by striving to repel or avoid the pernicious influences from without, or to relieve the sufferings which torture him.

2nd. The look and physiognomy. To be sure it cannot be said that the horse has a physiognomy, in the sense in which this term is applied to the human subject. Still the character, the breed, and the state of health and of disease are expressed in him in a very striking manner. His physiognomy becomes particularly characteristic in tetanus, internal gangrene, vertigo, &c. It is for this reason we should attach a special importance to the examination of the eye.

After having considered all the symptoms connected with the exterior of the body of the animal, we next proceed to examine the pulse and the beatings of the heart. These two phenomena have great value, as characteristic signs, in the diseases of our domestic animals—of the horse more especially. The pulse is felt on embracing the submaxillary artery between the index and middle finger, as it crosses the anterior portion of the tuberosity of the lower jaw. With respect
to the beatings of the heart, they are felt by placing the palm of the hand on the horse's left side, not far from the elbow. But to be able to judge of a disease from the pulsations of the arterial system, it is necessary to know the character of the pulse in the state of health, and to have attained a certain degree of dexterity in examining it. The number of the pulsations is about from thirty-two to forty per minute in the adult horse when in health, and from forty-six to fifty-five in the young horse. If the animal is irritable, his pulse is more frequent and also harder, that is, it strikes with more force against the finger, which is generally considered a sign of vigor; it is slower and softer in phlegmatic breeds.

The pulse varies very much in diseases. It is accelerated (above fifty, sometimes seventy or eighty, and even up to one hundred or more,) in febrile diseases. The pulse at once frequent, hard, and strong, in general indicates an inflammatory affection. When slow and weak, or easily compressed, it denotes debility, advanced age, or an anemic state of the body. When accelerated or feeble, it indicates imminent danger, and worse still, if it have an unequal, intermittent character. In pneumonia, it is frequently oppressed. In enteritis, hard, quick, and wiry in its feel. If whilst the mouth and feet are cold, the pulse is no longer felt, life is very seriously threatened. Oftentimes the pulsations of the heart are no longer perceptible during the repose of the animal, but slight motions are sufficient to render them perceptible. Further, there are two circumstances which must not be lost sight of; the first is, that we can judge so much better of the state of the pulse, the more tranquil the animal is; the second is, that the pulse is influenced by everything which can excite fear or uneasiness, so that we should not examine it abruptly, and before we have familiarized ourselves with the animal to a certain extent.
After the pulse, the respiration should be examined; we should first attend to its frequency and its relations to the pulsations of the heart. In the state of health, the horse respires from nine to ten times every minute. We should see also what the temperature and odor of the expired air may be. We examine all the phenomena with which the respiration may be accompanied, such as different sounds, cough, &c. The anomalies of this function possess great importance, not only in the idiopathic affections of the organs charged with its performance, but also in the diseases of other organs, particularly the brain, heart, &c. In the lesions which compromise the entire vital activity, and in many fevers, especially in those which assume an inflammatory character.

From the respiration, we pass on to digestion. The apparatus destined for the performance of this function furnishes important diagnostic signs, inasmuch as it enjoys a great predominance in our domestic animals, and independently of the diseases peculiar to it, it participates in those of several other systems and organs. We investigate the signs which may be derived from hunger, thirst, the manner in which the animal takes his food, masticates and swallows it, the state of the abdomen, the quality of the alvine dejections, &c.

The total loss of appetite is a phenomenon much more serious in domestic animals than in man. It is, therefore, always a favorable sign when they take food, provided, however, that they are conscious of what they do.

A phenomenon worthy of remark is, that inflammatory diseases are accompanied by an increase in the contraction of the intestinal parietes, and a diminution in the secretions, which may be ascertained by the small size, hardness, dryness, the more or less deep color of the evacuations, whilst the contrary takes place in putrid diseases, where the alvine dejections
are united into larger masses, and generally covered with mucus.

The examination of the urinary organs is necessary, as well in reference to the diseases peculiar to the apparatus itself, as because it contributes to make known the general state of inflammation, putridity, spasms, so that it furnishes signs of the highest importance.

Lastly, we must direct attention to the state of the mucous membranes, those chiefly of the mouth and nose; their pale or red color, and the characters of their secretion, afford signs sufficient to indicate certain diseases.

The examination should bear, not only on the aberrations which the vital phenomena have undergone, but also on the causes of the diseases, if they do not already appear from the symptoms themselves. As every disease must be considered as the product of two factors, an internal or subjective cause, and an external or objective cause, the veterinary practitioner should give his investigations a two-fold direction. With respect to the animal, he takes into consideration his age, sex, breed, constitution, mode of life, the labor he has had to perform, the state of health he enjoyed hitherto, the diseases with which he had previously been attacked, and the state of those animals of the same breed. With respect to the second point of view, he looks to the state of the atmosphere, the kind of food given him, the character of the stable, the first morbid phenomena which manifested themselves, the course of the disease up to the present period, and the treatment employed.

Most of the diseases of the horse are accompanied with pains, which manifest themselves externally, according to the parts whence they derive their origin. If the painful part is a foot, the animal assumes an attitude such as may spare this part; when standing, he throws the leg forwards, so that it may have less to do than the other in supporting the weight of the body.
In laminitis, when standing, the weight is thrown on the heels. When walking, he rests less on it; when one touches it, he sometimes draws it back, or raises the foot; if the pain have its seat elsewhere, the animal frequently turns his head towards this part, or strikes it with the foot. In case the pains are very severe, he remains as if struck with stupor, and with his head inclined to the ground, or else he scrapes with his fore-feet, or stamps with the hind-feet, or he rolls himself on the ground.

The eyes, even when they are not the seat of the disease, often express the state of the animal: dull and full of water, for instance, they indicate exhaustion and weakness, whilst when bright, full of force, and projecting out of the orbits, they denote an inflammatory state, or sometimes a very acute pain.

Every time the hair is observed to be dull and staring, it is a proof of disease, for it is shining and smooth when the animal is in good health. This symptom denotes a bad nutrition, insufficient food, more especially abdominal affections, when emaciation is combined with it.

When the respiration is slow and calm, we conclude that there is no fever, and that the pectoral organs are healthy; when it is hurried, violent, and accompanied with heaving of the flanks, it frequently denotes the presence of fevers, more especially of inflammatory fever, and when there is cough, or stertorous breathing, we infer the existence of some disease of the lungs or the windpipe.

If the horse remain constantly standing up, the fore-legs widely separated, we are warranted in presuming a disease of the thoracic organs, pneumonia, peripneumonia, inflammation of the diaphragm, water in the chest, &c., because in all these cases respiration is performed with more ease whilst standing. When the animal always remains lying down, it is a proof of great debility, or of pain, or some disease of the feet.
Every time that certain parts of the body are either burning hot or very cold, we may reckon on it that there is some disease. Heat of the head and that of the mouth, with shaking and a staring coat, are invariably symptoms of fever; cold in the head, ears, and feet, frequently indicate great debility and exhaustion of the animal.*

I repeat that wherever homœopathic medicines are in question, the liquid form of those substances should be understood, and the dose should never exceed, one, two, or three drops.†


SECTION I.

DISEASES OF THE SKIN, WITH THE CELLULAR AND ADIPOSE TISSUE.

ABSCESSES.

All abscesses, even when they depend on an external cause, having been preceded, or being still accompanied by inflammation, their treatment must be commenced with aconite or bryonia. The hepar sulphuris almost always serves to induce suppuration when resolution cannot be obtained; a dose of it is to be taken every six hours. The means employed in the case of abscesses which have suppurated are: arsenic, internally and externally, when the edges are hard and everted, when there is pain, inflammation, and the pus exhales a bad smell; silecia, when the pus is thick, and of a bad color; mercurius vivus and asafetida when the pus is of a dull color, and fetid; camomile, sepia, and arsenic, when granulations are too profuse. Among the medicaments to be employed to soften hard abscesses, baryta carbonica, (almost a specific,) bryonia, camomile, carbo animalis, carbo vegetalis, conium, iodium, kali carbonicum, and sulphur, are those which should hold the first rank.
ALOPECIA;

OR FALLING OFF OF THE HAIR.

The following medicines have been recommended in the treatment of alopecia: *natrum muriaticum*, *lycopodiun*, *carbo animalis*, *calcarea carbonica*, *sulphur*, (as consecutive treatment); *iodium* (when there is emaciation at the same time); * kali carbonicum* (when there is itching of the skin, and slight sweating); *bryonia* (when the affection comes on after a sudden impression of cold); *arsenicum* (if it has been preceded by ulceration); *agaricus muscarius* (when the hairs fall above the eyes); *caustic* (if there be at the same time any disease of the eyes); *sarsaparilla, sephia*, and *silica* (when signs of eruption are observed).

In most cases alopecia may be occasioned by a general disease (generally psora); it is also useful to premise each of these medicines by one or two doses of *sulphur*.

ANASARCA.

Anasarca, a disease of considerable frequency in horses, consists in a collection of serosity in the subcutaneous cellular tissue. It often accompanies ascites or dropsy; but in many cases, also, it exists alone, in the legs, abdomen, chest, scrotum, &c. ; sometimes it attacks simultaneously the principal parts of the body. That which distinguishes it from other tumefactions, is, that the skin is cold and retains the impression of the finger. *China*, alternated with *arsenicum*, is in this case a capital medicine; *lycopodiun* is also found very beneficial in extensive anasarca. *Pulsatilla* and *arsenicum*, when the dropsy comes on after strangles, and there is at the same time, diarrhoea; *bryonia*,
when there is constipation and difficulty of breathing, as also when the swelling is hot and tense, and after cold; *colchicum*, in general anasarca, with constipation, dysuria, and dry coughs; *dulcamara*, when the swelling has manifested itself, after sudden exposure to the cold, or when it is accompanied with symptoms of strangles; *belladonna*, when it appears clammy to the touch, and yields a sort of crepitation; *rhus toxicodendron* a very important remedy, especially when there is rigidity of the limbs, chiefly after rest; *secale cornutum*, alternated with *arsenicum*, and followed with *sepia*, when the legs are affected with an anasarca which extends rapidly. The prognosis is generally unfavorable when anasarces swellings make their appearance in the different parts of the animal when laboring under ascites or hydrothorax; but we have cædematous swelling of the legs at times in successful cases.

**ANTICOR.**

This name is given to a round inflammatory swelling, about the size of the fist, which forms on the chest, opposite to the heart. This tumor frequently comes on after exposure to the cold: it then yields to one or two drops of *aconitum*, followed by *arnica*. This last remedy is also the one which should be employed, when the swelling is occasioned by a contusion, or any other external cause. *China* is also useful in the case of a more extensive and general affection of the chest.

**EXANTHEMES.**

The history of exanthematos diseases is one of the opprobria of allopathy, as well in human as in veterinary medicine. With respect to their exciting cause,
their essence, and their treatment, errors have been accumulated on errors, and thus innumerable evils have been spread over the world. It was reserved for homœopathy, to throw on this subject, as well as on so many others, a bright light, which must fill with admiration of Hahnemann's sagacity, every man whose eyes are not absolutely blind.

In the different diseases which affect man and animals, under so many and such varied forms, every one acknowledges, there must be a peculiar fitness and predisposition to contract them. Without this aptitude, neither men nor animals would ever fall sick, and the unfavorable circumstances would act on them from without, as the influences of heat, cold, &c., would never cause the entire organism to sympathize with them, nor would they occasion such or such a form of disease according to the individuals. There must then be some internal peculiarity, wholly foreign to the external exciting cause, which determines the form and direction of the disease, and constitutes the germ whence the latter proceeds. This germ of the majority of diseases, chronic diseases in particular, has received from Hahnemann the name of psora, because numberless examples have proved to him that the inunctions, with which persons are in the habit of treating the itch, are the sources of the great majority of the derangements of the health. Psora, which exists in a greater or less degree in all men, though often reduced to the latent state, (that is, without appreciable symptoms), is developed, according to circumstances, under such or such a form of disease, and resembles, in some measure, a root which puts forth towards the skin branches and flowers, which go by the name of exanthemes. From this mode of viewing matters, it follows: firstly, that the eruption which appears on the skin, (pustules, vesicles, &c.), is not the disease itself, as the allopathic school thinks, but merely one of its products or symptoms: secondly,
that a rational method of treatment must be directed against the root which vegetates internally, and that in order to cure the exanthema radically, without injuring the health, this root must be completely extirpated. The truth of this doctrine is put out of doubt by the success with which homœopathy, by means of remedies which it designates antipsoric, so frequently cures, in a number of cases, with readiness and ease, so many chronic diseases in the treating of which allopathy is powerless because it knows not their focus, properly so called. Now there is no doubt that psora exists in animals also, a thing which I might prove by the most palpable instances.

With respect to the exanthematous diseases of the horse, they mainly depend on psora existing in the animal; they depend not, as has been stated, on the animal's rubbing himself against hard bodies: this is but an occasional cause, which requires also a special predisposition.

Two principal causes of exanthemes are distinguished: some are dry, and others moist.

The former present themselves, at first, under the appearance of small pimples, which subsequently scale off, so that the place they occupied seems covered with a farinaceous powder. To this state there is generally added a distressing itching, which at times is so violent, that the animal becomes nearly mad, and enjoys not a moment's rest, either whilst he eats, or during the night. This state calls for the daily employment of a dose of sulphur for some time, which is the principal remedy in all exanthemes, and which requires in certain cases only the concurrence of other antipsoric medicines.

If the dry eruption assumes chiefly the form of a desquamation of the skin, some doses of sulphur are first administered, then sepia. When some parts of the body are divested of hair, the natrum muriaticum, or lycopodium are given, which are also preceded by some doses of sulphur.
**EXANTHEMES.**

*Bryonia* has been often found useful in a distressing itching, which has supervened after a sudden exposure to cold. *Agaricus muscarius* has also been found effectual against numerous small sub-cutaneous tubercles, accompanied by slight inflammation of the eyes.

Humid exanthemes give rise to small vesicles, pustules, &c., which are elevated above the skin, often in very great quantity, very crowded on each other, and pour out over the integuments a fluid more or less watery, which is dried by the action of the air and converted into a crust. Frequently there are formed small ulcers, which have a tendency to deepen, and make way into the muscular parts situate beneath the skin, destroy the roots of the hair, and cause the latter to fall off, and produce intolerable itching. The itching becomes more troublesome at night, and obliges the animal constantly to rub himself. This disease appears at first in a single place on the body, chiefly on the tail, beneath the mane, and on the flanks, whence it extends gradually, so as often to cover the entire body: the animal then becomes more and more feeble, and unless medical aid is procured, disease of some of the vital organs terminates his existence, else some lingering chronic disease renders him nearly useless. In such cases, also, we should always commence with some doses of sulphur: still the cure depends on the greater or less duration of the disease, and on the general constitution of the animal. After sulphur, arsenicum, and rhustoxicodendron, are the principal remedies to be employed in treating the exanthemes, those even of the worst kind. *Staphysagria* has, in many cases, cured in a very short time, tubercles which occasioned much itching. Recourse may be had, also, to causticum, nitri acidum, creosotum, lauro-cerasus, calcarea-carbonica, hepar sulphuris, &c.
FUNGUS.

This name is given to indurations of the skin or cellular tissue, which occur chiefly in parts which are exposed to strong and continued pressure of the harness. *Arsenicum* is a tried remedy in such cases. *Chamomilla* has been chiefly recommended in the treatment of those which are developed in the withers. These excrescences must be sprinkled externally with dilute tincture of *arnica*, and when they begin to put on an unhealthy character, with *arsenicum* (two drops to a spoonful of water.) Sometimes they open: they should then be treated like other abscesses. *Sepia* is useful in the treatment of those fungous excrescences so common on the heel.

INDURATION OF THE SKIN.

Hardening of the skin is almost always the consequence of an internal disease; but it often takes place after the destruction of fungous excrescences by caustics, or in horses which have been subject to pressure from the collar in heavy draught, *chamomilla*, *conium*, and *mercurius solubilis*, are suitable remedies in the case of simple induration, and *acidum phosphoricum*, when the indurated parts contract in the form of folds. Induration of the skin of the posterior part of the knee and hock after an eruptive disease, termed mallenders or sallenders, frequently yields to cracks that discharge a semi-transparent fluid; *arnica*, *arsenicum*, and *rhus toxicodendron*. *Spiritus sulphuratius* is an excellent remedy against indurations accompanied with itching. *Sepia* should be employed when the indurated skin is detached in scales or large patches.
MALLANDERS AND SALLANDERS.

Scurfy eruptions, are so called, seated at the anterior bend of the hock, or at the posterior of the knee, accompanied with oozing, crusts and cracks in the skin, and which is productive of itching, pain, and sometimes even of lameness. This disease is sometimes owing to long travelling on bad roads, want of cleanliness; but for the most part it depends on internal causes. *Scabiescinum* *equorum* and *thuja*, are generally the most useful for it; next come *jacea creosote* and *sarsaparilla*. *Sulphur* completes the treatment. If any lameness remain after the disappearance of the exanthemata, we should have recourse to *petroleum*.

EDEMATOUS SWELLING OF THE LEGS.

This is a disease which has its principal seat in the inferior part of the legs, more especially the hind legs, which at times, however, ascends higher up, even to the trunk, and which is also observed in the anterior extremities. It first presents itself in the form of a swelling, which generally lessens by exercise, but always reappears after standing a long time in the stable, and increases very much after some days' rest. The swollen part, which appears a little hot to the touch, occasions to the animal a sense of itching, and an acute pain whenever the part receives pressure, although in other cases there appears little or no pain. At length, after the swelling has attacked all the posterior part of the pastern-joint, a liquid discharges itself by small pores from the heels which at first is clear, like water, but soon becomes turbid and sannous, so as to corrode the skin and destroy the roots of the hairs. The inflammation and pain then make
rapid progress, so much so, that the animal can no longer bear the slightest touch; he limps very much in walking, and when at rest he holds the foot off the ground. A few doses of thuja are sometimes sufficient to cure the disease radically, often in a few days, even when it is inveterate. However, when it lasts for some considerable time, the lameness increases very much, and there are frequently developed on the swelling, brownish or blueish excrescences, called grapes, which bleed on the least touch, and continually exhale a fetid ichor, it has now become a case of greasy heel. Thuja administered internally, its strong tincture being at the same time employed externally, is useful in this case also. Amongst the other remedies which prove most useful, arsenicum, baryta carbonica, mercurius solubilus, silicea and sulphur are the principal. Secale cornutum, alternately with arsenicum, has produced excellent effects in a very bad case: the cure was ultimately effected by thuja. I have not yet made any trials with the podopyonium equorum, to which great virtues have been attributed in latter times.

PHTHIRIASIS; OR, MORBUS PEDICULARIS.

Horses which are much used, not kept clean, and badly fed, are frequently much tormented by vermin, which increase very much on their body, and contribute not a little to exhaust them still more when no pains are taken to destroy them. This object is accomplished by means of an ointment prepared with one part of bruised parsley, and three parts of lard, which is spread over the hair of the animal by means of a wisp of straw in the hand. Internally, sabadilla and sulphur are given, and if the animal is very weak, china.

SWEATING.

Sometimes the least motion is sufficient to cause a
horse to sweat. In several cases I have stopped this
infirmity by means of nux vomica, mercurius vivus and
sulphur, to each of which I allowed from five to six
days to exhaust its action. A friend of mine cured it
completely by sepia. Natrum muriaticum has also
been ascertained to be very useful in it. Regular and
steady exercise, with proper diet, should also be en-
forced.

SWELLING OF THE TEATS.
Should there be inflammatory tumefaction, a dose
of aconitum, followed by mercurius vivus, or of bryonia,
seldom fails to diminish the swelling.

TETTERS.
Tetters, which are generally met with in the horse
in the dry form, are the result of an internal disease
(psora.) They are recognized by the appearance on
some part of the body of numerous small pimples,
collected together, and which, after a certain lapse of
time, become converted into a scab devoid of hair.
The disease is generally accompanied by itching,
which obliges the animal constantly to rub himself.
Rhus toxicodendron has been found to possess specific
virtues in the cure of this affection. Sulphur, alumina
and rhus, when there is very violent itching; sepia,
phosphorus and dulcamara in furfuraceous tetters. If
there be a secretion of pus, hepar sulphuris; and if
the healing be difficult, arsenicum and silicea.

TUBERCLES.
Independently of the means mentioned under the
articles Exanthemes, Strangles, Pole-evil, Abscess,
&c., ledum, and in obstinate cases, silicea, have more
than once displayed great power. We should also
have recourse to bryonia and dulcamara in the cure of tubercles which succeed cold; aconitum in heat spots; arnica and urtica urens in the tubercles which come on after the bites of insects; arsenicum in those which appear on different parts of the body, with bad digestion; arnica, (a few doses), and then mercurius vivus in cold, indolent tubercles; baryta carbonica in those seated on the lower jaw; staphysagria, in those which occasion itching, and especially those which appear on the edge of the eye-lids. Arnica has always succeeded in swellings occasioned by a contusion, or any other external lesion.

**TUMORS, (COLD).**

Cold tumors, which are often of very considerable extent, possessing the hardness of cartilage, and painful only when forcibly pressed, which sometimes appear on the thighs of horses, never fail to yield, in about three weeks or a month, to homoeopathic treatment. We should first give two or three doses of arnica, at intervals of three or four days. The ordinary effect of this remedy is to render the tumor painful, and to soften it, at least partially. Some doses of mercurius vivus then cause it to open, or render it sufficiently soft to have it easily punctured. Two doses of silicea close the treatment.

**TUMOR ON THE ELBOW.**

A tumor which comes on the point of the elbow generally proceeds from the animal’s shoes being in contact with the point of the elbow when lying; in consequence of a fall, a blow, or under the influence of some internal cause. The swelling is, at first, hot and painful; but, by degrees, it is converted into a cold, indolent swelling, which scarcely ever interferes with the horse, but is merely determinal to the beauty
of his shape. In the treatment we should have regard more particularly to the duration of the disease, and to the way in which it was brought on, whether by an internal cause, or some external violence. The affection, when recent, and more especially when occasioned by external violence, is easily cured with arnica, with which may be combined the dilute tincture of this medicine. If the disease be of long standing, chamomilla must be employed; and if the swelling begins to grow hard, conium and ledum. When of very long standing, or of spontaneous origin, it is in general very difficult to cure. The principal means then are sulphur, antimonium crudum, petroleum and sepia. When the swelling is painful and itchy, or when lameness exists, we may employ besides, with advantage, odium, rhus, toxicodendron and pulsatilla, alternately with conium. Silicea is indicated when it oozes. Chamomilla also is lauded as an intercurrent remedy. There are circumstances where bryonia has been found useful, when the swelling becomes hot and tense during the treatment; calcarea carbonica, when it resembles a wen; baryta carbonica when it resembles a steatome. In all cases, sulphur must be employed as consecutive treatment. This kind of tumor is easily dissected out without the least danger.

TUMORS ON THE HEAD.

Tumors on the head, which arise sometimes from an external lesion, sometimes from cold, or an internal disease, are some of them hard, others spongy; sometimes watery, sometimes hot, or tense; occasionally crepitating under the finger. The principal means to be employed are, in general, aurum, arsenicum, mercurius vivus, sulphur, and acidum sulphuricum. The tumors caused by an external lesion are combated by arnica, symphytum, and acidum sulphuricum; those of
a tuberculous character, by angustura; those of a hot and tense quality, with bryonia; those of a cold and crepitant quality, with belladonna; those which are small and numerous, with ledum.

ENCYSTED TUMORS.

Tumors, generally of an indolent nature, come on in different parts of the body, and vary very much in size. They are called encysted tumors, as being contained in an envelope. Some doses of arsenicum (one every three or four days) soften them, more especially when they are the result of a contusion; then they are brought to suppurate by means of some doses of mercurius vivus and silicea. In the case of these tumors without hair, calcarea carbonica chiefly should be employed; and when this remedy does not suffice, graphites is recommended in repeated doses.

SANGUINEOUS TUMORS.

Tumors, owing to an effusion of blood into the cellular tissue, for instance, to laceration of a small superficial vessel, to a blow, fall, &c., are matters of very trivial importance, when the quantity of blood effused is not considerable. However, as they sometimes cause suppuration, we must not neglect to employ in this treatment fomentations with arnica water, at the same time that we must administer some doses of arnica internally.

WARTS.

These excrescences, which are of different forms, smooth, round, and varying in size, and which sometimes follow external irritations of the skin, contusions, &c., depend much more frequently on an internal cause. Some are hard and dry, others soft, spongy, moist, and more or less painful. The principal means to be employed in the treatment of the former are,
dulcamara and sulphur. If there take place around them an ulcerated zone with everted edges, arsenicum is to be employed; causticum is useful in those which bleed, suppurate, and occasion pain. Thuja internally, and also the strong tincture externally is employed in the cure of large scabby warts which are lobulated, moist, suppurating, and presenting a disgusting appearance. Sepia, also, has rendered good service in similar cases. Calcarea carbonica is the remedy for small but numerous warts, which appear chiefly on the lips.

SECTION II.

MECHANICAL INJURIES, SPRAINS, AND EXOSTOSIS.

BURNS.

It has been ascertained by experience, some time since, that a strong tincture of utica urens, employed externally, cures burns with great promptness. Arnica also has been employed successfully, as well internally as externally.

CASTRATION.

Some doses of arnica are useful to prevent and stop the traumatic fever which succeeds this operation. It is right also to wash the wound with water to which some drops of tincture of arnica have been added. Not only is the cure more expeditious, especially when the lotions are frequently repeated, but the employment of the arnica also destroys in the bud several occurrences which sometimes prove dangerous. If fistulae become developed, we should follow the course
traced out under the article Fistula. Under the word Tetanus will be found the indication of the treatment to be adopted if that affection should supervene. I have always found arsenicum, followed by sulphur, useful in treating the tumefaction of the belly which sometimes occurs after the operation.

CONTUSIONS.

Contusions are cured in a very short time by the external application of tincture of arnica diluted with water. It is only in very bad cases that this medicine should be employed internally. If a bone has been affected along with the soft parts, or if the periosteum has been injured, instead of arnica, ruta graveolens and symphytum should be employed, internally and externally. In some cases conium has been found useful.

Thus when too tight girdling produces a contusion, the skin gradually becomes excoriated, and, if the matter be neglected, it is not uncommon to see inflammation and suppuration come on. Arnica never fails to cure lesions of this kind promptly and easily. If tumefaction has manifested itself, and if the swelling, when neglected, become inflamed, and pus be already formed, mercurius vivus, or hepar sulphuris, disposes it to open, and effects a cure. If crusts or scabs form in the injured part, thuja is indicated; its use should be followed by that of sulphur.

In the same manner, harness badly made, or ill applied, occasions injuries to the breast, back, and shoulders. There is first observed a bleeding excoriation, which, when neglected, passes readily into inflammation and suppuration, and is often difficult of cure. Arnica given immediately, both internally and externally, soon cures all lesions of this kind. Bryonia, alternated with the external employment of arnica, is very useful in the treatment of colts which we desire to habituate and accustom to draught, and when
CURB.
sweated from the pressure of the harness. *Pulsatilla* and *arsenicum* are employed when the wound suppurates; *chamomilla*, when large crops of pimples become developed on the part; *arsenicum, chamomilla, mercurius*, and *sulphur*, when fungous excrescences appear.

CURB.

A swelling is so called that has its seat formed on the sheath of the flexor tendon. It is sometimes occasioned by a blow in leaping over timber, or walls; but the most frequent cause is a strain. The horses most liable to it are those with sickle-shaped hocks, although the best shaped legs and hocks do not at all times escape. There being generally an undue weight thrown on the parts in breaking, it at first appears insignificant, but generally terminates in lameness. *Arnica* and *rhus toxicodendron* never fail to prove useful, when employed in proper time, and especially when the animal is allowed rest. If, on the contrary, he be neglected, pain, swelling, and inflammation increase gradually, and there is formed a hard, cold, indolent tumor. There are cases, however, in which it does not become so considerable, or at least increases but slowly; the horse then continues able to perform his duties, and the lameness which existed at first at length disappears. But when the swelling increases very much, continual lameness supervenes; the motions of the joint, particularly those of flexion, become more and more impeded. When the strain is recent, *arnica*, alternated with *rhus*, and applied externally in the form of a lotion; and, when first injured, mixed with boiling water, and applied hot; at the same time give those medicines internally. With respect to the treatment of this disease, the use of *silicea, calcarea, baryta*, and *sulphur* must not be overlooked.
DOCKING.

The operation is sometimes followed by nervous irritation, which, when neglected, may bring on fatal consequences, such as Tetanus. In such cases, then, it is right to administer doses of arnica, in order to remove the traumatic fever. In cases (which are not uncommon) where the operation is succeeded by Tetanus, the directions given under that head should be followed. The appearance of gangrene, which has sometimes been observed to occur after the operation, is prevented by the timely use of arnica. However, if there be inflammation already, &c., arnica is no longer of any use, and we must have recourse to some doses of arsenicum. Frequently, more especially when the first incision has been made too high, a fistulous ulcer supervenes, for the treatment of which see the article Fistula. Some lint, steeped in a diluted tincture of arnica, should be bound tightly around the dock, which generally will answer every intention.

FRACTURES.

It sometimes happens from a fall, or a severe blow, that a greater or less portion of the bones of the ilium become fractured. There then appears in the same place a hot, painful tumor; the horse limps, chiefly at the commencement, and when we view him from behind, we see the affected haunch lower than the other. This accident is never dangerous in itself. Every time the case is presented to me I have removed it by employing externally the strong tincture of symphytum. I also give some drops of this internally from time to time.

Fractures of the ribs are often cured of themselves; they are treated with symphytum. When they are complicated with splinters projecting internally, they are liable to produce suppuration of the lung.
Like other fractures, those of the bones of the nose are cured in a little time by *symphytum*. Any splinters that may exist must be carefully removed.

Fractures of the bones of the legs are not uncommon in the horse. They are discovered by the animal being unable to rest on the affected limb, which, when carefully examined, exhibits the presence of flexion in a part where there is no joint, and causes a crepitation which is produced by friction of the ends of the bone. An inflammatory swelling soon attacks the part, which becomes very painful to the touch. Fractures of the limbs have been considered as incurable, in consequence of the weight of the body; but several facts have satisfied me that with proper precautions we may succeed in curing them. The first is, after having duly fitted the ends of the bones as exactly as possible, to surround the fracture with broad bandages of cloth, over which we are to apply two iron splints, excavated in the form of a gutter, so that the one placed on the posterior surface may pass some inches beyond the hoof, and the affected limb may rest on it. We must then pass large girths around the chest and quarters, and under the belly an empty sack, or broad piece of canvass, which is attached to the ceiling with ropes and pulleys to be altered at pleasure, so that during the entire time of treatment the animal may be kept in a state of semi-suspension. With respect to internal treatment, he is to take on the first day two doses of *arnica*, then one every day; then after four or five days, every two days only, one dose of *symphytum*, and the bandage is to be frequently wet with cold water, to which there has been added from a third to a sixth of the pure tincture of this medicine. At the end of eight days the bandage must be removed to see whether the fragments of the bone have been duly brought into apposition, after which it is reapplied, and so left until there is a complete cure. Up to this, we are to continue the use of the *symphytum*, both internally and externally.
FISTULA OF THE WITHERS.

Repeated friction, or prolonged compression on the withers, often occasions a contusion of the muscular or ligamentous parts, the effect of which is to give rise to a painful swelling. If this affection be not speedily remedied, if we do not change the form or arrangement of the saddle, the tumor soon suppurates: and, as the withers feel all the motions which the neck performs, as well as the back and leg, the disease soon increases in depth, attacking the ligaments, cartilages, and even the spinous processes of the vertebrae. If the accident is still recent, it is cured without the least difficulty, merely by taking care to moisten the part frequently with arnica water, with which fomentations also should be employed, which are likewise of great use when pressure has produced induration of the skin, and has made it assume the appearance of burned leather.

Pulsatilla is administered internally, and when the tumor is not hot to the touch, or if it be of long standing, conium. When relief has not been afforded in time, and especially when the cause continues to act, the disease makes rapid progress; the pus, instead of escaping externally, becomes infiltrated more and more deeply, and gives rise to great disturbance of the system. We are frequently obliged to use the scalpel freely to lay open the parts, and to make a dependent opening for the evacuation of the pent up matter. If this pus is of bad quality, and fetid, mercurius and asafoetida are employed; when the edges of the ulcer are hard and everted, accompanied by pain and inflammation, and the pus exhales a bad odor, arsenicum is the remedy to be employed. Silicea is useful whenever the pus is thick, and pulsatilla when there are fistulous ulcers, or burrows. If there is caries of the spinal processes of the vertebrae, we
must have recourse to the means pointed out in the article Caries.

LUXATION OF THE PATELLA.

This bone is sometimes displaced under the influence of a blow, a false step, a slip, violent effort, a sudden leap, &c. The horse then holds his leg stiff and extended; he cannot rest on it, and when obliged to walk, he draws it along. The reduction is effected by having sufficient help, and placing a side line, with a hobble, on the pastern of the affected limb; and drawing the hind leg forward, the surgeon is then with both hands to bring the bone into its place. At times it takes place of itself, if the horse makes the slightest movement. However, the ligaments are, in general, weakened to such a degree, that the slightest cause suffices to reproduce the luxation. Hence the affected part must be treated for some days with strong tincture of arnica externally, and as long as the treatment lasts the animal should be left in a state of absolute rest.

POLE EVIL.

This term is applied to a large and very painful tumor, which is seldom developed under the influence of internal causes, mostly from the effect of external causes, immediately behind the ears, at the juncture of the head with the neck. It is always a serious disease, as not only do the tumors very frequently degenerate into ulcers, which are almost always of a bad character, but, also, because it often happens that the affection involves the muscles, ligaments, bones, &c., and thus destroys the animal. We should commence the treatment with several doses of aconitum, which will often suffice to remove the tumor, at least, when there is as yet but simple inflammation. Next come arnica, mercurius vivus, pulsatilla, and sulphur. When
these means do not suffice, we should have recourse to those recommended under the article Abscess. If the disease has existed for any length of time, and sinuses have formed, so that it is impossible for the matter to gain an exit, but continues to destroy the living parts, we must freely use the scalpel, so as to form a dependent opening for the complete evacuation of the pus, without which medical means will avail but little.

RINGBONE

Is an ossific deposition seated on the coronet joint of the foot, sometimes on one side; at others, completely surrounding the joint, and which mostly causes serious lameness. Sometimes two feet, or even all the four, are simultaneously affected. The ordinary causes are a false step, a luxation, or a great straining of the articular ligaments. Many persons, however, consider it as an hereditary defect, connected with internal causes. One of the principal remedies to be employed is *rhus toxicodendron*, which frequently relieves the accompanying lameness. If after its use some swelling still remain, we should have recourse to *arnica*, *calcarea*, *iodium*, *lycopodium*, *mercurius soluhilis*, and *silicea*. *Phosphorus* has often proved efficacious.

SPAVIN.

Spavin consists in an inflammation of the ligamentous connexion of the head of the small metatarsal with the inner cuneiform bone of the hock, but its position varies considerably; it is followed by ossific deposition, and which interferes more or less with the movements of the hock; the contiguous surfaces being rough and inflamed, the articular cartilages being transformed into bone, &c., although all the horses affected with spavin are not lame, as it is very similar to a splint, when not affecting the motion of the horse. There appears to be in some breeds of horses a pre-
disposition to this affection, perhaps more from the peculiar construction of their hocks, as is the case with curbs. It may arise from strains, particularly in leaping, or from too much exertion being required of horses when young. It seldom appears before the third year, or after the eighth. The diagnosis is generally easy. In order to decide whether a horse is affected with spavin, we must first examine whether there be an enlargement not perceptible on the other hock, or the inner and lower side of the joint. The sprain is sometimes, more especially at the commencement, so small, that we can succeed in distinguishing it only by comparing together the corresponding points of the two legs seen anteriorly and posteriorly; but in time it increases in size, and sometimes attains the size of a hen's egg. When it is osseous to the feel, it constitutes bone spavin, properly so called; if it consist of a soft swelling produced by an effusion of serum into the joint, it is called false spavin, or commencing spavin. The lameness frequently disappears with work; but if the animal is allowed to rest for a time, and then trotted again, the lameness becomes more perceptible. As an exception to all this, motion increases the lameness in some horses affected with spavin, whilst others are not lame, though they have very large spavins; and others, again, are very lame, though scarcely any trace of the disease is perceivable in them. Besides, we know that the lameness referrible to spavin increases gradually in consequence of fatigue and work, which may be accounted for by the pains which the animal then feels. With regard to the remedies at the commencement, we should employ *rhus* internally and externally, also *silicea*, *arsenicum*, *sulphur*, *phosphorus*, *baryta carbonica*, *spongia*, *iodium*, &c., will be found efficacious.
SPLINT.

This term is applied to an exostosis of greater or less size, which usually supervenes after a contusion; they are situated, generally, on the inner small metacarpal bones of the fore-legs, although it is frequently seen on the outside, and, at times, on the hind legs. After having existed for some time, they seldom occasion lameness, except they are so situated as to interfere with the action of the ligament, tendons, or the knee joint, or when first forming. I have several times derived benefit in recent exostoses by means of _arnica_, internally and externally. If the tumor is of long standing, there will be some difficulty in making it disappear, and very often we do not succeed in so doing. _Acidum phosphoricum, arnica, silicea, china_, the latter externally, are also the remedies recommended for its treatment. _Rhus toxicodendron, ruta graveolens, causticum and mercurius vivus_ are also of decided service.

SPRAIN OF THE FETLOCK.

A sprain of the fetlock joint is known by heat, swelling, and lameness more or less marked, more especially lameness on uneven ground. If the accident is still recent, _arnica_ should be used, both internally and externally. When the pain is acute, good effects may be obtained from the use of _rhus toxicodendron_ and _ruta_, which are found to be very beneficial in luxation of the fetlock. When the injury is of long standing, _sulphur_ may be interposed once among the remedies already mentioned.

STRAIN OF THE LOINS.

This affection depends often on a leap off a bank, down a descent, or a slip, or turning round quickly in
the stall. If severe, it is difficult to cure. If it be but slight, the horse flexes, or lowers the quarters when walking, staggers when trotting, is startled when pulled up suddenly, and has some difficulty in moving backwards. If the affection be more severe, the animal cannot move back, and can scarcely advance a few steps forwards; he drags the hind legs, and the quarters tremble when he walks. When the affection is still more severe, he is unable even to raise the hind legs, is constantly lying down; when he wishes to stand up, he merely succeeds in placing himself on the hind part of his body, like a dog, and soon falls again, striking his head, haunches, and legs. There is heat and swelling, painful to the touch, which occupies the lumbar region; there is, in general, sympathetic fever. If the affection has been produced by external violence, *rhus toxicodendron* taken internally, and *symphytum* externally, is a useful remedy. If, on the contrary, it be of a rheumatic nature, it is treated with *aconitum* and *bryonia*, alternately; more especially when there is a hot, tense, and painful tumor. When it depends on an internal disease we must have recourse to *sulphur*. If it be attributable to weakness of the loins, which renders the animal unable to gallop, *ipecauanha*, *cocculus*, and *pulsatilla* are to be employed; if the disease manifest itself towards the adult age, *arnica*, *nux vomica*, and chiefly *phosphorus*, are indicated. This affection, when of very long standing, was cured by the continual use of the following remedies: *arnica*, three days; *petroleum*, seven days; *oleander*, three days; *rhus*, seven days; *sulphur*, seven days; *cocculus*, three days; *lachesis*, seven days; *ipecauanha*, two days; *conium*, seven days; *pulsatilla*, three days; and *silicea*. I have cured this disease completely, in two different cases, with *nux vomica* and *sulphur*. 
INJURY OF THE SCAPULO-HUMERAL JOINT.

This injury may take place from a horse running against different things, or from a fall; it is known by the heat and swelling around, and by the peculiar way in which the horse limps; and when, on standing erect, the animal does not rest on the affected limb; when he carries it before him, or on one side; when, in walking, he depresses the limb instead of raising it, so that he cannot get over a slight obstacle without striking it; when he does not go backwards willingly; and lastly, when the scapular region is hot and swollen. With respect to treatment, we must have regard to the occasional cause. If the affection has come on after a blow, arnica must be administered, which is also to be employed externally in fomentations. When there is inflammation, one or two doses of aconitum must be given previously; symphytum also deserves to be recommended, as well internally as externally. If the affection arise from an exposure to cold, we should have recourse to ferrum muriaticum, or to rhus toxicodendron, preceded by one or two doses of aconitum. Bryonia, also, deserves to be recommended, as well as causticum and zincum, combined with sulphur, which are used chiefly when the disease is of long standing, and has now put on a chronic character. In rheumatic affections, moderate exercise assists the cure; but if the cause is different, the animal must be kept in a state of absolute rest, until he is perfectly well.

STRAINING OF THE SHOULDER.

This injury, although of an unfrequent occurrence, occasionally does happen; the sudden shock a horse may receive, whilst galloping on the side of a hill, has occasioned it; and by a false step in leaping; or in any other way which causes the muscles of the shoulder, when strained very much, to lose their contractile
power in a great degree, and from the pain the animal suffers, he is incapable of extending the shoulder, and, therefore, drags his toe on the ground, when attempting to walk.

In the beginning of the treatment, it is necessary to put on the foot of the injured shoulder, a shoe raised about four inches from the ground, which mechanical means will greatly assist the medical treatment. The plan I generally adopt is, to rivet together two shoes, with three rivets, the length required— one rivet in each side, and one at the toe— the under shoe to be smaller than the upper, so as to give the smith greater facility in tacking it on: it would be in the way of the shoeing hammer were it the same size as the shoe fitted to the foot. This shoe is also very useful for sprains of the flexor, or extensor tendons, &c., where you wish to raise or lower the toe or heel, which is easily done by making the pillars of iron, or rivets, longer or shorter, as required. The other treatment to be employed is, in the first case, to place the animal in a loose box, to foment the muscles of the shoulder with hot water, then to wash it with arnicated water, warm, and to give internally, arnica; the diet to consist of mashes and green food, or carrots; this treatment is generally sufficient. *Rhus, bryonia, and sulphur,* will also be found useful if feverish.

**STRAINING OF THE TENDONS.**

A strain of the flexor tendons, or of the sheath that envelopes them, is generally attended with excessive lameness, and inflammation of the parts; we must assist the animal in resting the injured leg, as much as possible, by means of a high-heeled shoe, as before spoken of in the article "shoulder strain;" give one or two doses of *aconite*, as there is generally constitutional irritation present; we must then have recourse to *rhus toxicodendron*, internally and externally; let a
tea-spoonful of the mother tincture be put in a pint of water, a piece of lint saturated therein, and applied round the leg; then let a linen bandage, dipped in cold water, be lightly rolled around the lint, to keep it in its place: absolute rest is indispensably necessary.

Arnica and ruta are also of use if the part is bruised, or if the periosteum is injured, which is frequently the case in bruises of the anterior of the cannon bone from blows in leaping timber or walls, in which way I have seen the extensor tendon completely divided, and the horse become again as useful as before with but very slight permanent enlargement, which enlargement, after divisions of tendons, had better not be interfered with. The general practice of stimulants more frequently enlarges than reduces the interstitial deposition. Aconitum, rhus toxicodendron, silicea, arsenicum and sulphur, when indicated, are useful in this injury.

**STRAIN OF THE HAUNCH.**

This affection is frequently the result of considerable straining of the ligaments of the coxo-femoral articulation, arising from a slip, violent effort in drawing, a contusion, or a false step; but lameness often depends also on internal causes, as rheumatism, &c. The animal thus affected halts a little, spares the affected limb as much as possible, and can neither trot nor gallop. When the affection is but slight, the animal scarcely limps, particularly when stepping, and feels no pain excepting when his pace is accelerated; in the opposite case, even standing is accompanied with an acute pain, the animal limps even when walking, and drags his leg; and when trotting, his buttocks describe a sort of swinging movement. Nothing is more difficult than to detect this affection; its presence can only be admitted when an attentive examin-
ation discovers no other lesion in the other parts of the limb, and when the horse does not readily allow his haunch to be examined. It differs from spavin in the fact that the lameness, instead of diminishing gradually by walking, increases; yet we have sometimes seen it, more especially in rheumatic cases, become less marked under the influence of moving. The treatment varies with the cause. If there has been a violent effort, straining, contusion, or any other external violence, *arnica* should be administered, and a strong tincture of it should be employed externally; *ledum* also is almost specific in this case, and *drosera* may be recommended, especially when moving increases the lameness; *bryonia* and *colocynthis* have succeeded under certain circumstances; if the external injury has involved the bones, we are to have recourse to *symphytum* both externally and internally; when the lameness is attributable to rheumatism, it should be treated with *aconitum* and *arsenicum* or *nux vomica* and *mercurius*. When it proceeds from making too violent efforts, it yields to *rhus toxicodendron*.

**STINGS OF BEES.**

The sting of a bee or of a wasp is a circumstance of no consequence. But when a multitude of these insects have fallen on a horse, the pain and inflammatory swelling may go on so as to occasion the animal's death. *Arnica* employed externally is an excellent remedy in injuries of this sort; we might derive advantage also from administering one or two doses of it internally. I have not yet had an opportunity of trying *apisine* which has been recommended by *Lux*. I have lately ascertained that the external employment of the strong tincture of *urtica urens* was a specific in such cases.
SWELLING OF THE KNEE.

We have more than once proved the efficacy of *pulsatilla* in indolent swelling of the knee, and of *china* in that which is accompanied with pains; if it be occasioned by a blow, contusion, or any lesion of the extensor tendon, so that the limb remains flexed, and the animal touches the ground merely with the toe, the joint being at the same time hot, swollen and painful, we shall find great benefit in *ledum palustre*, *capsicum* and *arnica*, both internally and externally. *Arnica* is chiefly indicated when the disease is not of long standing; in the contrary case we employ *silicea*, *lycopodium* and *sulphur*.

VARIX.

Local dilatation of the saphena vein in the place where it passes over the inner surface of the hock joint. It is a soft, elastic tumor, often produced by violent efforts in drawing. *Rhus toxicodendron* is the best remedy: this is to be followed by *ledum* after a certain lapse of time. *Phosphorus* and *acidum phosphoricum* have also been found effectual, although this disease, or bursal enlargements in general, seldom admit of cure.

WOUNDS.

All the superficial lesions made with sharp or bruising bodies require the application of *arnica* water externally, which at times prevents either inflammation or suppuration intervening, and causes the wound to heal by resolution; *arnica* should also be given internally in the majority of cases. We must have recourse to *symphytum* when the bones have been affected, to *conium* when there has been a contusion, to *rhus toxicodendron* when the lesion is accompanied by luxation or by a strain, but nevertheless not neglecting the use
of _arnica_ externally. A profuse hemorrhage soon yields to pledgets of lint, or such like material soaked in _millefolium_, which are to be introduced into the wound. The debility occasioned by great loss of blood yields to a few doses of _china_, one of which is to be given every two or three hours. The traumatic fever always accompanying extensive wounds followed by intense inflammation, calls for the use of _arnica_, with which _arsenicum_ should be alternated when the fever is high. If the wound suppurate, and the pus be of good quality, the intervention of art is wholly unnecessary; but when the pus has an ichorous character and a bad odor, _mercurius vivus_ and _asafetida_ are employed. When the pus is thick and of a bad color, _silicea_ is required; when proud flesh forms, _chamomilla_, _sepia_ and _arsenicum_, is to be given. _Acidum sulphuricum_ is useful when after a wound the skin forms adhesion to the bones.

**BARS, (WOUNDS OF THE).**

The pressure of the bit sometimes causes in the bars contusions, or even wounds, which may become so deep as to denude the bone, which soon becomes carious if neglected. _Arnica_, both internally and externally, is the chief remedy to be employed. If the periosteum be attacked, we prescribe _acidum phosphoricum_, _ruta graveolens_ and _conium_, or, better still, _symphytum_.

**CONTUSED WOUNDS.**

It frequently happens among cavalry horses that the horse of the second rank, injures with the toe of his fore-foot, the heel of the hind-foot of the horse immediately before him, and thus occasions a considerable contusion, or even a severe wound; if the injury be recent, it yields readily to fomentations with water of _arnica_. When pus is formed between the skin and
hoof, the case is treated just like other abscesses, chiefly with *squilla* and *sulphur*; *aconitum* and *squilla* are indicated in case acute inflammation exists; *acidi姆, phosphoricum* and *arsenicum*, when the pain is violent.

Very frequently the hurt is a contusion, with, or without a wound, which the horse inflicts on himself in the region of the pastern or coronet with the shoe of another foot, or which he receives from another horse walking beside him. It is of frequent occurrence when frost-nails are placed on the shoes, the animal occasionally striking the frost-nails of the inner quarter of the shoe against the coronet of the opposite foot, or higher up. Shoes armed with high and pointed frost-nails, like those employed in winter to facilitate walking on ice, are very likely to cause this accident. The soft parts, the lateral cartilages, the extensor tendon, the joint itself may have suffered, which is known by considerable swelling, with heat, pain and lameness. When successive lotions are employed with cold water and *arnica*, both internally and externally, the symptoms are quickly removed. But if the animal be neglected, abscesses, ulcers and fistulae may form, and complete deformity of the foot may be produced, even loss of the hoof. It then becomes a serious affection, of which *lachesis* is one of the best remedies, or else *arsenicum*, *baryta carbonica* and *silicea*.

**WOUNDS ON THE KNEE.**

In cases of slight wounds of the knee it is sufficient to wash the part several times a day with *arnica* water. If the injury is still more severe, we are to apply a bandage steeped in dilute *arnica*, and then to give *arnica* internally, or, when the knee is very much injured, *symphytum*. When granulations rise over the surface of the wound, we are to give *chamomilla*, *sepia* and *arsenicum*. If through neglect the
WOUNDS OF THE NOSE AND TONGUE.

Wounds pass into a state of abscess, it is to be treated as other abscesses. When the knee or any other joint is penetrated, the first thing to be done is to carefully cleanse it from dirt, then take a small budding iron at a dull red heat and sear around the wound, taking care not to press it to the synovial membrane, then mix six spoonsful of wheat flour, one of charcoal, two of tincture of *arnica* and water sufficient to form a paste, spread it well over the wound, over which place a piece of lint; then oiled silk, a sufficient quantity to keep it from the influence of the air, or to render it air tight; then a linen bandage from four to six yards in length, dipped in hot water, and rolled around, the horse's head to be kept tied so that he can neither lie down or bite his knee when standing. After four or six days this may be taken off and dressed again in the same manner, and again using the budding iron should the synovia not be stopped; if the synovia has ceased to flow, particular care being taken not to move the coagulum; about this time sloughing will have commenced, then let *arsenicum*, or *lachesis*, if better indicated, be given; after which the remedies that are found most efficacious will be *hepar sulphuris*, *sepia*, *silicea* and *sulphur*.

**WOUNDS OF THE NOSE.**

As in all wounds, we employ *arnica*, and if there be lesions of the bones or periosteum, *symphytum*, both internally and externally.

**WOUNDS OF THE TONGUE.**

*Arnica* in this case displays specific properties. When the inflammation is already established, we must have recourse to *aconitum* and *mercurius vivus*. 
Lesions of the eyes by mechanical causes, such as blows, strokes with the whip, punctures, &c., are generally followed by inflammation of greater or less severity, which must be treated with some doses of aconitum, after which arnica, employed both internally and externally, generally accomplishes the cure in a very little time. If some want of clearness remain, we employ conium, or, alternately, cannabis and belladonna. In one case arnica failed in the treatment of a wound made with a needle, which penetrated deep into the eye, but conium effected a speedy cure. A colt, three years old, having received a severe blow on the eye, two doses of conium sufficed to remove all trace of the disease in eleven days. In contusions of the cornea, which assume the form of a mere streak on this membrane, conium (the chief remedy), and euphrasia have succeeded many times; but if the contusion is more severe, and blood infused into the aqueous humor, arnica is the most proper.

SECTION III.

DISEASES OF THE EYES—BRAIN AND NERVES.

ALBUGO.

Traumatic inflammations of the eye often leave after them partial dimness of the cornea, with whitish spots of greater or less extent, which are not at first completely opaque, but which never fail to become
more and more so. In these cases, *cannabis* and *conium* produce in general good effects. If the spots have been occasioned by a wound, as the stroke of a whip, &c., *cannabis* and *belladonna* alternately, or *conium*, are the means to be employed. *Sarsaparilla*, followed by *sulphur*, has succeeded in a case where a red streak was observed on the cornea. *Pulsatilla*, *sulphur*, *euphrasia*, *causticum*, *cannabis* and *lycopodium*, employed in this order, are suitable in the case of spots of the cornea of long standing. In one case, *cannabis* and *sulphur*, used alternately, have succeeded with me. However the cure is effected very slowly in spots of the cornea.

In the *Zoiosis of Lux*, Schmager states that he treated eleven cases of recent albugo successfully with *cannabis* and *belladonna*. He was less fortunate in chronic albugo; these two then produced but little effect, the amendment manifested itself but very slowly, and did not go beyond a certain degree. *Causticum* is an excellent remedy applied externally in the form of a lotion $\frac{3}{4}$ in two tablespoonsful of water, and applied twice a day with a camel-hair brush or tip of a feather; it should be also used internally at the same time, $\frac{2}{3}$ once a day for three successive days. After awaiting the action of the medicine for four or five days, give a few doses of *sulphur*, $\frac{1}{4}$; this I have found particularly efficacious.

**AMAUROSIS, OR GUTTA SERENA.**

Gutta serena, a rather frequent consequence of ophthalmia, almost always attacks the two eyes at once. It consists in paralysis of the optic nerves, and brings with it actual blindness. There is much more difficulty in recognizing it than cataract, because in general all parts of the eye remain clear and transparent: however, the pupils are very much dilated and circular, whilst in the natural state they are of a moderate size and have an oblong form. Another mode, still
more certain, consists in keeping the upper eyelid depressed for some minutes, then in opening it suddenly, the animal being placed in the full daylight; if the pupil do not contract immediately from the effect of the light, we can no longer doubt the presence of gutta serena. No remedy is known for this disease when it has reached its highest degree; but when the animal still sees a little, we may improve his state by the following means: ammonium carbonicum, (duration of its action, eight days), causticum, (fifteen days), belladonna, (eight days), euphrasia, (six doses, one every two days, which produces lacrymation), cannabis and sulphur. At the onset of the disease, pulsatilla, nux vomica, cannabis, conium and sulphur are excellent means.

APOPLEXY.

Apoplexy is of two kinds, the serous and sanguineous; the latter is, however, of the most frequent occurrence in the horse. One of the principal causes is high feeding with insufficient exercise; it may also be caused by the animal drawing a heavy load up an incline, although in this case there is, perhaps more frequently rupture of a blood-vessel and hemorrhage from one or both nostrils; if the animal's stomach is overloaded with food, it is more likely to produce congestion of blood on the brain.

The horses most liable to apoplexy are those who have a short and thick neck, are of a dull lazy habit, with a disposition to become fat, and when on days that are somewhat sultry they begin to suffer vertigo. A horse in this case carries the head low, the breathing is laborious, the pupils are generally dilated; and the pulse nearly indistinct; there is a frequent flow of saliva; he raises the fore-legs a little more than usual, stumbles as he walks along, chiefly on being turned, falls sometimes, comes again to himself after a few moments. Usually these symptoms are renewed fre-
CATARACT.

LIPPITUDE—BLEAREDNESS.

Ledum and aurum are the principal remedies recommended in the treatment of this affection. Benefit has also been derived from mercurius vivus, or, when it did not produce the desired result, and particularly when the agglutination of the eye-lids, from staphysagria. — Conium has also been employed with advantage in the latter case, principally when at the same time the eye seemed covered with a white film. If inflammation exist, we should give euphrasia, and if there be weeping from the eye, we are to have recourse to agaricus muscarius and psoricum. Hepar sulphuris, causticum, lycopodium, silicea, are recommended in the cure of chronic lippitude. Sepia has been useful when this disease has prevailed epizootically.

CATARACT.

Cataract is frequently developed after a severe attack of periodical ophthalmia, more especially in young horses. The animal affected with it sees imperfectly, or, in the latter stages, does not see at all. The commencement of cataract is chiefly discovered by this, that the horse commences to see no longer as well as formerly, which state becomes worse from day to day. In a little time, on examining the eye there is discov-
ered in the pupil a whitish, yellowish, or brownish body. The crystalline has now become visible because it has lost its transparency. When the course traced out under the article *ophthalmia* shall have been followed, it seldom happens that we shall have an opportunity of treating perfect cataract. Besides the means pointed out under that article, the following deserve notice; *pulsatilla*, which is excellent against commencing cataract; *cannabis*, a dose of which should be taken every eight days; *euphrasia*, one dose every day; *causticum*, and *sulphur*. This last remedy should be administered twice a week for a considerable time. We have succeeded once by means of *antimonium tartaricum*: also *aurum, belladonna, conium*, and *phosphorus* deserve particular attention.

**CONCUSSION OF THE BRAIN**

Is the result of a blow, or fall, or other mechanical injury, frequently after which some vertiginous sensations may occur, followed by an attack of phrenitis. At others, the animal may quite lose his senses from the first. The skull may be fractured from the horse falling backwards; but it is an uncommon occurrence, nature having well defended those parts from injury, although it might rupture the blood vessels of the brain and cause immediate death. At times paralysis of the parts posterior to the injury occur; the sensations remaining perfect anterior to the injury. This is the case in severe fracture with pressure of the fractured parts on the medulla oblongata. If fractured so as to cause complete loss of sensation, we must make an incision and remove the fractured part of the bone, if it is pressing on the brain or the medulla oblongata, after which we should foment for a considerable time with hot water, in which some tincture of *arnica* has been mixed. We must also give *arnica* internally, \( \frac{3}{4} \) every hour for three or four hours in a little flour; also *aconite, belladonna, cicuta, petroleum, opium, mercurius*,
ENCEPHALITIS.

Acute encephalitis is more frequently met with in entire horses. It attacks more especially those which are ardent, in high condition, very well fed, and but little worked, particularly when they happen to be chilled after being much heated, or when they are much fatigued in hot weather. The disease has been seen to come on after the long-continued action of the solar rays on the cranium, or in consequence of the animal being kept in a hot and ill-aired stable. The disease frequently occurs on the appearance of the last molar teeth, in the fifth year, or when the venereal appetite is not satisfied; it may also succeed concussion of the brain, or result from hemorrhage, causing apoplexy. For some days the animal is dejected, and takes but little notice; then, usually on the third day, his eyes become red, very bright, and prominent; he throws furious looks around him, and becomes a prey to extreme agitation. From this moment it is dangerous to approach him without precaution. When the phrenitic state has duly manifested itself, he raises himself on his hind legs, strikes his fore feet against the manger and the rack, breathes with violence, with his nostrils widely dilated, becomes covered with a profuse sweat; breaks cords, halters, chains, everything, in fact, employed to tie him, runs on every side, throws himself on the ground, rises again without heeding any injuries that may befall him, and throws himself in a fury on everything he meets. He champs incessantly, but refuses to eat and even to drink. At length this paroxysm is succeeded by a period of remission, during which the animal continues calm, his legs separated, his head resting on the manger, and projecting forwards from his chest. This moment must be seized for the purpose of mas-
tering him and of administering to him the necessary aid; for after several such attacks, he is almost always lost, or if life is spared, he continues very often incapable of moving. Acute encephalitis terminates generally on the second day in an attack of apoplexy, if relief be not quickly afforded. The chief means to be employed are aconitum, which is promptly to be succeeded by belladonna, then at the end of an hour or two, by veratum album. If necessary, these remedies are to be repeated once or twice at equal intervals. If the paroxysm is followed by a state of repose resembling death, we must have recourse to opium, more especially when the tongue is black and the alvine dejections are scanty, of a deep brown color, or blackish.

**EPILEPSY.**

This disease, which is but rarely met with in the horse, manifests itself in the following manner. The animal begins to tremble, staggers, and is seized with convulsions, he falls suddenly to the ground; there, insensible to the roughest treatment, he rolls and twists himself, grinds the teeth, whilst the neck becomes rigid. During the fit the muscles of the eye act irregularly, or are affected with spasms, so that the eye becomes distorted, or constantly rolls, and the respiration is disturbed. The duration of each fit varies; it may last for several hours, or for so short a period, that at the end of from five to ten minutes, the animal, as if coming out of a dream, stands on his legs, commences to eat, and seems in the possession of perfect health, until the fit returns at the end of some weeks. By degrees the attacks become still more frequent. In the course of such an attack we should administer some doses of aconitum, then stramonium, and on the decline, belladonna. Hyoscyamus is suitable, more especially when there are at the same time violent movements of the thighs. Cocculus and calcarea
NERVOUS FEVER.

carbonica are also deserving of consideration. In order to prevent a recurrence of the fits, camphor should be given several times a week.

NERVOUS FEVER.

This affection appears but very rarely, probably even never, as a nervous affection from the commencement; it proceeds, in general, from inflammatory or catarrhal fever, is frequently associated with other febrile states, and occasionally degenerates into a true putrid fever; so that whatever is to be said of the latter, is equally applicable, in a great measure to it. Like putrid fever, it has for its characters, great depression, total prostration of strength, disposition to convulsions, frequent grinding of the teeth, and complete insensibility. The febrile paroxysms usually occur in the evening. Frequently the disease reigns epizootically, and causes great havoc. The principal remedy to be employed is bryonia in doses repeated twice every day. Rhus toxicodendron, alternately with bryonia, was found very effectual in a case where there was short and frequent cough with tightness in the chest. Nux vomica, aconitum, and belladonna have also succeeded. In 1830 it broke out epizootically in Upper Silesia. Those affected had a very dry cough, the respiration was difficult, the mucous membranes generally inflamed, a serous discharge from the nose, great depression, and but little appetite. First a dose of aconitum was given, then usually after the expiration of ten hours, capsicum. When the disease had diminished considerably, at the end of two days, sulphur, spongia, and dulcamara were given, according to the symptoms; the patients were cured in general on the sixth or seventh day. When there was gastric complication, loaded tongue, swelling of the abdomen, obstinate constipation, alvine evacuations unhealthy, and much thirst, the treatment was commenced with nux vomica, which was repeated fre-
quently two or three times in the space of two days, after which, a dose of \textit{crude antimony} in general sufficed to effect the cure. In some of the affected individuals there was a sort of vertiginous stupor; insensible to the impressions from without; they remained with the head hanging down or resting on some place, without paying any attention when called, as if asleep, and it was not without difficulty they could be drawn from their stupor, or the inconvenient position which they assumed; in those cases \textit{belladonna} was given, frequently repeated two or three times, and \textit{stramonium} if the somnolence did not give way. In general, they were convalescent at the end of from six to ten days. Those more dangerously affected were the horses which scarcely ever remained at rest, with small hard pulse, violent movements of the abdominal muscles, nostrils very much dilated, profuse yellowish, thick discharge from the nose, pulsations of the heart unequal, and the color of the skin very changeable. A dose of \textit{aconitum} was given to them at first, then \textit{veratrum}, \textit{cuprum}, and in some cases \textit{camphora}; in them it was of great importance to establish the functions of the skin and abdominal organs. Only two patients died, but they had been neglected, and the treatment too long deferred. The following means were found equally useful in this disease: \textit{acidum muriaticum}, in cases of great debility, with groaning and dryness of the mouth; \textit{arnica}, when the animal remains quiet, without consciousness, and with retention of urine; \textit{arsenicum} in watery diarrhœa; \textit{china}, \textit{argilla}, and \textit{sulphur}, when the food comes away undigested; \textit{hyoscyamus} and \textit{belladonna}, in cases where there exist great disturbance and a wild look; \textit{opium}, when the animal is stretched out as if dead, with small and intermittent pulse, hard fœces, or absolute constipation; \textit{stramonium}, when there are partial convulsions; \textit{veratrum}, in diarrhœa, as also in constipation, with cold extremities.
FUNGUS HÆMATODES.

This is a fungoid tumor growing from the orbit of the eye, which is of a medullary nature, although in horses it is a rare disease. There have been instances in human surgery of its commencing on almost every texture or surface. This disease is considered constitutional, hence the little success that has attended operations. The medicines that have been employed against this affection, are belladonna, calcarea, lycopodium, sepia, and silicea.

IN Voluntary ClosinG O F The Eye-Lids.

Hyoscyamus is the remedy to be employed in the spasmodic closing of the eye-lids, which is observed sometimes in cases of periodical ophthalmia; it is frequently met with, however, as an isolated symptom. Chamomilla has been useful in a case where hyoscyamus had produced no effect.

LACHRYMATION, OR WEEPING.

It is frequently caused by obstruction of the lachrymal duct, which will require an operation at times to remove it, and also the injection of tepid water through the canal. Ledum and pulsatilla are the means which have produced the best effects in this disease, which often becomes extremely disagreeable. In one case, in which the acridity of the tears caused the hair to fall off, great success has been obtained from some doses of acidum phosphoricum with sulphur, as consecutive treatment. Nux vomica has been found no less useful under circumstances where the weeping was accompanied with great sensibility to light, a little redness of the conjunctiva, and a collection of pus in the corner of the eye. Cantharis, causticum and euphrasia, medicines so valuable in affections of the eyes of every kind should not be neglected here; but
OPHTHALMIA.

those already mentioned suffice in most cases. Psorricum is useful, particularly when there is at the same time tumefaction of the eyelids. Agaricus muscarius has succeeded with wonderful readiness in a case where other means had produced no effect. The weeping is often an accessory symptom of a general disease of the eye, particularly of ophthalmia.

OPHTHALMIA.

Two species of inflammations of the eye are distinguished, the acute and the periodical. The latter affection is commonly called moon-blindness, because formerly, it was supposed that it owed its origin to the influence of the moon on the eyes.

1. Acute ophthalmia, like all acute diseases in general, is particularly occasioned by the noxious influences to which the animal may have been accidentally exposed, as heat followed by cold, too strong an impression of light, stable badly aired and full of acrid exhalations, &c. It sometimes accompanies a general morbid state, or it may be the consequence of bad quality of food. When the inflammation is not carried to an extreme degree, the eye communicates to the hand, when applied over it, a sensation of heat, the conjunctiva is more or less red, and the organ is sensible to the impression of light, which makes the animal keep his eyelids shut entirely, or in part. If force be used to separate them, they are found to be swollen, red on their inner surface, and the globe of the eye is observed to float in tears. When the inflammation is more severe, the eye at first appears dry and hot, but by degrees it becomes covered with a purulent mucus, with which the lids also are glued together; at length, scalding tears, mixed with an acrid mucus, are discharged; at the same time the transparent cornea is generally turbid and whitish, and the eye projects more or less out of its orbit.

Treatment. — First we give a dose of aconitum every
two or three hours. When once the inflammation has diminished perceptibly, which happens in general after the second day, if there still remain any lachrymation, any aversion to light, and a slight dimness of sight, we are to give belladonna. Finally, if after the latter medicine has been employed for some days consecu-
tively, at a single dose each day, the cornea has not yet recovered its healthy transparency, cannabis and euphrasia remove the last remains of the disease. Spigelia is suitable whenever the eyelids are simulta-
neously inflamed, and conium in those cases where the cornea seems as it were clouded. If the inflammation has been occasioned by any mechanical cause, blows, shocks, &c., we should commence with some doses of aconitum, then we employ externally, as a collyrium, the tincture of arnica diluted with water. If, after the employment of these means, there still remain a slight turbidness in the place where the blow immediately fell, conium is to be given, and if this remedy fails, cannabis and belladonna, alternated daily.

Cases by Schmager, taken from the Zooiasis of Lux. — A horse was affected with ophthalmia of both eyes, more severe on the left; the eye projecting very much out of the orbit, eyelids very much swollen and closed, intolerance of light, profuse lachrymation, cornea whitish and turbid. There was no mechanical lesion. I administered aconitum (eight drops, of the fifteenth dynamization), which I repeated every two hours for two days. The inflammatory state ceased; there only remained the intolerance of light, the lachrymation, and slight turbidness of the cornea. Belladonna diminished these symptoms very much; they entirely disappeared after some days. The cornea had not yet recovered all its transparency. Cannabis [eight drops of the fifteenth dynamization] restored it in a few days to its healthy state. I treated in this same way, and with equal success, forty cases of ophthalmia.

In the ophthalmia occasioned by a mechanical cause,
and of which I treated ten cases, I first prescribed *aconitum* as above, then *arnica*, in the dose of eight drops of the fifteenth dynamization. I also employed as a collyrium thirty drops of tincture of *arnica*, in a pint of water. Sometimes there remained in the place where the blow had been inflicted, a slight turbidness, which I treated with *cannabis* and *belladonna*, alternately, both in the dose of eight drops of the fifteenth dynamization.

2. *Periodical ophthalmia* breaks out usually on the coming out of the middle incisors, the posterior molars, and the tusks, consequently at the age of from three to five years; and when once the predisposition exists, it returns of itself, without any external cause, at periods more or less near to each other. Ordinarily it attacks but one eye; but the tumefaction of the lids, the aversion to light, and the lachrymation, are in general greater than in acute ophthalmia. It is also a rather constant symptom of periodical ophthalmia, that when the lids are separated, a greenish-yellow matter is seen to float at the bottom of the anterior chamber, which moves every time the animal shakes his head. The eye seems dull, and sinks by degrees, as if it became smaller; the cornea is of a milk-white color, or leaden, or bluish, and behind the pupil, which is much dilated, there is perceived a whitish body, when the disease has attained a high degree of development. This is the crystalline lens now become opaque. It is the commencement of cataract, the ordinary termination of the disease, when it shows itself for the first time after the sixth or seventh year, and especially when it has been treated allopathically, with purgatives, derivatives, sedatives, &c. The treatment of periodical ophthalmia is, in general, more difficult than that of acute ophthalmia, but it is not less certain, if called in at the first commencement of the disease, and before any alterations of structure has taken place. *Euphrasia* is the chief remedy, which
often effects a complete cure in the space of from eight to fifteen days. Hahnemann cured a horse of periodical ophthalmia with *natrum muriaticum*; others have obtained excellent results from *antimonium crudum* and *pulsatilla*. Hitherto I have had no opportunity of trying these remedies, nor of seeing them used. *Cannabis* and *pulsatilla* have been found useful in the treatment of commencing cataract. *Euphrasia*, both internally and externally, and *causticum* are no less important in this case. It is advisable, even after the cure, to give a dose of *sulphur* for some time every week. *Hepar sulphuris* has been found very effectual, in young horses, when with the inflammatory swelling there was mucous discharge. *Calcarea carbonica* and *lycopodium* are equally valuable remedies.

**SWELLING OF THE EYES.**

Prominence or projection of the eyes out of their orbits is a common consequence or accompaniment of ophthalmia. I have found *stramonium* useful in a case where there was a sort of periodical swelling of the eye-lids; I first prescribed a dose of *sulphur*. *Ignatia* and *chamomilla* are recommended in the treatment of swelling of the eyelids; the former in that of the upper lid, the second in that of the lower. *Sepia* and *sulphur* have also been found effectual in a great many cases. If there be lachrymation at the same time, *euphrasia* may be employed with advantage.

**PARALYSIS.**

Paralysis, owing to the derangement or abolition of the influence which the nerves exercise over the muscles, may depend on mechanical injuries, on severe cold, or on internal causes. The principal means required are: *aconitum*, *arsenicum*, *arnica*, *belladonna*, *bryonia*, *cocculus*, *calcarea carbonica*, *causticum*, *dulcamara*, *rhus toxicodendron*, *ruta* and *sulphur*. 
Case from the Zooiasis of Lux.—A horse which had been hitherto in good health, fell suddenly to the ground during the night. He was four years old. It was necessary to place him on a sledge in order to remove him from the stable, which was very small, into the barn. Stretched on the left side, he was unable to raise the head; the entire right side was paralyzed; the ear of this side hung immovable; the right pupil was also immovable, and larger than the left; the pulse a little more frequent than in the state of health; one half of the body cold, the other moderately warm, with dryness of the skin; the animal could neither eat nor drink. He was made to take a dose of nux, which produced no improvement; then, after twelve hours, rhus toxicodendron, which was also ineffectual; finally helleborus, (ten drops of the second dynamization). After two hours, the animal began to raise his head, sweat appeared on some parts of his body, and after five hours, he had an evacuation from the bowels. I had him well whisked and rubbed, which brought back the heat into the paralyzed side; he wished to take food, but his jaws could not separate from each other. On the next day, no change, except that the heat was diffused almost equally over the entire body. Helleborus was repeated, which brought on general perspiration, and the restoration of all the secretions. Every part recovered its mobility, and the animal tried to rise, but the legs of the affected side did not yet allow him. On the following day the improvement had made little progress: the animal had only a little more facility in eating and drinking. A new dose of helleborus, which produced no effect. Recourse was had to petroleum, which occasioned a profuse discharge of urine; the animal rose for the first time; it was the seventh day from the commencement of the attack; he did not walk as yet, for he so staggered that he could not have avoided falling. Three days after, he
was able to walk for whole hours. At the end of four days, a dose of *toxicodendron*, because some small tumors appeared here and there. Dating from this period, these disappeared, the legs gradually lost their stiffness, and on the twelfth day the animal was again put to work.

**PTERYGIUM.**

Pterygium is hypertrophy of the cellular tissue which unites the conjunctiva to the globe of the eye. It generally extends from the inner angle of the eye towards the transparent cornea. This disease is seen rather frequently, especially among cavalry horses, which are frequently exposed to receive clouds of dust driven along by the wind, or to make long journeys under a burning sun. Still, cases do sometimes occur where it comes on without our being able to assign any determinate cause, or in consequence of some internal chronic disease. *Conium* is the principal remedy. *Cannabis* also may be employed with advantage, as also *euphrasia* and *causticum*. Some doses of *sulphur* are also suitable by way of consecutive treatment. The means generally employed for pterygium have frequently the effect of destroying it; but usually they only alter the part, so as to render the treatment more mischievous than the disease itself. A method still more absurd, is that which consists in excising a portion of the haw, which occasions very acute pain to the animal, and destroys for ever an important part of the eye. We might possibly prevent the occurrence of the disease by washing the eyes with cold water after long journeys on dusty roads, taking care, however, to have recourse to this expedient only when the horses were somewhat cooled.

**SYNCOPE.**

After profuse nasal hemorrhages, after a wound which has occasioned heavy loss of blood, incom-
plete syncope sometimes supervenes; the horse, being very feeble, totters and trembles; he is covered with a cold sweat, and sinks down sometimes; but when stretched on the ground, he still moves his limbs, and soon revives. A dose of *china* here produces the best effects. When the same phenomenon comes on after excessive labor, which has been carried beyond the animal's strength, and he has received little or no nourishment, *pulsatilla* is effectual. However there are cases wherein complete syncope is observed in the horse, which after having tottered a little, falls to the ground deprived of consciousness as it were dead, remaining stretched without moving, without convulsions, with cold ears and feet. Under such circumstances *sepia* has been several times of great benefit. When on falling the horse becomes convulsed, this is an attack of *epilepsy.* — *See* the article *Epilepsy.*

**TETANUS.**

Tetanus is an extremely dangerous disease, observed more particularly in horses than in other domestic animals. It consists in a peculiar spasm of the muscles of the jaws, and often too of the entire body. The jaws are so completely closed, that one might break them rather than separate them one from the other. At the onset of the disease, which always commences with slight symptoms of colic and constipation, with moving of the tail, the animal feels some difficulty in opening the mouth; by degrees the ears become rigid, the eyes are widely opened and distorted, the neck is rigid and immovable; spasm soon seizes the entire body; the animal becomes rigid in every part; the muscles are hard, the respiration is hurried and loud, and the animal's body is covered with a cold sweat; his body, in fact, seems as if he was a wooden horse. No power can then succeed in opening the mouth; the nose forms a hard cone; the horse, almost incapable of making the least movement, re-
TETANUS.

mains standing, his legs very much separated, and at length dies between the eighth and tenth day. But the disease does not always commence with trismus of the jaws; it often begins with spasm of the muscles of the posterior region, which extends gradually to the anterior parts of the body, and which attains its extreme degree when the jaws are closed. The first case happens when during moist and cloudy weather, the animal has been wounded in a very sensitive part, more especially in the joints and in the foot. The second is observed, when the horse, otherwise predisposed, has been subjected to great cold after being very much heated. But there is no doubt that many other causes also contribute to produce this disease, which, for the most part, attacks well-bred horses, and which in general is not recognized, except when it has already made considerable progress. The efforts of allopathy have hitherto had but little success. Homœopathy has been more fortunate. Nux vomica has proved very efficacious. It is administered in repeated doses, at first several times a day, then every two or three days. If any rigidity remain in the limbs, arsenicum is prescribed, after which it is right almost always to recur to nux vomica. In some cases where the animal had not recovered appetite, benefit has been obtained from ipecacuanha. Belladonna, mercurius vivus, and veratrum have also been useful.

Case by Genzke, extracted from the Zooiasis of Lux.
—After running, a horse became so stiff during the night, that he could scarcely move a single step. On examining him I found him affected with tetanus; his neck was tense, and the legs, more especially the hind legs, very much separated; the back, on the middle of which a circumscribed, painful tumor was observed, formed a straight line; the tail hung a little to the right. The muscular parts, affected with tetanic contraction, were rigid and very hard to the touch, more especially those of the back, thighs and flanks, less so,
TETANUS.

however, than those of the legs and neck. If the animal was obliged to move, he did so with extraordinary rigidity, and if an attempt was made to trot him, perspiration soon manifested itself, with hurried respiration. At the same time there was redness of the nasal mucous membrane and of the conjunctiva; pulse a little full, but not very frequent; respiration painful and hurried with dilation of the nostrils; skin tense and dry; the animal rarely evacuated; the evacuations were small and dry. A favorable circumstance was that there was not yet a trismus of the jaws, or at least that it was not much marked, for the animal was still able to chew his hay without difficulty when cut, and to swallow it readily; he also retained a moderate appetite; he had run the day before in the midst of heavy rain, with a north-east wind.

As belladonna was often found a specific in similar spasmodic diseases in the human subject, I administered to the animal four drops of the twelfth dilution with sugar of milk. On the following day I observed no change in the morbid phenomena, and I gave a new dose of the sixth dilution. But no effect being even yet produced, I ascertained that a general tetanic state, in which the animal retains his consciousness and the use of all his senses, must be very uncommon in the human subject, and belladonna has proved effectual only in the case where the tetanus was accompanied with a total loss of consciousness. Nux vomica presented, on the contrary, the closest resemblance to the case in question, with respect to the tetanic spasms, at least if we may judge from different experiments made on animals; and, further, it corresponded still more with the other phenomena. I then gave five drops of it of the third dilution. On the afternoon of the same day, I observed short contractions in the flanks, similar to those which might be produced by galvanic shocks, a circumstance which appeared to me a good omen, by inducing me to hope a favorable reaction of
the vital force. Towards evening a mild and uniform perspiration took place over the entire body; it lasted however but a short time, and the animal became dry, whilst being rubbed. On the following day, the general state seemed improved; the respiration was not accompanied with such violent efforts; the muscles of the flanks and back were no longer so rigid, but the voluntary motion of the thighs was not yet effected without considerable difficulty; there had been a copious discharge of urine, of a pulverulent appearance, and frequent alvine evacuations. The same dose repeated. Two days after, considerable diminution of all the symptoms; relaxation of all the muscles which had been affected with spasm; the animal feels more facility in turning the neck and moving the legs, which now diverge less during standing; breathing almost natural; pulse full and regular; not more than forty-five per minute; appetite good. From this time up to three days after, during which period two doses more of nux vomica were administered, the improvement progressed with incredible rapidity, without the least relapse, so that at the end of six days the animal was perfectly cured.

VERTIGO.

By vertigo is meant a chronic disease of the horse, chiefly indicated by a disturbance of the sensitive faculties, occasioning derangement in the ordinary functions of life. Much that is incorrect has been written regarding the seat, properly so called, of the evil; at the present time most veterinary surgeons are agreed in seeking the proximate cause, not as formerly, in the brain, but in the abdominal organs, and in considering the cerebral affection as purely secondary. The vertigo often succeeds acute encephalitis, the intensity of which has diminished to a certain degree; but very frequently also it comes on without having been pre-
ceded by inflammation of the brain. It recognizes the same causes as the latter, insolation, confinement in hot and badly aired stables, cold, extreme fatigue, blows and injuries on the head, indigestion, unwholesome or too much food in proportion to the exercise taken. The fear of punishment, especially of the whip, occasionally gives rise to it in sensitive and irritable animals. Some horses have a hereditary predisposition to it, and mares are considered more subject to it than stallions. Further, it is scarcely ever observed except in hot weather, and as it is generally at the beginning of summer that it commences to appear, it goes away always in autumn, at least with respect to its chief symptoms. These are the following: the horse, a little before lively and active, begins all of a sudden to appear heavy and indolent; he is dejected, and prefers to keep himself in the darkest corner of the stable, eyes dull, look fixed and stupid, eyelids half shut, inattention to everything, forgetting even himself, and, as it were, asleep, the head hanging to the ground, and resting on the manger, or on the rack. His gait is heavy, slow, and unsteady: he raises the feet very high, and puts the entire sole to the ground, raising and letting down the limbs in a manner purely mechanical, and, as it were, unconsciously. He exhibits much awkwardness in turning, and cannot be pulled back except by depressing the head very much, and pushing it laterally. Generally, also, he leans on one side in walking. To maintain his equilibrium the better, he places the fore legs beneath the belly, and moves his ears in a peculiar manner, and backwards. According as the disease progresses, he becomes less and less sensible to external impressions. Mastication is performed slowly; he takes from time to time a mouthful of food, masticates it, swallows a portion of it, but keeps the remainder in his mouth. He prefers taking his food off the ground rather than in any other way, and when drinking, he plunges his head into the
water, even above his nostrils. During and after some rather violent movements, his state becomes much aggravated, and the signs of complete insensibility become more and more marked. The animal runs on quite blind till some obstacle stops him, or turns round, or remains tranquil, with his head depressed, and the legs crowded beneath the body, without being able to change this unusual attitude unless assisted to do so. There is never any fever: the pulse is often from ten to twelve pulsations slower than in the normal state. In the same way, also, the respiration is constantly slow, deep, and frequently of a sighing character. In almost all cases, the tongue is foul, and the mouth dry and clammy. With respect to treatment, the remedies which have succeeded best with me are: **chamomilla** (some doses), then **sulphur**, and **nux vomica**. In a particular case where, independently of the symptoms peculiar to vertigo, the conjunctiva, tongue and mouth were more yellow, the horse frequently flexed his fore-legs, seldom laid down, feces hard, and passed but little urine, I obtained benefit from the use of **nux vomica**, with **sulphur** as consecutive treatment. Others used **pulsatilla** in general: however, they also obtained good effects from **veratrum album** in many cases: **nux vomica** was employed when the horse inclined to the left, and **arnica** when he leaned to the right. Several horses have been cured by means of **belladonna**, and one which was considered as lost was saved by giving him **belladonna**, **hyoscyamus** and **nux vomica**. The utility of **digitalis** and **opium** has been verified in slight cases of vertigo, in which cases benefit has been derived from **arnica**. On one occasion **veratrum album** was prescribed during four days twice a day, and then **stramonium**, employed in the same manner; on the fifth day the animal was cured. It is always advisable to have recourse to **sulphur** as consecutive treatment.
ANGINA TRACHEALIS.

SECTION IV.

DISEASES OF THE HEART AND RESPIRATORY ORGANS, &c.

ANGINA TRACHEALIS.

Angina is a disease common, and at times dangerous to horses. It often kills by suffocation; in many cases also it degenerates into bronchitis or pneumonia, unless timely assistance is rendered. It is recognized by difficulty of respiration, which is loud, and occasionally heard at a distance; the animal frequently lets the head droop, stretching the neck, and evincing considerable uneasiness and pain when the larynx is pressed; the mucous membranes of the mouth and nose are intensely red; the nose is dry, and the mouth full of frothy saliva; the animal is, in severe cases, unable to swallow the food, even when soft, and the drink partly escapes through the nose. At the same time he is feverish, and the affection is almost always accompanied by a short dry cough, the tongue and breath are hot, and the eyes project more or less. Often also there is observed swelling of the tongue, and external tumefaction of the throat. Of this disease, to which horses are more subject in the autumnal months, the ordinary cause is the variation of temperature. In general it yields to one or two doses of aconitum, followed by lachesis, and when this medicine does not dispel all the symptoms, spongia marina tosta should be employed. If these means do not suffice, we should have recourse to hepar sulphuris, belladonna, phosphorus, mercurius and sulphur. Mercurius is also indicated especially if the glands of the neck are much swollen, with difficulty in opening the mouth; and a constant flow of saliva.
BEATINGS OF THE HEART.

This affection yields to bryonia. Lycopodium also may be employed, when it occurs during a state of rest, and graphitis when it comes on during motion. Aurum deserves particular recommendation. Aconitum also is a specific in many cases.

ACUTE BRONCHITIS.

Bronchitis frequently supervenes from the same causes that induce catarrh; at times, it comes on after wet and cold, or standing in draughts, and in many horses there appears to be a predisposition of the bronchial tubes to inflammatory action. In some epidemics the membrane lining the bronchial tubes is primarily, in others secondarily affected. The disease often follows severe cases of strangles. The symptoms differ very much in intensity in different subjects. There is generally a dull, heavy, and painful expression of countenance; partial loss of appetite; a cough, at times dry, but in the progress of the disease, especially when the animal is recovering, it becomes loose and rattling. The pulse is quick and soft. The character of the mucus differs also very much during the progress of the disease, both in color and consistence; if not checked, it often assumes a chronic form, and is then difficult to treat with success, and frequently induces thick wind and roaring. The medicines to be employed will, in a great measure, be regulated by the different stages of the disease; amongst the most useful, we shall find bryonia alba, aconite, belladonna, phosphorus, mercurius, canna-bis, spongia, &c. If the inflammation is high, we should commence the treatment by giving aconite, particularly when the pulse is high, and the skin hot and dry. Belladonna, when there is rattling of mucus, distressing cough, and oppression of the chest. Bry-onia, with dryness of the mouth and difficult respira-
tion; this remedy is more called for when it is apt to degenerate into pleurisy. *Phosphorus* is particularly indicated when there is reason to apprehend extension of the disease to the substance of the lungs. *Mercurius*, when the symptoms resemble catarrh, with swelling of the glands and an increase of saliva. *Sponiga*, when the affection threatens to become chronic, when the breathing is very difficult; *tartarus emeticus* may be given, and if the secretion is abundant, *sephia* will be found useful; also *arsenicum* is a valuable remedy when the disease assumes an epidemic form. It is also useful to administer a few doses of *sulphur* when the animal is to all appearance recovered. If the affection has been allowed to become chronic, the remedies most useful will be found to be *spongia, sulphur, calcarea, carbonica, phosphorus, causticum, silicea, arsenicum, conium, stannum, &c.*

**BROKEN WIND.**

The cause of broken wind is supposed to be interlobular emphysema. It sometimes affects horses that have had a severe cough existing for a long time, the cause of which was bronchitis; it has also succeeded a case of the former disease combined with pleurisy, and at times it succeeds roaring. Broken wind is not so much an essential disease as the consequence of some latent affection of the lungs, which depends either on organic lesions of the respiratory apparatus, or more especially after bronchitis or pleurisy badly treated, and emphysema, or dilatations of the air-cells of the lungs is produced. A broken-winded horse, even during rest, has his breathing more accelerated than the healthy horse, and it is accompanied with a visible jerking respiration and frequent weak cough; but this state becomes much more perceptible when the animal has been in motion, even for a very few minutes. In trotting more especially, the broken-winded horse exhibits
an accelerated and laborious breathing, his flanks beat violently, and the nostrils act with great rapidity. However short his movements may be continued, the respiration becomes loud, sibilous and stertorous; the animal loses breath, he is threatened with suffocation, particularly if he ascend a hill or draw a heavy burden, and it is not till after a considerable time he again becomes tranquil. He does not lie down willingly, and often stops, when drinking, to recover breath. In general his appetite is not deficient; still, after having eaten much, especially of hay, he is generally worse. For the most part he is meagre, and his hair is of a dull color, and erect. The disease increases under the influence of foggy weather and an abundance of food, consisting of hay and oats; fine weather and green fodder diminish it. Persons have succeeded in rendering it less perceptible by three doses of bryonia and one of squilla; after which, one dose of calcarea should be given. Arsenicum, and better still, nitrum, are in such cases capital remedies; the second is suitable more especially when undoubted traces of pulmonary tubercles are observed. In one case an attack of pneumonia came on, which yielded readily to some doses of aconitum, followed by a dose of bryonia. Aconitum and bryonia then deserve to be ranked among the remedies that may be tried for broken wind. I have employed pulsatilla in one case, and hyoscyamus in another. Digitalis purpurea, belladonna, tartarus emeticus, veratum album deserve a trial.

CATARRH.

This disease of the horse, which at times is produced by the suppression of perspiration caused by a draught of air, or standing a long time in the cold after having been ridden or driven fast, it often depends also on internal causes, and which is not wholly free from danger when it has attained a certain stage, consisting
in catarrhal fever, and which differs from strangles, with which it is frequently confounded, in its less duration, as well as in the absence of some symptoms which appertain exclusively to the latter. In its simplest form, the affection renders the horse slow and indolent; he snorts frequently; there runs from his nose a watery colorless fluid, which gradually becomes thicker, and at length is discharged in flakes. *Aconitum, opium, and sulphur* shorten the duration of the disease, which, when left to itself, runs through a stage of from nine to eleven days. When it is more severe, the horse is burning hot all over the body, and very restless, his breathing is very much hurried, he eats little, has constant thirst, and the discharge from the nose does not take place. We should here have recourse to *aconitum* and *belladonna*, after which *rhus toxicodendron* has been found very serviceable. If the breathing is difficult, and there is a frequent cough, *spongia, bryonia, and chamomilla* are indicated. When the brain is affected, and symptoms of stupor are observed, *opium, digitalis, and arnica* are to be administered. The difficult deglutition, with fits of suffocation, call for *aconitum* and *chamomilla*; one dose of *belladonna* then generally removes the other symptoms. This treatment generally brings on a very profuse mucous discharge, which may be kept up for some time by means of *spongia* and *bryonia.*

**COUGH.**

Cough is a common symptom in different diseases, for instance, in broken wind, strangles, pneumonia, bronchitis, &c. In such cases it disappears under the influence of the treatment suited to the general morbid state. But this does not always take place, and occasionally the cough continues after the principal disease

*Mercurius vivus, arsenicum album, and pulsatilla,* will be found the most useful in the first stages of catarrh.
COUGH — HEMOPTYSIS.

has been cured, and degenerates into a chronic state without any discoverable disease. When the cough is not complicated with any other affection of the lungs, the chief means to be adopted are the following: dulcamara, if it has supervened after a cold; squilla alternately with bryonia, if it require much effort, and cuts the respiration short; ammonium muriaticum, bryonia, and cuprum, when it is of long standing; belladonna and drosera, when it assumes the chronic character; hyoscyamus, when it returns with frequent short sounds; nux vomica, when it is dry, or when it returns every two days; pulsatilla, when it is dry, frequent, with loss of appetite and dryness of the alvine evacuations; chamomilla, if it is dry, with diarrhoea; cuprum, if it be of long standing and dry, and returns in a short cough, and causes the animal to lose his sprightliness and good condition; lycopodium, when the horse yawns before coughing or after; sulphur and spiritus sulphuratus, when the cough is hard, and more especially when obstinate; aconitum and arsenicum, when it comes on after the animal has drunk.

HEMOPHTYSIS.

In this disease, the horse discharges by the nose a certain quantity of bright red, frothy blood, the escape of which is accompanied with violent cough, difficulty of breathing, and great beating in the flanks. In general it is very dangerous, for it is always referable as a cause to some serious lesion of the substance of the lung, thereby rupturing some of the ramifications of the pulmonary artery, to a fall, wound, &c. If it come on after an external lesion, arnica should be given in repeated doses, then a dose of china. If it depend on a disease of the lungs, we should follow the course pointed out in the articles pneumonia and phthisis pulmonalis.
HYDROTHORAX.

Dropsy of the chest is developed in the same way as ascites, generally after pleuritis or pleuro-pneumonia, which has been badly treated. The fluid collected in the thoracic cavity is often in considerable quantity. The horse becomes dull and weak by degrees, with disinclination to move, during which he holds the head in one position. The respiration is difficult; at each inspiration a groan is heard. The fore-legs are separated considerably from each other, in order that the shoulders may not confine the chest. The mucous membranes of the mouth and nose are pale. The tongue is white, the urine clear and limpid, the alvine evacuations soft. The appetite becomes worse and worse, the extremities are cold, the hair erect, and different parts of the body become oedematous. If the lungs are at the same time affected, as is almost always the case, the animal remains standing up, the breath diffuses a bad odor, and in many cases a dark fetid discharge comes from the nose. The legs are very cold as far as the knees, as also the ears. The least motion occasions great pain. China and arsenicum alternately, are the chief means to be employed when the disease has not yet made too great progress, and especially when it has not immersed too large a portion of the lungs. Lycopodium also is useful, particularly when there is considerable oedema. If the disease has been preceded by inflammation of the lungs, besides arsenicum, nitrum and pulsatilla will be found serviceable.

INFLAMMATION.

Aconitum is the chief remedy for every species of inflammation, in the same manner as bryonia is in all cases of external and hot inflammatory tumors.
INFLAMMATION OF THE THROAT.

Mercurius vivus is an excellent remedy in this disease, where the animal refuses to eat in consequence of the acute pain caused by mastication; at least, it has succeeded with me in all cases. There are some cases where sulphur has been found useful as consecutive treatment, especially if it is become chronic; also hepar sulphuris, spongia, bryonia, &c., will at times be found useful.

INFLAMMATION OF THE PALATE.

This affection is often complicated with inflammation of the pharynx, so that the horse can neither eat nor drink. The best remedy for it is mercurius vivus, particularly when there is combined with it salivation more or less profuse. Belladonna and aurum have also been found useful.

PNEUMONIA.

Pneumonia, or inflammation of the parenchymatous substance of the lungs, is uncombined with inflammation of any other of the viscera contained within the thorax, a disease of rare occurrence in the horse, the minute ramification of the bronchi or the pleura, generally participating in the inflammatory action.

The causes are various; spring and autumn being the seasons that the disease prevails more than at any other period. Young horses, and horses that have been at pasture, appear to be more susceptible of it when first taken into the stable; variation of temperature appearing a prominent cause, and the heat of the stables generally predisposing the lungs to disease, as it renders them unable to bear the frequent cold winds of the season.

The causes of congestive pneumonia is over exertion, to which hunters, of all other horses, are the most
liable, from the severe exertion they at times undergo in a long run with hounds over a heavy country, particularly in the month of November, when their work has been insufficient. Inflammatory pneumonia is apt to succeed congestion, brought on by over exertion.

The symptoms of pneumonia commence generally with shivering, dulness, loss of appetite, staring coat, cold extremities, and a slight cough; pulse, slow and feeble. These symptoms are not of long duration, for they are quickly succeeded by heat of skin, quick pulse, anxious countenance, hurried respiration, injection of the visible mucous membranes, heat of mouth, &c. The aforesaid symptoms gradually increase, as the disease advances, and the pulse generally becomes oppressed, the extremities still cold. The terminations are: resolution, hepatization, gangrene, &c.

Treatment.—Aconite should be administered about every twenty minutes, ⅓ in about a dessert spoonful of water, or given out of a clean glass bottle in the first or inflammatory stage, when the fever is extreme; then phosphorus, as soon as the excessive febrile action has been allayed; and, should the breathing and fever not give way to the employment and occasional alteration of these remedies, we must have recourse to belladonna and tartarus emeticus, particularly the latter, if hepatization is thought to have begun. Should there be reason to apprehend pleuro-pneumonia, we should also employ bryonia alba. Rhus toxicodendron, sanguinarius canadense and tinctura sulphuris, are among the remedies most useful. Mercurius, arsenicum, arnica, montana, hepar sulphuris, chincona, digitalis, helleborus, veratrum album, sulphur, &c., may also be used under the several indications that require a change of remedies. Mercurius, in the reduced fever and frequent sweating; arnica, against hemoptysis; arsenicum, opium, and veratrum, against congestion, particularly if the disease appear in the form of an epidemic. And where serous effusion has taken place,
arsenicum, digitalis purpurea, and carbo vegetabilis, will be useful.

If we apprehend suppurative abscesses, hepar sulphuris, silicea, pulsatilla, sulphur, and calcarea, should be employed. If tubercles form phthisis pulmonalis, causticum, acidum nitricum, arsenicum, spongia, lachesis, carbo vegetabilis, phosphorus, and iodium, may be employed. We should also give injections of tepid water, and apply large flannel bandages around both the fore and hind legs. A loose box with good ventilation, when it can be procured, is also very desirable. As for diet, the animal will altogether refuse it; as soon as the appetite returns, mashes of bran and oatmeal, with steamed carrots, should be given, and a constant supply of soft water, cold, should be left in a pail in the box.

SECTION V.

DISEASES OF THE STOMACH AND INTESTINES, &c.

ABSENCE OF THIRST.

This affection takes place in different gastric diseases. It is always a symptom to be taken into consideration, because, generally speaking, it is an important symptom towards the proper selection of a remedy appropriate to the disease. Pulsatilla is useful in all affections of the abdomen, accompanied by absence of thirst. Sometimes this absence is only apparent, and is referrible to an inability to swallow water, the cause of which must then be sought for. Aconitum and mercurius vivus, will most frequently be found suitable.
DEPRAVED APPETITE.

Depraved, or morbid appetite, is sometimes caused by vermicular affections, or by some irritation in the intestinal canal, from which the animal endeavors to rid itself, by eating wood, leather, earth, and other such substances, with so much the more greediness, as its taste for ordinary food becomes more impaired. Turning up of the hair, debility, and emaciation, are the usual consequences of this chronic disease, which eventually causes the death of the animal. The chief remedies to be employed in its cure are, *pulsatilla* and *nux vomica*. *Sepia* is suitable when there is an extraordinary appetite; and *natrum muriaticum*, when ordinary food is refused. If there be great debility, *china* is employed; if from worms, *china*, *spigelia*, *furrum*, *mercurius*, *sabadilla*, *sulph.*, &c.

LOSS OF APPETITE.

When a horse who fed well hitherto, no longer eats his provender, but throws it about, and moves away from the rack, which always denotes loss of appetite, we must hasten to investigate the cause, because it is frequently owing to a morbid state, more or less serious. We may easily conceive that an animal laboring under an acute inflammatory affection, will not eat till he is cured; but the loss of appetite may be referrible to other causes, which it is not always easy to discover at once. Frequently there is inflammation of the tongue, gums, or throat, which prevents the animal from eating, however desirous he may be. In such cases, two doses of *mercurius vivus* never fail of proving effectual; and the horse returns to his food as soon as the pain which prevented him from eating is diminished. Sometimes the diminution of appetite recognises for its cause a morbid state of the stomach, induced either by the bad quality, or excessive quantity.
of the food: *arsenicum* is specific in the first of these two cases, and *antimonium crudum* in the second; if there is a diarrhoea, *pulsatilla* should be employed: and if the animal has colic, *chamomilla*. Lampas, difficult dentition, caries of the teeth, &c., are among the causes of loss of appetite: for the treatment of which, *vide* those articles. Loss of appetite depends often on the animal's being to much fatigued. Under such circumstances *nux vomica* and *cinchona* are no doubt the chief means which should be employed, especially, when the loss of appetite has appeared after the drinking of cold water, or when the animal refuses to eat after having worked long beyond the ordinary time without his food. Frequently too, the loss of appetite is occasioned by the food itself, which is either of bad quality, or different from that usually given; nor is the changing of the water given him for drinking without influence on the occasion. Disgust often has much to do in producing loss of appetite: a horse accustomed to cleanliness, loses appetite when he is removed to a dirty stable, when mouldy hay is given him, or when he finds mouse dirt, or other excrements in the manger. Lastly, loss of appetite is sometimes occasioned by the animal receiving too much provender at a time; by the excess of oats, which he may have got becoming soiled with the slaver from his mouth.

**ASCITES.**

Ascites consists in a collection of serum in the cavity of the abdomen; it differs thereby from anasarca, which supervenes also in other regions of the body, and where the subcutaneous cellular tissue is the seat of the accumulated fluid. It is discovered chiefly by the distension of the abdomen, and the fluctuation which is perceived, when after having applied one hand to the abdomen of the animal, the opposite side is percussed with the other hand; it is frequently a
symptom of hepatitis. Dyspnoea, great thirst, and scanty urine, are the principal symptoms. The distension of the abdominal parietes occasionally becomes very great, and in most cases there is also added to it general anasarca, more especially beneath the belly, in the chest, and the scrotum; sometimes the tumefaction attacks the entire body. The horse gradually loses strength, his aspect becomes heavy and dull, the appetite diminishes, and at length the state of exhaustion which follows terminates in death. This disease is not uncommon among horses. The remedies employed in this affection, and in the order in which they are here enumerated, are dulcamara, digitalis, helleborus niger, arsenicum, and china; to each some days should be allowed, in order to expend their action. It is on the china principally that reliance should be placed. In one case, where all means failed, benefit was derived from lycopodium, whose action may be said to be very powerful in internal dropsies. Ascites complicated with anasarca has been cured solely by alternate doses of china and arsenicum, a mode of proceeding which experience warrants me in recommending.

COLIC.

Colic, a disease common in the horse, is sometimes dangerous, in consequence of its rapid course, but generally yields very readily to homoeopathic remedies. The causes which produce it are very various; costiveness, and the influence of cold, grass produced from green forage, overloading of the stomach, and drinking cold water whilst heated, food of bad quality, flatulent and unusual, excessive toil, continued far beyond the time for feeding, being out during a violent storm, worms, &c. We even see horses to which a small portion of a certain kind of food never fails to give colic, though it may not injure others. Finally, we sometimes observe a species of chronic colic, con-
nected with some internal and deeply-seated disease, most frequently of a psoric nature.

Among the general symptoms of colic, the following are more especially characteristic. The animal refuses his food, he beats or paws the ground with his fore-feet, raises the hind feet towards his belly, frequently looks at his flanks, his tail frequently quivers, the feet are generally close together, and the animal frequently throws himself on the ground, rolls about or places himself on his back, presses his legs up to his body, remains for some time in this situation, and suddenly raises himself again; the symptoms of colic then return, sometimes in the midst of moans and groans, and in some cases with perspirations over the entire body. Under other circumstances, one of the flanks or belly is swollen, though occasionally the horse, especially at the onset of the attack, passes his urine and feces, which, notwithstanding the urgent desire he feels, he is not always able to do. Usually there are moments of relaxation, during which the animal remains standing or lying, and even eats some of his food; but the pains soon return with increased intensity. The longer it lasts the more the horse’s countenance bespeaks the acuteness of his sufferings; the nostrils are dilated, the respiration hurried, he grinds the teeth, bites the manger, shakes his halter, becomes furious, and dies in a cold sweat, often in a few hours, rarely after a struggle of several days.

The treatment is always to commence with a dose of *aconitum*, which is to be repeated once or twice, according to circumstances; this relieves the first violence of the attack, and occasionally, more especially in colic from cold, is sufficient to triumph over the disease. If this result has not been obtained at the end of a quarter of an hour after the third dose of *aconitum*, a dose of *arsenicum* should be given, the chief remedy in those colics, those especially termed flatulent, when they depend on disturbance of diges-
tion, on excess of food, or of bad quality, or on drinking too cold water. Very frequently the repetition of this remedy is of great use, whilst in other cases we shall find it best to alternate it with aconitum. If after the colic has ceased, constipation remain, nux vomica should be given, and in obstinate cases opium; after which, should it fail, which is no uncommon occurrence, we must have recourse to plumbum and alumina. Colic is rather frequently accompanied with retention of urine, or it has even been occasioned by it; cantharides are then indicated, and in obstinate cases hyoscyamus always succeeds.

After the means now pointed out, we must still recommend in the treatment of colic the following remedies: chamomile in colicky attacks with great swelling of the abdomen, more especially when the disease has supervened after foundering; colchicum in flatulent colic occasioned by green fodder or other food, also calcarea acetica: chamomile, alternately with aconitum, in spasmodic colic supervening after the application of cold; nux vomica, in colic from constipation, with a tympanitic state of the abdomen, sweating on the flanks; excrements in small lumps, brownish or covered with mucus, but more especially when in the intervals between the pains the horse yawns frequently; pulsatilla, in the colic occasioned by overloading the stomach, with fetid dejections and cold in the fore-legs; rhus toxicodendron, in the colic which depends on inflammation in the abdomen, when the animal looks often at his flanks.

Further, it will not suffice merely to administer the appropriate remedy: we must by all means prevent the horse from injury when throwing himself on the ground during the accessions of the pain, as this might produce ruptures, which would inevitably occasion death in a few hours. He should frequently be made to walk at a slow pace. Forced exercise is a practice much to be condemned.
COLIC FROM CONSTIPATION.

Colic from constipation is frequently produced either by unwholesome food, or by the impression of cold. In this disease the symptoms common to the different species of colic are carried to rather a high degree, and in a great number of cases, there is also added the tympanitic state of the abdomen. However we may consider as symptoms which characterize them, the efforts of the animal to free itself from the faecal matters, and the nature of those it happens to expel. As in general there is inflammation and disturbance of digestion, the first thing to be done is to administer aconitum (one or two doses) and arsenicum; also the use of injections of tepid water should not be lost sight of. After these means have in some degree calmed the first attack, if no dejections have as yet come on, nux vomica should be employed, when the dung is in small lumps, hard and compact; opium when it is blackish, and, as it were, burnt, with a black color of the tongue, the poor animal lying extended on the ground, as if he were dead; plumbum, in obstinate cases, when the rectum is empty, the animal remains a long time tranquil, and the attacks of colic not very acute, and longer intervals supervene between the attacks. We may recommend besides, arnica in the same cases as opium, but chiefly when there is uncertain support on the fore-legs, or heat in the hoofs; lycopodium, when in the state of rest, the animal lies on the left side; ammonium muriaticum, when after having remained for some time calm, it suddenly rises up coughing, and is again attacked immediately with colic; argilla, when the attacks of colic are dangerous and prolonged, and when there is reason to suspect inactivity of the intestinal canal, particularly of the rectum; muriate of magnesia, when the animal, on groaning, makes great and unavailing efforts; veratrum, when a cold sweat
breaks out during the accessions; *squill*, when there is paralysis of the hind-legs; *antimonium crudum*, when constipation alternates with diarrhoea. Sometimes *bryonia*, in a somewhat considerable dose, gives relief with certainty and promptitude.

**COLIC FROM COLD.**

This disease resembles, to a certain extent, windy colic, with respect to its symptoms; but it differs from it chiefly in this, that the abdomen of the animal is but slightly enlarged, or not at all so, and also that the accessions, instead of being continued, manifest themselves by spasmodic paroxysms. The animal frequently starts, then lies down, remains for some time without moving, rolls himself, raises himself suddenly, and places himself very frequently in the attitude of discharging his urine or faeces, but without being able to succeed. All at once a calm is reestablished, the pains cease for ten or fifteen minutes, they then return with an increased severity, and the horse is lost if relief be not brought very soon. *Aconitum*, in doses repeated every ten minutes, is possessed of an indisputable specific power, and it is seldom we are obliged to have recourse to *arsenicum*. When no more of disease remains except the strangury, which accompanies it, *cantharides* are given, and if they prove ineffectual, *hyoscyamus*. *Nux vomica*, *opium*, and *plumbum* are indicated when any constipation remains. *Colocynthis* and *lycopodium* are useful in such cases.

**FLATULENT, OR WINDY COLIC.**

Colic in general, and windy colic in particular, are among the diseases most frequently met with in horses. The symptoms are generally known; the horse ceases to eat, he scrapes with his feet, frequently looks at his flanks, carries his hind feet towards them, whisks the
tail, throws himself on the ground, brings up his legs close to his body, strives to roll himself, but soon stands up, and recommences the same series of movements; at first he dungs and passes urine; but in a short time he can no longer do so, notwithstanding all his efforts; the belly swells; the eye is open wide; the fixed look denotes the intense pain, the respiration is very much hurried, the nostrils are very widely dilated, and perspiration often inundates the entire body. Sometimes there are intervals without pain, during which the animal becomes calm, and strives even to eat; but the pain soon returns with increased severity; the feet and surface of the body become more and more cold; at length the animal dies in the midst of a cold sweat, and with all the symptoms of frenzy, usually at the end of from twelve to thirty-six hours; sometimes however in the short space of a few hours; the struggle seldom lasts long if relief is not obtained.

The occasional causes of the disease are somewhat numerous: most frequently it depends on overloading the stomach; or else it is the consequence of bad food, especially that which is damp, or green food, as clover, &c., which the animal has eaten greedily. A dose of aconitum, repeated if necessary, removes the inflammatory state, which is predominant in such cases, and frequently there is no necessity for anything else, as the disease will disappear in half an hour, especially when it has been brought on by cold. After aconitum, that which is most suitable is arsenicum, which almost always dissipates the entire symptoms with the utmost promptitude. Nux vomica and opium are, in general, infallible means for removing the obstinate constipation occasioned by windy colic, which disappears the moment this constipation ceases. However, this does not always happen; and in obstinate cases, plumbum has constantly been found useful; bryonia and colocynthis have also produced excellent
effects; *colchicum autumuale* has always succeeded in windy colic occasioned by green fodder or other green food; *pulsatilla* when the animal sweated very much and passed but very small thin stools; *nux vomica*, when the evacuations were small and covered with mucus. *Chamomilla* is also an important remedy in this disease, especially when it has come on after drawing a heavy load in a violent wind, or after rapid running. If the animal have a wild, fierce look, it is necessary then to give him a dose of *belladonna*, and then to return to the *chamomilla*. The capital remedy against all species of colic is *arsenicum*, to which we should always have recourse, after having administered a dose of *aconitum*. Frequently after the windy colic has yielded, there remains an obstinate retention of urine, which is relieved by a dose of *cantharides*, or, if this does not succeed, by *hyoscyamus*.

**COLIC (VERMINOUS.)**

Collections of worms in the intestines occasion sometimes symptoms which bear a great analogy to the attacks of colic, or perfectly resemble them; for the horse strikes with his tail, raises his hind feet towards the belly, throws himself on the ground, rolls himself, rises up, and then eats as usual. But we cannot consider it as certain that such attacks are owing to worms, unless we have had some other means of ascertaining the existence of these. A dry cough is a usual attendant, with an unthrifty looking coat, and, in general, shaking after drinking. The animal affected with worms often moves his tail to the right and left; he strives to rub his hind part, and particularly the end of the tail against different objects; he frequently licks the walls, and rubs his upper lip; he has continual rumbling in his bowels, and his dung, at first a little liquid, is generally very foetid. After *aconitum*, we should employ in such cases, *china*, *nux*
The most prominent causes of diarrhoea are long continuance on unwholesome food, brackish or mineral waters, undue purgation from different medicaments, verminous affections, and in some horses habituated to close hot stables, the change of temperature will induce it. Horses that are light-hearted and of a nervous disposition are the most susceptible to it; anything that irritates or inflames the stomach and intestines are likely to induce super-purgation.

Treatment. — If caused by worms, we must administer china, sulphur, and spigelia. The medicaments that are found most useful in the various kinds of diarrhoea areaconitum napellus, arsenicum album, bryonia, carbo vegetabilis, pulsatilla, colocynthis, mercurius, nux vomica, ipecacuanha, sulphur, &c. If there are feverish symptoms, and in warm weather, we administeraconitum; if the fæces smell offensive, with approaching putridity, arsenicum and carbo vegetabilis; if resulting from change of temperature, particularly from heat to cold, bryonia; in intermittent diarrhoea, china; if approaching dysentery, with violent pain,
enteritis

Inflammation of the intestines bears, with respect to its symptoms, a close resemblance to spasmodic colic, from which, however, it may be distinguished. In colic there is generally a remission of symptoms, and the pulse varies, being at times natural, at others small and fœble, then full and quick, whereas in enteritis it is hard and quick, and as the disease advances, the pulse still rises to double the number of beats, or even more, and there is no remission of pain, although it appears at times more severe, but the horse gradually gets worse unless speedy relief is obtained. The animal refuses to eat, but there is great thirst, and the respiration, which is accelerated, is accompanied with beating of the flanks. The eyes are red and starting, mouth hot, the extremities sometimes hot and sometimes cold. The animal has the back arched, frequently looks at the abdomen, which is tense and painful, he scrapes with his feet, rolls himself on the ground, starts up with a frightened air, stamps with the fore feet, strikes the abdomen with the hind feet, and is very sensitive to the slightest touch. At first he voids from time to time a small quantity of fœces; in a little time he passes nothing from the bowels. When the disease has lasted for some time, and an apparent calm comes on, during which time the animal’s legs and feet become deadly cold, the skin cold and clammy, the mouth cold, and the eyes, which were before depicted with anxiety, now become sunken, and the pulse imperceptible, it is a proof that the inflammation has degenerated into gangrene, and that death is not far off. Aconitum is one of the chief evacuations of slimy sanguinolent mucus, colocynthis, ipecacuanha and mercurius; nux vomica in nervous diarrhoea, and sulphur may be used in any stage of the disease.
remedies; a dose of it is to be administered every ten or fifteen minutes, until a perfect cure is established, or at least until a perceptible change for the better has taken place. In general, the animal is saved at the end of half an hour. If the continued employment of aconitum has not removed all the symptoms after from two to three hours, arsenicum should be given, which is more especially indicated when the disease has been produced by cold drinks taken when the animal has been sweating, or by some irregularity of regimen. Colocynthis, rhus toxicodendron and arnica have succeeded in other cases. Frequently, after the cure has been effected, some constipation remains, or a retention of urine; the former is to be treated by nux vomica and opium, the second by cantharides, and, in obstinate cases, by hyoscyamus. There are other remedies in some particular cases that should not be lost sight of, viz. : belladonna, bryonia, ipecacuanha, nux vomica, pulsatilla, veratrum album, &c.

FISTULA.

Fistulæ are ulcers which instead of instantly discharging the pus externally, sink down more or less into the living parts, and form sinuses therein, so as to attack the muscles, ligaments, and even the bones. The principal forms of these are: dental fistula, which is seated at the carious root of a tooth, and terminates almost always at the inferior edge of the lower jaw, seldom in that of the upper; the salivary fistula, which commences in the place where the canal passes over the edge of the jaw, and continually gives discharge to a considerable quantity of clear and limpid saliva; the venous fistula, which is common enough after venesection when badly performed, and which consequently is unknown to homœopathy; since aconitum serves in the hands of the homœopa-
thist to fulfil all the indications for which the old school employ blood-letting. *Fistula in ano* may be caused by mechanical injuries; *scrotal fistula*, the consequence of castration, when the epididymis has not been completely removed; *fistula in the withers*, of which we shall speak in another place. *Pulsatilla* is a principal remedy in all these species of fistulæ and fistulous ulcers. *Belladonna* for salivary fistula. *Silicea* also deserves to be recommended. For those cases in which *pulsatilla* does not suffice, see the articles Abscess and Suppuration. Also *antimonium crudum, calcarea carbonica, lycopodium, carbo vegetabilis, phosphorus* and *sulphur* will occasionally be found useful.

**FISTULA IN ANO.**

We must not confound fistulæ in ano with abscesses in the rectum, which result generally from an internal lesion, and which generally open into the intestine itself. They are very uncommon in the horse, and are observed only after surgical operations, that, for instance, on the tail, when the first incision has been made too near the anus. Two species are distinguished, the complete and incomplete. The former have two openings, one in the rectum, the other on the outside; those of the second species have but one, and terminate in a *cul de sac*, seated in the cellular tissue surrounding the anus. For the treatment see the article *Fistula*.

**GASTRITIS.**

This disease, which is rather uncommon in the horse, is dangerous by reason of the readiness with which it passes into gangrene. The animal affected with it is very restless; throws himself on the ground, then stands up, turns himself, scrapes and strikes with the fore-feet, frequently looks at his belly. As in
most inflammatory diseases, the pulse is hard and accelerated, respiration difficult, no appetite. The horse frequently looks as if he were yawning, or biting; his entire body is of a burning heat, the mouth dry and hot; if he be neglected, death takes place sometimes at the end of forty-eight hours; he most frequently dies delirious. The ordinary causes are an excess of food, more especially fresh clover, and exposure to cold. Neither is gastritis uncommon after the use of poisonous vegetables, the abuse of purgatives, &c. Aconitum (one dose); then arsenicum, and afterwards carbo vegetabilis are the chief remedies. Antimonium crudum, pulsatilla and ipecacuanha are also employed when the animal attempts to yawn and bite, stramonium when he feels uneasiness after drinking or eating; ipecacuanha, and an hour after, arsenicum, when he appears nauseated after having eaten.

**HERNIA.**

The horse is sometimes affected with abdominal hernia, occasioned by great efforts in drawing a heavy load, leaping a wide ditch, &c. Such efforts occasion through a lesion in the parietes of the abdomen the protrusion of a portion of intestine, which produces a subcutaneous tumor, soft and indolent. This tumor increases gradually when it is not attended to, or when the animal is made to continue at severe work. When at length the portion of the viscera which have protruded through the small opening become sufficiently compressed and squeezed by the latter, the hernia assumes the name of strangulated: the horse suffers very much; he evinces great distress, he no longer passes anything from his bowels, the swelling becomes inflamed, and almost always, when timely assistance is not rendered, gangrene supervenes, which quickly proves fatal. To cure an abdominal hernia without an external wound, we are to fix very
tightly in the swelling a plug made of tow, secured and kept on by means of a tight girt; this is to be left on for four or five days, the animal to be visited daily. *Arnica* is to be administered very often internally; the animal must be kept quiet, and all flatulent food to be carefully avoided. If the protruded portions of the intestine be considerable, they must be reduced previous to the application of the bandage, and should inflammation have already taken place, *aconitum* should be given several times. If a portion of the intestines, or epiploon have escaped through a large wound in the abdomen, the parts are to be washed in warm water, and after having dilated the wound, (the animal lying on the opposite side), they are to be replaced by compressing them alternately with the fingers of the two hands steeped in oil; the muscles and skin are then drawn over the part, and *arnica* is employed both internally and externally. Castration is the means to be employed to prevent inguinal and scrotal hernia in colts and stallions. Umbilical herniae are often seen in colts, which yield to the internal and external use of *sulphuric acid*. When these herniae occur in an adult horse, he is to be laid on his back, the hind quarters a little raised, the viscera are returned, and after having laid hold of the skin above the ruptured part, it is to be tied as close as possible to the body with shoemaker’s thread: the edges adhere gradually, and the portion of skin beyond the ligament eventually falls off.

**INDIGESTION.**

Great irregularity in regimen and exposure to cold is very frequently the cause of this affection, horses laboring under indigestion have a staring coat and an unhealthy appearance. Attacks of indigestion are particularly common in voracious animals, which are made to
work immediately after taking food. When the stomach alone is affected, we observe embarrassment in the breathing, and dislike to food. This is the case for employing antimonium crudem and coffea cruda. Ipecacuanha, which is to be followed by arsenicum at the end of about an hour, is also very useful. When the indigestion is carried to an extreme degree, the animal is found to be very restless, he holds the head down very much, keeps at a great distance from the manger, frequently strikes with his fore-feet, and almost always sweat is oozing from him; the alvine evacuations are dry and mixed with undigested oats. This state differs from colic in the animal not being anxious to lie down. The principal-remedies are: ipecacuanha, which is useful in almost all affections of the abdomen: nux vomica when there is loss of appetite, constipation, and the feces consist of small lumps; arsenicum in the case of watery stools unattended with pain: pulsatilla, if the digestions are liquid and fetid; antimonium crudum, in case large feculent lumps are voided, with aversion to food; chamomilla when there is diarrhoea, with swelling of the belly; rheum, if the horse passes soft feces without pain; dulcamara and nux vomica, if the indigestion has been the consequence of cold, and if the feces are hard and dry; bryonia, when an irregularity of regimen or cold gives rise to the constipation or diarrhoea with aversion to food. It is not uncommon, when shedding their coats, for delicate horses to fall into a state of debility, which extends even to the digestive organs, and prevents their eating with an appetite; a couple of doses of china, then a dose of nux vomica, never fail to dissipate this symptom; this should be followed by calcarea, silicea, and sulphur.
OVERLOADING OF THE STOMACH.

Overloading of the stomach, which may bring on gastritis, or other bad consequences, is not uncommon in horses to which too much corn has been given, or which have during the absence of their attendants slipped their head-collar and helped themselves. Coffea cruda is the best remedy in all cases. If too much delay has been made, it is to antimonium crudum we must have recourse. When there is constipation at the same time, nux vomica is indicated. Pulsatilla is the remedy to be administered when diarrhoea supervenes, a case in which arsenicum also is of great use, although the generality of horses will not take sufficient corn to injure themselves.

PERITONITIS.

Inflammation of the peritoneum is a disease of not very frequent occurrence, it is sometimes occasioned by cold, a fall, blows received on the abdomen, castration, &c.; but much more frequently it makes its appearance without our being able to assign any particular causes for it. Its symptoms are similar to those of enteritis. It produces an extreme degree of distress. At first the animal remains quiet; but after a little time the pain obliges him to throw himself on the ground, then to rise immediately: he constantly looks at his flanks, and strives to rub the abdomen with the hind feet. The ears and nose are cold, the belly is distended and the bowels costive, pulse quick and hard, redness of the inner surface of the eye-lids, and often also profuse sweats are the principal symptoms of this disease, which may bring on gangrene when the inflammation is not arrested in time. This end is obtained by aconitum, our chief remedy in all inflammatory affections: according to circumstances, one dose is administered every quarter of an hour,
every half hour, or every hour, until the pulse has again returned to the natural state, and the animal has become evidently more tranquil. Should not the frequency and hardness of the pulse abate under the employment of aconitum, we should alternate it with sulphur. We are seldom forced to have recourse to the other means, which are bryonia, nux vomica, arsenicum, &c., and when there is a discharge of blood from the bladder, cantharides should be employed. If the animal is seized immediately with great debility, and that its strength is seen to sink perceptibly, arsenicum is to be immediately given.

SECTION VI.

DISEASES OF THE URINARY ORGANS AND ORGANS OF GENERATION.

ABORTION.

Mares in foal are exposed to abort, when they are worked too hard, or when they are ridden without sufficient caution. Abortion is also occasionally the result of a fall, blow, etc. In the latter case arnica must be given at once, in order to prevent it, as also rhus toxicodendron, if there have been luxation, sprain, &c. If the signs of parturition be observed, pulsatilla, sabina and secale cornutum. If after the abortion the coming away of the after birth be delayed for more than three hours, we must administer first sabina, then secale cornutum. Should these means prove ineffectual, we must have recourse to manual interfe-
rence, and proceed to detach the placenta according to the rules of art.

**CALCULI (VESICAL).**

The presence of a calculus in the bladder can only be discovered by examining this viscus per rectum, which under such circumstances is often found to be enormously distended, so as frequently to burst. The symptoms are in general those which are met in cystitis. Frequent voiding of urine, occasioned by the irritation of the calculus, sometimes with great difficulty, at other times completely suppressed, the urine is in general thick and whitish, and on standing a short time deposits a sediment, at other times it is tinged with blood; the horse is at times attacked with spasms, and groans with pain, frequently hitting his sheath with his hind feet, &c. The inflammation requires the employment of *aconitum*, after which I have twice seen the calculi make their exit from the bladder. *Uva ursi* is then the medicine which contributes most effectually to prevent contraction of the urethra, and to favor the expulsion of the calculus. *Sarsaparilla* is the chief remedy when the symptoms assume a chronic form. I know not whether *uroli-thine*, which has been recently recommended, has ever been employed with advantage. *Aconite* and *cantharides* are also useful. When the stone is of a large size, or becomes partly insinuated into the urethra, recourse must be had to the operation of lithotomy.

**CYSTITIS.**

This disease closely resembles nephritis in its symptoms. The animal makes frequent and unavailing efforts to pass urine. He walks also with the hind legs a little more separated than usual, and clearly shows that motion causes him pain. Sometimes the
neck of the bladder is alone the seat of the disease; at other times the tunics or coats of the organ are principally affected, but whether the peritoneal, muscular or villous, participates most in the inflammation, is, in the living animal, difficult to decide, the external symptoms so much resembling each other; therefore, cystitis is considered here as general, it is frequently brought on by calculus, or by the active diuretics given, or the absorption of cantharides. The treatment should be commenced by two or three doses of aconitum, which should be administered within the space of an hour. If the violence of the disease has been perceptibly diminished thereby, without the animal, however, being yet able to pass his urine, a dose of cantharides almost always succeeds, excepting in a very few obstinate cases, when several hours relapse without passing urine, we are then obliged to have recourse to hyoscyamus. The following remedies should also be taken into account. If from the absorption of cantharides, with turbulent or bloody urine, camphor. If retention of urine, cannabis. When the neck is the principal seat of affection, with the emission of only a few drops of urine, digit. If it is sedimenterous, dulc.; also, nux vomica and sulphur.

DIFFICULT PARTURITION.

In general, when pregnant mares are not overworked, and are well cared, they bring forth without any great efforts, and seldom require the aid of man. However, cases occasionally present themselves, in which the mother's strength is not sufficient to bring forth the foal, and where we are obliged to have recourse to medicines or to manual interference, to prevent accidents of which the one or the other might become the victim. A long time elapses sometimes before the animal lies down, and evinces great restlessness before the effectual pains come on; chamo-
milla, pulsatilla and cannabis are then useful. If the pains are accompanied with convulsive movements, secale cornutum is administered, and when they cease altogether, pulsatilla and opium are given. When the after birth is slow in coming away, sabina is given, and if that does not suffice, secale cornutum. Platina and sepia, (the latter at first alone, and when it proves insufficient, alternately with the other) must be employed when the mare still continues to strain after the placenta has come away. If the milk is slow in appearing, it is necessary to have recourse to aconitum and chamomilla. Arnica is suitable when the animal has suffered much, and nux vomica when there remains a sort of paralysis of the loins. Inflammation of the womb yields to arnica and sabina employed alternately, and the febrile shiverings which come on after delivery are dissipated by aconitum and pulsatilla. Arnica is useful in case of inflammation and tumefaction of the umbilicus in the foal.

**DIABETES.**

This disease owes its origin to various causes, such as change of food, of water, the frequent use of medicines given as diuretics, &c. It may be temporary, arising from nervous excitement, or permanent, from existing a long time, and caused by an altered secretion from a long continuance of unwholesome food, or abuse of medicine.

*Diabetes mellitus,* or the sugary form of the disease, is sometimes, though rarely, met with in the horse.

The medicines most useful in this disease are conium, maculatum, natrum muriaticum, ledum palustre, phosphoric acid, baryta muriatica, sulphur and mercurius; at the same time especial care must be taken that the diet consists of wholesome food, with as much river or other good water as the animal will take ad libitum.
SWELLING OF THE GENITALS

Inflammation and swelling of the genitals, which frequently terminate in induration, are to be treated chiefly with rhus toxicodendron and sulphur. Belladonna also has answered perfectly well in most cases. Camphor was found useful in circumstances where the disease declared itself suddenly, with difficulty of voiding urine. Much good has been obtained from bryonia in the case of hot inflammatory swelling; of conium in case of simultaneous swelling of the scrotum; and of rhus toxicodendron, when the tumefaction was accompanied with frequent desire to pass urine.

GONORRHOEA.

This disease is seen generally in stallions and mares after sexual intercourse, and it is sometimes the consequence of an infection. In the stallion it presents itself under the appearance of swelling of the glans penis, ulcers in the penis, and swelling of the testicles and inguinal glands, symptoms to which are added after some time a discharge from the nose and tumefaction of the glands, as in glanders. In the mare there are found to be swelling and itching in the vulva and vagina, thus the formation of small vesicles, which are followed by corroding ulcers. The animals of both sexes, so affected, have a stiff walk, lose their sprightliness, and gradually waste away: death takes place with putrid fever, or, in rare cases, in apoplexy. Mercurius vivus generally cures the disease. If it be of long standing, we should add arsenicum, thuja, and nitri acidum, this disease appears in its symptoms truly venereal.

HÆMATURIA.

The discharge of pure blood by the urinary passages, that is to say of urine more or less mixed with blood,
is not unusual in horses: and in general it presents much less danger than in horned cattle. In general it takes place only in the case of renal or vesical calculus, in cystitis or nephritis when it has attained the highest degree of severity, or after a contusion or any other external lesion. The symptoms then resemble more or less those of attacks of colic: the horse is dull, lies down, but soon rises again, and from time to time he passes a small quantity of urine tinged with blood. When there is inflammation, *aconitum* is employed, and the remedies noticed in the articles *cystitis* and *nephritis*. However, if the disease depend on a contusion or on a blow received in the lumbar region, *arnica* is the remedy on which we may calculate most. When none of these causes exist, *ipecacuanha* is employed.

**INCONTINENCE OF URINE.**

*Pulsatilla* is the chief remedy for this disease, for the cure of which we may also employ *rhus toxicodendron* and *china*. If the urine is continually escaping, drop by drop, we employ *arnica, petroleum, pulsatilla* and *spigelia*. *Ferrum muriaticum* is indicated when there is at the same time excoriation of the urinary organs.

**NEPHRITIS.**

Horses are sometimes attacked with this disease, which is generally dangerous in an acute form, and is accompanied at least, in general, with very severe symptoms. It often comes on after external violence, more especially on the lumbar region: but under many circumstances it depends on an internal morbid disposition, and occasionally on the eating of noxious plants, and unwholesome diet; the constant use of diuretic medicine, also, if it does not actually produce this disease, predisposes the kidneys to take on inflammatory action from causes that would not have produced
it. The ordinary symptoms are a continued fever, pulse quick and hard, depression of the back, stiffness and straddling in walking, the indication of acute pains, when we lean on or press the back and loins, unavailing efforts to void urine, or else as long as the inflammation lasts, small quantities of turbid, pungent urine, which then becomes thick, and often bloody. *Aconitum* commences the treatment, especially when there is much fever; after which the principal remedy is *nitrum*; *nux vomica, cantharides, cocculus* and *phosphorus* serve as intercurrent remedies, else there is stiffness of the limbs. In the treatment of chronic nephritis, again *belladonna* is recommended, if the sight is affected and the look wild; *cannabis* when there is much restlessness without apparent inflammatory symptoms; *cannabis*, when the animal strikes, or frequently looks at his flank; *kepar sulphuris*, when the breathing is anxious during the desire to void the urine; *mercurius vivus*, if this desire is accompanied with sweat; *plumbum*, in case of absolute constipation; and *thuya*, which suits all the symptoms, but is particularly indicated when the legs swell.*

**NYMPHOMANIA.**

This affection generally appears at the commencement of spring; the animals affected become dull,

*We read in the* Journal des Haras, 1836, t. 17, a note of M. Mercier, Captain in the 10th regiment of Cuirassiers, stating that M. Leblanc, the veterinary surgeon of this corps, obtained, through homœopathy, the radical cure of eighteen glandered horses. *Aurum, pulsatilla, calcarea, bryonia, belladonna, aconitum, acidum phosphoricum*, were the means employed, in the third, sixth, ninth, fifteenth, and sometimes thirteenth dynamizations, in the dose of from two to three drops on powdered sugar of milk, administered in the morning, fasting, and placed on the horse’s tongue by means of a bone spatula. The doses were repeated every two days, until there was a marked aggravation, after the expiration of which the new dose was administered, if there was no improvement. It is only in the marked case of a perceptible amendment, that a longer interval was allowed to elapse between the doses, which were then administered only every eight or fifteen days.
PAIN OF KIDNEYS FROM PRESSURE.

Like all lesions occasioned by prolonged pressure, the affection of kidneys never fails to yield in a very short time to external treatment with arnica water, more especially when during this treatment the horse is no longer ridden. But even in cases where the affection is of very long standing, a few days are often sufficient to bring about a cure. Pulsatilla is an excellent remedy against contusions of the spine and withers; bryonia, when there is a hot and tense swelling in the ribs. When the tumors developed on the bone are not hot to the touch. When they have passed into the chronic state, conium almost always is of service.

RETENTION OF URINE.

We must carefully distinguish the retention of urine, in which the secretion afforded by the kidneys cannot be carried out, from the suppression of urine, which consists in a great diminution, or even a total suspension of this secretion. The suppression of urine frequently depends on an inflammation of the kidneys, or on some lesion of these organs occasioned by enormous doses of diuretics. It is easily recognized by the accompanying fever, by the posture of the animal, wherein he keeps his legs separated from
each other, and by the frequent efforts he makes to void urine, though the examination of the bladder by the rectum proves it to be empty. In the retention of urine, on the contrary, this same examination shows that the bladder is full, and that it is frequently distended to an enormous degree. The animal puts himself in posture very frequently, but passes no urine, or expels only some drops, and feels pains which compel him to utter frequent moans. When the disease does not yield in the space of forty-eight hours, the animal inevitably dies of rupture of the bladder. A dose of aconitum, followed by cantharides, is generally of service. If the animal does not void his urine then, hyoscyamus should be indicated. Lycopodium also is an important remedy. In the retention of urine we commence with a dose of aconitum: then, after fifteen or twenty minutes, cantharides should be given, and when this remedy produces no effect, at the end of an hour, hyoscyamus. Cannabis and petroselinum have also been recommended in this disease. Arnica, capsicum, colchicum, nux vomica and pulsatilla have on many occasions been found very useful. However, the first three medicines have been found sufficient in the great majority of cases. Urinary calculus is at times the occasion of retention of urine, it must then be treated accordingly, see Calculus.

SATYRIASIS.

The remedies to be employed in this disease are cantharides and platina.

INFLAMMATION OF THE SCROTUM.

This disease which frequently comes on after castration, is easily prevented by some doses of arnica, given during the first days after the operation. If, notwithstanding, the tumefaction appears, we should have recourse to sulphur, and in case of failure, to clematis
erecta. Great efforts to draw loads are frequently followed by considerable tumefaction of the testicles of the entire horse. Here we should employ conium. If the affection be brought on by contusion, friction, &c., arnica is employed, which should also be applied externally.

SPASM OF THE BLADDER.

This affection consists in a spasmodic contraction of the sphincter of the bladder, which renders the passing of the urine impossible. It is often observed after cold, when the horses pass the night out of the stable, or as a secondary symptom in colic; it has also been frequently observed after a day's hunting. The animal evinces great uneasiness; he is tormented as much almost as in fits of colic, scrapes, throws himself on the ground, stands up again after some minutes, and often strains to pass urine, but ineffectually. Occasionally the abdomen is swollen, and in the dissection of horses, the spleen is frequently found considerably enlarged, (hypertrophied,) sometimes it has been found to weigh upwards of fifteen pounds. There are also cases on record of rupture of the viscus; the symptoms resemble those of gripes, and has been mistaken for the latter by observant practitioners; the death of the animal generally takes place in eighteen or twenty hours after the symptoms are observed. On examining the rectum, we find that the bladder is very much distended. Aconitum and cantharides are then proper in most cases; however, hyoscyamus deserves the preference when the animal has passed the night out of the stable. Cannabis is an excellent remedy in case of strangury. Opium also produces very good results, especially when there are intervals of rest between the pains, the pulse being small and scarcely perceptible, the animal sad, and as it were asleep. It is stated that arnica has been found useful
in the case of heat in the hoof, and *pulsatilla* in that of cold in the extremities.

**Spermatorrhoea.**

This disease, which is occasionally met with in stallions, and which consists in a discharge of liquids similar to semen, weakens the animal very much, when not promptly relieved: he wastes away, loses his hair, and eventually is seized with hectic fever. *China, sepia* and *sulphur* are the principal means to be employed in such a case.

**Strangury, (Retention of Urine.)**

In this disease the animal feels acute pains when he wishes to pass urine. The urine, which he passes in small quantity, is sometimes clear, sometimes red, occasionally even bloody. The horse kicks, and seems disposed to lie down, but he seldom does so; he shakes the tail, experiences great restlessness in the hind quarters, and makes, with groans, ineffectual efforts to empty the bladder. If it is impossible for the animal to stale, we should employ the means pointed out in the article Spasm of the Bladder; if he succeed, we should give him *acidum phosphoricum*, *pulsatilla* and *nitrum*, when the urine is pale as water, and passes off only with acute pain; *staphysagria*, when it is reddish, and the flanks are tightly compressed; *ipecacuanha* in the case of bloody urine; *sulphur* in chronic hematuria; *acidum nitri*, when the urine is cold. Sometimes, though rarely, it will be necessary to have recourse to the operation of cutting into the perineum, so as to admit the introduction of a catheter into the bladder or thrusting a trocar through the rectum into the bladder.
SECTION VII.

DISEASES OF THE LIVER AND SPLEEN.

JAUNDICE.

This affection, which is not very common in horses, is recognized by the yellow color of the conjunctiva, inner surface of the lips, and the interior of the mouth. It is in the generality of cases symptomatic of acute or chronic hepatitis, is generally accompanied with fever; the serum of the blood and urine are of a yellow tinge. It is usually accompanied with great debility, the appetite fails, the evacuations have a yellow tinge, but are more frequently clay colored. The principal remedies to be employed are: aconite, china, nux vomica, mercurius vivus, sulphur, lycopodium, bryonia, belladonna, mercurius, &c. See hepatitis.

HEPATITIS.

Less usual among horses than in horned cattle, particularly in fatting, inflammation of the liver has a close resemblance to that of the spleen, which frequently causes these two diseases to be confounded. In hepatitis the animal is suddenly struck with great depression, he does not eat, drinks greedily, holds the head down, looks frequently at the right flank, which seems tense, and evinces great uneasiness when this part of the body is touched. He cannot remain lying down, and he limps with the off fore-leg, with which he also scrapes the ground frequently. He becomes constipated, his urine is yellowish, his pulse is hard and accelerated; respiration and deglutition are attended with
difficulty. Oftentimes, more especially when the disease has made considerable progress, the eye, mouth, nostrils and tongue are observed to be yellow; the hair is dull in color, and erect; gangrene comes on rapidly; ascites and other dropsical swelling frequently accompany this disease particularly in the latter stages. With proper treatment we succeed in curing acute hepatitis in from nine to eleven days; whilst chronic hepatitis often continues for entire months, and even longer. The treatment commences by some doses of aconitum, which is to be followed by nux vomica, alternately with mercurius vivus. When there are signs of jaundice, this is the case for employing chamomile and mercurius solubilis. If there be constipation, we are to give nux vomica and bryonia.

SPLENITIS.

Inflammation of the spleen which generally runs on to gangrene is very uncommon, and differs from most other acute inflammations, chiefly in the tongue being brownish or brown. The appetite fails entirely; the pulse is at first hard, full and tense, subsequently small, soft, and weak. The look is fixed, the head extended straight forward, and when the region of the spleen is touched, the animal evinces evident signs of pain: his head is frequently directed towards the part affected. A dose of aconitum every ten or fifteen minutes is sufficient to restore health, when it is employed at the very moment the disease appears. If there be deep respiration with disturbance and restlessness of the whole body, we must employ belladonna alternately with aconitum—nux vomica, also alternately with aconitum, when the horse frequently looks towards his flanks. When the brownish color of the tongue becomes deeper, arsenicum should be given as an intercurrent remedy. Pulsatilla, plumbum, mezereum and spigelia, have also been found useful. Lauroce-
rasus has succeeded almost instantaneously in an obstinate case where the pulse was small, the look fixed, the head directed upwards, and when the animal became insensible, excepting the affected part was touched; however, as the preceding means had been already employed, there remains some doubt, whether they may not have contributed their share in effecting this rapid cure.

SECTION VIII.

DISEASES OF THE MOUTH, &c.

APHTHÆ, OR THRUSH.

This disease of the mouth, more common in young horses, is not dangerous in itself, although frequently preventing the patient from eating. It has been caused by pressure and the use of a rusty bit, when small ulcers will be detected on examining the mouth. There are also observed on the parietes of the buccal cavity, and very often also on the tongue, inflamed patches, very red, and covered, some with small vesicles, and others with white crusts. These aphthae cause great pain, so that the animal allows the food to fall out of its mouth, even though it be of the softest kind, from inability to masticate. The gums are pale and devoid of color; in many cases ulcers and crusts are seen even on the lips and nose. The principal means here are, phosphoric acid, staphysagria, and mercurius solubilis, the last more especially when a fetid saliva flows from the mouth. The ulcers of the lips and nose are cured by one or two doses of arsenicum and sulphur.
CARBUNCLE ON THE TONGUE.

This disease, which is very uncommon in the horse, but is extremely contagious, takes place when in typhus the miasm is thrown on the tongue, so that this organ is covered with small vesicles full of a turbid fluid, or when there supervenes a small pimple surrounded by a bluish circle. The vesicles burst and fill the mouth with a fetid ichor, which corrodes the tongue to a considerable depth; the tumefaction of this latter organ goes on increasing; corroding ulcers are soon produced, and the organ becoming gangrenous, is detached in distinct portions; death generally supervenes at the end of from twenty to thirty hours. For the treatment see the article typhus.

Caries.

Caries is always a very serious disease, the cure of which is attended with great difficulties, especially when the aid of homœopathy is not invoked in proper time. Besides the swelling, which in most cases has preceded it, and which often accompanies it even when an external wound is produced, it is observed that for a considerable time the diseased part is very painful to the touch. The principal means are asafætida and silicea. Aurum (especially in caries in the head,) lachesis (in that of the legs,) acidum nitri, sepia, iodium and sulphur have also succeeded frequently.

FISTULA ON THE NOSE.

Fistulous ulcers in the nose, particularly in its lateral parts, are not uncommon in horses. Generally this dangerous disease is occasioned by a wound which has affected even the bones. This is the reason why, when, after a wound in the nose, if we do not prevent the development of this dangerous consequence, one which is always to be dreaded, by having instan-
taneous recourse to *arnica* and *symphytum*, the bones become the seat of a swelling of greater or less size, pierced by a small opening through which a sanious fluid is discharged; one of the remedies is *pulsatilla*, several doses of which are to be given, to each of which we are to allow six or eight days to expend its action.

**GLOSSITIS.**

The chief remedies for this disease, which is of rare occurrence in horses, are *aconitum* and *mercurius vivus*. *Acidum nitri* is recommended when the tongue is dry, *acidum sulphuricum* in very obstinate cases; *belladonna*, when there is swelling with redness; *arsenicum*, if the swelling appear painful; *carbo animalis*, *conium*, *lycopodium* and *silicea* in induration of the tongue.

**OTITIS.**

When the interior of the ear is attacked with inflammation, it gives rise to considerable swelling, which causes great pain to the horse; he holds his head inclined to the affected side, and tosses it frequently. *Aconitum* and *bryonia* internally, and *arnica* externally, are the means to which we should have recourse in such cases. *Hepar sulphuris* also has been recommended. When an abscess has been formed, we have recourse to *arsenicum*. *Pulsatilla*, *lycopodium*, *sepia*, *petroleum* and *silicea*, are useful in deep seated abscesses of the meatus auditorius.

**OZENA.**

*Mercurius vivus*, *aurum* and *mezereon* are very beneficial in the treatment of this affection. *Acidum phosphoricum* and *arsenicum* are equally suitable in erosions of the pituitary membrane; *squilla* in pustular inflammation of this membrane; *secale cornutum* when it has a bluish tint.
PAROTIDITIS.

By this term we designate inflammation of the large salivary gland, situate under the ear, along the posterior edge of the jaw. The tumor, which is of considerable extent, is hot, tense and painful on pressure; the animal eats and drinks with difficulty, and in some cases cannot feed at all; he has high fever; he holds the head stretched out in a right line, and inclines it a little to the healthy side. Aconitum, mercurius, sulphur and lycopodium are recommended. If the tumor from neglect pass into suppuration, a salivary fistula is often produced, which is difficult of cure; belladonna may then be employed.

SECTION IX.

FEVERS.

FEVER ATTENDED WITH CHILLINESS.

The cold fever announces itself by great depression, want of appetite, trembling of the skin, and occasionally also of the limbs, a staring coat, coldness of the ears, dryness of the tongue and the discharge of a small quantity of urine. It presents, moreover, the ordinary symptoms of febrile states in general, a hard and frequent pulse, a violent beating of the flanks, obstruction of the respiration, &c. The interval between two accessions has nothing regular or determinate, as in the intermittent fever of the human subject, and the duration of each also varies considerably. Generally
speaking, the accessions appear a little after the animal has drunk, and usually they manifest themselves by a remarkable sense of cold, which is succeeded by heat: however, it is not uncommon to see one or other of these symptoms wanting. The principal means to be employed are arsenicum and bryonia. The former is more especially suitable when the disease depends either on the animal having drunk cold water when he was heated, or on his having eaten too much, &c. It is indicated also when the accessions are renewed after the horse having drunk. Acidum nitri should be prescribed when the febrile shivering returns at the time when the horse goes out of a warm stable to pass into the open air. Ipecacuanha is recommended in cases where several horses are attacked simultaneously, and in a manner epizootically, with febrile shivering after having eaten.

INFLAMMATORY FEVER.

We give this name to the more or less high fever which accompanies almost all inflammations. The principal remedy for fever combined with internal inflammations is aconitum, and when it fails, mercurius vivus. Arnica is the most useful for traumatic fever associated with external inflammations. To be sure, the former does not always yield to aconitum alone; there is often required another medicine also to harmonize with the inflammatory state which exists in each particular case; for instance, belladonna in encephalitis, spongia in angina, bryonia in the peripneumony and pneumonia, arsenicum in enteritis, cantharides in cystitis and nephritis, &c.

FEVER ATTENDED WITH PUTRIDITY.

This disease, although of very infrequent occurrence in horses, causes great prostration of the vital forces; it is always the consequence of a full developed psora.
It is chiefly observed in horses which have lost much of their strength, which are debilitated by fatigue, by a deficiency, or the bad quality of their food, &c., more especially in time of war. The hair of an animal in this state begins to stare, some febrile shiverings come on, the pulse is accelerated, small, soft and very compressible; the pulsations of the heart are felt with considerable strength on the left side, and sometimes also on the right side of the chest. The horse is dejected and sad, he holds his head down, and gradually loses all appetite. The eye is dull, generally half shut and bleared, mouth hot and full of saliva, ears cold, tongue covered with a yellowish mucus. The respiration short, hurried and embarrassed, breath hot and fetid; fæces soft and very fetid; the animal frequently scrappes with his fore-feet, but never strikes with the hind feet; he lies down frequently, and at length no longer stands up. There gradually appear on different parts of the body, chiefly on the thighs, tumors containing a yellowish ichor. In certain cases the head is much swollen, the respiration difficult, as also deglutition, and a yellowish and fetid mucus flows from the nose and mouth. Prostration becomes more and more marked, and death occurs almost always when the legs swell. The disease is contagious, and consequently requires the most prompt separation and seclusion of the animal affected. At the onset of the putrid fever, ipecacuanha is administered, then at the end of one or two days arsenicum. When the disease is fully developed, the principal remedy to be employed is natrum muriaticum, which, in the time of an epidemic, it would be serviceable for healthy horses to take once or twice a week, as a preservative. If, notwithstanding a commencement of improvement, there still remains much debility, we have recourse to china, at the same time that we must employ thuja for the tumors which are suppurating. Sulphur, continued for a long
time (one dose per day,) then produces the best effects.

**TRAUMATIC FEVER.**

Traumatic fever arises sympathetically from local irritation; there appears much difference in horses as to nervous irritability, the slightest wound affecting some, and bringing on sympathetic fever, whilst others, on the contrary, appear but slightly affected, although the injury they received may have been very severe. *Arnica* is the principal remedy.

**TUBERCULOUS FEVER.**

This disease, which I have not yet observed in all its development, manifests itself in the following manner: the animal falls sick suddenly, and tubercles of greater or less size are seen to come out over his body, with defined edges, bearing considerable resemblance to nettle rash in the human subject, and which appear principally on the anterior part of the body. The horse trembles all over; he is sad, loses his appetite, his eyes are filled with tears, his mouth is hot, salivary secretion profuse. When the disease has existed for a certain time, the tubercles, if they do not disappear suddenly, become flattened and depressed, and often seem to make way for oedematous swellings, to which is added an enormous swelling of the legs. This disease is frequently dangerous. We should always employ in its treatment, first several successive doses of *aconitum*, which lessen very much the size of the tubercles, and removes almost entirely the inflammatory symptoms, when the animals recover their appetite and resume their ordinary sprightliness. After *aconitum*, *rhus toxico-dendron* is generally administered, two doses of which given in the space of twenty-four hours, almost invariably put a termination to the symptoms. When the affection is of long standing and the tubercles have
INFLUENZA, OR CATARRHAL FEVER.

This disease is generally predominant at the spring or fall of the year, but mostly prevails at the latter period; it has been attributed to prevalence in a particular season of north-easterly winds; some have thought it to have been occasioned by a miasm pervading a particular locality, brought on by the decomposition of vegetables. The symptoms are generally those of common fever, succeeded by catarrh, in its worst form, with extreme oppression and prostration of strength. When the disorder is ushered in by febrile symptoms, we should commence the treatment with arsenicum, more especially when the legs are at the same time attacked with an œdematous swelling. In a similar case, where the swelling was brought on by cold, but where the symptoms were not well marked, I have employed dulcamara with success. See the article VERMINOUS AFFECTIONS.

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STRANGLES.

Strangles is a disease which attacks young horses chiefly in spring and autumn; it is frequently observed after an exposure to heat or cold, under the influence of bad weather, or by the transition either from green pasture to dry food and stabling. The precursory symptoms are, dulness, perceptible weakness, which causes the animal to perspire on the slightest exertion, impaired appetite, redness of the pituitary membrane, lachrymation, and frequent dry cough. The disease commences usually with slight fever; an albuminous
fluid flows from the nostrils, of a clear and limpid quality, which becomes thick after some days, and takes on the appearance of thick mucus, like cream: the submaxillary glands become swollen, and are hot and very painful to the touch: the swelling fills very frequently all the hollow of the lower jaw, so as to interfere more or less with the respiration and deglutition. There is generally a copious flow of saliva from the mouth, the affection appearing at first, as regards the symptoms, very like catarrh. In this case the strangles are said to be mild. In general it gets well in eight or fifteen days, with or without the aid of art; the appetite returns, as well as his sprightliness; the nasal discharge ceases gradually, and the swelling is resolved, or suppurates. Some doses of dulcamara considerably diminish the duration of this mild form of strangles. But very frequently the strangles presents itself with a more marked inflammatory character. It is then called acute. The pulse is hard and full: the respiration hurried, difficult, and accompanied with a great heaving of the flanks; cough violent; tumefaction of the glands considerable and painful; the eyes secrete tears in abundance, and project almost always out of the orbits; the eye-lids are swollen; the mouth is hot and full of vicious slaver; nose dry, and its mucous membrane much inflamed; appetite gone; on the contrary, there is severe thirst; dung small and scanty, and the urine, during most of the time, suppressed. Here we are to prescribe above everything else, two doses of aconitum, then one dose of dulcamara every day. If there be salivation at the same time, mercurius vivus should be employed, and if the nasal discharge persist, one dose of arsenicum should be taken. In cases where the ordinary means produced no effect, opium in considerable doses has been found very appropriate. If simultaneously with the swelling of the glands of the eye, there be also tumefaction of other parts of the head, it is good to administer a
dose of belladonna, or when the swelling is oedematous, a dose of arsenicum. If after eight days the tumefaction has not diminished, some doses of hepar sulphuris (one every two hours) are prescribed, which soften it; after which it disappears of its own accord, or at least the tumor may be readily opened. It is good to keep the latter warm for some time by covering it with sheep-skin or flannel. It would be best to allow the animal to drink water with the chill off. Very often also we have to treat masked strangles, in which there is no discharge by the nose, but merely the respiration is short, hurried, and a little stertorous; in such a case we should employ some doses of belladonna and then arsenicum. When the strangles has lasted for a long time, has been neglected, when the horse has been exposed to cold, or badly cured, the glands form a spherical mass, which is hard and indolent; the nasal discharge assumes a bad color, it acquires a fetid odor, it becomes viscous and flocculent, it forms thick scabs at the edge of the nostrils; the pituitary membrane is pale, livid, and covered with small ulcers; the disease then obtains the name of malignant strangles just as we say false strangles or strangles driven in, when there is tumefaction of the belly, swelling of the limbs, &c. Malignant strangles are scarcely ever observed, except in very weak horses, exhausted in consequence of bad food or excessive fatigue, more especially those in which psora has attained a high degree of development. This is an obstinate disease, near akin to glanders, which is not easily distinguished from the latter, and which terminates frequently in glanders, properly so called, or in putrid fever. Here the medicines above mentioned no longer suffice. Hepar sulphuris (one dose every six hours) almost always produces the opening of the hard tumor which accompanies the disease. Belladonna and spiritus sulphuris have more than once brought about this result. If these means fail, we must then employ the baryta
carbonica, in repeated doses. *Pulsatilla* and *sulphur* are always very serviceable in counteracting nasal discharges of a bad character. *Sulphur* in frequently repeated doses (two or three per week) and, above all, *arsenicum* are the chief medicines to be employed, when the mucous membrane of the nose is inflamed and ulcerated. The fever which frequently accompanies strangles resembles what has been called cold fever; but it differs from it principally in the lesser intensity of the cold, and the great intensity of the heat which then supervenes. The dull appearance and erect state of the hair, the coldness of the ears, the disturbance of vision, and the albuminous character of the saliva, are the chief characters of this slight fever. When it accompanies swelling of the glands, the substances indicated for the treatment of strangles properly so called suffice to remove it, but it sometimes comes on without well marked symptoms of strangles: we should then have recourse to some doses of *aconitum*, and to one dose of *dulcamara*, or, if there be salivation, to *mercurius vivus*, which soon removes it. It is not rare to meet, in consequence of latent strangles, or merely from neglected strangles, a swelling of the salivary glands, often even of the parotids, which, when it is not very great, yields to *dulcamara*, sometimes even to *aurum* or *argentum*. When the swelling is still greater, *hepar sulphuris* is to be employed (three doses a day), or *spiritus sulphuratus*, or *belladonna*. *Baryta* has been found useful in certain obstinate cases. *Arsenicum* is indicated when after opening the tumor, round ulcers have remained with hard and everted edges.

**TYPHUS.**

Typhus is infinitely more uncommon in horses than in horned cattle and swine; however it is sometimes observed to occur during the heat of summer. The following is an account of the symptoms produced by
it; the disease is often ushered in by depression of spirits; then it is observed that the eyes become dull and fixed; the breathing is deeper than usual; the animal moans; the throat is hot; the tongue covered with a white coating; the ears cold, as also the feet; there is a loss of appetite, or great greediness, and grinding of the teeth; the breath is cold and fetid; a badly colored mucus flows from the nose; gurglings are heard in the abdomen; sometimes the hindlegs swell, or there comes on either on the belly, or on the fore part of the chest, slight swellings which enlarge or disappear with rapidity, an occurrence soon followed by death. There also appear on the inner part of the thighs, vesicles or pustules, which discharge a bloody serum: blood flows from the nose, always an alarming sign, for the horses soon fall down dead. The head is carried very low: the feet are crowded in beneath the belly, the hair is erect: heat alternates with cold, then a burning heat comes on; the skin trembles, a cold, clammy sweat appears; the eyes become red; the sense of hearing is diminished; the abdomen becomes tympanitic and tense. A clammy mucus collects in the corner of the eyes; brown, blackish, bloody mucous fluids flow from the nose, and a fetid ichor from the rectum. The tremblings of the skin and the symptoms go on increasing; there is frequently a swelling beneath the lower jaw, on the chest, on the legs, on the back and buttocks. The swelling of the head sometimes increases very much, and so much so as to render the animal deformed; mastication and deglutition are now impossible. The limbs are paralyzed, when the swelling attacks them. In some animals symptoms of encephalitis or vertigo are observed; they protrude the body forwards incessantly, rest their heads on the rack, stamp, or strike with their feet, or are constantly plunged into a state of stupor; and others evince signs of colic with constipation, they scrape with their feet, roll themselves,
are melancholy, and swell in various parts. Some experience much difficulty in breathing, and have a heavy and painful cough. The slightest pressure on the abdominal region is very painful to them, and increases the cough; they are unable to lie down; a deep furrow or gutter is observable along the false ribs at each inspiration: new eruptions and tumefactions come on; corroding ulcers form on the tongue. Among the predominant signs of typhus in horses there is noticed a reddish discharge from the nose, which has given to the disease the name of *acute glanders*. The pulse is small, weak and very much hurried, (from seventy to eighty). The blood is blackish, the veins are much swollen, and the pulsations of the heart are almost imperceptible. As death approaches, there is almost always observed a bloody discharge from the anus and a reddish discharge around the nostrils. The typhus follows a rapid or slow course. In the first case, where it terminates fatally, in twenty-four hours at most, the precursory signs are cold in the legs, chiefly in the fore-legs, coldness in the ears, and a somewhat staggering walk in the hind quarters; it commences with a violent trembling; the animal shivers, feels great distress, his breathing is rapid and difficult, he coughs, throws himself on the ground, and alternately remains quiet and sad, as if struck with stupor, or appears in his movements as a horse affected with vertigo, or evinces colicky pains accompanied with constipation, rolls himself and swells in different points. The reddish discharge from the nose is here a predominant symptom. Death takes place amid convulsions, often with distension of the neck. In the other case, where death, supervening amidst symptoms of the acute state, seldom delays more than seven days, the precursors more or less perceptible, are: deficiency of vital heat all over the body, chiefly in the extremities, dejection and sadness, slowness in eating, with grinding of the teeth, and deep breathing.
When the disease breaks out, some animals do not eat at all; others retain their appetite even to the last moment; they totter and tremble, amidst general febrile shivering and a burning heat, and the symptoms enumerated in the acute form are observed to appear. Generally in the slow form (never in the acute), there come on in different parts of the body, tumors or carbuncles, sometimes diffused and crepitating when the hand is pressed on them, sometimes circumscribed. These tumors, at first very small, are frequently developed with great rapidity; they are hard, cold, occasionally also lardaceous, spongy and hot. Their seat and number vary: however, there generally appears but one. When this tumor disappears, death takes place suddenly. Sometimes it opens of itself, and a reddish sanies escapes from it. The livid edges of the ulcer are hard and everted; the inner substance of the tumor is spongy, fibrous and lardaceous. Homoeopathy, when applied in time, frequently cures the disease with promptitude. The remedy employed for this purpose is arsenicum. When the precursory symptoms of typhus are observed, one or two doses are given, which in general suffice. If the disease is already developed, we should repeat the medicine every ten minutes or every quarter of an hour, until a perfect cure is established. Considerable benefit is obtained also from anthrax in very many cases.
SECTION X.

GENERALITIES.

ATROPHY.

Atrophy, or diminution in the size of the fleshy parts, depends chiefly on want of activity in the nerves and vessels of a part of the body occasioned by some morbid state of the system. The regions of the body where this wasting is most frequently observed are the shoulders, the flanks and the legs. In the treatment of this, *arnica*, *china*, *arsenicum*, *sulphur*, *rhus toxicodendron*, and *sepia* have been recommended.

EMACIATION.

Sometimes emaciation is the consequence of some internal disease, particularly chronic affections of the lungs or liver, and one of the constant symptoms of different morbid states; sometimes it constitutes a physiological rather than a pathological state; for very frequently the general emaciation, which may be often observed, is accompanied by no appreciable disturbance in the functions. When it depends on internal causes, which interfere with the function of nutrition, a general state of debility is at the same time seen to take place. The principal means to be employed in such cases are, *arsenicum*, *nux vomica*, *china*, when the debility is great; *pulsatilla*, (in that affection called hungry-evil); and when the state now lasts for some time, *tinctura sulphuris*, *magnesia*, *carbonica*, *petroleum*, *iodium*, *lycopodium* and *sulphur*. Compare the article *Phtisis Pulmonalis* or *Marasmus*, which must not be
confounded with emaciation. Emaciation is also observed as a local symptom of diminution of the nervous action: it is then called *atrophy*.

**BURSAL ENLARGEMENTS**

Are generally indolent swellings, which come on in the joints or tendinous sheaths of the legs. These tumors are situated on the lateral parts of the hock. That at the point of the hock is called capulet or capped hock; on the sides, so that by pressure on one side it increases the size of the other, it is then termed thoroughpin; the swelling on the interior and anterior part of the hock is called bog spavin, which frequently becomes enormously distended; those situate on the sides of the legs just above the fetlock are called windgalls; they secrete a fluid of a pale straw color, nearly like the white of an egg; when the distention has existed for some time, they are quite incurable. Generally speaking, these affections seldom cause lameness: but when the tumor becomes hard and much distended, it may occasion lameness, and render the animal unfit for service. In the very recent windgalls of the simple form, *arnica* and *rhus toxicodendron*, internally and externally, are the chief remedies. *Lycopodium* and *arsenicum* are also much recommended, and when the affection is of long standing, *indigo, kepar sulphuris* and *sepia*. The following remedies are recommended in the order in which I enumerate them; in the treatment of windgalls: *arnica, belladonna, pusatilla, thuja* and *ledum*. At times it is cured by means of *rhus toxicodendron*, which may be followed by *ledum* after some time.

**SWELLING AND OSSIFICATION OF THE BONES.**

The diseases of the bones, more especially their tumefaction, which are more common in the horse
than in other domestic animals, depend, for the most part, on some internal, deep seated affection, and are much more dangerous than those of the skin and of the fleshy parts, inasmuch as they generally involve caries, the cure of which is so difficult. The principal remedies to be employed are: *mercurius vivus*, *acidum phosphoricum*, *angustura* and *silicea*, but above all, *sulphur*, (in multiple doses,) then *carbo animalis*, and, in obstinate cases, *ammonium carbonicum*. The osseous tumors which result from external lesions are treated with *arnica*, or, still better, with *symphytum*, and in certain cases, also with *conium*. If the disease be of long standing, *sulphur*, as consecutive treatment, always yields the greatest benefits. If a swelling forms above the affected part, four doses of *hepar sulphuris* are sufficient to bring about an opening of the abscess in the space of twenty-four hours.

**CRIB BITING.**

The term is applied to the bad habit which some horses have whilst eating, or after having eaten, of biting the manger or any other solid body, and so making a peculiar sort of noise. The effect of this vicious habit is to wear out the anterior edges of the teeth, and induces flatulency. Besides this defect, there is another, in which the animal does not crib, but merely balances the head and body, first on one fore leg, then on the other. Crib biting is generally the consequence of a disease of the stomach, and indicates a disturbance of digestion. This accounts for the state of emaciation into which horses thus affected eventually fall. *Nux vomica* and *arsenicum* are the principal remedies to be employed. It has been remarked that young horses placed beside an old one affected in this way, are liable to contract this habit by imitation. In such cases it will almost always suffice to keep out of their way every object against which they could crib.
FARCY.

Farcy depends on the same causes as glanders, and like it, propagates itself by contagion, so that we may see in it a particular form of disease, which instead of attacking the internal parts, as is the case with glanders, attacks in preference the surface of the body, where it occasions the appearance of tubercles and ulcerations. There is a great number of round ulcers, or what is commonly termed farcy buds, which are developed on different parts of the body, at first generally on the interior of the thighs, along the course of the lymphatics. These pimples are at first very small, hard and indolent; by degrees they enlarge, become inflamed, open, and then form small round holes, from which there is discharged an ichorous pus, and from which escape shreds of brown flesh. The animal suffers very much; he loses appetite, and becomes emaciated; the hair falls off; the mucous membrane of the nose is pale and yellowish. Occasionally, the horse is attacked with glanders or putrid fever, and dies at the end of two, three or six months, and often sooner. The cure is to be attempted by the same means as that of glanders. Hippozeninum, arsenicum, sulphur, and asafoetida are the means to be employed.

In the 10th regiment of cuirassiers, dulcamara was found a specific by M. Leblanc, a French veterinary surgeon, who has cured with this medicine a great number of horses affected with farcy.

Case from the Zoiosis of Lux.—A Hungarian horse, six years old, covered all over with farcy, had been treated a long time after the allopathic manner with mercury, sulphur, antimony, &c., when it was at length determined to put him under homeopathic treatment. Appetite still good; eyes dull; viscous discharge in the inner angles of the eyes; small hard tumors beneath the lower jaw; yellowish discharge
from the nose; body entirely covered with tubercles and ulcers of a pale yellow or reddish color, whence escaped a fetid ichor, which matted the hairs. Six drops of the fifth dynamization of arsenicum were prescribed, and the animal was washed several times every day with cold water. At the end of six days the glands of the lower jaw were less hard, and instead of the putrid ichor the ulcers discharged healthy pus. Five days after, eight drops of the eighteenth dynamization of toxicodendron, because the improvement did not progress. This medicine produced no effect during five days allowed to declare its action. The arsenicum was then resumed, in the same dose as at first; thenceforward the condition of the animal went on improving every day. At the end of a month, almost all the ulcers were removed; the glands of the jaw were quite healthy, and all that remained on the skin were a few pimples, which yielded to several doses of hepar sulphuris.

FATIGUE.

After great fatigue, severe running, &c., there frequently come on in horses symptoms which are anything but insignificant, and frequently endanger the horse's life. One of the most usual consequences of excessive weariness is loss of appetite. The animal, when oats are presented to him, does not notice them, and at most eats only a little hay. Nux vomica tends to restore the appetite. We should have recourse to the same means when a horse, accustomed to slight work, does not lie down to rest after some additional labor has been exacted from him, but remains with his head down, and sleeps in the erect posture, without attempting to eat. If the animal have been driven beyond the ordinary time of his work, so that the symptoms seem attributable to voracious appetite, we should in such case have recourse to
aconitum and veratrum album, and when at each movement there is heard a plaintive moan, rhus toxicodendron should be administered. Cannabis is also a valuable remedy in cases of great fatigue. Opium is useful, when after being very much fatigued, the horse remains dull, with his head hanging, pulse slow and weak, the fatigue having occasioned some disturbance in his digestion. If, on the contrary, the pulse is quick and hard, and the animal is in a state of great excitement, aconitum should be given. Arnica is useful in case of palsy of the legs from excessive fatigue; rhus toxicodendron in swelling of the legs; arsenicum. when the legs are stiff. After fatigue from severe work, such as hunting, the animals when distressed should not be allowed too much food, on the contrary, but little, and that easy of digestion, such as bran and mash, with steamed carrots or turnips, and about two quarts of oats, soaked, mixed together, and some sweet hay, well shaken up and sprinkled with water; the drink should consist of boiled oatmeal and warm water, the digestive organs being from over exertion in a debilitated state.

The majority of hunters when excessively tired lose their appetite; thick gruel should then be administered to them in small quantities.

Forging.

Horses who are a little heavy in the head, neck or shoulders, or who have the buttocks too high with respect to the withers, or who, with a weak back have the lumbar region too long, often strike when trotting with the toe of the hind feet the shoes of the fore-feet, which exposes them to the danger of losing a shoe, and also of injuring themselves: they are said to forge. This is sometimes the fault of the rider, who, whilst quickening the horse's pace, lets free the head; the fore-legs then rise
somewhat too slowly, and are met by the hind legs before they are properly extended. We should employ the concave shoes in the fore-feet, and let the toes of the hind feet project over the shoes, the toes of which should be thin. The injuries which such a horse may inflict on himself require only the external application of *arnica* water.

**GLANDERS.**

Contagious in the highest degree, and hitherto declared incurable. Glanders is one of the diseases of the horse which is most dreaded. It is characterized by a discharge from the nose, and in general from a single nostril, of a purulent, grumous mucus, which adheres to the edges of the part, and forms there thick crusts of a yellowish green color. This discharge, occasionally green or bloody, emits like the breath an extremely fetid odor. It is accompanied by induration of the submaxillary glands. The eye of the same side sometimes discharges a viscid mucus, which collects in considerable quantity in the inner angle. The pituitary membrane is either pale or of a deep and bluish red color, with red points or striae, and traversed with ulcerations which secrete a bloody ichor, and bleed, however slightly touched. These ulcers, which may be considered as the most certain sign of glanders, owe their origin to small pustules full of serum, which burrow, corrode the surrounding parts, and sometimes form several distinct ulcerations, sometimes one single ulcer, extended and deep. Though this disgusting disease may spare the animal’s life for several months, it always terminates in death, destroying the bones of the nose, producing tubercles and ulcers in the lungs, swelling of the legs, and hectic fever. The chief remedy is *hippozenimum*, one or two doses every week. *Arsenicum*, (one dose each day), is a good remedy if the disease be not too far advanced. *Sulphur, arsenicum* and
Rabies.

lycopodium are useful in the treatment of cutaneous tubercles, which often precede the appearance of glands, of which however we must not consider them as a certain precursory sign. If, as frequently happens, there exist fancy pimples, arsenicum and asafoetida, alternately with arsenicum, yield great service, more especially when the pus is of bad quality.

HEMORRHAGE.

Hemorrhages are discharges of blood which take place from some part or other of the body, after the rupture or injury of a vessel. Those produced by external lesions are checked by compresses soaked in arnica or millefolium water. When a vessel of considerable size has been torn, we must secure it by ligature. In the partial division of an artery by accidental circumstances, the best way is to completely divide it, both ends will then contract, and in a little time the hemorrhage will cease. To prevent the supervention of traumatic fever, arnica is to be given, and china should also be given to combat the debility resulting from profuse loss of blood.

Rabies.

Rabies occasioned by the bite of a mad dog is one of the most formidable diseases which can affect the horse or other animals. Too often all our efforts are unavailing in preventing its rightful effects, and it is not one of the least services derived from homœopathy that it has in some cases cured both man and animals. The horse which has been bitten by a mad dog, whose tooth often scarcely grazes the skin, after some time appears sad, with the head down and the eyes closed, and evinces not the least appetite for food. The ears, mouth and legs are cold,
the hair bristled, and a slight shiver runs from time to time over the skin. Violent convulsions come on, a mucous discharge takes place from the mouth, the animal rolls himself along the ground, and stands up immediately, the pupil is very much dilated, the eye fixed, the look furious. At length, after much restlessness, the horse remains stretched along the ground, incessantly beating his legs and head, even to his death, which takes place on the sixth or seventh day, in the midst of frightful convulsions. The homeopathic treatment of this formidable disease is simple, and at times effectual. The wound is to be washed carefully, as soon as ever it can be done, and it is then to be covered with compresses soaked in water, to which there have been added some drops of extract of *belladonna*. From three to four drops of *belladonna* are then to be administered internally, and this dose to be repeated every eight days, for at least six weeks, constantly continuing the external treatment, until all trace of the wound has disappeared, which often happens from the second to the third day. To Hering we are indebted for a remedy which acts with still greater promptitude and with no less certainty. This is *hydrophobine*, one dose of which is to be given every two days, to be continued for eight or fifteen days. When a mad dog has rushed into the midst of a number of horses or colts, several of which he has bitten, without its being known precisely which, a thing which is often impossible to discover, the entire number must be subjected to the treatment now mentioned.

**RHEUMATISM.**

Rheumatic pains in the limbs are indicated chiefly by attacks of sudden lameness, which affect one part or other, and which sometimes supervene during a state of repose, and yield to motion, at times they break out of a sudden during motion and disappear in
the state of rest. *Acidum nitri*, *nux vomica* and *sulphur* are the means to be employed. Frequently the rheumatism commences by febrile shivering, which is succeeded by general and prolonged heat; he moves with difficulty, and keeps his feet crowded beneath his abdomen: the hoofs are then usually hot and painful. Some doses of *aconitum*, followed by one or other of the medicines recommended in the article *Founder*, must be prescribed in such cases. It happens sometimes that notwithstanding the employment of the appropriate remedies, the disease does not abate: then rather strong doses of *bryonia* are to be administered, (six to eight drops of the fourth dynamization,) followed by *rhus* and *sulphur*.

**SUPPURATION.**

Pus is indisputably the best topical application: elaborated by the vital force in the wound, it serves chiefly to disintegrate the particles which have been contused or otherwise injured, to effect the elimination of foreign bodies, such as splinters, &c., and to dispose the edges of the wound to unite by means of fleshy granulations. It is a great mistake then to wish to remove it; it diminishes of itself according as the granulations have acquired sufficient consistence to form the tissue of a cicatrix. No doubt to fulfil its destination, it has need to be of good quality. The case where its characters are not such as they should be is the only one wherein art should interfere, as well to facilitate the cure of the wound itself as to secure and preserve the adjoining parts. The means to which we are then to have recourse are: *arnica*, internally and externally, in wounds, &c., of every kind: *mercurius vivus* and *asafoetida*, in ulcers which secrete a liquid and fetid pus; *arsenicum*, in such as have hard and everted edges, with pain, inflammation and pus of bad odor; *chamomilla*, *sepia*
and *arsenicum*, when granulations grow up too luxuriant; *silicea*, when the pus is thick and of bad color; *acidum phosphoricum*, when after a wound, the skin contracts adhesion to the bone.

**WILD LOOK.**

Wildness of look is a symptom occurring in different diseases, and one which merits serious attention every time it is carried to an extreme degree. *Bella-donna*, *opium*, *stramonium*, and *arsenicum* are then indicated, under the head of intercurrent remedies, which are to associate with those required by the general state of the animal affected.

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**SECTION XI.**

**DISEASES OF THE FEET.**

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**BRUISE OF THE SOLE.**

When a horse has lost one of his shoes, and he continues to walk on a hard and dry road, the sole becomes bruised and painful, which makes him limp more or less. This injury readily yields to a few doses of *arnica* internally, but a poultice must be prepared, of boiling water and bran, first mixing some tincture of *arnica* in the water, and let it be put in a leather boot, in which the affected foot should be placed; and when the sole is very painful, so that the animal is afraid to put his foot to the ground, benefit may be derived from *arsenicum* and *acidum phosphoricum*. *Rhus toxicodendron* is indicated if lameness supervenes. Lux has employed *belladonna* when the
foot was wounded in the shoeing: it is unnecessary to say that the latter must, in this case, be changed.

**CONTRACTION OF THE HOOF.**

A deformity of the hoof, which consists in a narrowing of the heels, and causes compression of the sensible parts, more particularly of the heels and sensible frogs: it generally produces lameness, and is frequently attendant on disease of the navicular joint. The causes are numerous; the principal ones are: a want of sufficient moisture and pressure, too long standing in the stable, rapid travelling on the hard roads, when the feet become heated from the pressure occasioned by the weight of the animal being thrown on the laminae, the sensible frogs, the inferior and lateral cartilages, &c. This frequently, in summer, is the cause of laminitis; and three cases of this latter disease took place whilst the animals were worked, when under the influence of cathartic medicine, which had been administered by the attendants in mistake for other balls, proving the sympathy existing between the feet and the stomach, or intestines, when a pre-disposing cause was also operating, namely—the feverish state of the feet. The hoof should be kept moist by means of a cloth, cut out to the proper shape, and tied round the pastern with a piece of tape; it should frequently be saturated with cold water, in which some tincture of *rhus toxicodendron* has been mixed; the quarters should be rasped thin, and cut down, so as to give the frog a bearing on the ground when the shoe is off. The seat of the shoe should be levelled outwards, giving the quarters a tendency to expand. The feet should always be stuffed with a pad of tow, dipped in water, which tow will last for months, if taken out when the horse is required for use. It forms a clean and good method of stopping for general use, there being always a degree of pressure; and if the feet are hot, it should be taken out, wetted, and re-
placed two or three times a day. It will easily be kept in by splitting a thin piece of cane, and putting it across the sole of the foot, under each side of the shoe. A mixture of seal-oil and tar renders the hoof tough, and prevents the brittleness that lack of moisture is at times apt to occasion.

**FOUNDER.**

Founder, which consists in an inflammation of the tendons, muscles, articular ligaments, and even of the extremities of the bones, and of the laminae of the foot, ordinarily attacks the fore-feet; rarely, and only in the severest cases, the hind-feet are affected. It is observed particularly in horses that have been fed on indigestible and heating food, particularly when they do not take sufficient exercise. Another cause is excessive fatigue, and sudden exposures to cold. It frequently supervenes on hard riding, or driving; and more especially if the horse has had a purgative administered, from which cause I recollect three well-marked cases; it is, at times, not the primary, but the secondary affection by metastasis, of inflammation of some vital organ—particularly the lungs and intestines. There are also accounts where it has supervened from the stress on the laminae of the feet of horses, having stood on board a ship during long voyages. Founder is generally accompanied with fever; the animal is melancholy, he refuses to eat, is stiff in his movements, frequently he cannot raise his limbs without evincing acute pain, he trails his feet along with considerable difficulty, so that one cannot readily make him go forwards, whilst it is still more difficult to back him. In the stable, horses so affected approximate the four feet to each other, and there is no little difficulty in making them relinquish this attitude. The treatment varies with the cause.

1. *Founder by sudden exposure to cold.*—Aconitum, when there is paralysis, with inflammatory symptoms;
arsenicum, when febrile shiverings come on after the animal has taken cold drink; bryonia, a capital remedy in all affections occasioned by cold, and one that is specific in paralysis of the legs, provided it be employed in time; veratrum, in cold after violent exercise; staphysagria, when, independently of the other symptoms, there is a trembling of the body, and the feet rise alternately; conium, in paralysis of the knees; rhus toxicodendron, when there are severe pains in the feet; arsenicum, when the sole is painful; aconitum, (alternately with nux vomica), petroleum, and thuja, when the affection is of long standing.

2. Founder by excess of fatigue.—Aconitum, if the horse stops quite short, makes deep inspirations, has his breath hot, and pulse accelerated; opium, when he holds the head low, and the legs widely separated, and the pulse is weak; coffea cruda, in the same case, if opium has failed; rhus toxicodendron, an excellent remedy when the feet are painful; arnica, in rigidity of the legs, with inflammation of the sensitive part of the feet; nux vomica, when the abdomen is squeezed up, and the animal refuses to eat; china, when the feet are cold. If a little delay has been made, and inflammation of the foot has already taken place, and in consequence a violent fever, some doses of aconitum are to be administered without delay, which should be followed by rhus toxicodendron, and the hoofs are to be enveloped in cloths soaked in arnica water.

3. Founder from excess of food.—Aconitum is the remedy for this. If signs of inflammation are observed, a dose of aconitum is immediately prescribed, and after some hours, arsenicum is to be employed. Arnica may be administered in case of rigidity of the limbs, and inflammation of the feet; bryonia, in doses frequently repeated in hydarthrus; nux vomica, when there is paralysis, abdomen tucked up, and an aversion to food. The symptoms sometimes warrant us in
having recourse to the means indicated in the preceding paragraphs.

In chronic founder, some doses of sulphur must be prescribed: the remedies indicated by the exciting cause, will then act better and more expeditiously. When the disease has been wholly neglected, and alteration of structure has already supervened in the feet, we can scarcely any longer reckon on a favorable issue; however, even then we have often seen arsenicum, arnica, and petroleum, produce a perceptible improvement.

Further, as it is not uncommon for different inflammations to break forth after founder, consult the articles Inflammation, Inflammatory Fever, &c.

Case by Genzke, taken from the Zooiasis of Lux.—A horse who had fed well in the morning, and afterwards appeared very lively among the other horses, began, towards eleven o'clock, to become very stiff, after having had a violent shivering. When brought back to the stable he refused to eat, and evinced a feeling of great pain in the feet. I found him with his head depressed, alternately raising the two fore-feet, which he laid down softly to the ground; the hind-legs were brought under the abdomen, to diminish the weight of the body on the fore-feet—a circumstance which proved that the pains were seated chiefly in the latter. Slight pressure on the coronet was painful, and the animal could not bear one of the feet to be raised for a short time, because the pain then became increased in the other. The hoofs were hot, especially at the toe; pulse hard and full, though little accelerated; eyes projecting a little; conjunctiva very red, as well as the mucous membrane of the nose; respiration hurried, with the nostrils widely dilated, and laborious movements of the abdominal muscles; breath hot; the animal had but one alvine evacuation, and what he then passed consisted of hard, dark-colored lumps; the urine voided, at the same time,
was of a deep brown tint. The appetite was considerably diminished; the animal did not touch the corn, he merely took a few bits of hay; he readily drank some warm bran and water, which I had placed before him; if he was forced to move, he did so with a groan, and carefully avoiding to rest on his toes. As the most important symptoms were to be found among the primary effects of *aconitum*, I administered four drops of the first dilution mixed with flour; I forbade the use of oats, and prescribed warm bran-water. Since evening, there was some improvement; the respiration was less hurried, and his look was improved; he took his hay with a little more appetite; but the pains in the feet did not seem to have diminished. I made him take a second dose. The next day the breathing was almost natural; more redness in the conjunctiva; the animal had had several evacuations from the bowels, and ate, during the night, all the hay in the manger; the pains were much diminished, and his movements freer. I ordered a little food to be given him, which he took greedily. On going away, I left two more doses of *aconite*. The third day I ascertained that the animal was quite recovered; he had a dry cough, but this yielded in a few days to a dose of *nux vomica*.

**SAND-CRACK.**

This term is applied to fissures in the hoof in the direction of its fibres, when it is dry and fragile. Horses that are most subject to sand-crack are those with thin hoofs, and where they are kept a long time standing in a dry hot stable, where moisture is seldom applied to the hoof; others there are that the secretion of horn is insufficient; the inner quarter of the fore and the toe of the hind feet are the parts most liable to sand-crack; it is necessary to use the firing iron at the top and bottom of the crack to prevent the exten-
TION, then place a strap round the hoof, having made some adhesive plaster to be laid on lint and strapped over the crack to prevent the insinuation of dirt. Oftentimes the crack is but superficial, and does not extend to the sensible parts; in other cases, it penetrates more deeply and causes considerable lameness. The means most recommended are: arnica, phosphorus, sepia, silicea, squilla, and sulphur.

**THRUSH.**

This disease is frequently met with in horses where proper attention and cleanliness are not observed, or those lying on dirty moist litters, and also horses that have contracted feet. It consists in the oozing of an ichorous, extremely fetid discharge through the cleft of the frog, sometimes accompanied with deformity of the latter and inducing lameness, by being bruised on stones, &c. *Spiritus sulphuratus* is useful in this affection; but we must not neglect to keep the horse in a dry place, and to attend to the cleanliness of the foot. *Acidum phorphoricum* has been used with success. *Lachesis* and creosote are also useful remedies.

**WOUNDS OF THE FOOT.**

As soon as a nail, a shell, thorn, splinter, &c., has penetrated the sole of a horse's foot, and the foreign body remains therein, the immediate consequence is that the injured part becomes inflamed, and by degree passes into suppuration, a circumstance which will cause the animal to limp very much. There is often some difficulty in discovering the matter, because the hoof sometimes contracts and closes over the foreign body, so as completely to conceal it. The first thing to be done when the seat of lameness is discovered, is to freely use the drawing knife, and cut the horn away from the injured parts so as to completely
evacuate the pus, should it have gone on to suppuration; and fomentations of arnica water are to be applied. It is necessary also to prescribe some doses of arnica internally. If there exist acute inflammation, aconitum and squilla are found useful, just as acidum phosphoricum and arsenicum are in the case of acute pain. When suppuration has commenced, mercurius or kepar sulphuris should be used; carbo vegetabilis, calcarea, and silicea are also useful remedies. If the wound has degenerated into an ulcer, it is to be treated like other ulcers, chiefly with squilla, arsenicum and sulphur; lachesis, baryta, carbonica and creosote, used internally and externally, will be found worthy of attention.

LAMENESS FROM THE PRICK OF A NAIL.

It not unfrequently happens that in shoeing a horse, a nail is driven in a wrong direction, frequently penetrating or pressing the sensible sole, or wounding the laminae; the result of which is pain and lameness. The animal flinches when struck ever so slightly on the nail; he limps, carries the affected foot forwards, and raises it frequently. No bad consequence occurs if the nail be immediately removed, the wound washed carefully with cold water, and if we then employ the tincture of arnica diluted with water; the nail must not be placed so as to press the injured part. But if through want of attention the foreign body has remained in for several days, the side of the foot appears hot all round the part, and lameness, at first rather imperceptible, becomes very marked; we must then extract it without delay, and if nothing but blood escapes from the hole, we must drop into it a little arnica. In the worst case, when the nail comes out covered with pus, or when there is observed a place softer than the rest of the foot, the wound must be dilated and some arnica be poured into it, a dose of
which must also be administered internally. In all cases we should carefully examine the nail when drawn out, in order to satisfy ourselves that it is not broken, that no foreign particles have been left in the wound, which would also require that the latter be enlarged, after which *arnica* is to be poured into it. If there be acute inflammation, we must have recourse to *aconitum* and *squilla*, and if the pain be severe, to *acidum phosphoricum* and *arsenicum*; *squilla*, *kepar sulphuris*, and *sulphur* are suitable when an abscess has already formed.

**SECTION XII.**

**PIMPLES.**

**SUPPLEMENTARY TO SECTION I. PAGE 76.**

This name has been given to an exantheme or eruption, which chiefly attacks young horses, principally in spring, when they are worked too hard and when too high fed. However, it depends occasionally on plethora occasioned by change of diet or too high feeding. The eruption consists of red pimples, which appear in great numbers over the entire body, and from which a liquid is discharged, which agglutinates the hair and forms crusts. Amongst the means to be employed in such cases, the principal are *aconitum*, *arsenicum*, *dulcamara*, *phosphorus*, *sulphur*, and *rhus toxicodendron*, the latter more especially when there is much itching.
MANGE. SUPPLEMENTARY TO SECTION I. PAGE 76.

The horse's itch, similar to that in the human subject, consists in an eruption which comes out on the back, loins, neck, buttocks, shoulders, thighs, &c. It always depends on an internal affection (psora), and extends with great facility by contagion. The eruption on the skin does not constitute the disease itself; it is only a product or result of it. A purely local treatment is unsuitable, and should therefore be rejected. When psora, which has its root within the system, extends to the external integuments, it produces there a vast number of small, very itchy pimples, which oblige the animal to rub himself incessantly, and a fluid oozes from them, which soon becomes dry on exposure to the air, and forms a scab. The latter resolves itself into furfuraceous scales, so that the part affected becomes covered with a dirty powder, and the hair thus matted is raised and becomes erect. Besides, there are frequently produced small ulcers, which increase in depth, destroy the roots of the hair, and cause intolerable itching. This is what is called moist itch, which yields to tincture sulphuris, scabiesinum equorum, and also rhus toxicodendron; if there be only itchy pimples and scabs, they are soon cured with staphysagria, succeeded in a little time by sulphur. But, independently of this moist itch, there is another, called the dry itch, consisting in small pimples which desquamate, so that the part of the skin affected seems as it were covered with a farinaceous powder. The itching is frequently so severe as to deprive the horse of appetite, and not to allow him a moment's rest at night. Here sulphur and sepia are almost specific. Anthracinum is recommended in treating itch combined with glands. The following means have also been recommended: arsenicum, in the case of ulcers
with hard crusted edges; 

\textit{carbo vegetabilis}, in obstinate itch, especially when accompanied with cough; 

\textit{clematis}, when the eruption forms several distinct groups; 

\textit{dulcamara}, when the diseased part is covered with a furfuraceous desquamation, and the hairs fall off on the shoulders and forehead; 

\textit{staphysagria} combined with \textit{sepia} and \textit{sulphur}, when the eruption is on the tail; 

\textit{tinctura acris}, when the crusts have the form of pointed pimples; 

\textit{thuja} in itch complicated with water in both legs; 

\textit{zincum} in that of the buttocks.

\textbf{DESCRIPTION OF THE EYE.}

\textbf{SUPPLEMENTARY TO SECTION III. PAGE 108.}

The different diseases of the eye may be referred to three heads: 1. Inflammation of the parts constituting these organs; 2. Opacity of those which, in the natural state, should be transparent; 3. Diminution or abolition of the power inherent in the optic nerve, or in the retina. In order to render what I have to say of these diseases intelligible, it may be well to give a succinct description of the structure and functions of the eye, though an accurate knowledge of this organ, disposed as it is with so much skill, can only be attained by dissection, for which not even the best description can be substituted, even though it might be accompanied with figures. The parts of which the eye is composed, are distinguished into external and internal. The external parts are: 1. the cilia, which are simple in the horse, the lower lid having but very few; 2. the lids, which cover the eye, protect it, and form its two angles, both internal and external; their edge, whence the cilia proceed, bears the name of the tarsal cartilage: we observe on it as well as on the inner surface of the lids, in which small secretory glands are formed, intended to prevent them from rubbing too roughly on the eye, and to facilitate
their movements; 3. the lachrymal gland, situate at the upper part of the lid, in the external angle of the eye; it secretes the tears, which several small ducts, called lachrymal ducts, convey over the inner surface of the upper eyelid; 4. at the inner angle of the eye is the caruncula lachrymalis, a small body, like to a gland in form, on the sides of which are placed two small openings, the puncta lachrymalia, the orifices of a membranous duct, which penetrates by a small foramen into the lachrymal bone, and extends as far as the lower part of the nasal duct, where it may be readily perceived in the horse; in the human subject, the puncta lachrymalia terminate in a small membranous sac, whence the lachrymal duct sets out; but things do not take place similarly in the horse; 5. at the inner angle of the eye there exists a cartilaginous body, the haws, which the muscles of the eye are capable of drawing over the entire surface of the latter; the horse uses it as a third lid, in order to free the eye from dust or other bodies; 6. the inner surface of the lids is lined by a membrane called the conjunctiva, which also covers the white of the eye. This membrane is traversed by numerous blood-vessels, which are instantly visible by inflammation. The conjunctiva also becomes more or less red in internal inflammatory diseases, for which reason this symptom should be carefully taken into consideration, when our object is to draw up a history of a case of disease. The globe of the eye is kept in its place not only at its posterior part by the great optic nerve, but also on all sides by ligament-like muscles, which allow it to move in all directions. It is composed of four membranes and three humors. There is first found at its anterior part a circular and hyaline membrane, forming a particular prominence, for which its consistence has procured it the name of cornea, and which, in the horse, occupies a greater portion of the globe of the eye than the human subject. When this mem-
brane is removed, a fluid escapes, called the aqueous humor, and we see the iris. It is not connected with the cornea, as would appear at first sight, but is united at its edge with the choroid, and it is stretched behind the cornea, as the dial of a watch is behind the glass. In the human eye the pupil is black and round; in the horse it is blueish and oval, with its greater diameter horizontal, whilst in some other animals, cats, for instance, its great axis is vertical. The aqueous humor gives the cornea its convexity, and allows the iris which floats in to perform its functions. In fact, the iris consists of two strata of muscular fibres, of which the one contracts the pupil, whilst the other dilates it. The former of these phenomena takes place under the influence of light; the second in darkness, of which we may readily satisfy ourselves by examining the eye of the horse, first in a corner of the stable, then immediately after in the open daylight. In some diseases the pupil loses the property of dilating: it is for this reason we should endeavor to ascertain its state whenever the animal is sick. After having removed the iris, we discover a bi-convex body, perfectly transparent, the crystalline lens, enclosed in a membranous capsule, between which and it there is a small quantity of liquid. This body and the retina are the most important parts of the eye; for without the crystalline no regular image of an object could be produced, and without the retina the animal would not perceive the images of objects. The use of the crystalline is to collect the luminous rays which fall on the eye, and to refract them, so that they may be concentrated into a single focus on the retina. In order that vision may be complete, it is necessary that this focus may vary, that is, that the crystalline may have the power of moving anteriorly and posteriorly, according as a near or remote object is to be seen. When this mobility does not exist, the result is one or other of the following diseases. In the former, dis-
tont objects only are seen, and in the second only near objects. The third humor of the eye is called the vitreous humor, because it resembles the most limpid water. It is contained, not like the others in a general capsule, but in numerous cells of perfect transparency. It occupies all the posterior part of the globe of the eye, the convex form of which is produced by it. The choroid, of which I have already spoken, seems to be black in the human subject, by reason of the pigment which covers it, and it is this which causes the human pupil to appear black; in the horse it is variously colored, sometimes black, sometimes blue, or green, and thence it comes that the pupil of this animal has a deep blue tint. Lastly, at the very bottom of the eye, the optic nerve proceeding from the brain penetrates the eye, is then immediately resolved into medullary tissue, and forms a white membrane extended over the choroid which it accompanies as far as the edge of the crystalline. This membrane is the retina or surface on which are painted all the objects which strike the sight.

From this slight sketch of the structure and functions of the eye, it is easily seen that many circumstances may occur which render vision incomplete, or even destroy it altogether. The most usual are the following: 1. the cornea, which in the normal state, is perfectly transparent, may become more or less turbid from inflammation, &c., and the animal may in consequence become more or less blind, though the other parts of the eye may be perfectly sound; 2. this membrane may be too convex or too flat, the eye will see badly at a distance in the former case, and at a short distance in the latter; 3. the iris may, after inflammation, &c., lose more or less the power of contracting. In such a case the pupil always retains the same dimensions, and the animal has no longer the power of accommodating such dimensions to the different degrees of intensity in the light, and to the dif-
fertent degrees of distance of the objects; whence it follows, that whilst a strong light dazzles a horse, he cannot clearly see a weak light; 4. the pupil may be so close, by the total contraction of the iris, that it does not allow a single ray of light to pass; 5. the crystalline may become more or less opaque, and vision may be in consequence confused, or even abolished; 6. the power inherent in the retina and the optic nerve may diminish or be destroyed, in which cases we have the diseases designated by the names of amblyopia and gutta serena.

These different diseases are not as numerous in any of our domestic animals as in the horse, by reason of the various injurious influences to which this animal is continually exposed from his youth. Special articles have been devoted to each of these.

**PHTHISIS PULMONALIS.**

**SUPPLEMENTARY TO SECTION IV. PAGE 130.**

This formidable disease takes its origin chiefly when pulmonary tubercles are developed after inflammation of the lungs in horses of a middle age and strong constitution; it is not of frequent occurrence, inflammation of the lungs being in horses an acute disease which quickly passes on to its termination; but there are certain forms and breeds that appear to be disposed to phthisis, such as dull-looking, flat-sided, narrow-chested horses, that never thrive well on any kinds of food; also, horses bred in low lands and marshes, or those that are forced to breathe contaminated air, there is but little chance of success in treatment, even if taken at the early period, for general alterations have been going on in the lungs before we are aware of the disease in question. Sometimes the animal so affected coughs very much, and voids pus by the nostrils; but more frequently the disease develops itself slowly. It is recognized chiefly by the
horse, though retaining his spirits and eating well, losing rather than gaining in flesh; he has his respiration short, and labors under a constant cough, which is sometimes dry, sometimes humid; in the latter case with a discharge by the nostrils of a great quantity of foul-looking mucus. If he be much fatigued, badly covered, and exposed to frequent colds, the difficulty of breathing, cough and nasal discharge increases rapidly; the mucus soon gives place to pus of a very bad odor, the animal becomes weak: he is more especially incapable of the least effort during foggy weather; the hair of the mane falls off, small tubercles appear on the withers, the hair is very smooth and bright, and death usually comes on in the midst of diarrhoea.

Amongst the means which have been recommended, the principal are *china*, (in several doses) *lycopodium* and especially *stannum, calcarea, carbonica* and *nitrum*. *Dulcamara* is also very useful, *pulsatilla, silicea, hepar sulphuris, spong'ia, carbo vegetabilis* may also be employed.

**CONSTIPATION.**

*SUPPLEMENTARY TO SECTION V. PAGE 139.*

Constipation exists when the horse remains a considerable time without emptying the bowels, or at least without passing anything but a few small lumps very hard, sometimes brown or blackish. In general, it is the symptom of another disease, especially colic, enteritis, nephritis, cystitis, &c. However, constipation sometimes appears also as an independent symptom (after some irregularity in diet, exposure to heat, or to cold) the frequent use of purgatives, &c., and it not unfrequently becomes the occasional cause of certain diseases, especially of a particular species of colic, to which a more or less inflammatory state is joined. A dose of *aconitum*, to be repeated when necessary, should always commence the treatment.
If the constipation is referrible to a disturbance of digestion, arsenicum produces salutary effects. Nux vomica, is a capital remedy, when the excrements are scanty and hard, or when the animal is drawn up in the carcase. Hyoscyamus is also found very efficacious in cases where the belly is contracted, and nux vomica has produced no effect. Plumbum is specific when the intestinal canal seems empty, or when there is voided a small portion of faeces not hard. If constipation be connected with inactivity of the intestinal canal, which may be known by the deep brown or black color of the small excrementitious lumps, opium is uniformly found useful.

WORMS.

SUPPLEMENTARY TO SECTION V. PAGE 139.

The worms so frequently met with, in immense quantity, in the living body are always the product of latent psora. They are seen more especially in badly fed horses, or in foals which have been weaned too soon, several species of them are seen:

1. The larvæ of the œstra, called bots, which reside in the insensible coating of the stomach, and are often seen to hang externally from the anus; the animal affected with them scrapes the ground with the fore feet, propels the body forward on the manger, rests his head, &c., though at times it is difficult to judge whether they do exist or not within the animal, if we have not an ocular demonstration of the fact, by the voiding of one or more with the faeces. China, nux vomica and marum verum are amongst the remedies best adapted for the colics which frequently occur in such cases; also sulphur, china, and spigelia should be used.

2. The lumbrici which reside in the small intestines; the retraction of the flanks is almost the only sign announcing their presence. China, mercurius
salulibus, and absinthium, is indicated by the symptoms they occasion.

3. Ascarides, whose chief residence is the large intestines, and which oblige the horse frequently to rub his quarters. Digitalis and ignatia amara are the remedies in such cases; if they make the horse furious, stramonium should be given.

4. The strongylus which, when first evacuated, appears partly black, and partly transparent, graphites, petroleum, murias magnesia, stannum, sulphur, &c.

There is one circumstance which renders it certain that a horse is infested with worms, and that is when they are found in the feces. It is often considered, however, as a certain sign, when the horse frequently depresses the lower lip. The principal remedy against all the inconveniences caused by the presence of worms is china, (several doses), after which sulphur is to be given, which must be continued for a long time, repeating it every six or eight days. Argilla is much lauded, when there exists diarrhoea, and constipation alternately; murias magnesia, when the constipation returns periodically; sepià, when the alvine dejections are preceded and followed by retraction of the flanks; petroleum, when the animal limps from time to time.

LAMPAS.

SUPPLEMENTARY TO SECTION VIII. PAGE 168.

Lampas consists in a swelling and tumefaction of the bars of the palate, observed in young horses. It is sometimes an effect of difficult dentition, or appears at times when catarrhal symptoms are present. Swollen bars often project beyond the surface of the upper incisor teeth, and become so painful as to prevent the animal from eating. Mercurius vivus is the chief remedy in treating this affection, next comes the natrum muriaticum, also belladonna, hepar sulphuris, phosphoric acid and sulph.
The principal means in the treatment of luxations and sprains, are arnica, internally and externally, and rhus toxicodendron, first reducing the joint and properly securing it.

The disease called rat's tail is said to exist when the base of the tail is denuded of hair by reason of friction, the animal frequently rubbing his tail against the sides of the stall to lessen the irritation. Spiritus sulphuratus and rhus toxicodendron are the principal remedies to be employed. If it be moist, graphites is to be prescribed once or twice a week, after which mercurius vivus should be given. When no trace of exantheme is perceivable, recourse may be had to calcarea carbonica and to sulphur. More than once have I cured this disease with staphysagria.
PART II.

DISEASES OF OXEN.

PRELIMINARY REMARKS.

Among our domestic animals, horned cattle were undoubtedly those, the diseases of which there was a necessity for studying earlier than those of other animals. Not only did the first shepherd people, the Israelites, for instance, observe the diseases which attacked certain individuals, or even ravaged entire herds, but moreover the sacrifices which they offered to the Gods, gave them an opportunity of discovering certain anomalies, which, when carried to a certain height, might compromise the health of the animal and render its flesh injurious to man. Thus, though at that time, the knowledge of the internal structure of oxen was cultivated solely from purely religious views, it cannot still be denied that it must lead also to some notions of pathology.

The two most civilized nations of the Old World, the Greeks and Romans, endeavored to ascertain and cure the diseases of their domestic animals. We have proof of this in the details given to us by Homer,
Herodotus, Xenophon, Ovid, Virgil, but chiefly by Columella and Vegetius. Though the horse was the favorite animal of those nations, they were also obliged to study the diseases of horned cattle, those more especially which having an epizootic character, occasioned great ravages among their herds. But the ideas attained in this particular came almost to nothing, and matters remained in the same state until the eighteenth century; it at length fixed the attention of some distinguished medical men. Thus P. Camper (who was born in 1722, and died in 1789) delivered public lectures on the organization and diseases of horned cattle, which he afterwards had printed. Similar researches were published by Haller, Ramazzini, Lancisi and Schröck.

But the sporadic diseases of these animals still remained to be studied, so that what may be properly called the origin of bovine medicine, ascends no higher than the publication of the work of Willburg,* which appeared in 1776. Then came a long series of monographs, among which may be distinguished in particular those of Viborg in 1785,† on epizootics, melcorisation and vaccine. The paper on melcorisation is probably the oldest treatise we possess on this disease.

Nearly about the same period, Tolnay published, in the Hungarian language,‡ a work on the diseases of all our domestic animals, and on the mode of treating them. To this same period are to be referred the works of Chabert, Flandrin and Huzard.§

* "Popular Instruction on the Manner of discovering and treating the Diseases of Horned Cattle, (in German), Nuremberg, 1776.
† Published in German at Copenhagen (1785, five volumes).
‡ This work was translated into German under the title of, "Practical Manual of the Knowledge and Treatment of the Epizootic and Principal Sporadic Diseases of the Ox, Horse, &c." Leipsic, 1809
The manual of Pilger* has not yet lost the advantages of the very favorable reception which it met with at its very first appearance. The first part of the second volume treats of the epizootic and sporadic diseases, both internal and external, of horned cattle.

I shall mention merely, en passant, the work written† by Lauberder, a Bavarian, in the spirit of the Brunonian system, and I shall allude as appertaining more especially to the subject of this article, to those of Tschuelin,‡ Waldinger,§ and Ribbe.|| The treatise of Veith¶ is a truly classical work, which has not yet been surpassed. Details of more or less value are also to be found in those of Busch,** Hofacker,†† Dietrich,‡‡ Ziller, §§ Rychner,||| and more especially in the Dictionary of Hurtrel d'Arboval.¶¶

† "Theoretical and Practical Manual of Veterinary Medicine, or an Exact Description of the Diseases of all Domestic Animals, and of the Means of curing them, (in German.) Erfurd, 1803—1807, 4 vols. 8vo.
|| " Succinct Instruction for the Mode of ascertaining the Internal and External Diseases of Oxen," (in German.) Berlin, 1817.
** "System of Veterinary Medicine, theoretical and practical," (in German.) Marbourg, 1822, 4 vols.
‡‡ "Manual of Special Pathology and Therapeutics, for Veterinary Surgeons and Farmers, (in German.) Berlin, 1828.
 §§ "Means of appreciating the healthy and morbid state of Horned Cattle," (in German). 1833.
||| "Dictionnaire de Medecine, de Chirurgie et d'Hygiène Veterinaires. 2d edition. Paris, 1839. 6 vols. 8vo. Consult also on diseases of the Ox, the following works: Vicq-d'Azyr, (F.), "Exposé des moyens curatifs et préservatifs qui peuvent être em-
PRELIMINARY REMARKS.

Horned cattle are usually designated, with sheep and goats, under the general name of *ruminantia*. They want the dental apparatus necessary to comminute all at once the herbage and grains which serve as nourishment. The consequence is, that these animals, as being naturally very greedy, masticate their food coarsely, and swallow it almost entire. But their stomach, beside being very capacious, presents also a peculiar arrangement. It is divided into four distinct cavities; the first does not serve for digestion; it is but a mere reservoir for the food swallowed almost in the state it was presented by nature: it is called the *paunch*. After it has tarried there for some time, and that, in the case of dry food, the animal has taken some drink, he brings it up again into his mouth, in order to masticate it completely. This act goes by the name of rumination; we are not to consider it as a kind of vomiting, for ruminant animals cannot easily vomit, and it is only in certain dangerous diseases, that amidst very painful efforts the contents of the third and fourth stomach are discharged. It is quite a special function, the end of which is finally to comminute the substances which till then had only undergone a softening, a sort of maceration, in the paunch, just as in the crop of granivorous birds. The necessity for ruminating manifests itself by a sensation similar to hunger. After the mouthful, having ascended along the oesophagus, has been crushed by the lateral

motions of the lower jaw, (the number of which may be estimated at about fifty for each mouthful,) it re-descends into a second stomach, called the *bonnet*, whence, following a particular canal, it passes into the third, (the *manyplus,* ) then into the fourth, (the *abomasum.* ) The last is the only one wherein digestion, properly so called, takes place, which would be impossible, if it had not been preceded by rumination. The result of this is, in a dietetic point of view, that horned cattle require to be treated differently from the horse, who has a simple and small stomach, but a very irritable one, or from the pig, which, possessing the power of vomiting, is secured from the inconveniences which an excess of food may produce in ruminant animals. It will always be prudent not to allow the latter to wait too long a time for food, and not to give them too much at a time, especially if it be young grass or green clover, of which they are so greedy, that they gorge themselves with it to excess, without taking the necessary time to ruminate and digest.

It is not difficult for the close observer to distinguish a horned beast when sick from one that is healthy. The animal refuses to eat, he does not ruminate, nor does he lick himself; he remains sad, holds down the head, he is as it were wearied and disinclined to move, he keeps lying down more frequently than usual. The milk disappears in cows, or undergoes a more or less perceptible diminution; sometimes, too, it undergoes changes in its composition. The alvine dejections are, in general, more scanty, hard, solid, and of a black color; or else there is diarrhoea, and the matters evacuated are watery, mucous or bloody.

In the breeding of horned cattle there are four points to be considered: the milk, fattening, the increase and improvement of the breed.

The production of the milk and fattening are connected with the mode of feeding. It is by means of the latter, and also by the kind of stabling, that we can
succeed in improving the natural state of oxen. We have then to examine how far these two circumstances may influence the development of diseases.

The direction of the vertebral column, and of the head, indicates that oxen should take their food from the ground. It is wrong, then, to place it for them in racks where they have a difficulty in getting it, besides that, the dust which is detached from it, is introduced into their nostrils, and becomes mixed with the mucus which is collected there. The mucus which cannot make its escape outwards, except by the head being pendant, then makes a passage for itself by the posterior nareus into the throat, and the dust it carries with it is mixed up with the food.

Constant confinement to the stable is opposed to the nature of oxen, and becomes the source of numberless diseases. Endeavors are made to promote the lacteal secretion in cows, and the fattening of oxen by means of heat; for this purpose stables are converted into real stoves, either by not making them sufficiently large, or by crowding them to excess, or by preventing the access of air from without; and all this without recollecting that the skin thus over-excited must necessarily fall into a state of atony in a short time. Besides, the moist heat and the emanations of the dung cannot fail to exercise a destructive influence on the lungs and entire system. To these causes, if we add the absolute want of exercise and the excess of food, we shall not be surprised at the number of the diseases resulting from these different practices, and at the extraordinary forms which they oftentimes assume.

Persons propose to themselves by feeding them in the stable to augment the mass of dung, and the beasts are left in their excrement, sometimes up to the very knees. Seldom is there any care taken to cleanse their skin, and still less attention is directed to the feet. What wonder, then, if they exhibit so many eruptions
on their bodies, so much vermin, and so many diseases of the feet.

We must also reckon among the causes of diseases, the sudden changes of residence, of food, and of air. Neither is there any limit observed with respect to the labor exacted from oxen, sometimes from cows too, nor with regard to the treatment they are made to submit to, nor with respect to the food so grudgingly dealt out to them. This accounts for the great number of beasts which are lame and emaciated, which have no spirit, and which must sooner or later fall victims to so many destructive influences.

In reference to the homœopathic treatment of horned cattle, experience has proved abundantly that they require stronger doses than the horse. One or two drops, of from the twelfth to the fifteenth dynamization, would suffice for a horse; the double of that, and sometimes even three times as much would be requisite for an ox. The best form of administering the medicine is the watery solution, that is the mixture of from two to four drops of the medicine with two hundred drops of pure water, which is to be poured into the animal's mouth, after his head has been raised. We may also employ wafers steeped in the fifth dynamization.
Abscesses are much more common in horned cattle than in horses, because the animals very frequently strike each other with their horns, after which a flat and hot tumor generally comes on, which gradually becomes round and acquires a considerable size. If immediately after the occurrence, arnica be administered, both internally and externally, the swelling is removed in a few days, without passing into the state of induration, or forming an abscess. On the one hand, it is not uncommon to meet with abscesses which do not at all depend on external violence, which, for instance, are occasioned by cold. The first remedy to be employed, in all cases, is aconitum, because every abscess is always preceded or accompanied by inflammation. Then we should also consider bryonia, especially when the swelling has appeared after cold, and it is hot and tense; in such a case, if the inflammation is not severe, and is not accompanied by sensible fever, we may resort at once to bryonia. Pulsatilla has proved more than once effectual under the same circumstances. If there be pain or any difficulty in moving, what should be done, after the employment of aconitum and bryonia, is to exhibit a dose of rhus toxicodendron. Mercurius vivus has also succeeded very frequently, especially bringing about opening of the abscess. If the swelling cannot be resolved by the means now mentioned, we should then admin-
ister every six hours a dose of *hepar sulphuris*; in general, these twenty-four hours do not elapse without the abscess opening, and occasionally even we obtain from such treatment complete resolution. If the abscess, when it depends on an external cause, or when it has come on spontaneously, has been neglected, it frequently passes into the state of induration, and its cure then presents in certain cases considerable difficulties. When the indurated tumor is seated in the head, we employ *belladonna, aurum, baryta carbonica* (of great use in tubercles on the jaw), *angustura* and *sulphur*. If we have to treat engorged glands, *chamomilla* possesses specific virtues, and *conium*, when the indurated tumor has been the result of a compression. In obstinate cases, benefit may be obtained from *hepar sulphuris* (four doses per diem.) In abscesses which suppurate, the principal means to which we are to have recourse, are: *arsenicum*, internally and externally, if the edges are painful, everted, inflamed, with unhealthy pus; *silicea*, if the pus is thick and of a bad color; *chamomilla, sepia*, and *antimonium*, when proud flesh becomes developed on it. *Pulsatilla* possesses specific virtues in the case of fistulous ulcers. The following substances as intercurrent remedies: *ledum palustre*, when the fistulae have an opening sufficiently large, and the bottom is white and lardaceous; *calcarea carbonica*, a capital remedy in all forms of fistulae; *lycopodium*, when the orifice is small and there are numerous burrows; these remedies are interposed when the repeated doses of *pulsatilla* no longer bring about improvement, and about four days after we should recur to the latter. Occasionally it is necessary to employ, in addition, several intercurrent remedies.

**ANOREXIA.**

However slight the diseases of horned cattle may be, they are almost all accompanied by a diminution or
total loss of appetite. No person will be induced to attach any importance to this symptom, which usually disappears with the disease which it accompanies. But frequently also the same phenomenon is observed on a sudden, without any trace of disease being observable. We should commence by inquiring whether it might not depend on the quality of the fodder, or on an affection of the mouth, or inflammation of the palate, or glossitis, ulcerations, aphthæ, &c. Sometimes it is owing to an overloading of the stomach. But if none of these exist, we should have recourse to special medicines. The chief is antimonium crudum, especially if the animal has eaten too much previously. Next come nux vomica and arsenicum, the former of which is suitable when there is constipation, the second when there is diarrhœa, with or without colic, and chamomilla when there is diarrhœa and gripes. Pulsatilla has also been very often found useful, when the loss of appetite was accompanied with absence of thirst, or with diarrhœa, with cold in the feet.

BOULIMIA.

Excessive increase of appetite always indicates a morbid disposition of the organism. The animal becomes more and more emaciated, though he eats a great quantity, and he often evinces greediness for unusual things. A few doses of pulsatilla, to each of which four or five days are allowed to exhaust its action, is the principal remedy; after which come nux vomica and sepia. Sometimes the disease is kept up by worms; china cannot, in such a case, be too strongly recommended.

CARIES.

This is a very serious disease, and one difficult to cure. Besides the swelling of the bones, which almost
always precedes it, and which often takes place even when a wound is already opened externally, it is observed, a long time before, that the part is very painful to the touch. *Asafetida* and *silicea* are the principal remedies to be employed. Recourse has also been had to *aurum*, with success, especially in caries affecting the head; *lachesis* in that on the legs, *acidum nitri*, *sepia*, *iodium*, and *sulphur*.

**CRUSTA LACTEA.**

This name is applied, in calves, to a peculiar exantheme, which consists in small white pustules developed on the head, chiefly around the mouth, nose, eyes, and ears. These pustules, which are fewer on the neck and on other parts of the body, exude a viscous fluid, which, on drying, produces a mealy sort of scab, of a bluish white color. This eruption differs from the itch in this, that it occasions little or no itching, and the scabs are much thicker. It is very contagious. Though not attended with any danger in itself, it sometimes causes the animal to be emaciated, the continual renewing of the scabs occasioning general exhaustion and diarrhea. *Dulcamara* is the chief remedy for this; sometimes it is necessary to alternate it with *veratrum*. *Sulphur* must be given as consecutive treatment.

**CYSTS.**

*Calcarea carbonica* has generally succeeded in the treatment of indolent tumors divested of hair, which come out, with greater or less size, on different parts of the body; when it failed, some doses of *graphites* never failed to effect a cure. With respect to tumors produced by contusions, they are to be treated with *arnica* internally and externally, and if they resist, *mercurius vivus* effectually opens them.
CONTUSIONS.

It is not uncommon in yoked oxen for the pressure of the yoke to occasion lesions in the upper part of the neck, near the withers. If the skin be cut, if there be a wound, this should be fomented with *arnica water*, and some days’ rest should be allowed. When there is no wound, but merely a swelling, *arnica* is employed externally and also internally. When, notwithstanding this remedy, the tumor is not resolved, or when from neglect it has already passed into a state of suppuration, *mercurius vivus* should be prescribed, which soon opens it, and then *silicea*. If scabs are produced in the injured part, *thuja* and *sulphur* are given. *Arsenicum* is a specific in the case of ulcers with hard and everted edges. *Bryonia* has always succeeded in my hands in the treatment of young oxen, which had been just put to work.

*Arnica*, internally and externally, is the grand remedy in all lesions produced by contusion. *Conium* should be employed when the contusion, or blow, or other injury has occasioned indurations.

EPILEPSY.

Epilepsy, which is very uncommon in oxen, has, at first sight, some resemblance to vertigo, from which, however, it differs essentially. In vertigo, with which oxen used in drawing are often attacked, in consequence of hard labor in the heat of the sun, or from too tight a yoke, squeezing of the throat, &c., the animal totters on a sudden, falls, and remains stretched on the ground for some time without consciousness. The same thing happens in epilepsy, but the animal, after having fallen, either suddenly or after some convulsive struggles, does not remain calm on the ground; he becomes convulsed, turns his eyes, strikes with the
FEVER (INFLAMMATORY.)

When an internal or external inflammation has attained a certain extent, it is generally accompanied with fever of greater or less severity. In this case the pulse is frequent and hard, the mouth dry and hot, the alvine dejections hard, dry and scanty, the urine small in quantity, the ears hot, as well as the horns and feet. The animal has but little appetite, or eats only green fodder and feels great thirst. In general he is worse at night than in the morning. The principal remedy for the treatment of this fever is aconitum, which should be repeated at intervals, so much shorter, according
as the disease is more severe, for instance from every eight to fifteen minutes in very acute cases, and which must be continued, until a perceptible calm be restored. In external inflammatory diseases, especially those which arise from a traumatic lesion, aconitum is applicable not only to prevent the fever, but also to cure it when it is already developed, and has as yet made no progress. However, notwithstanding the great efficacy of aconitum, it does not suffice in many cases to effect a complete cure, so that according to the individual nature of the inflammation, it becomes necessary to assist its action by that of different other means; belladonna in encephalitis; spongia marina in angina; bryonia in pneumonia and peripneumonia; arsenicum and rhus toxicodendron in enteritis; cantharides in cystitis and nephritis, &c.

FEVER (NERVOUS.)

The following is the description of this disease, which sometimes prevails epizootically, and causes great ravages by contagion. The animals lose appetite, they become sad and lose their strength; the tongue, mouth and nose are dry; the limbs are seized with convulsions, there are occasionally violent spasms; the animals totter, fall as if struck with epilepsy, seldom leave their litter, and generally refuse to drink. At the onset, the alvine dejections are dry; but after some time, they become soft, and the food at length comes away undigested, the tongue continuing foul, and the mouth discharging a profuse ill-odored saliva. The febrile movements generally occur in the evening. Bryonia, twice a day, is the remedy best suited to the entire course of the disease. Acidum muriaticum should be given when there is great debility, and dryness of the mouth; arnica, when the animal remains stretched without motion, and without consciousness; stramonium and hyoscyamus, if partial convulsions are observed to take place; belladonna, under the same
PUERPERAL FEVER.

After difficult parturition, or from the effect of a bad regimen, cold, &c., it sometimes happens, particularly in fat cows, that one or more days after the birth, this extremely dangerous disease is observed to show itself, which is generally accompanied by an inflammation of the peritoneum, intestines, or womb; and which, when not promptly relieved, terminates in death in from three to five days. The animal is melancholy, it begins to tremble, no longer eats, does not ruminate, feels great thirst, does not remain at rest on its hind feet, stumbles and wishes every moment to lie down, though the affection of the belly and the swelling of the genital parts oblige it immediately to stand up. There soon supervenes paralysis of the hind quarters, and the animal is no longer able to stand up. It then lows, and complains incessantly, the teats diminish, the secretion of milk is arrested, the ears, horns and feet become cold, the eye becomes fixed, the look becomes wild. There is frequently tumefaction of the belly, heat and swelling of the mammae. In general the after-birth has remained in the womb, from which an infectious ichor escapes. All these symptoms succeed each other very rapidly. The first thing to be done
is to administer, within three or four hours, from three to four doses of aconitum, which generally effect a perceptible calm. Then we may have recourse to pulsatilla and to nux vomica. Belladonna is also an excellent remedy, particularly in cases of very painful swelling of the belly, and of retention of the placenta. Chamomilla restores the secretion of milk. Paralysis of the hind-quarters, if it does not yield to nux vomica, which is in general the most useful, disappears under the influence of rhus toxicodendron.

**FRACTURES.**

It is not an uncommon occurrence for oxen to break a horn; the result is violent hemorrhage, which is to be stopped by fomentations with arnica water. Sometimes we succeed in restoring the horn by immediately fixing it to its place, tying the animal by itself to a ring, so that it may not rub against anything, and administering internally to it first arnica, then in a little time after symphytum, alternately with squilla. But generally speaking we cannot succeed, especially when the horn has become cold. We then envelope the stump in linen cloths soaked in arnica water, which are to be renewed frequently, and we should make the animal take internally every two days a dose of arnica, or one of symphytum, if the bone also has been fractured. We are told that a double dose of squill has also been found very useful in such cases. The cure is effected with great facility. Oxen frequently fracture theossa ilium, an accident which rarely occasions fatal consequences, and in which symphytum should be employed, both internally and externally. If there be much heat, inflammation and swelling, some doses of aconitum and arnica may be administered with advantage.
FRAGILITY OF THE BONES.

This disease, which is met with chiefly in oxen which frequent marshy meadows, is followed by fractures particularly in the legs, when the animal leaps, or even when he rises suddenly. It has been sometimes observed to constitute a real epizootic disease. No other symptom accompanies it in some cases; but frequently there is general debility, and painful sensibility in the legs. The animal likes to remain lying down, he cannot rise without pain and moaning; a period arrives when he can no longer do so, or falls back as soon as he attempts it, frequently breaking then either a rib or a leg. The cows at first continue to give milk, but the secretion soon diminishes; there is general emaciation, the hair becomes bristly, and death takes place in consequence of wasting away. The bones are very soft and fragile, one may cut them with a knife. The medulla is dry, or reduced to an oily substance. I had an opportunity of seeing this extraordinary malady, which I always succeeded in curing with mercurius vivus. Two or three doses will often suffice, when it is recent; if not, it will be necessary to persever for several weeks in the use of this medicine, notwithstanding the improvement which may result from the first doses.

FUNGUS.

Thuja serves for the treatment of the fungus excrescences produced by the friction of the cord at the base of the horns. If they arise from the pressure of the yoke, arsenicum should be employed, and when they are developed on the withers, they are to be treated with chamomilla, particularly when there exist at the same time indurated glands. If, as sometimes happens, the tumor be opened, it is to be treated as a common abscess. Externally arnica and arsenicum
chiefly are to be employed. *Phosphorus* is the proper remedy in treating fungus excrescences of a fiery red color, and *sepias* in the case of excrescences near the hoof.

**GAD-FLIES.**

The gad-fly not only persecutes, with its bites, during summer, healthy oxen (never those that are unhealthy), but also deposits its eggs in their skin, which give rise to large tumors, in which the larvae become developed; they live there on the purulent fluid which the soft parts secrete, and make their escape thence in the following spring, in order to become metamorphosed. The greater the number of tumors, the more is the strength of the animal diminished by the pain and suppuration. For this reason we should endeavor to free it as soon as possible of these larvae, by frequently washing the tumors with camphorated brandy, or forcibly compressing them, which causes the insect to make its exit or crushes it. When they have attained the size of a filbert, an incision must be made into the part, which is then to be covered with a pitch plaster. A few doses of *sulphur* are to be given internally. We are told that those oxen which have taken sulphur for a long period of time are not infested by gad-flies.

**LUXATIONS.**

*Arnica* externally and *rhus toxicodendron* internally, are the principal remedies to be employed in the treatment of luxations in general. It sometimes happens that in consequence of a false step, a slip, or in their endeavor forcibly to extricate their foot from thick clay, oxen employed in drawing, contract a luxation of the fetlock, which causes them to limp very much, by rendering the swollen part hot and painful. Adjusting the affected portion of the limb should be re-
sorted to, after which the part should be fomented with *arnica*, which should also be given internally; however, *rhus toxicodendron* should be preferred as an internal remedy, and more especially *ruta*, which is specific in such cases.

**LAMENESS.**

Lameness is not uncommon in oxen. It may depend on distension or shortening of the ligaments and tendons surrounding the joint, or on a disease of the latter, occasioned either by an external lesion, or by rheumatism, or in fine by special circumstances. The treatment varies according to the seat of the disease. The lameness owing to great pain in the sole should be treated with *arsenicum*, and that which is caused by the introduction of a pointed body into the cleft yields to *arnica*. There is a peculiar species of lameness which is remarkable for its obstinacy, the nature of its causes and its special character. I observed it in 1837, and I shall speak of it again under the head of *Softening of the Bones*. The disease began in general with a perceptible sensibility of the sole; the animal rested with great caution on his feet, which when standing, he raised one after the other. *Arsenicum*, which in general is a good remedy for this state, was ineffectual in many cases. After some time the disease appeared to be seated more particularly in the long bones of the limbs; for it became more and more difficult for the animal to walk, and more particularly to raise himself, so that he remained stretched on the ground, though all his functions continued in other respects in their normal state. A fact worthy of remark is, that having once broken out in the stalls, the disease generally attacked all the inmates, and in several localities it passed from one house to the other. As no allopathic treatment proved effectual against it, it inspired us with new ardor to seek out new means
to meet it homoeopathically, in which I succeeded by
the help of mercurius vivus, when at length I discov-
ered that the cause was softening of the bones. It
commenced sometimes in the fore limbs, sometimes
in the hind limbs; but mercurius vivus got the better
of it readily and promptly, when it had not lasted for
any length of time; in the latter case, too, it did not
fail in efficacy; but it was then necessary to employ
it in frequently repeated doses, and once I was obliged
to administer it for an entire month without interrup-
tion. Cocculus and rhus toxicodendron, were also
found useful occasionally, and even after the discovery
of the mercurius vivus, their employment was still
found completely successful, when the lameness com-
enced in the hind limbs, and when the disease seemed seated in the sacrum rather than in the legs.
When the lameness commenced in the fore legs, more
advantage was also obtained from the employment of
belladonna with that of mercurius. If the animal
commenced by dragging the legs, especially the hind
legs, arsenicum produced good effects; nux vomica
was also successful, when to these symptoms there
was added loss of appetite. But when there was well
marked lameness, none of these means were of any
avail, and all our resources lay in mercurius vivus.

MADNESS.

Madness is not more peculiar to oxen than to
the horse; it always results from the bite of a mad
dog. It very rarely happens that the consequences of
this bite become developed at the instant; in general
several days elapse first, and even some weeks. The
animal at first evinces considerable disturbance, it no
longer has any appetite, and ruminates no longer;
there does not seem to be much thirst, though from
time to time it dips its muzzle in the drinking vessel;
the abdomen is a little swollen at the commencement,
and the animal makes frequent and great but unavailing efforts to empty the bowels and bladder; in the intervals it shakes itself frequently, more especially the head and neck; it lows incessantly; its voice, at first scarcely changed, assumes on the second or third day a peculiar hoarseness. The look of the animal becomes fixed; the eyes occasionally become redder than usual. Saliva constantly flows from the mouth, which sometimes also is covered with foam. On the second or third day, it is observed in some cows, that instead of rumination, the food reascends involuntarily to the mouth. Some animals become furious when they see a dog, or hear him bark; they strike their horns against the wall, attack all living beings, scrape with the foot, and strive to break the cords with which they are secured. A disposition to bite has been sometimes observed. The venereal appetite is almost always very much stimulated, and there is rapid emaciation. The milk diminishes more and more in milk cows. From the third or fourth day, periodical convulsive movements are observed to come on first in the neck, then on the chest, and afterwards on the hind quarters. About this period there is debility of the posterior parts, which are soon palsied, and death takes place on the fifth or sixth day.

Care should be taken to tie the animal securely. A dose of belladonna is to be administered to it, the bite is to be well washed, and fomented with water, to which some drops of extract of belladonna have been added. The doses of belladonna are to be repeated, first every day, then at longer intervals. When a mad dog has found his way into a herd, it is a good precaution to make all the beasts take a dose of belladonna daily, for eight or even twelve days.
MARASMUS.

Marasmus, occasionally met with in calves, and which bears some resemblance to tabes mesenterica, depends generally on an internal cause; but it is also frequently observed to follow different chronic diseases and is always accompanied with great debility. The principal remedies for it are arsenicum and china, taken alternately, one dose every four or five days. Advantage is also obtained from nux vomica, if there be constipation; from pulsatilla, in case of diarrhoea; from china in case of worms and voracious appetite. Some doses of sulphur are always useful to complete the treatment, more especially when the disease has existed for a considerable time. If the marasmus be connected with a general morbid state, we must seek out the remedy most fitted to this state, with the cessation of which that of the marasmus also will coincide. This latter occurrence is sometimes met in adult animals; the animal eats no doubt, and occasionally very much, and rumination goes on in the normal way; however, it continually wastes away; there is diarrhoea, and the evacuations exhale a very bad odor; the skin is stuck to the ribs, and the hairs gradually lose their bright appearance. Pulsatilla and arsenicum have succeeded in some cases.

METEORISATION.

This affection, which without belonging exclusively to oxen, is, however, of very frequent occurrence in them, consists in an enormous development of gases, which distend the stomach and intestines, swell the belly to a prodigious size, and often cause death in a few hours, when a proper remedy is not promptly applied. In general it presents itself on a sudden without any precursory symptoms, but always a little after the animal has eaten, and for the most part on return-
METEORISATION.

ing to the field; it may come on, however, in the stable also. The animal ceases to eat and ruminate; the abdomen becomes enormously swollen, especially on the left side, and when struck, it sounds like a drum. Great distress soon manifests itself; the breathing is short and difficult, the nostrils are widely dilated; there is a threatening of suffocation. At a later period, the back bone appears depressed; the fore-feet seem approximated; the tail is curved upwards; the eyes are fixed and prominent. The veins of the neck and chest are gorged with blood, the mouth is hot and full of saliva; the anus, which is closed, projects externally; the body is bathed in a cold sweat; the animal moans, trembles, totters, with difficulty keeps itself on its legs, at length sinks and dies, either from suffocation, or from rupture of the stomach.

The most ordinary cause is the voracity with which the animal eats certain kinds of food, such as new clover, boiled roots, the grains, ranunculuses, hemlock, &c., and all kinds of fodder which have become heated in consequence of being heaped whilst they were damp.

Colchicum autumnale rarely fails in its effects, and ordinarily it establishes an instantaneous cure. Sometimes, however, it must be repeated two, three and even four times. Occasionally the symptoms subside without the animal voiding any wind. In chronic meteorisation, which is renewed frequently, colchicum taken alternately with arsenicum is very useful. Benefit it is said has been derived from china. If rumination is not reëstablished at the time the disease is cured, aconitum must be given, and after some hours, arsenicum. When meteorisation has been caused not by green fodder, but by some disturbance of digestion, we must have recourse to nux vomica; the same substance is suitable, when the disease is attributable to the animals having eaten colchicum in the meadows.
Lastly, when the danger has become so pressing that we are brought to the necessity of puncturing in order to avoid death, it is, however, still necessary to administer the *colchicum* after having cleansed the mouth carefully; after some time a few doses of *arnica* must be given.

**ALTERATIONS OF MILK.**

Changes in the milk or in the lacteal secretion are not uncommon in milch-cows. Homœopathy puts a check to them, in general, both promptly and readily. The principal are:

1. *Blue milk.* At the moment after it has been taken from the animal, the milk has its natural color; but when it has rested for some time, and the cream has separated from it, stars or blue spots are observed on its surface, or it even becomes entirely blue. The butter obtained from it has a bluish tint, and blue vesicles, or vesicles of a grey color float on the butter-milk. No symptoms of disease are remarked in the cow. The remedy is *pulsatilla*, and if the symptoms depend, as sometimes happens, on an affection of the lower belly, especially on indigestion, recourse should be had to *nux vomica*.

2. *Red milk.* Sometimes one or more of the teats yield blood along with the milk. This phenomenon depends on several causes; as on the roughness of the manner in which the process is conducted, causing contusion and inflammation of the organ, or on the use of certain irritating substances; for instance, young shoots of the pine tree. *Aconitum* is a good remedy whenever there is an inflammatory condition, owing to an internal or external cause, and if it do not suffice, *phosphorus* generally restores matters to their normal state. *Belladonna* also has succeeded frequently. If there has been an external injury, *arnica*, internally and externally, is always sufficient.
When none of these causes exist, and there is no inflammation, *ipecacuanha* should be employed, which has been very frequently attended with great success, more especially in chronic cases. It is worth remarking, that in many places a decoction of the young shoots of the fir tree are employed with great success.

3. Viscid milk. *Sulphur, chamomilla* and *nux vomica* is indicated. *Natrum muriaticum*, also is often useful.

4. Acid milk. We should administer *sulphur, phosphorus* and *antimonium tartaricum*.

5. Bitter milk. The remedies are: *sulphur* and *phosphorus*.

6. Watery milk, which yields but little cream. This state, oftentimes owing to bad food, especially to the potatoe leaf, yields to *sulphur, pulsatilla*, and *nux vomica*, with a change of wholesome diet.

7. Diminution of milk. Different causes may bring it about, that after calving the lacteal secretion does not become established, or that it goes on but imperfectly, and even when established, that it may stop by degrees or abruptly. *Aconitum*, and *chamomilla* are the principal remedies in this case, especially when there is inflammation. *Belladonna* is useful in inflammation and tumefaction of the udders; *bryonia* or *dulcamara*, when the occurrence depends on cold. If the symptom returns after some days, *phosphorus* should be given. When the teat yields but a few jets of milk, *chamomilla* and *belladonna* should be given alternately.

8. Spontaneous discharge of milk. This is cured by *belladonna*, (if there be swelling of the teat); *chamomilla*, (if it is indurated); *arnica*, (if it received any injury followed by inflammation); and *calcarea carbonica*, (if there exist any internal mischief.)

**ŒDEMA.**

Œdema, or a collection of serum in the subcutaneous cellular tissue, frequently accompanies hydrotho-
rach and ascites; but it is also met as an independent disease in different regions of the body. That which distinguishes it from other swellings is, that it is cold to the touch, and retains the impression of the finger. *China* and *arsenicum*, taken alternately, are the chief remedies, especially when it has come on after dropsy of the chest or abdomen. *Bryonia* is the suitable remedy when it results from cold, and when there is at the same time, constipation and difficulty of breathing; *pulsatilla* in the case of diarrhoea.

**PARALYSIS.**

The chief remedies to be used are: *aconitum, arsenicum, Arnica, belladonna, bryonia, crocus calcarea, carbonica causticum, dulcamara, rhus toxicodendron, ruta, sulphur, ferrum, cinchona, &c.* If paralysis result from rheumatism, we should employ *arnica, ferrum, rhus, rhuta, lycopodium*, and *sulphur*. If from debility, *cinchona, ferrum, baryta, carbonica, sulphur*, and *calcarea*. If from apoplexy, *arnica, belladonna, bryonia, nux vomica, &c.* If from injury, *arnica, aconitum, dulcamara, &c.*

**RHEUMATISM.**

Rheumatism, which is generally a consequence of a cold, is almost always accompanied with fever. It is indicated more especially by a stiff and painful gait, occasionally with cracking of the joints. The animal prefers much to lie down; he rises with pain and reluctance; the pain frequently causes tremors; the skin adheres to the subjacent parts; it cannot be folded, and the appetite is more or less impaired. If the disease is carried to an extreme degree, the animal never quits its litter, the four extremities become paralyzed, and it can only sustain itself on its knees. In milch cows the secretion of milk is diminished or arrested. The most effectual remedy is *aconitum*, fol-
ROTTENNESS.

This disease, caused by the presence of fluke-worms (the *Fasciola hepatica*) in the liver or bile ducts, is characterized chiefly by great depression and sadness. The animal carries the head down; appetite diminishes; the eyes become watery, they are red, then at a later period yellowish, and full of purulent matter; the pulsations are weak, the breathing becomes difficult; the nose, mouth, gums and tongue assume a bad color, and a fetid odor; the excrements are white, watery and fetid. By degrees the beast wasts away, the teeth are loose, fever supervenes, the extremities are cold, the abdomen becomes compressed, there is manifest fluctuation, and the animal dies in a complete state of emaciation. This disease makes its appearance principally after damp seasons, in low districts, and occasions great ravages; and so much greater, if it be mistaken at its commencement, and if no efforts have been made to combat it until no hope of recovery remains. The symptoms most likely to cause one to suspect the presence of fluke-worms, are the morbid look of the beast, its inertness, the yellowish tint of the parts divested of hair, hardness of the skin, hair dull and erect, irregularity of appetite, of digestion, and of the alvine evacuations. The flukes sometimes exist in immense quantity in the liver, which becomes tumefied, and chiefly in the biliary
ducts. Among the means to be employed, graphites and lycopodium occupy the first place. Helleborus niger is also recommended, when the difficulty of the respiration announces commencing hydrothorax; and mercurius vivus when the excrements are white and fetid. I have sometimes employed the first dynamization of sulphur with the greatest success.

RUMINATION.

Rumination is more or less disturbed in most serious diseases, and does not return to its normal state till after a cure has been effected. However, it occasionally happens that it is not restored, or that it is the only function in which any derangement is observed. In such cases arsenicum is very useful. If two or three doses produce no effect, the medicine should be repeated, to be alternated with aconitum. Pulsatilla is recommended as possessing considerable powers, when the disturbance of rumination assumes a chronic form, or occurs only from time to time.

SPONGE.

This name is applied to a round, spongy tumor, which is developed on the knee, generally after an external injury. In general this swelling is first hot and painful; but after a time it becomes cold and indolent. When recent it is sometimes cured with arnica externally and internally; if it do not yield, or if before this treatment it was already completely developed, it is to be treated with chamomilla; if there be already induration, conium and ledum are the remedies to be employed. When the disease becomes inveterate, it requires sulphur, antimonium crudum, petroleum and sepia; that which occasions itching and pain, iodium, rhus toxicodendron and pulsatilla, alternately with conium. When it commences to ooze, silicea. Arnica, silicea and chamomilla have effected
a cure in a case where the tumor had been injudiciously opened. During the treatment, as also to prevent the disease, the animal must be supplied with plenty of soft litter.

SPRAIN.

A sprain, when the result of a false step, brings on lameness more or less perceptible, and when it is severe, a hot tumefaction in the neighborhood of the joint. The accident, when of recent date, promptly yields to arnica, employed both internally and externally. Otherwise, or if there be much pain from the commencement, as also much swelling and lameness, rhus toxicodendron, and especially ruta should be administered, which latter remedy in such cases possesses specific virtues.

STINGS OF INSECTS.

The stings of bees, wasps and hornets, give rise to considerable swellings, with inflammation and pain; in such cases fomentations with arnica water are always employed with success. If a cow has been attacked by an entire swarm, arnica should be given internally also. Camphorated brandy would also produce good effects.

SWELLING OF THE BONES.

Swelling of the bones, exostoses or soft tumors, owe their origin sometimes to external causes, sometimes to internal. Such tumors are observed less frequently in oxen than in horses. If they arise from a mechanical injury, arnica, or better still, symphytum (externally and internally) is sufficient to cure them. If they depend on internal causes, they are to be treated with mercurius vivus, acidum phosphoricum, angustura, silicea and sulphur; and in obstinate cases, with carbo animalis, and ammonium carbonicum.
TIC.

This chronic affection, free from fever, is mostly confined to cows, which, though they may eat more than usual, become very much emaciated, and yield only watery milk. They gnaw wood, leather, rags, earth, &c., and swallow these different things so much the more greedily in proportion as their appetite for ordinary food diminishes. Gradually the hair stares, the eye becomes dull, the gait slow, and the animal dies of consumption. The disease evidently depends on disturbance of digestion. It is accompanied by a marked degree of softening of the bones. Small vesicles, containing a yellowish liquid, are also said to have been observed from time to time beneath the tongue. The remedy for this disease is *pulsatilla*, then comes *nux vomica*. *Natrum muriaticum* succeeds when the animal, rejecting its ordinary food, evinces a depraved appetite. The increased appetite which frequently depends on the presence of worms, yields to *china* and *silicea*, or to *china* when there is great debility and depression.

TUBERCLES.

Tubercles, occasioned by a mechanical cause, generally yield to *arnica*, which is to be administered both internally and externally. If abscesses form, they are to be treated as has been stated under this head. Tubercles from cold are combated with *bryonia* and *dulcamara*; and those which arise from the stings of insects, with *arnica* and *belladonna*. Those referrible to an internal disease are difficult to cure. Besides the means indicated under different other heads, we may also try: *ledum*, especially in obstinate cases; *silicea*, *arsenicum*, *baryta carbonica*, *staphysagria* and *sulphur*, when there is itching; *chamomilla* and *bryonia*, against tubercles on the breast.
TUMORS.

Tumors vary much with respect to their constitution and the region of the body where they make their appearance. Those arising from an external cause, are, for the most part, hot, at least at the commencement; these are to be treated with arnica (internally and externally), which is to be followed by arsenicum, or, when there is pain, by conium. Those which depend on internal causes, require bryonia, chiefly in cases of cold, or china and arsenicum alternately, or sulphur, or mercurius vivus.

Aurum and belladonna are the principal remedies for tumors on the head; baryta carbonica for those on the lower jaw. With respect to tumors on the chest, aconitum and bryonia are suitable, if they are owing to cold; arnica, if they are the consequence of compression. When they are covered with scabs, thuja should be given, and after some days, sulphur.

WOUNDS.

Wounds of small extent are cured in a very little time by the use of arnica externally. In such as are deeper, arnica must be administered internally also. Symphytum is useful whenever there has been any lesion of the bones or periosteum. Conium should be employed in the case of wounds resulting from compression or contusion; and in the case of those which are accompanied with luxation, rhus toxicodendron alternately with arnica. When a wound has occasioned great loss of blood, china is useful to combat the debility caused by the hemorrhage. The traumatic fever, which is generally associated with wounds of a certain extent, yields to arnica and aconitum, employed alternately. Extensive wounds are never cured without suppuration; this is generally set up five or six days after the injury; and as long as it wears a
healthy character, art should not interfere; but if the
pus be turbid and have a bad smell, asafoetida and
mercurius vivus should be employed; if it be thick
and have a bad color, silicea; if proud-flesh make its
appearance, chamomilla, sepia, and arsenicum.

SECTION II.

DISEASES OF THE SKIN.

ANASARCA.

The effusion of serum into the subcutaneous cellular
tissue, often accompanies hydrothorax or ascites; but
occasionally, too, it is observed alone in different parts
of the body. What distinguishes the swelling then
from all others, is that it does not feel hot to the touch,
and retains the pressure of the finger. China and
arsenicum, employed alternately, are a capital remedy,
especially when the anasarca is owing to ascites or
hydrothorax. Lycopodium also displays great virtues
in treating dropsical swellings in different parts of the
body. Bryonia is suitable whenever the disease de-
pends on cold, and there is at the same time constipa-
tion, with embarrassment of the respiration. Pulsatilla
is indicated also in case of diarrhoea. Dulcamara
should be employed when the swelling has appeared
after sudden cold; belladonna when the swelling cre-
pitates under the finger. ÒEdema of the legs requires
secale cornutum alternately with arsenicum, and then
sepia. Indigo, china, thuja, sulphur, and when there
is tension in the joints, bryonia, are also recommended.
CHOPS, OR CRACKS.

Indurations and cracks in the skin arise, sometimes from an internal disease; sometimes, in yoked oxen, from continued walking in marshy grounds, occasionally from the inconsiderate application of caustics to spongy excrescences. Arnica and arsenicum, applied externally, generally remove the disease, without there being any necessity to have recourse to internal remedies, especially when the matter is not of long standing. Spiritus sulphuratus is a specific for oozing cracks; sepia, in cases where the skin, dry and indurated, is detached in large patches, beneath which new cracks are constantly forming. Mercurius vivus was found effectual also in an obstinate case, where entire flakes of the soft parts became detached. Chamomilla, conium, mercurius solubilis, and acidum phosphoricum, are of great service in treating simple indurations of the skin. Acidum phosphoricum is particularly useful when the indurated points contract in the form of ridges and wrinkles.

Cracks on the knee are, like all external lesions, to be treated with arnica water; arnica is also to be given internally, when they are extensive. When the patella is more or less engaged, symphytum is the remedy to be employed. Abscesses in the knee, the consequence of neglected injury in this limb, are to be treated like abscesses of other parts.

EXANTHEMES.

An exantheme is a disease more or less obstinate, which appears under a great variety of forms, (spots, tubercles, vesicles, scales, scabs,) and sometimes constitutes a purely local affection, sometimes is connected with an inveterate morbid state. The most certain means of curing and preventing all exanthematicous diseases, is to have recourse to the remedies
called isopathic, which take the name of *antipsoricum* when they are prepared with the morbific principle yielded by the animal itself. But other remedies, again called *antipsoric*, and among which *sulphur* figures, are of considerable efficacy in this respect.

In all chronic diseases attention should be directed to the *psora*, which occasions them. It will be right, then, to begin and end the treatment with some doses of *sulphur*, if there be no special contra-indications. At the end of about fifteen days, the *antipsoricum* should be given; then, at the end of the same lapse of time, the medicine which agrees best with the actual state of the patient; after which we should return to the *antipsoricum*, and so on. The last *antipsoricum* is suffered to act longer than the others, and the treatment is to be terminated with *sepia* and some doses of *sulphur*, or with *sulphur* alone, according to circumstances.

As this course of proceeding does not always succeed, we are forced to have recourse to other means. *Staphysagria* and *dulcamara* are those most frequently employed after a couple of doses of *sulphur*; *staphysagria* is more especially indicated in dartrous eruptions accompanied with itching, more especially during the night; *dulcamara*, in vesicular eruptions filled with a yellowish liquid, those principally which succeed a sudden cold, as also in dry and furfuraceous dartres. *Mezereum* is useful in itchy tubercles, with redness of the skin; *arsenicum* in eruptions accompanied with periodical diarrhoea or with loss of appetite, or disturbed digestion; *thuja* in those which come out on the lower part of the limbs.

**GOITRES.**

This name is applied to a swelling, sometimes acute, sometimes chronic, which generally appears on the left side of the larynx, obliging the animal to carry
the head forwards, and causing it to bellow in a frightful manner. It is only in acute cases there is pain; the cough, however, which accompanies this disease is painful, and the voice hoarse. The chief remedy is drosera after some doses of aconitum; in chronic cases, this is to be administered alternately with hepar sulphuris. Benefit has been also obtained from two doses of belladonna, administered at short intervals.

**ITCH, OR MANGE.**

In the dry itch, the animals have a great disposition to scratch themselves, to rub one against the other, which eventually wears away the hair. They repeat this until the skin becomes excoriated and is made to bleed. The parts exposed to the friction soon become stripped of hair; the skin is wrinkled, dirty in appearance, powdery, or else there are observed on it small superficial ulcerations surrounded with furfuraceous scabs. Beneath these scabs there are found small pustules, which, after being opened, resemble corroding ulcerations. The fluid secreted is limpid, and soon becomes thick, so as to form scabs, which are piled one upon the other. This form of itch attacks meagre, ill-fed, and aged animals. It is seated chiefly in the head, neck, on the shoulders, haunches and tail.

The moist itch is characterized by ulcers of greater extent, which penetrating deeply into the skin, secrete a reddish ichor, and become covered with scabs thicker than those of the preceding variety. It is observed on the neck and at the base of the tail, but sometimes it extends over the entire body. The hairs fall, the skin becomes chopped, and the animal, if left to itself, falls into a state of marasmus, or becomes dropsical.

Some doses of sulphur (one a day) is the first
remedy to be employed. Then *staphysagria* should be administered, more especially when there are dartrous eruptions, with itching during the night. *Dulcamara* is good in the vesicular eruption, with yellowish serosity, which comes on after sudden cold, and which is accompanied by a discharge from the nose, as well as in dry and furfuraceous dark-colored eruptions. *Mezereum* is indicated in itchy tubercles, with redness of the skin; *arsenicum*, in case the appetite is impaired, with periodical diarrhoea.

**Phthiriasis.**

Like other domestic animals, oxen have occasionally such a quantity of lice, that they not only become disgusting from them, but they also suffer and pine away. This happens chiefly with calves and young beasts. The lice lodge more especially behind the horns and ears, at the back of the neck, on the withers, and on the sides of the dewlap. They are destroyed in a few days with a decoction of *staphysagria*, or with a pommade prepared with three parts of axunge and one part of parsley-seed pounded.

**Warts.**

Warts appear on the breast, belly, back, neck, tail; sometimes smooth, round, soft and broad; sometimes pediculated, chapped, spongy, hard and dry, or moist, painful or without feeling. For the cure of warts which are dry, smooth, and not pediculated, *dulcamara* should be employed, and in some cases *sulphur*; for those which are ulcerated, *arsenicum*; for those which bleed readily and cause pain, *causticum*. Excrescences which are moist, incrusted, chapped, presenting a disgusting appearance, and frequently of an enormous size, require *thuja*, externally and internally, and the employment of this remedy must be continued for a long time. Small warts on the lips yield to *calcarea carbonica*. 
SECTION III.

DISEASES OF THE BRAIN, EYES, MOUTH, &C.

DISEASES OF THE EARS.

Inflammation of the ears is in general the result of foreign bodies, portions of straw, the larvae of insects, &c., which penetrate into those organs. The animal inclines the head towards the affected side, frequently shakes it, rubs the ear against the wall, or applies the hind foot to it. On making examination, we almost always find the concha swollen, and full of mucus or purulent fluid. If there be a foreign body in it, it should be removed, and arnica water be injected with a small syringe. If insects are the cause, a little oil is to be poured into the ear. If the inflammation from being neglected has passed into suppuration, the means mentioned under the head suppuration must be resorted to. When a real abscess is formed, arsenicum is the remedy to be employed. However, pulsatilla is very useful in deep-seated abscesses. When the swelling has been caused by insects, the ear should be well washed, and arnica water injected into it. Petroleum is by some considered the best remedy in such cases. Some doses of sulphur must be taken internally.

APHTHÆ.

This disease is common enough in calves. The animal affected refuses to suck and wastes away. After a careful examination, small vesicles are discovered on the tongue and gums, surmounting a softened
tissue: the mouth is full of saliva of bad odor and also frothy. The means to be employed are: *acidum muriaticum*, *acidum phosphoricum* and *borax*. One or two doses of *sulphur* should be given to the mother. Touching the aphthae with borax or any other substance can be of no use, as it results from a stomachic affection.

**ANTHRAX OF THE TONGUE.**

When oxen are subjected to a species of life which engenders typhus, or which favors its development, it sometimes happens that the pestilential principle attacks the tongue in preference, in which case anthrax of this organ comes on, a disease extremely contagious, and mostly fatal. Carbuncle of the tongue is ordinarily announced by a profuse saliva from the mouth, great distress and tumefaction of the tongue. On examining the mouth, we discover on this latter organ small vesicles full of turbid liquid, or small tubercles surrounded with a bluish circle. The vesicles burst, and fill the mouth with fetid liquid: on the tubercles, on the contrary, there are raised pustules, which, at first of a whitish yellow, become afterwards brownish or blackish, and often attain the size of a nut. These pustules contain an ichor which corrodes the neighboring parts; and on the vesicle itself after it has collapsed, there forms a brown scab, beneath which an ichor collects, which produces corroding ulcers, so that the entire tongue soon becomes the prey of gangrene, and comes away in pieces. The gangrene soon attacks the pharynx and stomach also, and death takes place amidst incredible pain with shivering and tumefaction of the belly.

The cure is not possible unless the case be taken up in proper time, and a suitable treatment be adopted. When the pustules have already opened of themselves, and the animal has swallowed their contents, he
is lost beyond recovery. The first thing to be done then, is to scrape them with a curved knife, an iron spoon, or a wisp of straw, after which the part is to be well cleaned, by means of a cloth steeped in oil. During this operation, the animal’s head must be held low, in order that he may not swallow any of the ichor, and care must be taken that the operator may not be touched with this fluid, as it produces both in the human subject, and in animals, malignant and gangrenous ulcerations. Therefore the operations should not be undertaken until after the hands have been carefully covered with gloves, or have been well oiled. Once the pustules have been removed, the tongue should be touched every day with a cloth steeped in water, to which some drops of arsenicum have been added. This plan will suffice in most cases. If symptoms of the disease still remain, for instance, a fetid state of the breath, &c., such means should be adopted as shall be mentioned under the head of Stomacace.

DIZZINESS.

Animals affected with this disease, fortunately rare among oxen, are never cheerful, and they generally have a rather miserable appearance. Sometimes the fit comes on in the stable; the animal turns the head and neck more or less to one side, then staggers and falls. When the animal is made to go out, it immediately turns round about, the head always looking towards the centre of the circle, then staggers, falls, arises after a few moments, and again commences to turn round, or enjoy some hours of rest. If the disease be still at its commencement, the animal at first turns slowly, then quicker and quicker, until at length it falls. The attacks become more and more frequent, and at length return every time the animal is made to go out. The cause is the same as that in the case of sheep, viz., the
ENCEPHALITIS.

presence of a hydatid in the brain. Inflammation of the brain and traumatic lesions also seem to contribute to its development. *Belladonna* is particularly useful at the onset of the disease; two or three doses are to be taken daily, until the symptoms have disappeared, after which the doses are to be given at longer intervals, and the treatment terminated with *Sulphur*.

ENCEPHALITIS.

Inflammation of the brain, much more uncommon in oxen than in horses, generally comes on rapidly under the influence of a hot sun, of a sudden change of temperature, or of a blow on the head. Sometimes it appears all at once, and sometimes it is announced by certain precursory symptoms, such as vertigo, unsteady gait, appearance of drunkenness, and great depression. The head hangs, the eyes are bright and prominent, the head, ears and horns are hot, the hair is bristled, appetite gone. The animal becomes furious, it strikes its head against the walls, tears the halters that tie him, and becomes convulsed in different parts of the body. When let loose, he runs about on every side, then after two or three days, seems to experience some relaxation, and dies suddenly. Occasionally encephalitis terminates in cerebral dropsy, for which reason it should be watched from the commencement, and even after it is cured, we should not lose sight of the patient for some time. *Aconitum* is the first and chief remedy, before the disease is yet fully developed. It is given in frequent doses separated by short intervals. When there is heat in the mouth, eyes, horns, and the animal rests its head against the wall or manger; or when, melancholy and almost devoid of consciousness, it allows it to hang; the best medicine is *belladonna*, also to be given in repeated doses, especially when the look is frantic, with swelling of the vessels of the head and pulsation of those of the neck.
Sulphur should be given as consecutive treatment. Hyoscynamus is indicated, more especially when bella donna does not suffice, a thing which seldom happens. If there is suddenly a calm, stupor, or somnolence, or if the disease has been occasioned by insolation, opium is to be prescribed without delay. Veratrum is indicated when the animal throws itself about and places itself against the wall.

GLOSSITIS, (INFLAMMATION OF THE TONGUE.)

Inflammation of the tongue, rather a common affection which arises almost always from a traumatic lesion, prevents the animal from eating, and causes the organ to hang more or less out of the mouth, requires more especially the employment of aconitum, and of mercu rius vivus. Acidum nitri also is said to be very effectual, especially in dry inflammation. Carbo vegetabilis is specific in treating induration succeeding to inflammation: conium, lycopodium and silicea, are also recommended in this case.

Cases by Schmayer, extracted from the Zooiasis of Lux. — I have had an opportunity three times of observing this disease, which is not common, and generally comes after a traumatic lesion. Once, in a bull, it was so severe, that the tongue, enormously swollen, could no longer find room in the mouth, out of which it hung constantly. There was high inflammatory fever, with sore throat. I at once prescribed aconitum, sixty drops of the tincture in a pint of water, to be taken eight times. On the second day, there was a perceptible amendment; the tongue had returned into the mouth. On the third day, the animal was able to drink bran and water. On the fourth he was cured.

OPHTHALMIA.

The most common causes of ophthalmia are external violence; the penetration of a foreign body into
the eye; cold, owing to a sudden change of temperature; and an internal morbid disposition.

Ophthalmia by an external cause is very frequent. The eye, at first brilliant and dry, soon becomes dull and watery; the animal closes it against the light; the eye-lids are hot, tumefied and painful to the touch; after some time, they are glued together by means of mucus. The cure is easily effected, when the case is taken in time; otherwise ophthalmia may bring on fatal consequences. The treatment is commenced with a few doses of aconitum, which is to be employed at first from hour to hour; then at longer intervals. Afterwards arnica should be resorted to. If it be too late, conium must be given, which is also indicated when aconitum and arnica have removed the inflammatory symptoms, but there is an exudation between the laminae of the cornea. Cannabis, belladonna or euphrasia, in two ounces of distilled water, form an excellent topical application; but they should also be used internally. If the ophthalmia has been occasioned by a foreign body introduced into the eye, it calls for a different mode of treatment. We commence by extracting the foreign body with a bit of moistened linen; conium then removes the symptoms, and if there have been any injury, arnica should be prescribed, both externally and internally. Ophthalmia caused by cold, soon yields to aconitum, bryonia, dulcamara, and euphrasia. When the disease proceeds from an internal cause, it is hereditary, or depends on the deposition on the eye of a morbid principle difficult to be determined. In this case, the eye is turbid and the lids are contracted. An apparent improvement is sometimes observed to come on, as in the periodical ophthalmia of horses; the eye becomes almost clear; but after some time, it again becomes turbid, and often entirely white. Things remain for a long time in this state, the inflammation continuing from eight to twelve days, then ceasing, and returning
after a month or six weeks. During the first year, the disease generally attacks but one eye; but afterwards it affects the other also. When it has lasted two years, there is little hope of curing it. The chief means to be employed are sulphur, euphrasia, pulsatilla, canna-bis, conium and causticum. Belladonna might also be tried. It is stated that calcarea carbonica has been useful in the case of turbid vision with a bluish tint of the cornea—the lids not being affected.

SWELLING OF THE HEAD.

It is not uncommon for the head to be swollen in oxen, either in consequence of cold, or from the effect of an internal morbid predisposition. Aurum and belladonna are the chief remedies to be employed. Baryta carbonica should be used when the tumefaction is hard and lardaceous; arnica (internally and externally), when it has been caused by pressure of the yoke.

TEETH, (SHAKING OR LOOSE.)

This affection, which is very common in oxen, impedes them very much in eating. Carbo vegetabilis is very effectual in this case. If there be salivation at the same time, as happens almost always, and great sensibility of the gums, mercurius vivus should be given. It is stated that mercurius solubilis has produced useful results in the first of these two cases, and staphysagria in the second.

TONGUE, (LESIONS OF.)

It sometimes happens that a cow cannot eat, or eats only very slowly, carrying its tongue to the right and left, though no trace of disease can be discovered in it. If the mouth be then well examined, it is sometimes found that the tongue has been wounded by a foreign body mixed with the fodder, that a small piece
of wood, for instance, has been introduced into it, so that it has been attacked with inflammation, and has become painful. The first thing to be done is to extract the foreign body, after which the wound should be washed several times a day with arnica water, and nothing but soft tender fodder should be given to the animal until it has been entirely cured. If the tongue should become indurated, carbo animalis should be administered; and if to this salivation be added, mercurius vivus is specific. Sometimes the animal bites the tongue so as to wound it considerably. Here also arnica must be employed, both externally and internally.

TRISMUS OF THE JAWS.

This dangerous disease is uncommon among horned cattle, and, perhaps, never appears except after castration injudiciously performed. The treatment is the same as in the case of horses.

VERTIGO.

This affection is observed more especially in oxen employed in draught. It is frequently the result of great fatigue during hot weather; the animal staggers on a sudden and falls to the ground, where he remains for a time stretched and motionless. The last character distinguishes vertigo from epilepsy. Aconitum affords instantaneous relief. If the vertigo be very severe, stramonium and cocculus are to be employed. Arnica is indicated when the animal inclines to the right, or seems drunk, and holds the head very low. China and cocculus are indicated when the smallest exertion distresses the animal very much.
ANGINA.

Angina owes its origin to different causes which irritate very much the mucous membranes of the organs of deglutition and of respiration; for instance, exposure to cold after being heated, when the animal takes cold drink, or remains exposed to the action of a cold and moist atmosphere. It is this which renders the disease very common, chiefly in spring, when the season is cold and moist. It may also depend on external lesions, on the use of acrid food, &c. The symptoms differ according as it attacks the organs of deglutition, or those of respiration. In the former case, deglutition is very difficult and painful; the animal still takes sufficient quantity of food, but he does not masticate it, he soon returns it; and when he drinks, a great portion of the fluid returns by the nose. There escapes from the mouth at first ordinary saliva, then at the expiration of some days, a considerable quantity of mucus; the tongue is often swollen, and the animal evinces pain, when the back part of the throat is examined. If the inflammation is directed chiefly to the organs of respiration, especially the larynx, the mucous membrane of the glottis and upper part of the trachea, deglutition suffers less than the respiration, especially the inspiration: there is dry cough, and often a threatening of suffocation. When the inflammation diminishes a little, a copious and viscid mucus escapes by the nose. In both cases the
inflammation of the external parts of the throat is the predominant symptom, and there is generally observed externally an inflammatory swelling, painful to the touch. In order to facilitate the respiration, the animal holds his head on the stretch and immovable: the pulse is hard and frequent, the alvine evacuations dry and hard, thirst great, but the animal cannot satisfy it, the fluids always returning by the nose.

The first remedy, in this oftentimes rather dangerous disease, is aconitum, which generally suffices when we have recourse to it in time; we are to administer from two to four doses within the space of from three to four hours. If the respiratory organs are more especially affected, so that the respiration is difficult, loud, whistling, or if there be a swelling painful externally, some doses of spongia marina are to be given. Hepar sulphuris has been found very effectual in the second case, and likewise bryonia. When the angina affects more particularly the organs of deglutition, so that liquids cannot be swallowed, and return always by the nostrils, the look of the animal being fixed and wild, belladonna acts as a specific. Capsicum is suitable in inflammation of the mucous membranes of the throat, with kinks of coughing, and without any appreciable fever. Antimonium crudum may also be then tried with success. When an external lesion, as a blow, &c. has occasioned external swelling and inflammation of the neck, in consequence of which an angina has supervened, we are to give some doses of aconitum, then arnica, which are sufficient in many instances, unless the inflammation has made too much progress. If after the inflammatory symptoms have been removed, there remains a swelling in the neck, we should have recourse to baryta carbonica, and when that is not sufficient, to hepar sulphuris.
CATARRH.

A crowd of very different diseases owe their origin to a cold; whether the animal, after having been heated, remains exposed to the impression of a cold air, or it be allowed to drink cold water too soon. When the entire system has suffered more or less, the affection is accompanied with fever of greater or less severity; some doses of aconitum, the first remedy to be employed in such cases, never fail to produce excellent effects. If the cold affect but a part of the body, we scarcely ever observe any fever, and bryonia is to be administered. In many cases considerable benefit has been obtained from dulcamara, nux vomica, and rhus toxicodendron. Arsenicum is good when the digestion is disturbed, or the complaint has been occasioned by a cold drink.

CATARRH, (PULMONARY.)

The hoarse and hollow cough which some oxen have, more especially after fatigue, or when the weather is rough and they are made to drink cold water, is frequently the consequence of a neglected pneumonia, or one that has been badly treated; but it is also met in other diseases, as, for instance, in hydrothorax. The principal means to be employed in such cases, as well as in the case of cough in general are: dulcamara and bryonia, in the cough which has succeeded to a cold; nux vomica in the dry and loud cough; aconitum and arsenicum in that which comes on every time the animal drinks cold water; drosera, in that which has already become chronic; pulsatilla and hyoscyamus, in that which is dry and returns in kinks; chamomilla, in dry cough with diarrhoea; ammonium muria- ticum, cuprum and bryonia, in inveterate cough; and, in general, sulphur, in many cases of distressing and more especially obstinate coughs.
COUGH.

When the cough lasts for a longer time than that occasioned by dust introduced into the throat, it is the result of cold, and readily cured by confinement to the stable, and the remedies presently to be mentioned. That which is at first dull and hollow, excited by the least effort, and more particularly violent after the animal has drunk, generally indicates a more or less serious affection of the lung. If a severe cough attack the animal, great attention must be paid to it, because in such cases we frequently have to treat commencing hydrothorax.

The means to be adopted when no other symptoms of disease are observed, are: *dulcamara*, in cough by cold; *bryonia* (in repeated doses,) in inveterate cough; *belladonna* and *drosera*, in chronic cough; *hyoscyamus* when the attacks are very frequent; *squilla*, in cough which comes on after fatigue, and which interferes with the respiration; *chamomilla*, in dry cough, with diarrhoea; *pulsatilla*, in frequent attacks of dry cough, with loss of appetite; *spiritus sulphuratus* in very obstinate cough. When the cough is the symptom of another disease, it yields to the treatment required by the latter.

HYDROTHORAX.

This disease, which practitioners of the old school designated by different names more or less well selected, consists essentially in an abnormal accumulation of water in the chest. It makes its appearance sometimes sporadically, sometimes as an enzootic, but never an epizootic disease, for it is not propagated either by contact or by air, that is to say, neither by contagion nor by infection. It is frequently observed in low, damp, marshy countries, where the cattle are turned to graze, or chiefly along rivers, consequently in pastures that
HYDROTHORAX. 261

are best for cows; but it is observed also under other circumstances, chiefly during spring, and cold and damp autumns. It is uncommon in elevated and dry districts, and it is scarcely ever observed in farms where the cows receive during the whole year nothing but cold drinks.

In general its course is slow and secret, so that it is not discovered until there are no longer any considerable resources against it by ordinary treatment. It manifests itself by symptoms which vary according to its degree of development. Lux, to whom we are indebted for a very good history of the disease, divides it into four stages, after the following manner:

First stage. Respiration embarrassed, short, a sort of cough which increases by moving. In the state of rest, an ox in good health respires without much moving of the ribs or flanks, and the number of respirations in a healthy large cow, at rest, is from sixteen to eighteen per minute. Peculiar distress in lying down, and great constraint when the animal has lain down. If the animal lies better on one side than on the other, it is a proof that the dropsy exists on one side only; it occupies both sides when the animal cannot rest on either side. Cows, in a state of good health, readily stretch themselves on the side, after having lowered the anterior of the body; those affected with hydrothorax rarely lie down; only, when they are very much fatigued, they place the hind-quarters on the ground, and seldom place themselves on the side, almost always on the inferior surface of the chest and belly; oftentimes they only bend the knees, and immediately stand up.

In oxen the movements of the heart are but lightly felt; they are not perceptible in the animal when healthy, nor when it is attacked with inflammation. Hence they are imperceptible, but cease to be so on the slightest motion. The pulse is irregular, it is less quick than in healthy cows.
HYDROTHORAX.

The parts surrounding the eyes, the nose, the mouth, the gums, the tongue, &c. are pale and puffed; the eyes are sunk in the orbit, dull, and moist; the inside of the nose is covered with a viscous fluid, or the mouth is bathed in a thick saliva; the white of the eye is not inflamed; the incisors are loose.

Oxen, in good health, ruminate immediately after having eaten, and they almost invariably do so lying down; such as are affected with hydrothorax ruminate in the erect posture, or stand up when they have lain down on commencing this act, in which, however, they indulge more rarely.

The head is not pendent; the secretion of milk diminishes in cows that give milk; the animal becomes sad and slow in its gait.

These disturbances are remarked for some weeks.

Second stage. Short, harsh cough; the breathing becomes more rapid and shorter, with heavings of the flanks. When the lung has become indurated, cough is joined to the asthma. If the pulsations of the heart are still perceptible in the right side, and if at the same time the substance of a large, hard body be felt on the left side, the left lung is indurated. The pulse is soft and undulating, neither frequent nor full. No milk; much mucus in the mouth.

Third stage. The cough becomes stronger, the breathing very much embarrassed and stertorous, the breath fetid. The animal has no appetite; it wastes away from day to day; its air is very melancholy.

Fourth stage. No more appetite nor rumination; the pulse becomes smaller, harder; there is a discharge from the nose of a reddish or brown and fetid ichor; the animal resembles a skeleton. Death by suffocation.

The lungs, when they are diseased (as happens in most cases) attain an enormous size, sometimes double of that which is natural to them; some have been found which weighed from forty to sixty pounds. They
are converted into a solid mass; their surface is frequently adherent to the pleura costalis, of a reddish or brown color, covered with a yellow and dirty froth, about a finger in thickness, and often with a false membrane of a greyish color, thick and cellular, in the interstices of which there is contained a fetid ichor. When cut, they are found hard, like a fleshy mass, traversed with cartilages and collections of pus; this section is reddish and white, like that of a sausage. The portion which has remained sound is sometimes so small that we can hardly conceive how life could have been prolonged for so long a time. Serum is found also in the pericardium. The other viscera are generally healthy.

At the onset of the disease there is found only some yellowish serum in the chest, and the lungs are healthy, which, however, does not prevent the animal from dying sometimes from suffocation, with such rapidity does the fluid increase. Also when the serum is abundant, the lungs are observed to be healthy either wholly or in part; whilst in those cases where those organs are indurated there is but little fluid. The latter becomes coagulated, and forms a jelly when exposed to the air.

Whenever, after spring, or a damp and cold autumn, a horned animal coughs when it lies down frequently, and its milk becomes diminished, there is reason to apprehend hydrothorax. In the ordinary catarrhal cough, the secretion of milk does not diminish; the animal eats and ruminates as usual, it is able to lie down, and no marked disturbance is observed in any of its functions.

With respect to treatment, it is, according to Lux, as simple as it is certain. The remedy is *kali carbonicum*, a half-pound or pound of which is required by one adult cow. One ounce of it is to be taken each day, one half in the morning, and one half in the evening, dissolved in a half-pint of water. Weaker doses would
be insufficient. A half-ounce is enough for calves a year old. The improvement soon becomes manifest. The difficulty of breathing diminishes, as also the cough; the appetite and rumination are restored, the animal begins to be able to lie down, the milk returns, and in fifteen days health is restored. There is no necessity for consecutive treatment.

As a preservative, each cow is made to take twice a week a handful of wood ashes in its drink, and this immediately on its leaving the stable, at the close of winter, especially in low countries, when the spring is cold and damp. Care must be taken not to give the animal any hot food.

A fact worth remarking is, that it has been ascertained that great drinkers of bran and water, which contains more or less potash, to render it more frothy, are frequently affected with dropsy of the chest, which proves that kali carbonicum really acts homœopathically in this disease.

I have not had an opportunity of trying the treatment proposed by Lux; but I have found very great benefit from china and arsenicum, when taken alternately.

**PHTHISIS.**

Phthisis pulmonalis, a serious and almost always a chronic disease, takes place when the lungs pass into a state of suppuration, in consequence of the injudicious treatment of pneumonia. It is recognized chiefly by the animal being unthrifty, losing its hair, chiefly those of the eyebrows. By degrees it loses appetite, becomes emaciated, and gets a hollow cough, more particularly after making any exertion. Digestion is perceptibly disturbed, rumination is performed irregularly, and there is meteorisation. On opening the body, tubercles are discovered, and one of the lungs is more or less destroyed by suppuration. Nitrum
given at the commencement of the disease, which, no doubt, is then difficult of recognition, produces good effects, being employed alternately with sulphur. If the phthisis has already become more developed, much good may be obtained from stannum and phosphorus. Mercurius vivus has also been proposed alternately with hepar sulphuris. Colchicum is useful for the relief of the state of meteorisation which often accompanies phthisis.

PNEUMONIA.

When an animal very much heated is suddenly exposed to cold, and more especially when it drinks cold water, or remains exposed to the inclemency of the weather which may have become suddenly cold and damp, we often see an inflammation of the lungs come on, a disease almost always in the highest degree acute, which not only becomes a frequent cause of death, when badly treated, but degenerates frequently into phthisis, hydrothorax, and other affections very difficult to cure. When this disease appears, the animal hangs the head, the abdominal muscles are called into action, the ribs are elevated, the respiration is very much hurried, breath very hot, appetite none, thirst considerable, and there is a frequent and dry cough, which is one of the principal symptoms. The alvine discharges and the urine are very scanty. The animal does not venture to lie down, and when it moves, it is also by bending. In general, the forelegs are separated from each other, and the nostrils largely dilated. Some doses of aconitum at short intervals (every hour or every two hours,) generally remove the violent fever, after which some doses of bryonia (one morning and night,) establish a perfect cure on the second or third day. It is scarcely necessary to say that the beast must be carefully watched for some time, and that it must be protected
from damp cold. I have succeeded in curing some neglected cases of pneumonia by means of china and nitrum, after tubercles had probably been formed in the lungs. If the appetite is not soon restored, nux vomica and arsenicum should be given.

The following medicines will also be found very useful, tartarus emeticus, sanguinarius canadensis, phosphorus, cannabis, cinchona, rhus toxicodendron, &c.

SECTION V.

DISEASES OF THE LIVER, STOMACH, AND INTESTINES.

COLIC.

This disease is not in general as dangerous as meteorism; however, it often proves fatal, when proper remedies are not employed. It comes on generally after the use of indigestible food, and then manifests itself by constipation and thirst. After some time, a degree of sadness appears in the animal; he remains almost always lying down; the horns, ears, and feet, are alternately hot and cold, but more frequently cold. The paunch is much swollen. The more the constipation is prolonged, the more acute the pain becomes. The animal's back is arched, he groans, constantly views his flanks, scrapes with his fore feet, kicks with the hind feet, and at length expires amid grinding of the teeth. The curative means are aconitum (one or two doses,) and then arsenicum (three or four doses.) If these remedies diminish their sufferings a little,
but the constipation still continues, *nux vomica* is given, when the faecal evacuations are in small hard lumps; *opium*, when they are blackish, as if burned, and when it becomes necessary to extract them from the rectum with the hand; *plumbum* in the most obstinate cases, where the rectum is empty. We may also try *carbo vegetabilis* and *colocynthis*. Consult the articles Diarrhoea and Meteorisation, for these two symptoms are sometimes associated in colic.

**CONSTIPATION.**

Constipation usually comes on after some other disease; but sometimes it exists by itself, and is then most frequently attributable to cold or some irregularity in the food. The more or less inflammatory state which generally accompanies it, requires that we commence the treatment with a dose of *aconitum*. The most effectual means then is *nux vomica*; it is indicated chiefly, when the evacuations from the bowels are scanty, hard, covered with mucus, and when the animal frequently draws up the belly. If there be no thirst, we should have recourse to *china* and *bryonia*. The latter remedy is also suitable when the constipation has been produced by cold, a circumstance in which it frequently alternates with diarrhoea. *Opium* and *argila* must be employed when the inactive state of the intestinal tube allows nothing to escape from the body, and the animal remains lying down, though evincing no pain. In very obstinate constipation, where the rectum is empty, and also where only a small quantity of matter escapes, which is not very hard, *plumbum* never fails to be effectual.

**DIARRHOEA.**

Diarrhoea is more common in aged cattle and calves suckling than in middle-aged animals, where it is
generally of little importance, especially where it appears in spring, at the time when the herds are sent out into the fields. The ordinary causes are bad food (green fodder in beasts not used to it, frozen potatoes, &c.) or atmospheric influences (sudden cold, moisture of the air,) or the bad quality of the water they drink. The disease presents itself under two forms, the acute and chronic. The acute diarrhoea which generally comes on in consequence of cold, is accompanied by violent colic, great uneasiness and a sharp thirst. The excrements, which are very liquid, green in color and very fetid, are mixed with undigested food; the animal gradually wastes away, when the disease continues, and frequently dies. With respect to chronic diarrhoea which is generally unattended with pain, it frequently succeeds the chronic form, and sometimes it depends on a bad state of the digestive organs.

The cure is effected by different means. In the diarrhoea which bursts out suddenly, or the acute form, we should commence with a couple of doses of aconitum at short intervals; after which, in most cases, arsenicum and ipecacuanha are very effectual. The diarrhoea brought on by cold often yields to aconitum alone, as that resulting from any irregularity in diet, yields to arsenic. If in the latter case there be also loss of appetite, and if arsenic does not effect a cure, pulsatilla should be given, or when there is an absolute repugnance to food, antimonium crudum, especially when the diarrhoea alternates periodically with constipation. If there be frequent dejections without pain, we have recourse to rheum. Asarum is useful, if the evacuations are fluid, and sometimes mixed with bloody mucus.

In the treatment of chronic diarrhoea, beside china, sulphur, chamomilla, and veratrum, which has been found useful more than once, we should employ acidum phosphoricum, bryonia, calcarea acetica, dulca-
mara, magnesia carbonica, petroleum and phosphorus. Diarrhoea is usually accompanied with a general morbid state, with respect to which we are to choose, among these several means, that which suits best. Sulphur and arsenicum are the principal remedies for diarrhoea in calves.

**Dysentery.**

Dysentery, or inflammation of the large intestine, is sometimes slight, sometimes on the contrary, very severe, and in the latter case when not attacked in time, it often makes great havoc among the finest herds. Its appearance is occasionally preceded by colic or diarrhoea; but it often comes on suddenly with griping, which causes the animals to moan, and depresses their strength with amazing rapidity. Frequently there is tenesmus; the animal at first passes liquid excrements, then mere mucus mixed with blood, and the rectum appears external, of a deep red color, hot and swollen. In general the disease prevails only in spring and autumn; it manifests itself chiefly under the influence of sudden changes of temperature; it is chiefly observed in oxen brought from a distance, who have walked great journeys, during which they have had but insufficient food, or food of a bad quality, or such as they have been unaccustomed to.

When slight dysentery resembles severe diarrhoea, and requires the remedies which have been indicated under the head of the latter disease. When more violent, it resembles typhus very much, with which it is frequently compounded: the only difference consists in its not being contagious, and in its depending on meteorological causes, and others in a great measure unknown.

After some doses of aconitum, arsenicum is to be given, especially when the evacuations are liquid, or
of a greenish color. However mercurius vivus is the chief remedy for this disease, more especially when it occurs under an epidemic form, a thing which is not unusual in spring and at the commencement of summer, when very warm days alternate with cold nights. This remedy is specially indicated when the gums are pale and spongy, the teeth loose, the saliva from the mouth viscid and fetid, when there are frequent efforts to empty the bowels with a discharge of fetid wind, and scanty dejections mixed with mucus, which presently assume a greenish grey, or a brown tint, or which, accompanied with mucus and blood, pass away in a liquid form after great efforts; the belly is swollen and painful to the touch, as also the lumbar region; the rectum projects outside the anus; it becomes much inflated and extremely sensitive.

In calves, diarrhœa, accompanied with emaciation and loss of appetite, very often puts on the dysenteric character; the animal every moment passes liquid matter of a greenish or yellowish color. In such a case, pulsatilla is a specific. Benefit has also been obtained from chamomilla, and when the evacuations were white, from mercurius vivus.

ENTERITIS.

Enteritis, which is often accompanied by gastritis, is a disease almost always dangerous, and frequently fatal, which generally breaks out suddenly without precursory symptoms. The animal exhibits all at once great depression and marked distress, with total loss of appetite; there is burning thirst; respiration deep; it groans, trembles, scrapes with the fore-feet, strikes with the hind-feet, often looks at the belly, the back becomes curved, it lies down every moment, rises immediately after, grinds the teeth, and is almost always constipated, and passes nothing but round and hard lumps. The eyes are red and bright, the ears
GASTRITIS.

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cold, as well as the horns and feet; the belly is in general a little swollen, and feels pain on the slightest touch. The pulse is frequent, often scarcely perceptible, though the heart may beat with force. The body is covered with a cold sweat. At length, a calm seeming to come on, the animal commences to stamp, and to move the tail, which signs indicate that the inflammation has passed into gangrene; death soon takes place. The disease lasts from five to ten hours. Cold, excess of food, more especially dry fodder, unwholesome food, blows on the belly, &c. are the most usual causes of the disease. Aconitum is to be given in doses repeated every fifteen or twenty minutes, until the most prominent symptoms of the inflammation have disappeared. If this end is not attained after some hours, or if, notwithstanding a perceptible improvement, pain still remains, arsenicum is to be given. The medicine alternately with aconitum, has sometimes, it is said, produced good effects. It is particularly indicated when the disease has been occasioned by cold drinks, or by improper food and disturbance of digestion. When aconitum and arsenicum fail, we must have recourse to carbo vegetabilis and rhus toxicodendron.

GASTRITIS.

This disease, which generally accompanies enteritis, almost invariably comes on suddenly; it scarcely ever attacks any part but the third or fourth stomach; being in general dangerous, it rather frequently terminates in death. The animal is dejected, restless, scrapes the ground with the fore-feet, strikes the belly with the hind-feet, lies down, then rises up, grinds the teeth, frequently views its flank and belly, groans, lows, and becomes constipated; the eye is red, the look sad; the ears cold, as also the feet and horns; the belly is a little swollen and extremely sensible to
HEPATITIS.

the least touch. Spasms and colics sometimes proceed so far as to render the animal furious. When its state does not improve after some days, death is inevitable. The causes are the same as those of enteritis. The treatment should be commenced by some doses of aconitum, at short intervals, after which the true specific is arsenicum, two doses of which are almost always sufficient. Carbo vegetabilis also at times renders great services.

HEPATITIS.

Hepatitis is more common in oxen than in horses. It is scarcely observed except in winter, and in animals fed in the stable. With respect to symptoms, it bears some resemblance to inflammation of the chest, for which reason it is often mistaken for it. The affected animal wishes to remain lying down, but always on the left side, with the head turned to the right. When pressure is made on the hepatic region, where the heat is greater than elsewhere, it evinces pain; it eats or drinks little or nothing, and cannot walk or stand up without pain, constantly stumbling. If the disease be acute, there is high fever, with increased heat of the body and acceleration of the pulse; the horns and ears are alternately hot and cold; the milk is yellowish and bitter; portions of the skin are stripped of hair; the eyes, mouth, gums, tongue, (which is covered with a thick mucus,) the nose and teats are yellow; the urine is of a deep yellow color; sometimes there is a dry and painful cough. In chronic hepatitis, the fever is inconsiderable or altogether absent, but the yellow tint is more marked and more general; the milk equally yellow and bitter, soon forms into a caseous mass, from which a yellow serum separates; the right side of the body seems a little tense and swollen, the intestine does not empty itself, or the scanty dejections which take place resemble
hard clay. In the acute state, the disease lasts at most from eight to fifteen days, whilst in the chronic form it often continues for whole months. All the functions are very feebly performed. The principal remedies are aconitum at first, then nux vomica alternately with mercurius vivus. Murias magnesiae also deserves to be specially recommended. If the symptoms of jaundice predominate, chamomilla and mercurius vivus should be employed, and when hard fæces predominate, nux vomica and bryonia. Lycopodium is useful in chronic hepatitis, in the same manner as when there are colics which disappear as long as the animal remains lying down on the left side.

**HERNIA.**

Among the varieties of hernia those most frequently met in cows are ventral hernia, and almost invariably are the result of external violence. The success of the treatment depends then on the size of the tumor, on the time it has lasted, and the rapidity with which it has increased. Those which have continued for a long time are easily cured, especially in young animals, and so much more as they are larger; for those which are small are easily strangulated, an occurrence which in general causes death by gangrene. A hernia which increases with rapidity, and which causes the animal acute pain, is difficult of cure. It is then better to kill the beast than to run the risk of losing it. When speaking of the diseases of horses, I pointed out the course to be followed in the treatment.

Umbilical hernia takes place sometimes in calves. They are to be fomented twice a day with sulphuric acid diluted with water, which causes them to diminish gradually and ultimately to disappear.
INDIGESTION.

Attacks of indigestion are very often occasioned by errors in diet, whether the animal does not receive the food suitable to its wants in sufficient quantity, or a regular order is not observed in the distribution of its meals. If we allow it to fast too long in the stable, it attacks greedily the fodder presented to it, and overloads the stomach with it. Another cause, and one no less frequent, is connected with the abrupt transition from green food to dry, or from dry to green in spring and autumn. It is no less mischievous to send beasts to graze at the time when the fields are covered with dew. In general, it is not right, more especially when the weather is bad in spring, to oblige the cows to leave the stable too soon, and to send them to fatten on grass. The bad quality of the fodder is also to be numbered among the causes of indigestion, as also that of the water intended for drinking. Lastly, animals are not always allowed the necessary time for their regular repast, which accustoms them to voracity. The application of cold also performs an important part here.

The most ordinary symptoms of indigestion are: diminution of appetite, or absolute dislike to food, cessation of rumination, alvine evacuations hard, and at longer intervals than usual, diarrhoea, &c. The treatment varies with the causes and the predominant symptoms. Indigestion, produced by cold, always yields very readily to nux vomica and dulcamara, when the appetite is not diminished, but the dejections are hard and mixed with undigested food. Antimonium crudum has been resorted to when there is absolute loss of appetite. Pulsatilla is suitable when the animal does not ruminate, when the evacuations are soft and fetid, accompanied with moaning and a short, dry cough. Asarum must be administered if, whilst the
animal has no appetite and does not ruminate, the evacuations are pasty and mixed with reddish mucus, or merely with undigested food. *Chamomilla* is the remedy indicated in diarrhœa with swelling of the belly, and *rheum* in watery diarrhœa, with or without griping. Repeated doses of *ipecacuanha*, which should be followed by *nux vomica*, are equally effective. *Arsenicum* also is an excellent remedy: a few doses are generally sufficient to check the diarrhœa, and the appetite soon returns. This medicine is equally specific when rumination has ceased: however it must then be preceded by *aconitum*, or alternated with it.

Overloading of the stomach frequently takes place in calves when weaned too soon, more particularly when improper food is given to them, such as bran and water. The best food for them is rye-bran, or wheat boiled in water, care being taken that no more be given to them than what they can consume at once, in order that the liquid may not become sour by resting. The principal means to be employed in surfeit are *arsenicum*, if it have been caused by too large a quantity of food, or food that has been adulterated, *antimonium crudum*, when the animal evinces a dislike to food, and *pulsatilla* when there is diarrhœa. *Coffea cruda* has also produced good effects, and it is stated that good has been derived from making the animal take every quarter of an hour a large spoonful of the infusion of coffee.

**JAUNDICE.**

This disease is characterized by a yellow tint of the conjunctiva, lips and mucous membranes of the mouth and nose. The urine is of a yellowish green color, the alvine evacuations are pale and fetid, the tongue is covered with a viscid mucus, and the skin is hotter than usual; it also becomes yellow by degrees, especially in white cows. The animal is weak, it eats lit-
Peritonitis.

tle, ruminates irregularly, and has great difficulty of breathing. The jaundice always depends on a disease of the liver, for which reason we frequently see it suprervene after hepatitis not completely cured. The chief remedies to be employed are: mercurius vivus, nux vomica and chamomilla. Arsenicum is employed, if rumination be suppressed; and lycopodium, if there be cough. Mercurius solubilis is, it is said, specific when the stools are whitish, as sometimes happens in acute jaundice. Sulphur has more than once sufficed in my hands to remove the disease.

PERITONITIS.

Peritonitis has many points of resemblance with respect to symptoms of enteritis and inflammatory colic, a circumstance which frequently causes these three diseases to be confounded one with the other. It is characterized not only by the presence of inflammatory fever, but further by the great sensibility evinced by the animal, when the parietes of the abdomen are touched; it draws itself back when any one approaches it, or tries to escape the hand by flexing the part which is painful; it scarcely lies down, or should it attempt it, it immediately rolls on its back. However, there is much less disturbance than in inflammatory colic, because the animal always keeps itself standing up, and because also peritonitis seems to occasion less distress. It often looks at its abdomen: the part where the inflammation is seated is sometimes perceptible externally. Frequently there is swelling of the entire belly, and tension about the region of the flanks. The extremities soon become cold; the animal keeps them as near as possible to the centre of gravity, and bends his back downwards. When the disease increases, the ears become cold, whilst the abdomen is hot and sensible; the pulse is quick, short and wiry; the animal, being very weak, staggers, and
still endeavors to remain in the standing posture, until at length it falls covered with a general cold sweat. The course of peritonitis is generally rapid: its duration does not exceed from four to eight days, in which time it often proves fatal. It seldom terminates in resolution. Most frequently it ends in acute ascites, or in adhesions of the peritoneum, sometimes also in gangrene. The latter termination is announced by the sudden cessation of pain, a small, weak, intermittent pulse, and a rapid prostration. The causes which may produce inflammation of the peritoneum are lesions, contusions, and wounds of the parietes of the abdomen, surgical operations, for instances castration, the extension of inflammation from neighboring parts, but principally a sudden cold, and food of an heating nature, chiefly in the case of cows after calving. A dose of aconitum every quarter of an hour is the main remedy; in about six or eight hours, some doses of arsenicum should be administered. Occasionally also it becomes necessary to have recourse to bryonia (when the disease has been brought on by cold,) or to nux vomica (when there is obstinate constipation.) Rhus toxicodendron is proper if the loins and extremities are weak, as it were paralyzed, and cantharides if there be a difficulty in passing water.

**RECTUM, (FALL OF THE.)**

The fall of the rectum sometimes happens in constipation and diarrhoea; but it may also come on of itself. After having reduced the intestine, previously oiling it, we should prescribe internally belladonna and mercurius vivus, if symptoms of inflammation be observed. When the accident has been caused by the effects occasioned by constipation, this is a case for recurring to murias magnesiae, just as argilla is suitable when diarrhoea is the cause of the accident. Arsenicum also is a very effectual means in the latter case.
Splenitis, which is scarcely observed in oxen, except in summer, differs entirely from carbuncle or typhus, but occasions death with no less rapidity. As in horses, the prominent symptom is the brownish color of the tongue. There is no appetite; the pulse which is at first hard, full and tense, subsequently becomes soft, small and scarcely perceptible; the look is fixed, the head stretched forward; the animal frequently looks to its right side, which is painful to the touch. At the onset, aconitum should be prescribed in repeated doses, which often suffices to arrest the disease. If this result be not attained, and the brown color of the tongue increases, we are to have recourse to arsenicum. If nervous symptoms are observed, the animal making deep inspirations, during which it shakes the entire body, bryonia is to be employed alternately with aconitum. Nux vomica, which is also to be alternated with aconitum, is indicated when the splenic region is very painful to the touch, and the animal frequently looks towards it. Lauro-cerasus has proved useful in a very obstinate case, where the pulse was small, the eye fixed, the head directed upwards, and the animal insensible, with the exception of some convulsive movements, when the affected part was touched.

DISEASE OF THE STOMACH, ETC.
FROM GRAZING IN WOODS.

This is, properly speaking, an abdominal inflammation, attended with fever, which animals contract when, after having been a long time subjected during the winter to the use of dry fodder, they go, in the beginning of spring, to graze in the wood. The grass early in the season not being good in the woods, they
Intestinal worms, which are chiefly common in young subjects, are always the result of an internal morbid state; for those parasites are never developed in the system when healthy, or at least appear there only in small quantity, and never do harm. But when, the system becoming unhealthy, they multiply in very great numbers, they become the source attack greedily the young shoots of the trees, some of which, the oak for instance, and the ash, containing acrid and styptic principles, irritate very much the stomach and alimentary canal. The frozen roots, the herb covered with hoar-frost, the marshy meadows also produce the same effect. At first the animal is dejected and sad; it stumbles frequently with the hind-feet, which it keeps very close to each other; the breath is hot, as well as the surface of the body; the mouth and nose are dry; there is neither appetite, nor evacuations, nor urine; rumination is rare and slow, thirst almost continual. The matters, which escape in small quantity during the progress of the disease, are bloody, dry and black; the urine is also deep colored, and often tinged with blood. At a later period the animal wastes away rapidly; its loins become tremulous and feeble; it totters as if paralyzed in the hind-quarters; diarrhœa sets in; the alvine evacuations are fetid and blackish, and mixed with blood. At length the animal can no longer rise, it becomes cold all over the body, and dies of gangrene. Ipecacuanha and veratum, alternately every quarter of an hour, are the means by which it is said that this disease has been twice cured, which in general proceeds with great rapidity. I have not yet had an opportunity of treating it; but if it presented itself, instead of these two medicines, I would at once employ aconitum and arsenicum.
of a crowd of ailments, such as severe colics, fetid breath, loss of appetite, or extreme voraciousness, a propensity to eat the most extraordinary things, suppression of rumination, diminution of milk, &c. However, with respect to many of these symptoms, it may be asked whether they are owing to the presence of worms, or whether they do not rather depend on a general morbid state. The most common worms are the ascarides, oxyura, and the tænia. The chief remedy is china, in multiplied doses, and then sulphur; if there be a dislike for food, antimonium crudum should be given.

SECTION VI.

DISEASES OF THE URINARY ORGANS, AND ORGANS OF GENERATION.

ABORTION.

Abortion, which is very frequent in cows, is an event so much the more disagreeable, as besides the loss of the calf, it often occasions also that of the mother; and the latter, if she survive, remains barren, or at least subject to new abortions. Commonly it is the consequence of a fall or a blow; but they may also be occasioned by want of care, by unsuitable food, or a bad stable; for cows, in order to arrive safely at the term, require healthy food and such as is not flatulent, pure water for drink, moderate exercise in the open air, and a stable which is neither too small, dark, encumbered, or unhealthy. Bad air in particular seems to
exercise great influence in this respect; for abortion is much more common in low and marshy grounds than elsewhere. It seldom takes place suddenly: in general it is announced by several symptoms, among which may be noticed great disturbance, anxiety, depression of the mother, sudden diminution of her milk, and the escape by the vagina of a fetid mucous fluid. If these precursors have been themselves preceded by any external violence, abortion is but still more probable, and we must hasten to prevent it. This is the reason why after a blow, or a fall, there should be given without delay one or two doses of *Arnica*, and if the cause has been a luxation or false step, *Rhus toxicodendron*; should the precursory symptoms still show themselves, *Pulsatilla* is the chief remedy; after it *Sabina* and *Secale cornutum*. Lastly, if the abortion has really taken place, and the placenta delays from four to six hours, we must give *Sabina*, or better still *Secale cornutum*, which generally bring on the desired result. We should have recourse to manual interference only in case these means should fail.

**BLADDER, (SPASM OF.)**

This disease, also called *colic of the bladder*, is rather a frequent cause of retention of urine. It consists in a spasmodic constriction of the sphincter of the bladder, which prevents this viscus from freeing itself of its contents. The ordinary causes are suppression of the cutaneous evacuations, cold of the feet, the too long tarrying of the urine in the bladder, and more especially the use of too watery food. The animal becomes very restless; it is tormented almost as much as in fits of colic, scrapes with its feet, throws itself on the ground, then gets up, and adjusts itself, but to no purpose, to discharge urine. What chiefly distinguishes spasm of the bladder from colic is, that there is retention of urine; and that on examining the rectum, the blad-
der is found full and distended. The remedies to be employed are *aconitum, cantharides*, and when these do not suffice, *hyoscyamus*, which is particularly indicated when the animal has been forced to retain its urine for a considerable time.

**CALCULUS IN THE BLADDER.**

Oxen are often affected with small vesical calculi, which, entering the urethra, at the time of voiding the urine, close it up completely, and no longer allow the urine to escape. The accident is known to exist by the animal, being in other respects in good health, setting himself in a position to pass urine, without being able to void any, notwithstanding all his efforts, with the exception of some few drops of fluid at most. He becomes more restless from day to day, keeps at a distance from the manger, stamps with impatience, strikes himself with his tail, and often looks at his flanks. At the end of a few days, the bladder is so distended that it bursts: after which the animal returns to eat and drink as before, but he soon dies. During all this time, the urine collects in the belly, and gives the animal the appearance of having ascites. An operation for the removal of the stone is often performed with success. After it has been performed, it is necessary to dress the wound with *arnica* water, to give some doses of this medicine internally to prevent traumatic fever, and to give one or two doses of *china*, on account of the loss of blood. The homoeopathic remedy to be employed is *uva ursi*, which prevents inflammation, consequently contraction of the urethra, and assists in favoring the expulsion of the foreign body, if it have not already passed into the urethra, in which case all the medical means is in general useless. *Lycopodium* has also been tried with success.
Castration, to which the males of the bovine species are subjected from economical views, produces in those animals a great change, which becomes very perceptible; for the horns are elongated, they become curved as in the cow; the collar and nucha are lengthened and contracted, the neck becomes smaller, the belly pendent, the legs longer, the haunches less prominent; the voice is different, and the animal has less strength, and less spirit. The best age to have this operation performed is from two to four years; if done sooner it arrests the growth of the animal; at a later period, we are forced to have recourse to it sometimes by different diseases, or by the fierceness of the bull. I have no intention here of entering into the details of the operation; I shall merely observe that an error is sometimes committed with respect to it, either by entrusting its performance to ignorant persons, or deciding on its being performed at an unfavorable time; with respect to the health of the animal, or the temperature of the atmosphere, which should be neither too hot, nor too cold. If the animal is full grown, he must not have been subjected to fatigue a short time previously; and care must be taken that during the eight days before the operation, the food given to him be easy of digestion. It is a very bad habit to sprinkle the animal, which has just been castrated, with water, or to bring him to the horse-pond, for the result may be peritonitis, which is too often attributable to the cold of the stable, to the excessive quantity or bad quality of the food. We may prevent a number of disagreeable accidents by making the animal, who has just been operated on, take a few doses of arnica, and by washing the wounds with arnica water.
CYSTITIS.

Inflammation of the bladder is uncommon in oxen, more so at least than in the horse, and it is occasioned sometimes by cold, sometimes by injuries in the lumbar region. The animal almost constantly keeps the back arched: when he rests on his loins, he evinces pain, and strives by moaning to escape pressure. His walk is stiff, and the animal, continually standing up, leans sometimes on one side of the body, sometimes on the other. He feels frequent desire to void urine, but to no effect, for he can only pass a few drops of a deep red color. His alvine evacuations are scanty and hard, they are voided not without acute pain. There is no appetite, nor rumination, but the thirst is intense; the whole exterior of the animal announces great distress, and the eyes are very prominent. In most cases the cure is obtained by means of cantharides, which should be preceded by a few doses of aconitum at short intervals. Aconitum is sometimes sufficient of itself. When repeated doses of cantharides fail, we must then have recourse to hyoscyamus. If the disease has been occasioned by a blow on the lumbar region, it yields to arnica.

DIABETES.

In this disease of the urinary organs, the animal passes an incredible quantity of saccharine urine, at first limpid as water, then having a greenish cast: he feels great thirst, but the urine he passes is out of proportion with the water he drinks; gradually he becomes weak, and the discharge of urine is not accomplished without difficulty. At length hectic fever comes on, and the animal is lost inevitably, if art does not interfere in time. The usual causes are cold, or moist food, covered with frost, or frozen. The remedies are lycopodium, mercurius vivus, and creosote.
HEMATURIA.

Discharging blood from the bladder, which is not entirely free from danger, and is sometimes met with combined with a bloody appearance of the milk, is more common in oxen than in the other domestic animals, and attacks males in preference. The animal becomes sad, refuses to eat, ruminates little or not at all, and evinces great thirst, the pulsations of the heart are accelerated, the ears are cold, as also the horns and the feet, the lumbar region is very sensitive on pressure. Shivering sets in, the mouth and tongue are hot and dry, the pulse is weak and scarcely perceptible. There is often a slight moaning when the animal has a discharge from the bowels. The urine at first is not very red, but its color becomes deeper, the longer the disease lasts. Neither does it appear that there are pains felt at the commencement; but at a later period very violent ones become developed, and the urine passes away drop by drop amidst frequent groaning. Sometimes there are but few of these symptoms, and the cure is not longer delayed; but frequently also the disease passes into the chronic state, the kidneys become inflamed, as well as the bladder, and death soon occurs.

Noxious substances swallowed by the animal seem to be the cause of this disease; it also attacks several beasts simultaneously in one and the same herd. It is generally observed in spring after eating the young shoots of the oak and fir trees, or cantharides mixed with their fodder. It may be produced also by marshy meadows, by cold, and sometimes by a vesical calculus.

The principal remedy for this affection is *ipecahu-ana*, of which a single dose will often suffice to remove it, when it is administered in time. When signs of inflammation already exist, we must com-
mence with *aconitum*, which in many cases effects a cure by itself. The efficacy of *cantharides* has been proved many times by giving one or two doses each day. If the staling of blood be connected with external violence, for instance, with a blow on the loins, *arnica* is the remedy. When it depends on vesical calculus, *uva ursi* should be employed.

**METRITIS.**

Difficult parturition, violent efforts, or cold, may give rise to this disease, which often proves fatal. It is recognized by tumefaction and heat of the genital parts, from which there flows a bloody discharge; the animal adjusts itself every moment to pass water, but cannot; the ears are cold as well as the feet; no appetite. *Aconitum* (a few doses) and then *arnica* (one dose every two hours) are the chief remedies. If, after the cessation of the fever, there is still straining and swelling in the vagina, *sabina* should also be employed in frequent doses.

**NEPHRITIS.**

Inflammation of the kidneys has many symptoms in common with cystitis. It is not observed as frequently in oxen as in horses. The exciting causes are heat, cold, blows on the lumbar region, renal calculi, and at times also the eating of poisonous plants, or the use of very strong allopathic remedies. The animal brings close together the four legs, bends the back downwards, moans when pressure is made on the kidneys, and strives to escape it. The affected part is hotter than the rest of the body, or even burning. The alvine evacuations are scanty, and their discharge gives pain; the rectum is extremely hot. There is a great desire to pass water, but some drops of urine only escape, which is at first limpid, then thick, and of a deep red color; the gait is stiff, appetite none,
as also rumination, and the thirst is considerable. In
general this disease is cured by means of aconitum,
after which one or two doses of cantharides should
be given. In obstinate cases, when nephritis does not
yield to several doses of the latter remedy, of which
however more than one must not be taken during the
day, we have recourse to hyoscyamus. Nitrum is
also very useful. When there is obstinate constipa-
tion, nux vomica should be given. Arnica is indi-
cated whenever the disease is attributable to an exter-
nal injury.

PARTURITION.

Cows, when well cared, calve very easily, requir-
ing but little assistance. After some days' discharge
of a mucous fluid, which is sometimes a little red,
from the vagina which dilates gradually, the animal
begins to feel restless and uneasy; she groans, and
pains are soon felt, which cause the exit either of a
great quantity of liquid, or a pouch full of serum.
When this pouch bursts, the pains, which increase in
severity, bring out the calf, the mother being almost
always lying down. If there appeared any difficulty
to the passage, it would be necessary to draw the fœtus forward, but only whilst the pains last. The
cord breaks of itself at some distance from the umbil-
icus. However the after birth does not always come
away immediately: it sometimes remains either en-
tirely, or in part in the womb, a circumstance which
might bring on fatal consequences. The means to
be employed in such a case have been already men-
tioned under the head abortion. Experience has as-
certained the efficacy of several other remedies for
the anomalies which may occur during the act of par-
turition; chamomilla, pulsatilla and cannabis, when the
cow does not lie down, when she is restless, and the
pains properly so called are not sufficiently marked;
secal cornutum, in case of convulsions and excessive straining; pulsatilla, when the pains are too slight to advance the labor; opium in case of complete atony. Aconitum and chamomilla are useful when the milk is slow in making its appearance; arnica, when the labor has caused the animal to suffer much; and nux vomica, when the lumbar region afterwards appeared much weakened.

TEATS, (DISEASE OF.)

The teats of the cow are subject to different diseases, some of which are very painful, which, when neglected, often occasion the obliteration of the lactiferous vessels. The principal are:

1. Inflammatory tumefaction. A little time before and after calving, particularly in the first birth, often too at other periods, there is observed on the mammæ a painful inflammatory swelling: the organ is hard, tense, hot and red; the entire, or only a part is affected with swelling. The animal has rather high fever, a sharp thirst, the mouth is dry, and there is but little appetite; the secretion of milk is more or less diminished. This disease which may become fatal, is produced by different causes. The most common are contusion, stings of insects, cold, the too prolonged retention of milk, &c. Some say it has been occasioned by too little exercise. If it has been caused by external injury, frequently moistening the part with arnica water is sufficient to cure it; a dose of it should also be taken internally every day. Arsenicum should be employed only when the disease has been neglected, or when there have supervened gangrenous inflammation or ill-conducted ulcerations with hard and everted edges. After cold the cure is readily obtained by aconitum at first, then bryonia; if the latter does not suffice, dulcamara. Chamomilla also has frequently proved useful. Belladonna has been found a specific
DISEASE OF TEATS.

in the treatment of erysipelas inflammatory. However, others recommend *arnica, camphora, phosphorus* and *silicea*. In the inflammation which comes on a little before or after calving, *belladonna* and *chamomilla* are specifics; *chamomilla* more especially when nodosities are felt in the organ, without the external integuments participating in it. If the inflammation passes into gangrene, or produces malignant ulcers, *arsenicum* should be administered; if, gangrene having supervened, the skin readily becomes detached, *secale cornutum* should be employed. *Silicea* also produces good effects in obstinate ulcers; *asafetida* and *mercurius vivus* in treating unhealthy suppuration. We may also in such a case recommend *cabor vegetabilis, calcarea carbonica* and *pulsatilla*, the latter more especially, when fistulous sores begin to form.

The abnormal swelling of the mammae, especially when caused by cold or moisture, yields to lotions repeated several times a day with camphorated brandy.

2. Induration.—This proceeds from the same causes as inflammation, and may also result from internal causes. It is or is not accompanied with pains and suppression of milk: the latter often assumes a bad color, or undergoes some other change, becomes granular and puriform. If the indurations are painful and consist of rounded tubercles, they are resolved in ten or twelve days, either by *bryonia* (one dose morning and evening), or by *chamomilla*, chiefly when the tumor yields a crackling noise on being touched. If the cause has been an external injury, we must have recourse to a few doses of *arnica*, then to *conium*. The indurations, both those that are painful, as well as those which are indolent, with glandular swellings in the interior of the mammae, yield to *chamomilla*, or, when they are very hard and obstinate, to *aconitum* and *mercurius vivus*. The nodosities which succeed an inflammation are to be treated with *camphora, chamomilla* and *conium*, of each two doses at the inter-
val of two days. If resolution does not take place, *hepar sulphuris* (one dose morning and evening) causes them to break, generally at the end of thirty-six hours.

3. *Warts.*—Warts, which are often produced in consequence of internal disease on the bellies of cows in great numbers, spread occasionally even to the udders; besides their repulsive appearance they prevent the animal from being milked. The remedy against those which are flat, dry, and not pediculated, is *dulcamara*: *thuja* is the remedy for those which are cut and mangled, oozing, and suppurating: *causticum* has been more than once useful in the treatment of bleeding warts, and those which suppurate and are painful. Sometimes the wart gives place to an ulcer with everted edges, in which case we must have recourse to *arsenicum*.

4. *Wounds.*—There are often produced in the teats, circular cracks or chaps, which occasion to the animal great pain, and which, though often caused by the brutality of the cow-herds, are attributable in many cases to a morbid internal state. Those of the latter species require the employment of *sulphur* internally, to be continued for a considerable time. In all other circumstances, fomentations with *arnica* water are sufficient.

Some cows do not remain quiet whilst being milked; if no trace of disease can be discovered on the teats, *camphor* is a certain remedy to remove this ailment.

**RETENTION OF URINE.**

This affection, though not common, is sometimes however observed in oxen. Sometimes the urine is discharged only in part, and after great efforts; sometimes the animal cannot pass a single drop, though he often sets himself in the position for so doing, and he
presents all the symptoms of cystitis. The disease must be carefully distinguished from the suppression of urine, in which the function of the kidneys is suppressed. (See Nephritis.) Cantharides have always succeeded with me in treating retention of urine. Hyoscyamus is useful in obstinate cases.

FALL OF THE MATRIX.

In cows, after difficult parturition, in which manual interference has been used without due care, or by reason of the efforts which the animal makes after delivery, it is not uncommon for the womb to become inverted, and for it to appear externally, either partially or entirely, in the form of a very large body, of a deep red color, the surface of which is covered with a great number of red bodies of a satin appearance, which are the mouths of the uterine vessels. In such cases it is necessary to hasten, if we would avoid inflammation, gangrene and death. Before everything else we must reduce the womb carefully. To accomplish this, we must place the animal so that it may have the hind-legs much more elevated than the fore-legs; we must wrap around the hand a soft napkin steeped in milk, and then gradually reduce the organ, like the finger of a glove, an operation more difficult than is generally supposed. If the accident be not of recent date, if the womb be dry, cold, or even soiled, we commence by washing it well with tepid milk. The operation being concluded, we administer arnica internally, and throw up injections of arnica water, which are very advisable, more especially when the accident has been occasioned by difficult parturition, or when the extractions of the after-birth have injured the womb. When there is fever, and an inflammatory state, we administer forthwith a couple of doses of aconitum. If the accident have been produced by great efforts in parturition, we must have recourse to
DISEASES OF THE FEET.

sepia and to platina; and, if it make its appearance a little after calving, especially when the mother is lying down, benefit will be derived from china (two doses each day.) Pulsatilla and sepia are specifics when the fall of the womb has been occasioned by efforts made to expel the placenta; if the anus has become depressed, cocculus would appear more particularly useful.

SECTION VII.

STRAINS AND DISEASES OF THE EXTREMITIES.

FEET (DISEASES OF THE.)

When a foreign body is insinuated into the foot, it must be extracted, after which the wound is to be treated with arnica water, and there must also be administered a couple of doses of arnica internally. Aconitum and squilla are proper if inflammation has already set in; acidum phosphoricum and arsenicum, if there be acute pain.

In case of inflammation of the foot, aconitum should be employed, then rhus toxicodendron (a few doses.) When there is hot and tense swelling, bryonia must be employed. If the skin, red and shining, can be seen through the hair, we should have recourse to pulsatilla. Belladonna is useful against erysipelas in inflammation of the feet; ruta against inflammation of the fetlock-joint.

FOUL IN THE FOOT.

This inflammatory affection of the foot depends generally on long walking over hard roads. It makes
its appearance in general with pains in one or more feet, with which the animal limps. The hoof is more or less hot, and very sensible to pressure, especially posteriorly, so that the animal does not put down the affected foot without considerable precaution when he walks, and keeps it raised when he is at rest. If the proper remedies are not employed in time, the inflammation passes into suppuration: the animal remains lying down, and the pus which escapes at the coronet often occasions a fall of the horny crust. As long as the accident is recent, and we have to deal only with simple inflammation, it always yields to the internal and external use of arnica. If this substance effect improvement, but without establishing a complete cure, we should substitute conium. When the inflammation is not very severe on the parietes of the hoof, while the sole is very painful, so as to render walking on hard ground rather unsteady, we may reckon on the specific properties of arsenicum and acidum phosphoricum. Squilla is proper in case of violent inflammation of the fleshy part of the foot. If through neglect the disease has become very severe, and more especially if suppuration has already declared itself, we are then to have recourse to squilla, conium, then to antimonium, and nux vomica, and above all to pulsatilla and mercurius vivus. When pus has been effused into the cleft, we must employ surgical means capable of effecting its free escape externally. Further, the animal must be left in a state of rest on a dry and soft litter.

HOOFs (WEARING OF.)

This accident often happens in beasts which walk very much on paved roads, or which graze on steep hills. After having cleansed the cleft of the hoof carefully, in order that no foreign bodies may be left in it, arnica should be employed, both externally and inter-
nally. At a later period *mercurius vivus* should be employed. The occurrence is detected by the animal's limping a little. No time should be lost in applying a remedy, as it frequently suppurates, and becomes difficult of cure.

**INFLAMMATION OF THE INTERDIGITAL SPACE.**

Foreign bodies which have penetrated the interdigital space, and which remain there, or an accidental lesion of the integuments of this region, give rise to an inflammation which is announced first by redness, but ultimately degenerates into a corroding ulcer of a bad character. The animal experiences acute pains, is very dejected, no longer ruminates, wastes away, and rests only with considerable caution on the diseased foot. At the onset we never fail of obtaining a complete cure by employing frequent lotions with *arnica* water, after the removal of the foreign body. However, if the inflammation has already attained an extreme degree, if there be much heat and pain, it becomes necessary to employ *aconitum* and *arnica* internally, at the same time that *arnica* is employed externally. Lastly, if through neglect things have gone so far that the ulceration is really making ravages, no time should be lost to make use of those means which would then be indicated, viz: *arsenicum, acidum phosphoricum* and *squilla*, are the remedies to be employed. Consult the articles **Abscess** and **Suppuration.**

**INFLAMMATION OF THE LAMINA.**

Laminitis, a disease similar to the foot-rot of sheep, and which often accompanies stomacace, very frequently presents itself in an epizootic form. At the onset, the animal loses appetite, becomes melancholy, its breathing becomes hurried; rumination is slow, or
more rare than usual: the mouth is hot and dry; the alvine discharges are hard, the urine has a deep color; the milk is worth nothing, and generally disappears. After the first days which follow the invasion of this disease, accompanied with inflammatory fever, there is observable a strikingly marked sensibility of the hoofs on one of the extremities, or on all; the animal prefers to remain lying down, and when forced to walk, he does so with great caution, raising and letting down the feet with a convulsive movement, and limping more or less. Heat and swelling are seen to exist between the hoofs and on the fetlock, and from this moment resting on the foot becomes impossible. A little time after, the swollen parts are covered with pustules, from which is discharged a yellowish white fluid. Lastly, in some cases there is produced a small ulcer on some part of the coronet. When the disease is mild, in which case there is usually observed merely some redness, swelling, and oozing in the interdigital space, the cure is prompt and easy; but the fever which accompanies the disease is occasionally more intense, the affection of the foot is more severe; and, if circumstances are unfavorable, especially if there have been any neglect, the disease may last a long time, and become dangerous. Then the fever readily assumes a putrid character, with great prostration of strength; the ulcer of the foot secretes an acrid and fetid ichor; in its place a new one is slowly developed; sometimes even the ligaments and bones of the foot are attacked, or the inflammation passes into a state of induration, the result of which is incurable lameness.

I have found acidum phosphoricum an excellent remedy in most of these cases. Others have experienced the efficacy of sulphur, and of carbo vegetabilis, preceded by a few doses of nux vomica. Lux recommends the bupodopurinum as specific. Mercurius solubilis has often rendered great service in diseased
lamina, accompanied with stomacace. At the onset of the disease, when there is yet only a difficulty of walking, and some sensibility of the sole, *arnica* (internally and externally) and *arsenicum* may suffice for effecting a cure; however, even under such circumstances, *acidum phosphoricum* has succeeded more than once, so that I am tempted to consider it as the most useful.

**STRAIN OF THE SHOULDER.**

This injury, which in general is observed only in oxen employed for drawing, may be produced either by too great efforts, false steps, slips, or by external violence acting on the shoulder joint. The affected limb is not moved as freely as the others; the animal moves it only with pain, trailing it; when it becomes necessary to pass over a height, for instance, the threshold of a door, he does not raise it sufficiently; and when at rest he usually carries it forwards, so that the weight of the body presses more on that of the opposite side. In general the shoulder-joint is painful to the touch, and it is also frequently hot. The remedy, chiefly when the shoulder is affected with rheumatism, is *ferrum muriaticum* in the third dynamization, which never fails, even when the disease is of long standing. I have seen the highest dynamizations produce less effectual results. It is stated that *veratrwm* has also been found effectual in such circumstances. When the disease has been occasioned by great efforts in drawing, by a false step or a slip, *rhus toxicodendron* should be employed, and when it has been occasioned by external violence, *arnica*. If the latter fail, and there be reason to suppose that the bony parts are affected, we must have recourse to *symphytum*, internally and externally. *Aconitum* is employed when there is inflammation, and *aconitum* followed by *bryonia* when the affection has supervened.
on cold. The most absolute rest is necessary during the entire course of treatment.

**STRAIN OF THE HAUNCH.**

Strain of the haunch consists chiefly in being unable to move the hind-quarters and the hind-limbs. It is characterized by the following symptoms: the animal eats regularly, but he limps in the hind-quarters, and drags the hind-limbs after him; and when at rest he separates them as much as possible from each other. If the disease has gone to a very great height, he can neither remain standing up, nor walk, and he falls down. He is unable to stand up again. Sometimes there is observed a hot and painful swelling in the lumbar region. Sometimes the disease is rheumatic, and the consequence of sudden cold. Sometimes it depends on external causes, such as blows on the loins, efforts at drawing, slipping, &c. In the latter case *arnica* should be employed (internally and externally,) and *rhus toxicodendron* or *symphytum*, if there be lesion of the bones or periosteum. If there exist any inflammatory swelling, *aconitum* should be administered alternately with *bryonia*. *Coccus* also is an excellent remedy. *Nux vomica* is used in strain of the haunch in calves.

**STRAIN OF THE LOINS.**

The causes are the same as in the two preceding cases; only external violence, strains, slipping, have in this case still more influence. The symptoms resemble somewhat those which characterize strains of the haunch. When the disease is very severe, the animal cannot raise the hind-quarter, which circumstance always obliges him to remain lying down, though in good health in other respects, and having a very excellent appetite. Sometimes a swelling appears on the lumbar region, which occasions acute
pains when touched. The chief remedies to be employed are *rhus toxicodendron*, *cocculus*, *bryonia* and *ledum*; if the tumor exist, *aconitum* is employed alternately with *bryonia*. When the strain depends on a blow or injury, *arnica* and *symphitum* are to be employed, and if it be a calf, *nux vomica* and *pulsatilla*.

**SWELLING OF THE THIGH.**

*Arnica*, internally and externally, is a tried remedy in this affection, when it has been produced by a contusion. *Conium* is equally good. If the swelling is hot and tense, *bryonia* should be employed; if it be clammy, we should have recourse to *china* and *arsenicum*, followed by *sulphur* after some time.

**SWELLING OF THE KNEES.**

Swelling of the knees is not uncommon in oxen in consequence of the position in which they place themselves when endeavoring to stand up. The knee, when it has received a contusion, becomes hot, painful, inflamed, swollen, which interferes with the animal very much, both in walking, and lying down, and rising up. *Arnica* water, frequently employed from the commencement, never fails to remove the disease in a very little time. If this be of long standing, *china* should be administered, when the swelling is painful, and *pulsatilla*, when it is not so. *Silicea*, *lycopodium* and *sulphur*, have been also employed with success in obstinate cases. See Sponge.

**SWELLING OF THE FOOT.**

*Arnica* is used in swelling of the foot, when it results from an external lesion, and *symphitum* in that which affects the bones. Both the one and the other must be employed internally and externally. If the
affection has been caused by cold, *dulcamara* should be employed. When the swelling is hot and tense, *bryonia* should be given. That kind of swelling which disappears in consequence of moving, and returns during rest, requires *rhus toxicodendron* and *arsenicum*. We should have recourse to *thuja*, if it be not the fetlock-joint; to *squilla*, if it be accompanied with heat in the hoof; to *arsenic*, if the sole be painful. ÓEdema of the feet requires *china* and *arsenicum* according to my experience; others advise *indigo*, *thuja*, and *sulphur*; and, when the four extremities are Óedematous at the same time, *opium* and *sulphur*.

**TAIL (DISEASES OF THE.)**

It sometimes, though rarely, happens that the hairs fall off at the end of the tail, after which a fluid oozes from the part; it then becomes covered with small ulcers, which ultimately attack the vertebrae and cause entire pieces of the tail to fall off. Sometimes there are no ulcers, and the vertebrae, are only softened; still, however, the tail falls off, either wholly or in part. This disease often occasions death. Having never an opportunity of seeing it, I can only point out the probable remedies to which recourse should be had, and which are *acidum muriaticum*, *acidum nitri*, *mercurius vivus*, *asafetida*, *silicea*, *lachesis*, *sepia*. *conium* and *sulphur*, but principally *arsenicum*.

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**SECTION VIII.**

**TYPHUS.**

**SUPPLEMENTARY TO SECTION I, PAGE 220.**

Writers have published a multitude of hypotheses, some of which are exceedingly strange, on the causes of this terrible disease. There are some who attribute
it to moist heat too long continued, or to rapid alternations of cold and heat. Though it must be admitted that it often makes its appearance after great heat, especially when this follows long rain, it is no less true that it is often observed in winter. Others will have it that it arises from want of water; from deterioration of the fodder; from the stings of insects; from want of cleanliness of the stable; from excess of work; from the use of certain plants, &c. The only thing agreed on, is that it owes its origin to a peculiar miasm, engendered by a combination of circumstances as yet unknown, and that it is transmissible from individual to individual.

The animal laboring under typhus ceases all at once to eat and to ruminate: it is as it were struck with stupor; it holds its head hanging, or lays it on the manger, or carries it abruptly upwards and from side to side, sometimes uttering moans. Occasionally it becomes mischievous, and attacks the persons who have the care of it. The eyes are fixed and watery, though little or not all red; the horns, ears, and nose, are sometimes hot, sometimes cold, within the space of a few minutes. Frequently the cold predominates from the commencement, and continues even to death, which is not long in taking place. Some of these animals discharge a bloody mucus from the nose; others grind the teeth; in most a viscid saliva is discharged from the mouth; in some the breathing is short and impeded with pulsation of the flanks and short cough; the alvine discharges, and urine, are occasionally suppressed: if the animal has a discharge from the bowels, it passes only dry hard excrements in small round lumps. At a later period it passes mucus and blood, which indicates the approach of death or cure. A watery diarrhœa has been observed to be followed very quickly by cure, or bloody and extremely fetid evacuations, after which all the bad symptoms quickly disappeared. The skin sometimes sticks to the
subjacent parts, sometimes it is separated from them by air, so that in passing the hand along the back, a sort of crepitation is perceived. The hair is generally dull, staring, and rough. Sometimes, but always after the danger is passed, carbunculous tumors form on the back, abdomen, sheath, and on the teats. Cows give little or no milk; this is one of the most constant symptoms. In general the secretion of milk ceases on the first appearance of the disease. When the hand rests on the spine of the back, the animal endeavors to avoid the pressure, it moans or lows, it trembles all over the body, or with its hind quarters; the greater the trembling, the nearer is the danger. The beast seems no longer able to keep on its legs; it separates them, stumbles in walking along, and soon falls, once on the ground it exerts all its strength to rise, and sometimes succeeds, but soon falls again, and remains dead on the place where it has fallen, or soon expires in convulsions. Sometimes the animal keeps its hind legs close to each other and approximates them to the fore legs; others kick, evince much restlessness, lie down and quickly arise; in the case of these also, death occurs in a few hours. After the extinction of life, some blood escapes through the anus, often also through the mouth and nose, and the body soon becomes putrified.

The symptoms just enumerated take place when the disease, as most generally happens, runs through its stages in four and twenty hours; for it seldom lasts from two to four days. But very often, more especially when it invades a locality, it kills in a manner suddenly; whether in the fields or at work, the animal commences on a sudden to tremble, and is dead in a few hours. Beasts which were in good health the preceding evening, are sometimes found dead in the morning.

On opening the body, the spleen is found much larger than natural. It is deep-colored, with brown
or black spots, and reduced to a soft consistence; when it is pricked, a brown fluid mixed with black blood issues from it. The intestines, which exhibit gangrenous spots, are gorged with black blood, and are often distended with gas, as also the stomach. The lungs are generally healthy; sometimes, however, they are flaccid, soft, and gangrenous. The blood remains fluid.

With respect to treatment arsenicum is a certain means of cure and preservation. On the first symptoms of the disease being perceived, such as loss of appetite, suspension of rumination, trembling of the hind-legs, staggering when walking, hair dull and rough, eyes swimming in water, alternations of heat and cold in the horns and ears, disappearance of milk, &c., a dose of arsenicum should be administered, which is to be repeated every five to fifteen minutes, until there is marked improvement; in slight cases one hour or an hour and a half interval may be allowed between the doses. The curative effect becomes perceptible after a very little time, and so much the sooner, in proportion as the attack was more violent; so that in the most acute cases the amendment often becomes perceptible in a quarter or in half an hour, which is recognized by the following characters: the animal shakes off the stupor, looks around it, and notices the person taking care of it; the trembling diminishes or ceases altogether, the horns and ears are less cold, or less burning; there is a little appetite, the hair lies down, the eye loses its fixedness, and the animal has an alvine discharge; the evacuations vary much, being sometimes natural, sometimes bloody or mucus; at length a general warm sweat sets in, or tumors, abscesses, or eruptions; in the case of cows the milk returns. When these signs of improvement are observed to take place, we must wait for some time before repeating the dose, being always regulated by the degree of severity with which the disease
commenced; if the aggression be violent, and the first dose produces no perceptible effect, after a quarter of an hour, or at most half an hour, the arsenicum must be repeated, and then continued at the same intervals; if, on the contrary, the disease is but moderate, it is better to allow the first dose to act for an hour; and if an improvement take place a second is not given, until the amendment ceases to progress. Often a single dose suffices to remove the disease, whilst in other cases, from two to four, even from twenty to thirty are required, before we obtain a complete cure. It is unnecessary to say that during the whole course of treatment, we should not lose sight of the patient for a moment.

Should an amendment or cure be obtained, all is not yet over; two cases may still occur.

1. A relapse of the disease. This may take place after the lapse of from four to sixteen hours. It is important then to watch the animal during twenty-four hours, and still to make it take a few doses, at intervals of about four hours. If the relapse had already taken place, we should proceed as on the former occasion; but the danger would be still greater.

2. Other circumstances supervene which, however, are never dangerous. In different regions of the body, cold, soft, or hard tumors of an indolent kind form. Sometimes there remain hard indurations, or swelling of the glands, and teats with suppression or diminution of the milky secretion. Though the teat present nothing abnormal, the milk is less abundant, or altered in its qualities. The skin is covered with small scabs succeeding pustules which contained a fluid; the eruption occupied the entire or only a portion of the body; it is accompanied with itching or not, the hair remains staring, and does not recover its brightness. The evacuations continue to be hard and scanty. There is emphysema under the skin; crepitation is felt on passing the hand over it. The
skin is completely hard, and does not yield to the action of its proper muscles; the appetite and rumin-ation are not reëstablished.

All these sequelæ yield in a little time to the prolonged use of arsenicum, a dose of which is to be taken every six hours, until no trace any longer remains; which usually is the work of three or four days. The absence of appetite and sluggishness of the intestinal canal quickly yield to a few doses of nux vomica. The appetite almost always returns four or six hours after the first, and if the constipation continue, the medicine is to be repeated every six hours. Spiritus sulphuratus is employed for the eruption and arsenicum for all the other ailments.

In order to preserve the animals from the disease they are made to take first every forty-eight hours, then every twenty-four, and lastly every twelve hours one drop of arsenicum in the morning one hour before eating, and in the evening two hours after doing so.

**BURNS.**

**SUPPLEMENTARY TO SECTION I. PAGE 220.**

The best remedy for burns, both in man and ani-mals, is the external application of the pure tincture of urtica urens, of which, if required, some drops may also be swallowed. To prepare this tincture, the net-tle is gathered just when it is about to flower; the flowers and leaves are removed, they are cut small, they are put into a flask, alcohol is poured on, and the bottle is well corked; at the end of some weeks it is strained through a linen cloth; then after decanting, it is filtered through bibulous paper.
OEDEMA OF THE LEGS.  
SUPPLEMENTARY TO SECTION I. PAGE 220.

Edematous swellings of the legs, so common in horses, is also sometimes seen, though very rarely, in horned cattle, chiefly in oxen employed for drawing. At the fetlock joint, or higher up, there appears a hot and painful swelling, which renders the movements stiff, or causes lameness; after some days a watery fluid is discharged from the part, which soaks into the hair, and unites it into fasciculi. The lameness goes on increasing, chaps are formed, and the pus is so acrid, that it destroys entire flakes of skin, and on some of the soft parts warts are occasionally observed to come out on the swelling, which bleed on the slightest touch, and constantly give out a fetid odor. Thuja is a specific in the cure of this disease; one or two doses are often sufficient to effect a cure. The warts are to be treated twice a day with the pure tincture of thuja.

ITCHING.  
SUPPLEMENTARY TO SECTION II. PAGE 244.

Itching in general is only a symptom of different diseases of oxen. Still it is frequently met alone, and it then indicates almost always a latent exantheme, or one that has been driven in. The principal remedies are sulphur and staphysagria (in repeated doses.) When it comes on after cold, it is to be treated with aconitum and bryonia.

STOMACACE, (ULCERATION OF THE MOUTH.)  
SUPPLEMENTARY TO SECTION III. PAGE 249.

This disease generally accompanies limace, and mostly attacks the entire herd. At the commence-
ment there is redness as well as heat of the mouth, diminution of appetite, and of the milk, which is watery. After some days numberless small red points, which gradually increase in size, and are converted into white vesicles, the size of which varies from that of a poppy seed to that of a pea. These vesicles burst, and leave a crust after them. The animal, which is prevented by the pain from eating, drinks and dribbles very much. If the disease is to terminate favorably, the tongue cleans by degrees. In the contrary case, livid, confluent vesicles are formed, leaving behind them corroding ulcers, which cause the mucous membrane of the mouth to fall off in flakes. There is almost always inflammation of the throat, and a fetid state of the breath; the animal is attacked with cough, wastes away, and dies. In other cases the disease degenerates into limace: some time after the cleaning of the tongue, which seemed to announce that all was over, the fever reappears, and the symptoms of limace are observed to come on. The two forms of disease are contagious. The principal remedies are bustomacacinum and mercurius solubus. Acidum phosphoricum, alternately with mercurius solubus (one dose of each daily) is indicated when there is ulceration of the mouth, with viscid, thready, fetid saliva; staphysagria, when the gums are painful to the touch; helleborus niger when the gums are fungous, and the animal very much depressed.

PLEURISY.

SUPPLEMENTARY TO SECTION IV. PAGE 257.

The symptoms of inflammation of the pleura are cold, followed by an increase of heat in the ears and nose, elongation of the neck, and depression of the head. The animal seldom lies down. Respiration embarrassed, with more marked movement of the belly and dilatation of the nostrils; slight cough; fear of the
least touch on any part of the chest; alvine discharges dry, blackish, shining, and deeply furrowed; urine red. Sometimes the fever is so slight, that the disease is scarcely perceived. No appetite, and the secretion of milk is very much diminished. Pleurisy differs from pneumonia in this respect, that in the latter the respiration is still performed by means of the ribs, and not by the movements of the abdomen; the cough is a little more free, and pressure of the finger on the intercostal spaces causes most acute pain. The chief remedy to be employed is aconitum, of which one dose is to be taken every two, three, or four hours, according to the severity of the fever, until it has entirely ceased. The same doses of bryonia are to be given, at intervals of from eight to twelve hours at least, which removes the remainder of the disease. Chamomilla contributes to restore the secretion of milk in milch cows.
PART III.

DISEASES OF SHEEP.

SECTION I.

GENERALITIES.

The sheep and goat approach so closely to oxen, with respect to the digestive organs and teeth, that all these animals may be included under the collective term *ruminants*. However, the sheep differs essentially from the ox in many respects. A great portion of its vital power being employed in the production of a thick fleece, the remainder of the body must necessarily feel this. The animal is likewise more timid and more delicate. To this we may add that the greediness of man often exacts from the sheep two fleecings per annum, a circumstance which must contribute to weaken the species. Besides, the regimen corresponds very little with the demand made on the sheep: the habit in some parts of the country of rearing the greatest possible number of them, prevents them from receiving sufficient and wholesome nourishment; for if even during summer they are suffered almost to die of hunger on the parched and barren fields, or in places which afford them nothing
but sour and unwholesome plants, so frequent a source of diarrhoea and rot, their lot is still more melancholy in winter. Should we, then, be surprised, that this animal, of a feeble and delicate constitution, should be subject to so many diseases, and that its offspring, instead of improving, should go on degenerating?

The principal peculiarities to be taken in order to protect and sustain the health of the flocks, may be represented under the three following heads:

1. To have good pastures. High meadows are best for sheep, especially when the season is damp, or in general during rainy years: it is necessary, on the contrary, to avoid moist, marshy meadows, unless heat of long duration renders them completely dry. The best herbage consists of aromatic plants, sweetish or a little sharp and bitter, as those also found in glades in the woods.

Saline plants are very nutritive, but produce bad wool; aquatic vegetables are always injurious.

2. Not to commence the winter diet too soon. Neither should sheep graze as soon as the grass begins to turn yellow in autumn. The hay given to them in winter should be of good quality, not mouldy nor damp. The pod of the pea, lentil, or vetch may answer very well; all others serve rather to overload than to nourish; and it is even said that the oat-chaff causes the wool to fall when the cold is severe. Generally speaking, roots are not suitable diet for sheep, from their being too watery, and inducing flatulency. Without salt a flock never thrives, notwithstanding the quality of the fodder. Whenever the season is fine, the flock should walk out even in winter for an hour or two.

3. To have good folds is an indispensable condition for preserving the health of the flock. The fold should be dry, sufficiently spacious, (height not less than ten feet, nor more than sixteen,) and well aired. The floor should be hard, if not paved, at least beaten
down like that of threshing-floors, the openings, superiorly near the roof, and inferiorly near the ground, should be sufficient in number to afford a free access of the air from without, both in summer and winter, provided the wind is not strong and cold.

It is a great mistake to suppose that a nourishment very copious and very succulent will improve a flock, procure more wool, and render sheep more fruitful. Far from being useful, it is very injurious, gives rise to different diseases, and lessen fruitfulness. If we desire to improve the flock, we must select none but the strongest lambs, and the healthiest of the two sexes, especially such as have the finest and thickest wool. A sheep in health carries his head erect; its eye is open and bright; the vessels on it are red, the muzzle is moist; the nostrils not soiled with mucus; the tongue and mouth are clean and red; the breath is not fetid; all the motions are executed with ease; the wool lies close to the skin; the latter is soft and pliant, without any bald patches, excoriations, or ulcers. The best mode of improvement consists in employing rams of a fine breed. Foreign rams are chosen in preference; but those of the country will also answer, provided they are perfectly healthy, have the forehead broad, the eyes large and bright, a long and full neck, a broad back, a body long and rounded, legs stout, and separated from each other; the tail long and woolly, the wool close, long, fine, and every where white, and the age from two years and a half to three years.

With respect to the treatment of diseases, I have often had an opportunity of remarking that the sheep is, probable, of all domestic animals, that which is least sensible of high dynamizations: we might expect as much from an animal which never thinks except of eating.

It is also important not to forget that in summer especially, sheep are much less than other animals
under the eyes of the proprietor, and that it generally happens that he is not apprized of their diseases until it is too late to relieve them.

ANOREXIA.

Diminution of appetite, when it is not the consequence of a general morbid state, frequently depends on the digestive powers having lost their energy, and then a few doses of 

arsenicum are sufficient to remove it both easily and promptly. It is often attributable to the stomach having been overloaded with aliment; in this case 

antimonium crudum is the chief remedy; next 

pulsatilla and 

nux vomica, the latter more especially when there is constipation at the same time.

DISEASE OF BLOOD.

Disease of blood, or 

sang de rate, in general destroys sheep with such rapidity, that few symptoms announce it before death, for a very few minutes are sometimes sufficient for the animal to be arrested on a sudden, commence trembling and fall down lifeless. When it can be observed for a day, or at least for a few hours, the following symptoms present themselves: the sheep becomes weak and sad, it tarries behind the flock, holds the head down, lies on the ground, and is unable to rise again. If it remain standing up, it trembles all over, and if, after it has lain down, it be raised, it seems as if paralysed in the hind-quarters, walks with extreme slowness, takes a few steps in a staggering manner, but soon stops and falls on its side. The eyes are full of water; afterwards of viscid mucus; a yellowish or yellowish-white mucus is also discharged from the nose. If the mouth and nose of the animal be closed, it passes bloody urine, or even pure blood. The breathing is difficult, and in some cases tubercles are observed here and there through the wool. Besides those which are the prominent phenomena, the
following are also observed: the animal ceases to ruminate, the breathing becomes loud and impeded, the eye is fixed, bright, and projecting out of the orbit, the muzzle is dry and of deep red color: there appears on the cranium a swelling which gradually attacks the entire head; frothy blood is discharged from the mouth, nose, and often from the anus; convulsions supervene, and the animal frequently dies in a very little time, just when such an occurrence was least expected. Sometimes the entire skin becomes burning hot, and over different parts of the body, more especially on the abdomen, head, neck, and back, there appear erysipelatous and gangrenous inflammations, with or without pustules. In many animals, a little after the commencement of the disease there are observed red points, or small granular elevations in the parts where the wool is scanty. Occasionally the appetite continues for some time; but when the erysipelatous spots announce an increase in the severity of the disease, it disappears to give place to general debility and fever. The spots, more especially on the chest and belly, then rapidly increase in extent: from being red as they were at first, they become bluish, then black, which indicates gangrene, and in the course of from six to twelve hours death takes place. In certain cases which are more uncommon, erysipelatous inflammation supervenes, first on one thigh, and then the (as it were) paralytic state of the animal is the first symptoms which announces the existence of the disease.

The remedy for curing and preventing this affection is *arsenicum*, of which according to the greater or less severity of the disease at its onset, one dose is given every ten, fifteen, or twenty minutes, this being continued until an evident improvement is effected: then a few doses of *anthracinum* is to be taken at more distant intervals. *Arsenicum* and *anthracinum* are also a certain preservative when the disease prevails in the
neighborhood; a dose of this is to be taken two or three times a week. Kleemann, who has rarely seen *anilhracinum* effect a cure, considers it on the contrary as a decided preservative. He directs that from ten to twelve drops be poured into a pail of water, that a half-bushel or bushel of oats be steeped in the liquid during from six to twelve hours, and that this grain be then distributed, which will suffice for six hundred sheep.

**CACHEXIA (AQUOSA.)**

This disease, which at first is not readily recognized, and which proceeds very slowly from its commencement, is denoted chiefly by the following symptoms; the animal, whilst preserving a healthy appearance, gradually loses its ordinary sprightliness; it becomes slow in its movements, indolent and sad, carries the head and ears hanging down, and tarries behind the flock, should the latter walk a little more quickly than usual; it often lies down, evinces very little resistance when seized and held, and displays but little appetite, though its flesh seems rather to increase than to diminish. The eyes gradually become dull and turbid, the conjunctiva is pale, as also the muzzle, gums and skin; the wool loses its elasticity, and may be easily pulled off; from the eyes and nose, mucus is frequently discharged, and from the mouth a foul saliva, which forms a somewhat thick coating on the tongue, flaccid and pale. The breathing then becomes more difficult, the animal more feeble, and at the same time that the entire body wastes away, the abdomen swells, more especially on the right side. The appetite diminishes more and more, but there is great thirst. At length diarrhoea and putrid fever supervene; the breath becomes fetid; the animal continues to lie down generally without moving, he retains the position in which he is placed, being from debility unable to
Epilepsy is characterized as vertigo, by the staggering walk of the animal, which falls to the ground; however, there is this difference, that in the attacks of epilepsy, the animal does not remain stretched quietly on the ground, but it suffers convulsions and exhibits change it, and death at length takes place. On opening the body, the cellular tissue is found to be anasar- cous, the blood is very watery, and there are often effusions of serum in the thoracic and abdominal cavities. The lungs and all the other viscera are pale and bloodless. It is in the liver that the greatest number of morbid changes may be observed. This organ acquires a size and weight much greater than in the healthy state; its substance is very easily torn, its color earthy or leaden, its surface covered with tuber- cles, and with vesicles full of water. The gall-bladder is much distended and gorged with bile. The reser- voir, the liver and biliary ducts, which are often dilated, contain a number of flukes (Fasciola hepatica,) which vary in size and color, and which continue to give signs of life even after the death of the animal. Formerly it was believed that these worms had been swallowed with the water or fodder; at present it is known that their production, like that of other entozoa, is connected with a morbid state of the system. This disease, which bears considerable resemblance to the rot, and which seems even to be hereditary, is most usually occasioned by grazing in damp meadows. The means which have been found most effectual for this disease are graphites and lycopodium. Helleborus niger is suitable when there are symptoms of hydro- thorax, indicated by difficulty of breathing; mercurius solubilis, china, nux vomica, and sulphur, when the excrements are whitish, and there are signs of jaundice and dropsy, which are not uncommon.

Epilepsy.
INFLAMMATORY FEVER. 315

spasmodic movements, kicks, rolls its eyes, grinds the teeth, foams from the mouth, &c.; symptoms to which is often added the involuntary discharge of dung and urine. The duration of a fit varies much; sometimes the sheep arises after the lapse of five minutes, commences to eat, and appears in as good health as ever; sometimes, on the contrary, it does not come to itself till after the lapse of a quarter or even half an hour. The symptoms of the disease present no danger, except by their frequent repetition; for then the animal wastes away by degrees, and at length dies, without anything else being remarked, except that by little and little the fits return with more severity, at shorter intervals. Some doses of aconitum, which should be followed by stramonium and belladonna are the principal remedies to be employed. When the animal kicks violently, hyoscyamus has been employed with success, and benefit has been said to be derived also from cocculus and calcarea carbonica. Camphora, in frequent doses, is calculated to prevent the return of the fits.

The verminous colic, which sets in with the same list of symptoms, yields to china.

INFLAMMATORY FEVER.

Inflammatory fever usually appears only during the hot days of summer in sheep who are well fed and plethoric, which have to walk too far in order to reach their pasture or who continue all day exposed to the sun without water to quench their thirst. It manifests itself chiefly by the following symptoms: the animal ceases to eat; it feels great thirst; has its eyes very red, and remains behind the flock, which it can follow but slowly. The pulse is much accelerated, beating from 90 to 100 per minute; the nose, mouth and breath are very hot; the animal has little or no discharge from the bowels or bladder. If the disease
continue to progress, the body is seized with trembling, the walk becomes staggering, the breathing more and more difficult, the mucus membrane of the mouth bluish and cold, and the animal dies in convulsions, from twelve to thirty-six hours after the attack commenced, or else encephalitis or pneumonia becomes developed. The specific for this disease is *aconitum*, in frequent doses, repeated at short intervals. Consult the articles: *Encephalitis, Enteritis, Pneumonia*. It is unnecessary to mention that the animal must be kept in a state of absolute rest, in a shaded and cool place, and that nothing should be allowed it but a little green fodder. The means of avoiding inflammatory fever are, not to pen up the sheep in close folds, to expose them as little as possible to the sun, more especially about noon, and when it is very warm, not to lead them far, nor to make them walk too quickly.

**FORAGE.**

Food and drink are, as we know, objects of the utmost importance to animal life. The shepherd must be continually on the watch that the sheep may have a sufficient quantity for their wants.

The feeding of lanigerous animals, considered generally, is of two kinds; that which they obtain in the pasture, and that given them in the fold.

Every one knows that there are good and bad pastures; and the shepherd should be at liberty to choose them, such as the health of the animals require, and this is the point by which he is to prove that he understands his business well, that he knows how to direct his flock so as to keep it healthy amidst even unfavorable circumstances.

The plants which grow on a low and damp soil, those which cover marshes, bogs, &c., not only afford less alimentary substance, but contain also, some acrid
and acid juices, whilst others contain injurious principles, which injure more or less the health of the animal. When the shepherd is obliged to have recourse to such pastures, he should at least not allow the sheep to take the food for the entire day in these places, and he should first drive them to fallow grounds or fields that have been mowed, and to places covered with healthy and innoxious herbage.

If the shepherd is at liberty to lead his flock into a forest, especially into a copse, the foliage of the shrubs present an excellent remedy against the effects of unwholesome meadows. When he cannot do so, he should at least attend that the sheep, before going to pasture, receive dry fodder, even if it were only common straw, and good water in sufficient quantity.

The very best pasture even may injure, in different ways, under certain circumstances.

Rainy weather, long continued, causes plants to be charged with watery juices which are injurious to health. This circumstance, combined with cold and damp, may occasion the development of a cachetic state. To obviate so serious an inconvenience, the chief precautions to be taken are as follows: 1. When the close and rainy weather lasts for three consecutive days, the sheep, if there be dry fodder, should not be turned out till after they had eaten some; neither should they remain for more than three hours in the damp meadow, and only two if it rain very much. They are then to be brought in, and, after the lapse of four or five hours, when they have received a second allowance of dry fodder, they may again be brought out into the open air for two or three hours. To let them remain on the meadow for more than from four to six hours a day, would be very injurious to them under such circumstances. 2. When in the fold they should have a good litter in order that they may be able to warm and dry themselves on it; if they evince a desire for drink, it should be given to them. 3.
When there is no dry fodder, and the shepherd finds himself obliged to feed his flock on bad pastures, he diminishes the chances of injury by allowing them to feed only in the morning and at noon, three hours each time, and keeping them in constant motion. 4. When the litter is deficient, the beasts should be collected together as close as possible into the fold, in order that they may heat each other. 5. If the rain cease whilst the flock is out, it may be left there longer than has been stated, or, if the sun shines, it may be allowed to remain there until evening. 6. Every time the bad weather renders it necessary to return to the fold, it is necessary to accelerate their pace, for the purpose of quickening the circulation, and thus increasing the animal heat. 7. The flock should never pass the night outside when the weather is bad.

The shepherd needs great prudence when the pasture is covered with dew. The sheep should have dry fodder in the morning before going out, and if there be none, they should not be made to go out until the dew is sufficiently dissipated. If there be no means of avoiding their going out in the morning, they are allowed to graze only whilst walking gently, until the dew has evaporated.

The shepherd should also act with great caution when he drives his flock into fields of clover, or ground where mustard grows. He never should allow his sheep to feed there long; at most he should allow them but half an hour, and should carefully select the barest place. After two hours the flock may return. By acting in this way, he avoids the risk of having flatulence produced. In this case, also, it is useful to give dry fodder to the sheep before leading them to pasture.

Most of the accidents which arise out of errors in feeding, yield to arsenicum album (a few doses only.) If there be merely a surfeit, antimonium crudum and pulsatilla are to be employed. When constipation exists at the same time, nux vomica should be given.
FOUNDERING.

When a sheep is affected with foundering, and is taken to graze with the flock, it walks slowly, with the head depressed; it has no sprightliness; its appetite is impaired, but it is more disposed to drink; and when it comes to the pasture it lies down. Its demeanor in the fold is precisely the same. After some time the slowness of its walk is changed into a rigidity, or rather, tension of the limbs, a state which goes on constantly increasing to such a degree that the animal can no longer lie down but with difficulty, and requires to make great efforts in order to rise. The appetite continues to diminish, whilst the desire for drink increases. When the disease is more advanced, the eyelids are observed to be swollen, the eyes more or less inflamed, and the fore or hind feet, occasionally even the whole four, are extremely hot. In a still higher degree there is no longer any appetite, the feet are burning, and the animal feels so much pain in standing up and walking, that it reconciles itself to do so only for the purpose of obtaining water, which its intense thirst demands; it drags itself along on its knees rather than really walks. It groans and moans; there is severe fever, breathing short, and violent beatings of the flanks. If the disease be discovered in time, it is readily and promptly cured by aconitum (frequent doses) followed by bryonia (some doses,) when it is more advanced. These two substances are those which should be employed at first; but we may have recourse also to arsenicum and rhus toxicodendron, when the feet are very painful; to veratrum album when the disease arises from cold after fatigue; to staphysagria, if the body tremble and the feet rise one after the other.
FRACTURES.

Fractures of the bones of the legs are much more uncommon in sheep than in other domestic animals: it is mostly in lambs we meet with instances of them. After having reduced the fracture, a strip of linen cloth is to be bound round the limb, over which two splints of light wood, or of thick pasteboard are to be placed, which are to extend from four to six inches superiorly and inferiorly beyond the fracture, and which are to be fixed on with a bandage. The bandage is to be moistened frequently with arnica water, and symphytum is to be given internally. After the lapse of from ten to fifteen days the fracture is consolidated.

GAD-FLY.

The symptoms occasioned by the larvae of gad-flies resemble much those which attend dizziness. In the months of August and September, the insect known by the name of Oestrus ovinus deposits its eggs, often in great numbers, in the nostrils of the healthiest and best fed beasts of the flock, whilst they are sleeping on the meadow; the larva, arising from thence, ascend into the frontal sinuses; and until their metamorphosis, they live on the mucus secreted in these cavities. The irritation occasioned by them gives rise to an intense inflammation of the mucus membrane, which produces pains and symptoms similar to those of dizziness. The animal frequently raises the head and sneezes, which makes some of the larvae to come out with a great quantity of viscid mucus. If the number of the worms continued in the frontal sinuses is considerable (it sometimes amounts to one hundred and even more,) the inflammation may go on even to gangrene, and so occasion death. The means hitherto employed in the cure of this disease, which in general is slight, but occasionally also very fatal, con-
sisted of blowing into the nostrils powders capable of producing violent sneezing, which frequently brought out the larvæ with a considerable quantity of mucus. But, as Fisher has well observed, who wrote an excellent book on the Oestrus of sheep: "these powders, employed without caution, may also become as destructive to the quadruped as to the insect." He also advises the introduction of the vapor of sulphur in a state of combustion into the nostrils of the animal, or to inject into them either brandy or oil. The larvæ are killed in every possible way, and their dead bodies are then eliminated by sneezing.

BITES OF INSECTS.

The insects which torment sheep most are the ticks, which sink their heads deep into the skin of the sheep, and suck with so much greediness, that though invisible originally, they attain the size of a kidney-bean. When an attempt is made to tear them away, the head generally remains in the wound, when it occasions inflammation and suppuration. The most simple means are to remove the wool, and to put tobacco water on the insect. It may be killed also with certainty by letting fall a drop of oil on it.

LAMENESS.

It is not uncommon for a sheep to commence of a sudden to evince lameness: the foot must be carefully washed, and examined very attentively. If there be discovered any foreign substance in the cleft, it is to be extracted, and the wound should be washed four or six times a day with arnica water. Sometimes the lameness depends on a stone, or some hard body in the interval between the claws; the removal of this body is then the only precaution that is to be taken. Consult for the other causes of lameness the articles Luxation and Foot-rot.
LUXATIONS.

Luxations, as in other animals, require that, after reduction has been accomplished, the part should be moistened very frequently with strong tincture of arnica, and that this should be continued until the tumefaction has completely disappeared.

MADNESS.

Madness is generally, in sheep, the consequence of the bite of a rabid dog; and in general it does not break out till from three to six weeks after the accident. The animal ceases to drink and to eat, it becomes restless, and evinces an excessive desire for copulation, without distinction of sex or age. The second day after the appearance of these symptoms, the eyes are turbid and inflamed; their walk is tottering and unsteady, the animal takes great leaps, and there is some difficulty in restraining it. There is no desire to bite anything that comes in the way, and no instance is yet known of any person having been bitten by a mad sheep. This state lasts for some days; after which the animal becomes weaker and weaker, at length it is no longer able to rise, and dies. The treatment consists of the wool being first cut, the bite must be carefully washed, and must be covered with linen cloths steeped in water, to which some drops of extract of belladonna have been added. Belladonna must also be administered internally, at first every day, then every two or three days, then every eight days; and this is to be continued for the space of from four to five weeks. The external treatment must be continued until there no longer remains any trace of the wound, which occurs, in general, after a few days. After the use of belladonna, benefit has been derived from some doses of stramonium, under the title of consecutive treatment. When a mad dog has
made his way among a flock, we never can be certain of recognizing all the animals which he may have bitten; prudence, therefore, requires that belladonna be given to the entire flock. Hydropobium has been employed with success in so many cases, that one might be led almost to consider it the real specific for madness. One dose of it is to be given every two days during the space of from eight to fifteen days.

SCAB.

This disease, which attacks the same animal but once during life, and which invades in preference the young ones of the flock, is one of the diseases which occasion most ravages among sheep. There is this peculiarity in it, that we may distinguish in its progress certain stages (infection, eruption, maturation and drying,) the regularity of which often depends, however, on accessory circumstances which invest the disease with a character either of mildness or malignity.

1. In the mild form of the disease, the affected animal is observed for two or three days to be sorrowful and dejected; after which there appear, on different parts of the body, more particularly on the inner surface of the fore-feet and around the mouth, small red spots, whose centre is occupied by a pimple terminating in a white point. This is the stage of eruption which commences with febrile shiverings, trembling, increase of the body’s heat, more especially at the ears and nose, redness of the eyes, and of the mucous membrane of the mouth; the animal is melancholy, holds the head down and the feet closely collected together, and evinces lameness, chiefly in the hind feet. There is neither appetite nor rumination, but great thirst. The greater the number of pimples, the more severe are these different symptoms. The entire body is hot, the breathing short; a mucus clear as water flows from the nose, and the parts where the pimples form, begin to swell, more particularly on the
head, so that sometimes the animal cannot open either its eyes or mouth. The fever still continuing; the pimples rise gradually, and seem full of a fluid, which, at first clear and transparent, soon becomes yellow, thick, and purulent. This state lasts nearly up to the twelfth or thirteenth day, reckoning from the invasion. The pimples are the size of a lentil or a pea, and are surrounded by a red areola. On the thirteenth day, the stage of drying commences. The fever diminishes, and the pimples become by degrees dry: the pus, especially in those which appeared first, becomes yellow, then of a deep color; the pimples flatten, and make way for scabs, which at length become detached, leaving a dry cicatrix behind. The stage of drying, during which the appetite gradually returns, lasts in general from five to seven days, but sometimes longer.

2. In the malignant form of the scab, which always becomes a destructive epidemic, the progress is never so regular, nor attended by such well-marked stages. In general the animals are very sick from the first eruptive fever, the head is much swollen, the eyes are bleary and closed, the breathing is very difficult, and a viscid, fetid fluid is discharged from the nose; the animal generally keeps the mouth open, from whence a frothy saliva issues; it frequently grinds the teeth, and voids liquid excrements, which, like the sweat, exhale a very disagreeable odor. The pustules concealed beneath the fleece, resemble hard, livid tubercles of a brownish or blackish color, and surrounded by a white or bluish edge; they do not rise, but seem flat, depressed, and secrete an acrid and corroding vapor, which forms ulcers of so malignant a character, that they frequently destroy the eyes and entire pieces of the lips and ears. The animal is frequently covered over with disgusting scabs, and his emanations are unendurable; in general death carries him off between the tenth and twentieth day. The disease appears to be more dangerous for the sheep than for lambs and
rams. Sometimes the irregular scab does not attain this degree of malignity; but a great number of the animals which it attacks remain for a long time sickly, and come round but very slowly, or even never recover their health.

The mild form of the scab generally requires no other precaution than to separate the diseased beasts from those which are not so, and attentively to visit the flock every two or three days. The diseased sheep may be led to the fields when the weather is fine and warm; in the contrary case, they must be kept in a warm and dry stable, and nothing but good food be given to them. With respect to the malignant form of the disease, *rhus toxicodendron* and *arsenicum* alternately are the remedies which have succeeded best. They render the disease milder, so as almost to divest it of its destructive nature; and produce this effect, that the beasts not yet tainted, to which they have been administered as preservatives, contract only the mild form of the affection.

Of all the preservatives which have been proposed, inoculation is the best; it has two advantages: first, the disease so occasioned is much more mitigated, and very rarely proves fatal; in the next place, an entire flock may get well from it in the space of fifteen days, whilst the natural form of the disorder requires care and attention for at least six months. It has been ascertained that the latter kills more than one half of those attacked, whilst among the sheep that have been inoculated the greatest proportion that die of it is one per cent.

**ROT.**

The rot in sheep is a disease analogous to cachexy, which generally appears in autumn after wet summers, and then continues almost uniformly to prevail during winter and spring. The progress of the disease is very slow, and there is considerable difficulty in recognizing it at first. However, with practice we may
distinguish, even at a distance, a sheep which is affected with it by its slow walk, shaking head, and depressed ears. The animal often remains behind the flock; it allows itself to be seized without any resistance. Its loins yield to pressure. The eye is dull and watery; the eye-lids are swollen; the lips, gums, and palate, have a pale tint; the skin, which is of a yellowish-white color, appears puffed, and retains the impression of the finger; the wool changes color, loses its brightness, and is easily torn off, even in large flocks; frequently too entire flakes of skin comes off with it. The alvine dejections are soft, urine scanty and of a very deep color. There gradually forms on the upper region of the neck, and on the lower jaw, a soft, indolent tumor, which often appears larger on returning from grazing, frequently disappears during the night, but always returns in the day, and gradually increases in size. By degrees the animal loses appetite, but there is increase of thirst; rumination ceases altogether; lachrymation becomes more and more abundant, and the nose is full of viscid mucus. Then the abdomen swells by constant progress of ascites; the animal becomes extremely weak, it wastes away very much, and remains constantly lying down; the pulse is quick and soft, and death takes place without convulsions in the midst of diarrhoea and progressive cold of the extremities. To these symptoms those of cachexy are frequently added, that is to say, there are found in the bile-ducts and liver, fluke-worms, the presence of which is announced by the yellow color of the skin, tongue and gums, or those of tape-worm in the intestines, or of worms (filiaires) in the trachea; circumstances capable of inducing a fatal termination. On opening their dead bodies, a great quantity of serum is found collected in the chest, abdomen and cellular tissue. The blood has lost its red color, and is deficient in fibrin; the lungs and flesh flaccid and pale; the intestines are almost always distended with
gases and yellowish; the fat is fluid, the bile thin and watery.

The most ordinary causes are exposure to a continuation of damp cold, the influence of marsh effluvia, food of bad quality, and pneumonia, especially when badly treated.

It is unnecessary to say, that we should commence by removing all the occasional circumstances. With respect to the curative means, arsenicum, alternately with china, then bryonia, veratrum album, and aconitum, are found the most efficient. Acidum muriaticum may also prove useful, principally as a preservative; in the latter point of view, two or three doses should be taken every week. Also carbo vegetabilis and oleum terebenthinæ deserve a trial. When there are worms in the lungs, and the disease has not made too much progress, dulcamara should be given, at first every day, then every two days, and the treatment should be terminated with some doses of sulphur. (See Verminous Affections.)

SHAKING.

Shaking attacks sheep chiefly of the improved breed; yet it was already known before the introduction of the merino breed into Germany. It consists in paralysis of the hind quarters and hind feet, which gradually brings on dryness of the entire spinal cord. Its precursory symptoms are peculiar restlessness of the animal, which runs about on every side, holding the head up, and frequently grinding the teeth. There is gradually observed rigidity to come on in the posterior extremities, which renders the gait unsteady, and indicates great debility in the hind quarters: this weakness increases to such a degree, that in walking the animal turns the hind part of the body to the right and left, and at length is only able to trail it along; the least pressure on the sacrum is sufficient to throw
it to the ground. There is often observed a trembling over the entire body, more especially at the head and ears, and a peculiar itching, or a feeling somewhat like it, which obliges the animal to rub itself against everything it meets, so that its tail, flanks, and thighs ultimately lose their wool, and become covered with wounds. The animal wastes away more and more, and at length becomes so weak that it cannot rise. At length diarrhoea makes its appearance, and death takes place, generally from the second to the fourth month. The disease is not contagious, but it is said to be hereditary. The specific is *acidum sulphuricum*, three or four doses a week.

**WOUNDS.**

Simple superficial wounds are quickly and easily cured by the external use of *arnica*; by the help of this treatment twenty-four hours are sufficient to effect cicatrization of those which are caused during the progress of shearing. Deep-seated wounds are never cured without suppuration: this must be left to itself when it is healthy. If, on the contrary, the pus is ichorous and fetid, *mercurius vivus* and *asafetida* should be given internally; when it is thick, and of a bad color, we should have recourse to *silicea*. When the edges of the wound are hard and everted, *arsenicum* is the most useful. If there have been a fracture of bone, or of periosteum, *symphitum* must be employed, both internally and externally.
ANGINA.

SECTION II.

EXTERNAL DISEASES, AND THOSE OF THE MOUTH AND THROAT.

ANGINA.

This inflammation of the pharynx is often caused by cold, when the sheep, after having been heated, breathe a cold air, or when on leaving warm folds they pass into the cold air, or when they lie on a cold and damp soil. The animals affected with disease are very hot, their eyes are red and there is intense thirst; they lose appetite, are melancholy, and hold the head down, this part being protruded forward, as if they wanted breath. When the disease augments, the breathing becomes much embarrassed, stertorous, and sibilous; the neck is swollen, and very sensitive to the slightest touch. At length the animal can no longer swallow, it cannot breathe without the greatest efforts, falls with all the symptoms of suffocation, and perishes. Very often the disease breaks out without any precursory symptom. The animal frequently sneezes, coughs, and raises the head, as if to breathe more easily through the mouth; a discharge from the nose is occasionally observed. Let but the slightest narrowing of the air passages then come on, and suffocation is inevitable. As soon as the first symptoms of the disease are observed, from five to eight doses of aconitum are to be given without delay at very short intervals of time; these sometimes suffice to prevent the development of this formidable inflammation. If after three or four hours, the disease is diminished, but the respiration is still embarrassed, loud, and whistling, spongia marina soon affords relief. It in general effects a perfect and

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complete cure: only sometimes it becomes necessary to have recourse to other means, among which *hepar sulphuris* and *bryonia* must be more particularly distinguished. When the danger of suffocation no longer exists, deglutition still remains difficult and painful; when the animal swallows fluids with difficulty, and its eyes are fixed and prominent, *belladonna* possesses specific properties. It must be given immediately after *aconitum*, when at the onset of the disease it is the deglutition more than the respiration that seems to be affected.

APHThÆ.

Aphthæ appear in lambs, either in consequence of a change in the mother's milk, or from some internal disease. The disease is discovered by the lamb no longer sucking, and its wasting away; on examining the interior of the mouth, vesicles are observed to be there, often in great numbers; these burst, leaving an ulcerated bottom, from which a fluid escapes. The mouth is full of a saliva of bad odor. The means which succeed best are *acidum, muriaticum*, *acidum sulphuricum*, and *borax*. Two or three doses of *sulfur* should likewise be given to the mother.

ABSCESS BETWEEN THE CLEFT.

This affection, which sometimes accompanies foot-rot, chiefly owes its origin to the introduction of a foreign body into the biflex canal, situate above the anterior extremity of the interval which separates the hoof. Thence results an inflammation and swelling, owing to the accumulation of the secretion in the canal, through the anterior extremity of which it cannot escape. The animal limps very much. The cure is very simple. First, the foreign body must be removed; the swelling must be compressed in order to empty it of its contents; the part must be well washed
with fresh and cool water, and it must be encompassed with a linen cloth frequently steeped in arnica water.

**BLACK MOUTH.**

These come on, more especially in lambs, rarely in lanigerous beasts of a certain age, a scabby eruption, which attacks chiefly the parts around the mouth, the eyes, and ears, and occasionally extends over the entire face. Some doses of sulphur, or of tincture of sulphur, are always sufficient to cure it in a very little time.

**CARBUNCLE OF THE TONGUE.**

When a sheep is affected with this disease, there are observed to appear on the tongue, and in different parts of the cavity of the mouth, vesicular elevations of various sizes, which pass rapidly into the state of gangrene, after which the tongue becomes detached, and falls in flakes. The animal becomes very restless, its breathing very much accelerated; it allows the tongue to hang out of its mouth. This organ is dry, and the expired air is very hot; the eyes seem inflamed, and project out of their orbits. The appetite has entirely disappeared. As soon as this disease is observed, the pustules must be scraped with an iron spoon, an assistant holding the head low down, in order that the animal may not swallow anything: then the wounds are to be cleaned with a bone spatula steeped in oil, and the mouth should be washed three or four times a day with water, to which arsenicum has been added, (five or six drops to a cup of the fluid.) If the vesicles have not already opened of themselves, the animal is lost. Care should be taken not to receive any of the discharge on the hands, and when proceeding to the operation, it will be well to rub them with oil, or, at least, to cover them with gloves.
COUGH.

Moist weather, abrupt and sudden change of temperature, cold, more especially in spring, when the sheep pass from a warm stable to the open air, or even the cold water they drink, frequently occasion fits of coughing, which generally yield in a few days to dulcamara. Cough also comes on as a symptom of other diseases, on the cure of which it is found to disappear.

ERYSIPELAS.

This disease, which sometimes affects the sheep of a good breed, consists in a swelling of the head, which contains much watery serum. It is accompanied by fever, with heat, great thirst, dejection, and loss of appetite. Aconitum and belladonna are specifics for it.

DISEASES OF THE EYES.

Ophthalmia is sometimes observed to break out either in consequence of dust, insects, &c., having entered the eye, or even without any appreciable external cause. If the cause be a foreign body, it must be extracted, and the eye bathed with arnica water; some doses of arnica must also be taken internally. If the eye retain any dimness, it is to be removed by means of cannabis, conium, and belladonna. Acute ophthalmia, brought on by cold, yields to a few doses of aconitum, which is to be followed by belladonna on the second or third day. We have recourse to cannabis for the removal of specks on the cornea. Chronic ophthalmia requires euphrasia, and when it is accompanied with lachrymation, pulsatilla and sulphur. The latter medicine produces good effects also in cases of ophthalmia, which have supervened to rot, or when pustules are developed on the eye.
FOOT-ROT.

There are two forms of this disease, which must be carefully distinguished from each other:—

1. The *mild* foot-rot, most usually associated with ulceration of the mouth, (stomacace) and which extends generally to entire flocks. It usually commences by fever, more or less violent, which sometimes continues during the course of the disease, and is recognized by symptoms, the principal of which are the following: the animal of a sudden becomes sad, and limps on one or more feet; there is heat, redness and swelling of the feet, chiefly at the interdigital space, and on the coronet. At a later period the inflamed points are ulcerated; and on the cushion there appear vesicles which at first secrete a fluid clear as water, and pus at a subsequent period. This disease progresses with great rapidity. It generally disappears of its own accord in a few days. However, in order to accelerate the cure, and render it more certain, the foot is to be washed frequently with warm water, the superfluous horn is to be removed when it projects, or is any way altered, and *arnica* is to be employed both internally and externally.

2. *Malignant* foot-rot. The animal begins to limp, sometimes at first in one of the fore-legs or hind-legs; sometimes in the two fore-legs and two hind-legs, until the whole four are affected. The diseased foot is hot and a little swollen, the clefts are separated a little more from each other than in the healthy state. The skin of the interdigital space is red, and exudes a fluid of a bad odor; this fluid gradually assumes the appearance of ichor, which not only inflames and excoriates the surrounding integuments, but becomes effused also behind the horny wall, which is separated in part or entirely from the living parts: sometimes even the integuments, tendons, and the very bones are
involved. The animal, then incapable of walking, moves along on its knees, or remains lying down, and wastes away gradually, though retaining generally a good appetite. This form is very contagious, so that when the sheep just attacked is not removed away from the flock, all the others soon become affected. To propagate the disease, it is quite sufficient that a flock should pass over a place which has a little before been walked over by a diseased sheep.

Opinions are divided regarding the cause of foot-rot. It probably had its origin in the warm regions of the globe, and thence extended, by contagion, like small-pox; at least it is proved that it was introduced into our flocks by sheep of Spanish origin. Damp, rainy weather favors its development.

Foot-rot usually commences by a vesicle, or small ulcer in the interdigital space. As soon as it is perceived, the diseased part must be scraped to the quick with a sharp knife; then the foot is to be washed with salt water, and the wound must be touched with a feather steeped in dilute nitric acid. Nitric acid must also be given internally, followed by thuja and sulphur. If the ulcer has already extended beneath the horn, the latter must be removed as well as all the parts that have been affected, and must be washed with salt water. It is necessary also to touch the surface of the wound with nitric acid, and to moisten it with a few drops of ammonia; after which the foot should be bandaged up, and the animal must be separated from the others. In general it is about eight days before the animal can walk. Sometimes, when all the parts affected have not been removed, the sheep once more begins to limp, and the disease seems to return; in this case the same mode of treatment must be adopted. The sheep that have been cured must be separated from the flock for some further time.
This name is given to an eruptive, extremely contagious disease, which, in general, is only observed from the end of autumn to the spring, and presents itself under two different forms.

1. *Dry itch.* This consists of small red spots which appear on the skin, and from which small white vesicles arise, containing an acrid fluid; these vesicles are followed by small ulcers, on which scabs soon form, which after some time soon fall off. The disease always occasions violent itching, which constantly obliges the animal to scratch itself with its foot, to rub itself against all other bodies that come in its way; and even to bite itself with its teeth everywhere its head can reach. By these symptoms we may recognize a scabious sheep, even at a distance. When examined closely it is observed that in the places where it scratches itself, the skin is bald, discolored, and covered over both with whitish scales, and hard, and granular elevations. When left to itself, this itch covers the chief part of the body, and the wool is gradually detached from the regions attacked by it.

2. *Moist itch.* This is the same disease carried to a higher degree, and one which torments the sheep much more, as the animal does not for a moment cease to rub, scratch and bite itself. There are observed on the body places which are bald, or covered with a scanty portion of wool, which are the seat of soft, circumscribed tumors, and which present hard, red, or livid points, whence a fluid escapes which on becoming dry forms a scab. The scabs are frequently the breadth of the hand and of considerable thickness: they cover a surface which is constantly oozing, or even deep seated and fistulous ulcers. The animal wastes away, though having a good appetite, and eventually perishes of marasmus, rot, &c.

In most cases the itch is the result of contagion and
a single sheep infected with it is sufficient to infect an entire flock. However there must be certain circumstances by the combination or coöperation of which the first development of the disease takes place, which, once formed, is capable of extending rapidly and readily by contagion. Among these circumstances, the first rank appertains to that which Hahnemann calls psora, that is, a sort of germ which permits the disease to be produced under certain influences, and which, moreover, may owe its origin to a combination of unfavorable circumstances, such as an unhealthy fold, insufficient food, a rainy, damp, or cold season, &c.

The cure is very simple, and effected in six or eight days, without lotions or unguents, by means of a preparation known by the name of balsamus terebinthinae sulphuratus. Three doses (each consisting of two drops of the strong tincture) are sufficient to remove the disease, even when it has attained considerable extension. I may mention, but only as an exception, that I have sometimes been obliged to administer a dose of it every day during eight to twelve days. The dynamizations prepared according to the precepts of art not having hitherto succeeded, I now adhere to the strong tincture, which is prepared as follows: there is taken one part (by weight) of sulphur, which is to be boiled in four parts of linseed oil, to perfect solution, which yields an elastic mass of a brownish black color, exhaling a disagreeable sulphurous odor; one part of this mass is then dissolved in three parts of oil of turpentine, and the medicine is obtained.

The terebinthinate balsam of sulphur serves not only to cure the itch, but even to prevent it; for this purpose, each individual of the flock receives at the commencement of the autumn a couple of doses of it, which is to be repeated after the lapse of a month or six weeks.

If the experiments I have made on this point be confirmed, the matter would be deserving of serious
examination; for much of the expenses occasioned by the purchase of medicines might be spared, as well as the loss of wool and of a good number of sheep. Only care should be taken that the animals really received the substance just mentioned, and its application should be watched, or it should be entrusted only to persons in whom we might rely. After the exhibition of the balsam, the animal should remain at least for two hours without eating, and particularly without drinking.

I should mention that *scabiesinum ovium*, *mezereum* and *sulphur* have been recommended by others for curing the itch.

**SWELLING OF THE TEATS.**

The sheep which suckle may be seized with inflammatory swelling of the teat by the action of different causes. *Bryonia, belladonna*, and *chamomilla* are useful for this affection. If the inflammation pass into gangrene, which is an uncommon occurrence, *arsenicum* should be employed; if the skin becomes purple and livid, and is easily detached, we should have recourse to *secale cornutum*; when the swelling terminates in induration, *chamomilla* and *camphora* are to be administered; sometimes resolution is not to be obtained, then *mercurius vivus* and *hepar sulphuris* cause the tumor to form an abscess. Sometimes the disease terminates by suppuration: we are then to employ the means indicated under the article *Suppuration* in the diseases of the horse, more especially *pulsatilla*.

**ULCERATED MOUTH (STOMACACE.)**

In this disease the inside of the mouth is hot, full of mucus and saliva, with swelling of the gums and tongue. By degrees there appear in the cavity of the
WOUNDS OF THE CLEFT OF THE FOOT.

mouth, on the palate and gums, small white vesicles, which burst and leave behind them superficial ulcerations. A viscid saliva then flows incessantly from the mouth. The pain prevents the animal from eating, but it drinks much and very greedily; commonly the disease attacks the entire flock, and is often accompanied with mild foot-rot. In many cases it disappears of itself. The chief means to be employed for it are: mercurius, solubilis, acidum sulphuricum and helleborus niger, the latter more especially when the gums are very soft, and the animal appears very sad.

WOUNDS OF THE CLEFT OF THE FOOT.

Should a nail, a fragment of glass, a thorn, or any other sharp body enter the foot of a sheep, the result always is inflammation, suppuration, and lameness. We should commence by extracting the foreign body, after which the wound should be washed with arnica water, and arnica should also be given internally. If the lesion be at all considerable, the foot is to be encompassed with a linen cloth in order to keep it clean, and the ablutions with arnica water are to be repeated several times a day. When there is much inflammation, and it does not yield to arnica, it may be removed with aconitum and squilla. This last remedy is specific whenever the wound of a foot causes the animal intense pain.

When a sheep walks for a length of time on hard roads, particularly in dry weather, its feet are often attacked with an inflammatory affection characterized chiefly by heat and pain of the foot, lameness, difficulty of walking, and raising of the affected foot, whilst the animal is at rest. Arnica, internally and externally, generally removes all the symptoms, those at least not connected with inflammation. In certain cases a dose of conium after arnica, produces very good effects. If it be less the cleft, than the sole that is painful, arseni-
cum possesses useful properties. When the case has been neglected, it often passes into suppuration, which may occasion loss of the horny part of the foot. Under such circumstances squilla, conium, and acidum phosphoricum, have been found very effectual. Benefit has been derived also from antimonium crudum, nux vomica, mercurius vivus and pulsatilla, the last more, especially when there are deep-seated fistulous ulcers.

SECTION III.

INTERNAL DISEASES.

COLIC.

This disease may be owing to different causes, to cold, constipation, to an excess of food, and probably to worms also. The animal so affected suddenly evinces great restlessness, with severe pains in the belly, frequently viewing its flanks, and keeping itself doubled up, throws itself on the ground, arises suddenly, utters groans and plaintive bleatings; its breathing is hurried; in general it can neither pass urine nor excrement; its ears, legs, and muzzle are cold. When relief is not soon brought, the disease is liable to prove fatal; from twelve to twenty-four hours are sufficient for gangrene to attack the intestines. With respect to treatment, several species of colic may be distinguished.

1. The windy colic is common in wool-bearing animals which have eaten greedily of relishing herbs,
especially when wet with dew or rain. It is also observed in those which drink much after having eaten grass. In this case the belly swells suddenly; the animal evinces much restlessness and distress; its breathing is hurried and the body cold; it stops abruptly, collects its feet under its body, allows its head to hang, and cannot discharge from its bowels, notwithstanding the constant borborygmus heard in its bowels. The specific here is colchicum autumnale, two or three doses of which always suffice. Lime-water also has been employed successfully in many cases. In some countries they have recourse to a process which affords relief with wondrous celerity; this process consists in covering for a minute or two the mouth and nose of the animal with a cap, handkerchief, &c.; then when the animal is set at liberty, it shakes the head violently, has rising of the stomach, and finds itself cured; the swelling of the belly diminishes perceptibly. If necessary, the process may be repeated a second time.

2. The colic of constipation comes on after irregularities in diet, after cold experienced by the animal, whilst heated. Besides the general symptoms of colic, it also makes efforts to free the bowels. Some doses of aconitum, followed by arsenicum, generally remove the worst symptoms; after which we may succeed in freeing the bowels promptly and easily by means of nux vomica, opium, and plumbum.

3. The colic of cold, or spasmodic colic, differs from colic chiefly in this, that it is not like the latter accompanied with tympanitis, and that it is not continuous, but returns by fits. Repeated doses of aconitum are in general sufficient, unless we might afterwards have recourse to arsenicum.

4. For inflammatory colic. See Enteritis.
CONSTIPATION.

Constipation is sometimes an accessory symptom of some disease, and sometimes a symptom altogether independent, which may be accompanied or not with colic. That which arising neither from spasm nor inflammation, manifests itself consequently without colic, frequently depends on fodder that is too dry, especially when at the same time the animal has not sufficient water to quench its thirst. *Nux vomica* is the remedy to be employed in such a case. When diarrhoea alternates with constipation, *pulsatilla* should be given, and when there is at the same time repugnance for food, recourse should be had to *antimonium crudem*.

CORYZA.

The mild coryza of lanigerous animals is a disease of little importance, which generally disappears spontaneously. It comes on after a slight cold, or under the influence of other causes capable of exciting cough, for instance, when the flock is overtaken by a heavy shower coming on suddenly during a sultry day. The animals frequently sneeze, their eyes are dull and watery: from their nose there is discharged a mucus which is at first very liquid, then thicker, which often stops up the nostrils, so as to interfere with the breathing, to oblige the sheep to raise the head, and often the mouth. In such a case it is sufficient to withdraw the flock from the cold and moist air, to shelter it from cold, &c. But when the disease is prolonged, it assumes a malignant character and degenerates into a contagious affection, accompanied with a purulent discharge from the nose, which causes the animals to waste very much, and frequently proves fatal to them. *Aconitum* and *chamomilla* are, in such cases, the means on which most reliance is to be placed; after which

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a dose of belladonna often proves very serviceable. Spongia marina and belladonna might also be employed with advantage. The invalids must be set apart by reason of the readiness with which the disease is transmitted. However, it is by no means to be compared to glanders in the horse; it being only a violent coryza, which soon yields to proper treatment. Arsenicum album, and dulcamara are frequently of great benefit.

DISEASE OF THE STOMACH FROM EATING CERTAIN PLANTS.

This disease, caused by the buds of certain trees, for instance, the oak and elder tree, which animals eat with greediness when the opportunity offers, consists essentially in an inflammatory state of the digestive organs and kidneys. The animal is constipated, discharges blood from the bladder; its alvine evacuations are covered with it. There is intense fever, with beatings of the flanks, and great thirst. The skin seems as if stuck on the back, which is arched upwards, and cracks like parchment when pressed with the fingers over the lateral parts of the body. The limbs become cold and stiff, sometimes to such a degree that the animal remains standing up, as if deprived of life, or so that if it fall, it cannot get up again. When relief is not afforded in time, the inflammation degenerates into gangrene, and death is inevitable. Some doses of aconitum, followed by repeated doses of arsenicum, are the remedies.

DIABETES.

Though this disease is not, generally speaking, so common in animals as in the human species, it is, however, sometimes observed in lanigerous animals, especially in lambs, and, under some circumstances, it attacks even entire flocks. The affected animal passes
DIARRHŒA.

Diarrhoea, which may be recognized by the liquid dejections frequently voided by the animal, is particularly dangerous to lambs, in which it often assumes the character of a destructive epidemic.

In sheep it is rather common in spring, when the animals cannot be accustomed to the grass. But it is of a more destructive character when it has been brought on by damaged food, in whatever season of the year it may be. The chief remedies to be employed for its removal are, ipecacuanha, arsenicum, and rheum, or antimonium crudum, when there exists at the same time a dislike to food.

In lambs it almost always depends on the bad quality of the mother’s milk. Pulsatilla never fails to cure it. Sulphur should be given to the mother, as also better fodder. The stable should be warm, dry, and furnished with sufficient straw.
Diarrhoea is frequently a symptom of a general morbid state, for example, of the disease caused by worms, rot, &c. Under these circumstances, the treatment should be directed against the principal disease.

DIZZINESS.

Dizziness is a very dangerous disease, almost exclusively confined to wool-bearing animals; it is seldom observed in two-year old sheep, and still more so in adults. Its development always takes place very slowly. It is recognized chiefly by the whirling round and stumbling of the animal, which, whilst walking, seems a prey to vertigo. It is first announced by an unsteady, uncertain gait: the animal remains behind the flock, loses its sprightliness, carries the head down, and has a wild look. The eye is generally pale and bluish. The animal often forgets itself whilst eating; it ceases to graze, and hangs the head, without masticating. By degrees the debility increases, the animal no longer attends to anything, and soon commences to turn itself; the head being down and looking to the affected side, or else it falls to the ground. All these symptoms become more and more marked in time. Sheep are often observed to describe eccentric circles for whole hours, then step forwards a few paces, then again stop, and turn round again. The older the disease, the more the animal turns, until at length it does it even in a trot. The appetite goes on diminishing, emaciation becomes more and more perceptible, and the state of exhaustion terminates in death. On opening the body the seat of the disease is always found to be in the brain; accordingly, there are met either beneath the bones of the cranium, or beneath the dura mater, or in the brain itself, hydatids varying in number and size, sometimes a single one, often from three to six, the size of which varies; according as these worms occupy the right side or the left side, the sheep turns to the right or left;
but if they exist on both sides, the turning sometimes takes place to the one side, sometimes to the other. The animal very often does not turn, which happens when the worm is placed on the median line; then the affected animal carries the head down, and though it seems to move rapidly, it does not change place. When the hydatid is situated on the posterior part of the brain, the animal carries the head high, runs straight forward, and throws itself on every object it meets.

It is well known that all the methods employed for the cure of this extraordinary disease end, at the very utmost, in saving some patients, and that the results are as uncertain as they are fatal, even for the latter. Homœopathy, on the contrary, possesses a remedy, this is belladonna. One dose, at first every day, then every two days, is sometimes sufficient to effect a cure. This latter takes place so much the more readily—the earlier the disease is discovered, and the sooner the remedy is applied. Of late years caenurinum has been recommended, that is to say, the hydatid itself dynamized. Some trials I have made on this matter have not proved successful, whilst belladonna has never failed.

DYSENTERY.

Dysentery, which is frequently confounded with diarrhœa, consists in an inflammation of the abdominal organs. It frequently breaks out when a very warm summer has been followed abruptly by a damp and cold autumn, or when the fodder has been spoiled by too much moisture, it may then become a destructive epidemic. It is recognized chiefly by constant and painful desires to evacuate the bowels, with tenesmus, which efforts are attended with no other result than the escape of a bloody mucus. Some doses of aconitum and arsenicum remove the intestinal inflammation, after which, if there still remain diarrhœa, we must employ the means directed under that article. Chamomilla and rheum especially have proved very effectual.
ENCEPHALITIS.

This disease is sometimes caused by internal causes, and sometimes by external, such as the sun-stroke, blows on the head, too plentiful food, &c. The animal ceases to eat, hangs its ears and head, which is hot to the touch, walks along staggering, and unconscious whither it goes; its eyes bright and red, and projecting from the head. the air it expires is hot, the breathing short, rapid, and accompanied by violent beating of the flanks. It remains lying down very much, the head stretched on the ground, and when the disease has a fatal termination, it dies in convulsions, and with the symptoms of apoplexy. One dose of aconitum from every five to ten minutes, then belladonna, which must also be repeated several times at the end of two or three hours, are the curative means to be employed. Hyoscyamus also proves useful, but still more veratrum album, which is chiefly suitable when the animal rises abruptly from time to time, and strays about in every direction as if blind. The disease called turnstick, it is stated, has been frequently observed in sheep which had not been properly treated for encephalitis.

ENTERITIS.

Enteritis and gastritis, also styled inflammatory colic, often follow the eating of poisonous plants, damaged fodder, more especially when mouldy, intense cold, as that resulting from cold water drunk when the animal is very much heated, and all the causes which are capable of producing colic in domestic animals. The symptoms are those which never fail to make their appearance during fits of colic; violent and continued pain of the belly, intense heat of the whole body, inextinguishable thirst, constant pulsation of the flanks, and constipation. The animal frequently attempts to lie down, but rises up immediately with groaning, and gives itself up
to irregular and violent movements of every kind. When effectual relief is not procured in time, it is seized with convulsive trembling, its ears become cold, as also its nose and feet, and death takes place amid violent pulsation of the flanks, and constant moving of the tail. Aconitum is the principal remedy, and often it suffices by itself, when the disease has been caused by cold; however, it must be given in frequently repeated doses, and at intervals which are to be continually shorter. When from five to eight have not effected a complete cure, arsenicum becomes indispensable, and it seldom happens that two or three doses are not sufficient. Under certain circumstances, pulsatilla also has been found useful.

HÆMATURIA.

Discharge of blood from the bladder often occurs after the sheep has eaten certain acrid and irritating substances, for instance, shoots of the fir-tree, of the oak, or alder-tree, of the ranunculi, &c. It manifests itself by the discharge of red urine, and sometimes also by that of pure blood. There is, moreover, heat, intense thirst, frequent desire to pass urine, sensibility in the lumbar region, rigidity of the movements, sometimes also colic. The principal remedy, especially at the onset of the disease, is ipecacuanha, some doses of which should be administered rapidly. If there exist symptoms of nephritis, which frequently occasions death, we must instantly have recourse to some doses of aconitum, after which cantharides must be taken.

HEPATITIS.

Inflammation of the liver, which some persons consider as identical with watery cachexy, generally presents itself under the form of a slow fever; the sheep wastes away amid the symptoms of a general morbid state; the eyes, tongue, and skin, assume a yellowish
tint; the wool is of a dirty appearance. After some time, all the symptoms of cachexy break forth. The chief remedies are: aconitum, at the commencement, and digitalis purpurea, as soon as the inflammatory symptoms declare themselves. If jaundice begin to appear, chamomilla, mercurius vivus, and nux vomica are useful.

JAUNDICE.

Jaundice, announced by the yellow tint of the conjunctiva, mucous membrane of the mouth, tongue, and gums, depends on an affection of the liver, chiefly on an accumulation of hydatids in this organ and the biliary ducts; it is also, in general, the infallible precursor of cachexia, just as this state is sometimes the consequence of hepatitis. We should chiefly employ for its cure, mercurius vivus, nux vomica and chamomilla. However, to the yellow color of the skin, there are usually joined other symptoms, which cause it to sink down to the rank of a secondary affection, and which must serve as a guide in the choice of the means to be employed to restore health.

NEPHRITIS.

Inflammation of the kidneys may be the result of external violence, or may depend on the animal having eaten stimulating plants, such as the ranunculi, buds of the fir-tree, oak, or elder, &c. It manifests itself by the ordinary symptoms of fever, heat of the mouth, dryness and redness of the eyes, &c. Its characteristic signs are pains and an extreme sensibility in the region of the kidneys. The back is arched, the walk stiff and painful, with the legs widely separated. The animal frequently looks towards the region of the kidneys, and scrapes with the feet; he feels a constant desire to pass water, but he voids, and that with considerable pain, only a very trifling quantity of deep-
colored or bloody urine. The appetite is gone, and the thirst rather severe. We commence by the employment of two or three doses of aconitum, followed by cantharides after the lapse of two or three hours, from two to three doses. Perhaps nitrum and cannabis also might be employed-with success, either alone or alternate with nux vomica.

PNEUMONIA.

Pneumonia is attributable to the same causes as angina. It is observed chiefly after shearing, when the sheep are exposed to cold without sufficient precaution. The animal is then seized with shivering, it trembles, its breathing is hurried and short, accompanied by violent beating of the flanks and dilatation of the nostrils; and the pulse, instead of being 70, amounting even to 80 or 90. Further, as in all inflammatory diseases, there is great depression, loss of appetite, and slowness in ruminating; the alvine dejections are very dry, or there is constipation. The ears, muzzle, and legs are sometimes cold, sometimes hot; the cough which accompanies the disease, is very painful and short. There is great thirst, and still the sheep cannot drink except in small draughts, stopping frequently, in consequence of the pain it gives him. When the disease progresses, the animal no longer lies down, and its walk becomes staggering, which obliges it to lean on something; the breathing is more and more rapid, and death terminates the sufferings. The cure presents no difficulty under the homœopathic treatment. The first and most important of all remedies is aconitum, one dose of which is to be administered, from every ten to twenty minutes, until the fever diminishes perceptibly, and the animal seems more tranquil. If it be taken in time, aconitum is very often sufficient by itself to conquer the disease; if not, bryonia, sulphur, phosphorus, tartar emeticus, digitalis, &c. should be used under their several indications.
TETANUS.

Tetanus, which appears to be chiefly the effect of cold, but often comes on also after castration, is generally fatal. In some years and some countries it destroys a great number of lambs. The animal, completely stiff, cannot move any part, more especially the jaws. *Nux vomica* has been found a useful remedy.

LYMPANITIS.

This dangerous disease, which calls for the most prompt aid, generally owes its origin to the greediness with which beasts devour certain kinds of food in excessive quantity. It consists in a development of gases which distend the stomach to an enormous degree. The animal, which up to the present moment, enjoyed all its sprightliness and perfect health, suddenly ceases to eat: it becomes sad and still, does not ruminate, and carries the head down; its body seems swollen, more especially on the left side, and sounds like a drum when struck on the upper part; it keeps its head arched; the legs close together, and the tail separated from the body; the eyes are fixed and prominent; the breathing is short and impeded, the nostrils are widely dilated; the mouth is filled with a frothy saliva; the bladder and intestines do not empty themselves. The inflation increases, and generally becomes so great in a few hours, that the animal at length falls and dies, either from suffocation or because the stomach is ruptured. There is no disease in domestic animals in which homoeopathy affords such prompt relief as in this. In general a single dose of *colchicum autumnale* is sufficient to remove all the symptoms in the space of a quarter of an hour; it is rarely necessary to repeat the medicine, which is only to be done when the first dose effects an improvement, if gases are still forming. In such a case the *colchicum* may be repeated every fifteen or twenty minutes.
After the tympanitic state has ceased, one dose of arsenicum is to be administered to prevent a return of the disease. Consult also the article Colic.

**VERTIGO.**

In this affection, which attacks scarcely any but young and well-fed animals, the sheep holds its head down, remains behind the flock, stumbles in walking, keeps the legs widely apart, and falls to the ground: after a space of time, generally very short, it rises, joins the flock again, and no longer presents any sign of the fit it has had. The disease returns at periods more or less near to each other, without in any case the general health appearing to be perceptibly affected. Aconitum exerts an almost instantaneous efficacy during the attacks. When the disease has become very severe, and the attacks become more or less similar to those of epilepsy, stramonium and cocculus are the remedies to be relied on. Vertigo is associated also with some other diseases; it then requires no particular treatment, and yields to that of the principal disease.

**WORMS.**

The intestinal worms, met in almost all chronic diseases, chiefly in young animals, give rise to a number of morbid phenomena, among which the following are those which serve to develop the presence of these parasites: a diminution of rumination, disturbance of digestion, frequency of tympanitic symptoms, wasting away (especially in the lumbar region and along the spine,) frequent snorting, obstruction of the nostrils with purulent mucus of greater or less thickness. Worms are found in the liver and biliary canals, in the intestines, and in the bronchi. The intestines of sucking lambs also are found to contain the tape-worm, which give rise to frequent colics. Filix mas is the principal remedy in this latter case. Consult the articles Cachexy, Rot, and Dizziness.
The dog is one of the most useful, and by far the most sagacious of all our domestic animals, being the constant companion and friend of man. There are many varieties and breeds of these animals, most of which are particularly useful in their several capacities. It would be difficult to say what, properly speaking, is the primitive source of these animals.

The diseases also to which they are liable are numerous, and some of them very obstinate to cure.

Many curious anecdotes are related of those animals, showing that they rank higher than any other in the scale of intelligence, man alone excepted.

With respect to the bringing up of these animals it is better in every way to have pure races than races which are bastard and mixed, which are in general weaker and more subject to disease, in consequence of their greater propensity to sexual desire. Hence a bitch of good breed, on getting into heat, must be kept
confined, and it is necessary, if we would propagate the species, to look out for a dog of her own breed.*

* Judicious crossing is by most breeders considered desirable.
one knows that he may be accustomed to any sort of food. Thus in the North, he lives exclusively on fish, and in the South Sea Islands he scarcely eats anything but vegetables. The best diet for him in our country is a mixture of vegetable and animal substances in the proportion of four to one. Tainted meat is less injurious than fat, and more especially spices.

The quantity of food varies according to the size of the dog, the labor he performs, and the season. The mastiff requires less than the sporting dog, and both should receive less during summer than in winter. It is useful to regulate the hours for meals, especially when the dog is made to work: two meals a day are sufficient. The hound and pointer should receive but little food in the morning before working, because repletion of stomach makes them idle. The best time for eating is in the evening on returning from the chase.

We never should give the dog his food in a hot state. The best plan is to give it to him in a wooden trough or earthen vessel, which is to be washed every time it is used. Nor should we ever give him more food than he can take at a time; it is a very bad habit, nay, liable to render the dog unhealthy, to be always adding fresh food to that left at the preceding meal.

As the nature of the animal inclines it to drink much, it never should be left without a supply of good water, more especially when it is kept shut up, as such a thing might predispose him to disease. Drinking does not injure it when heated, no more than cold bathing, for dogs do not perspire through the skin, but by the tongue.

The kennel ought to be cool in summer, and warm in winter. Neither should the animal lie down on the damp ground, nor on the pavement, nor should he remain exposed for the night to the inclemency of the weather. The litter should be dry and clean, and the place he sleeps in should be sufficiently spa-
cious to allow him to have shade in summer, and sun in winter. It should also be raised a little above the ground, and not on a level with it. The bed, hay or straw, should be frequently changed, to prevent vermin from collecting. The dog likes cleanliness very much, and he is easily accustomed to it. A clay soil has been considered the best for building a kennel upon.

Exercise in the open air is absolutely necessary for the preservation of health. Yard dogs should be set at liberty sometimes, and lap-dogs should be taken out to walk from time to time.

The venereal appetite requires great attention; for its too great excitement, and non-gratification are one of the chief causes of the development of spontaneous rabies. The dog is heated only when he approaches a bitch in heat, and for this reason the police regulations should prevent the bitches, when in heat, from straying about; one alone being sufficient to set in motion all the males of a district. The bitch being in heat, a male is procured for her, or her passion is cooled by supplying her with less nutritious food, procuring water for her to drink in sufficient quantity, and administering to her sabina or platina, cantharides, &c.

**ABSCESS.**

Abscesses arise from internal or external causes. The former are rare in dogs, which are made constantly to work, but very common in house dogs, in which case they arise from too great care, or from too high feeding, or want of exercise. The tumors that form, and which may appear on all parts of the body, are more or less hard, painful, hot, and inflamed: they terminate in resolution or suppuration, sometimes in induration, and in the latter case they give rise to subcutaneous fungous growth. When they are to form abscesses, they become more prominent above the skin, the heat,
redness, and pain increase, and in the centre of the tumor there appear a soft point, from the surface of which the hairs fall. When the abscess owes its origin to an internal cause, the amount of food should be diminished, the animal should be made to take more exercise, and to bathe in cold water. If the tumor have a tendency to open, nature's effort may be assisted by mercurius vivus, or hepar sulphuris, and it is to be opened as soon as fluctuation is well marked. When the cause is an external lesion, a blow, a bite, &c., lotions are to be employed with arnica water, which never fails to remove every symptom in a little time.

**APPETITE (VORACIOUS.)**

The dog laboring under this disease, evinces an inordinate appetite, which cannot be satisfied; however, instead of thriving, he pines away; but in other respects he Exhibits no symptom of disease. Pulsatilla and nux vomica are the means to be employed. Voracious appetite depends sometimes on the presence of worms, in which case china and silicea are found useful. See Worms.

**BURNS.**

Greedy dogs sometimes burn themselves by upsetting their food before it is cool. It is necessary to remove the hairs from the scalded part, and frequently to moisten the latter with the strong tincture of urtica urens.

**DISTEMPER.**

All dogs carry within them the germ of this disease, with which some are affected even twice, and which, in general, manifests itself either by convulsions or weakness, and sinking with more or less diminution of appetite. However, it does not always commence in
the same manner. The first symptom of the disease is often violent diarrhoea: in other cases convulsions are observed to come on suddenly; in general there is progressive emaciation, and from time to time a little cough. The eyes and nose gradually become more moist than usual, or else there issues a small quantity of watery fluid, which soon thickens, and glues together the eye-lids, or obstructs the nostrils. The progress of the disease is as subject to variations as its commencement. Sometimes it attacks chiefly the head, and is then indicated by frequent sneezings, lachrymation, a nasal discharge, and other symptoms of severe cold. At other times it attacks the chest, and a short cough, more or less harassing, precedes lachrymation and the nasal flux. In other dogs, again, it directs its action to the hind extremities, and is indicated by weakness of the hind-quarter, which increases gradually, so that the animal cannot drag itself along: this kind of paralysis, though very common, does not come on until after the other symptoms, and it is hardly ever remarked in dogs that have attained a certain age. At length it sometimes happens that the entire body falls into a spasmodic state, which sometimes leaves behind it a state of paralysis, or of convulsions in the limbs, sometimes also shortenings of the limbs. The disease proceeds rapidly or slowly, and is very contagious; however, its violence varies according to the breed, and is more tedious in pure breeds. The remedies to be employed are kali carbonicum, and then rhus toxicodendron: however, we may commence with the latter, especially when the convulsions have attacked several parts simultaneously. Belladonna and cocculus have also been found useful in some cases. Nux vomica is useful in case of constipation, which exists almost always, accompanied with loss of appetite and vomiting. The other remedies most useful are hepar sulphuris, causticum, dulcamara, spongia,
epilepsy.

phosphorus, iodium, arsenicum, sulphur, &c., under their particular indications.

dropsy.

Ascites and hydrothorax are not unusual phenomena in the dog, whilst this animal rarely presents instances of anasarca. Dropsy of the chest is recognized chiefly by extreme embarrassment of the breathing, accompanied frequently with cough; and ascites by the fluctuation felt on striking on one side of the abdomen with the hand, the other hand resting on the opposite side. China and arsenicum are the remedies to be tried in treating these two diseases. Also digitalis, according to symptoms.

epilepsy.

The dog affected with epilepsy appears in perfect health in the intervals between the fits: he eats well, retains his appetite and flesh. The fit generally comes on suddenly: the animal staggers, then falls on the ground, remains lying down for some time, groans, breathes with a rattle in the throat, loses consciousness, neither hears nor sees, is seized with convulsions in the limbs, and strikes his head. Once the fit is over, he gradually recovers consciousness, looks around him, and shakes himself. The intervals are more or less short. Small pet dogs are more subject to this affection, both because their nervous system is very irritable, and because they are very much restricted. Epilepsy, however, is occasionally seen in large dogs, especially when they have undergone much fatigue. When the affection is of long standing, it is with difficulty cured, which, however, sometimes occurs by giving little food to the animal, avoiding to heat it, and giving it a sufficient quantity of exercise. The cure is more easy when the epilepsy is recent. Aconitum immediately after the fit, then belladonna, and
stramonium if the disease return, such are the remedies on which most reliance can be placed. If the epilepsy have been occasioned by stimulating food, which is considered frequently to give rise to it, china is to be employed. Some doses of camphor may prevent the return of the fits.

FEVER (INFLAMMATORY.)

Inflammatory fever always accompanies an internal or external inflammation, whether of a thoracic or abdominal viscus, or a wound, or external injury. In the latter case, it is designated by the name of traumatic fever. The principal symptoms are hardness and frequency of the pulse, hurried respiration: the animal constantly drinks; his eyes are red, swollen, and full of water; all the body is hotter than usual; he frequently stares, and exhibits considerable restlessness. He feels some difficulty in lying down, and frequently changes the position. Aconitum is then always indicated: it should be repeated the more frequently the more intense the fever has been from the commencement. However, it is not always sufficient, and we are sometimes obliged to have recourse to the means required by special information when it exists. Aconitum and arnica are the remedies for traumatic fever.

FEVER (PUTRID AND NERVOUS.)

This disease is characterized by prostration of strength; the beats of the heart are scarcely perceptible; there is great thirst, loss of appetite, much disturbance, heat of head, turbidity of the eyes, barking, howling, and groaning, convulsions, fetid odor of the perspiration and excrements. The issue is often fatal. The principal causes are heat, great efforts, the abuse of damaged meat, the eating of the flesh of animals.
which have died of a malignant disease. A cool bed should be prepared for the animal, good water should be given to drink, and a dose of natrum muriaticum should be administered, which is to be repeated at long intervals, and which is to be followed by some doses of china, or arsenicum.

**FOUNDERING.**

This is a disease in which the dog, subjected to cold after having been much heated, becomes all at once so stiff and rigid, that oftentimes he cannot stir. The remedies are aconitum, arnica, and bryonia, and, when the affection has been preceded by great fatigue, rhus toxicodendron.

**FRACTURES.**

Simple fractures of the legs are very readily cured in young and vigorous dogs: all that is wanting is to set the limb, apply splints, and frequently to examine the bandage, in order that it may not become deranged, without which the limb might be cured, but remain awry, or shorter than the others. Comminuted fractures, or those of several bones at once, generally compromise life to such a degree, that in general it would be wrong to devote much care, time, or money on the affair. The bandage once applied, it is to be kept moistened with symphitum, which is also to be taken internally. However, it is better to give arnica on the first day to remove the traumatic fever.

**HEMORRHAGE.**

Dogs sometimes discharge blood from the nose, mouth, or anus, especially when they have run for a long time against the wind, or in going up an eminence, but chiefly after external violence. The occasional cause ought to be taken into account in the
treatment. After a long run, a dose of *aconitum* is almost always sufficient; but after external violence we must employ *arnica*, both externally and internally. Lavements with *arnica* water are useful, when there is bleeding from the anus.

**LAMENESS.**

As soon as a dog limps with one paw, the foot must be carefully examined, in order to see whether the animal may have been wounded. If no wound be discovered, the limb should be rubbed from below upwards, more especially at the joints, in order to find out the part affected. If the lameness depend on an external cause, *arnica* water should be used, and if the wound be deep, even though it extend to the bone, *symphytum* should be administered after the foreign bodies have been removed, should any be discovered. Lameness is often the consequence of imperfect luxation, that is of straining of the ligaments, in which case the painful part is always a little better than the remainder of the body. In this case also benefit is derived from *arnica* externally, and in many cases also from that of *ruta* internally. Sometimes when the lameness has lasted a considerable time, the limb begins to waste away; we may then try *arnica*, *china*, *arsenicum*, *sulphur*, *rhus toxicodendron*, and *sepia*.

**LUXATIONS.**

Luxations require immediate relief in dogs. The part must be kept constantly moistened with *arnica* water, and *arnica* should also be given internally. If the joint of the foot be affected, *ruta* is the best remedy.

**RABIES.**

The phenomena and symptoms of madness vary
very much in dogs, according to the breed, age, temperament, &c. Two principal forms of this disease are distinguished, rabies, properly so called, and dumb madness.

Rabies, properly so called, is first announced by a perceptible change in the dog's gait of walking, which seems either more lively and more irritable, or sad, and as it were dull. To this there is added, on almost all occasions, a peculiar state of restlessness which allows the animal not to remain in any one place, and increases to such a degree as to make it quit the house to stray away to a distance. During almost the entire continuance of the disease, the dog recognizes his master, and obeys him, more especially at the commencement. However, his docility diminishes as the disease progresses, though at other times it has continued till death. In the generality of cases, the appetite disappears from the commencement; some dogs still continue to take a little soup, but none of them take any solid food; however, they devour all sorts of non-nutritious things, as wood, leather, wool, straw, and even their own feces. They drink in all stages of the disease, evince no sign of hydrophobia, and reject the water when they can no longer swallow it.

A constant symptom is a particular change of voice, which becomes more shrill or more grave, but always a little hoarse and disagreeable. The barking of a mad dog does not consist in distinct emissions of the voice succeeding each other with rapidity, but in an emission of the voice, followed by a short howl; it is, as it were a sort of medium between a bark and a howl. The desire to bite, which exists in most mad dogs, is not constant: it shows itself occasionally, and in different degrees, which depend on the temperament of the animal. Without commencing with barking, the animal attacks the objects it meets, cats, other dogs, and human beings; he spares neither inanimate objects,
nor even his own master, and he frequently snaps at the air as though he would catch flies, his eyes appearing to follow an imaginary object. With respect to appearance, he is at first little or nothing changed; soon, however, the eyes become red, they shut and open alternately. At a more advanced period again they are turbid, dull, and as it were covered with dust. Sometimes the skin folds on the forehead, or else the head swells; there is always rapid emaciation. Madness must be very far advanced in order that the dog should keep his tail pendent, as he does in all serious diseases. He eventually becomes weak, and, as it were, paralyzed in the hind quarter; whilst at the commencement, when he is still strong, he carries the tail as usual, and differs in nothing with respect to gait from a perfectly healthy dog. The other form of madness occasions, with respect to symptoms, loss of appetite, drink, voice, and a passion for biting, phenomena similar to those of madness properly so called, but with the following modifications: — the lower jaw is pendent, and, as it were, paralyzed from the commencement of the disease, so that the animal is unable to swallow any liquid, and the saliva is continually flowing from the mouth. Sometimes, also, the animal keeps the tongue hanging between the teeth; he bites less, therefore, than in the preceding variety; but there is no less reason to feel afraid, because when he is irritated, he may for a moment recover the power of closing the mouth, and consequently of biting.

There are still certain symptoms falsely attributed to madness. Thus it has been said that dogs become mad only in summer, more especially during the dog-days; but the disease breaks out at all seasons of the year. It has been stated that bitches and dogs that have been cut do not become mad. If the fact be problematical with respect to spontaneous madness, there certainly is no room for doubt with respect to that which is communicated by a bite. Hydrophobia
Rabies.

has been set down as a sign of madness; but experience has clearly proved that a mad dog, even in a very advanced stage of the disease, has no dread of water, which he drinks, and in which he will even attempt to swim. At other times he attempts to drink, but deglutition is impossible; the mouth is generally covered with saliva. It is false that the mad dog always carries his tail between his legs: first, this sign does not exist during the commencement of madness; then it is observed in many other diseases, and in general in all dogs pursued or frightened. The mad dog always runs, they say, in a straight line; this, too, is an error; for when the animal is not pursued, he changes his direction, like any other dog, and moves in the direction of the objects which attract him. It is stated that other dogs avoid him; but it is a positive fact that the dogs of a locality attack the mad dog who is a stranger to the place where they reside. It is stated also that a healthy dog has a repugnance to the saliva of a mad dog; but experience has found that when hungry he eats greedily the meat impregnated with this saliva.

With respect to the cause, madness may be spontaneous or communicated. The former is attributable to want of care, to a deficiency of good water, more especially in hot weather, to the influence of intense heat and intense cold, and to an impossibility to satisfy the venereal appetite. The other is developed only by inoculation with the saliva after a bite. In the latter case it seldom breaks out before the ninth day, and it may come on much later.

None of the means proposed as capable of preventing the development of madness is efficacious. It is the height of folly to excise the cartilaginous ligament situated under the tongue, we only mutilate the animal, and render him almost incapable of drinking. The dog should be made to take every day a dose of belladonna, and if he have been bitten, the wound
should be sprinkled frequently with water containing some drops of belladonna. Hydrophobium, as recommended by Hering, may be used internally. When the animal is rabid, the best thing to be done is to kill him to prevent serious consequences.

RHEUMATISM.

This affection, which chiefly attacks sporting dogs and house dogs, is manifested by the way in which the animal limps with one paw, which he trails along, or holds raised up as he walks along, uttering complaints and howlings, when he lays it down on the ground. On carefully examining the limb, no injury is discovered on it: but the joints are, generally speaking, a little swollen and hot, and sometimes also there is a residue of swelling after the fit is over. Exposure to cold is the most common cause of this disease. The animal must be kept warm, kept secured from the inclemency of the weather, and all animal food must be withdrawn. Bryonia and dulcamara are the most effectual internal remedies; if the disease is in-veterate, they should be alternated with nux vomica, rhus, sulphur, calcarea, carbonica, &c.

VARIOLA.

This disease, which is common chiefly among young dogs, is cutaneous. The affected animal evinces great uneasiness, the breathing is perceptibly interfered with; then generally on the third or fourth day small spots are observed on the belly similar to flea-bites, which, projecting above the skin, gradually increase in height, become pale at the centre and retain a red areola. By degrees they fill with a yellowish pus, then flatten and form a pustule, which dries after a lapse of time of greater or less length. The nose, at first dry and hot, becomes cool and moist, and the appetite returns. When the disease follows this
simple cause, art should not interfere; but if the spots
have a deeper tint, if they do not rise above the skin,
if they run together, the disease is no longer a mild
one, and very often it proves fatal. The animal has
its nose hot, breathes with difficulty and puts out the
tongue; it seeks for heat, does not eat, but drinks
much, and in general it is affected with retention of
urine and with constipation. If the dog is not val-
uable, the best thing is to kill it before it infects the
others; for it is almost always lost. Should the dog
be old, *toxicodendron* and *arsenicum* are to be given
alternately; after which *dulcamara* and *causticum*
may be tried.

**VOMITING.**

Nothing in more common than spontaneous vomit-
ing in dogs; it occurs whenever the animal eats too
much, and it does not interfere with the health, so
that we need not be uneasy about it. Should it, how-
ever, last for too long a time, *cocculus* should be ad-
ministered: the simultaneous existence of diarrhoea
would require *veratrum*, and if the cure was not soon
effected, *cuprum*.

**WARTS.**

These are not common in dogs. The best mode
of destroying them is by ligature. If they be jagged
and rough, oozing, and bleeding, they should be mois-
tened with the strong tincture of *thuja*; *nitri acidum*
and *arsenicum* are also useful.

**WOUNDS.**

Slight wounds cure of themselves, more especially
when the dog's tongue can reach to lick it. When
they are considerable, they should be treated exter-
ally with *arnica* water, and if necessary two or three
doses of *arnica* should be given internally.
ANGINA — APHTHÆ.

SECTION II.

EXTERNAL DISEASES AND THOSE AFFECTING THE MOUTH AND THROAT.

ANGINA.

This is a very dangerous disease in the dog, as indeed it is in all animals, and is generally owing to the dog's being exposed to cold after having been heated. It commences with a sense of cold in the ears and muzzle, which soon after become burning hot, acceleration in the beats of the heart, and difficulty of swallowing, which may proceed to such an extent that the drinks make their escape out by the nose. The anterior part of the neck, more especially on the laryngeal region, is swollen, and there is also swelling of the glands situate beneath the jaw and on the neck. When the tumor is considerable, and the breathing much embarrassed, the animal often dies from suffocation. Five or six doses of aconitum are to be given at the interval of half an hour; then we are to wait for three or four hours. Sometimes the disease is completely removed; but frequently also, though the inflammatory symptoms and the fever decline, the difficulty of deglutition and breathing continues. In this case one or two doses of belladonna or of spongia marina, are to be taken, and if these means do not effect a complete cure, we should have recourse to hepar sulphuris.

APHTHÆ.

Ulcers occasionally occur in the throat of the dog which resemble aphthæ, prevent the animal from swallowing, and cause it more or less pain. Two doses of aconitum, and after six or eight hours, one or two doses of mercurius vivus, are in general sufficient to
cure this disease perfectly. If there be, at the same
time, external tumefaction of the neck, some doses of
belladonna cause it to disappear.

CORYZA.

Coryza is often observed in lap-dogs after exposure
to cold. Usually it is accompanied with cough and
a discharge of mucus from the nose. The animal
becomes inert, and loses appetite. Nux vomica is the
remedy.

EARS (DISEASES OF THE.)

Two diseases of the ears are rather frequent in dogs
—deafness, and otitis.

Deafness is often occasioned by hardened cerumen.
The hairs must then be cut, the wax be softened with
warm soap and water, and then be removed with a
small scoop. If the dog is old, the deafness depends
on different causes hard to be discovered, which cir-
cumstances almost always renders it incurable. Bell-
adonna, however, may be tried internally.

Otitis is attributable sometimes to insects which
have made their way into the ear, sometimes to rheu-
matism. The dog complains and howls, scratches the
ear with the hind-paw, becomes restless and unquiet,
and calls for the aid of his master. The ear should
be examined by the sun’s light, and if insects should
be discovered therein, an attempt should be made to
extract them, or to kill them by means of oil. If
none be perceived, the disease depends on some other
cause; the animal must be kept more warm than
usual, and dulcamara, nux vomica, or belladonna,
should be administered. Benefit has been derived,
sometimes, from injecting warm-water containing two
drops of Opium.

Dogs for the chase are sometimes affected in the
ears with corroding ulcers, which ultimately destroy
Oesophagus—Injuries of the Feet.

The following symptoms show that a bone, a cartilage, &c., have stopped in the oesophagus of a dog; immediately after having eaten, the animal commences to cough, becomes restless, moans, appears to seek relief, and cannot swallow; the eyes become red and prominent; a great quantity of mucus escapes from the mouth and nose. A little oil should be introduced into the throat, and the mouth and nose should be stopped until the animal coughs, or else the mouth is to be opened as much as possible, and warm water is to be poured into it, until the dog vomits. If these means do not suffice, an effort should be made to push the foreign body into the stomach, by means of a piece of whalebone or of a willow-stick, armed with a sponge steeped in oil, or to extract it with the forceps; if these means fail we must make an incision into the oesophagus. When the oesophagus has been injured, a spoonful of water containing from two to three drops of arnica water should be taken twice a day, and for some days nothing but milk or soup be given for nourishment.

Feet (Injuries of the.)

When dogs have got a nail, thorn, piece of glass, &c., into the foot, which makes them lame, the foreign body must be removed at once, the wound being laid open, if it be necessary, and there must be employed the cartilage. These ulcers are occasioned sometimes by an external, sometimes by an internal lesion, frequently also by excess of food and rest, sometimes by the weakness accompanying old age. Carbo vegetabilis has been recommended. I have employed with success a few doses of arsenicum, followed by sulphur. Recent experiments would seem to establish the efficacy of aranea diadema in such cases.
externally arnica water, which effects a cure in a short time.

SORE FEET.

Dogs, those more especially employed for the chace, which are much fatigued, which walk and run on a hard, stony soil, or on congealed snow, or on roads, are liable to have the paws swollen, painful, excoriated, and bleeding. When the affection is not severe, it becomes cured of itself by the care with which the animal constantly licks it, a process which brings about the resolution of the inflammation and swelling. In the contrary case, the affected foot is to be washed with arnica water; and if necessary, one or two doses of arnica should be given internally.

FURUNCLES OR BOILS.

The dog is, at times, subject to boils which appear on all parts of the body under the form of round, hard, red, and very painful tumors, the centre of which is raised, and which commonly suppurate. They are opened by an incision, when the centre is softened; the pus is pressed out, and the return of the disease is prevented by administering nux vomica and hepar sulphuris for some days internally.

LIPPITUTE.

This affection is common in the dog. It is met as a symptom of an internal disease, or from too juicy a food, more especially animal food, or in consequence of want of exercise and continually stopping in the house. In the first of these three cases, it is necessary to investigate the disease, and to meet it by proper means. In the third, the animal must be exercised every day, and his eyes must be washed with cold water. In the second, abstinence and a less succulent diet are the means to be employed. Internally, pulsatilla should be recommended, as also ledum and nux
vomica, the last particularly when the eye is at the same time very sensitive to light. Sulphur produces good effects also under most circumstances. In general lippitude is the consequence of another disease of the eye, chiefly ophthalmia; it must then be attacked with cannabis, conium, euphrasia and causticum.

**Sponge.**

This is a sub-cutaneous, rounded or oblong tumor, of moderate hardness, not painful, sometimes movable and sometimes adherent to the neighboring parts. It becomes developed in all regions of the body, occasionally attains considerable size, and is attributable in general to external violence, to contusions, bites, blows, &c. At the commencement, arnica should be employed, both internally and externally; afterwards causticum is to be used. I have employed dulcamara with success in a case where it came on after exposure to cold.

**Mange.**

There are distinguished in the dog the common or dry mange, and the moist. The first, which is seated chiefly in the back, is accompanied with violent itching: the skin is red, covered with scales, excoriations, and secretes a reddish fluid, which corrodes the roots of the hair. The second comes on after swelling and redness of the skin, with secretion of thick, puriform matter, and the formation of ulcers and thick seabs. Mezereum is chiefly recommended, as also staphysagria, sulphur, and lycopodium. In some cases, sulphur has produced good results. I have employed scabiesinum without success; helleborus niger, hepar sulphuris, and nitri acidum are also useful.

**Ophthalmia.**

The eye is red, swollen, and full of water; the animal does not open it at all, or only half opens it. If the
lids be separated violently, the organ is found more or less red and turbid. Ophthalmia is acute, or chronic. The former is attended with more severe symptoms, and often occasions loss of vision, especially when it is left to itself, or badly treated. In the second it is in general less the eye than the lids, and chiefly their edges, which suffer. The causes are external or internal. Among the external causes may be classed heat, dust, blows, injuries, bites; among the others too succulent a food, plethora, obesity, want of exercise, &c. Ophthalmia attacks young or aged dogs in preference. If the animal have been too well fed and too little exercised, it is to be put on strict diet, or, at least, no meat is to be allowed; it should be made to walk out, and it is to be placed in a cool place. In the case of chronic ophthalmia we should administer internally first a few doses of aconitum, and then euphrasia. If the last-named remedy suffice not, conium should be employed, and should this fail, cannabis. Chronic ophthalmia requires above all sulphur, independently of a good regimen. When the disease results from external violence, arnica should be employed, both internally and externally.

OZENA.

Ulcerations of the nose are not as common in dogs as in other domestic animals; but they should not be neglected, because they might injure the sense of smell or even destroy it. Mercurius vivus and arsenicum are the best remedies to be employed. Arnica should be used externally and internally, when the ulcer has been caused by an external lesion.

PTERYGION.

Dogs, both young and old, are frequently attacked with this disease. In young dogs the mother often cures it by licking the eye of her little one; but in ani-
mals advanced in age it proves obstinate, notwithstanding the most tried remedies. The remedies employed are *cannabis, conium, causticum, euphrasia* and *sulphur*. Pterygion in general succeeds ophthalmia, and thus requires the treatment which suits the latter. When it depends on another disease, which is not uncommon, *belladonna* and *sulphur* are employed.

**SECTION III.**

**INTERNAL DISEASES.**

**COLIC.**

The dog when affected with colic, groans and cries, he extends himself, and draws himself in, turns his head towards the side and belly, throws himself down, and rolls along the ground. In general he is constipated; sometimes, however, colic is accompanied with diarrhoea. It most frequently depends on cold, or on excessive food. In the former case it yields to *aconitum*, in the latter to *arsenicum*, preceded by one or two doses of *aconitum*.

**CONSTIPATION.**

Constipation is more common than diarrhoea in dogs, and may be recognized by frequent and unavailing efforts to void the feces, accompanied with groaning and trembling. From two to three doses of *nux vomica*, or (if indicated) *opium* are to be given.

**COUGH.**

Well-fed dogs are frequently affected with a dry and penetrating cough, and in many cases, if they
are advanced in years, the disease degenerates into asthma. As the cause seems to be obesity, or at least, very often, the amount of nourishment must be diminished, and exercise should be taken. Internally *antimonium crudum* should be given: if some improvement does not soon take place, and the cough seems to come from the chest, we must have recourse to *nitrum*.

**PROFUSE DISCHARGE OF URINE.**

This disease, the cause of which is various, and which is sometimes owing to the too frequent repetition of the venereal act, is characterized by the involuntary discharge of urine, which is constantly passing off in drops, without the animal putting itself in the ordinary posture for discharging it. *Belladonna, ferrum, pulsatilla*, and *creosotum* are the means of cure.

**DIARRHŒA.**

If the faeces voided by the dog be much softer and more frequent than usual, and often mixed with blood—in many cases their discharge is attended with pain, which occasions groans and cries—if, as often occurs, the diarrhœa arise from the animal having taken too much food, from having taken much fat, sour milk, fruit, &c., we should have recourse to *arsenicum*; whilst *chamomilla* should be employed if it arise from cold. A slight diarrhœa, which is often salutary, requires nothing else but to procure a warm bed for the animal.

**GASTRITIS (INFLAMMATION OF THE STOMACH.)**

A frequent consequence of colds, indigestion, and of the ingestion of unwholesome substances, more especially poisons. Gastritis is characterized by the symptoms of inflammatory fever, and also by very acute
pains, which are increased by external pressure: the abdomen is tympanitic and hard: the animal vomits, and is constipated. *Aconitum* and *arsenicum* are employed alternately, the latter, when there is diarrhoea; *nux vomica* in the case of constipation; *pulsatilla* when the animal has eaten fatty bodies to excess.

**METEORISMUS.**

This affection attacks greedy dogs, and such as have not very strong digestive powers. If, at the same time, the food is not of good quality, the animal becomes sometimes like a drum. In order to cure the animal, it will often suffice to oblige it to take a long walk. If this fail, we have recourse to *colchicum autumnale*, followed by one or two doses of *arsenicum*. When constipation remains behind, *nux vomica* should be given. If *arsenicum* do not restore the appetite completely, *antimonium crudum* should be administered.

**PNEUMONIA.**

This affection is sometimes the effect of cold, to which the animal has been exposed after having been heated. The symptoms are those of inflammatory fever, viz., cold, heat, pulse hard and frequent, breathing hurried, beating of the flanks, great thirst, heat of skin, as also in the ears and head, redness and watery state of the eyes, &c. ; the animal coughs, looks at his chest frequently and with distress, feels some difficulty in lying down, and often changes its position. Two or three doses of *aconitum*, followed by *phosphorus*, generally effect the cure. The other remedies that will be found most useful are: *arsenicum, bryonia, digitalis, tartarus emeticus, tinctura sulphuris*, &c.

**SPASMS.**

Dogs are frequently attacked with convulsions in the limbs, generally after some disease; *anacardium,*
platina, and spigelia are then to be employed. Frequently also they are seized on a sudden with cramps, either whilst walking or running, they then utter loud complaints, howl, and raise their paws. The cramp soon yields to frictions with the hand, or with a portion of cloth. The return of the attack is to be prevented by cocculus and ipecacuanha.

**URINE (RETENTION OF.)**

Though it may be the nature of the dog to void his urine more frequently than any other animal, it sometimes happens that he is unable to do so, at least, without pain; this occurs principally in the case of nephritis, or after a blow received on the lumbar region. Two or three doses of aconitum, which are to be followed by cantharides, cure him in a very short time. If the lumbar region has been injured, we must have recourse to arnica.

**FALLING OF THE UTERUS.**

This accident is seldom observed in bitches after parturition. The organ should be cleansed with warm water, and after the fingers have been oiled, it is to be replaced gradually. As the accident is almost always owing to difficult parturition, and the uterus itself may have been wounded, it becomes necessary to have recourse to injections of arnica water, and to administer some doses of arnica, preceded by aconitum, if there exist inflammation and fever.

**VERTIGO.**

Dogs, when too well fed and plethoric are sometimes affected with dizziness; they stagger as they walk along, or even fall to the ground, usually remain lying down, and eat nothing; the mouth is hot, eyes fixed, projecting and bright. They are cured by a few doses of aconitum, which should be
followed by *belladonna*; at the same time attention should be paid to their diet and exercise.

**WORMS.**

No domestic animal is as much tormented as the dog by worms, the ascarides, lumbrici, and taena. The means to be employed are the same as in the case of the other animals; the medicines that are most useful in vermiculous affections are: *china, mercurius, sulphur, calcarea, chincona, ferrum, filix ignatia, sabadilla, silicia, spigelia.*
PART V.

DISEASES OF SWINE.

SECTION I.

GENERALITIES.

The robust constitution of the pig causes it to be less liable to fall sick than oxen and sheep; it would be still less liable to disease, if persons manifested more judgment in the choice of the animals to be reared, and if more care were shown in the matter. With reference to the latter point, it is very true that the voracity of the pig urges it to eat everything it meets; but to keep it in a state of health, it is, notwithstanding, necessary to restrict its regimen to certain rules. The animal which it is proposed to fatten should remain under the roof, and receive good food there, whilst the others may be sent out for the greater part of the year, care being taken to avoid fields that are damp and marshy, and that the pigs be preserved from the dew. Neither should pigs be allowed to go out in wet seasons, nor when it is very hot. It is also of importance that they should not be driven too hard during warm days, a season when cool and shady places ought to be sought for. It is useful also to
give them food before sending them out, and on their return. These animals require to bathe and drink frequently, particularly when the season is hot; it is well known that turbid and marshy water does not injure them; but water containing soap in solution disposes sows to abortion.

There are two other points which deserve to be taken into consideration if we wish swine to thrive; this is daily exercise in the open air whenever the weather permits, and cleanliness of the sty. Constant confinement throws them into what may be called a morbid state, which renders their flesh less wholesome for man; and the manner in which the animal evinces its joy when set at liberty, proves sufficiently how disagreeable confinement is to it. With respect to dwelling, a very general prejudice prevails, viz., that dung and filth do not injure swine; this opinion, however, is absurd. The roof should be from six to eight feet high, and the floor should be slanting, so that the urine may readily flow off; the dung must be constantly removed, the litter renewed, and the floor washed.

With respect to the treatment of the diseases of the pig, difficulties present themselves, because there are but very few of these diseases which produce symptoms sufficiently marked to enable a person readily to appreciate them, unless he possess great experience.

ANOREXIA.

When this symptom does not depend on any other disease, it is generally attributable to the animals having eaten too much. Antimonium crudum and arsenicum are the means to be employed. Nux vomica is the proper medicine, when there is at the same time constipation, or when the faecal matters are hard and difficult of expulsion.
ANGINA.

This disease, as dangerous as it is common, generally comes on suddenly. Its principal causes are a sudden change of season, the want of water for drinking in times of great heat, water too cold for drinking, especially that which comes from melted snow, the being sent too early into the fields in spring and autumn, before the dew is dissipated, &c. It is in general the fattest pigs that are first attacked. The animal suddenly appears to be dejected and restless, it totters, hangs down the head, frequently shakes it, kicks with the hind feet, and trembles over its entire body. The breathing is loud, wheezing, and difficult; the animal takes in the air by the mouth, and holds the tongue hanging out of the mouth. There is great heat, especially in the mouth. The eyes are red, the tongue a little swollen, deglutition is performed with difficulty, and sometimes vomiting is observed to take place. Whilst these symptoms are becoming developed, there is observed to come on the larynx a hard, tense, and hot swelling, which makes rapid progress, and extends along the neck as far as the chest, even to the abdomen. This swelling, which is at first red or of a reddish-brown color, assumes a leaden or even a bluish tint on the approach of death, as in St. Anthony's fire, to which the symptoms of angina bear some analogy, which frequently causes the two diseases to be confounded. The interior of the mouth and nose also appears to be very red; the animal protrudes the head directly forwards; the voice becomes more and more hoarse, the cough more and more distressing, deglutition more and more difficult, the tongue is brown, and death occurs, either by suffocation or by gangrene. The disease, which generally attacks a great number of pigs at a time, terminates, for the most part, in death, in the space of from twenty-four
to thirty-six hours; and it is seldom prolonged till beyond the second day. The treatment is very simple. A dose of aconitum every quarter of an hour; and after an hour and a half, or two hours, belladonna generally cures the disease, whilst it is still in its first stage. If the cure is not complete after two or three hours, a dose of spongia marina should be given every hour. When there still remain, about three hours after, some symptoms, hepar sulphuris is to be prescribed; but aconitum is always sufficient of itself, if it be taken in time. Antimonium tartaricum has been also recommended, and also capsicum, and arsenicum album.

**EMACIATION.**

The wasting away of swine is, in most cases, the consequence of the bad state of digestion, which, in general, is announced by greater or less diminution of the appetite. One or two doses of arsenicum will almost suffice to restore perfect health. If there still remain a repugnance to food, antimonium crudem should be administered. When emaciation is accompanied by difficulty of breathing and by cough, it should be considered as an accessory symptom of the cachexy which follows a badly treated pneumonia, and for which we possess a specific in nitrum.

**EPILEPSY.**

Epilepsy, which is only observed in young swine, seems owing to the use of certain mischievous substances, as for instance, pepper, which many persons regard as a poison for those animals. The pig thus affected suddenly falls on the ground, becomes convulsed, and throws itself to the right and left; it grinds its teeth, turns its eyes, raises and lets fall its head; drivels from the mouth, breathes sometimes quick, sometimes slowly, and frequently bites its
tongue. *Belladonna* and *china* have frequently produced good results.

**FEVER.**

It sometimes happens, as a consequence of cold, and probably also from other causes, that from the first to the third day after having farrowed, the sow is seized with high fever, with considerable heat and great thirst; the bristles stare, the eyes are dull and bleary, the breathing becomes short and difficult, the mouth and tongue are burning hot; there is no appetite whatever; sometimes spasms are observed, during which the animal rolls the eyes, foams at the mouth, and grinds the teeth. *Aconitum*, and after it, *pulsatilla* and *belladonna* are the remedies to which recourse should be had.

**FOUNDERING.**

The ordinary causes of this disease are the influence of cold or violent exercise; but sometimes it is owing to excess of food. It is recognized by muscular rigidity so great that the animal can scarcely drag itself along. The back too is rigid, and the mouth opens with difficulty. The animal has little appetite, and does not leave its sty willingly. A few doses of *aconitum*, and then *bryonia*, are the principal remedies. Benefit has been derived also from *belladonna*, *chamomilla*, *dulcamara*, and *opium*. *Nux vomica* has produced very excellent effects in certain cases.

**FRACTURES.**

After reduction, two or three doses of *arnica* are to be given, then *symphytum* in repeated doses, and the bandage is to be frequently sprinkled with *arnica* water. Fifteen days at most suffice for the cure.

**LUXATIONS.**

Luxations of the joints of the feet are rather frequent in swine, which, after the feet have become fastened in
some chink, make violent effort to disengage them. When the accident is recent, it is to be treated with aconitum, internally and externally. If it is serious, and the pain be severe from the commencement, we should administer rhus toxicodendron and ruta, which is useful against most species of luxations, those especially of the lower part of the foot.

**MADNESS.**

In swine, madness breaks out generally in from three to five weeks after a bite by a mad dog. It generally commences by loss of appetite, weight, distress, convulsions, redness of the eyes, and a peculiar tone of grunting, which is hoarse. Then there comes on a species of frenzy, during which the animal runs about mad in every direction, makes great leaps, and bites everything it meets. At the end of from five to seven days, the breathing becomes embarrassed; there is paralysis of the hind quarters, and death takes place in the midst of convulsions. It is stated that hydrophobia has never been observed. With respect to treatment which should be a little more difficult than in any other domestic animals, consult the article Madness, among the diseases of sheep.

**MEASLES.**

This disease is very common, and has for its principal character, red spots, which appear on different parts of the body, more especially in the eyes, ears, and belly, and which are followed by a furfuraceous desquamation of the skin. Before the eruption of the disease, the animal is feverish, loses appetite; its eyes are red and bleary. Sometimes there is vomiting. Aconitum and pulsatilla are the remedies; pulsatilla may also be employed as a preventative against the infection. If the disease were not well marked, or went in, the best thing to be done is to have recourse to bryonia and
**rhus toxicodendron.** *Nux vomica* and *bryonia* are useful against the cough, which the disease sometimes leaves after it. *Sepia* and *sulphur* also deserve attention.

**ROT.**

This is much more malignant in pigs than in sheep. It scarcely attacks any but the young, and it is very seldom that an old pig is affected with it. It appears but once during life. After the animal has passed some days in a state of depression and unwillingness to move about, the head hanging down, the ears thrown back, its bristles stare, and there are seen on different points of the skin, chiefly on the head, ears, on the fore-part of the body, in the inner surface of the thighs, and on the belly, small red spots, which soon increase in size, and rise into a pustule full of serum; this pustule dries, and gradually falls, leaving behind it a small cicatrix, at the end of four or five days. This affection is particularly dangerous, when it attacks the eyes, which become inflamed. When on the inner surface of the thighs, it causes the animal to limp. *Arsenicum* is the specific for it. When it does not clean the skin perfectly, recourse must be had to *dulcamara.*

**TUMORS.**

Blows, injuries, falls, bites, &c., occasionally give rise to tumors of greater or less size, which are very apt to suppurate, when they are not attended to in proper time. This effect is prevented by *arnica,* which must be given internally also if the lesion is considerable. Among the tumors which occur spontaneously, may be distinguished swelling of the head, which oftentimes occasion death, and the remedy for which is *belladonna.*
WOUNDS

Simple wounds, those involving only the skin and subjacent parts, are never of any consequence in swine. They are treated externally with *arnica*, and covered over with pitch-plaster to prevent insects from depositing their ova in them. Deeper wounds never heal without suppuration; they then call for the treatment indicated under the article *Suppuration*, in the diseases of horses. When the bone is injured at the same time, *symphytum* is a specific.

SECTION II.

EXTERNAL DISEASE, WITH THOSE AFFECTING THE MOUTH AND THROAT.

EARS (DISEASES OF THE.)

Swine, with large pendent ears, have these organs in summer frequently affected with chops or clefts, in which insects deposit their eggs, which then give rise to larvae. The latter cause intense itching to the animal, which often shakes its head to relieve itself, and scratches its ears with its hind feet. When these larvae are discovered, they are to be removed by means of a pledget of tow, the ear is to be washed with warm water, and then moistened several times with *arnica*. If worms have made their way into the concha, they may be killed with warm oil. Swine are often affected in the ears in consequence of contusions, forming sanguineous tumors, which are to be opened; after which the wound should be rubbed over with *arnica* water by means of a feather.
SORENESS OF FEET.

An inflammatory affection of the feet, of the fore-feet particularly, which occurs when pigs walk for a long time on a hard, flinty road. It is not uncommon, and often acquires such a degree of violence, that the animal seems completely rigid, and cannot move its limbs. The remedies for this affection are *rhus toxicodendron* internally, and *arnica* externally. If the pain be felt chiefly at the sole, *arsenicum* is found efficacious in all cases without exception. Sometimes the inflammation remains confined to the fleshy parts of the foot; the horn is then hot and very sensitive to the touch, the coronet swollen, and walking painful; if the cause continue to act, the horn becomes detached, and the animal, no longer able to rise, often dies. Whilst the disease is recent, *arnica* will suffice, if given internally and externally, to put an end to it. If it progress we must have recourse to *arsenicum* and *acidum sulphuricum*. *Conium* is also good.

FIRE (SAINT ANTHONY'S.)

This disease, similar to rot or typhus, is very common in pigs, which, according to extensive observation, are chiefly attacked in localities where horned cattle are less generally affected. It is extremely fatal. It often goes on with such rapidity, that the animal falls dead without having exhibited any symptom of the disease, and is found dead in its sty, where the evening before it was left in perfect health, and eating with its usual appetite. More usually it is preceded by symptoms which generally last from twelve to twenty-four hours, seldom two or three days. The pig suddenly craves to eat; it becomes restless, and rakes up on every side; there appear on the neck, chest, and belly, red streaks, which gradually become blue, though in many cases only after death. Generally, there is ob-
served to be great heat in the head and difficulty of respiration; there also appears on the neck an inflammatory swelling, which occasionally extends to the head, chest, and belly, and which never passes to suppuration. Sometimes there comes on the tongue a round, white vesicle, about the size of a pea, which soon becomes black, and eventually proves fatal. Before this vesicle comes on, the animal appears dejected; it holds the head hanging down, continues to lie down, grinds the teeth, and remains stretched almost without feeling. In certain cases also there comes on the exterior of the neck a small glandular tumor, on which the bristles stare and assume a white color.

In cases where the disease does not prove fatal rapidly, or where it lasts to the third day, there is observed in these animals great weakness of the muscular system. The tail, instead of being rolled up, hangs at its entire length; the bristles stare, the temperature of the body varies frequently. There is constipation, or the excrements are dry and curled. No appetite or thirst. There is considerable heat diffused over the entire body; the animal remains constantly lying down, or, when walking, staggers. It often vomits what it has eaten, and sometimes yellow lumps also. It rummages, as it were, impatiently in its litter, and frequently throws it up to the roof. The skin swells, and there appears an eruption, which, being at first reddish, soon becomes black. The breathing is short and loud. Small gangrenous ulcers are often seen in the mouth, and convulsions close the scene.

St. Anthony's fire bears much resemblance to angina, which follows a no less rapid course. The two diseases are often confounded. The remedy is arsenicum, of which from eight to twelve doses should be administered, one every ten minutes, or every quarter of an hour. Out of one hundred and fifty pigs treated by me last summer, only two died of it. I succeeded in saving some which were considered to be, as it were,
dead. *Arsenicum* also acts as a preservative, and I have almost invariably found very great benefit from it. In every instance where I treated diseased pigs, I make such as have been spared take this medicine once a day, for eight days, and not one of them have ever been affected with it.

**SOIE, DISEASE OF THE BRISTLES.**

This disease, which is contagious, is in general announced by great restlessness; the animal does nothing but grunt, and rub itself all over; its bristles fall in several places, where the skin allows a sanguineous fluid to ooze out. On examining more attentively, the skin is found to be bloated, and to present echymoses, as also to exhibit reddish, blue, and brown spots. The bristles which adhere are very readily torn off; their roots are swollen, of a deep red color, and bleeding. The animal is sad and listless; it loses appetite, limps in the hind quarters, drags the hind-legs after it, and at length is no longer able to stand up. It has violent fever with great thirst; pustules appear on the tongue; diarrhoea eventually terminates in death if timely relief is not afforded. The disease, frequently accompanied with St. Anthony's fire, is occasioned chiefly by want of exercise, tainted state of the air and want of cleanliness. The first object is to change the diet, to take the animal into the open air every day, and to bathe it. Internally, we should administer *aconitum, arsenicum, cocculus, rhus toxicodendron, sulphur*, and from time to time, *china*, if it be very weak.

**MORBUS PEDICULARIS.**

Of all the diseases of the pig there is not one which, though it may extend to the entire body, is so difficult of recognition during life. It consists of a greater or less development of insects, of about the size of a
MORBUS PEDICULARIS—OPHTHALMIA.

millet-seed, which arise in greater or less number in the flesh and cellular tissue of all the parts of the body. When they are numerous, the animal loses appetite and pines away; its lower jaw and cheeks swell, it grunts feebly and appears weak, as if paralyzed in the hind quarters. The breath is fetid, and the bristles readily come off: the disease called soie is observed to come on. The flesh is soft, the fat white and devoid of consistency; it can neither be salted nor smoked. In former times this was much dreaded; but at present it is well known, that though of a less agreeable flavor, it cannot injure the health of those who eat it. Like all intestinal worms, these are the production of a morbid change in the organism, which is rarely observable in pigs below two years of age, and which seems to be hereditary. The principal occasional causes are excess in eating, want of exercise in the open air, and want of cleanliness. Kali carbonium has been recommended. Wood-ashes, the ashes of the birch-tree in particular, are considered an excellent preservative; a spoonful of it should be mixed several times during the week with the food.

OPHTHALMIA.

Ophthalmia is of frequent occurrence, more especially in sucking pigs. The causes are, either external injuries, or unclean styes, and total abstraction from the open air. The eyes are red and watery, the eyelids red, swollen, and glued together with mucus or pus, so that the animal can no longer see, and strikes against every object. If the inflammation has been occasioned by the introduction of a foreign body into the eye, it must be removed, and the eye washed with warm milk or water. One or two doses of aconitum, followed by several doses of arnica, which is also to be employed externally, soon remove the disease. When arnica does not suffice, conium is very useful. If the inflammation depend on an inter-
nal cause, in which case redness, tumefaction, heat, and pain are in general very great, we are also to commence with a few doses of aconitum, which are to be followed by cannabis and belladonna. Spigelia also is a tried remedy, more especially when there is at the same time intense blepharitis. Ophthalmia frequently depends on cold, in which case it is to be treated with bryonia, dulcamara and euphrasia. If, after its removal, the cornea remain somewhat turbid, cannabis and conium are the chief remedies. When the spots have been the consequence of a blow, or of other mechanical causes, they are to be treated with cannabis and belladonna alternately, or else with conium. Ophthalmia is less common in the pig than in other domestic animals; and it terminates more favorably, so that it is unusual to see pigs in a state of blindness.

**PHTHIRIASIS.**

Some swine are covered over with vermin, which even pierce the skin, and sometimes come out by the mouth, nose, and eyes. The animal may be tormented by them to such a degree as to fall into a state of marasmus, and die from exhaustion. It does nothing but scratch and rub itself. On removing the bristles, these parasitic insects are discovered, which may be recognized by their peculiar form. The most effectual and least dangerous remedy consists in the application of an ointment prepared with one part of parsley seeds bruised, and three of orange. A solution has also been recommended, obtained by boiling six pints of vinegar and two of water, with one drachm of arsenic, until the metal is entirely dissolved; but the application of this remedy requires much caution: the animal must be prevented from licking itself, nor must the entire body be even rubbed with it all at once. Internally sulphur should be given; and if there be great debility, china. Cleanliness also must be attended to, as well as the quality of the food.
RED SWEAT.

In the pig, affected with this disease, different parts of the body, more especially the median line of the back, are covered with a red eruption, which ultimately extends over other regions. The animal is constantly rubbing itself, loses its bristles, and wastes away. The remedy is dulcamara, a dose of which should be taken daily for seven or eight days.

SECTION III.

INTERNAL DISEASE.

ASCITES.

In this disease, which is not of frequent occurrence, the animal is sad and depressed, there is difficulty of resiping, it eats little, and its belly swells. When the abdomen is examined with the hand, fluctuation is felt. China and arsenicum, alternately administered, are the chief remedies to be employed.

CATARRH, (PULMONARY.)

Pulmonary catarrh is characterized chiefly by fits of coughing, which are sometimes accompanied with a mucous discharge from the nose and mouth, with redness of the naris. The remedy is nitrum (two or three doses.) If the disease be neglected, if also the pig continue exposed to cold and damp weather, the
cough increases, the breathing becomes difficult, the animal wastes away, and at length dies exhausted.

**COLIC.**

Colic, which presents itself under two forms, windy colic and spasmodic colic, has for its principal characters great restlessness, loss of appetite, moaning, constipation, occasionally also diarrhoea and vomiting. It is owing sometimes to the fact of the animal having eaten bad food very greedily, sometimes to its having been exposed to cold, or to the presence of worms in the intestines. In windy colic, where the stomach and intestines are very much distended with gases, the abdomen is distended, and yields a dull sound when struck. *Colchicum autumnale* is the remedy. With respect to the colic occasioned by cold, *aconitum* is the specific for it. At the end of two hours, *arsenicum* is to be given. If constipation remain after the colic has ceased, *nux vomica*, *opium*, and *plumbum* are to be employed.

**DIARRHŒA.**

Overloading the stomach, no uncommon occurrence in an animal so greedy as the pig, cold water drank after great heat, the use of unwholesome food, exposure to severe cold, &c., sometimes also some other chronic disease, frequently give rise to violent diarrhoea. Sometimes the animal suffers acute pains, complains much, rolls along the ground, and voids a considerable quantity of liquid and fetid faeces; sometimes it makes great efforts to pass even a very small quantity of faeces mixed with bloody mucus, or even with pure blood (dysentery.) At times also there is observed a chronic flux, without any pain, of such a nature that the animal passes all the food it takes without at all subjecting it to the process of digestion. The treatment is to be regulated by the occasional cause. The diarrhoea which has come on after sudden exposure to cold, is
mostly cured under the influence of aconitum alone. If there be colic, arsenicum should be given, which is to be followed by ipecacuanha when the disease resists it. Diarrhoea occasioned by disturbance of the functions of the stomach is to be treated with arsenicum and pulsatilla, and, in case of failure, with mercurius vivus; if the appetite does not then return of itself, antimonium crudum soon restores it. Rheum is specific in the treatment of chronic diarrhoea. The diarrhoea which accompanies some other chronic disease is generally the harbinger of approaching death, and should be considered with reference to the general affection to which it is attached.

**ENCEPHALITIS.**

Encephalitis generally commences suddenly, and without any precursory symptoms. It chiefly attacks fat pigs, when they run much during the heat of summer, or when they cannot find sufficient to drink. The animal falls into a kind of furious delirium; the eyes become red and sparkling; its look is fierce; the mouth is dry and hot, and a viscid saliva flows from it. The animal scrapes the ground with the fore feet, tears up the ground, runs wild in every direction, throws itself, as if blind, against the walls, and from time to time falls forward. A dose of aconitum every ten minutes or every quarter of an hour, then, at the end of from an hour and a half to two hours, bella-donna, also repeated at the end of two or three hours, are specifics for this disease. Sulphur is then given as consecutive treatment.

**FRENZY.**

This disease breaks out sometimes suddenly. The animal having remained in a passive and stupid state, suddenly appears much disturbed, to such a degree that it makes irregular movements, strikes its head against everything it meets, scrapes with its feet, places
itself quite erect along the walls, bites all around it, and whirls itself round, after which it suddenly becomes once more tranquil. There is observed at the same time great emaciation, weakness of digestion, and a loaded tongue. Belladonna is the best remedy; seldom more than two or three doses are required.

GASTRITIS.

Gastritis in pigs is caused by the heating plants eaten by these animals; it may also depend on food of too stimulating a nature. The animal exhibits extreme agitation; it chews incessantly, grunts almost unremittingly, and strives to conceal itself; it becomes convulsed at the mouth, from which froth sometimes flows. Generally also there exists a disposition to vomit, and sometimes even actual vomiting. In certain cases the entire body is gradually struck with paralysis. The remedies are aconitum and arsenicum taken alternately. Carbo vegetabilis also has been useful.

JAUNDICE.

This disease, which always appears after an affection of the liver, is only developed gradually. It is recognized chiefly by the yellow tint of the conjunctiva of the eye, the absence of appetite, and the evident dejection of the animal, which wastes away very much. Sometimes also there is remarked some tendency to vomiting. The principal remedies are: china, nux vomica, mercurius vivus, and sulphur. Lycopodium may also be tried.

ITCH, (GALE.)

In proportion to other animals, the itch rarely occurs in pigs; it is recognized by the animal frequently rubbing and scratching itself. On minute examination, there are observed on the skin small vesicles,
which give out a viscid fluid, and are then covered with a thin or thick scab. The bristles usually fall off, and are worn away by the constant frictions of the animal. If, as is generally the case, the disease assumes the dry form, sepia and sulphur are to be employed; otherwise staphysagria, dulcamara, and sulphur, are to be employed.

The eruption, which is more particularly observed in sucking pigs when the mother is too well fed, is not dangerous of itself, but it lessens the value of the animal, by causing it to waste away very much. It appears around the mouth and on the eyes, which appear sometimes inflamed; also on the ears, and presents itself under the form of a thick brown scab which oozes out a fluid. It appears to be accompanied with itching. When it has attained an extreme degree, it prevents the animal from seeing. The remedies for this are dulcamara, and veratrum album, followed by one or two doses of sulphur, which should be administered also two or three times to the mother.

PNEUMONIA

Occurs from different causes, such as drinking cold water after having been heated; the sudden changes of the atmosphere in summer, &c.; it renders pigs liable to be affected with inflammation of the lungs; there are then observed violent beatings of the flanks and short breathing; they are heard to complain and carry the head down; their grunting is weak and hoarse; appetite none, thirst great; the animal seldom lies down; it frequently rests its breast on the ground, which it scrapes up occasionally; a certain degree of stiffness is observed in its fore-limbs. After some time it ceases to grunt, remains for entire days stretched on the ground without moving, and at length dies from the eighth to the fourteenth day. One dose of aconitum every half hour, and bryonia at the end of from three
to four hours, are useful in this case. Sometimes when the disease is not recognized at once, when it is treated badly, or when it is neglected, it degenerates into gangrene, which is recognized principally by the fetid state of the breath and a discharge from the nose; the animal remains almost constantly lying down; it groans and its breathing is short. The chief remedies, when the disease has not made too much progress, are *nitrum*, and if that fail, *china* in multiple doses, then *stannum*, *phosphorus*, *calcarea*, *carbonica*, &c.

**PROLAPSUS OF THE RECTUM.**

Prolapsus of the rectum is observed chiefly in sucking pigs, which receive nourishment either too plentifully or too heating. The lower end of the intestine is everted on itself, and projects outwards. The projecting portion should be cleansed with warm water, and returned back to its place with the fingers when well oiled. Internally *arsenicum* should be given, and when the rectum itself exhibits signs of inflammation, *belladonna* and *mercurious vivus*. When the prolapsus takes place in consequence of violent efforts during constipation, *murias magnesiae* should be administered, and if there be at the same time diarrhoea, *argilla* must be employed. In a case where the rectum had been seriously injured accidentally, I employed *arnica* externally, with *arnica* water internally, and in the form of injection, and the animal was saved.

**TYMPANITIS.**

This disease, which is often associated with gastritis or enteritis, is chiefly owing to food producing gaseous distention, eaten in too great quantities. The gases distend the stomach and intestines, so as to render the belly tympanitic, so that it sounds like a drum when struck. The animal becomes very restless, eats nothing,
and dies, if haste be not made to afford relief. The remedy is *colchicum autumnale*, two or three doses of which, are sufficient to remove all the symptoms in the space of an hour.

**VOMITING.**

The vomiting to which some pigs are very liable deprives them of appetite; it causes them to waste away, and even proves fatal to them when it lasts for a length of time. *Veratrum album* and, in difficult cases, *cuprum*, are the principal remedies to be employed. *Pulsatilla, arsenicum*, and *antimonium*, are the proper remedies.
PART VI.

DISEASES OF GOATS.

SECTION I.

GENERALITIES.

Mountaineers are the only class of persons who keep great flocks of goats, because they can send them to graze on hillocks and in woods, where they can commit no havoc, a thing unavoidable in plains, where these animals would lay waste the fields and destroy the trees. However, the goat is so very useful an animal, its milk being very abundant and much richer than that of the cow, that small flocks of them are to be found almost everywhere. In order to render this work as complete as possible, I deemed it necessary to give here a short sketch of the diseases to which they are liable; diseases, by the way, which resemble very much those of the sheep.

A great many diseases may be avoided by carefully selecting the beasts, and taking proper care of them. A good goat should have the body long, the croup broad, the legs short, the belly pendent, and the
mammae full; it should have the eye clear, the face sprightly and lively, the appetite good, and eat without selection all the food of a wholesome quality, which may be presented to it. It should not be less than one, nor more than six, years of age. The rutting lasts in the goat from the month of October to the commencement of December, and recommences about fifteen days after parturition. It is necessary to take advantage of this circumstance, because one may procure the advantage of two breeds a year: for though a goat may be milked for an entire year after it has had a kid, yet it gives milk in greater quantity, and of better quality, when it has been twice impregnated; but it is necessary to watch the precise season attentively, as the second heat lasts only twenty-four hours. It is recognized by the restlessness of the animal, which bleats frequently, with a peculiar voice, and wags its tail; the entrance of the vagina is swollen, and some drops of blood escape from it from time to time. Besides, goats do not always conceive at the first coition, and after they have received the male, it is necessary to examine, whether they might not still present signs of rutting. They carry their young from twenty to twenty-one weeks, and give birth to one, two, or sometimes even to three young ones; however, they can suckle not more than two, and if they give birth to three, it is necessary to give one to be suckled by another mother. The best goats to be preserved are those of spring, because it is easier to bring them up in summer than in winter. Those which are intended to be kept must suck for six weeks; during this time they learn to eat grass on the pasture, or fodder from the stall. They thrive better, however, on the green grass than on hay. When they are intended for killing, it should be about the end of three weeks. In order to wean them, they are kept tied up, as well as the mother. When weaned, fodder is given them four times a day, but never
more than they can consume at a time; otherwise they become voracious, they seek out the best herbage, trample the rest under their feet, and would rather fast than eat it.

With respect to the bringing up of goats, they are led to the fields, or fed in the stall. The best pastures are mountainous meadows, full of aromatic grass, and interspersed with shrubs. If goats are kept constantly in the stable, care must be taken not to give them always the same fodder, as they would soon tire of it. In summer all herbage suits them: salad leaves or cabbage leaves, pods of peas, or kidney beans, carrot-tops, young shoots of hawthorn, of the willow, of the beech, &c., and especially vine leaves. In winter dry leaves should be given to them, potatoes, carrots, red beet, cabbages, straw of the oat, rye, wheat, barley, vetch, kidney beans, peas, lentil; the best of all is short mountain hay. This fodder should be given to them every evening, and twice a day more should be given. Bran and water is useful to increase their milk; but in too large quantity it fattens them. The water for their drink should be clear, and in sufficient quantity. It is good to add to it a little salt from time to time.

The stable should be spacious and airy; otherwise it injures the health of goats very much. It should be warm in winter, these animals being badly able to bear cold. A rack should be set up in it two feet from the ground, and below these should be a broad curb to receive the food that may escape, and to prevent it from falling on the ground, where it might be trampled beneath the feet.

ANOREXIA.

The diminution and absence of appetite are usually symptoms of a general morbid state, on the cessation of which they are observed to disappear of themselves.
It frequently happens, however, that without giving any particular signs of disease, the animal ceases to eat, wastes away, loses its milk, and becomes gradually emaciated. In this case there is almost invariably a bad state of digestion. The chief means are antimonium crudum, and arsenicum, and when there is at the same time constipation, nux vomica. If there exists diarrhoea, chamomilla and pulsatilla are to be administered, the latter more especially when, the animal refuses to drink. When the anorexia is owing to damaged food we should have recourse to arsenicum album; when it depends on cold, it is cured by bryonia.

EMACIATION.

In general, emaciation is owing to a bad state of the digestive organs, or to some internal disease. The animal evinces but little appetite, wastes away in spite of the best feeding and is very weak. The chief remedies are arsenicum and china. If there be constipation at the same time, nux vomica is a proper medicine, as also pulsatilla, in case of diarrhoea, and when the animal has a depraved appetite for things incapable of nourishing. Emaciation is often the effect of a general morbid state, which must be investigated and combated by appropriate means. If the disease is of long standing, it will be well to commence the treatment with some doses of sulphur, which it is well to administer from time to time, under the name of an intercurrent remedy.

WOUNDS.

The first condition to cure a wound is to keep it as clean as possible. All foreign bodies, therefore, should be carefully removed, and the part should be washed several times a day with cold water. Arnica water is sufficient to effect a speedy cure; this substance need not be administered internally, except in rather exten-
sive wounds. If suppuration has set in, we are to proceed as we stated in speaking of the diseases of horses.

SECTION II.

EXTERNAL DISEASES.

FEET, (DISEASES OF THE.)

Pointed bodies, thorns, or other substances of the kind, frequently enter into the feet of goats, which accident makes them limp. Such foreign bodies should be extracted at the moment, then the part affected should be sprinkled over with *arnica* water. When it is taken in time, the treatment is always successful. But if the disease be neglected, *aconitum* and *squilla*, when there is only mere inflammation; and *arsenicum* when the pains are acute. If ulceration has come on, the treatment should be the same as in the case of oxen.

Foot-rot is not uncommon in goats, particularly in those which are kept in damp and unclean stables. The effects and treatment are the same as in sheep.

FALLING OFF OF THE HAIR.

The falling off of the hair, after which there are very considerable portions of the skin laid bare, may be connected with different causes. It may be the consequence of itch, in which case the treatment required by the latter disease is to be resorted to. If it depend on a general internal disease, which shows itself by constant irritation of the skin, obliging the animal to scratch itself continually, which is the more common occurrence, *sulphur* is the remedy to be employed: it generally requires to be employed for a considerable time. *Psoricum* may also be tried under such circumstances. Very often the falling off of the
hair is owing to bad or insufficient diet, or to debility of the digestive function; sulphur and arsenicum are to be then employed, care being taken to remove the causes, among which stables too hot and very unwholesome hold the first place. If alopecia has supervened after sudden exposure to cold, or after foundering, produced by this cause, it yields to bryonia, and to acidum nitri.

**OPHTHALMIA.**

Ophthalmia is the disease of the eye most frequently met in goats. The eye is closed, swollen, and red internally: the animal weeps much, the lids are glued together with mucus. The causes are very varied; the inflammation may depend on a blow, a thorn, great heat, on the exhalations of an unwholesome stable, on damaged food, or food to which the animal is unaccustomed, or too nutritious. The treatment varies according to the cause, which it is necessary to investigate. Thus foreign bodies are to be removed in this case, as also after all external violence, arnica is to be employed, both externally and internally, and if that do not suffice, conium. When the inflammation is acute, and accompanied with much lachrymation, some doses of aconitum should first be employed, then euphrasia. If the disease last for a certain time, we must have recourse to sulphur and to causticum. Arsenicum is peculiarly applicable when it depends on damaged food.

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**SECTION III.**

**INTERNAL DISEASES.**

**COLIC.**

Colic from constipation is very common in goats, especially when they eat flour or bran imperfectly
diluted. The principal signs by which it is recognized are these: the animal refuses its food; it lies down frequently and abruptly on the ground, but soon rises, looks at its belly anxiously, and commences sweating on the neck, flanks, and between the hind legs, whilst the ears, muzzle, and feet are cold. The pulse is quick, small, wiry, and scarcely perceptible: the breathing is constrained and loud. The disease readily assumes an inflammatory character, and in such case a few days suffice to kill the animal. A dose of *aconitum*, followed by two doses of *nux vomica*, effects a cure in a short space of time; if the animal is not then restored to its healthy state, one dose of *arsenicum* will suffice to restore it.

*Aconitum* is the specific for colic occasioned by cold, which is of frequent occurrence.

Green clover, especially when very young or moist, and eaten in too large quantity, causes a peculiar form of colic, to be noticed under the article *Meteorization*.

**Cough.**

The effects of exposure to cold, cold and damp air, a sudden change of season, often occasion in goats a cough, which is not dangerous, and almost always ceases unaided by medicine, after eight or fifteen days, the animal retaining its sprightliness, appetite, and plumpness. When it is long continued, when it is accompanied with a greater or less mucous discharge from the nose, when there comes on a beating of the flanks, particularly during motion, when the animal wastes away, and loses its strength, there is danger that the disease may terminate in dropsy or marasmus, and that it may occasion death. Those prolonged coughs are frequently the result of bad food, more especially damaged hay, or damp straw; in such cases, *arsenicum* should be resorted to. In other respects the treatment differs not from that to be employed with oxen.
DROPSY.

Dropsy, which is rather uncommon in goats, generally recognizes for its occasional cause a moist, marshy meadow. Its cause, properly so called, is most frequently a disease of some of the abdominal viscera, particularly the liver. Its characters are, loss of appetite, irregular digestion, shortness of breathing, cough, emaciation, and weakness; but above all swelling of the belly, in which fluctuation is easily perceived. China and arsenicum, taken alternately, and when they do not suffice, helleborus, are the remedies from which we should expect relief, if the cure were still possible; but this cure, is a very hazardous thing, in consequence of the readiness with which dropsy degenerates into gangrene.

DISEASE FROM FEEDING IN THE WOODS.

This disease is produced in goats which eat much of the bark of trees or shrubs. The hairs of the head stare; the appetite is lost, and the secretion of milk diminishes; generally also there is diarrhoea, with violent colics, which is recognized by the curvature of the back, and by the animal frequently looking at his flanks. The medicine to be employed is rheum (a few doses), after which, if the appetite is not soon restored, one or two doses of arsenicum are to be given. If those medicines do not suffice to bring back also the secretion of milk, one or two doses of chamomilla are to be taken.

ENCEPHALITIS.

Inflammation of the brain, oftentimes brought on by the sun's rays, when goats remain in the open air for the entire day in summer, without any shelter during the hot part of the day, is more uncommon among the female than among the male-goats, where it seems to be connected with deficient gratification of the venereal appetite. The animal is sad, it neither eats nor drinks, it is continually standing up and lying down as if stupid, allows its head to hang down to the
Hæmaturia—Diseases of the Mammæ.

ground, and strays about in every direction, staggering, without knowing whither it goes. The head, ears, and horns are hot, the eyes prominent, bright, and fixed. The first remedy is *aconitum*, one dose at first every hour, and subsequently every two hours. After the fourth or sixth dose, we should wait for some time until the medicine produces its effects, then a dose of *belladonna* should be administered, which is to be repeated after the lapse of from eight to ten hours, and much sooner if the disease has attained a high degree of severity. If *belladonna* fail, a dose of *hyoscyamus* should be tried; and if the animal be furious, *veratum album* should be given. During the treatment, the patient should be kept in a cool stable. If the disease be caused in the male by the non-gratification of the venereal appetite, after having quieted the inflammation by the means above mentioned, we must have recourse to *cantharides*, *nux vomica*, or *opium*, according to the nature of the symptoms still subsisting.

**Hæmaturia.**

The signs and causes of staling blood are the same as in the case of oxen and sheep. The disease is often owing to nephritis, or at least to blows or injuries inflicted on the renal region, in which case it yields to some doses of *aconitum*, followed by *cantharides*. But it more frequently depends on bad food. We must then prevent the cause, or change the mode of diet. If this precaution be not sufficient, one or two doses of *ipecacuanha* should be given. *Arnica* is always indicated when the affection is the result of external violence.

**Mammæ (Diseases of the.)**

Induration of the nipple in goats is generally the effect of cold; but it may also depend on other causes. It is accompanied or not by cessation of the milk secretion, and there may or may not be pains. If there be swelling and redness, *bryonia* is the medicine to be employed, and when the mammary glands are swollen,
chamomilla. Should the disease be occasioned by external injury, arnica is to be employed, both externally and internally; then, if it be deemed necessary, one or two doses of conium. Aconitum and mercurius vivius are excellent in obstinate cases.

**PNEUMONIA.**

Inflammation of the lungs is almost always the consequence of a cold occasioned by chilling or damp weather, or by staying in low and damp pastures, which, generally speaking, are not fit for goats. It is chiefly indicated by short and hurried breathing, with beating of the flanks, short and painful cough, acceleration of the pulse (70 to 90, instead of from 60 to 70,) tremors, which alternate with shiverings, intense thirst, total loss of appetite, and suppression of the alvine dejections, which are, at least, scanty and dry. The ears, muzzle, and legs, are either cold or hotter than usual, the animal never lies down. During three or four hours there should be given every quarter of an hour a dose of aconitum, and on the following days one or two doses of bryonia should be given.

**ITCH.**

This disease manifests itself by pustules and small ulcerations on the skin, which ooze, forming scabs, and compel the animal, by the itching they occasion, to scratch and rub itself constantly, the results of which are excoriations and falling off of the hair. There are two species of this disease: the dry and the moist. In the former the secretion is not very great, and there are produced only thin, furfuraceous scabs; in the other, on the contrary, thick scabs and suppurating ulcers are formed. These two forms of the disease arise either from infection or from some internal disease. The treatment is the same as that for sheep.

**INFLAMMATION OF THE BELLY.**

Under this term are included all the inflammatory
states of the organs situate in the abdominal cavity. In goats these states are almost always brought on by colds. They are characterized by the total loss of appetite, hurried respiration, strong pulsation of the flanks, quick and hard pulse, alternations of heat and cold in the ears and horns. Several doses of *aconitum* in rapid succession, and then one or two doses of *arsenicum*, are in general sufficient to remove this dangerous disease, which, when not attacked till too late, soon passes into gangrene, and so causes death.

Inflammations of the chest differ from those of the abdomen in this, that the animal so affected does not lie down at all, a thing which may also occur, at least, very often in the latter.

**METEORIZATION.**

The causes and signs are the same as in horned cattle and sheep. This affection is usually observed a little after returning from the meadow; the animal swells suddenly, constantly shakes its head, utters cries, and falls dead in a very little time. *Colchicum* is the remedy, and also *nux vomica* when after the disease there remains obstinate constipation. If the appetite and rumination do not return promptly, one or two doses of *arsenicum* should be given.

**VERTIGO.**

Vertigo, in goats, is the result of a flow of blood to the head, or of long exposure to the rays of the sun. The ears and horns are hotter than usual, the eyes are bright, prominent and full of tears; it roams about at hazard, without knowing whither it is going. As soon as these symptoms are observed, a dose of *aconitum* should be given, which should be repeated two days consecutively, two or three times each day; if not removed, recourse must be had to *belladonna*, *sulphur*, &c.