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Private Prescriptions
and LECTURES



DAVID J. LOWREY, Veterinary Surgeon.

PRIVATE PRESCRIPTIONS

AND

LECTURES.

A Perfect Manuel and Complete Hand-Book on

DISEASES OF STOCK,

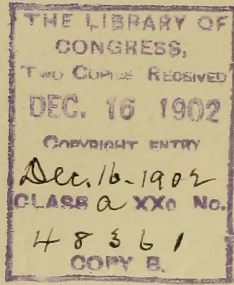
CONTAINING SIXTEEN PLAIN, PRACTICAL COMMON-SENSE
LECTURES ON THE HORSE AND HIS NUMEROUS
AFFECTIONS, AND ONE HUNDRED AND FOR-
TY-FOUR OF THE MOST VALUABLE
PRESCRIPTIONS KNOWN TO
THE VETERINARY
WORLD.

BY

DAVID J. LOWREY, Veterinary Surgeon.

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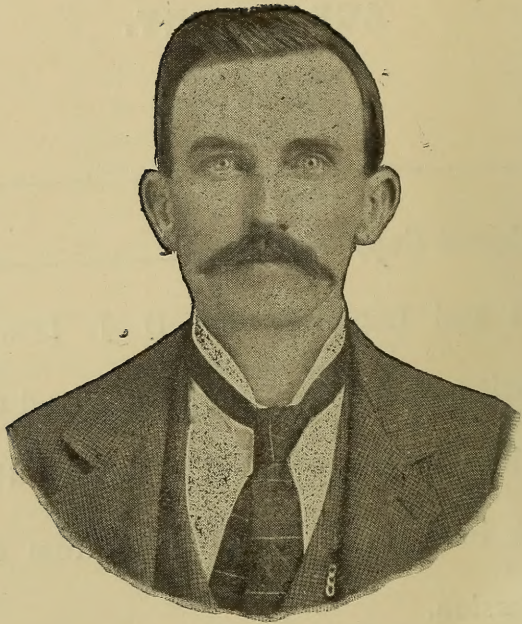
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DAVID J. LOWREY, V. S.

PREFACE.

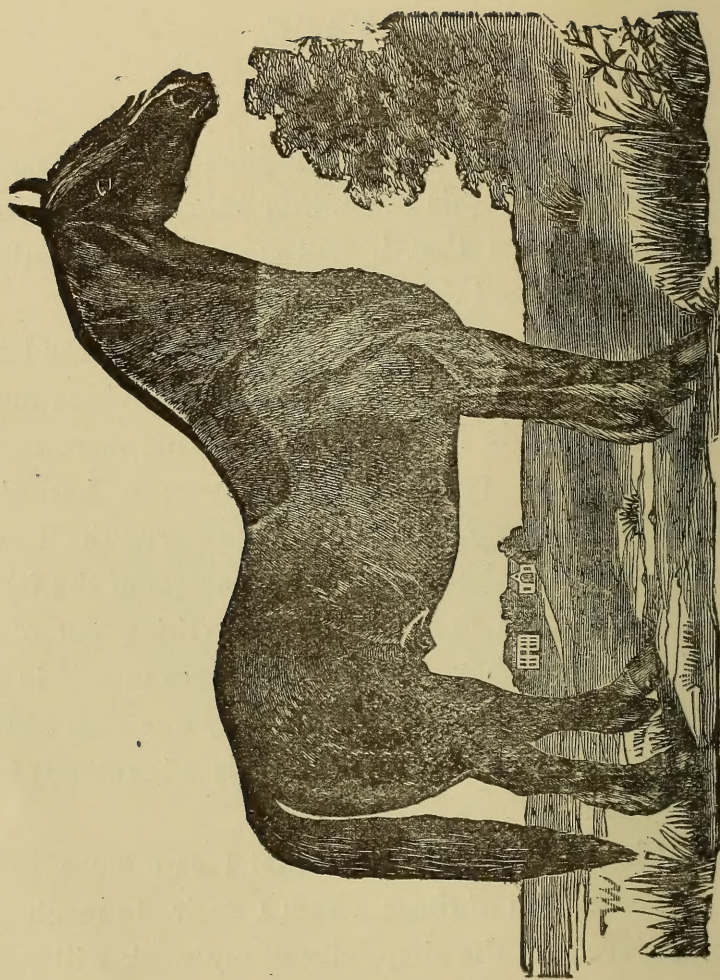
After years of delay and many broken promises made to friends and former pupils the author submits this little volume with the hope that it will meet the expectations of those who have urged this work upon him.

In the preparation of these pages my object has been to give to the American farmer and stockman, whose onerous duties allow but little leisure for consulting more comprehensive works, a practical common-sense hand-book, through which he may be enabled to preserve the lives and usefulness of one of the most valuable assets of the farm.

I have endeavored to eliminate everything not of some practical worth and have striven to express myself in plain and simple language to the end that any one who can read may understand, no matter what his advantages in life may have been.

In speaking thus plainly I feel that I can more readily secure the attention of those whom I desire to reach and I can not believe that the simplicity of my work will cause it to prove less acceptable to them.

THE AUTHOR.



PRIVATE PRESCRIPTIONS AND LECTURES.

THE HORSE.

CHAPTER I.

To be able to successfully meet the various pathological conditions which so often arise in the great equine family, the student must first turn his attention to, and master the horse in a state of perfect health; when this is done he is in a position to distinguish the presence of disease. The normal or healthy horse is one in which there is an entire absence of any perversion of nature, either external or internal. External or local troubles can in most instances be readily determined by even the unlearned, but internal lesions can not be distinguished or understood satisfactorily without accurate information as to the pulse, temperature, respiration, actions and inclinations, in fact everything that is in any way expressive of either the feelings or physical condition of the animal must be carefully studied.

PULSE.

If there is any one thing which can be classed as being of vital consequence, of supreme importance to the veteri-

narian, it is a perfect understanding of the pulse. The pulse is the barometer by which we are governed in the administration of medicines in all internal diseases. It is evidence of the circulation of the blood which passes through the arteries at the rate of about ninety feet per minute. It is the key to the nervous system, for the circulation is produced and its volume regulated by the sympathetic nerves. The pulse indicates the condition of the heart, and whether or not disease is of a depressed or exalted character. In inflammations and fevers the frequency of the pulse is increased according to stage of the disease. In debilitated conditions we find it usually depressed, but some times quick, then natural. The normal or pulse of health in the full grown horse is from 33 to 36, and in rare instances, 40 beats per minute. In young stock it is more frequent. under one year of age it runs from 42 to 48 beats per minute. There are many places at which the pulse can be gotten, but the best place for taking it is, in my judgment, from the submaxillary artery as it passes on the inner angle of the lower jaw, this being the most convenient. We have many pulse variations which will be fully treated under the heads of the diseases in which they prevail.

TEMPERATURE.

When we speak of the temperature of a horse, we do so with reference solely to the amount of heat prevailing in the economy of the animal. Through the agency of a thermometer, and by no other means, are we able to secure the correct temperature of a horse. To take temperature insert clinical thermometer in rectum, always turning ti to

one side so as to have it press against the side of bowels, allow it to remain from 3 to 5 minutes, remove carefully and note any deviation from the normal. The normal temperature of the horse is from 99° to 100° . In severe cases the temperature should be taken every 4 to 6 hours, while in mild cases once or twice per day is sufficient. The temperature may sometimes run as low as 78.2° and the horse will survive, but when it reaches 75° it is my judgment that death is rapidly approaching.

RESPIRATION.

In health the horse breaths from 12 to 14 times per minute, work or excitement increases this, however. The number of respirations per minute can be readily counted by the heaving of the flanks. It requires no especial skill to distinguish the soft rustling sound of the healthy respiratory murmur, but considerable experience is required to make one a first-class judge of the sounds obtained by percussion. Percussion is the act of striking smartly a finger of one hand, (resting gently over part to be examined) with the first three fingers of the other. In connection with the respiratory organs we place the finger over the lung in the region of the 6th rib, do our striking and in case of health we find a clear resonant sound, but should disease exist everything is changed, depending entirely upon the nature and extent of the trouble. The abnormal sounds which prevail in diseases of the air passages and lungi will be treated under the heads of the various diseases with which they are associated.

ACTIONS AND INCLINATIONS.

In studying the horse, his every act as to position in standing and laying, rolling, kicking, pawing, jumping, etc., must be taken into consideration with its initial reference to disease. These along with inclinations in the way of appetite, for either food or drink, are expressive of the feelings of an animal, and are all we have to rely upon in the diagnosis of disease, aside from the pulse, temperature and respiration. By depicting an animal when suffering from a derangement of an internal organ, is our only means of illustrating an internal disease.

Under this head I desire to direct the reader's attention to, and urging upon him the importance of a painstaking consideration of the habits and constitutional conditions, as well as the color and quantity of excretions of every animal which he is treating, to the end that he may be able to distinguish when nature is aiding him.

IMPORTANCE OF PROMPT TREATMENT.

The sooner disease is recognized and given the proper treatment, the sooner health will be restored, making the liability of a fatal termination and consequent loss, very much less and, from a humane standpoint, the less the animal will suffer. There is nothing to which the old adage that "a stich in time saves nine," applies more forcibly than in the treatment of the ailments of all kinds among stock, no matter whether the trouble be local in character or of internal origin. For instance, a horse goes lame from a corn, if properly attended to it can be cured in a few days, but if neglected it festers and spreads, works up through the foot and breaks out around the top of the hoof, forming

a quittorr, which with the best of attention cannot be cured in less than 5 or 6 weeks. Another instance, a horse may catch a cold and have a catarrhal discharge from the nose, sore throat, a cough and loss of appetite, if promptly and properly treated he may be restored to health and usefulness in from 2 to 10 days, but if neglected for a day or two the disease will in all probability find its way into the lungs, starting an irritation most painful in character, and disease of lengthy duration, with the possibility of a fatal termination.

KNOW WHAT YOU ARE TREATING.

Let me urge as a matter of utmost importance, that when treatment of any kind is indicated, whether it be local or internal, that the proper remedies be applied promptly and thoroughly. But I would remind you to be sufficiently cautious in every instance; always be sure you are on the right track then go ahead with energy and persistence. Do not be caught treating an ankle because it is cocked, when every particle of the inflammation causing the lameness is in the foot. Neither would I have you make the mistake of "dosing" a horse for the "Bots," when the trouble is either Pleurisy or an affection of the kidneys. Many errors similar in character to these, have come under the observation of the writer in his practice. One notable instance in which many were deceived was supposed to be a case of "Sweeney" in which I was called. I found the horse very lame, and blistered on both shoulders and withers by the too free use of some patent liniment of questionable utility. I made a careful examination, and through it the fact was disclosed to me that this horse was suffering

from a thorn in his foot. This I removed and the patient was all right in a few days. I relate this merely to illustrate the worth of accurate information, and the absolute necessity for careful examination, and intelligent deliberation before beginning with any treatment. But when the disease is clearly defined, when it is exclusively located by a process of exclusion, begin at once the careful administration of the remedies indicated in such disease, provided however, that in case of internal medication, the nature and stage of disease makes such a course necessary.

BE SURE MEDICATION IS INDICATED.

The reader must bear in mind the important fact that medicine alone never cured man nor beast. It merely assists nature in effecting a cure. Observation and experience have forced the conclusion upon me, that more stock are killed through the administration of stuff called medicine by the ignorant and irresponsible than would have died, had nature alone been depended upon for a cure. I have found it necessary to physic only about one half the stock which I am called to see. Nature and disease are diametrically opposed to each other. The one puts forth every effort by means of natural law to build up the system, while the other exerts all those baleful influences which have a tendency to bring about decay and death. In the treatment of the internal diseases of the horse, I would advise that nature be relied upon entirely, until the pulse reaches 50 beats per minute; should the pulse go beyond this, medication is indicated and I would suggest that its administration be promptly begun. But I recommend that a dose of medicine for any internal disease

be never repeated so long as the pulse is on a stand still or shows an inclination to come down; under these circumstances simply give nature a chance, and in most cases she will do her work well.

HOW TO GIVE MEDICINE.

Medicines for horses are usually in either a liquid or powdered form. Powders may be given incorporated with the food; when the horse will not take it in this way, a good plan is to use a long handled spoon, pull his tongue out and empty powder by means of spoon far back on the root of it. Another way of giving powders is by making them into a ball or placing them in a capsule which ball or capsule, as the case may be, is thrown into the fauces or throat of the patient. Liquids are best given in the way of a drench. To drench a horse, secure a long necked bottle and place the desired amount of medicine in it, elevate the head of the horse, insert neck of bottle in side of mouth and pour contents slowly into throat, keeping head elevated until all is swallowed. If horse should cough while being drenched, let his head down at once regardless of the loss of medicine, for if kept up, drench is liable to pass into the lungs instead of the stomach and result in something serious. Never be so brutal and ignorant as to attempt drenching a horse through the nose, for it is an inhuman practice, aside from placing the life of the animal in jeopardy.

Small doses of medicine can be given by means of a little syringe. To do this open the mouth of horse with one hand, insert the syringe containing medicine at the side with other, and shoot contents into throat.

The hypodermic method of administering medicines is very unsafe for one but experienced practitioners, for by this method they are assimilated much more readily, and act very much more powerfully than when taken through the stomach. The dose hypodermically of most drugs is about half that administered internally.

NURSING AND FEEDING.

Much might be written under this head and from time to time, we intend wsdging in a lot of matter in this connection which we consider of worth to every one. At this stage we will simply give a few practical hints.

In order to care for an animal intelligently and properly the nurse must familiarize himself with his habits and requirements in a state of health. It is of the greatest importance in case of sickness that a horse should be made as comfortable as possible in both summer and winter; always allow plenty of fresh air to breathe, but in every instance avoid a draft. Have bedding dry and clean. Food wants to be simple, clean, nutritious and as easy digestable as possible. All water given should be fresh, pure and clean. Be careful about over-feeding; this is often a detriment and a hinderance. Sick horses should be fed 4 or 5 times per day, but in very small quantities. Colts should have their ration every 2 or 3 hours. A patient with fever should have plenty of pure water by him all the while, and be allowed to help himself, but those suffering with Diarrhoea or Dysentery should be given water 4 or 5 times per day in sparing quantities. An animal should always have a few days rest after being sick; many cases prove fatal from working them too soon.

CHAPTER II.

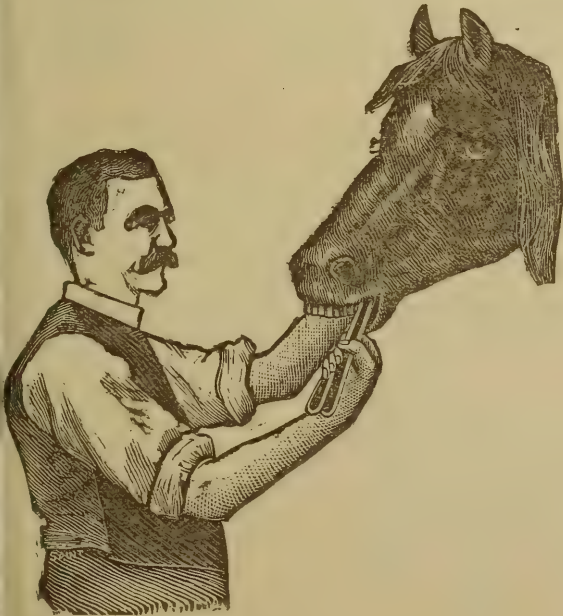
DISEASES OF THE TEETH, MOUTH AND THROAT.

Under this head we will consider everything of importance in connection with these organs, aside from those affections of the throat, which are intimately connected with, and have a direct bearing upon the air passages.

SHARP, IRREGULAR, UNEVEN AND ELONGATED TEETH.

Either of these are worthy of our careful attention, for they often prevent a horse from properly masticating his food, and in some instances make eating a very difficult accomplishment.

Cause—These irregularities are usually produced by a retention of the milk teeth beyond the time when they should be shed, by the uneven wearing away of the permanent teeth in masticating hard food, and through a lack of proper occlusion.



HOW TO KNOW THEM.

A sight of the animal when trying to eat in connection with an examination of the teeth is sufficient.

WHAT TO DO.

Cut teeth down evenly and smoothly, being careful to leave no sharp corners. This is accomplished by means of an instrument called a "float," which resembles a coarse file or rasp. If there is an irregular or elongated tooth, which precludes the possibility of establishing a propped acclusion by floating, extraction should be resorted to.

Tooth Ache.

The tooth ache is of more common occurrence in the horse than is generally supposed, and it very often produces a condition, with reference to the health of the animal, of grave importance. No horse is in trim to perform his full complement of work when he is estopped from eating his daily ration by the pain engendered in the act from an exposed and irritated nerve; neither is he fit for service when racked and tortured by the excruciating and deep seated pain of an abscess on the fangs of a decayed tooth.

Cause—It is brought about most generally by the formation of a cavity through common decay, and occasionally from a kick or blow upon the mouth by which the teeth are cracked, broken or otherwise injured. Sometimes injuries to the teeth are the results of efforts at masticating very hard corn.

HOW TO KNOW IT.

The actions of the horse while eating, coupled with an examination of his teeth, will disclose the trouble; he will turn his head to one side when chewing, then he will

throw it from side to side as if trying to remove food from a sore in the mouth, and act much the same way when drinking cold water. He loses flesh rapidly from being unable to thoroughly masticate his food. If there is ulceration or abscess of the tissues surrounding the fang of a tooth, we often find an enlargement or swelling which contains pus. Occasionally this abscess breaks into the nose, causing a discharge from the nostril on same side as diseased tooth. On account of the disagreeable odor emitted, a discharge of this kind is sometimes taken for Nasal Gleet, and occasionally for Glanders. A careful examination of the teeth, and a reference to chapter on Gleet and Glanders, in this work will demonstrate the wide difference in these troubles.

WHAT TO DO.

If, after a careful examination, you are satisfied that the patient is suffering from an affected tooth; immediate extraction is the proper thing to resort to.

Lampas.

This is simply congestion of the buccal membrane, and is accompanied by more or less tumefaction, which is more particularly noticed in the bars of the mouth.

Cause—In old horses we attribute this condition to irritating substances or medicines, while in colts it is generally the result of teething.

HOW TO KNOW IT.

The bars of the mouth will be swollen, sometimes extending below the teeth. In bad cases there will be a

constant flow of saliva, and the horse can not masticate his food properly, and in many cases the breath is very offensive.

WHAT TO DO.

Scarify the first bar well with some sharp instrument, and rub in coarse salt for three consecutive days. Never cauterize for Lampas.

Sore Mouth.

This trouble is quite common, and is in most instances the result of neglect or carelessness.

Cause—Very often a sore mouth is produced by the use of a severe bit; occasionally by the caustic properties in either food or medicines, and sometimes from grazing when the dew is heavy.

HOW TO KNOW IT.

It is a very easy matter to look into a horse's mouth and discover an irregularity of this kind. When the bone or roof of the mouth is injured, we will find considerable soreness and some swelling.

WHAT TO DO.

In case the trouble arises from bit used, try another of more gentle persuasion, or else keep it out of mouth entirely for a few days. If properties in food or medicine are cause, make a change in them, and in case the trouble comes from grazing when dews are on, keep patient off of pasture until the sun is well up in the morning and lot him before dew falls in the evening. To remove the cause is generally sufficient to effect a cure, but in the

event the mouth is raw, and you desire to aid nature, use the following:

PRESCRIPTION.

Acid Tannic one half ounce.

Acid Acetic Dilute one ounce.

Water, add sufficient quantity, one pint.

Mix and apply 3 times a day as a lotion to mouth.

In case the bone is injured or exposed cleanse it well 3 or 4 times a day with carbolized water.

Tongue Laceration.

Though of uncommon occurrence, it is well that we understand how to treat such a condition to the best advantage.

Cause—In falling an animal sometimes has his tongue between his teeth, and by this means it is bitten; again he strikes his mouth against something and the tongue is injured. The bits or a sharp molar tooth are in some instances the cause of laceration.

HOW TO KNOW IT.

A sight of the tongue will readily convey to the mind of any one what the trouble is.

WHAT TO DO.

Wounds of the tongue heal very quickly and satisfactorily, but they do not always heal as evenly and smoothly as we would like. In severe cases where a portion of the tongue is torn or cut more than half off, it is advisable to cut severed portion entirely away and use the following:

PRESCRIPTION.

Borax 1 ounce.

Honey 1 ounce.

Water 1 pint.

Mix and apply to wound (after drying it) 3 or 4 times per day.

Pharyngitis.

By pharyngitis is meant an acute inflammation of the Pharynx, which is an organ situated at the back part of the mouth, and is the connecting link between it and the tube leading directly into the stomach.

Cause—It is usually brought about through some foreign substance, such as oat straw or wheat beards, lodging in its passage from the mouth into the esophagus, the latter being the tube leading to the stomach.

HOW TO KNOW IT.

We find the throat and glands of the neck more or less enlarged, considerable tenderness upon pressure, neck stretched and head extended. It will be noticed that it is very painful for the animal to swallow, if indeed he can do so at all. In his efforts at drinking, water returns by way of the nose. This disease presents many of the symptoms which are found in Laryngitis, a disease of the air passage, but is much easier controlled; about the only difference of any note is the symptoms of the two are the hacking cough and high fevers found in Laryngitis. The treatment employed is very similar in both diseases.

WHAT TO DO.

First, examine the throat and if any foreign substance be found remove it. After this is done apply a counter irritant to outside of throat. A mustard plaster is good, and the following has been used with considerable success by the author:

PRESCRIPTION.

Ammonia Liquor

Turpentine, Oil of

Linseed Oil, each 2 ounces

Mix and rub in well once per day until blistered

In case patient should have any fever use

PRESCRIPTION

Aconite, Tincture of one drachm

Niter, Spirits of 1 1-2 ounces

Potash, Nitrate of 1 1-2 ounces

Water, add sufficient quantity 1 pint

Mix and give one tablespoon every 2 hours until fever gives away. Give soft feed, such as bran mash, and in case patient cannot swallow this, try him on meal gruel in the way of a dren h. Should this fail, injections of oatmeal into the rectum must be depended upon. Prepare this same as for table.

CHOKED HORSES

While an uncommon occurrence, yet we occasionally run across a horse that is choked, and it becomes our duty to relieve him, when such a course is possible.

Cause—The lodgment of anything in the throat. In

most instances it is caused by eating dry food, such as thrashed oats, fodder, hay, etc., without these being properly incorporated with and moistened by the saliva. These accumulate in great lumps in the gullet, usually about six inches below the pharynx.

HOW TO KNOW IT.

There is little room for mistake in diagnosis when a horse is choked, for his every act plainly indicates the trouble. We notice the choked horse elevating his head and stretching his neck, he is coughing hard at intervals, as if trying to expel something from the throat, and the saliva runs freely from both sides of the mouth. In some instances the flanks are distended.

WHAT TO DO.

Make a thorough examination, and if obstruction can be reached, remove it with either hands or forceps. Should you fail in your efforts at removing it in this way, administer a few swallows of raw Linseed oil, or a half a dozen raw eggs; if these do not soften lump and lubricate gullet sufficient to allow it to pass on to the stomach, force must be used. There is a probe made expressly for work of this kind, but a smooth buggy whip well greased, or small rubber tube is all right. By exerting gentle pressure with probe upon obstruction, it can in most cases be readily forced into the stomach. Great caution must be exercised in introducing any of these things into the throat, to avoid pushing them through the walls of the gullet, and never allow them to remain for longer than a minute at a time, as the patient cannot breathe with an instrument of this kind in his throat.

CHAPTER III.

Diseases of the Respiratory Organs.

It is very essential that diseases confined to these organs should have prompt and careful attention, for in very many instances the life of the animal depends upon our efforts in this direction. Intelligent treatment coupled with every advantage of disease, with reference to duration should be our motto.

Tumor in the False Nostril.

The false nostril is a small pouch on the inside of the lower edge of either nostril. Tumors sometimes form here and partake more of the nature of abscesses, in that they are filled with pus of a cheesy consistency, but are tumors in that they form slowly and do not point and break like an abscess.

Cause—We can give no satisfactory reason for a malady of this kind. It may come from an external injury and again the cause may arise through a lack of functional activity upon the part of some of the sebaceous glands.

HOW TO KNOW IT.

A small swelling is often apparrant on the outside, but the main dependence is to be placed in an examination of

the nostril, when it will be found almost closed by an enlargement, generally about the size of an egg; there is no soreness, but we notice more or less wheezing in the act of breathing, this being due to the diminished capacity of the air passages

WHAT TO DO.

There is not the slightest danger in operating here. Cut into tumor from inside of the nostril, making a free opening for the pus to escape. Wash out wound 2 thoroughly or 3 times a day with carbolized water.

CATARRH.

Some writers treat this subject under three different heads, viz: Acute, subacute and chronic, but for all practical purposes I think a more simple classification justified, hence we consider it as being only acute and chronic.

Acute Catarrh.

This is an inflammation of the mucous membrane of the nostrils; it is simple in itself, but all inflammations of the air passages are liable to extend to the bronchi and lungs and thus produce bronchitis or pneumonia, either of which is of serious import.

Cause—Exposure to raw winds, cold rains and snow storms, more particularly when the animal is exhausted from overwork, or is overheated from an cause.

HOW TO KNOW IT.

First we notice sneezing and shaking of the head, which are in many instances signs of pain in the horse; these are

followed by a change in the mucous membrane of the nostrils from the normal pink to a deep red color. Soon a watery discharge from the nose makes its appearance, but changes in a few days to a mucilaginous state of a yellowish-white color and may be profuse. The temperature rises, pulse runs from 44 to 60 beats to the minute, the fever depending upon the amount of surface involved. The appetite is often lost and the patient becomes debilitated; he does not cough unless the throat is affected, but expels air through his nostril often in a manner which may be aptly called "blowing his nose." In very acute cases we find the eyelids swollen considerably as seen in pink eye and tears flow freely over the cheeks.

WHAT TO DO

Shelter well and blanket if necessary; give soft feed and plenty of fresh well water to drink. Syringe out nostrils 2 or 3 times a day with carbolized water and should throat become affected apply mustard plaster on under side from ear to ear. If pulse should go over 50 beats per minute use this:

PRESCRIPTION.

Aconite Tincture of 1 drachms

Belladonna Fluid Extract of . . . 2 drachms

Water, add sufficient quantity . . . 4 ounces

Mix and give one tablespoon full 3 or 4 times a day and should there be a lack of appetite try the following as a tonic:

PRESCRIPTION.

Potash Nitrate of 2 ounces

Potash Bi-tartrate of 3 ounces

Iron Sulphate of 2 ounces
 Antimony (Black) 1 ounce
 Sulphur 8 ounces

Mix and give a tablespoon full once per day.

Chronic Catarrh or Nasal Gleet.

The seat of this disease is usually the sinuses of the head. Some care must be exercised in passing upon troubles of this kind as horses have been condemned as glandered when there was no ailment aside from "nasal gleet." Study well in connection with this disease the symptoms of glanders and you will be competent to render a safe opinion whenever called upon. Most generally the health of the animal suffering with chronic catarrh is not materially affected unless the case be of long standing.

Cause—Neglected or obstinate acute catarrh which fails to yield to treatment.

HOW TO KNOW IT.

It is manifested by a persistent discharge of a thick white or yellowish-white matter from one or both nostrils, most commonly from one. This discharge may be intermittent, some days great quantities being thrown off and again very little if any. The eye on same side as discharging nostril may present a peculiar appearance and look somewhat smaller than its fellow on opposite side. There may be an enlargement or bulging of the bone over affected part between and below the eyes. The breath may be offensive, but this is very unreliable as it may come from a bad tooth. When you tap on the bones between and below the eyes and above the back teeth if

the sinuses are filled with pus the sound emitted will be the same as if you had struck a solid substance, but if not we get a hollow drum like sound. In this disease we do not have the ragged sores found on the mucous membrane of the nose in glanders. There may be a dry cough and sometimes loss of appetite.

WHAT TO DO.

If there be no bulging of the bone and sinuses are not entirely closed by inflammation, syringe out nostrils well night and morning with carbolized water. When this is done take a pail of hot water and hold it under patients nose forcing him to inhale the steam as it rises. Stir water in pail with a twig and steam will pass off much more rapidly than if left at rest. Give internally:

PRESCRIPTION.

Iron sulphate of 1 and 1-2 ounce

Potash Nitrate of 1 ounce

Gentian powdered 1 ounce

Blood Root 1 and 1-2 ounce

Mix and divide into 16 powders; give one night and morning. In case the sinuses of the head are closed and bulging of the bones has taken place, trephining is the only course left open, but this is a very difficult operation and will require the services of a skilled veterinarian. (See chapter on operations)

Laryngitis.

This is an inflammation of the larynx, an organ situated at the upper part of and is continuous with the wind-pipe. It is what is familiarly known as the "voice box" in man.

Cause—Exposure, standing in cold draft of wind when warm; driving animal until he is hot and then allowing him to cool quickly.

HOW TO KNOW IT.

There is short, hurried breathing which may assume a noisy character and the patient sometimes seems as if threatened with suffocation. The cough which is usually the first symptom noticed is a dry hacking one. A violent fit of coughing may be induced by exerting pressure upon the larynx. In some instances the difficulty in swallowing is so great that water and sometimes food are returned through the nose. The head is generally poked out and carried stiffly, and saliva dribbles from the mouth. The temperature commonly runs from 102° to 104° and pulse will be found quick and small, running from 55 to 75 beats per minute, depending upon the amount of fever.

WHAT TO DO.

Clothe warmly and shelter from storms Rub mustard paste well in on throat from one ear to the other, and should this fail to give the desired relief in eighteen hours try a linseed meal poultice, having it as hot as patient will bear it. If the pulse should go beyond 50 beats per minute use this:

PRESCRIPTION.

Aconite tinct of 1 drachm
 Belladonna Fluid Extract of . . . 2 drachms
 Water, add sufficient quantity, . . 4 ounces

Mix and give one tablespoon full every 2 or 3 hours as indicated. Should the pulse run over 60 beats to the min-

ute this dose is to be doubled; when it goes below 50, discontinue entirely. When the patient begins to recover the following tonic will prove beneficial in this as well as most all other troubles where the appetite is involved or the blood is bad:

PRESCRIPTION.

Mustard (ground)	4 ounces
Sassafras Bark (powdered)	2 ounces
Sulphur	3 ounces
Gentian (powdered)	1 ounce
Foenugreek Seed (powdered)	1 ounce
Antimony Block :	1-2 ounce

Mix and give one tablespoon full a day in soft feed.

Quinsy.

Quinsy in the horse is nothing more than laryngitis of a suppurative type. This disease resembles tonsillitis in the human family.

Cause—The inflammation in laryngitis is occasionally of such a deep seated and persistent nature as that there is a breaking down of tissue, and abscesses form, quinsy being the result

HOW TO KNOW IT.

We find all the symptoms of laryngitis. The throat swells and gets very sore, the patient refuses to eat and generally has a small amount of fever which runs along from day to day until abscess breaks when there is a flow of pus and the sufferer gets almost instant relief.

WHAT TO DO.

We can do but little, aside from treating as we would laryngitis. Nature seems to take her own good time in assisting these abscesses in pointing and breaking. Should the patient get beyond eating or drinking and stay in such a condition for any great length of time it becomes our duty to administer nutriment by way of the rectum. Large injections of water through this channel will quench a burning thirst.

BRONCHITIS.

Bronchitis presents itself to us in different forms, hence we classify it into Acute and Chronic, and study each under a separate head. In some sections of the United States these troubles are very prevalent, and it can in no way prove a waste of time for us to study them closely.

Acute Bronchitis.

This is simply an acute inflammation of the bronchi, these being the tubes or passages leading from the wind-pipe into the lungs.

Cause—The causes of this trouble are much the same as that of those diseases of the air passages, previously described.

HOW TO KNOW IT.

Generally we find a chill to be the first sign of this disease, but it is not always observed; this passes off and the reaction brings on fever, the temperature rises, the nostrils are distended and breathing is short and hard; at first there is a dry "barking" cough. The membranes of the

nose are red; the patient will stand with his head down and won't move around much; his appetite is indifferent and his ears and legs are cold. When we place our ear to chest of patient we hear a thick unnatural sound, a kind of hissing or wheezing when small tubes are affected, and a cooing or snoring when the larger ones are involved. All of these symptoms may be observed in first ten hours, and in the next twenty-four the pulse may go up to 65 or 70 beats a minute, and temperature to 104° or 105° ; the pulse will be small but frequent. The cough will increase but will be of a moist rattling character. Urine will be highly colored and scanty.

WHAT TO DO.

If initial chill is observed, give immediately and at one dose four ounces of good brandy in a pint of warm water. When this is done wait an hour and begin the following:

PRESCRIPTION.

Aconite, Tincture of 1 drachm
 Belladonna, Fluid extract of . . . 2 drachms
 Nitre, Spirits of 1 ounce
 Water, q. s. ad 6 ounces

Mix and give one tablespoonful every 2 or 3 hours as indicated. In case the pulse should, at the expiration of twenty-four hours, run above 60 beats per minute change your treatment to this.

PRESCRIPTION.

Nitre, Spirits of 1 1-2 ounces
 Ammonia, Muriate of 1-2 ounce
 Aconite, Tincture of 1 drachm

Belladonna, Fluid extract of . . . 2 drachms
 Gentian, Tincture of 1 ounce
 Water, q. s. ad 16 ounces

Mix and give 3 tablespoonfuls every 2 hours until pulse approximates 50 beats per minute, and has a downward tendency. Give patient fresh air to breathe and have plenty of clean water by all the time. If there is much soreness of either lungs or throat use this

PRESCRIPTION.

Turpentine Spirits of 3 ounces
 Camphor (gum) 3 drachms
 Cedar, Oil of 1 ounce
 Sassafras, Oil of 1 ounce
 Alcohol 4 ounces

Mix and bathe freely parts directly over soreness, and should this blister rub in well once a day fresh lard. Use same constitutional tonic as recommended in laryngitis.

Chronic Bronchitis.

Cause—From taking cold or the acute form not having been treated at the proper time and in the right way. I sometimes think it is brought on through an animal eating food stuffs containing either dust or smut.

HOW TO KNOW IT.

There is a confirmed cough, more or less severe in character and sometimes a discharge from the nostrils. The cough usually seems worse early in the morning, or when patient is subjected to exercise than at any other time. The temperature will be about normal, and the

pulse will run from 42 to 45 beats per minute being full and regular. When the ear is placed to the chest we distinguish a rattling rubbing sound, more, like passing the hand over a piece of dry paper than anything else. There will be heaving of the flanks and shortness of breath from the mere presence of these, this trouble is often taken for heaves. With chronic bronchitis a horse can do moderate work and stay in fair flesh.

WHAT TO DO.

Avoid long drives and be cautious about feeding too much bulky food. Give soft feed and pure water in liberal quantities. Be sure that you dampen every particle of feed allowed and let patient run on grass as much as possible. Give the following:

PRESCRIPTION.

Aloes Barbadoes	1 and 1-2 ounces
Potash Nitrate of	2 ounces
Potash Chlorate of	2 ounces
Blood Root (powdered)	1 and 1-2 ounces
Lobelia Seed (powdered)	1 ounce
Tartar Emetic	6 drachms
Nux Vomica (powdered)	3 drachms

Mix and divide into 16 powders and give one every night.

Pneumonia.

Pneumonia is an acute inflammation of the tissues of the lungs; it is by no means rare and is most commonly confined to the right lung. Horses may have it at any season of the year, but it is most prevalent in winter or early

spring. Bronchitis is a common complication with pneumonia.

Cause—The cause of pneumonia is much the same as that of the other diseases of the air passages with the cold settling upon the lungs instead of elsewhere.

HOW TO KNOW IT.

First, there is a chill in which there is a rush of blood to the lungs, followed by high fever, the temperature running up to possibly 106°. The pulse will run anywhere from 55 to 75 beats per minute and upward, depending upon stage of disease; it will be soft and weak. The breath will be hot and breathing labored and rapid; the number of respirations running up to 25 or 30 to the minute. The feet, legs and tips of ears are cold and hair of animal looks dry and dead; he stands with his head down and his appetite is poor. By placing your ear over affected lung you will observe a dry crackling sound in the first stage of this disease, which sound changes as disease progresses into one resembling the one heard from bending new sole leather. The patient is always found standing, unless prostrated by weakness, but when disease begins to give way he may lay down. A horse may live from 12 to 24 days without treatment, but it is very important that we take every advantage of time in our attention to it.

WHAT TO DO.

Keep patient in a dry, comfortable place with fresh air to breathe, but always avoid a draft and allow plenty of good water to drink. See that bowels are kept open;

should they become constipated use the following as a purge:

PRESCRIPTION.

Linseed Oil (raw) 1 pint

Aloes Barbadoes 6 drachms

Mix and give at one dose and should the bowels not move in 12 or 14 hours repeat To reduce the fever, relieve the pain and regulate the heart's action, use the following:

PRESCRIPTION.

Aconite, Tinct of 1-2 drachm

Opium, Tinct of 1-2 ounces

Digitalis, Fluid Extract of 10 drops

Mix and give at one dose in a pint of warm water; repeat every hour until pulse runs below 50 beats per minute. Should pulse be running about 60 beats to the minute in the beginning double above dose in the first instance, but never afterwards, unless fever should be climbing rapidly. After first day's treatment, begin and continue to use the following tonic:

PRESCRIPTION.

Gentian (powdered) 2 ounces

Sassafras Bark (powdered) 3 ounces

Foenugreek Seed (powdered) 1 ounce

Potash Nitrate of 2 ounces

Iron Sulphate of 1 and 1-2 ounce

Mix and give one tablespoon full night and morning.

Distemper.

While I am willing to admit that when the morbid con-

dition of an animal is such as to favor direct transmission this disease may prove infectious, yet I cannot accept the theory of many writers upon the subject who contend that it is a contagious blood disease. Its attacking and running through an entire herd of horses is, I will admit, evidence in favor of the theory of contagion, but this is by no means proof positive, for in all probability every horse of the herd has been subjected to the same identical conditions. But no matter whether it be contagious, infectious or of spontaneous origin the vital fact remains that stock have it, and it becomes our duty to study methods for getting rid of it.

Cause—The cause of distemper is entirely problematical; it may arise spontaneously, and again it may be the result of cold. One thing we do know and that is the fact of its being more prevalent in low damp sections of the country than upon higher ground.

HOW TO KNOW IT.

The coat of a distempered horse is usually dry and uneven; he suffers from loss of appetite and is in many instances apparently prostrated. The pulse will be quick and weak and the temperature will run up to 102° or 103° . The feet, legs and tips of ears are cold. In two or three days the throat begins to swell on both sides and sometimes between the lower jaws; this swelling is in some cases enormous, causing sufferer to hold his head and neck stretched like a child with mumps. There is usually a cough and inability to swallow, with a discharge from the nose which takes on a purulent character in a very

few days. The eyes are weak and watery. The swelling referred to is painful and sore upon pressure being applied, and in most cases it breaks within a week or ten days discharging pus. If the lungs should become involved we will by auscultation distinguish a wheezing sound.

WHAT TO DO.

Keep the patient as comfortable as possible and use the following:

PRESCRIPTION.

Alum (powdered) 2 ounces

Blood Root (powdered) 1 ounce

Gentian (powdered) 1 ounce

Mix well and divide into 5 powders, give one the first night, skip the second day entirely, on the third day give one morning and night, skip the fourth day and give one each on night of the fifth and sixth days successively. Bathe the throat of patient thoroughly with his liniment:

PRESCRIPTION.

Turpentine Spirits of 3 ounces

Camphor Gum 2 drachms

Cedar, Oil of 1-2 ounce

Ammonia, water of 1-2 ounce

Water, add sufficient for 6 ounces

Mix and apply to throat 2 or 3 times a day, and should it seem to blister, grease with hog lard. If abscess forms and there is an indication of pus in the tissues of the throat make an incision directly over abscess and in line with the hair about a half inch deep and one and a half

inches long, this is generally sufficient to reach the pus. Cleanse wound thoroughly three times a day with carbolized water and give in connection with other treatment the general tonic recommended in laryngitis. Should the lungs become involved and the pulse run as high as 55 or 60 beats per minute, give the following:

PRESCRIPTION.

Opium, Tinct of 1 ounce
 Aconite, Tinct of 1 drachm
 Belladonna, Fluid Extract of . . . 2 drachms
 Niter, Spirits of 1 and 1-2 ounces
 Water, add sufficient quantity . . 4 ounces

Mix and give two tablespoonsfull every hour until pulse comes down to 50 beats to the minute, then discontinue. See that bowels of patient are kept open; if they are in the least castive use purge recommended in case of pneumonia.

Heaves.

This is one of the most dreaded diseases with which stock are afflicted. To understand why this is so we have but to turn our attention to the lungs for a moment to be able to see why it is that nature,s herculean efforts as well as our own feeble ones fail to relieve it. The lungs are composed of tissues fibrous in character and innumerable small air cells; the tissues are endowed to a very great extent with the properties of elasticity and contractility. By virtue of these peculiar properties the tissues of the lungs are capable in a great measure of expelling air from and drawing it into them without any effort upon the part

of an animal. Sometimes many of these small air cells are ruptured, larger ones being thus formed by reason of the fact that they break into each other. When this happens that portion of the lung involved loses largely its power of involuntary contraction; in this event the diaphragm, ribs and abdominal muscles are brought into play in expelling air from the lungs, the exercise of these giving rise to the twitching seen in the flanks.

Cause—It is sometimes produced by driving rapidly in the face of heavy wind, particularly when the horse is not in condition to stand it, and it may be brought on by exercising too freely when the stomach of the animal is too full of bulky food to allow free expansion of the lungs. Again it may be caused by too violent exercise when the lungs are weak from cold, a severe spell of sickness or where the horse has been fed on dusty or smutty food.

HOW TO KNOW IT.

There will be a deep cough, and instead of the regular, easy breathing there will be a twitching of the muscles of the flanks or a kind of secondary effort upon their part at every respiratory act. The nostrils will be distended, and by auscultation we observe a popping, crushing sound. When this sound is heard we can not be mistaken, for it is present in no other disease. An animal thus affected will have no food, the pulse will run a little above normal, however. If you are buying or trading for a horse that you have any reason to suspicion is one that the heaves have been "shut down" upon, (as the jockeys call it) I would advise that you examine his lungs and under no circum-

stances buy or trade for him if this popping, crushing sound be present, unless you naturally wish to possess an animal with this malady. The cough and hard breathing can be gotten rid of for a short time, but no jockey can rob a horse for a minute of the above sound when he has the heaves.

WHAT TO DO.

A well developed case of the heaves can not be cured, but can be helped by careful feeding. Always feed with a view to getting the greatest amount of nourishment from the smallest amount in weight and bulk of food, and be sure to dampen every particle of dry food the patient gets. If grass in pastures be green and growing it is a good idea to allow free range, but if grass be dead this is not a good plan. Allow no access to stalk-fields at any time. To relieve the cough and improve the general health the following can be used with benefit:

PRESCRIPTION.

Lobelia Seed (powdered)	2 ounces
Blood Root	1 ounce
Gentian	1 ounce
Linseed Meal	2 ounces

Mix and divide into 12 powders, give one night and morning. After giving these, rest for a week or ten days rest and repeat. Heaves in the first stage can be cured. We recognize the first stage by the presence of every symptom of a well developed case aside from the popping, crushing sound. When this peculiar sound is absent we can

rest assured that the air cells have not been ruptured, and we may effect a cure if we will but treat the patient right and employ the following in the way of internal treatment:

PRESCRIPTION.

Alocs Barbadoes	1-2 ounces
Potash, Chlorate of	2 ounces
Potash, Nitrate of	2 ounces
Tartar Emetic	6 drachms
Nux Vomica (powdered)	3 drachms
Gentian	4 drachms

Mix and divide into 12 powders and give one a day. Dampen all feed and under no circumstances must patient be exercised severely.

In some states it is a violation of the law to tamper with the heaves for trading purposes, and it should be. I do not give the following with the intention of assisting any one in an illegitimate practice, but as a means of protection, I merely let the reader know how they are usually "shut down." About ten grains of extract of Stramonium wrapped around the bits in a piece of cloth will stop heaving of flanks and cough and have animal ready for trade in ten or fifteen minutes; this does not stop the characteristic sound of heaves observed in the chest. An animal should not be exercised very much, nor allowed to get too hot, or drink too much water for several hours after Stramonium has been used.

Congestion of the Lungs.

Congestion of the lungs is not very common in the horse,

but nevertheless we occasionally run across it in this animal. It is simply a turgescient state of the tissues of the lungs produced by stagnation of the capillary blood vessels. Under favorable conditions this disease improves readily and total recovery is the result, but in some instances inflammation of the tissues of the lungs takes place, resulting in pneumonia.

Cause—Over exertion when animal is not in condition to stand it. The blood being rich or overloaded with fatty products, or the patient's being in too heavy flesh may be the cause of the congestion, and again the trouble may arise out of a weak pair of lungs, made so by a spell of sickness or otherwise. This trouble has been brought on by driving too fast and too long when horse has not taken exercise for a week or two.

HOW TO KNOW IT.

The horse suddenly stops all out of breath; his nostrils are distended and his countenance has a look of profound anxiety upon it; he looks around as if in search of fresh air and paws the ground. The pulse is small and quick and in the first stage there will be little or no fever.

WHAT TO DO.

Let patient stop if traveling and turn head towards the wind; loosen any part of the harness which may in the least interfere with the breathing. It is a very good plan to bleed in the mouth about the first or second bar. Allow animal thus affected cold water to drink, but in very small quantities at a time. Use the following

PRESCRIPTION.

Aconite, Tincture of 1 drachm
 Belladonna, Fluid Extract of . . . 2 drachms
 Water, q. s. ad 4 ounces

Mix and give one tablespoonful every two hours until breathing is better, and pulse is down in the neighborhood of 45 beats per minute. If congestion does not yield to this treatment, look out for a case of pneumonia and adopt without delay treatment prescribed in it and apply it vigorously. The approach of pneumonia will be indicated by a rise in temperature, which, if it goes to 101 1-2, and breathing continues to be labored you may know without any guess work what the trouble is.

Pleuresy.

The lining of the chest and covering of the lungs are serous membranes or sacks which inclose the lungs, and protect them from friction with any other portion of the chest or frame work of the body by means of the serous slippery secretion which comes from these membranes and lubricates, as it were, the lungs proper. These membranes are called the Pleura. and any inflammation of them is called Pleurisy. which disease is usually attended by great pain, and is often followed by hydrothorax, or filling of the chest with water. Pleurisy may exist alone, or in combination with pneumonia. When it appears in combination we call it Pleuro-Pneumonia.

Cause—Sudden exposure to cold rains and the like. A draft in the stable, especially if the horse comes in warm, or any shock in the way of a quick change when the animal has any tendency whatever to take cold.

HOW TO KNOW IT.

The horse generally has a chill which is followed by high fever and great pain in the chest, which pain is evidenced by the animal acting as if he had colicky pains; he has his nose turned around to his side; the ears and legs are cold and the breathing is hard. The elbows of the patient are turned in and he suffers from loss of appetite. Great pain is evidenced upon pressure with the fingers between the ribs. The temperature will run from 103° to 105° and pulse will make from 55 to 75 beats per minute. In placing the ear to the chest a rough dry sound is observed. If recovery takes place it is usually in 3 or 4 days, and should the pleurisy run longer there is an effusion and the chest begins to fill with water. If chest does not fill more than one third full the effusion may be absorbed and patient recover. When there is water in the chest we hear a sound like slashing water in a pail, upon placing our ear over affected lung.

WHAT TO DO.

If chill is observed and pleurisy is suspected, blanket animal well and keep him in doors. Give the following at once:

PRESCRIPTION.

Brandy 4 ounces

Ginger, Tinct of 1 drachm

Mix and give at one dose in a pint of warm water and follow in an hour with:

PRESCRIPTION.

Niter, Spirits of 1 and 1-2 ounces

Gentian, Tinct of	1 ounce
Potash, Nitrate of	1 ounce
Ammonia, Muriate of	1 ounce
Belladonna, Fluid Extract of . . .	1 drachm
Aconite, Tinct of	2 drachms
Water, add sufficient quantity	1 pint

Mix and give two tablespoonsfull at a dose every 2 or 3 hours as indicated. Should the pulse be above 60 beats to the minute in the beginning, double the above dose in the first instance. Feed lightly but put a pale of water by and allow patient to drink when he likes. Bathe affected side thoroughly with:

PRESCRIPTION.

Turpentine	2 ounces
Camphor Gum	2 drachms
Sassafras, Oil of	1 drachm
Alcohol, add sufficient quantity . . .	3 ounces

Mix and apply, repeat application in 6 hours and then grease. When fever is broken and pulse is running below 50 beats a minute discontinue fever mixture and begin with the following tonic and blood purifier:

PRESCRIPTION.

Sulphur	3 ounces
Mustard (ground)	4 ounces
Blood Root (powdered) . . .	1 and 1-2 ounces
Gentian (powdered)	1 ounce
Sassafras Bark (powdered)	2 ounces
Foenugreek (powdered)	1 ounce

Mix and give one tablespoonfull once a day. Should there be an effusion put fly blister on parts directly over lung involved.

Chronic Cough.

A trouble of this character among stock is quite common in the United States and is of much more frequent occurrence in animals which have but little or no advantages in the way of pasture than where they have free range upon either prairie or meadow.

Cause—The cause of this trouble is largely a matter of conjecture but it is reasonable to suppose that it is brought about through an inflammatory condition of either the larynx or bronchial tubes, these being constantly irritated and kept in this condition by the presence of dust in the feed or atmosphere. Some writers claim and I am not prepared to refute it, that these coughs are sometimes brought on by neglect and improper treatment of catarrh and distemper.

HOW TO KNOW IT.

The cough is recognized as being dry, husky and hacking. Where in health it is strong and full and usually followed by a sneeze to clear the nose. It may be that the animal thus affected will cough but little at a time, and again he may have a spell of coughing lasting several minutes, followed shortly by another spell of like character. This cough can in some cases be brought on by pinching the larynx, and in others speeding of the animal is necessary to develop it.

WHAT TO DO.

A chronic cough of long standing is incurable, but most cases can be benefitted, and in the beginning of disease, cured by the following

PRESCRIPTION.

Cedar, Oil of 2 ounces
 Ether, Sulphuric 1 1-2 ounces
 Sassafras, Oil of 4 ounces
 Ammonia, Water of 1-2 ounce
 Camphor Gum 3 drachms
 Alcohol, q s ad 1 pint

Mix and apply to throat, rubbing it in well from ear to ear. Give internally the following

PRESCRIPTION.

Camphor Gum 1 1-2 ounces
 Digitalis, (Powdered) 1 ounce
 Linseed Meal 2 ounces
 Gentian, (Powdered) 1 ounce

Mix and divide into 12 powders, give one of these nigh and morning, and should this fail to relieve patient try this

PRESCRIPTION.

Balsam Fir 2 ounces
 Balsam Copaiba 2 ounces
 Lobelia, Tincture of 1-2 ounce.

Mix and give one tablespoonful night and morning.

Some authors recommend a mechanical counte-irretant in the way of the old-fashion Seton inserted under the skin of the throat, but I consider this of doubtful worth.

Just here I desire to add a word of wholesome advice. Do not under any circumstances attempt to hold a horse's head up and drench him when he has a cough. The best plan when liquids are used is to throw them into the throat with a syringe.



CHAPTER IV.

DISEASES OF THE STOMACH AND BOWELS.

In this connection we purpose studying all of these important troubles which arise in the alimentary canal from the stomach backward; we will no doubt treat some affections in this chapter which it might seem right and proper to consider elsewhere in this work, but if the reader will think for only a moment he must realize that those which seem out of place (like rupture of the diaphragm, etc.,) are a direct result of some trouble along the alimentary canal. This chapter, the writer feels, will prove of much value to every reader, for in it we will consider some of the most common and yet most important diseases to which stock are liable.

Gastritis.

This is an inflammation of the stomach, and though by no means common, yet it is of sufficient occurrence to demand our attention.

Cause—It is caused by over-eating in most instances, and occasionally from eating poisonous herbs.

HOW TO KNOW IT.

Upon examination we will find some of the symptoms of wind colic present. A horse thus affected will lay down, but will roll but very little if any, usually remaining very quiet. The food not being digested rapidly enough decomposition sets in and leads to some swelling in the bowels; the pulse will be soft and jerky at times and the patient is not likely to have any fever.

WHAT TO DO.

Give a complete change of food and if in season allow patient to run on grass, otherwise give as soft food as possible and use this:

PRESCRIPTION.

Ginger Extract of 1 ounce

Gentian, Tincture of 1 drachm

Linseed Oil 1 pint

Mix and give at one dose, and repeat in 4 hours if patient is not relieved. If there seems to be much pain give with the above this:

PRESCRIPTION.

Morphine Sulphate 3 grains

Water, q. s. ad 1-2 pint

Mix and give at one dose and repeat every 30 minutes until patient seems easier. When attack is passed use the following:

PRESCRIPTION.

Iron, Sulphate of 1 and 1-2 ounces

Potash, Nitrate of 2 ounces

Foenugreek, Powdered 1-2 ounce

Mix and divide into 12 powders, and give one morning, noon and night.

Stomach Stagers.

This is a very peculiar condition, but it is simply an acute attack of indigestion in which fermentation sets up in the stomach.

Cause—Overloading the stomach.

HOW TO KNOW IT.

The patient is usually found standing in a kind of stupor or asleep, and perfectly quiet; he is without appetite for either food or drink. The pulse will be very soft and it will not run very high for 10 or 15 hours. The temperature will be found anywhere from 102° to 104° , and patient will stand with his head down all the time.

WHAT TO DO.

Remove from food of any kind and sit a pail of water by. Give the following as a purge:

PRESCRIPTION.

Linseed Oil (raw) 1 pint

Aloes Barbadoes 4 drachms

Nux Vomica, Tincture of 1 drachm

Mix and give at one dose, and repeat in 8 hours if bowels have not moved freely. After the second dose give injections of warm water every hour until you get the desired action. If after the bowels move the temperature should run as high as 103° , use this:

PRESCRIPTION

Aconite, Tincture of 1 drachm
 Belladonna, Fluid Extract of . . . 2 drachms
 Niter, Spirits of 2 ounces
 Water, q. s. ad. 4 ounces

Mix and give one tablespoonful every hour until fever is reduced. After bowels have acted and fever has subsided, commence the following:

PRESCRIPTION.

Iron, Sulphate of 2 ounces
 Cinchona Bark 2 ounces

Mix and divide into 12 powders, and give one night and morning. Feed light and exercise but little for some time.

Indigestion.

This trouble seldom occurs in the horse, but we sometimes run across a case of it.

Cause—High feeding is commonly the cause, but bad teeth which interfere with mastication may produce it.

HOW TO KNOW IT.



The coat is rough, dry and staring, the horse will be thin and present a generally unthrifty appearance. The dung is of a peculiar yellowish color and offensive smell. The appetite is generally indifferent, but in some instances is raven-

ous for a moment then it is all over and he leaves the remainder of his feed or merely nibbles at it.

WHAT TO DO

If caused from a bad tooth, extract it, and if from high feeding, give a complete change of food. A good treatment is to give purge same as in pneumonia, and follow with tonic powders recommended in laryngitis.

Bots.

We find "bots in every horse from start to finish, and instead of proving harmful as many would think, it would be impossible for a horse to live without their presence in the stomach; as nature provides for these little worms so is she able to care for them. But there is a worm hatchet sometimes in the stomach of the horse from the egg of a "gad-fly" or "nit-fly," which, when passed by the horse, is taken for a bot; these resemble bots very much, but a comparison of the two will demonstrate a difference. You may take the worm from the egg of a "gad-fly," place it in a bottle, and inside of twelve days it develops into a perfect "gad-fly," where a bot similarly placed is at the end of twelve months still a bot. As before stated all horses have bots, but these are not the cause of the mutilated condition of the stomach, which we find soon after the death of a horse, this condition being brought about by the action of the gastric juice—in fact it is a kind of self digestion of the stomach by itself. Bots never have killed a horse and I would advise that you be not guilty of giving bot remedies for you can put nothing in the stomach that

will kill a bot without killing the horse. A bot will live fifteen minutes in turpentine or strong tobacco juice and from eight to ten minutes in carbolic acid. When you see a horse rolling or giving forth any of the signs of disease, study the symptoms to the end that you may learn what the trouble is, always remembering to let the bots take care of themselves. In many cases the trouble is bilious colic instead of "bots," this being a very common mistake—in fact the most common one in this connection.

Bilious Colic.

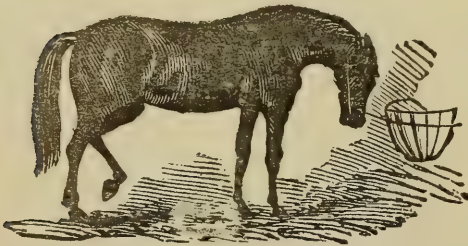
A colic of this kind is quite different to the others, and possibly ought to be studied under the head of diseases of the liver, but owing to the fact that many make the mistake of saying a horse has the "bots," when bilious colic is the trouble, I deem it proper to consider it here.

Cause—The cause is a want of functional activity on the part of the liver, that is the liver fails to perform its part of work in the economy of the animal.

HOW TO KNOW IT.

The patient gets down and rolls, throws his head around to his side, turns up his upper lip and shows by his every act that he is suffering from pain in either stomach or bowels and probably both. The pulse will beat hard and regular, and there will be no swelling in the flanks.

This is the only disease with no swelling in the flanks in which the pulse is hard and regular.



WHAT TO DO.

In most instances this condition is easy to relieve. When first symptoms are noticed use this

PRESCRIPTION.

- Chloroform 2 drachms
- Cloves, Oil of 10 drops
- Syrup, Simple 4 ounces

Mix and give at one dose, in a pint of warm water or sweet milk; repeat every half hour until patient shows no sign of pain. After pain is relieved administer the following as a purge:

PRESCRIPTION.

- Linseed Oil 1 pint
- Aloes Barbadoes 3 drachms
- Calomel 6 grains

Mix and give at one dose and patient will be all right in a few days. Remember when a case of this kind has been cured that it was bilious colic and not "bots."

Spasmodic Colic.

The term colic means a pain in the abdomen. Any kind



of colic is dangerous from the fact that it may result in inflammation of the bowels, which trouble is very fatal, though not necessarily so. Spasmodic colic is so called on account of the spasmodic

contraction of the muscular coats of the stomach and intestines.

Cause—Often the cause is exercising a horse until he is warm and allowing him to cool too quickly. Sometimes a horse is exercised until he is very warm, and as a matter of fact he is very thirsty, then under these circumstances he drinks excessively if permitted to do so; this causes a sudden contraction of the muscles of the stomach, and Spasmodic Colic is the result.

HOW TO KNOW IT.

In the first stage the patient will appear uneasy and will be noticed looking around; he will stand first upon one foot and then upon the other, quit his feed if eating and walk around as though he was going to lay down. In the second stage he drops down suddenly showing signs of the great pain he is in; he rolls very violently and gets up and down very often. There will be periods of relief in which the horse will be quite free from pain, but they are fleeting. A horse exercises himself more with this disease than with any other. When symptoms have been noted diagnosis can be verified by the pulse. We find two hard beats of it and then a fluttering fluctuation. When this is found we can be sure of Spasmodic Colic, for no other disease presents this fluctuation of the pulse. We can not always go by the way a horse acts, for where there is any pain (no matter as to its character) in either stomach or bowels, he will roll more or less.

WHAT TO DO.

If the pulse is under 60 and above 50 beats per minute, use the following:

PRESCRIPTION.

Chloroform	1 drachm
Ether, Sulphuric	1-2 ounce
Opium, Tincture of	1-2 ounce
Canibus Indicus, Fluid Ext. of . .	10 drops

Mix and give at one dose in a half pint of warm water; repeat this every half hour until pulse is on a stand still or inclined to come down. Should the pulse run over 60 and under 75 beats a minute, double the above dose in the first instance, but never afterward unless pulse should increase rapidly. If the pulse should run above 75 beats to the minute give 3 times the amount prescribed in the beginning and then drop back to original prescription. Allow patient a few days rest and be careful in feeding to insure best results.

Flatulent or Wind Colic.

This is the most dangerous and fatal of all diseases to which stock are liable. From this fact it ought to command our close and careful attention. It is not very prevalent; possibly if it was we would become better acquainted with it, and more accomplished in handling it.

Cause—We might say the primary cause of this trouble is indigestion, the food fermenting in the stomach. It is in most instances brought about by exercising a horse immediately after a heavy feed of corn has been eaten, the active exercise retarding or entirely interrupting digestion,

and the moment digestion stops decomposition sets in and the evolution of gases begins. As before stated this is a very fatal malady. It lasts from two to twelve hours.

HOW TO KNOW IT.

The patient gets down and rolls, but not so much as in Spasmodic Colic. By the time the pulse reaches 45 or 50 beats per minute the horse will begin to swell in the flanks. The pulse will be hard and regular all the time, (by regular we mean without any fluctuation) This is the only disease where there is swelling of the flanks in which the pulse is hard and regular all the time, so there is no room for mistake. If a rupture of the stomach or diaphragm should take place the pulse will get weak and small and patient will sit on his haunches like a dog.

WHAT TO DO.

When first signs of flatulent colic are observed should the pulse reach 50 beats per minute give the following:

PRESCRIPTION

Soda Bi-carbonate of 1 ounce
 Peppermint, Tincture of 1 drachm
 Opium, Tincture of 3 drachms

Mix and give at one dose in a pint of warm water, and repeat every 30 minutes until pulse is on a stand still or shows a disposition to come down. Should pulse be above 60 beats a minute double above dose and should it be above 75 triple but only in the first instance. This is

the only disease which has a limitation to the pulse. When it reaches 85 beats a minute the patient has only 15 or 20 minutes to live unless we can give immediate relief. When pulse reaches 85 beats per minute we have but one resource left and that is to tap sufferer on the left side half way between the end of the last short rib and the point of the hip. It is very dangerous to tap a horse before pulse reaches 85 beats per minute for the colon has not reached the diaphragm. Experts may tap on the right side, but I would not advise inexperienced hands to try it. In tapping use a knife with a blade about a half inch wide and about two and a half inches long. After incision is made introduce a trocar or quill to permit the escape of gases.

Rupture of the Stomach or Diaphragm.

Either of these may occur in violent cases of wind colic and both are fatal, this being the case we simply give causes and how to know it, without any treatment.

Cause—In most cases this trouble is brought on by excessive generation of gases in wind colic, these gases distending the stomach beyond its capacity, thus producing a rupture, or else forcing the colon up against and through the diaphragm. In rupture of the stomach the partially digested food and gastric juices are turned loose in the abdominal cavity, where in rupture of the diaphragm the intestines are permitted to pass into the chest among the lungs and heart. Sometimes these ruptures are the result of violent kicks or blows about the abdomen, and again from animal falling when stomach is full of food.

HOW TO KNOW IT.

The patient will sit on his haunches like a dog, his nostrils will be distended and his breathing labored, he will turn up his lip as though his stomach was nauseated, and appear as if trying to vomit, but this he can not do on account of the peculiar formation of the stomach. The muscles of the legs will tremble and shake as if he was having a chill, his legs get cold and cold sweat breaks out in spots upon him. The pulse is very small and fast, and when it passes 85 beats per minute, death soon claims the patient.

Constipation.

When fecal matter in the intestines becomes dry and hard or from any cause resists the paristaltic efforts of the bowels to pass it on, or when paristaltic action is interfered with or suspended for a time and the fecal matter lays quiet in one place, there is to all intents and purposes an obstruction formed. This condition is called constipation or costiveness.

Cause—It is due to a drying and hardening of matter in the bowels, which is brought about by there being an insufficient quantity of water present, this state being produced by most of the water going to the kidneys, or horse not drinking enough. Again the cause may be from the liver and other glands not secreting enough of the typical juices necessary to supply nature's wants in the bowels.

HOW TO KNOW IT.

But little if any fecal matter will be passed, that, which

is, will be dry and hard and will emit an extraordinarily bad odor. The patient will show signs of having some colicky pains, which will be mild in the beginning; he may continue to eat and appear all right otherwise, but as trouble runs on pains will become more frequent and more severe, resulting in inflammation of the bowels, if not attended to. In constipation the pulse is full and regular, generally.

WHAT TO DO.

If the pulse is not above 50 beats a minute, and colicky pains are not frequent give an injection of warm soap suds by way of the rectum and give internally this

PRESCRIPTION.

Linseed Oil 1 pint
 Nux Vomica, Tincture of 2 drachms
 Aloes Barbadoes 3 drachms

Mix and give at one dose and repeat in 8 hours if bowels have not moved. Keep up injections every hour with this until free action is obtained. Should pulse run as high as 60 beats to the minute and pains be of frequent occurrence use the following for relief:

PRESCRIPTION.

Morphine, Sulphate of 2 grains
 Opium, Tincture of 1-2 ounce
 Aconite, Tincture of 20 drops

Mix and give at one dose in a pint of warm water, and repeat every hour so long as indicated.

Diarrhoea.

This is a watery discharge from the bowels and represents the very opposite of constipation.

Cause—It is often induced by the animal eating green or watery food in large quantities, and sometimes it is due to the presence of an irritant in the bowels which produces excessive secretion of the intestinal juices. It may be brought about by the administration of large doses of purgative medicines, when it is we call it superpurgation

HOW TO KNOW IT.

There is a watery discharge from the bowels, the patient becoming weak after this condition has prevailed for a time. The pulse will be found feeble and weak, and the eyes and nose pale; the patient grinds his teeth and refuses his feed. The temperature of the body will, in all probability be in the region of 95° ; should it run as low as 92° there is a strong possibility of this trouble proving fatal.

WHAT TO DO.

If the cause of trouble be watery or green feed give a complete change of diet and use this:

PRESCRIPTION.

Alum (powdered) 2 ounces

Opium (powdered) 2 drachms

Mix and give one tablespoon full every 2 hours until four doses have been given. If this does not give relief in due time we can take it for granted that one of the latter causes is present or else we have a very obstinate case, and it becomes necessary to change our treatment to this:

PRESCRIPTION.

Chalk, Precipitated	1 ounce
Ginger (ground)	1 2 ounce
Opium (powdered)	1 drachm
Ether Sulphuric	1 drachm
Starch water	1 pint

Mix and give at one dose, and repeat in 3 hours if necessary. Give starch or flour water to drink, but in small quantities and 3 or 4 hours apart

Dysentery.

This disease is very uncommon in the horse; it is what we sometimes call "bloody flux," and is inflammatory in character, affecting the large intestines.

Cause—it is produced by the animal eating grasses from low lands which are unfit for food, or poor food of any kind, and hard work may be the cause.

HOW TO KNOW IT.

It begins as a case of diarrhoea in most instances, the feces becoming bloody in appearance and it may be that shreds of the mucous membrane of the bowels will be passed. The patient will have some fever and appear greatly prostrated; the pulse will be quick and irritable and thirst will be intense. There will be frequent and painful evacuation, which will increase in number and violence as disease progresses, the fecal matters passed being very offensive.

WHAT TO DO.

Place patient in a warm and dry, but well ventilated

stall and blanket; give starch or flour water in small quantities and food that is light and easily digested. Medicinally use this:

PRESCRIPTION.

Castor Oil 8 ounces

Opium, Tincture of 1 ounce

Mix and give at one dose In 3 or 4 hours begin the following:

PRESCRIPTION.

Alum (powdered) 1-2 ounce

Opium (powdered) 2 drachms

Chalk (precipitated) 3 ounces

Potash, Nitrate of 1 ounce

Mix and divide into 5 powders, and give one every 2 or 3 hours as indicated.

Supergation.

This condition is the result of the administration of a physic and occurs sometimes when every reasonable precaution has been taken to avoid it.

Cause—Too large a dose of physic, driving a horse when purging or giving large quantities of cold water while physic is operating

HOW TO KNOW IT.

When purgative medicine has been given and horse presents the symptoms which are attendant in diarrhoea, you may rest assured that he is suffering from an over-purge.

WHAT TO DO.

Treat as you would a simple case of diarrhoea.

Gut Tie.

In the human family this trouble is known as Invagination or Intussusception; it is the falling or slipping of one gut or portion of it into another. It is rather uncommon in horses, but several cases have come under the observation of the writer.

HOW TO KNOW IT.

First we find that patient has the symptoms commonly found in bowel troubles; colicky pains are present, but they come on gradually; he looks around at his side, paws the earth and stretches out at full length; he lays down, but does not roll much and ge's up and down very often. The pulse rises from 50 to 80 beats per minute and will be hard and weary. The legs get cold and cold sweat breaks out by the time pulse reaches 70 beats a minute; after this the the pulse is small and hard, the muscles tremble and death soon follows.

WHAT TO DO.

If the pulse should run as high as 50 beats per minute and patient should have any colicky pains when first symptoms are noticed, give him this:

PRESCRIPTION.

Linseed Oil 2 pints

Aloes Barbadoes 3 drachms

Nux Vomica, Tincture of 1-2 ounce

Mix and give at one dose and give injections into the

rectum of warm water every hour. Use hot water rugs on the belly. If there is no apparent relief in 2 hours use this:

PRESCRIPTION.

Chloroform 3 drachms

Aconite, Tincture of 20 drops

Linseed Oil 1-2 pint

Mix and give at one dose, and repeat every hour until the third dose has been given. Should patient appear thirsty give him all the water he wishes.

Inflammation of the Bowels.

This is a disease which prevails at all seasons of the year and in every section of country; it is often mistaken for Colic.

Cause—In looking for a cause we find several things which produce a condition of this kind. It may be caused by another disease and a change of food may produce it, particularly from dry to green, or allowing too much green feed when animal is not accustomed to it. Feeding upon grain and driving hard immediately afterwards is conducive to such a condition. The horse catching cold is in some instances the cause.

HOW TO KNOW IT.

When first taken the patient does not seem to be in much pain; he lies down and stretches out upon the ground, but does not roll much in the first stage. As the pulse goes up to 60 beats a minute and above, the pains get harder and he rolls more. The pulse is the only means through which we can definitely distinguish this

trouble from colic In inflammation of the bowels the pulse gives forth two hard beats and a soft or intermediate beat; (see colics.) This is the only disease which presents this character of pulse—hence we can not be mistaken.

WHAT TO DO.

Give the following internally:

PRESCRIPTION.

Opium, Tincture of	3 drachms
Digitalis, Fluid Ext. of	6 drops
Aconite, Fluid Ext. of	15 drops
Water, q s. ad.	6 ounces

Mix and give at one dose and repeat every hour until pulse is on a stand still, or inclined to come down. Should the pulse run over 60 beats a minute the above dose should be doubled in the first instance, but never afterward.

Intestinal Worms.

Innumerable kinds of worms are at times found in the intestines of horses, some being of little moment while others prove very injurious to the health of the animal harboring them. The treatment for all worms being the same we will do nothing more than to give the reader the symptoms and remedies, so as that he may detect the presence of them and employ the proper treatment.

HOW TO KNOW WHEN THEY ARE PRESENT.

A horse suffering from worms generally presents a "pot



guttled" appearance, has a ravenous appetite usually, and a very dry, staring coat; he is in poor condition, hide bound, and is particularly fond of salt. There will be switching of the tail and frequent evacuations with some straining, and the af-

flicted animal will often rub his rump against the fence or stall, and will sometimes pass worms in his dung.

WHAT TO DO.

In case of worms, the following has always proven effectual with the writer:

PRESCRIPTION.

Iron, Sulphate of 1 drachm

Tartar Emetic 1 drachm

Sage (pulverized) 3 drachms

Mix and give at a dose 3 times a day for 4 days, and then give this:

PRESCRIPTION.

Turpentine 3 drachms

Linseed Oil 1 pint

Mix and give at one dose, and follow with a good tonic for several days.

CHAPTER V.

DISEASES OF THE URINARY ORGANS.

Many diseases of these organs are quite common, and they are of equal importance in so far as the health of a horse is concerned with any of his many afflictions in other ways. Disease of the urinary organs is very much more common where stock do not have free range than where they have it. This can be accounted for in only one way, and that is through the theory that an animal has a kind of instinct or peculiar intelligence, which teaches him how to "doctor" himself if he can but get at the various grasses and herbs, which contain the medicinal properties he needs in effecting a cure or warding off disease. If the reader will but study carefully the diseases treated under this head he will never be caught dosing a horse for colic or pleurisy, when the trouble is in either the kidneys or bladder.

Inflammation of the Kidneys.

This trouble should always have our close attention from the fact that it is very deceptive in its actions; sometimes we may think a horse on the high road to recovery with this disease and he will lie down and die in thirty minutes

Cause—The most common cause is from the use of very strong medicines when not indicated. Eating faulty food

is a cause, and standing where water can drip on the loins sometimes produces it. Indigestion or any derangement of the digestive organs may be the cause.

HOW TO KNOW IT.

The patient will get down and roll as if he had the colic, but does not seem to be in much pain until the pulse reaches 50 or 55 beats per minute, when he rolls he exhibits an inclination to stop on his back, this is from the fact that the pressure of the bowels against the kidneys gives him some relief. By exerting pressure over the kidneys the patient will kinder flinch or give way, demonstrating that soreness is present, and he will stretch out as though he desired to urinate. The pulse will be found soft and regular.

WHAT TO DO.

First make sure of your diagnosis and then proceed with the following:

PRESCRIPTION.

Linseed Oil 1 pint

Aloes Barbadoes 3 drachms

Nux Vomica, Tincture of 1 drachm

Mix and give at one dose and in thirty minutes begin this:

PRESCRIPTION.

Opium, Tincture of 1-2 ounce

Nitre, Spirits of 1-2 ounce

Cubeb, Oil of 1-2 drachm

Aconite, Tincture of 20 drops

Mix and and give at one dose in a pint of warm water and

repeat every every 40 minutes until pulse goes below 55 beats a minute, after this give it every hour if indicated. Give patient several days' rest.

Congestion of the Kidneys.

This is a condition in which there is an excessive flow of blood to the kidneys, and in most instances it results in inflammation of these organs.

Cause—Any interference with the working of the kidneys may produce it. A common cause is the blood being heavily charged with fats, but it is by no means necessary that a horse must be fat in order to have this trouble. High feeding without sufficient exercise is a very prolific cause.

HOW TO KNOW IT.

If horse is being worked the first sign we notice is the apparent stiffening of one of his hind legs, the other soon presenting the same peculiarity. The patient breathes hard, staggers, seems very weak in the loins and finally drops down. If he is able to pass any urine at all it is thick andropy and has a dark coffee color. There will be swelling over the kidneys and patient will show signs of great pain when pressure is exerted upon them. There will be some colicky pains; the pulse will be strong and hard until it gets in the neighborhood of 80 beats a minute; when it becomes small and feeble.

WHAT TO DO.

First empty the bladder as soon as possible by means of a catheter and then use this:

PRESCRIPTION.

Opium, Tincture of 1 ounce
 Aconite, Tincture of 1 drachm
 Nitre, Spirits of 1 ounce
 Potash, Nitrate of 1 ounce
 Water, q. s. ad 6 ounces

Mix and give two tablepoonsful every two hours in a pint of flax seed tea Use injections of warm water in rectum every hour, and if bowels do not move inside of 3 hours give this as a purge:

PRESCRIPTION.

Linseed Oil 1 pint
 Aloes Barbadoes 3 drachms

Mix and give at one dose.

Inflammation of the Bladder.

This is by no means of common occurrence, yet it is very essential to us to be able to diagnose a case of it and know the remedies to be applied should we ever be called upon to treat it.

Cause—Prolonged retention of the urine, too free use of diuretics, and in some instances the application of fly blisters over extensive surfaces, are the principal causes.

HOW TO KNOW IT.

Frequent passages of urine in small quantities with some mucous in it; straining and high fever are usually the symptoms we first notice The patient will look around at his flanks and show other signs of pain. There will be marked tenderness when pressure is applied in the

flanks. Bladder can be felt per rectum and is tender to the touch. The gait is stiff and straddling; the loins are rigid and the tail is cons'tantly switched.

WHAT TO DO.

It depends upon the cause; if it be from diuretic medicines stop or cutail their use, and if from fly blisters remove them. Always remember to empty the bladder by means of a catheter first, then give the following internally:

PRESCRIPTION.

Opium, Tincture of	1 ounce
Nitre, Spirits of	1 ounce
Aconite, Tincture of	1 drachm
Water, q. s. ad.	3 ounces

Mix and give at 3 doses an hour apart. Use the following for several days:

PRESCRIPTION.

Flaxseed Meal	16 ounces
Gentian (powdered)	1 ounce

Mix and give two tablespoonsful 3 times a day.

Spasm of the Neck of the Bladder.

This is a spasmodic closure of the neck of the bladder by contraction of the circular muscular fibers in this region. It is most common in the horse, but is by no means unknown in the mare.

Cause—It is usually caused by retention of urine when patient is being driven or worked, that is, where animal is not allowed an opportunity to pass it off. The administra-

tion of spanish fly or the application of large blisters and the use of diuretics when not indicated as well as stone in the bladder may be the cause

HOW TO KNOW IT.

The patient makes frequent and repeated attempts at passing water and if any is forced out it comes from severe straining and in very small quantities. The sufferer will show signs of pain; he will look around at his flanks, both while standing and laying, and there will be great tenderness at the lower and back part of the belly. By introducing the hand into the rectum the bladder will be felt on the floor of the pelvis in a full and distended state. The pulse will beat small and regular.

WHAT TO DO

Let the patient have such exercise as he or she, as the case may be, may like; use all means to induce passage of urine in the way of warm water injections into the rectum, and by the use of the catheter passed up the penis in the horse. In case of patient being a mare all that is necessary is to insert a finger into the neck of the bladder. Give anti-spasmodic prescriptions as this:

PRESCRIPTION.

Niter, Spirits of 1 ounce

Opium, Tincture of 2 drachms

Aconite, Tincture of 20 drops

Ginger, Extract of 1-2 ounce

Mix and give at one dose and repeat every hour until relief is secured.

Diabetes.

This is a condition in which the kidneys secrete an excessive amount of very clear urine, and is not very common in the horse.

Cause—Long continued cases of lung trouble and stomach troubles, which in most instances create a burning thirst, produce it.

HOW TO KNOW IT.

The patient exhibits a very great thirst and passes urine in excessive quantities, it being as clear as spring water; his appetite is lost and his coat looks rough and dry; he soon becomes hide-bound. Sometimes he shows an inclination to lick the wall of stable and eat his bedding in preference to clean food. We occasionally find the patient suffering from palpitation of the heart along with general weakness and slight fever.

WHAT TO DO.

Give a complete chase of food and use the following:

PRESCRIPTION.

Iodine, Tincture of 1 drachm

Gentian, Tincture of 2 drachms

Mix and give at one dose in a pint of warm water and repeat every days for 4 day After the fourth day change treatment to this:

PRESCRIPTION.

Epsom Salts 6 ounces

Potash, Nitrate of 3 ounces

Soda, Bi-Carbonate of 3 ounces

Linseed Meal 6 ounces

Gentian (Powdered) 1 ounce

Mix and give one tablespoonful night and morning, and allow patient to run on pasture as much as possible.

Paralysis of the Bladder.

A condition of this kind seldom occurs, but when it does it becomes our duty to relieve it when possible.

Cause—Long continued distention of the bladder from the urine being held too long. Diseases which confine a horse to a lying position, such as rheumatism, broken limbs, etc., often are the cause

HOW TO KNOW IT.

The urine dribbles away as it is secreted and scalds the inside of the legs and sheath. The horse thus afflicted does not seem to suffer much pain, but a condition of this kind is very trying upon him, and we find some fever along with a soft and regular pulse.

WHAT TO DO.

Use the following:

PRESCRIPTION.

Nitre, Spirits of 2 ounces

Opium, Tincture of 1 ounce

Aconite, Tincture of 2 drachms

Gentian, Tincture of 1 ounce

Water, q. s. ad 8 ounces

Mix and give 2 tablespoonsful 3 times a day in a half pint of warm water. Allow food and drink in very sparing quantities.

Eversion of the Bladder.

Eversion is an affliction of the female alone and is of rare occurrence.

Cause—Protracted labor or straining is generally the cause, the bladder being forced back into the pelvis and turned inside out.

HOW TO KNOW IT.

The bladder will be seen from the lower part of the Vulva, and the entrance of the Ureters (tubes from kidneys) can be plainly seen near the neck of the bladder with the urine dripping from them

WHAT TO DO

First wash bladder clean in carbolized water, to which a little laudanum has been added, then place it back in its proper position, using sufficient care not to push the fingers through the walls of it. Should the temperature of patient run up to 102° use the following:

PRESCRIPTION.

Niter, Spirits of 1 ounce
 Aconite, Tincture of 2 drachms
 Belladonna, Fluid Extract of . . . 3 drachms
 Water, q. s ad 6 ounces

Mix and give two tablespoonsful 3 or 4 times a day.

Rupture of the Bladder.

Like many of the other diseases of the bladder this is also very uncommon.

Cause—The bladder is sometimes ruptured by violent rolling on the part of a horse which has the colic, particu-

larly when it has some obstruction in it or is filled with urine. This trouble occasionally occurs in females during parturition when the mare fails to empty her bladder before labor begins.

HOW TO KNOW IT.

The animal will tremble all over the entire body, the pulse will be found weak and jerky and it will run up to 75 or 80 beats a minute directly, the body will soon become cold and examination per rectum shows bladder empty. The introduction of a hypodermic needle into the middle of the belly will let out urine which can be smelled. Inflammation sets up among the viscera, and death is the result.

WHAT TO DO.

We can do nothing but relieve patient until death claims him. For relief we can use this:

PRESCRIPTION.

Morphine, Sulphate of 4 grains

Water, q. s. ad. 6 ounces

Mix and give at one dose and repeat every hour.

Bloody Urine.

This is a condition in which a horse passes blood along with the urine; it is of serious import.

Cause—It is generally caused by violent treatment of animal through which the loins, kidneys or bladder may be affected. Cancer or abscess of the kidneys, and eating poisonous herbs may produce a condition of this kind.

HOW TO KNOW IT

The urine will be blood stained; the horse will be drowsy and without appetite and will lose flesh rapidly; his coat will be rough, dry and staring, and the pulse soft and regular with some fever.

WHAT TO DO.

In case of a profuse flow of blood dash cold water over patient's back and loins, give flaxseed tea to drink 3 or 4 times a day in small quantities and use the following:

PRESCRIPTION.

Tincture, Muria'e of Iron 1 ounce
 Tincture, Gentian 1 ounce
 Water, q. s. ad. 8 ounces

Mix and give two tablespoonsful 3 or 4 times a day in a pint of cold water

Dribbling of the Urine.

Some might think that a constant dribbling of the urine in paralysis of the bladder might constitute this disease as the sole cause of dribbling, but such is not the case for we occasionally find it without the presence of any paralysis whatever.

Cause—When not caused by paralysis it may be due to a weakness of or injury to the bladder, and again the cause may be calculi.

HOW TO KNOW IT.

Upon examination it will be found that the horse thus affected has no control over his urine; it dribbles from him continually. At times he will stretch out as though

he has a desire to make water, but it will only come in very small quantities.

WHAT TO DO.

If the trouble be brought about by the presence of calculi we must do our best to remove the cause. By the introduction of a catheter we can usually determine the presence of a stone. In using catheter pass the hand into the rectum to guide the point over the curve. Give the following:

PRESCRIPTION.

Niter, Spirits of 2 ounces
 Balsam Copaiba 1 ounce
 Alcohol, q. s. ad. 8 ounces

Mix and give one tablespoonful every 2 or 3 hours until patient is better. If the cause be a weakness or injury give a change of food and the following:

PRESCRIPTION.

Epsom Salts 6 ounces
 Linseed Meal 6 ounces
 Nux Vomica (powdered) 4 drachms
 Cinchona bark (powdered) 2 ounces

Mix and give one tablespoonful 3 times a day. Keep patient dry and comfortable.

Stricture of the Urethra.

This is a condition in which the urine is retarded or obstructed in its passage through the urethra by the formation of a stricture in this passage.

Cause—The causes are, irritating ingredients in the

urine, strong injections in cases of gonorrhoea, and contraction of the lining membrane of the urethra which may occur during the healing of ulcers in this canal.

HOW TO KNOW IT.

The urine is passed in a small stream, the patient being a long time at it, and showing by his actions that he is suffering some pain; he occasionally stands stretched out for some time as though he wished to urinate. This trouble is by some, who do not know any better, called "chronic gravel."

WHAT TO DO.

First, examine the end of the penis to see if the trouble is there; if no obstruction be found here, then pass in a catheter gently; this is to be done once or twice a day during treatment. Give patient the following which you can best prepare yourself:

PRESCRIPTION.

Gather one gallon of prickly pear leaves, place them in three gallons of water and boil down until you have but one gallon left.

In mild cases give one pint of this fluid once per day, and in severe cases give it two or three times a day as indicated.

Gonorrhoea.

This is an inflammation of the urethra and is mostly confined to stallions.

Cause—Irritating substances in the urine, excessive copulation, connection with a newly delivered mare or one

which has an irritating discharge from the womb, and injury to the penis in passing small stones may all be classed as causes.

HOW TO KNOW IT.

By soreness in the sheath and penis, both being swollen some. The patient will pass water in small jets, and will show that the act of urinating gives him pain. The head of the penis will be found sore and hot and there will be a discharge of pus.

WHAT TO DO.

Keep the bowels of the patient well open and bathe all the sore parts well with warm water once a day and follow with an injection into the penis of this:

PRESCRIPTION.

Lead, Acetate of 1-2 ounce

Zinc, Sulphate of 3 drachms

Water, q. s. ad. 16 ounces

Mix and shake well, inject an ounce or two once a day into urethra. After the sixth day change to this:

PRESCRIPTION.

Silver, nitrate of 10 grains

Morphine, sulphate of 10 grains

Water, q. s. ad. 8 ounces

Mix and inject night and morning. Feed light soft feed.

Urinary Calculi.

The carbonates of lime and magnesia are the principal components of the calculi of the horse, and they are due

to a large proportion of vegetable acids in the food, these acids being transformed and uniting with the lime and magnesia of the blood, thus forming carbonates of either of these elements which are within themselves the calculi.

Cause—The transforming of vegetable acids into carbonic acid, which in turn unites with the lime or magnesia of the blood of the system forming solid carbonates. By some it is thought that the drinking of hard water is a cause for calculi, and the reasons they advance for such opinions are good, but we will not attempt to discuss them.

HOW TO KNOW IT.

Calculi in the kidneys and ureters produce colicky pains, a straddling gait, tenderness over the loins and sometimes blood in the urine. By introducing the hand into the rectum we may sometimes feel the calculus in the ureters. Calculi in the bladder often get into the urethra or outer passage and obstruct the flow of urine, in which case they give rise to frequent straining efforts upon the part of the horse in his attempts at emptying the bladder. Under these conditions the urine passed comes in small jets with a sudden arrest of the flow. If the stone does not make its way into the urethra the flow of urine is not checked, but blood in clots may be passed; which is a strong indication that the mucous membrane or lining of the bladder has been wounded by the stone. The presence of a stone in the bladder of the male can be determined by means of an examination through the rectum. In the female it can be reached easily with the finger through the short urethra.

WHAT TO DO.

In case the trouble be in the kidneys or ureters there is but little that can be done, aside from the administration of medicaments to relax the walls of the ureters and to relieve the pain. The following will prove efficacious:

PRESCRIPTION.

Opium, Tincture of	1 ounces
Belladonna, Fluid Extract of	2 drachms
Aconite, Tincture of	1 drachm
Water, q. s. ad	4 ounces

Mix and give at two doses one hour apart.

In case the calculus be in the bladder or urethra it can be removed by crushing it with forceps made for the purpose, and when crushed the bladder should be washed out thoroughly. For several days after this operation put a tablespoonful of bi-carbonate of soda in daily allowance of water.

Foul Sheath.

The sheath of most horses at times becomes foul and needs cleaning. The glands in the region of penis secrete a fluid, which lubricates the parts, and it is sometimes secreted in excessive quantities, and the result is an accumulation of a black gummy substance in the sheath which should be removed.

WHAT TO DO.

Wash out the sheath thoroughly with warm water and castile soap, then dry the parts with a soft clean towel and depend upon nature to do the rest. Never put grease or oil in a sheath for they hold dust and trash thus making bad matters worse.

CHAPTER VI.

DISEASES OF THE LIVER.

Though the diseases of this organ are very few and seldom occur, yet it is of great importance to us that we should study those which are of consequence and can be understood and treated successfully. We do not think that we would be justified in taking the reader's time and wasting a lot of valuable space in writing of something which can be of no practical worth—hence we present nothing under this head but “Inflammation of and Congestion of the Liver.” One striking peculiarity with reference to the liver of a horse, is the absence of a gall bladder, this being the reason, no doubt, for the horse not being troubled with some of the common diseases, such as gall stone, etc.

Congestion of the Liver.

This is a condition in which the blood vessels of the liver are engorged, and it is usually accompanied by an engorgement of many of the other internal organs.

Cause—Over feeding without reasonable exercise, injuries on right side over liver and the presence of foreign bodies in it. The extension of inflammation from neighboring parts may produce such a condition.

HOW TO KNOW IT.

There is a yellowishness of all visible mucous membranes, the horse appears dull and as if suffering from some internal pain. The feces are of a gray color, hard and very offensive; the urine is scanty and highly colored. Sometimes there is lameness in the right fore-shoulder, and in some cases the patient is noticed grinding his teeth.

WHAT TO DO.

First give as a purge the following:

PRESCRIPTION.

Linseed Oil 1 pint

Aloes Barbadoes 6 drachms

Calomel 1-2 drachm

Mix and give at one dose and repeat in 24 hours if necessary. When bowels have acted well begin with this:

PRESCRIPTION.

Cinchona Bark (Powdered) 1 ounce

Foenugreek (Powdered) 1 ounce

Blood Root (Powdered) 2 ounces

Mix and divide into 12 powders, and give one night and morning in soft feed.

Inflammation of the Liver.

This disease, though rare, is sometimes met with and is generally in an old horse. It may effect the covering of the the liver or its glanular portion.

Cause—The causes of inflamation are congestion and its causes.

HOW TO KNOW IT.

Inflammation of the liver presents many of the symptoms of congestion. There is a loss of appetite, the patient hangs his head and usually remains standing, the feces are of a dark reddish brown color and are covered with a slimy mucous matter and there is generally tenderness of the right side.

WHAT TO DO

Give some purgative recommended in congestion, and when bowels have been thoroughly opened give the following:

PRESCRIPTION.

Potash, Chlorate of 2 ounces

Water, q. s. ad 2 pints

Mix and give eight tablespoonsful at a dose 3 times a day.

CHAPTER VII.

DISEASES OF THE BLOOD.

Under this head we will consider the general diseases of the blood along with those of contagious origin.

Influenza and Pink Eye.

These are one and the same and are identical with the "grip" in man. It is recognized as being a distinctly specific germ disease of an infectious character.

Cause—It is supposed to be caused by the introduction into the system of a poison of a malarious nature.

HOW TO KNOW IT.

The first sign noticed is usually languor and weakness upon the part of the patient, followed by nervous prostration in a few hours; he hangs his head, the ears droop, the mouth is hot, the eyes are red and in some cases swollen, and in the corners of them is found a kind of matter. A high fever develops, the temperature running as high as 106° and possibly to 108° . The breathing is rapid and is sometimes characterized by a snoring sound. The pulse is quick, hard and irritable.

WHAT TO DO.

Give the patient good quarters, no drafts, pure air, and soft digestible food. Leave the bowels alone, treat the

heart mainly, look to your hygiene and depend upon nature for the rest.

As a heart stimulant and tonic this will be found efficacious:

PRESCRIPTION.

Atropine 4 grains

Brandy 1 pint

Mix and give four ounces at a dose 3 times a day.

Rheumatism.

Rheumatism is a constitutional blood disease and is neither contagious nor infectious.

Cause—It is due to the accumulation in the system of some unnatural acid and usually follows other disorders—as influenza, chest affections and most acute troubles. It rarely appears without a forerunner

HOW TO KNOW IT.

The first symptom we generally notice is lameness, which is of a peculiar kind; there may or may not be swelling; when swelling is present the patient has more or less fever. The lameness is most generally flying in character, passing from one joint to another and from one leg to the other. The joints usually affected are the hips, shoulders, knees and fet-locks. There is great pain and soreness upon pressure. The pulse is generally hard, rapid and small

WHAT TO DO

First bathe affected parts well for thirty minutes in warm water, dry thoroughly and rub in well the following liniment:

PRESCRIPTION.

Arnica, Tincture of 2 ounces
 Opium, Tincture of 1 1 2 ounces
 Camphor, Spirits of 3 ounces
 Mix and apply to affected parts. Give internally this:

PRESCRIPTION

Colchicum Seed (Powdered) 1 ounce
 Foenugreek Seed (Powdered) . . . 1-2 ounce
 Gentian (Powdered) 1 ounce
 Potash, Nitrate of 1 ounce
 Mix and divide into 12 powders and give one night and morning in soft feed.

Abscesses.

An abscess is a sac of pus in the tissues. They are sometimes large, but as a rule are not painful unless near a nerve center.

Cause—Impurities in the blood from retaining in the system matter which should be eliminated either through the bowels, the kidneys or the skin. A blow, a kick or other injury may be the exciting cause, but the morbid condition of the blood must be such as to favor the formation of an abscess ere one is produced.

HOW TO KNOW IT.

We find great swelling, which is hard in the beginning, but as it approaches full development becomes soft in the center, but remains hard on the outer edges. It is red, hot, and after a time is painful to touch. Abscesses may occur in almost any place upon a horse.

WHAT TO DO.

When the softening of the center becomes apparent, lance well with an eye to good drainage and wash twice per day with carbolized water.

Glanders and Farcy.

These are the same disease but present themselves in different forms. When it affects the lymphatic glands between the branches of the lower jaw and breaks out in the nose it is called glanders. On the other hand when it attacks the glands and tissues of the legs and body it is called farcy. The virus from either will produce both.

Cause—We know but little of its causes, however, it is fostered and extended by contagion. It sometimes arises apparently spontaneously in armies and on shipboard.

HOW TO KNOW IT.

An animal with acute glanders suffers from languor; presents a dry staring coat, red weeping eyes, loss of appetite, elevated temperature, running up to may be 106° ; the pulse will be quick and breathing hurried. There will be a watery discharge from the nose which soon becomes sticky and rather yellowish in appearance. The lining membrane of the nose becomes a grayish purple in color. At this stage the discharge from the nostrils will sink in water. The nostrils become ulcerated; yellowish points with purple bases make their appearance and burst, causing the discharge to become bloody for a time. These ulcers will spread and run together, eating away the tissues as they go. In the beginning the edges of these ulcers are elevated and the centers are depressed. As the disease

progresses the discharge increases and a horrible odor is emitted. Ulcers finally form in the lungs, the breathing becomes labored and the horse dies.

Chronic glanders runs a less rapid course, but presents the same symp'oms as acute, with the exception that the appetite is less affected, the discharge from the nose is less copious and a great deal less offensive.

Farcy is distinguished by a swelling of the legs either one or all four of them. Nodules break out which discharge an unhealthy pus, these generally cure up in a few days leaving a bare spot to tell the tale. The swelling of the legs does not yield to treatment. Farcy always results in glanders and terminates fatally. It is contagious.

WHAT TO DO.

Kill and burn the animal affected with either of these, quarantine all others which have been exposed, for at least sixty days, disinfect barn and clean up harness, halters, tie ropes, etc.

CHAPTER VIII.

DISEASES OF THE HEART AND BLOOD VESSELS.

It is very difficult to diagnose the diseases of the heart, and but few of them are influenced by treatment. For the sake of information rather than practical utility, we give this chapter.

Diseases of the Endocardium.

The endocardium is a serous sac which surrounds the heart and secretes a fluid which keeps the heart constantly lubricated.

HOW TO KNOW IT.

A horse with this trouble will stand around with no inclination to move, he will allow his head to hang down and will appear as if suffering. The pulse will be high, and upon placing the ear over the region of the heart a harsh, rasping sound will be heard.

WHAT TO DO.

The only thing we can do is to treat constitutionally with:

PRESCRIPTION.

Niter, Spirits of I 1-2 ounces

Aconite, Tincture of 1 drachm
 Belladonna, Fluid Extract of 2 drachms
 Gentian, Tincture of 1 ounce
 Potash, Nitrate of 1 ounce
 Ammonia, Muriate of 1 ounce
 Water, q s ad 1 pint

Mix and give four tablespoonsful every 2 or 3 hours.

Enlargement of the Heart.

This is a condition in which the heart has increased in size, and it is generally confined to the left ventricle. It is by no means uncommon.

HOW TO KNOW IT.

Our only means of diagnosis in this disease is through the pulse and temperature. The pulse will be irregular in its action with reference both to force and number of beats.

The temperature will be very uneven, one side of the body being cold and the other hot, or one leg cold while the others are warm.

WHAT TO DO.

Give patient gentle exercise and use the following:

PRESCRIPTION.

Potash, Iodide of 1-2 ounce
 Nux Vomica (Powdered) 1 ounce
 Foenugreek (Powdered) 1 ounce
 Blood Root (Powdered) 1 1-2 ounces

Mix and divide into 8 powders, and give one night and morning.

Atrophy of the Heart.

In this trouble the walls of the heart become flabby and soft, a kind of wasting away as it were of the heart substance.

HOW TO KNOW IT

There will be pallor of the mucous membranes, languor and emaciation. The pulse will be weak and irregular, and often misses two or three beats at a time.

WHAT TO DO.

Use the following 3 or 4 weeks:

PRESCRIPTION.

Nux Vomica (Powdered)	2 ounces
Iron sulphate of "	2 1-2 ounces
Foenugreek "	2 ounces
Sassafras Bark "	2 1-2 ounces

Mix and divide into 16 powders and give one night and morning.

Aneurism.

This is a dilatation of an artery, brought about through the weakening of the artery wall, it being subjected to the powerful pressure of the blood from the heart's action

HOW TO KNOW IT.

An enlargement or bulge, and distinct pulsations are observed when there is an aneurism. The aneurism is soft and compressible.

WHAT TO DO.

In case it be the large arteries in the abdominal cavity

nothing can be done, but if an aneurism appears on the outside of the body apply ice or cold water and a compress to the swelling.

Thumps.

This is a peculiar spasmodic action of the heart, and is brought about by over exertion. It is most likely to occur in summer.

HOW TO KNOW IT

The heart thumps away as if it wanted to get out, often shaking the entire body, the patient usually sweats freely and puts on an anxious expression as if in distress; the breathing is labored.

WHAT TO DO.

Give the patient rest and stimulate the heart's action with this:

PRESCRIPTION.

Brandy	3 ounces
Digitalis, Fluid Extract of	6 drops
Opium, Tincture of	2 drachms
Water, q. s. ad	1 pint

Mix and give at one dose and repeat 3 or 4 times a day for several days.

CHAPTER IX.

DISEASES OF THE BRAIN AND NERVOUS SYSTEM.

The nervous system of the horse is highly developed, approaching in many respects that of man; this being the case he is more liable to brain affections and nervous disorders than any of the other domestic animals.

Inflammation of the Brain.



This is a very common trouble in the horse and we should study it closely. It is very essential to us that we secure well the patient for he generally struggles most violently during his mad fits.

Cause—The cause is by no means always apparent, but it is generally supposed to be due to extension of fever. Blows upon the head may produce it, and again its being more prevalent in summer than in winter, gives color to the theory that exposure to the burning sun for long periods may be a prolific cause.

HOW TO KNOW IT.

The patient is apparently prostrated, the mucous membranes are very red, those of the eye being particularly so; the pulse and respiration are both quickened and the bowels are constipated. There is a peculiar delirium at first followed by stupidity. The patient will be noticed placing his head against the wall as if to brace himself; he will occasionally eat and while doing so will sometimes doze off, when awakened he will move around and paw the ground, then lay his head against the wall and doze again. A horse may go on in this way for several days, the fits, however, becoming more violent at every recurrence.

WHAT TO DO.

First give the following as a purge:

PRESCRIPTION.

Linseed oil 1 pint
 Aloes Barbadoes 6 drachms
 Calomel 15 grains

Mix and give at one dose and repeat in 12 hours if necessary.

To reduce the fever use this:

PRESCRIPTION.

Belladonna, fluid ext. of 2 drachms
 Aconite, tinct. of 1 drachm
 Water, q. s. ad 4 ounces

Mix and give one tablespoonful every hour until pulse comes down to 45 beats a minute After this is done give the following:

PRESCRIPTION.

Potash, bromide of 1 drachm

Warm water 1-2 pint

Mix and give at one dose 3 times a day for 4 or 5 days; then use a good tonic for a couple of weeks.

Meningitis.

Meningitis is of rare occurrence, difficult to treat, and a horse affected with it seldom recovers

Cause—A general plethoric condition brought about in most instances by high feeding and but little work or exercise.

HOW TO KNOW IT.

At first the patient seems dull and listless, then he reels and stumbles and sometimes falls. The respiration is rapid and the pulse becomes quick and full; the pupils of the eyes are dilated and there is a very noticeable twitching of the muscles of the neck and head. At first patient is very nervous, but as disease progresses blindness and deafness set in and he notices no more.

WHAT TO DO.

Apply ice poultice to the head and give same purge as recommended in inflammation of the brain. Give bromide of potash in 3 drachm doses 3 times a day.

Apoplexy.

This condition is brought about by sudden pressure upon the brain when a horse is healthy in other ways.

Cause—Anything which produces pressure on the brain. A horse exerting himself in a collar which is too small, causing a rush of blood to the head, is a very common cause.

HOW TO KNOW IT.

The horse staggers and falls, froths at the mouth and is insensible. There is a peculiar paralysis with twitching of the muscles. The respiration stops for a short time and occasionally there is hemorrhage from the nostrils.

WHAT TO DO.

Remove collar instantly and give patient a chance to breathe. Bathe the head freely with cold water and sufferer will be all right in a few minutes.

Lock-Jaw or Tetanus.

This is a condition in which the whole nervous system is in a state of extreme excitement, the motor, sensory and sympathetic systems all being involved.

Cause—It may be brought about by overheating, worms in the intestines, or a common cold, but the most prolific cause is a wound, such as a nail in the foot, castration and wire cuts.

HOW TO KNOW IT.

Lock-jaw is so well known by almost every one that it seems needless for me to say much about its symptoms. First there is extension of the head and difficulty in chewing, and upon examination it will be found that the mouth can not be opened to its full extent. There is general stiffness and fixedness in the manner of standing. By raising the head more of the haw of the eye and less of the eye itself will be seen. Elevating the head causes great nervous excitement upon the part of the patient, increasing the spasms of the neck and jaws. The nostrils are dilated and the legs and ears are stiff. The muscles are hard and patient

sweats profusely. In the course of 12 hours the jaws usually become completely locked.

WHAT TO DO.

Relax the system by giving hypodermic injections of the following:

PRESCRIPTION.

Morphine, Sulphate of 2 grains

Atrophine 1 grain

Water, q. s. ad 1 drachm

Mix and give at one dose hypodermically, and repeat every 3 hours until muscles are relaxed. At the same time force patient to inhale sulphuric ether from a towel, allowing fresh air along with it. If cause be from a wound treat this also in a rational way.

Sun Stroke.

Sun stroke is quite common in some parts of the country, particularly in the cities.

Cause—Exposure to the hot sun and over exertion in hot weather.

HOW TO KNOW IT.

The horse is sweating and suffering from heat, when suddenly he stops and sweat dries off, then he begins to stagger, becomes weak, stupid and deaf. The surface of the body will be hot; the breathing is labored and the patient soon falls in an unconscious condition.

WHAT TO DO.

Throw cold water over patient until he is thoroughly cooled off, then give this:

PRESCRIPTION.

Brandy 1-2 pint

Water 1 pint

Mix and give at one dose and in 2 hours give patient just a half dose more.

Blind Staggers.

This is one of the most serious of all brain troubles, and it is thought by some that the usefulness of the animal is impaired, even though he survives the trouble. The experience of the writer is sufficient to justify the assertion that if the proper remedies are promptly employed, a horse can pass through the "blind staggers" and come out as sound and healthy as though he had never had them.

Cause—Rupture of the meningeal blood vessels.

HOW TO KNOW IT.

The first symptom usually noticed is drowsiness upon the part of the horse, he will hang his head, his breathing will be hard and gait straddling; in leading he will go to one side, and if left free will lean against almost anything. As disease progresses he will be hard to manage, becoming violent at intervals. The pulse will be soft and regular, running from 50 to 80 beats per minute. The temperature will run from 103° to 105°.

WHAT TO DO.

First bleed the patient from the nasal veins. These can be readily found with the knife by passing it through from the outside just under the point of the nasal bones. The blood will pass out the nostrils and continue to flow from

25 to 40 minutes. There is no danger in this so allow patient to bleed all he will. In one hour after bleeding give this as a purge:

PRESCRIPTION.

Linseed Oil 1 pint

Aloes Barbadoes 6 drachms

Mix and give at one dose, and if bowels do not move in 12 hours repeat it. To control fever use the following:

PRESCRIPTION.

Aconite, Fluid Extract of 1 drachm

Belladonna, Fluid Extract of . . . 2 drachms

Water, q. s. ad 4 ounces

Mix and give one tablespoonful every hour until pulse runs down to 50 beats a minute. After this give quinine in one drachm doses twice a day for 3 or 4 days.

Loco Poisoning.

This is a peculiar condition of the brain produced by an animal feeding upon the dreaded loco-weed.

HOW TO KNOW IT.

A locoed horse has fits of delirium, which begin in a mild way, but keep increasing in severity until the animal becomes wild and unmanageable, he becomes crazy, rearing and plunging until finally he goes down and dies in convulsions.

WHAT TO DO.

Treatment is useless, but Bromide of Potash in one drachm doses might be resorted to to quiet the nervous system.

CHAPTER X.

DISEASES OF THE EYE.

Diseases of the eye are by no means so common in the horse as in the human family, but some of them are of much moment to the owner when the usefulness of the animal is taken into consideration. Any defect of the eye detracts largely from the value of a horse in the estimation of dealers, hence it is of the utmost importance that we study carefully some of the more common affections of this organ.

Moon Blindness.

In the great west multitudes of good horses lose their powers of seeing through the baneful influences of this disease.

Cause—The cause is an hereditary one.

HOW TO KNOW IT.

There is swelling of the whole eye and all the parts surrounding it; it is closed or nearly so; the mucous membrane is very red, the tears run down the cheek and a whitish pus may be observed in the lower portion of the eye. In a few days the inflammation subsides, but the pupil will appear ragged, and in the course of a month or two the trouble recurs in a more aggravated form. The trouble

continues to recur and eventually results in a cataract; when this occurs the trouble subsides. It may affect either one or both eyes at the same time.

WHAT TO DO.

This trouble can not be cured, but can be alleviated by using cold applications, keeping patient in a dark place, and seeing that the bowels are kept well open.

Glass Eye.

This is a paralysis of the optic nerve with no alteration of the structure of the eye, aside from the loss of power of seeing

Cause—Injuries to the brain and pressure upon the optic nerve are the most common causes, but it may be the result of very high fevers.

HOW TO KNOW IT.

The eye thus affected usually presents a white, glassy appearance. It may be present in one or both eyes. In many cases the sight of the animal is seriously involved.

WHAT TO DO.

Treatment is valueless as a cure can not be hoped for.

Inflammation of the Iris.

This is an inflammation of that portion of the eye forming the pupil of it and giving color to it

Cause—Constitutional disorders, exposure to and facing severe winds, extremes of light and darkness, etc.

HOW TO KNOW IT.

A pink ring is seen around the white coat forming the back part of the eye, the haw is drawn up, the eye

being retracted and partially closed. There is considerable inflammation and the pupil is very small. The aqueous humor becomes turbid, and in the anterior chamber it will be noticed that white flakes are floating.

WHAT TO DO.

Cover eyes of patient with a dark cloth and place him in a darkened stall. See that bowels are well open and bathe the eye with warm water and use the following:

PRESCRIPTION.

Zinc, sulphate of 2 grains
 Morphine, sulphate of 4 grains
 Water, q s ad 2 ounces
 Mix and drop a few drops into the eye 3 or 4 times a day.

Cataract.

This condition represents the most common termination of all the inflammatory diseases of the eye.

Cause—The cause is in almost every instance a preceding disease of the eye

HOW TO KNOW IT.

The trouble is so plain as to be easily recognized. The pupil is filled with white lymph and is dilated very much. Examine eye in dark stall with a candle; if you find three reflections there is no cataract, but if one or two of them are blurred or wanting, you can be sure of the trouble.

WHAT TO DO.

In recent cases a strong purge with the following application to the eyes may clear them up.

PRESCRIPTION.

Copper, sulphate of 3 grains

Water, q s ad 2 ounces

Mix and apply to eye twice per day. In the later stages of this disease nothing can be done of benefit

Weeping Eyes.

This is an obstruction of the tear duct, which is a small tube or passage leading from the floor of the eye into the nostril.

Cause—Extension of inflammation in catarrh is generally the cause, but anything which closes the tear duct or causes it to be closed is sufficient to produce this condition.

HOW TO KNOW IT.

The eyes look very weak and tears are constantly flowing over the cheek. It may be confined to one eye, and again both may be affected.

WHAT TO DO.

Examine the nasal opening of the tear duct and if there should be any obstruction remove it. If there be no mechanical obstruction throw about a tablespoonful of pulverized ginger into the nostrils, this will produce a fit of sneezing the force of which will open duct.

Torn Eye-Lids.

This should, to come in properly, be placed under the head of operations, but for the sake of convenience we treat it in a brief way here.

Frequently the eyelids are torn by being caught on snags, nails, hooks, etc., and when possible we should always sew them up. Use fine silk thread, bring the severed edges neatly and evenly together and make fine stitches. Dress wound twice per day with carbolized water.

CHAPTER XI.

PARASITIC TROUBLES AND EXTERNAL AFFECTIONS OF THE BODY.

In this chapter we will consider the few parasitic diseases which are of consequence, and the numerous consequences, accidents and external diseases which are of importance to the reader.

Lice.

These insects or parasites always impoverish the animal they infest. All horses suffer from their ravages at times more or less

HOW TO GET RID OF THEM.

The following has proven very effective in the hands of the writer:

PRESCRIPTION.

Oil of Sassafras 3 ounces

Oil of Cedar 1 ounce

Mix and apply with sponge or woolen cloth to all parts infested by lice.

Mange.

This is also a parasitic trouble, and there are two kinds of the parasite, but the preparation which destroys one ef-

fectually gets rid of the other, so we do not go into any further explanation along this line.

HOW TO KNOW IT.

There is intense itching, followed by rubbing upon the part of affected horse, and the more he rubs the worse the itching seems to get. The hair comes off in patches and the skin becomes rough, pimply and scaly, and gets quite raw at times. Mange usually affects the neck and head first; it is contagious.

WHAT TO DO.

First wash patient, cleansing him thoroughly, with soap and water, then use the following:

PRESCRIPTION.

Oil of Tar 4 ounces

Oil of Cedar 1-2 ounce

Sulphur 4 ounces

Linseed Oil, q. s. ad 1 pint

Mix and apply to every affected spot.

Ringworm.

The trouble is the result of filth and poverty; it is contagious and is a kind of vegetable parasitic growth.

HOW TO KNOW IT.

First we notice a circular, scruffy patch, the hairs of which may be erect, bristly, broken or split up and dropping off. Later affected spot becomes entirely bald, with hair surrounding it as above described. This bald spot grows maintaining a circular outline. It usually appears upon the back, loins, chest and head.

WHAT TO DO.

Bathe off affected parts with soap suds, and paint with tincture of Iodine twice a day for ten days.

Itchy Tail.

This is an itchy condition of the root of the tail.

Cause—Worms in the rectum, filth or some parasitic trouble.

HOW TO KNOW IT.

By the actions of afflicted animal; he will be continually rubbing his tail against anything he can reach.

WHAT TO DO.

Wash root of tail with soap and water and use the following:

PRESCRIPTION.

Olive Oil 3 ounces

Carbolic Acid 1 drachm

Mix and apply once a day.

Itchy Skin.

This is an itchy condition of the skin all over the body, and a horse afflicted with it sometimes becomes frantic from the annoyance, worry and pain.

Cause—When not due to lice or mange it is a form of surfeit, and is caused by a heated condition of the body.

HOW TO KNOW IT.

A horse with this trouble is continually rubbing, scratching and biting himself.

WHAT TO DO.

Give an oleaginous purge and follow with a vinegar bath; when this is done give the following:

PRESCRIPTION.

Epsom Salts 6 ounces

Gentian (Powdered) 1 ounce

Potash, Nitrate of 2 ounces

Linseed Meal 4 ounces

Mix and give one tablespoonful night and morning.

Surfeit

This simply represents a condition in which nature makes an effort to throw off effete matter and get rid of superfluous heat.

Cause—High living with but little exercise.

HOW TO KNOW IT.

Some times there is itching and again there is none. The skin is rough and scabby, and sometimes there are blotches which may disappear in a few days or scab over.

WHAT TO DO.

Give a good purge, a change of feed and plenty of exercise.

Hide-Bound

This is a generally unthrifty condition and is not a disease within itself, but is the result of some derangement of the system.

Cause—It may be due to exposure to cold, starvation, indigestion, diseased teeth, etc.

HOW TO KNOW IT.

The hair is turned the wrong way and the skin is tight on the body, dirty and full of dandruff and the animal is usually thin in order.

WHAT TO DO.

Make a thorough examination for the cause and remove it when found. Give the following:

PRESCRIPTION.

Acid, Nitric	3 drachms
Soda, Bicarbonate of	2 ounces
Potash, Nitrate of	3 ounces
Antimony, Block	3 ounces
Asafoetida (gum)	3 ounces

Mix thoroughly and give one tablespoonful a day for 3 days, then every other day until four doses are given in this way. This should be followed by good tonic.

Eczema.

This is simply a scalded condition of the back of an animal and is generally due to carelessness.

Cause.—A horse getting wet and the hot sun coming out scalding his back.

HOW TO KNOW IT.

The skin over back, neck, hips and sometimes sides and belly are covered with scabs as thick as they can stand.

WHAT TO DO.

Shelter patient from sun and rain and he will be all right in the course of time.

Warts.

Warts may come on any part of the body. They are generally tough and hard but may be soft and bleed easily. Usually they possess but little vitality.

Cause—They seem to be of spontaneous origin.

WHAT TO DO

If wart be anywhere except directly over an artery cut it off smooth with the body; and use the following:

PRESCRIPTION.

Acid, arsenious 2 drachms

Acacia, (gum) 1 drachm

Cocaine, hydrochlorate 18 grains

Mix and add sufficient water to make a thick paste. Bind a small amount of this to surface of wart and allow it to remain two days; after this apply vaseline. If after three or four days it appears that wart is not killed, go through same treatment again.

Saddle Galls.

This is a condition in which the skin is rubbed off the back in spots, leaving raw sores, and is the same as collar and harness sores when it comes to treatment.

Cause—Badly fitting saddle-back, scalded with sweat, etc.

WHAT TO DO.

Bathe affected spots with warm water and castile soap, then use the following:

PRESCRIPTION.

Sulphur 1 ounce

Alum, (powdered) 1 ounce

Calomel 10 grains

Mix and apply to sore once a day.

Sit-Fasts.

These are large tumor-like lumps on the back.

Cause—They are the result of saddle galls not being properly treated.

WHAT TO DO.

Take a sharp knife and cut them out then treat as a simple wound.

Poll-Evil.

This is an abscess or fistulous sore affecting the bones of the neck near the poll.

Cause—Any bruise or blow near the top of the head is liable to produce this condition.

HOW TO KNOW IT.

There is always some swelling and a flow of pus which is seen running down the sides of the neck. This pus has a disagreeable odor, and when the bone is affected we observe the odor characteristic of caries. In a week or two pipes, as we call them, form, getting thicker and thicker all the time.

WHAT TO DO.

First open the fistulous sore with a knife, making a free incision, then use the following:

PRESCRIPTION.

Copper, sulphate of 3 drachms

Water q. s. ad 8 ounces

Mix and inject into sore twice a day for 6 days, then change to this:

PRESCRIPTION.

Zinc, sulphate of 6 drachms

Lead, acetate of 1 ounce

Water q. s. ad 1 pint

Mix and inject as above and for the same length of time.

Fistulous Withers.

Cause—This condition is produced by the withers getting bruised from any cause.

HOW TO KNOW IT.

In the beginning there is an enlargement of the withers, and they will be hot and painful to the touch and in the course of time a discharge makes its appearance and is seen running down the shoulder. The pipes conveying pus are present the same as in pollevil. The pus is usually healthy unless the bones of the spine are affected.

WHAT TO DO

In case the initial swelling is observed, puncture it twenty-five or thirty times with some sharp instrument, being careful not to go further than through the hide. When this is done use the following:

PRESCRIPTION.

Oil of Cedar 1 1-2 ounces

Oil of Sassafras 2 ounces

Ammonia, Aqua 2 drachms

Camphor Gum 2 drachms

Turpentine 4 drachms

Mix and rub in well night and morning.

After discharge makes its appearance, make a transverse incision through fistulous opening about four inches long

and sufficiently deep to reach the bottom. When this is done treat the same as poll evil. In case the bones of the spine are affected remove all loose pieces with forceps and keep on with treatment

Caries.

This is simply an ulceration of the bone.

Cause—Wounds of any character affecting the bones are liable to be followed by it.

HOW TO KNOW IT.

We know it by the odor emitted, which is the same as that of decayed teeth. There is always considerable swelling and the bone feels rough to the finger.

WHAT TO DO.

Make an opening with a view to drainage, allowing a free escape of pus, scrape diseased surface of bone well with a dull instrument and use this:

PRESCRIPTION.

Acid, Hydrochloric 4 drachms

Water, q. s. ad 1 pint

Mix and dress parts twice a day with it until bone heals, then treat as a simple wound.

Necrosis.

By Necrosis is meant the death of bone.

Cause—It is caused by caries and is a result of it.

HOW TO KNOW IT.

We find a fistula discharging offensive pus and pieces of dead bone, the discharge excoriating the surface over which it passes.

WHAT TO DO.

Make a free opening to allow escape of pus and dead bone, and remove the latter as rapidly as possible. Keep parts clean and use the following:

PRESCRIPTION.

Acid, Carbolic 1-2 ounce

Olive Oil 1-2 pint

Mix and apply to parts by means of cotton or soft, clean cloth.

Wire Cuts.

In some instances wire cuts, if not properly treated, destroy the usefulness of a horse, and in other cases we may do our best and not be able to overcome the damage done.

WHAT TO DO FOR THEM.

Cleanse thoroughly and often with carbolized water and use the following liniment twice a day:

PRESCRIPTION.

Turpentine 6 ounces

Camphor Gum 3 ounces

Raw Eggs No. 3

Vinegar, q. s. ad 2 pints

Mix by dissolving camphor in turpentine, then add eggs and shake thoroughly, when this is done add vinegar. In case wound is of sufficient moment to require stitching do this with an eye to drainage at its lowest point.

Dropsy.

Dropsy is the result of a peculiar condition of the system rather than a disease itself, and is ordinarily the result of some disease of the kidneys.

HOW TO KNOW IT.

The legs, belly and sheath swell and there is indifference to food, weakness and emaciation, with langour and palor of the mucous membranes

WHAT TO DO.

Get at the cause and remove it Tonics which affect the kidneys directly are indicated.

Rupture.

We have different kinds of rupture depending upon the place in which the breaking away of the parts which contains the bowels takes place.

Cause—Umbilical rupture is from a natural defect, while all the rest are from blows, kicks, strains, etc.

HOW TO KNOW IT.

We find a soft puffy enlargement on a surface which should be smooth, and it can be readily pushed back, but will remain only so long as pressure is maintained. In the scrotum we find scrotal rupture. Inguinal rupture is found in the groin or flanks and so on. Rupture is in some cases attended by serious results in the way of gut strangulation, inflammation of the bowels, mortification and death.

WHAT TO DO.

Push gut back and make an incision; sew up opening in abdominal walls with cat gut sutures, and treat your opening through skin and tissues in same manner using silk sutures. When operation is complete inject hypodermically in two or three places around incision and about an inch from it a strong solution of common salt. This is done in order that swelling sufficient may be produced to aid in supporting intestines until the walls of the abdomen begin to heal.

CHAPTER XII.

AFFECTIONS OF THE LEGS.

In this chapter we will consider all the important diseases and accidents of the legs from the fetlock to the body of the horse

Windgalls.

These are soft swellings around the fetlock, and may put in their appearance upon either leg of the horse

Cause—They are caused by severe labor or a strain.

HOW TO KNOW THEM.

Windgalls are easily detected as they are simply puffy swellings about the ankle, and are usually about the size of a man's thumb. They are filled with oil instead of air as many think.

WHAT TO DO.

First use the following:

PRESCRIPTION.

Cantharides (Powdered)	2 drachms
English Rosin	1-2 ounce
Lard	2 ounces

Mix and apply to windgalls, allowing it to remain for fourteen hours. After this keep it well oiled, bandaging it at night.

Scratches.

This is a condition in which chaps and cracks present themselves around the heels and in the hollow of the pastern.

Cause—Snow, slush, ice and mud are the principle causes.

HOW TO KNOW IT.

Cracks and chaps extend in all directions around the heels and up the legs. The skin in the hollow of the pastern is swollen, very painful, and it is hot to the touch.

WHAT TO DO.

Wash the legs in warm water, removing all mud and dirt, dry them carefully and use the following:

PRESCRIPTION.

Vaseline 2 ounces

Alum (Powdered) 2 drachms

Mix thoroughly and apply twice per day.

Grease Heel.

This is an inflammation of the deeper layers of the skin of the heel and resembles scratches very much.

Cause—Neglected scratches and a generally bad condition of the blood.

HOW TO KNOW IT.

There is an offensive, greasy matter oozing from the pores of the legs, these being swollen to the knees. If neglected proud flesh puts in its appearance through the openings made by the pus, and if neglected farther, swelling can never be reduced.

WHAT TO DO.

Look to the bowels first and if they are not well open give purge recommended in pneumonia, and when they have been moved off begin tonic powders prescribed in laryngitis. Bathe heels with warm water and apply this:

PRESCRIPTION.

Linseed Oil 8 ounces
 Camphor gum 1-2 ounce
 Oil of Tar 4 ounces

Mix and apply to heels once a day.

Cocked Ankle.

This is a condition in which a horse is from some cause inclined to rest his heels on the lower back part of his legs.

Cause—Sprains, bruises of the heel, corns, etc.

HOW TO KNOW IT.

The heels are raised, the ankle joint is thrown forward and there is no soreness.

WHAT TO DO.

Seek out cause and remove it is sufficient for a cure.

Ring-Bone.

This is simply a bony enlargement on the pastern.

Cause—Any injury which sets up an inflammation on or near the pastern may produce it.

HOW TO KNOW IT.

We can feel it plainly around the pastern either in lumps or a ring running entirely around, and it may seem as if spread out on the bone,

WHAT TO DO.

Give patient absolute rest and use this liniment:

PRESCRIPTION.

Mercury, Bichloride of 1 ounce
 Camphor, Gum 3 drachms
 Ammo ia, Aqua 2 drachms
 Turpentine q. s. ad 8 ounces

Mix and apply to pastern once a day until well blistered, then grease with lard until scab falls away then blister again.

Splint.

Splint is an enlargement on the bone between the knee and pastern joint. It causes no serious trouble unless near a joint.

Cause—Bruises of any kind which sprain the ligamentous attachment between the cannon and the splint bones.

HOW TO KNOW IT.

If near a joint some lameness is produced. Splint is simply a long bony lump found usually on the inside of the cannon bone.

WHAT TO DO.

Treat just as you would ring bone.

Bone Spavin.

By bone spavin is meant a condition in which there has been a leakage of the joint oil with ossification of it.

Cause.—The cause in almost every case is a strain.

HOW TO KNOW IT.

We find a pecu'iar lameness which is very noticeable when the patient has been driven and allowed to cool and

started up again. Upon examining the hind leg we will find a bony enlargement just a little below the joint and on the inside of the leg.

WHAT TO DO

The following has never failed to relieve this condition when properly used:

PRESCRIPTION.

Acid, Nitric	2 ounces
Acid, Sulphuric	2 ounces
Aconite, Fluid Extract of	4 drops
Morphine, Sulphate of	1 grain
Calomel	8 ounces
Cantharides (Powdered)	1 drachm
Chloroform	15 drops
Arnica, Tincture of	10 drops

Mix. In compounding this, great caution must be exercised, it must be stirred all the time. Use an earthen bow and an earthen pestle to stir it with. Put in calomel a little at a time and do not put in the cantharides until it come to a boil, then stir until gas is nearly all out and add the chloroform and arnica. Apply this to spavin knot every other day for three or four applications, as a rule three are sufficient. After this keep it well greased with lard until it begins to heal.

Bog Spavin.

This is an enlargement of the hock.

Cause—Any sprain sufficient in character to produce inflammation of the synovial membrane.

HOW TO KNOW IT.

On the inner front of the hock we find a soft swelling resembling a windgall. In severe cases there is lameness, but in mild ones there is little if any.

WHAT TO DO

Puncture swelling with a sharp instrument just through the skin some twenty-five or thirty times. When this is done use the following:

PRESCRIPTION.

Turpentine	2 ounces
Oil of Spike	2 drachms
Oil of Origanum	2 ounces
Camphor Gum	12 ounce
Oil of Tar	2 ounces
Alcohol, q s ad	16 ounces

Mix and apply twice a day.

Blood Spavin.

This is a distension of a vein as it passes over the enlargement of bone spavin, the vein being constricted the blood is dammed up.

HOW TO KNOW IT.

On the inside of the hock and just above the joint we find a soft swelling as in bog spavin, only a little higher up and farther inside the leg

WHAT TO DO.

Puncture place as in bog spavin and use liniment prescribed in wire cuts for ten days. Should this fail to relieve the trouble an operation will be necessary.

Sweeny.

Sweeny is by no means as common as a great many think for. In nine cases out of ten thought to be sweeny the trouble is either in the foot or some other portion of the limb.

Cause—It is usually caused by being bruised either from a fall or from the collar not fitting in hauling, ploughing, etc.

HOW TO KNOW IT.

There is soreness, lameness and wasting away of the muscles of the shoulder blade. A horse with sweeny will rest his foot on the toe without extending it. Rest sometimes seems to relieve sweeny, but work brings it on again.

WHAT TO DO.

Puncture the shoulder as in bog spavin and repeat it every eight days for three or four weeks and use this liniment all the time.

PRESCRIPTION.

Turpentine	3 ounces
Camphor Gum	3 drachms
Oil of Cedar	1 ounce
Oil of Sassafras	1 ounce
Alcohol q. s. ad	8 ounces

Mix and apply once a day and should this blister, grease once a day also.

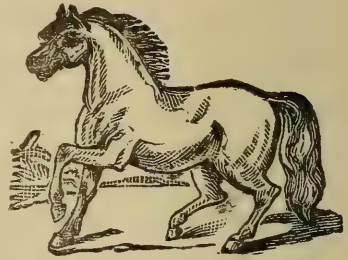
Shoulder Lameness.

This trouble is often taken for sweeny and it does sometimes result in it when neglected.

Cause—Strains, kicks, or injury of any kind may produce it.

HOW TO KNOW IT.

In the shoulder joint there is some soreness, but there is none in the shoulder blade as in sweeney. There is lameness and at the time the leg is being moved forward the head is nodded down at the start and suddenly jerked up toward the finish of the movement



WHAT TO DO.

First bathe off the shoulder for thirty minutes with very warm water, then dry thoroughly and apply liniment recommended in sweeney. If weather be inclement blanket after bathing with warm water.

Stifled.

This is a condition in which there is a dislocation of the pulley bone, but any derangement of the stifle joint is generally referred to as "stifled."

Cause—It is generally produced by a slip and a twist of the leg at the same time.

HOW TO KNOW IT.

The leg is apparently stiff and the horse is unable to move it forward. The horse can be made to back when he will swing himself over injured limb without raising his foot from the ground. In case the trouble be a strain instead of a true stifle, the patient will carry the leg farther forward than usual, but he will do it carefully and with seeming labor, bending the stifle joint as little as possible; there will be soreness and swelling and the injured horse will be noticed resting his leg.

WHAT TO DO.

If the trouble be true stifle tie a rope above the fetlock and pull the foot upward, outward and forward, raising it about eighteen inches from the ground, and while this is being done pressure by the hand sufficient to force the pulley bone in place should be exerted over stifle joint. When pulley bone goes in place it will be with a "pop," which can be easily heard. Cord the opposite leg above the hock, this being done to force patient to stand on affected one. The stifle shoe is often used to advantage. Bathe affected joint with cold water for ten or fifteen minutes at a time, twice a day, and dry thoroughly, after which rub in well the liniment recommended for wire cuts. If the trouble be merely a strain the liniment is all that is necessary aside from rest.

Hip Lameness and Hipped,

Cause—Hip lameness is caused by straining the muscles and ligaments around the hip joint. Hipped is caused by anything which strikes the hip with sufficient force to knock it down.

HOW TO KNOW IT.

In hip lameness there is usually soreness directly over the joint and often some swelling can be observed from behind. On affected side the step will usually be much shorter than on the sound one. The patient may rest affected leg in standing, and again he may only give signs of lameness while traveling. In hipped a sight of the patient is sufficient.

WHAT TO DO.

For hip pain we can do nothing but give rational relief from pain. In hip lameness bathe affected hip twice per day with hot vinegar and follow this with the wire cut liniment.

CHAPTER XIII.

DISEASES OF THE FEET.

The feet are subject to many diseases and injuries which often render a horse unfit for work. In this chapter we will consider the most common and important affections of the feet.

Corns.

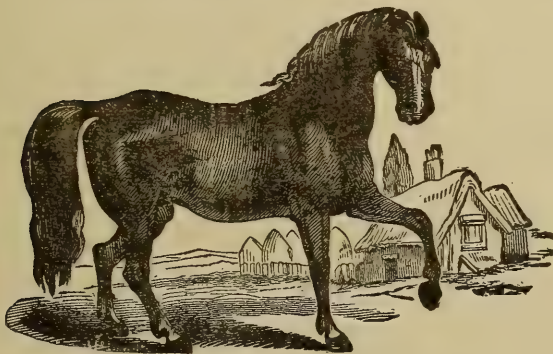
Corns most frequently occur in the front feet and are nearly always on the inside.

Cause—High heels, contracted heels, long feet, weak feet, bruises, etc.

HOW TO KNOW IT.

There is lameness and soreness upon pressure over the

corn. In paring the foot for examination we notice an apparently blood-shotten spot about the size of a dime. When this spot is present we know it to be a corn.



WHAT TO DO. .

If there is a shoe on the foot remove it, and pare out the quarter until it is almost ready to bleed; when this is

done apply carbolic acid full strength to corn once a day, and poultice with flaxseed meal. Should proud flesh make its appearance use powdered bluestone once a day for two or three days, then use this:

PRESCRIPTION.

Oil of Tar 4 ounces
 Oil of Origanum 1 ounce
 Linseed Oil 6 ounces
 Alcohol 7 ounces

Mix and apply freely twice a day to the bottom of the foot.

Quittor.

This is a condition in which a sore has worked up through the foot and broken out around the top of the hoof.

Cause—Neglect of corns, nails in the feet, etc.

HOW TO KNOW IT.

There is swelling at the top of the hoof, this breaks in a few days, discharging pus. The pain, which is very severe in the beginning, is relieved some by the breaking. In a few days after discharge begins the flesh around the opening gets soft and turns purple, and in the course of two weeks pipes will form. The longer it runs the worse it gets.

WHAT TO DO.

Open freely and effectively and inject into all parts of the quittor the following:

PRESCRIPTION.

Copper, Sulphate of 2 drachms
 Water q. s. ad 8 ounces

Mix and inject night and morning for six days then change to this:

PRESCRIPTION.

Zinc, Sulphate of 4 drachms

Lead, Acetate of 1 ounce

Water q. s ad 1 pint

Mix and use as directed above.

Pricking.

This is a condition brought about by a horse stepping upon a nail or other sharp thing and at times produces serious results.

HOW TO KNOW IT.

The patient suddenly goes lame; a careful and painstaking examination of the foot will no doubt reveal the cause.

WHAT TO DO

Keep the foot and wound cleaned out and use the following:

PRESCRIPTION.

Oil of Tar 2 ounces

Oil of Origanum 1-2 ounce

Linseed Oil 4 ounces

Turpentine 2 ounces

Mix and fill prick wound with it twice per day.

Quarter Cracks.

These come on the quarters, usually on the inside, that quarter being weaker than the outer.

Cause—They are due to a lack of elasticity in the fibers and a brittle condition of the hoof.

HOW TO KNOW THEM.

A sight of the split or crack in the hoof is sufficient.

WHAT TO DO.

If crack extends to the quick, pare down its edges to relieve pinching and make it more pliable. Then take a sharp knife and cut across the crack at the top on through to the quick. This is done to start a new hoof. If crack does not extend to the quick it is not necessary to pare the edges. We may know when it reaches the quick by horse going lame. Pare the foot in such a way as that the weight of the horse will tend to close instead of open it. Blister coronet with the following:

PRESCRIPTION.

Cantharides (powdered) 1-2 ounce
 English Rosin 1-2 ounce
 Lard 4 ounces

Mix and apply two or three times, or until well blistered. Use the same prescription as in corns, pouring the frog of the foot and cracks full twice a day.

Thrush.

This is a kind of ulceration of, and rotting away of the frog of the foot.

Cause—Standing in filthy stables.

HOW TO KNOW IT.

We find a black watery discharge and very offensive smell from the heels.

WHAT TO DO.

Put patient in clean stall and trim out frog, cleaning it thoroughly. Use in the frog the same prescription recommended in corns.

Narrow Heel.

Lameness of long standing always produces this condition the foot being rested every opportunity.

Cause—Corns, founder, sprains of the muscles, ligaments and tendons of the leg and shoulder, etc. Leaving the shoes on too long is one of the most common causes.

HOW TO KNOW IT.

A look at the foot will satisfy us.

WHAT TO DO.

Pare the foot down liberally, open the heel up to the soft parts, rasp off the quarters thin and do not touch the frog at all. Use the same hoof liquid as in corns and turn animal on soft pasture. If it is desired the shoes may be put on, but they should be plain Without any calks, of medium weight, level on bearing surface, and beveled off to avoid bearing on the sole. Quarters should be reduced to relieve them of any bearing on the shoe, and frog should be allowed to come to the ground The shoes should be reset every three or four weeks.

Gravel in the Foot.

Gravel sometimes get into the feet of horses causing lameness and much irritation.

Cause—The primary cause may be a nail hole but any wound of the foot is liable to get a gravel in it.

HOW TO KNOW IT.

The wound will appear black and unhealthy and by probing we distinguish a hard feeling.

WHAT TO DO.

For the sake of room trim hoof away around the open-

ing. Then remove the gravel in a careful way and cleanse wound thoroughly with carbolized water, after this fill wound with liniment prescribed in wire cuts. If much inflammation be present a flax seed meal poultice will not hurt anything.

Stone Bruises.

Cause—These are in most cases caused by a bruise from stepping upon a round or projecting stone

HOW TO KNOW IT.

There is lameness, the tender spot being found upon either frog, sole or heel.

WHAT TO DO.

Poultice injured foot with linseed meal for twenty-four hours, after this pare the foot down directly over the bruise being careful not to cut into the quick. Then use the following:

PRESCRIPTION.

Turpentine	4 ounces
Tallow	2 ounces
Bees Wax	2 ounces
Pine Tar	1 ounce

Mix well by heating and apply to bruise twice a day.

Canker.

Cause—Neglect and attempts at treating wounds in dirty, filthy stables. Badly treated wounds are a cause.

HOW TO KNOW IT.

There is a sprouting up of a ragged, shreddy, leathery substance which looks as if it ought to grow together and form hoof, but it remains soft and tender.

WHAT TO DO.

Wash thoroughly with carbolized water, then apply a poultice of charcoal, to which a little carbolic acid has been added, remove this on the third day and pare canker down almost to quick and apply powdered blue stone for several days.

Side Bone.

This is an ossification of the lateral cartilages of the fore feet.

Cause—The most common cause is a bruise, but almost any disease of the foot can produce it.

HOW TO KNOW IT.

The quarters are elastic, hard as a bone, and are enlarged upwards from the hoof; the patient being very lame.

WHAT TO DO.

Puncture the enlargements in ten or fifteen places with a common pegging awl just through the skin. Then use the following liniment:

PRESCRIPTION.

Mercury, Bichloride of 1 ounce

Camphor, Gum 1-2 ounce

Ammonia, Aqua 2 drachms

Turpentine, q. s ad 8 ounces

Mix and apply every other day until well blistered and then grease with lard.

Founder.

From the nature and cause of founder, it might seem proper to have considered it under the head of diseases of the stomach, but this trouble being in every instance re-

ferred to the feet, we take it up here and treat it under the heads of acute and chronic founder.

Acute Founder.

This is a condition in which the symptoms are all aggravated in the beginning.

Cause—The presence of grain and too much cold water in the stomach at the same time, this leading to and producing a suspension of digestion. As a horse has no gall bladder, founder is the result when digestion ceases. We hear of road and water founder and the like, but no true case of founder can be produced without the presence of too much grain and water in the stomach.

HOW TO KNOW IT.

The horse is in great pain, standing as if riveted to the ground; when he moves at all he appears as if walking on pins. A foundered horse can not back. The patient sweats profusely, his pulse and breathing are quickened and temperature is elevated.

WHAT TO DO.

First bleed from pluter veins just half way between the knee joint and caster wart, taking a quart of blood from each fore leg. When this has been done use the following internally.

PRESCRIPTION.

Aloes Barbadoes 1 ounce
 Potash, Nitrate of 1-2 ounce
 Gentian (Powdered) 2 drachms
 Ginger (Powdered) 1-2 ounce

Mix and give at one dose. Keep patient in dry lot and.

allow water in sparing quantities for a few days. Should patient have much fever fluid extract of aconite in ten drop doses should be given every two or three hours.

Chronic Founder.

This trouble represents a condition which is the result of neglect of acute founder.

Cause—Improper treatment of acute founder and neglect.

HOW TO KNOW IT.

The patient goes with a short, shambling gait as if he was a confirmed cripple, his feet are always tender and hoofs are brittle with rough rings around the top.

WHAT TO DO.

Pare out sole of foot, and should pus be found, release it. Then use one tablespoonful of the hoof liquid prescribed in corns in all four of the feet once a day. Give internally one tablespoonful of pulverized alum once a day.

CHAPTER XIV.

Diseases of the Organs of Generation.

Horses are as a general rule freer from diseases of these organs than almost any other order of animals; the cause being no doubt due to their unusual activity. In this chapter we will treat of nothing save the most important affections, these being the most common.

Inflammation of the Testicles.

Cause—External injury and excessive copulation are the most common causes

HOW TO KNOW IT.

There will usually be some fever, much soreness and swelling of the parts, and a peculiar straddling gait.

WHAT TO DO

First bathe for thirty minutes with warm water and follow with the liniment recommended in wire cuts.

Evil Results of Castration.

This a condition in which the cord is left too long, the ends falling between the edges of the wound in the scrotum and adhering to them, both scrotum and cord swelling together, forming a tumor, like moss, often of large proportions.

WHAT TO DO.

Cast the horse and dissect the enlargement out as though it was a tumor.

Wound of the Penis

Occasionally the penis is injured in teasing and covering mares.

WHAT TO DO.

Bathe the penis in warm water, adding about an ounce of the acetate of lead to the pint.

Inflammation of the Womb.

This trouble is usually brought about by injury during parturition and follows it two or three days

HOW TO KNOW IT.

There is some fever, colicky pains and almost continual straining as if to pass a foal, with a black discharge from the womb

WHAT TO DO.

If bowels are constipated give an oleaginous purge, and without waiting for purge to act wash out womb with a half gallon of warm water to which a half drachm of bichloride of mercury has been added Should the fever run high give the following:

PRESCRIPTION.

Aconite, Fluid Extract of 1 drachm
 Belladonna, Fluid Extract of 2 drachms
 Niter, Spirits of 2 ounces
 Water q. s. ad 8 ounces

Mix and give a tablespoonful in a pint of water every hour.

Inflammation of the Ovaries.

Though met with once in a while this trouble is very rare.

HOW TO KNOW IT.

It usually occurs at the time of heat and aggravates the passions. There is some fever though slight, soreness in the lumbar region and a disinclination to move around.

WHAT TO DO.

Give a half ounce of spirits of niter twice a day in a half pint of water. Do this for three days.

Parturition.

The mare gets through with parturition very quickly when everything is all right, but in case of a malpresentation or malformation of the pelvis they often need careful and intelligent assistance. No general rules can be laid down to follow in cases of this kind. Every thing depends upon the mare and the nature of her trouble, the foetus whether dead or alive, the time we have to work in, etc. Good common sense must be depended upon, and our best judgment exercised in the light of conditions as they exist.

The natural presentation of a foal is for the fore feet to come first with the head resting upon and between them. If all means fail to deliver the foal alive we can cut it away piece by piece, opening its bowels first and taking them out and then proceeding as our best judgment would indicate. The lives of many valuable mares have been saved by this means.

Abortion.

But few mares abort without sufficient cause. It may be brought about by extra hard work, external violence, falls,

etc. As a rule everything passes off naturally and with but little outward signs of trouble aside from nervous prostration and a slight elevation of temperature and pulse.

WHAT TO DO.

Give absolute rest and watch patient closely. Give the following internally:

PRESCRIPTION.

Potash, Nitrate of	2 ounces
Sassafras Bark (Powdered)	2 ounces
Gentian (Powdered)	1 ounce
Flaxseed Meal	8 ounces

Mix and give a tablespoonful 3 times a day.

Puerperal Fever.

This usually comes on about the second or third day after parturition, and is very fatal when neglected.

HOW TO KNOW IT.

The organs become swollen, the temperature runs high, the pulse and respiration are rapid, the ears and legs are cold, the urine is scanty and highly colored, the bowels are constipated and the secretion of milk is suspended.

WHAT TO DO.

Protect the patient from exposure and see that the bowels are kept well open. Wash out the womb with a solution of boric acid, (about an ounce to the quart of water) and use same fever preparation as in inflammation of the womb.

CHAPTER XV
OPERATIONS ON THE HORSE.

Some of the more simple operations can be readily performed by the commonity of people if they will but exercise a reasonable amount of care, but we can lay down no fixed rules in this connection, every case demanding its own peculiar treatment

Bleeding.

This is almost an obsolete practice, but is still employed with beneficial results in some instances. Under no circumstances would I advise bleeding unless the pulse be full and strong. Bleeding in the nose has been fully described in blind staggers. Sometimes bleeding in the mouth is necessary, but it is not a good idea to make incision farther back than the second bar. To deplete the entire system we bleed from the jugular vein. This we do by cording the neck so as to fill the vein, then place the blade of fleam on it and strike it a good smart blow with a round stick. Always catch blood in some vessel so as to know how much you draw. Take anywhere from three to five quarts of blood, depending upon the size of horse. When patient has bled sufficiently remove the cord and bleeding usually stops, if it does not pass a pin through edges of wound and wind a hair or thread around it in a figure 8

shape. In bleeding from legs in founder the legs are not corded, but the bleeding is stopped with the pin as just described.

Stopping Blood.

To stop blood from wounds, such as wire cuts, castration, etc., we should take up the severed artery and ligate it if possible; when this can not be done apply Monsel's solution of iron on absorbent cotton, or dry tannic acid to wound. Should these fail apply iron at white heat.

Extracting Teeth.

This operation is entirely mechanical and requires forceps made for the purpose. Place forceps on tooth to be extracted and exert lateral pressure until you feel it give in the socket then lift it out.

Removing Tumors

Tumors are fatty, fibrous, fungoid, bony, etc., and nearly always require an operation. To remove a tumor make an incision through the skin and down to the tumor proper, dissect it out carefully and treat as a simple wound.

Opening an Abscess.

This is a very simple operation, but should always be done carefully and intelligently. Always open an abscess at its lowest point, (this is done for the sake of drainage,) make a free incision for the escape of pus. The idea in every instance is to get rid of pus and broken down tissues.

Operating in Blood Spavin.

To perform this operation it is best to cast the horse.

Make an incision about four inches long through the enlargement and sufficiently deep to deplete it. Then place a sponge on the spavin knot and bandage tightly. Remove and replace this every twenty-four hours for several days.

Tapping the Colon.

This operation has been sufficiently described under the head of flatulent or wind colic.

Tapping the Chest.

This operation sometimes becomes necessary when there is an effusion in pleurisy. Remove the hair by clipping from the spot where you intend operating, which is about three inches back of elbow and about five from bottom of chest. Use a sharp scalpel and cut between the ribs through skin and flesh and insert a trochar or quill and drain off all the water and repeat as often as it collects.

Castrating.

The best age for castrating is from two to three years, this usually admitting of a good development of the neck and fore parts. The mild days of early spring are best for operating on horses. Cast the horse and tie him securely, take the scrotum in one hand and draw it over one of the testicles so that the dividing line can be seen and avoided; make a slit in scrotum about three inches long and parallel with the dividing line, split open inner coverings one by one until testicle pops out, (do not wound testicle with knife,) separate tunics from the small end and scrape the cord into with knife about an inch and a half from testicle. When this is done remove the second testicle in the same way. Should there be much hemorrhage from castration, use a strong solution of alum water in the scrotum.

CHAPTER XVI.

JOCKEY TRICKS.

It is not the purpose of the writer to furnish in this chapter information through which the dishonest may defraud his unsuspecting neighbor, but merely to give the reader some idea of the deception and fraud which is constantly being perpetrated by the unscrupulous horse trader upon a more innocent and honest public.

An old horse is often jockeyed up until he looks young again. This is done by means of "doctoring" the teeth as it is commonly called, and by making a slight incision at the side of and just below the ear, into which a small quill is introduced, and the surrounding parts just beneath the skin are blown full of air. This incision is then sewed up with silk thread. By rubbing the parts freely with the hands this air passes into and fills out all the shrunken places around the eyes and ears, making the animal appear young again.

Old horses are often given apparently new life by the following:

PRESCRIPTION.

Oil of Cloves 1 ounce
Oil of Anise Seed 1 ounce
Asafoetida, Tincture of 2 ounces
Oil of Rosemary 1 ounce

Mix and shake well and give 15 drops a day in a bucket of water. This will give life to all that are not dead, and a horse to which it has been given will need a good rider for he is very lively.

There is a quick process of fattening horses for trade, it can be done in six days by using the following:

PRESCRIPTION.

Nitric Acid	3 drachms
Bicarbonate of Soda	2 ounces
Nitrate of Potash	3 ounces
Black Antimony	3 ounces
Asafoetida Gum	3 ounces

Mix and give a tablespoonful twice a day for 6 days in soft feed. The flesh acquired through this means is of a poor quality and the horse will not hold it but a few days, being left in a worse condition than in the beginning.

A horse is sometimes made lame for reasons usually best known to the jockey, by taking a hair from his mane or tail and passing it beneath the back tendon of the fore leg by means of a common sewing needle, and clipping the ends off close so as not to be noticeable. In a short time the horse will be very lame, but when the hair is removed he is all right again.

One of the meanest tricks to which the jockey stoops is in making a good horse appear as if going blind when there is no trouble with the eyes. This is done by plugging up the nasal openings of the lachrymal ducts with bees wax. The trouble passes away as soon as the wax is removed.

A horse is sometimes made to quit eating by covering his teeth with tallow, he will starve when this is done before he will eat a bite. Remove the tallow from the teeth and he will eat as before.

We have explained how the heaves are "shut down" in our treatment of the trouble,

SUPPLEMENT.

In these supplementary pages will be found some of the most valuable and effective prescriptions for cattle known to the profession:

TONIC POWDERS.

Sulphur	3 ounces
Mustard (Powdered)	4 ounces
Sassafras Bark "	2 ounces
Gentian "	1 ounce
Foenugreek "	1 ounce
Skunk Cabbage "	2 ounces

Mix and give two tablepoonsful a day.

PURGATIVE.

Epsom Salts	16 ounces
Gentian (Powdered)	1 ounce
Ginger "	1 ounce

Mix and give at one dose in a quart of water.

FEVER MIXTURE.

Aconite, Tincture of	3 drachms
Belladonna, Fluid Extract of	1-2 ounce
Potash, Nitrate of	2 ounces
Linseed Infusion	1 pint

Mix and give two ounces at a dose every 2 hours.

FEVER MIXTURE, NO. 2.

Niter, Spirits of	3 ounces
Aconite, Tincture of	2 drachms
Belladonna, Fluid Extract of	2 ounces

Potash, Nitrate of 2 ounces
 Ammonia, Muriate of 2 ounces
 Water, q. s. ad 2 pints

Mix and give a half teacupful at a dose every 2 hours.

SORE THROAT.

Potash, Chlorate of 2 ounces
 Acid, Carbolic 20 drops
 Water q. s. ad 1 pint

Mix and mop out throat 3 or 4 times a day.

CHRONIC COUGH.

Camphor Gum 1 ounce
 Niter, Spirits of 4 ounces
 Ginger, Tincture of 2 ounces
 Potash, Nitrate of 1 I-2 ounces
 Water q. s. ad 2 pints

Mix and give a teacupful 3 times a day.

HEAVES.

Mustard Ground 4 ounces
 Gentian, Powdered 2 ounces
 Foenugreek " 1 ounce
 Lobelia Seed " 2 ounces
 Blood Root " 2 ounces
 Potash, Nitrate of 2 I-2 ounces

Mix and give two tablespoonsful twice a day.

TO RELIEVE PAIN.

Opium, Tincture of 1 ounce
 Aconite, Tincture of I-2 drachm
 Water q. s. ad 1 pint

Mix and give at two doses an hour apart.

STIMULANT.

Brandy 12 ounces
 Ginger, Tincture of 3 ounces
 Water q. s. ad 2 pints

Mix and give a half pint at a dose as indicated.

CHRONIC INDIGESTION

- Soda, Bicarbonate of 4 ounces
- Gentian, Powdered 3 ounces
- Ginger " 2 ounces
- Skunk Cabbage, Powdered 2 ounces

Mix and give one tablespoonful at a dose night and morning.

CONSTIPATION.

- Epsom Salts 10 ounces
- Ginger, Powdered 1 ounce
- Nux Vomica, Powdered 2 drachms

Mix and give at one dose in a quart of water.

DIARRHOEA.

- Chalk Precipitated 2 ounces
- Catechu, Powdered 1 ounce
- Ginger, " 2 ounces
- Opium, " 2 drachms

Mix with a pint of water and give a half teacupful night and morning.

INFLAMMATION OF THE KIDNEYS.

- Opium, Tincture of 4 ounces
- Aconite, Fluid Extract of 1 drachm
- Belladonna, Fluid Extract of 2 drachms
- Niter, Spirits of 4 ounces

Mix and give three tablespoonsful every 3 hours in linseed tea.

BLOODY URINE.

- Gentian, Tincture of 1-2 ounce
- Muriate of Iron, Tincture of 2 drachms
- Aconite, Tincture of 20 drops
- Water q. s. ad 1 pint

Mix and give at one dose and repeat 3 times a day for one week.

INFLAMMATION OF THE BLADDER.

- Opium, Tincture of 1 ounce
- Aconite, Tincture of 20 drops
- Mindererus, Spirits of 2 ounces

Mix and give at one dose in a pint of linseed tea and repeat every 2 hours.

RHEUMATISM.

Cinchona Bark Powdered	I ounce
Potash, Nitrate of	I 1.2 ounces
Foenugreek Powdered	I-2 ounce
Colchicum	I ounce

Mix and give at 4 doses, two a day.

INFLAMMATION OF THE BRAIN.

Potash, Bromide of	2 ounces
Aconite, Tincture of	2 drachms
Belladonna, Fluid Extract of	3 drachms
Water q. s. ad	8 ounces

Mix and give two tablespoonsful at a dose every 2 hours.

HEAT PROSTRATION.

Ammonia, Aqua	I 1-2 ounce
Water q. s. ad	2 pints

Mix and give at one dose and repeat in 30 minutes.

PARALYSIS.

Nux Vomica, Powdered	4 drachms
Gentian, Powdered	I ounce
Flaxseed Meal	4 ounces

Mix and divide into four doses and give one night and morning.

RETENTION OF AFTERBIRTH.

Epsom Salts	12 ounces
Niter, Spirits of	I ounce
Belladonna, Fluid Extract of	2 drachms
Water q. s. ad	2 pints

Mix and give at one dose.

FLOODING.

Ergot, Fluid Extract of	I ounce
Water q. s. ad	I pint

Mix and give at one dose and repeat in one hour.

LUMP JAW LINIMENT.

Oil of Spike	I ounce
Camphor Gum	3 drachms

Mercury, Bichloride of 1 ounce
 Hartshorn 1 drachm
 Turpentine q. s. ad 8 ounces

Mix and apply once a day.

WARTS.

Zinc, Sulphate of 1-2 ounce
 Acid, Nitric 1-2 ounce
 Acid, Sulphuric 1-2 ounce

Mix and apply once a day until wart is dead.

SNAKE BITES.

Whisky 1 pint
 Ammonia, Aquae 1 drachm
 Water q. s. ad 2 pints

Mix and give at one dose.

MANGE.

Sulphur 4 ounces
 Oil of Tar 2 1-2 ounces
 Acid, Carbolic (crude) 1-2 ounce
 Linseed Oil 16 ounces

Mix and apply once a day.

LICE.

Olive Oil 1 ounce
 Kerosene 1 ounce
 Sulphur 1 ounce
 Lard 1 ounce

Mix. One application is generally sufficient.

SCREW WORMS.

Pine Tar 4 ounces
 Acid, Carbolic (crude) 1 ounce
 Oil of Cedar 2 1-2 ounces
 Alcohol 3 ounces

Mix and apply.

INFLAMMATION OF THE UDDER.

Camphor Gum 1 ounce
 Linseed Oil 8 ounces

Mix and rub in well 3 or 4 times a day.

CHAPPED AND SORE TEATS.

Olive Oil	4 ounces
Camphor Gum	1 ounce
Acid, Carbolic	1 drachm

Mix and apply twice a day.

BITTER AND BLOODY MILK.

Mustard, Ground	3 ounces
Sulphur	2 ounces
Potash, Nitrate of	4 ounces
Potash, Chlorate of	1-2 ounce
Sassafras Bark, Powdered	2 ounces
Gentian, "	1 ounce
Skunk Cabbage "	2 ounces

Mix and give two tablespoonsful once or twice a day as indicated.

JOINT ILL.

Sodium, Salicylate of	2 drachms
Blood Root, Powdered	2 drachms
Flaxseed Meal	2 ounces

Mix and divide into 6 powders and give one morning, noon and night.

SCOURING IN CALVES.

Iron, Sulphate of	1-2 drachm
Chalk, Precipitated	2 drachms
Lump Starch	2 drachms
Jamaica Ginger	20 drops
Nux Vomica, Tincture of	2 drops
Opium, Tincture of	15 drops

Mix and give at one dose in new milk.

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