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Twentieth Century  
HORSE BOOK



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BY  
PROF. DAVID B. MORGAN, V. S.

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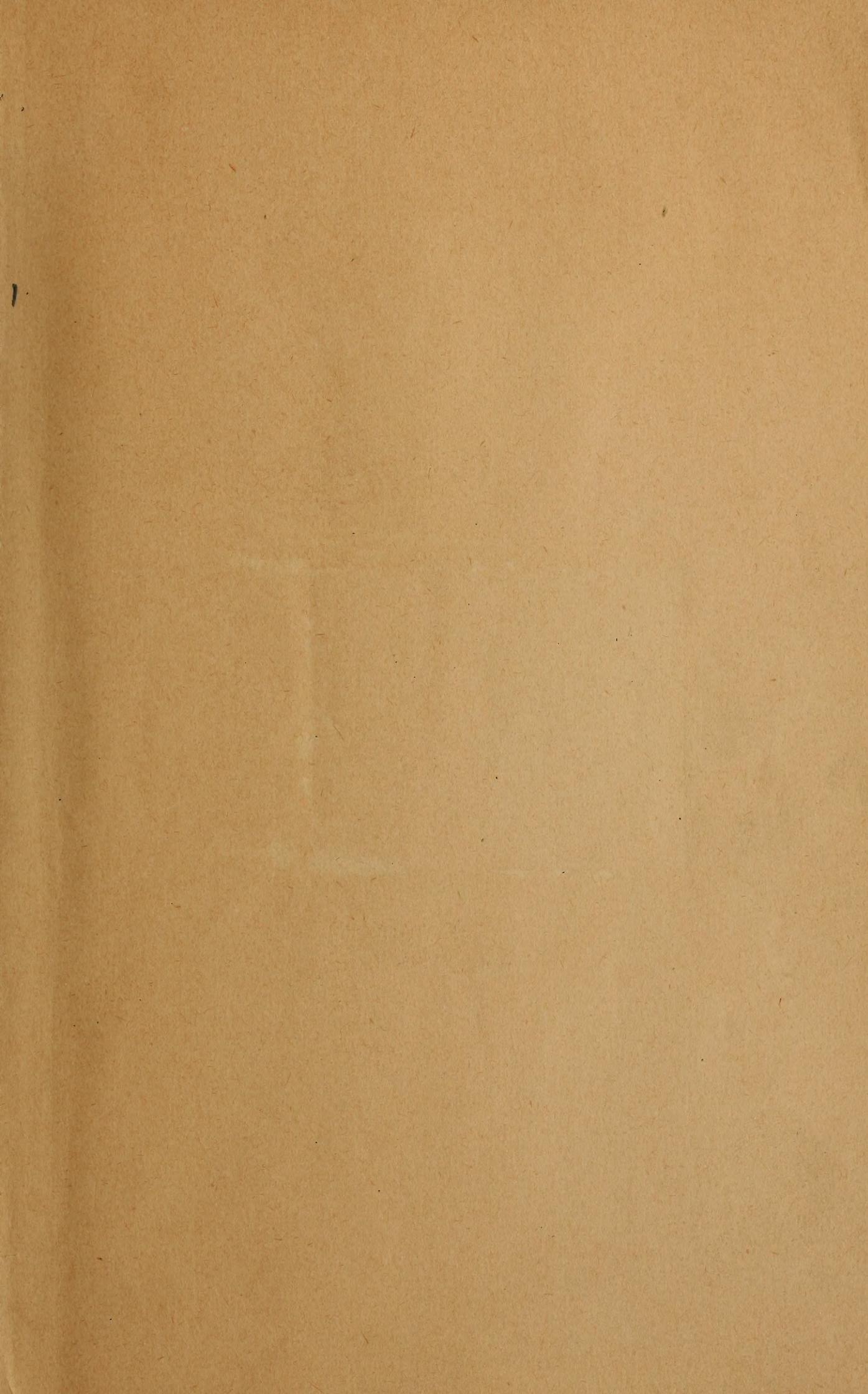
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**PROF. DAVID BENJAMIN MORGAN, V. S.**

Born in Carmarthenshire, South Wales. Has traveled in England, Scotland, Ireland, France, Spain, Central America, Mexico, Canada, and most of the United States. Permanent address, Fayetteville, Arkansas.



PRINCE AND THE DOCTOR.

This is a good picture of Prince, the off horse in my team. Prince has worn the silver tube in his throat for four years. Prince was foaled in Boone County, Arkansas, and before it was inserted he was a "roarer" and practically worthless, as he was afflicted with paralysis of the nerves that control the involuntary muscles of the throat. The noble animal suffered a great deal before I inserted this tube, but since then has been able to breathe with ease and comfort. My experience convinces me that this is the only remedy for a bad "roarer," although various surgical operations have been attempted, and some are claimed to be successful. When the cause is paralysis of certain nerves it is unreasonable to claim that cutting away certain parts can remove the cause, or do anything more than partially alleviate the difficulties of breathing.

TWENTIETH CENTURY  
**HORSE BOOK.**

METHOD OF HANDLING AND  
EDUCATING THE HORSE.

NEW AND SIMPLE  
**TREATMENT OF DISEASES**

BY  
Morgan's Twelve-Remedy System.

**DENTISTRY & CASTRATION.**

ALSO A SHORT TREATISE ON  
CATTLE, SWINE, DOGS AND CHICKENS,  
GIVING DISEASES AND REMEDIES.

By **PROF. DAVID B. MORGAN, V. S.**

TWO HUNDRED ILLUSTRATIONS.

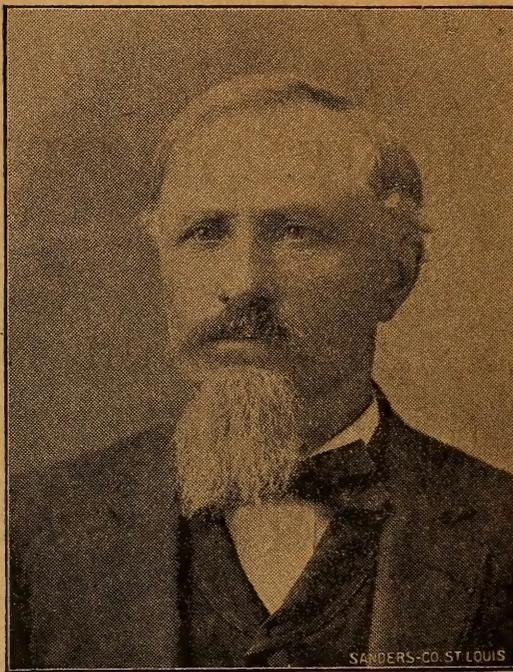
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Father of Dr. Morgan.

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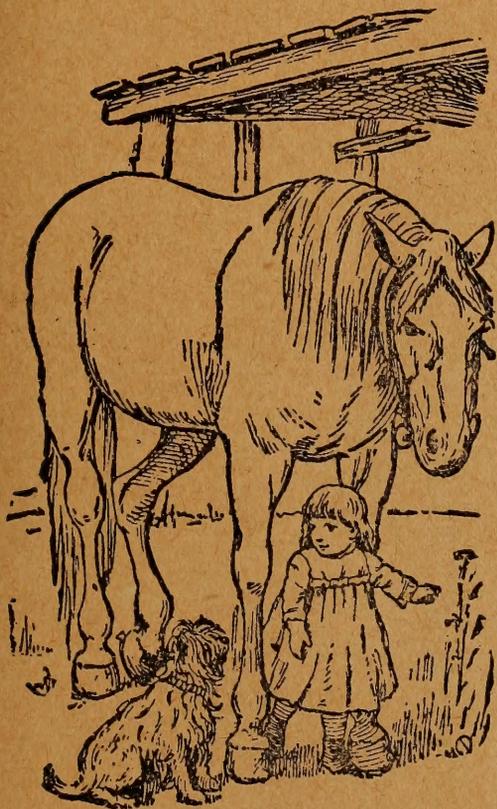
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“A man of kindness to his beast is kind,  
But brutal actions show a brutal mind.”

## PREFACE.

My greatest aim in preparing this book has been to make it as plain as possible for non-professional readers, and to give them information which is of the greatest importance to all horsemen. I have endeavored to avoid all technical terms, and at the same time make



Companions.

everything as short as possible, as in this age of progression the farmer and stockman have not the time to devote to reading lengthy treatises on diseases of domestic animals. I have given my own practical ideas in giving the causes, symptoms and treatment of each disease—only copying from others where the same met with my approval.

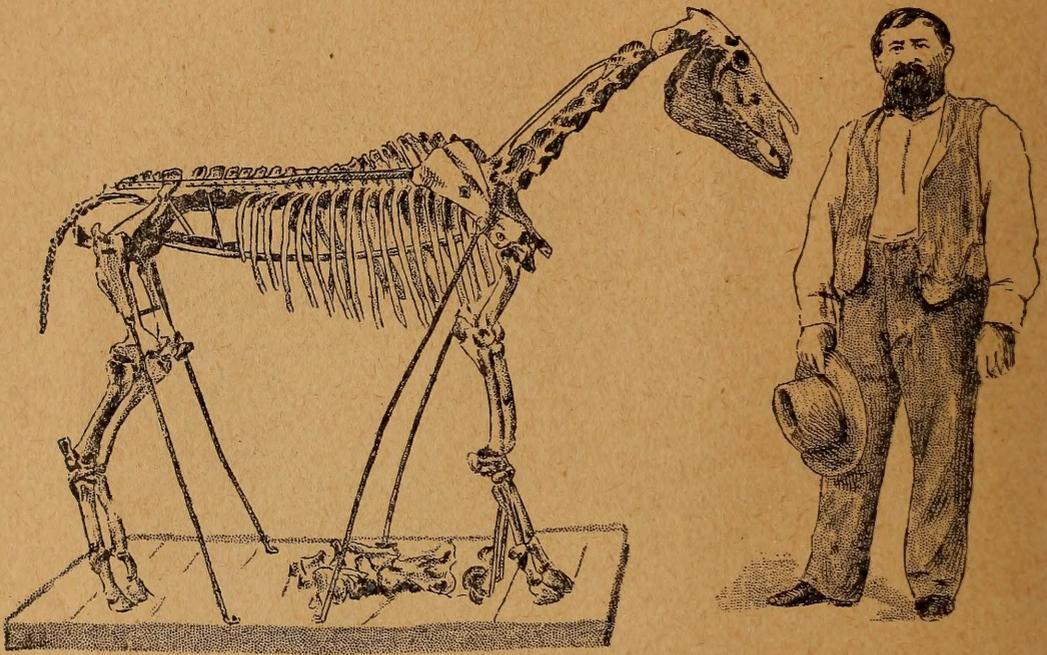
I do not offer this book with pretensions to literary merits, for writing books is not my business, and beg from a scrutinizing public a charitable criticism for any shortcomings which may be discovered, and yet, I feel quite confident that this work will meet with the hearty approval of all who would be wise

for their own interests, as it is my object to be useful rather than to appear learned. A great many veterinary surgeons criticise me for traveling and lecturing on the diseases of the horse, and practicing in this manner, but I care nothing for their criticisms, as I am desirous of fulfilling (as I think) my mission on earth by educating the people, and thereby bringing about a much needed reform in the proper treatment and management of the most valuable animal of the brute creation. I do not believe in the old-fogy methods practiced by some.

I do not work any schemes or fakes on the public, as I am sorry to say is the case with about one-half of the veterinarians that I have met on the road, but when I once visit a town I can return to the

same town afterwards, with a feeling of pleasure, knowing that I have done some good in the place on my former visits.

My reason for claiming that I am performing a laudable mission is that I am trying to educate the public to the wants of the horse. The reason that the horse suffers so much is that his wants are not understood by the people. In the language of Hon. Geo. T. Angell, president of the American Humane and Education Society, "We speak for those who cannot speak for themselves." This great and good man is doing more good for the relief of suffering humanity and dumb animals than any living man today, and the paper published by him in Boston, Mass., under the title of "Our Dumb Animals,"



This is the skeleton of Bald Eagle, the Southwest Missouri Racer, articulated by Dr. Morgan, who carries it with him.

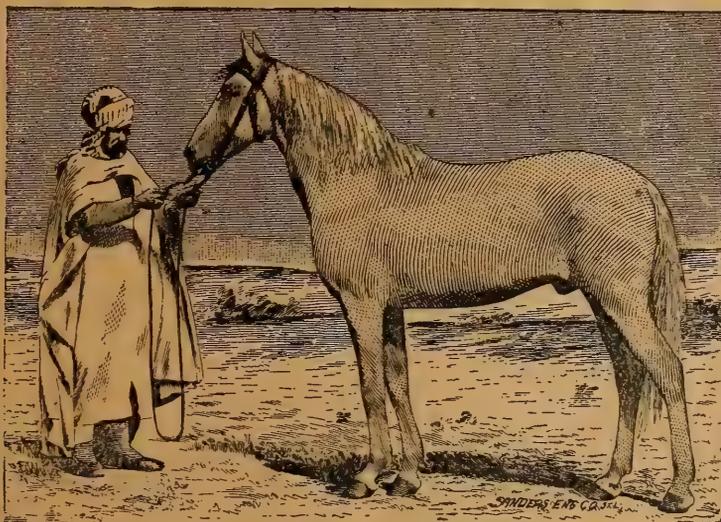
should be taken by every family in this country, as its mission is "To teach and lead every child and older person to seize every opportunity *to say a kind word or do a kind act* that will make some other human being or some dumb creature happier."

I have endeavored in this volume to give a short history of the horse. The anatomical structure of the horse cannot fail to be instructive to all who feel interested in the beautiful animal, and I think it is so brief and plain that every one can understand it. I have devoted a chapter to the education and training of a horse, as the subject of training horses has been for the past forty-five years attracting a great deal of attention, as it should, for no branch has been more neglected than this. A great many methods have been brought before the pub-

lic for their approval, and a great many good books have been written upon the subject, and a great many have been written by theorists, not by practical horsemen. I have been induced by my friends and pupils to write this chapter, giving to them my system of horse training, that they may ever have by them a manual of the art to aid them in their endeavors to subdue and train their horse, not by violence, but by kindness, which alone can overcome and control the nature of any animal.

I have handled horses in the presence of thousands, and horses of every age, disposition and character have been my subjects.

The uniform success which has attended my method is sufficient guarantee that it the true way. I use nothing in subduing the horse but what is described in as plain language as I could use. Every horse trainer, I believe, who has offered his services to the public, has issued



This is Kif Kif, the Arabian Horse which took the prize at Paris, France.

his book, and a great many of them either stated in their books or in their schools, that certain drugs must first be used to bring the horse, if wild or vicious, into subjection. I contend that no horse can be thoroughly and effectually trained when under the influence of any drug or drugs, and, therefore, I use none but the simple and common-sense method I have here described, and am confident that if my method is faithfully carried out, any one else may become as successful as I have been. No one would think of giving a person intoxicating drinks or drugs, until the brain and mental faculties are stupefied, and then attempt to teach him to do something that is contrary to his nature. He might follow your directions and do as you require while in this idiotic state, but when the influence of this spell thrown over him has passed off, how much will the memory retain of what you have been attempting to teach him?

The old method teaches to strap up one foot so that the horse cannot, under any circumstances, obtain the use of it in any stage of the training, which will, certainly at once, be understood by all sensible persons as perfect cruelty. By using such methods as this you govern only by fear, and the animal is only safe when controlled by the person who trained him or an experienced horseman. He must, also, lose much of that courage and noble and lofty spirit for which he is so remarkable, because of this influence. Every horse trainer naturally thinks his way the best, hence I claim my method superior to any other, for it is the only one that has stood the severest tests, and upon examination and reflection it will be apparent to every person that it is the only sensible and practical method of successfully training horses.

The different diseases of the horse and the operations of various kinds are treated upon, and in the castrations of the horse I have endeavored to introduce new methods that will do away with the old and extremely cruel manner of using clamps and searing with a red hot iron.

In the chapter that is devoted to the treatment of the teeth of horses, together with the different cuts, the author has tried to be so plain in the language used that every one can comprehend, as this branch of Veterinary Surgery has been neglected more than any other. And it is hoped that the short treatise on cattle, dogs, chickens and hogs will be of use as well as interest.

I have traveled for sixteen years and practiced in a majority of the States in the United States as well as some foreign countries, carrying a very large collection of different anatomical specimens that I have collected during my travels, and also have one of the most complete sets of instruments in the United States, (traveling in my own wagon built especially for my business).

The treatment given in this book for each disease can be relied upon as the best to aid non-professional horse owners in the diagnosis and treatment of diseases, as Morgan's seven stock remedies have been sold on the market for fifteen years, and are recognized as the standard, and I also show how to perform the most difficult operations, thus fitting every man of common sense to treat his own horses.

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Maker of earth, and sea and sky,  
Creation's Sovereign Lord and King;  
Who hung the starry worlds on high  
And formed alike the sparrow's wing:  
Bless the dumb creatures of Thy care,  
And listen to their voiceless prayer.

EMILY B. LORD.

“Remember, He who made thee, made the brute;  
Who gave thee speech and reason formed him mute.  
He can't complain, but God's all-seeing eye  
Beholds thy cruelty, and hears his cry.”

## HISTORY OF THE HORSE.

The beauty, grace and dignity of this noble creature, when in a properly developed state, are as marked as his utility. As an intelligent animal he ranks next in scale to the dog, that other companion and friend to man. Taking into consideration his usefulness, his attractive appearance and his intelligence, what is known of his history cannot prove unacceptable. In order to



ascertain to a certainty, the country that can claim the proud distinction of having been the parent country, the birth place of this noble animal, recourse must be taken, primarily, to the pages of scripture as being the most ancient and authentic of all existing history.

By reference to those pages, we find that although the ass was in early use among the children of Israel, the horse was unknown to them until after the commencement of their dwelling in Egypt. Strong evidence exists for the belief that he was not brought into subjection there until after their arrival. Clear it is at all events, that Arabia, which many have supposed to be the native home of the horse, did not possess him until within a comparatively recent period, while his introduction into Greece, and thence into the countries of Europe and Asia, where he is now found, either wild or domesticated, may be traced with much certainty to an Egyptian source.

The first instance of horses being mentioned is in that most ancient and authentic of all existing histories, the scriptures. The first notice may be found in Genesis, chapter XLVIII, verse 17: “And Joseph gave them (the Egyptians) bread in exchange for horses.” This was B. C. 1702, and is the first and earliest record we have. We are subsequently informed that they multiplied with great rapidity; for when Joseph removed his father's remains from Egypt to Canaan (B. C. 1670,) there went up with him “both chariots and horsemen,” and we find that in a century and a half after this period, the horse constituted the principal strength of the Egyptian army. At the time of the exodus, some fifteen hundred years before the Christian era, the pursuing army contained six hundred chosen chariots and all the

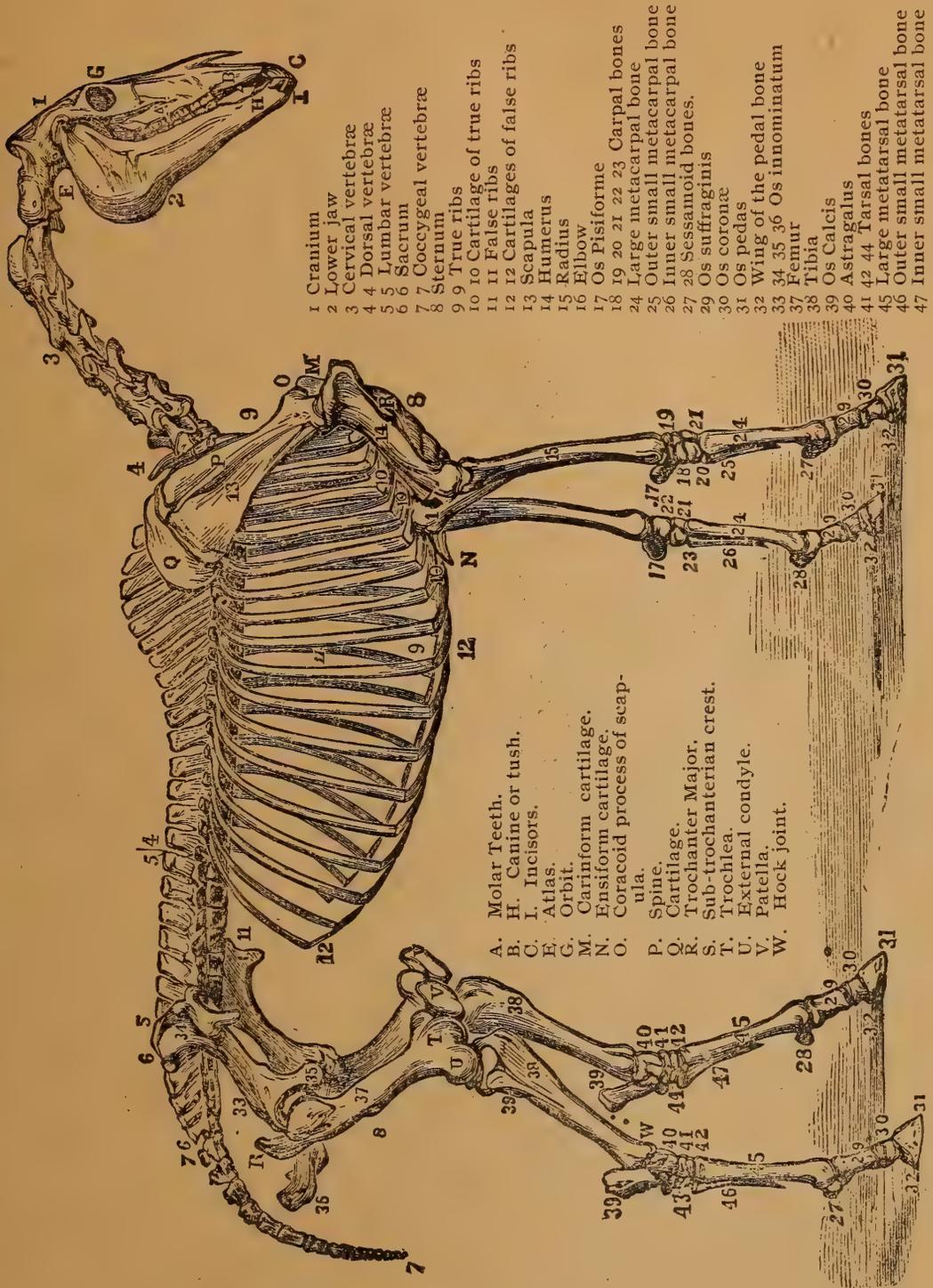
chariots of Egypt, together with all the horsemen, and when the Israelites returned to Canaan we find that the horse had been already naturalized in that country, since the Canaanites went out to fight against the Israelites with horses and chariots very many. We also know from the history of Homer and from ancient sculptures of Persepolis and Nineveh, that the horse was used for purposes of draught for some time previous to his being ridden.

From these considerations and from the fact that so late as six hundred years after this date, Arabia still had no horses, it is by no means improbable that the shepherd kings of Egypt, whose origin is unknown, introduced the horse into Egypt, and that after this period that country became the principal herding district of this animal, whence he was gradually introduced into Arabia and other Asiatic countries. From the same stock is doubtless derived the entire race in all the southeastern parts of Europe.

As Egypt is not in any respect a favorable country for horse breeding, still less for his original existence in a state of nature, the source from whence he was first introduced into that country is in some degree enveloped in uncertainty; though the better opinion, based upon much indirect testimony, is that he was a native of the soil of Africa, which also was the parent country of the Zebra and Quagga—two similar animals. No record is extant of the precise period when the horse was first introduced into Europe. The frequent wars between the Greeks and Persians were probably the means of introducing him into Greece, as we read that Xerxes, who invaded that country, had eighty thousand horses, principally chosen stallions; from thence it was a very easy matter for them to spread over the continent of Europe. The first Arabian horse introduced into England was during the reign of James I. In the oldest sculptures probably in existence—those removed by Layard from the ruins of Nineveh and illustrative of almost every phase of regal and military life, the horse is uniformly represented as a remarkably high crested, large headed, heavy shouldered animal, rather large boned, powerfully limbed, his neck clothed with volumes of shaggy mane.

Solomon was an admirer of horses, as well as good looking women. B. C. 992: I Kings, chapter X, verse 28: "And Solomon had horses brought out of Egypt." In the 25th verse of the same chapter it speaks of the men bringing horses and mules (B. C. 992); and Solomon had four thousand stalls for horses and chariots and twelve thousand horsemen whom he bestowed in the Chariot City and with the kings at Jerusalem.—Chron., 9th chapter, 25th verse.

ARTIFICIAL SKELETON OF THE HORSE.



- 1 Cranium
- 2 Lower jaw
- 3 Cervical vertebræ
- 4 Dorsal vertebræ
- 5 Lumbar vertebræ
- 6 Sacrum
- 7 Coccygeal vertebræ
- 8 Sternum
- 9 True ribs
- 10 Cartilage of true ribs
- 11 False ribs
- 12 Cartilages of false ribs
- 13 Scapula
- 14 Humerus
- 15 Radius
- 16 Elbow.
- 17 Os Pisiforme
- 18 19 20 21 22 23 Carpal bones
- 24 Large metacarpal bone
- 25 Outer small metacarpal bone
- 26 Inner small metacarpal bone
- 27 28 Sessamoid bones.
- 29 Os suffraginis
- 30 Os coronæ
- 31 Os pedas
- 32 Wing of the pedal bone
- 33 34 35 36 Os innominatum
- 37 Femur
- 38 Tibia
- 39 Os Calcis
- 40 Astragalus
- 41 42 44 Tarsal bones
- 45 Large metatarsal bone
- 46 Outer small metatarsal bone
- 47 Inner small metatarsal bone

- A. Molar Teeth.
- B. H. Canine or tush.
- C. I. Incisors.
- E. Atlas.
- G. Orbit.
- M. Cariniform cartilage.
- N. Fusiform cartilage.
- O. Coracoid process of scapula.
- P. Spine.
- Q. Cartilage.
- R. Trochanter Major.
- S. Trochlea.
- T. Sub-trochanterian crest.
- U. External condyle.
- V. Patella.
- W. Hock joint.

FLEXOR TENDONS OF FORE LEGS.



- 1. The perforans.
- 2 The perforatus.
- 3, 4. Accessory muscles.
- 5, 6. Restraining ligaments.
- 7. The pedal cartilage divided.
- 8. The navicular bone.

## THE ANATOMY OF THE HORSE.

CLASSIFICATION OF THE VARIOUS ORGANS; STRUCTURE OF BONE; OF THE SKELETON IN GENERAL; NUMBER OF BONES COMPOSING THE SKELETON, WITH COMPREHENSIVE DESCRIPTION OF THE ANATOMICAL STRUCTURE OF THE HORSE.

The body of the horse, like all the vertebrate animals, may be considered as made up of several distinct apparatuses or systems. Of these, the first is a machine composed of the bony skeleton, or framework, the various parts of which are united by joints and moved by muscles.



Secondly, there are contained within the thorax the organs which supply the whole body with the means of nutrition, in the form of blood, and purify this fluid.

Thirdly, in the abdomen are presented to view the important organs which assimilate the food to the condition of the blood; while in the adjoining cavity, the pelvis, are the urinary and generative apparatuses.

Fourthly, the nervous system may be considered as comprising the grand centre of the mental faculties, and also as presiding over and controlling the whole of the functions performed by the several organs; and

Fifthly, certain special organs, as for example, those of sense, and likewise, the foot will complete the circle.

The bones are composed of a tissue peculiar to them, enveloped by a membrane, the periosteum. They contain a semi-fluid of a fatty nature, the marrow, and pierced in various directions by blood vessels and nerves.

The skeleton is composed of two hundred and forty-seven separate bones, which are united by joints to form the spine, thorax, pelvis, tail, and fore and hind extremities. The spine is finished anteriorly by the head, which is divided into the cranium and face, and contains the teeth. Suspended from the head is the os hyoides,

which complete the number of bones. Thus:

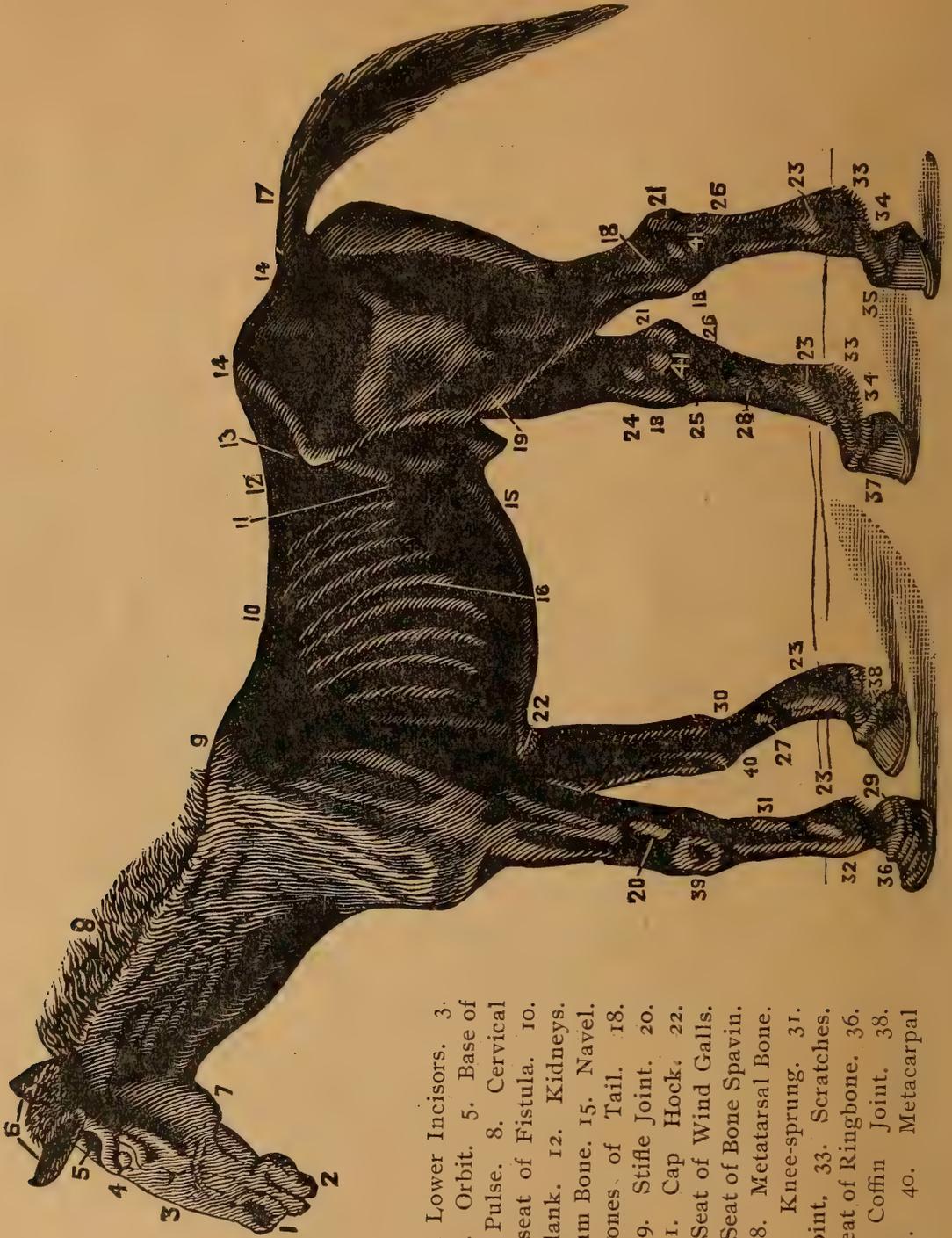
The spine consists of 7 cervical, 18 dorsal, and 6 lumbar—vertebræ, total.....	31
The thorax is made up of the dorsal vertebræ, with 18 ribs on each side, and the sternum in the middle, total.....	37
The pelvis comprises 2 ossa innominata (or iliumischium, and pubes,) and sacrum, total.....	3
The tail contains, on the average, 17 bones.....	17
The fore extremity is made up on each side of the scapula, humerus, os brachii, and 8 carpal bones, 3 metacarpal, os suffraginis, os coronæ, os pedis, os naviculare, 2 ossa sesamoidea, total on both sides.....	40
The hind extremity has the femur, patilla, tibia, fibula, 6 tarsal bones, 3 metatarsals, os suffraginis, os coronæ, os pedis, os naviculare, 2 ossa sesamoidea, total.....	38
Bones of the cranium.....	10
Bones of the face and lower jaw.....	18
Teeth.....	40
Bones of the internal ear, 4 in each organ.....	8
Os hyoides, or bone of the tongue, made up of five sections.....	5
Grand total.....	247

The following full and comprehensive description of the anatomical structure of the horse cannot fail to be instructive to all who feel interested in this beautiful animal, and I think it is so brief and plain that every one can understand it:



SECTION OF THE ABDOMEN AND PELVIS, WITH THE INTESTINES AND LIVER REMOVED, AND LONGITUDINAL SECTION OF THE THORAX, ETC.

A. The Stomach. b. Spleen. c. Left kidney. d. Broad ligament of the uterus, with left cornu and ovary displayed. e. Rectum. f. Anus. g. h. i. j. k. l. Internal muscles of the thigh. I. Occiput. 2. Cerebellum. 3. Cerebrum. 4. Nasal membrane. 5. Tongue. 6 6. Cervical vertebræ. 7 7 7 7. Spinal cord. 8. Pharynx. 9 9 9. Œsophagus. 10. Cardiac orifice of the stomach passing through the diaphragm. 11. Pylorus. 12 12. Posterior surface of the diaphragm. 13 13. Trachea. 14. Lungs. 15. Heart.



1. Upper Incisors. 2. Lower Incisors. 3. The seat of Big Head. 4. Orbit. 5. Base of Brain. 6. Brain. 7. Pulse. 8. Cervical Bones. 9. Withers, or seat of Fistula. 10. Seat of Siftast. 11. Flank. 12. Kidneys. 13. Hip Bone. 14. Sacrum Bone. 15. Navel. 16. True Ribs. 17. Bones of Tail. 18. Blood or Bog Spavin. 19. Stifle Joint. 20. Terminus of Radius. 21. Cap Hock. 22. Seat of Shoe Boil. 23. Seat of Bone Spavin. 24. Front of Hock. 25. Seat of Bone Spavin. 26. Curb. 27. Splint. 28. Metatarsal Bone. 29. Navicular Bone. 30. Knee-sprung. 31. Tendons. 32. Pastern Joint. 33. Scratches. 34. Grease Heels. 35. Seat of Ringbone. 36. Foundered Hoof. 37. Coffin Joint. 38. Hoof-bound. 39. Knee. 40. Metacarpal Bone. 41. Hock Joint.



ARTIST MONTROSE AND HIS RIDER.

The author takes pleasure in presenting the above picture, engraved especially for this work, of Artist Montrose, winner of first prize at St. Louis in 1889, and sweepstakes at the Columbian Exposition in Chicago in 1893. I saw him at the World's Fair, and he seemed to me to be the noblest, handsomest and proudest specimen of horse flesh I ever saw. He was then and is now owned by Judge A. F. Wyckoff, of Appleton City, Mo., who has been offered large sums for him, but the Judge is too great a lover of the beautiful animal to think of parting with the champion saddle horse of the world. The rider in the picture is Jeff Bridgford, of Paris, Mo., who trained and rode Artist Montrose to victory, and on the day following, the old gentleman, 71 years of age, was awarded first prize as the best rider of the world.



HARRY B. MORGAN AND DUKE.

Henry B. Morgan is a brother of Dr. D. B. Morgan, and is his able assistant and understudy. "Duke" is my favorite horse. His intelligence is almost human, and his disposition is simply perfect. He was never known to do anything wrong. When I first picked him up in Benton County, Arkansas, he was a mere wreck or frame of a horse, simply because he had one long tooth which caused him intense pain, and prevented him from masticating his food. This was soon remedied, and from that day to this "Duke" has been telling every horse he meets how the Doctor relieved him of his suffering.

## TRAINING HORSES.



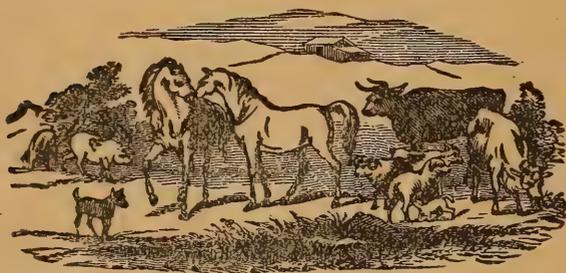
A Noble Head.

The training of horses is a matter of great nicety. They are trained for various purposes, but mostly for our convenience and pleasure, or for the transportation of our goods. In olden times burdens were transported from place to place on the backs of pack-horses, and they are so used in Spain now. I have seen fifteen or twenty in one row bringing charcoal from the mountains. In those days they were used thus in the mountainous regions, and all journeys were made on horseback. As improvements took place in roads, vehicles suitable for the carriage of goods and persons and drawn by horses in harness were substituted for these methods, and it was necessary to teach the horse differently, rendering his training more difficult and quite an art.

With the improvement made in the breed of the horse since the days of the pack and riding saddle, a great change has also taken place in the management and training of this noble animal. The former methods were not only seriously defective, but absolutely injurious. The mode of breaking a young horse was not merely hurtful to him and dangerous to the person performing the operation of training, but cruel in the extreme. Frequently, without being accustomed to the bridle or any incumbrance, he was mounted, and if he refused to comply with the wishes of the rider, the young horse, ignorant and alarmed, was unmercifully beaten; he was jerked by the head backward and forward, until becoming wild with fright, he dashed off and often unseated his rider at a single bound. I have known many instances in which, at the outset, the animal went off kindly, and the injudicious rider continued the exercise until the horse was completely jaded down and dispirited. A horse, if taken early, can be rendered perfectly tractable and docile by tender and kind treatment. I give in these pages the only true and practical method, and if my plan, here given, is faithfully carried out, it will in every instance, be successful in taming and thoroughly subduing the most stubborn and vicious animal. Observation and experience teach that the horse is possessed of as much, or more acuteness of the senses as man, and that his nature is governed by fixed laws. Knowing this, our success in controlling and managing him will depend

upon the amount of prudence and intelligence we exercise in conformity to the requirements of his nature, and the advantages we take of his ignorance to impress him with a sense of our power and supremacy. The horse is stronger than man, and if he learns to resist and is successful in resisting, he will ever continue to do so. He will acquire bad habits only so far as he discovers we are unable to compel submission.

The secret of managing and training horses lies in man's mental and intellectual superiority. The superiority enables us to devise and use means to overcome the strength of the horse, and it is only by the resources of the mind that we can effectually keep him in ignorance of his strength. Impress him with a feeling of man's power and superiority, and cause him to yield willing and ready obedience to our

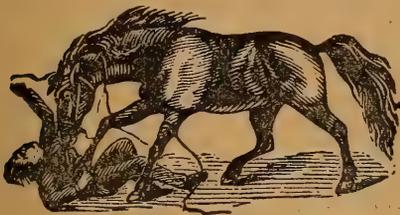


commands. We must conform to his nature so as not to excite resistance in him, and not let him comprehend the possibility of resistance, and must so disconcert and control him that he will be impressed with the great-

est force of man's supremacy and power. The horse takes man for just what he proves himself by his actions. Man doubts and fears because he reasons. The animal, reasoning from experience alone, will doubt and fear only as taught by our actions toward him. If these are uniform in kindness and trust, there will be corresponding trust and confidence on the part of the animal, as he associates with man's presence a feeling of security and protection; and this because he has not been taught by deception to doubt. The horse becomes in the character of his habits just what he is made—in exact proportion to the teaching and example to which he has been subject.

PATIENCE, PERSEVERANCE AND KINDNESS are the only drugs to be used, and rightly used, these are the most powerful known, the influence of which does not pass off in a few moments, leaving your animal in a state of stupidity and ignorance of what you have been teaching him. You also preserve all his natural spirit and pride. He is taught by kindness that you are his master, and he will take pride in showing you he appreciates this kindness, and the highest spirited horse will be safe, even in the hands of a lady or child, for he will associate mankind with a feeling of security from all dangers or harm. He will yield instant obedience to your orders, for he loves praise and admiration, and you should always pet and caress your

horse after he has done you a service, as much as you would a child, for he is a child as far as mind is concerned, compared with man, and nothing else, unless you teach him by cruelty that he is superior to you not only in strength but in brains. No person with any brains at all will ever treat a member of the brute creation with cruelty. Treat your horse with uniform kindness, and he will ever be your willing and obedient servant. Never punish or strike your horse without his knowing what it is for; then let him understand fully that it is intended as a punishment, and you will not soon be obliged to repeat the chastisement. Use patience, perseverance and kindness in the place of foot-straps, drugs and whips, and you will meet with the fullest success, and be assured that it is far easier to rule by love than



Man-eating Horse.

fear. I have never yet failed in a single instance, to teach the tricks which I shall give in the methods laid down, in from one to five lessons. Let your lessons be short and frequent. Always have something in readiness that your horse is fond of to give him after each lesson, that he will be paid for doing well; and what he learns he will not forget, as there is a reward ever in his mind.

Owing to the great improvements made in the training and discipline of the horse, he becomes attached to the habits and manners to which he has been accustomed. He apparently delights in the noise and tumult of arms, and faces the enemy with alacrity and resolution, equally intrepid as his master; he encounters danger and death with ardor and magnanimity. But it is not in perils and conflicts alone that he willingly co-operates with his rider. He takes part in human pleasures; he excels in the tournament and chase. He not only yields to the hand, but seems to consult the inclinations of his rider. Uniformly obedient to the permission he receives, he flies or stops, and regulates his motion entirely by his master's will—in a measure, he renounces his very existence to the pleasures of man; he delivers up his whole powers—he reserves nothing—and often dies rather than disobey or endanger his master. But all this he does, not because it is any pleasure or profit to the horse, but simply because of a sense of duty, just as a sense of duty impels the soldier to suffer all the hardships of forced marches, short rations, inclement weather and the dangers of the battlefield, rather than any pleasure he takes in what he does. The more you train your horse the more he is worth. Look at Dan Rice's old horse—the large sum he was offered for him. It

wasn't for the horse that they offered it—for the poor old animal was blind in one eye and had a spavin; but it was for his education. Educate your horse. If the mare is educated, the colt will be easier taught. This is why the Arabian horse is so intelligent. The Arabians think as much of their horses as they do of their children in the house, and talk to them as they do to their children. A man should treat his horse as a child. He can't speak and tell what he wants; he



Riding and Driving Bridle.

depends on man for everything. If you mistreat your horse, I think your chances for heaven are very poor; it is one of the greatest sins on earth. Remember, farmers and horse-owners, your old horses after they have worked for you fifteen or twenty years. Take care of them. Don't sell them to any one who has not feed to give them. I have heard men say: "I only want the old thing to raise this crop, after that I don't care if he dies." Don't do that, but feed

him and treat him kindly for what he has done, or kill him and let him go to "horse heaven."

In the commencement of his training you should show your horse just what you wish him to do, and then by kindness compel him to obey you. Horses, it is true, are as varied in their disposition and intelligence as men, almost, and sometimes, when the horse who has long been without a master, is your pupil, it seems that something more than kindness will be required to subdue him. Patience and perseverance added to kindness will render your efforts successful, and hence it is necessary that your lessons should be short and repeated frequently, and he will, by these frequent and repeated lessons, soon find that resistance is useless and become a willing subject to man's mental and intellectual superiority. Bear in mind, at all times, that the horse cannot reason as you do, that he has not been endowed with this power, and try to use the patience and reason in teaching and controlling him you would, at least, believe necessary for yourself to understand, if placed in like circumstances. The horse does not realize what kindness is, and it is admitted that a good, clever man can teach a horse almost anything, while a master who is cruel to his animal cannot teach him, and in ninety-nine times out of a hundred will ruin a horse that is naturally of a docile disposition. If you wish to be successful in your enterprise of training a horse, treat him as you would a child whom you were instructing—when the horse has performed what you desire of him, pet and caress him for it. Give him something from your hand—a taste of something he is fond of—and by this you show him that he has fulfilled your requirements and deserves a reward. You would not think of turning the child off, after doing what you had requested of it, without showing him, in some way or by some means, that he had done right.

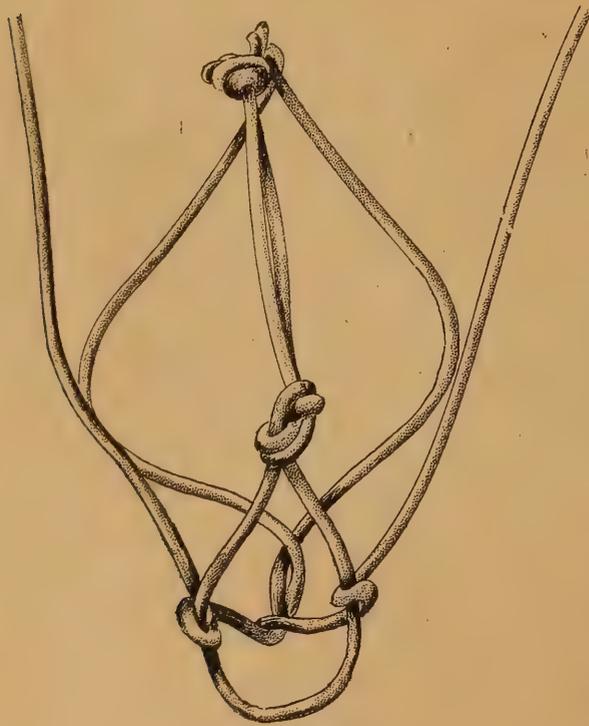
You should not frighten your horse. He does not fear anything that he understands to be harmless, and great pains should be taken to familiarize him with and make him examine and smell of such things as are likely to frighten him, and let him comprehend that they are harmless. Anything that is regarded by the horse with suspicion, he should be allowed to approach cautiously and slowly, and examine the nature of the object in his own way, allowing him to understand fully by smelling and breathing, and touching it with his nose, that it is harmless and inoffensive. Familiarize him with your training room before you begin with him, and it will materially assist you. When you approach him with anything let him examine it

thoroughly and be satisfied it is not intended to harm him, and you will get along much faster.

With these preliminary remarks, I will proceed with the directions to be followed in training the young colt or unbroken horse.

HOW TO APPROACH, HALTER AND LEAD THE WILDEST COLT OF ANY AGE WITHOUT DANGER.

First, put him in an inclosure about twenty feet square. Have it high, so that he will not or can not jump it. Turn him loose, then get in with him. Have a four-horse whip with about a ten-foot lash in your hand. When you approach a wild horse he will turn his heels toward you; then use your whip on him until he turns his head to you, then stop whipping. That lets him know he has done right.

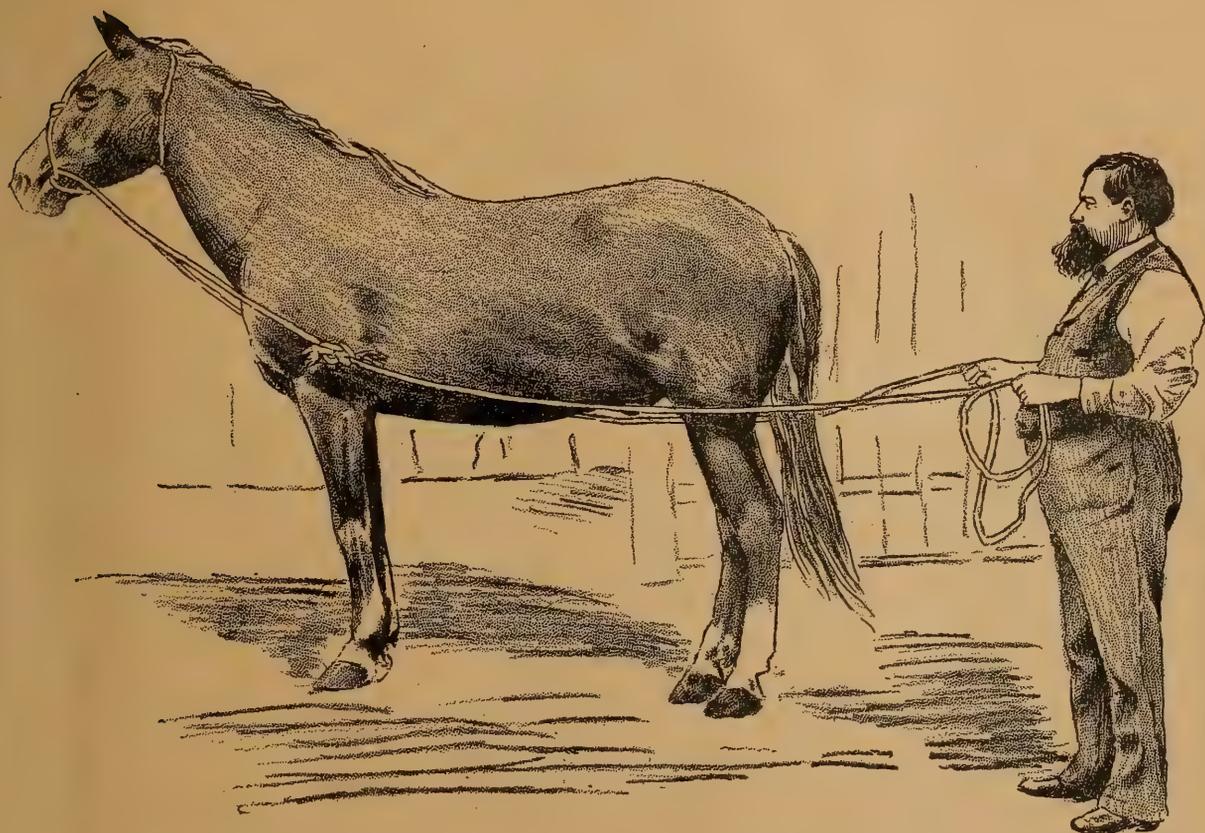


Ten-cent Bridle.

Speak kindly to him, pat him on the head or side of his neck, thus teaching him which end the halter goes on. Now walk off from him, speak to him gently, and tell him to come. If he follows you, pet him; but if he runs away, keep after him and whip him until he turns his head to you again, and then pet and praise him. This soon teaches him that if he stays with you, you will not hurt him; that you are his friend as well as his master. Then you can put your halter on him and lead him around quietly. Now by being kind to him you form his acquaintance; he gets to

like you, and he will do anything in his power to please you, and all he asks is a kind word from you. When a horse is well whip-broken, the work of taming him is half done. You can train a horse in this way in three days so he will follow you up-stairs or down, or any place he can go. It is not practicable to use the whip in breaking a gentle colt, or one that is halter-broke, unless you want to make a trick horse of him, but it is the only practical way to break broncos or wild colts that you cannot get up to safely.

The next thing I teach him is about the bit, so he will turn right or left as you wish. You take a small cotton rope about twenty feet in length, double it in the middle, then take the double where it forms a loop and tie a knot there; then, about a foot from that, tie another knot; then put this loop in his mouth on the upper jaw; then take the second knot and draw his "top knot" through it; then double the ropes, bringing one rope on one side of his head and the other on the other; cross them under the jaw five or six times, then bring both



Ten Cent Driving Bridle. Teaching Colt to Right or Left.

ends through the loop in the mouth; then draw the ends back, for reins. Now you have a complete bridle. With this a horse can't run a rod with you. You then take your leather reins and tie them to the ends of the ropes and let them hang loose around him, leaving them out of the rings of the harness so you can pull him around as you please. Let him get used to the bits on both sides alike. The trouble with a young colt is, not being used to the bit, in pulling to turn him from right to left or left to right, the bit pulls through the mouth. With this rope, this is impossible; as when the rope is pulled it will tighten on the jaw and not slip. The colt should be driven with the harness, and taught the word "whoa" with the "W" attach-

ment, before being hitched up to the cart. When you can turn him right and left satisfactorily, get a two-wheeled cart and hitch him up, and instead of urging him to start straight ahead, take your reins and turn him right or left, and he will start off at once. Keep the reins out of the rings on the back band; this gives you a chance to get the advantage of him on one side or the other. This is an anti-bucking, anti-kicking and anti-run-away bridle.

The next thing to teach him is the meaning of the word "whoa," so he will stop at the word; then, if anything goes wrong all you have to do is to speak the word distinctly and he will stop at once.

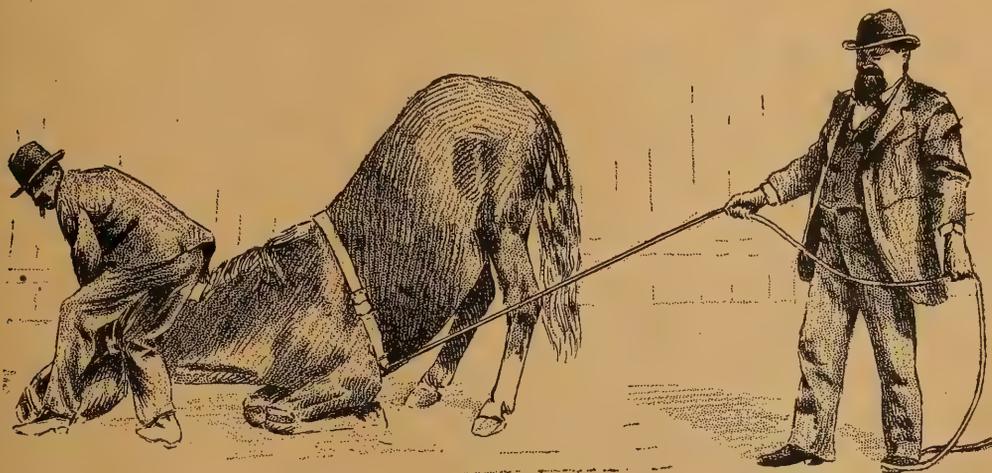


"W" Attachment.

Take a surcingle and put it on your horse with three rings on it about six inches apart. Let them hang under him, then take two foot-straps with a ring on each one, buckle on the front feet, take a small rope about twenty feet long, take one end of the rope and run it through the first ring in the surcingle then down through ring in the foot-strap on through middle ring in the surcingle down to the other ring in the foot strap, then up to the third ring and tie. Then take hold of the loose end of the rope and have the assistant take hold of the halter and lead the horse. When you want to, say "whoa!" and if he don't stop, pull the rope and down he goes on his knees. By the time you drop him two or three times he will stop at once when you say the word.

Then take the rope and wind it around his hind legs; if he kicks, drop him down till he gets so he don't care what you do with him. I break a kicker the same way. You can put it on a runaway and if he undertakes to run, drop him down. After you drop him once or twice all you have to do is to say "whoa!" to him and he will stop at once. This is called the "W" attachment, for it has the shape of

that letter. If you have a horse that is hard to catch in the field, put the "W" attachment on him and tie forty or fifty feet of rope to it and let it drag after him. Tie a ring to the rope to keep it from slipping through the first ring and getting loose around his feet. Walk up to the end of the rope and speak to your horse, telling him to come to you. If he starts to run drop him on his knees and halloo "whoa!" Use him once or twice that way and when you go out to the field and tell him to come to you he will come right along. He is afraid to run for he thinks you will drop him. You can put this attachment on the most vicious horse and handle him in perfect safety.



Showing Horse Thrown to Knees.

#### HOW TO TIE A COLT IN A STALL THE FIRST TIME.

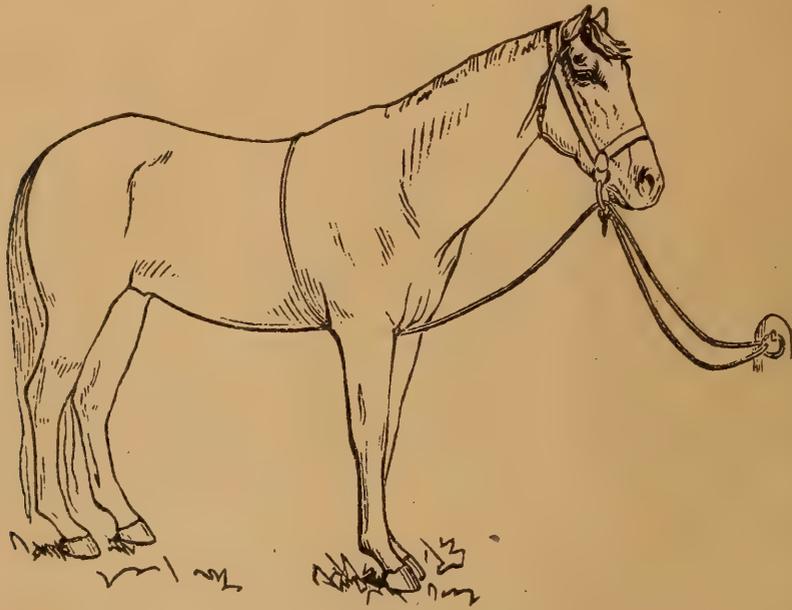
Take a small rope and double it, and put the loop under his tail, cross it over the back, bring it in front of the breast and tie the ends together. Take your halter strap, bring it through the ring in the manger, and tie the loose end to the rope in front of his breast. It pulls on the head and tail at the same time.

Another way—take a rope fifteen feet long, tie it around his body in a running noose, bring the loose end of the rope in between his fore legs, then through the ring in the halter, and tie it to the manger. This plan will break the worst halter-puller there is.

#### RIDING THE COLT.

First have him well bridle-broken, then buckle a strap with a ring in it to one of his fore feet. Take a rope and run it through the ring in the foot-strap up to the girth of your saddle and tie it. Hold the other end in your hand and cause him to slip forward and pull the foot up snugly to the body. If he struggles, hold the foot up strong and pull him toward you until he becomes quiet; then make

the motion to mount. He will be frightened and try to get away from you, but by holding the foot in position you teach him to bear a weight on his back, and soon he will allow you to mount him. Then sit back further and further until you give him a trial the whole length of the body. Repeat the exercise a few times. If he struggles, throw him again on three legs. He will soon become quiet. Then commence turning him right and left, then take off the rope and strap and give him more practice. In a short time you will have him so that any one can ride him in perfect safety.



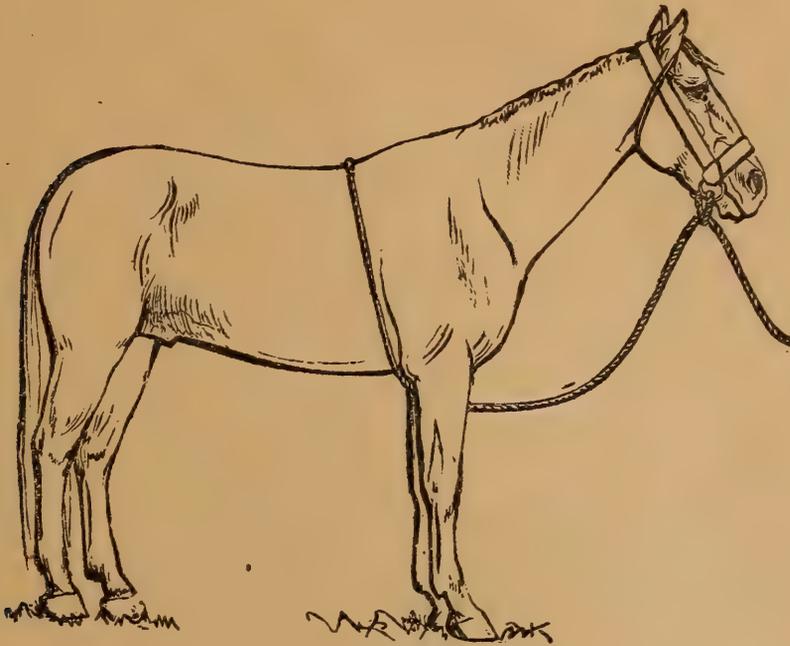
Mode of Tying a Horse that Pulls Back.

#### HOW TO START A BALKY HORSE.

Take a small rope, tie it around his body about the flanks, bring the rope under the belly band on between the fore legs and tie it to the end of the wagon tongue. Put a stay chain on your true horse, speak to him to go, then your balker gets a very pressing invitation to go; and after you have started him this way a few times he will be the first to start.

Another way. Put a strap on one of his fore feet, tie a rope to it, then to the end of the wagon tongue, and start your true horse—the balker is compelled to come.

Another way. Take a rope twenty feet long, double it in the middle, put the loop under the tail, cross it over the back, bring both ends, one on each side of the neck, to the tongue of your vehicle, then he can't jump back. Start your true horse, and the balker will come with him.



Another Way of Tying a Horse that Pulls Back. Also Shows Manner of Tying Rope on Balky Horse, to Attach to Wagon Tongue, Omitting Running through the Halter.

Now I will show you how a horse is taught the bad habit of balking. Here you will again see the evil of using a "caress" at the



Getting the Horse Accustomed to the Ropes around His Legs.

wrong time; doubtless you have used it the same way. A horse is taught to balk nineteen times out of twenty, when first hitched to the

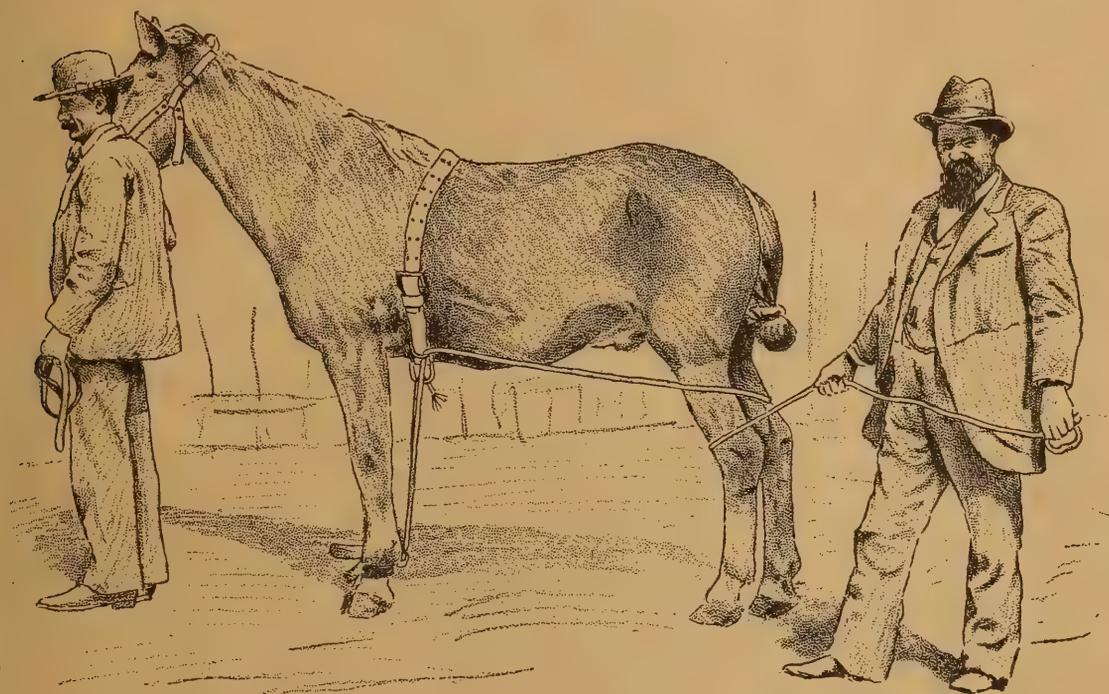
wagon. Most generally you will see a man, if he wants to break a colt well, hitch him by the side of a gentle, well broken, good pulling horse, and not make any allowance for the colt; put on load enough for two well broken, good pulling horses, not thinking that the old horse, whom we will call "Old Reliable," would have to do all the work. "There," he says, when he has finished his load, "you can't run with that, young colt." He then gets on the load with his big whip, with a new cracker on it, in his hand, and starts his team. The colt lunges and pitches in the collar, for it is new to him. Well, "Old Reliable" takes the load, colt and all, till they come to a mud



Mode of Conquering a Vicious Horse, by Throwing Him down with the "W" Attachment, Holding Him there until He Gives up.

hole, or some bad place where it takes two good horses to get through. "Old Reliable" does all he can, but the colt jumps into the collar, and if it don't come in an instant, he flies back. "Here I am, stuck in the mud and that colt won't pull a pound. Well, I'll get down and coax him a little." So down he gets, looks all around, sees nothing is broken, then commences at the colt's head and caresses him all over. That is, telling him he is doing just right by standing still and not pulling a pound. Well, he gets up and tries it again; slashes away at the colt with his whip, which causes him to lunge and pitch, but no go. He gets down and caresses the colt again. The colt now thinks that he has been whipped for trying to

pull and is being caressed for standing still. The driver comes to the conclusion that he will unload, so off goes the load and "Old Reliable" pulls them out. As soon as they are on good ground the colt commences pulling on the single-tree to keep it from touching his legs. Now, he thinks he got the whipping for pulling, and of course thought it was wrong to pull, and forever afterward he is a balker. If colts are used right there will be no balky horses. Inexperienced drivers make balky horses.



Showing rope around hind legs, familiarizing him with the rope, so that he will not be touchy should anything get against his legs by reason of something breaking, or in case he gets over the traces, but will stop at the word "whoa."

#### HOW TO BREAK A SWITCHER.

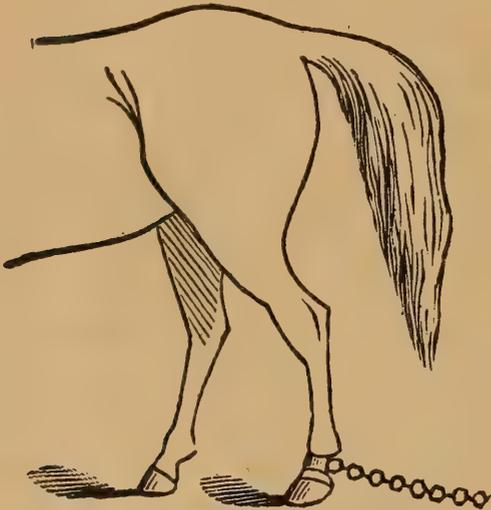
What I mean by a "switcher" is a horse that will run away or kick when he gets the lines under his tail. When you put your horse in the stable at night take a piece of broom-stick about eight inches in length, make a hole in each end, then tie a cord in each end, put a surcingle on and put the stick under the tail, bringing the cords up to the surcingle and tying them. He will grip the stick with all his power and do considerable kicking and switching at first, but you will find him perfectly docile in the morning. He will hold up his tail to let the stick drop out and if after that he ever gets the lines under his tail he will hold that appendage high for fear they will stay under there all day. This will break any of them.

## TO KEEP A HORSE FROM JUMPING.

Take a piece of leather wide enough to cover both eyes and sew it around them to each side of the halter. Let it cover the eyes well; cut the holes in the leather for him to see through; take screen wire (like that used on doors to keep out flies,) sew it over the holes so the animal can look through the wire screen. All horses that jump must get their heads over the fence to see where they are going to jump to. When he looks over he won't jump when he has this wire screen on because he sees a wire fence as high as he can look. This will break any jumper from the habit.

## PAWING AND KICKING IN STALLS.

Some high-strung and irritable horses are restless even in the stable and paw frequently and violently. They are literally destroyed, the floor of the stable broken up, their shoes worn out, their feet bruised and their legs sometimes sprained. A horse that kicks in the stall or at other horses or at people as they pass behind him is very dangerous. This simple method is a sure way of breaking him of this bad trait. Take a breast-chain or other piece of chain about two or two and a half feet long, tie or buckle around the hind leg if he is a kicker, and if a pawer around the fore leg, and when he paws or kicks the chain will wrap around his leg and soon teach him to quit the trick.



## TO TEACH A HORSE TO LIE DOWN.

After having used the "W" attachment and taught the horse to drop on his knees, start up the left front foot to the surcingle, lead the horse to an old straw stack or some place where the ground is soft, then tie a rope in the ring on the right front foot and bring rope up over the shoulder. Cause the horse to start forward and by pulling on the rope throw him to his knees. Hold rope tight and pull him over. After doing this and while the horse is down caress him and reward him in some way for doing this. Use the controlling bridle in handling, also speak to him and command him to lie down, tap-

ping him on the front legs with a whip. It will not be very long until he will obey and do as you order him to do.

#### SIMPLE BRIDLE.

Take a small rope fifteen feet long, double in center over back of ears, bring down on each side and cross in the mouth. Bring the



Simple Bridle.

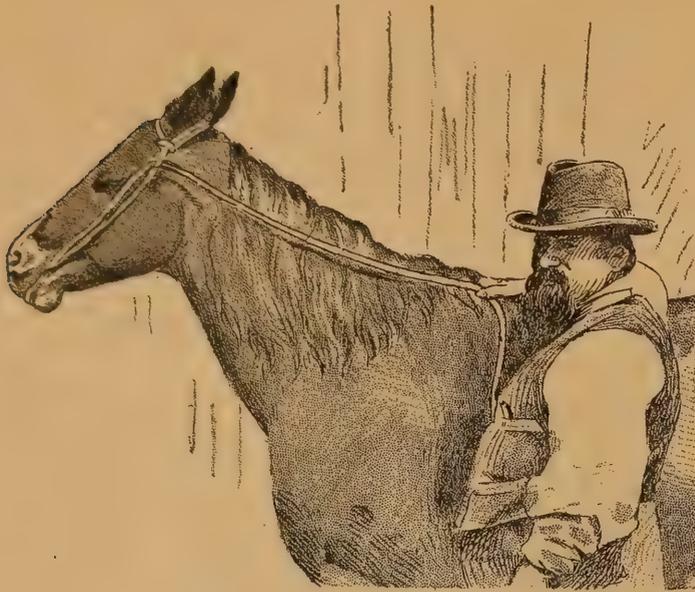
two ends back for the reins. This can be used together with the ordinary bridle and by using it no horse can run away. It is very handy in training running horses. The only trouble with the bridle is that if the rider does not hold the reins tight the rope is liable to drop out of the mouth. This can be overcome by tying two small rings, one on each side of the corner of the mouth and after crossing the rope in the mouth bringing the ends of the rope

through these rings; by doing this it can be used as a permanent bridle.

#### ANTI-KICKING OR BITTING BRIDLE.

Take a small cotton rope, twenty-five feet long, double in the middle, grasp this with one hand and take up another strand of the rope. You will then have three strands in your hands. Take up one end of rope and tie around the ends of these three strands, leaving a small loop on the outside, and do so on the other end. Then separate these three strands and place two behind and one in front of ears for a brow-band. Then bring the ends of rope down through the mouth and up on each side of the head through the loops on each side of ears and back for reins. This bridle can be used as a biting rig by having a surcingle on and fastening the reins back into

the surcingle, but as an anti-kicking bridle in single harness the ends of rope (after the bridle is made and put on) pass through the turrets



Anti-kicking or Biting Bridle.

on each side, and have ring put on the harness where the hip strap passes through the back band on top; bring both ends of rope through this ring, then bring the ends of the rope down and make fast to the shaft on each side. This prevents a horse kicking while in the harness, as when he attempts to kick up the rope pulls his head up, thereby preventing him kicking, as no horse can

kick when his head is held up. This is used in connection with the ordinary driving bridle and does not interfere with it.

#### TEACHING TO SIT UP.

After your horse lies down readily you may teach him to sit up. This can generally be done by using the controlling bridle, and as he is lying down, take a short hold and say, "sit up," and cluck to him. As he puts his fore feet out to get up, say "whoa, boy," and push back upon the bridle, which will probably stop him in that position. Then caress him, and let him up before he gets uneasy, goes down or jumps up; make him lie down immediately, and repeat the efforts. After a few trials of this kind he will obey your command, and will improve very fast if you are patient and careful with him. Don't try to teach him to sit up on a floor covered with staw, as it works off and bruises his hocks. It may be necessary to use more force in getting your horse in a sitting position; if so, place upon him a strong collar, and attach to each hind leg, below the fetlocks, a nicely fitted strap with rings on. Now make him lie down and tie the ends of a rope fifteen feet long to the rings and pass it between his fore legs, draw upon the rope tightly so as to bring the hind legs well under him and fasten to the collar in such a way as to be easily loosened. Now take him by the bridle, as at first, and say, "sit up," and as he raises into a sitting posture, he is held there. After hold-

ing him in this way for a short time, make him lie down again, loosen the rope for a few minutes to rest him, then repeat, after which allow him to get up. In a few days he will obey the word of command quite readily.

#### CONTROLLING BRIDLE.

This bridle is used to break and control horses. By its use a horse can be controlled and taught not to be afraid of any object.



Controlling Bridle.

Take a small rope twenty feet long. Tie around the neck in the ordinary way, so that it will not tighten around the neck, passing loop through this rope around the neck, fasten over the under jaw, bringing end back over top of head, back of the ears.

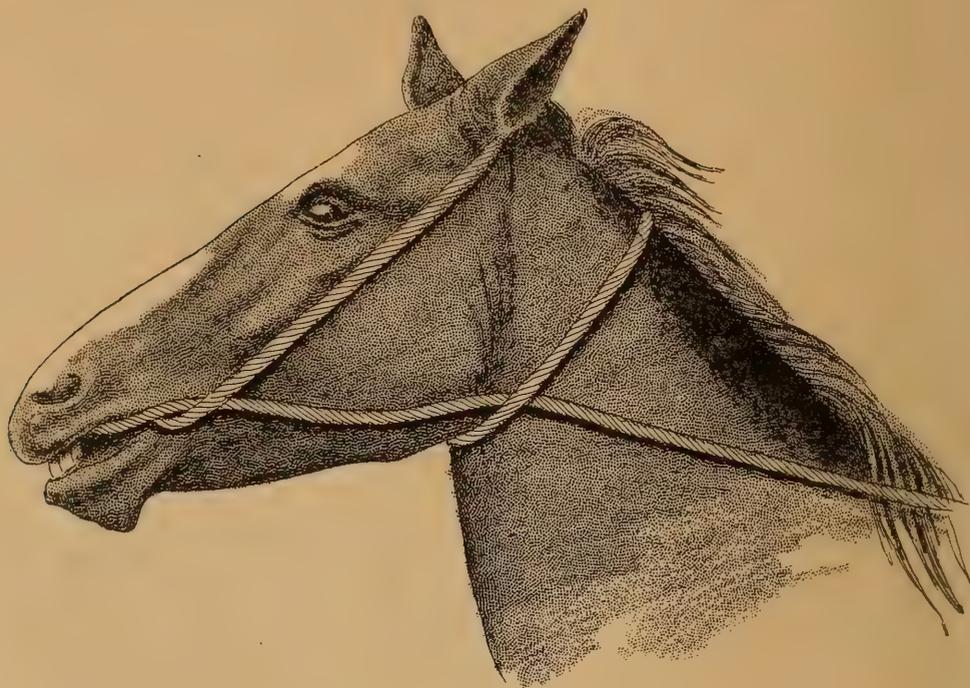
Pass it under the upper lip over the teeth and then back into the loop of the rope that passes over the head. The most vicious horse can be controlled by this bridle, as it is so severe, and any colt can be taught to lead by its use. If the horse rears up slacken the rope or he may go over backward and injure himself.

#### TEACHING TO SAY "NO."

Drive a strong pin through the butt end of your whip. Stand by his near shoulder, facing the same way as your horse, with whip straight up. Get his attention, and then raise the butt end of your whip and prick him lightly on the top of his neck, where the collar would rest. This will make him shake his head, for which you must never forget to caress. By keeping this up for a few days, you will have him so finely broken that he will shake his head when the top of the whip is dropped a little to the left of you, without even lifting in the least the hand holding it. No one can tell how you make him perform this so nicely, which is the beauty of it. It is no

pleasure for me to see a man perform with a horse, when I can catch him giving the signals. It does not show fine training. Be careful and don't overdo it, or you are liable to spoil the horse.

#### ANTI-RUNAWAY AND ANTI-KICKING BRIDLE.



Anti-Runaway and Anti-Kicking Bridle.

This is put on in the same manner as the controlling bridle, around the neck; standing on the left side of the horse, grasp the rope close up to the knot that ties around neck, with right hand, take the left hand and pass rope over the head back of the ears, around through the mouth and back into the loop held in the right hand, pass rope back under the upper lip over the teeth. Then pass the rope through under the rope on right side of head and then under rope around the neck, then pass back through the turrets on the back band and into the wagon or buggy, then put on the regular driving bridle and the bit of same will hold this rope in place. If the animal attempts to run or kick, by quick short jerks on the rope you will pull his head up and make it impossible for him to do either.

#### TEACHING TO WALK UPON THE HIND LEGS.

A horse to perform this feat well should be rather strong over the back and in the hind legs, or puffs or spavins are liable to be thrown out. Take a blunt bow-top whip, stand nearly in front of him, holding him by the bridle or halter, so that he cannot turn from you, tap

him lightly under the chin and say, "up." Should he show any sign of rearing, caress and repeat. You may increase the blow under his chin as he gets a better idea of what you want of him. When he will get pretty straight up you may step back coaxingly and say, "come boy," or cluck to him to make him take a few steps. By working him for a few days in this way, a little while at a time, he will be taught to walk off readily.

#### TEACHING TO MAKE A BOW.

Stand close by your horse's near shoulder and hold him with your left hand by the bridle or halter. Take a pin in your right hand and at first prick him lightly in the breast, gradually increasing the severity until he tries to relieve himself by biting at his breast. Then stop and caress him. By repeating sufficiently he will bow at a slight prick very promptly. You may now prick him again, and at the same time raise your left knee nearly to his breast. This will make him think the knee causes him the trouble. As soon as he drops his head, drop your knee and repeat, each time lessening the height you raise it, until he will nod by raising your toe a little. No one can catch you at this, as people generally watch to catch you pointing at the horse's breast with your hand.

#### TEACHING TO KISS.

This is a nice trick if well done; but if it is necessary to put the hand to the face and turn the cheek to the horse, or punch him in the side, etc., it spoils the trick for me. First, have in your pocket some sugar, salt or apples. (The latter is generally best.) Commence feeding him bits from your hand, lifting it nearer to your face each time until he takes it out of your mouth. Each time say, "kiss me." After he readily does this, teach him he must do it, by pricking him lightly in the side, at the same time giving the word of command. After he kisses quickly by using the pin, you may give the command as before, and tap him with the whip and prick him, thus making him kiss. In a short time he thinks he must kiss or get switched. When I had to depend entirely on the apple, I have had my horse refuse to kiss when he did not feel apple-hungry.

#### TEACHING TO GIVE YOU THINGS.

This is a very nice trick, is easily taught, and is something you see at no circus. Many horses are taught to pick up things, but

when the trainer wants them he has to reach and take them, which makes the trick appear unfinished. Prick your horse in the side with the right and at the same time reach the other hand toward his mouth a little and say, "hand it here," he will throw his head around to relieve him of the hurt, when you take the article and caress. He will soon turn and hand it to you when told if you will reach your hand toward him a little as if to take it.

#### CUT SHOWING STALLION BRIDLE.

This bridle is used for handling stallions and also in showing horses off to good advantage. Take a cotton window cord about



Stallion's Bridle.

twelve or fifteen feet long, tie a running loop in one end, put the loop over the lower jaw, bring long end of rope over the back of head, behind the ears, down along side of the cheek, then through

loop on lower jaw. Jerking this will cause a horse to extend his neck, raise his head and show himself to good advantage and no horse can get away while the bridle is in use. This is the best bridle made to lead a cow or bull.

#### TEACHING TO GO LAME.

Take your horse by the bridle or halter with your left hand, walk along with him and thump him on the shin with the butt of your whip and say, "lame." Hit him every time he puts his foot on the ground without limping. He will soon limp at even pointing toward his leg with the whip. You may ask him any question which you want him to answer by limping, and he will do so on your pointing toward his legs.

## TEACHING TO PAW WITH RIGHT OR LEFT FOOT.

Stand by the near side and tap him gently on the left shin with the butt of the whip. He will likely stamp his foot, making a motion as if a fly were biting him, which you can accept as his doing what you asked him by caressing. Repeat until he will paw at the least motion toward him with the whip. To teach him to paw with the other foot, change your position in some way and at the same time thump him on the other shin. By having your motions distinct and separate he never makes any mistakes afterwards; he will paw readily with either foot you are ready for.

TEACHING THE HORSE TO ADD, SUBTRACT, MULTIPLY  
AND DIVIDE.

Having already taught him to paw when you point toward his legs with the whip, you can easily make him paw any number of times you wish if you will never allow him to stop until you raise your hand that holds the whip. To teach so thoroughly that he will stop at once, you must, at the same time you raise your hand, hit him a light cut over the back for a few times. Now you may ask him how old he is, or so and so are how many, five times this or that are how many, etc., and carelessly point your whip toward his leg, which will cause him to paw, and when he has pawed the right number of times you will raise your whip just enough for him to see it. No one looking on will be liable to detect you, as they are counting too, and watching the horse at the same time.

## TEACHING THE HORSE TO PICK UP HANDKERCHIEFS.

Stand close to his near shoulder with a pin in your right hand and handkerchief in your left, held close to and just under the nose, and prick him, gently at first, in the breast. If he even drops his nose, caress and repeat, and in a few minutes he will try to bite himself, or you, possibly, and as he makes the attempt put the handkerchief in his way if possible. Often he will grab it the first thing, and by caressing and repeating he will generally take it from your hand in twenty-five or thirty minutes. Then let him stand awhile and work him again, each time lowering the hand which holds the handkerchief until he will take it from the ground. You may teach him to go away some distance and get it by throwing it a little farther each time. You can now easily teach him to pick up your

whip, knife, blanket, hat or anything of the kind. After he will pick up things well, but drops them carelessly, you may give him a cut or two with the whip and make him pick it up again. He will soon get afraid to drop it.

#### TEACHING TO ROLL OVER.

This is easily done now by making him lie down on a side hill with his feet toward the top. Tie the ends of a rope twelve feet long to one forward and one hind leg, stand behind and tap him on the back with the whip, and say, "roll over" at the same time pulling him over with the rope. After practicing him a few times, take the rope off and practice until perfect.

#### TEACHING TO KICK WITH RIGHT OR LEFT OR BOTH FEET.

This is an easy trick to teach, and always pleases an audience. Place the lines and open bridle upon him, and get behind and tap him gently below the gambrel on the left leg and say, "kick". If he stamps his foot step up and caress him. Repeat, and in a few minutes he will kick quite readily; then work at the other in like manner. In teaching him to kick with both feet, stand by his head at first, if he is a little nervous, and while you hold him with your left hand tap him gently on the hips or root of the tail, gradually increasing the force until he shows signs of bobbing or kicking up; then stop and caress. Repeat, and in a few minutes he will kick quite readily at a slight tap. After this you may get behind him with your lines and practice him awhile. By continuing this for a few days he will kick when commanded.

#### TEACHING TO GALLOP.

Take him by the halter or bridle with your left hand, and have a short, blunt whip in your right hand. As you are walking along with him slowly, hit him under the chin lightly at first. If he even throws his head up, caress him, and then repeat. Increase the blows, and he will soon raise both feet off the ground. You can very easily work him into a nice gallop now. After this you may say to him, "what do you do when the ladies ride you?" then start along with him and give him the sign to gallop. After he goes a little way, stop and ask, "what do you do when the boys ride you?" taking the same position as when teaching him to kick with both feet, and tapping him on the rump. This will cause him to answer by kicking up

with both feet; a performance which never fails to bring the crowd down with a laugh. In a short time he will do these tricks at so slight a motion with the whip that no one can tell how it is done, and will soon perform by the word.

#### TEACHING TO LAUGH.

Stand by the near side and hold him with your left hand by the nose about where the halter rests, and with your right force the butt of your whip gently into his mouth and jab him lightly in the roof. This will hurt him a little and make him open his mouth. You must say at the same time, "laugh," and caress for the least sign of obeying the command. Now put the halter on him, take hold of it a foot or two from his head, give the command and jab him lightly in the mouth as before. By this method he will laugh in a short time at the least motion toward him with the butt of the whip.

#### TO PREVENT A HORSE FROM SCARING.

This process is very simple. Whenever a horse scares at objects on going along the road, always stop him and let him face the object. Lead him slowly toward it, and let him touch it with his nose. Take the pains to do this on every occasion, and it will soon break him entirely. If your horse is frightened at an umbrella, you can soon teach him to get used to that. Go into the stable with him, and first let him look at the umbrella before it is opened—let him touch it with his nose. Open it a little way and let him see it, and finally open it wide. By ordinary patience you can soon teach the horse to have the umbrella opened suddenly in his face without being afraid of it. By a similar treatment you can break any horse from scaring at almost anything that may look frightful to him. If you wish to make a trial of this theory, just take a horse into the stable and let him examine the frightful object a few minutes, after his mode of examining things, and you will be perfectly satisfied. There is a singular fact connected with taming the horse that I would never have believed if I had not tried it. If you accustom him to any particular object by showing it to him on one side only, he will not be afraid when he sees it with the eye on that side, but he will be afraid if you approach him with it on the other side. It is therefore necessary to pacify him on both sides in all cases. After you have accustomed him to the umbrella or whatever you may wish to make him familiar with, on his right side, repeat the operation on the left side, in the same manner as if you had not approached him at all.

## BLINDS OR BLINKERS.

All my experience with, and observation of horses, proves clearly to me that blinkers should never be used, and that the sight of the horse, for many reasons, should not be interfered with in any way. Horses are only fearful of objects which they do not understand, or are not familiar with, and the eye is one of the principal mediums by which this understanding and this familiarity are brought about. The horse, on account of his very amiable nature, can be made in the course of time to bear almost anything in any shape; but there is a quicker process of reaching his intelligence than that of wearing it into him through his skin and bones. However wild or nervous a horse may be, he can be taught in a very short time to understand and not to fear any object, however frightful in appearance. Horses can be broken in less time, and better, without blinkers; but horses that have always worn them will notice the sudden change, and must be treated carefully the first drive. After that they will drive better without the blinkers than with them. I have proved by my own experience that a horse broken without blinkers can be driven past any omnibus, cab or carriage, on a parallel line as close as it is possible for him to go, without ever wavering or showing any disposition to dodge. I have not in the last seventeen years, constantly handling horses, both wild and nervous, ever put blinkers on any of them.

The horse's eye is the life and beauty of the animal, as well as the index of all his emotions. It tells the driver, in the most impressive characters, what the horse's feelings are. By it he can tell the first approach of fear in time to meet any difficulty; he can tell if he is happy or sad, hungry or weary. The horse, too, when permitted to see, uses his eyes with great judgment. He sees better than we do. He can measure distances with his eyes better than we can, and, if allowed the free use of them, would often save himself, by the quickness of his sight, from collisions when the driver would fail to do so by a timely pull on the reins. It would also save many accidents to pedestrians in the streets, as no horse will run on any person that he can see. Blinkers are rapidly going out of use in the United States, and I have yet to find the man who, having once left them off, could ever be persuaded to put them on again. They are an unnecessary and injurious incumbrance to the horse, and in years hence will be a thing to be read of as one of the follies happily reformed in the twentieth century. The only horse on which blinds should be placed is a blind horse, to hide his defective eyes. That, in fact, is what the

first blinds were used for. Many years ago, in London, wealthy people whose horses had bad eyes, put on blinds, and the common people, who think they have to imitate everything the wealthy do, followed the example, and thus a foolish fad was established.

#### ADVICE ABOUT FEEDING.

Feed your horse an hour and a half before he begins his day's work. Give him his largest feed at night. If you can possibly afford it, give him a box stall where he can rest



at ease, as it is really a cruelty to tie him up so as to prevent his lying down as he chooses. The stall should be dry and well littered. Never give your horse hard water to drink if soft water can be had. If you cannot get soft water, draw the hard water from the well two hours before you let him drink it. Do not feed different kinds of feed at one time. If corn and bran are fed together, the horse will swallow the corn without properly grinding it.

The best way to feed corn is on the ear. If shelled, the grain should be cracked—about five pieces to the grain. Oats should also be fed alone, never mixed with bran unless the oats are ground. Do not feed your horse too much hay, as it is not only a waste, but when he is put to work on an overloaded stomach it endangers his wind.

If left to pull hay out of the rack at pleasure, a horse will eat and waste some thirty pounds a day; whereas twenty pounds is enough for twenty-four hours. Horses, when worked hard, should have a noon feed of grain and water—no hay. Never water your horses after they eat. It washes the food from the stomach. Water before feeding. By following these rules your horses will always be in good condition—will not have that swelled belly peculiar to animals who are allowed to fill their stomachs with hay—and will usually enjoy good health. Especial care should be taken to see that the manger is kept clean, as a filthy and dirty manger breeds disease. It pays to keep stock clean. Avoid feeding damaged feed of any kind; better give less of first-class. Poor feed is dear, for nothing. Never allow your barn to become filthy from stinking bedding or fermenting manure, for the ammonia and foul atmosphere arising from the decomposition have a bad effect on the eyes and health. If you have a long drive to make, do not feed your horses hay the night before.

HORSES HAVE RIGHTS—RESPECT THEM. IT WILL PAY YOU.

The horse is not a creator of power, but simply a machine. Power is put into the locomotive by fuel; into the horses by good food. Neither can supply one particle more power than is furnished it. No machine better repays thorough care than the horse. Overwork, under feeding, neglect and abuse are costly mistakes, and have reduced the average life of the horse from thirty to fifteen years, incurring millions of loss; add the losses from sickness, lameness and accidents due to the same cause, and we get the cost of cruelty to animals. Ownership has limitations and includes no right to neglect, torment or mutilate horses. They have a right to good food, kind care and to be as happy as their masters. It is never wise to do wrong; neither is it a good policy to starve, overwork or abuse a horse. The horse is far more intelligent than many suppose. A kind word is sometimes as good as a feed of oats. A gentle tone, caresses, praise, gifts of dainties, render him safer and more obedient. Harsh treatment keeps him nervous and in misery. Almost every wrong act of a horse is caused by fear, excitement and mismanagement, and one harsh word will increase the pulse of a nervous horse eight or ten beats a minute. No man should swear or curse at his horse. An unhappy, terrorized and hungry horse, or one in distress from blows, strains, short check reins, or misfit harness, cannot do his best, and is just so much disabled. The ignorance and depravity of drivers is at the foundation of most troubles. Cruelty is costly.

#### HOW TO FIND THE DEFECTS IN A HORSE.

When you are buying or trading for a horse, first examine the eyes well. The best judges are sometimes deceived in the eyes, therefore you cannot be too careful. Clearness of the eye is a sure indication of their goodness; but this is not all that should be observed. The eyelids, eyebrows, and all other parts must be considered; for many horses whose eyes appear clear and brilliant go blind at seven or eight years old. Therefore, be careful to observe whether the parts between the eyelids and eyebrows are free from bunches, and whether the parts round the under eyelids be full or swelled, for these are indications that the eyes will not last. When the eyes are remarkably flat, or sunk within their orbits, it is a bad sign; also when they look dead and lifeless. The iris, or circle that surrounds the sight of the eye, should be distinct, and of a pale cinnamon color, for this is always a sure sign of a good eye, and it adds beauty to the appear-

ance of the animal. Occasionally you will find a horse with eyes that look good, but are not. Such a horse is what is called a "blinker," and may be easily told by pressing the finger on the closed eyelid. The eyeball should feel firm, but if it is soft you will know it is a bad eye. A good way to examine a horse's eye is to take him into a stable and turn his face to the light. As you lead him into the stable, watch him. If blind he will step high, and throw his ears forward as if listening to what is in front of him. Some traders will walk up in front of a horse and make a motion with their hand as if about to strike the horse in the face, and claim he can see good, because he jerks his head back at the approach of the hand; but in fact a blind horse will move quicker for such a motion than a horse that can see well, for the blind horse feels the moving air, and jerks because he cannot see just what is approaching his face. If you have the slightest suspicion concerning the eye of a horse you think of buying, look critically at his eyes, and then exclaim, "Here, what's the matter with this eye?" "A guilty conscience needs no accuser," and if there is anything the matter the owner will begin to explain at once. If there is anything wrong with a horse, it is hard for the owner to keep his eyes off the spot where the trouble is, so watch the owner carefully, and his glances will soon tell you where to look for a blemish.

In the next place, examine the teeth and the mouth, as you would not wish to purchase an old horse, nor a very young one, for service. He may have long teeth, decayed or irregular teeth, or possibly has lost many of his grinders. He may have tumors in his mouth, or a tongue that has been cut and is badly swollen. Often a part of the tongue has been cut off.

The feet should next be regarded; for a horse with bad feet is like a house with a weak foundation, and will do little service. The feet should be smooth and tough, of a middle size, without wrinkles, and neither too hard and brittle, nor too soft; the heels should be firm, and not spongy and rotten; the frogs horny and dry; the soles somewhat hollow, like the inside of a dish or bowl. Such feet will never disappoint your expectations, and such only should be chosen.

Particular regard should be had to the shoulders. They should not be too much loaded, for a horse with heavy shoulders can never move well, and, on the other hand, one that has very thin shoulders and a narrow chest, though he may move briskly so long as he is sound; yet he is generally weak, and easily lamed in the shoulders; a medium should therefore be chosen.

The body should neither be too large nor too small. The back should be straight, or have only a moderate sinking below the withers; for when the back of a horse is low, or higher behind than before, it is both very ugly and a sign of weakness. The back should also be a proper length. The ribs should be large, the flanks smooth and full, and the hind-parts, or uppermost haunches, not higher than the shoulders. When the horse trots before you, observe if his haunches cover his fore knees. A horse with a short hind-quarter does not look well.

The next thing to be regarded in a horse is his wind, which may be easily judged of by the motion of the flanks. A broken-winded horse also pinches in his flanks, with very slow motion, and drops them suddenly, which may be easily perceived. Many horses breathe thick that are not broken-winded; indeed, any horse will in foggy weather, or if foul fed, without sufficient exercise; but if a horse has had good keeping and proper exercise, and yet has these symptoms, there is some defect, either natural or accidental, such as a narrow chest, or some cold that has affected the lungs. To make sure that his wind is good lope him up hill for about a hundred yards. Stop him suddenly and listen to his breathing. If he is a roarer you can hear a snoring sound. To test for heaves take hold of his throat and squeeze it; if troubled that way he will cough.

There are other particulars that should be observed in choosing a horse. If his head be large and fleshy, and his neck thick and gross, he will always go heavy on the hand, and therefore such should never be chosen. A horse that has his hocks very wide, seldom moves well, and one that has them too near will chafe and cut his legs by crossing them. Fleshy-legged horses are generally subject to the grease-heal and other infirmities of that kind, and therefore should not be chosen.

Never buy a horse with the harness on. Have him stripped of everything. He may be a wiggler, weak in the back, and yet be braced up with the breeching so as to walk straight. A saddle may hide a bad sway back, or a very large sore. A wide girth may conceal a bad rupture or ugly sore. A collar may hide a fistula or crest falling, or a bad wire cut on the shoulder. Have him move, turning quickly to right and left. Look under the tail for tumors—old gray or white horses have tumors under the tail and around the rectum. Examine the groin for running sores and tumors from bad castration, and look for tumors in the sheath and on the penis. In a

mare examine the vagina—she may be ruptured or have tumors. Also see that her milk bag is all right—it may have been spoiled.

The temper of a horse should be particularly noticed. Avoid a fearful horse, which you may know at first sight by his starting, crouching, or creeping, if you approach him. A hot and fretful horse is also to be avoided, but the buyer should be careful to distinguish between a hot, fretful horse, and one that is eager and craving. The former begins to fret the moment he is out of the stable, and continues in that humor until he has quite fatigued himself; and the latter only endeavors to be foremost in the field, and is truly valuable; he has those qualities that resemble prudence and courage; the other, those of intemperate heat and rashness.

A horse that goes with his fore feet low is very apt to stumble; and there are some that go so near the ground that they stumble most on even roads; and the dealers, to remedy this, put heavy shoes on their feet, for the heavier a horse's shoes are, the higher he will lift his feet. Care should also be taken that the horse does not cut one leg with the other. A horse that goes near the ground will cut the low side of the fetlock joint, but one that goes high cuts below the knee, which is called the speedy cut. A horse that lifts his feet high, generally trots fast, but is not the easiest for the rider. Some horses cut with the spur of the foot, and some with the heel, but this you may soon perceive by their standing; for if a horse points the front of the foot inward, he cuts with the spur; and if outward, with the heel.

Dishonest traders sometimes have ingenious ways of making some serious defects appear to be slight and recent injuries. For instance, they will take a knife and make a fresh cut right over a bone spavin or ringbone, and claim that the animal got cut on a wire or nail and that the cut is what produced the lump and lameness. Or, if a horse is suffering from lameness they will bore a hole in the bottom of his foot and claim that he had stepped on a nail the day before. They claim the reason they are anxious to trade is because they have a long trip to make, and cannot wait even a few days for the horse to get over his lameness. A slippery horse trader always has a plausible excuse for every defect or blemish.

These few instructions may be of use in purchasing horses, but I advise every one to get some experimental knowledge of them before he trusts his own judgment, for the dealers have so many arts to hide the defects of their horses, that the best judges are often deceived.

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“Blessed are the merciful, for they shall obtain mercy.”

## JOCKEY'S TRICKS.

Traders and jockeys have numerous tricks and devices for deceiving people, and I give below quite a number of them. None of these tricks is any benefit to a horse and some of them are harmful, and I only give them so the reader may be on his guard against them.

### HOW TO MAKE A HORSE KICK AND BUCK WITHOUT PUTTING A HAND ON HIM.

Pour about two drachms of bi-sulphide of carbon on him. This will make a horse buck for all that's in him. The way the jockeys work this is: There are always two of them in it, and one of them trades a farmer a good looking horse, and a short time afterward the other one comes around to the farmer and banter's him for a trade. The farmer hesitates, and the jockey tells him that he knows the horse to be a kicker and a fighter, but thought that he could cure him, may-be. While the farmer is not looking, the smooth jockey pours on the carbon, and the horse begins at once to kick everything to pieces. The farmer thinks he has been beaten in his former trade, and swaps the horse to the jockey for little or nothing. He don't want a horse that has fits. This works on the goats, cows and dogs the same way.

### HOW TO KEEP A HORSE FROM EATING WHEN YOU HAVE PLENTY BEFORE HIM.

Grease his front teeth with mutton tallow and he will not touch his feed. Wash the grease off, and he will eat.

### RESTORATIVE LIQUID.

This will give life to all that is not dead. Take oil of cloves one ounce, oil of anise-seed one ounce, tincture of asafoetida two ounces, oil of rosemary one ounce. Shake well, and it is fit for use. Give ten or fifteen drops in a bucket once a day.

### HOW TO REMOVE WHITE MARKS.

They are caused by a scald of the saddle or harness; scald the same as in producing the white mark, and grease with lard.

## TO HIDE THE DEFECTS IN A HORSE THAT IS WIND BROKEN.

Drench with one pint of fresh beef's blood and one pint of lard. This hides it from seven to ten days.

## TO MAKE A HORSE BLIND.

Give him four tablespoonfuls of unparched coffee in his feed. This affects the optic nerve and the membranes of the eye, by dilating the pupil. This blindness lasts from three to five days.

## HOW TO MAKE A HORSE LAME.

Take a small needle and run a horse hair through the front leg between the tendon, cut the hair close to the skin, and by morning he will be so lame he can hardly walk. All you have to do is to take out the hair and he is all right again.

## HOW TO START A BALKY HORSE.

Take half an ounce of chloroform in a sponge and hold to his nose till he begins to nod.

Another way: Throw red pepper in his eyes.

## HOW TO MAKE A HORSE LOOK AS IF HE IS FOUNDERED.

Tie a silk thread around each leg, close to the ankle, under the hair. This will make him walk as though he was foundered.

## HOW TO MAKE A TRUE HORSE BALK.

Take a half-ounce of tartar emetic and put in a pint of water and mix it. Bathe his shoulders with it. Next morning he will not pull a pound. When you have tried the trick, just grease the shoulders with lard, and he will soon be ready to pull again.

## HOW TO MAKE WHITE SPOTS COME ON A HORSE.

Take a raw potato, cut it in halves, put the face on a hot stove and let it get red hot; then place it on your horse where you want the white spot, and the next spring the white spot will be just where you held the potato.

HOW TO DRY UP AN OLD SORE IN ORDER TO TRADE OFF  
YOUR HORSE.

Use burnt alum and calomel.

## HOW TO DOPE A HORSE FOR TRADE.

For the first two days give one-half ounce of "Fowler's solution" of arsenic, twice daily, then increase slowly to one ounce twice daily—and feed nourishing food, such as crushed corn and oats, mixed with cut hay and straw well steamed; this will fatten a horse in from ten days to four weeks.

## HOW TO MAKE A HORSE LOOK AS THOUGH HE HAD GLANDERS.

Take good, fresh butter and warm it so it will pour easily; then pour both ears full. For the next twenty-four hours your horse will run at the nose and look as if he had a bad case of glanders.

## HOW TO MAKE SHAKY KNEES STRONG AND STRAIGHT LONG ENOUGH TO TRADE YOUR HORSE.

Make a rope out of oat straw, and bind his legs from the hoof up past the knees, then soak the rope with alcohol.

## HOW TO TRADE A RUPTURED MARE.

If you have a mare that has been ruptured by having a colt, and want to trade her off, fill the opening with powdered alum. This will keep her from making a noise.

## REMEDY TO SHUT DOWN HEAVES IN ORDER TO TRADE A HORSE.

Give the following prescription:

Raw Linseed Oil.....	1 quart
Fluid Extract Aloes.....	1½ ounces
Calomel .....	1 drachm

Mix and give as one dose.

This should be given the night before taking him for trading, and no hay should be fed, only grain. This will not injure the horse. Be careful in letting the animal to water, as filling up on water will bring on the trouble.

## TO HIDE HOLLOW PLACES ON A SWEENIED SHOULDER OR OVER THE EYES.

Make a small hole through the skin on the shoulder, and alternately raise and depress the skin until the air fills the hollow space. Some jockeys insert a quill and blow the air in. Hollows over the eyes may be filled in the same way.

TRADER'S LINIMENT.

One ounce camphor, one ounce oil of stone, one ounce oil of spike, one ounce hartshorn, one and one-half ounces oil organum, in one pint of alcohol. This is good for almost anything.

TO RAISE THE COURAGE OF A STALLION OR JACK.

Give him two ounces fluid extract damiana.

HOW TO MAKE A HORSE CARRY A NICE TAIL AND PRANCE AROUND WHEN TAKEN OUT TO BE SHOWN.

Take a small pod of red pepper, remove the seeds, and place on a small stick and run it up into the rectum; this will make a horse carry his tail proud and prance.

A HORSE HAVING A LAME LEG OR SORENESS IN THE LEG.

Inject a solution of cocaine, containing about three grains, into the place caused from spavin, ringbone, or any chronic lameness.

HOW TO REMOVE OLD BRANDS ON HORSES.

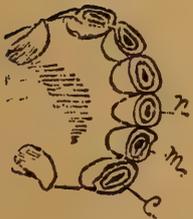
Rub pure croton oil all over the brand and let it stay for 24 hours. This will make a violent blister. Then grease well with olive oil, and keep well greased for ten days.

HOW TO DETECT A HORSE DOPED FOR HEAVES.

Lead to a trough and allow him to drink his fill of water, and then let him eat hay for one hour, and the symptoms will soon develop.

HOW TO TELL THE AGE OF THE HORSE.

Giving age from fourteen days to twenty-one years:



- Fourteen days old—Four nippers.
- Three months old—Four middle.
- Six months old—Four corner.
- One year—Cups leave nippers.
- Two years—Cups leave middles.
- Two and a half years—Sheds nippers.
- Three years—Full sized nippers.
- Three and a half years—Sheds middles.
- Four years—Full sized middles.
- Four and a half years—Sheds corners.

- Five years—Full sized corners.
- Six years—Large cups in corners.
- Seven years—Cups leave nippers.
- Eight years—Cups leave middles.
- Nine years—Cups leave corners.
- Ten years—Groove in upper corner.
- Fifteen years—Groove half-way down upper corner.
- Twenty-one years—Groove reaches bottom of upper corner.

This is the best way of telling the horse's age. It will enable any stockman to buy and sell horses. This will work in nine out of ten cases, the only difference being, the teeth of those horses that have been raised on grass are not worn as much as of those that have been fed dry food. The grass-fed horse will always look younger than he really is, unless he has been grazing on sandy soil.

Artificial marks are sometimes made in the lower nippers by jockeys, in order to deceive the purchaser in regard to the animal's age. This operation is of English origin, and is thus described by Youatt: "It is called bishoping, from the name of the man who invented it. The horse of eight or nine years old is thrown, and with an engravers tool, a hole is dug in the now almost plain surface of the corner teeth, and in shape and depth it resembles the mark in a seven or eight-year-old horse. The hole is then burned with a heated iron, and a permanent black stain is left. The next pair of nippers are sometimes lightly touched. An ignorant man could be very easily imposed on by this trick, but the irregular appearance of the cavity, the diffusion of the black stain around the tushes, the sharpened edges and concave inner surface of which can never be given again, the marks on the upper nippers, together with the general conformation of the horse, can never deceive the careful examiner. As the horse grows older the teeth diminish in size, and this commencing in their width and their thickness, they become a little apart, and their surface are rounded."

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## FACTS WORTH REMEMBERING.

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A kicker should be checked high and not whipped.

Do not be in any hurry in handling the colt, and always be kind. When he does right give him credit by a kind word and caress.

The whip should be feared rather than felt.

In choosing a horse to train easily, select one with a full and well developed brain.

Never allow yourself to get angry or frightened.

Do not leave a horse facing a cold wind.

Checking horses high makes slow walkers, bad wind and often shoulder lameness.

Handle the colt when he is young. Commence at a week old and teach him to be led and hitched by the halter. Handle his legs

and teach him not to kick. You can do it at this age better, easier and safer than when he gets old, strong and stubborn. Bit him, harness, and teach him to drive at two years old, but be sure not to overdrive or tire while young.

Certain leading principles already indicated in these chapters have been constantly kept in view in the preparation of this work. An epitome of these principles will probably prove of material assistance to many readers, and as it will occupy but little space, it is here introduced:

The horse is naturally a wild animal, his condition of domestication being really one of slavery.

His wild or native state is that in which he attains the most perfect development of his natural powers.

Like the human family, the species were originally divided into distinct races, which providence designed should be kept separate forever.

In their wild state, the different races dispersing in droves do not mingle together, and if they were left to follow the instincts of nature, intermixture would never occur.

The horse is not naturally a diseased animal. He is subject to extremely few hereditary disorders, or, perhaps to none. But indiscriminate commingling of blood has fearfully multiplied the diseases to which he is subject, and occasioned deplorable degeneracy.

Improper treatment and abuse at the hands of man have been the cause of nearly all his diseases and of his great decay as regards longevity and natural capabilities.

The horse is improved and becomes more efficient as his circumstances are brought nearer his condition by nature and his wants are better understood and supplied.

The horse is more like man as regards general structure and the pathology of his diseases than any other animal.

As a rule, though not without some exception, the causes of disease in man operate similarly upon the horse, and the same remedies are equally efficacious for both.

The size of the horse is ten times that of man. His organism is coarser, and the vessels of his system are larger. In proportion, when medicines are administered, they must be of corresponding strength.

Compared with man the horse breathes only half as fast.

The fewer medicines given the horse, provided the cure is effected, the better. Thousands of valuable animals are killed yearly by excessive drenching.

## IMPRESS THE MIND OF THE CHILD WITH KINDNESS.

The reader has doubtless discovered before this that the author believes devoutly in being kind to animals, and particularly to the horse, for both humane reasons and the fact that it pays. And he wishes to impress strongly the need of teaching children to be kind to every one of God's creatures, not only for the reasons given, but for the equally important one—the effect on the character and life of the child. A boy that delights in maiming or killing birds and small animals, or tormenting a kitten or a dog, is developing traits of cruelty and lack of feeling, and such habits if encouraged or not properly checked at the right time, have a brutalizing effect on the character of the child, and frequently grow into criminality. Teach your children kindness while they are young and teachable, and they will grow into kind-hearted men and women—the only kind who do any good for humanity.

Some parents are delighted when they see their child tormenting or hurting an animal and encourage the child in it. Such parents are "breeding trouble" for themselves and their children, for it helps to develop the vicious tendencies which in later years make the mean, cruel criminal. Hon. Geo. T. Angell has stated that in going through the penitentiary at Sing Sing he asked each convict if eh had had pets—dogs, rabbits, etc.—when a child, and in almost every case the answer was, "No they had no use for pets." A child with pets has some care on his mind, and it takes care to develop useful manhood. Encourage the children to have something of this sort, and to treat it kindly and thoughtfully. A good, kind, gentle character is more to be desired than all the education that can be crammed into the mind by a full college course. I would like to say much more on this subject, but it is probably unnecessary. If you are a thinking person you will see the force of the above statements, and if you are not a whole book would not convince you of the importance of this subject.

"The merciful man doeth good to his own soul, but he that is cruel troubleth his own flesh."





Class of Prof. Morgan's at Troup, Tex.



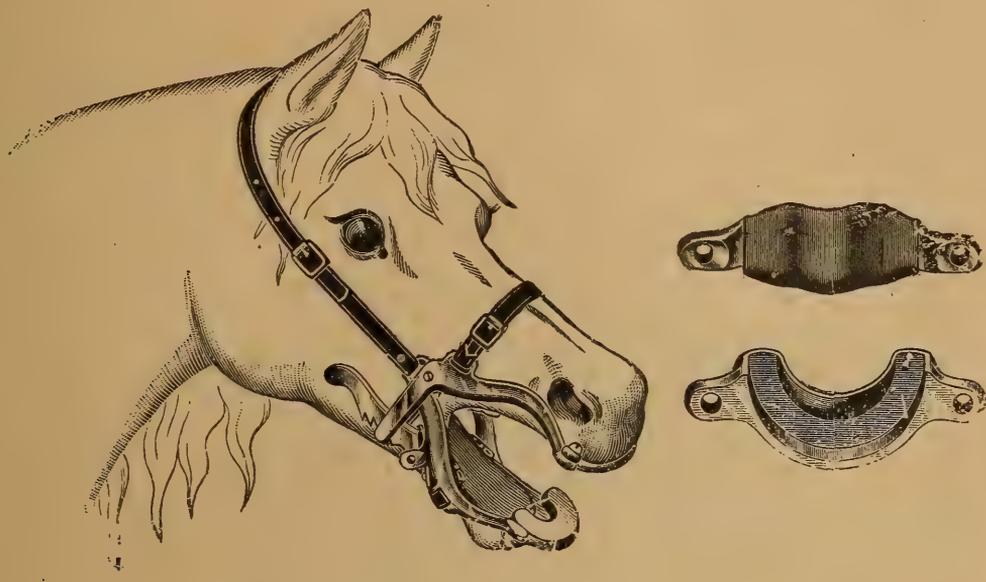
Class of Prof. Morgan's at Rusk, Tex.



Class of Prof. Morgan's at Jacksonville, Tex.

## THE HORSE'S TEETH AND THEIR DISEASES.

My experience is, that more horses die from diseased teeth than all the rest of diseases combined. Not from the disease of the tooth or pain, but from the effects of them. The upper jaw of a horse overhangs the lower jaw from two to two and one-half inches. Thus



Haussman & Dunn's Mouth Speculum.

the horse must have a side motion in order to masticate his food. If the teeth are sharp on the outside of the upper ones, or on the inside of the lower ones, the upper ones will cut the inside of the jaw, and the lower ones will cut the tongue, causing fever in the mouth, thereby causing a horse to slobber. If there is a rotten or a long tooth in the mouth, this prevents proper mastication, and the food, therefore, is not in suitable condition to enter the stomach for digestion. The digestive organs will digest the food properly for a while, but the overtaxing these organs from food that is not properly masticated causes them to wear and become weakened, and therefore unable to perform their proper functions, and from this arises various diseases. The kidneys, liver and other organs become affected, causing colic, kidney troubles, impure blood and all manner of constitutional diseases. These diseases will result in death to the animal, but no doubt arises but that the diseased teeth are the primary cause of death. There are hundreds of people who suffer from indigestion, and this is brought on from neglect of the teeth. They have the ad-

vantage of the horse in that their food is cooked and in better shape for digestion, but the poor horse's food is thrown in the feed-box carelessly, and it frequently happens that nails, small stones and other hard substances are mixed with the feed and he takes them up—



A Horse Suffering Severe Pain, such as Toothache.

thus causing the teeth to become cracked. This, of course, will cause the teeth to become diseased. Every living creature that has teeth suffers more or less with toothache, but if they are left in their natural state, they will not suffer so much from this trouble. It is not natural for a horse to be kept in a stable and eat dry food only; his natural state is roving over the plains of Asia, South America or this country, and eating nothing but grass and herbs. There is a vast difference between the teeth of the human and those of the horse. When a man stops growing, his teeth are matured and do not grow any more, but it is not so with the horse. His teeth continue to grow as long as he lives. The tooth of the horse has a continuous pulp. His teeth grow like those of a squirrel. If a squirrel did not gnaw, the teeth would grow out and protrude through the top of the head. I have seen horse's teeth five and one-half inches long. If a horse's tooth loses its antagonist, it will continue to grow and will make its way into the bone of either the upper or lower jaw. There is a great difference between the enamel of a human tooth and that of a horse. The enamel on the human tooth is a thin layer on the outside of the tooth, while in the tooth of the horse, the enamel grows through the crown, with little islands of dentine. In the abnormal growth of the tooth it will extend down through the center of the same, and this causes a great many dentists (I mean those who



Example of Bighead, caused by ulcerated teeth in upper and lower jaws. The abscess formed above and broke out in the eye, completely destroying it. I removed the teeth, but it was too late to effect a cure.

practice on the human teeth,) to ask if the operation of cutting off these long teeth did not cause them to decay and become diseased. My answer has already been in the negative, as from the reason already

given, the enamel extending as it does down through the tooth, assists in protecting it.

When the enamel on the human teeth becomes broken, if it was made perfectly smooth, so there would be no rough surface left where germs could locate themselves, there would be no trouble from decay.

The milk, or baby teeth of the horse cause a great deal of harm when they stay on too long, by bringing on enlargement of the head. They should be watched and pulled out. Nine-tenths of

the big-headed horses are caused by these teeth.



Plate No. 1.



Plate No. 2.



Head of a Colt, two years old. The tumor, which resembled a large bloody wart, was caused by an ulcerated tooth. Tumor had been cut off but came on again. I removed the tooth and it got well.

In plate No. 1, figures number one, two and three show where the caps have shed off.

Plate No. 2 shows the head of a three-year-old colt that it was claimed died from big-head and had gone blind from blind teeth. The true cause was from failing to shed the caps off of the baby teeth. When the permanent teeth were growing they met with resistance from these caps, and this caused them to grow back into the head, and it can be seen by the line on the

face where I have removed the bone, so as to expose the roots of the teeth. The first molar of this head had grown through into the nasal cavity and had caused an abscess to form, which discharged a very offensive pus from the nostrils. The cause of his losing his eyes was that the lachrymal duct that runs from the corner of the eye into the nostrils was closed from the enlargement of these diseased teeth and could not properly drain the eye. This caused the eye to inflame and this inflammation soon destroys the eye. The treatment is to remove the caps and allow the permanent teeth to grow under their proper places. Blister the face over the enlargement and use an eyewater in the eyes.



#### HOW TO OPEN A HORSE'S MOUTH FOR EXAMINATION.

Put a halter on. Grasp the halter with the left hand and then with the right hand grasp the tongue and pull it out to one side of the mouth. Then place the thumb of the left hand against the bars in the roof of the mouth. This will cause the animal to open his mouth and allow an examination. If you examine the other side of the mouth, reverse the tongue and proceed as before.

#### HOW TO EXAMINE THE TEETH OF HORSES WITH THE HAND.

Have a halter on as in the cut. Run the hand into the mouth between the front and back teeth from the side. If you wish to ex-

amine the teeth on the right side of the mouth, run the right hand alongside of the tongue with the back of the hand against it, pushing the tongue over on the lower teeth on the left side of the mouth,



Examining the Teeth with the Hand.

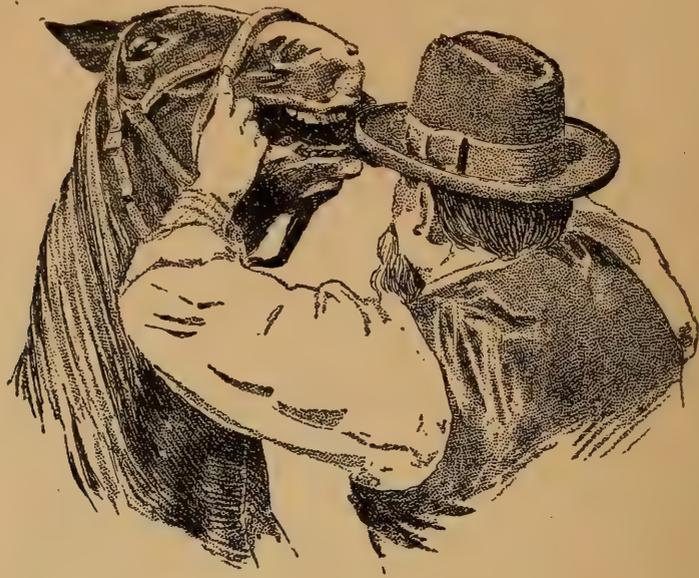
thus preventing the horse from closing the mouth on the hand, as any attempt to do so causes him to bite his tongue. To examine the other side of the mouth use the left hand and proceed as with the right. The danger is in putting the hand into the mouth and taking out. Never draw the hand straight out between the front teeth, as the animal may close down and bite the hand quite severely. Always pull to one side or the other.



Dental Hook for Examining Teeth.

#### WOLF OR BLIND TEETH.

Very erroneous opinions are entertained, even by veterinary surgeons, concerning these teeth; and various theories have, from time to time, been set afloat regarding them, arising, in most instances, from a lack of proper investigation. They are not harmful in the least to colts; but when a horse that is to wear a bit has them in his mouth, the bit irritates them and it is best to pull them out.



Examining for Diseased Teeth.

#### LAMPERS.

This term is used to designate a fullness or swelling of the roof of the mouth, caused by the cutting of teeth. Lampers will be found in all colts, although in many, the slight inconvenience it causes attracts little or no attention. In others, however, the tenderness of the swollen parts causes the animal to refuse his food. All that is necessary is to lance the swollen parts—a common pocket-knife will do—and he will be all right in a few days. Be careful not to cut too far back—the safest place being between the first and second bars. Give a laxative, as this trouble is often caused by constipation. Do not burn the bars in the roof of the mouth, as they are an assistance to the horse in preventing the food from dropping out, and are used to carry the food into the throat.

#### TEETHING—A CRITICAL PERIOD OF THE COLT'S LIFE.

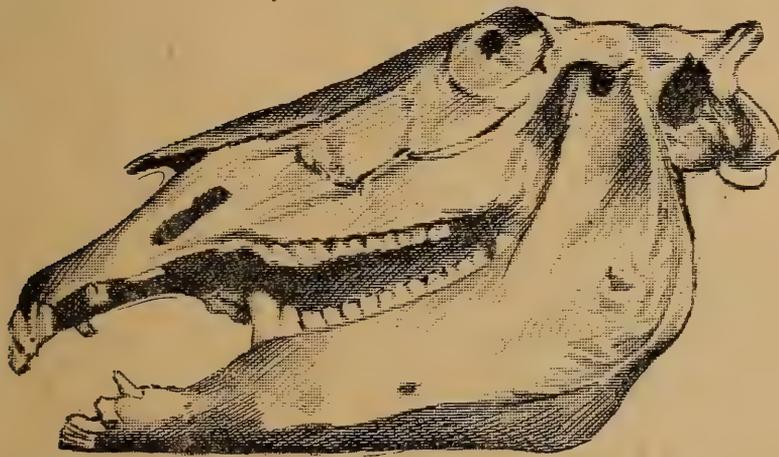
Horsemen, in general, think too lightly of the teething, and they scarcely dream of the animal suffering to any considerable degree, or absolute illness being produced; yet he who has to do with young horses will frequently discover a considerable degree of febrile affection that can be referred to this alone. Fever, cough, catarrhal affections generally, disease of the eyes, cutaneous affections, diarrhea and dysentery, loss of appetite and general derangement will frequently be traced by the careful observer to irritation from teething.

The horse has, or should have, when full grown, forty teeth. In each jaw six nippers, two tushes and twelve molars. In the mare the tushes are either not developed at all, or else they do not make their appearance before old age, although some protuberances corresponding to them are hidden below the gums. The tush is a long, sharp tooth, occupying a position on each side of the jaw between the nippers and grinders, but somewhat closer to the former than the back teeth. What a great many farmers call blind teeth, and ignorantly imagine to be the cause of numberless ills, come on the upper jaw between the bridle teeth and grinders. Some mistake the tush for this tooth.

The cutting of nearly thirty teeth, however lightly it may be regarded by the stock raiser, is certainly a matter of no small moment to the colt. While it is true that nature prepares the gums in a great measure for this process, if any one will take the trouble to examine the mouth and gums



Enlargement of the lower jaw, caused by two diseased teeth.



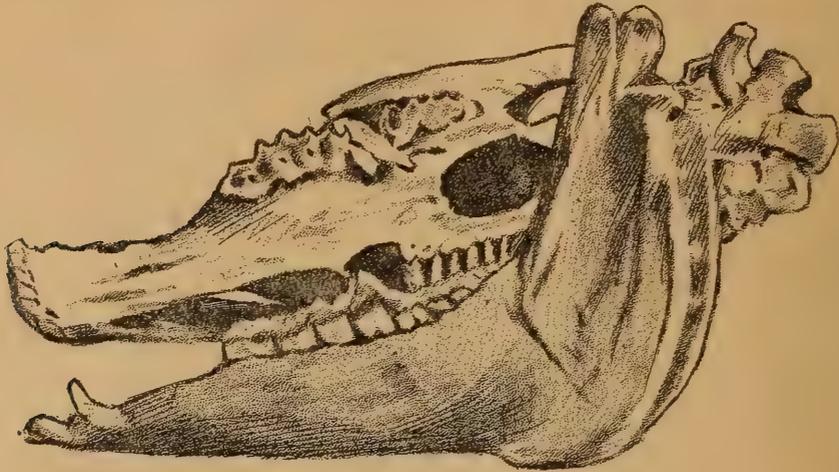
Elongation of the first molar. The tooth had made a hole up into the nose. Had been wrongly diagnosed as glanders.

of the colt while it is going on, he will probably be astonished to find how hot and feverish those parts are. This is the most critical period of his whole life. It is undoubtedly a wise and kindly provision of nature that the colt's teeth do not all come at once; for if that was the case, such would be the severity of the operation that very few, probably, would live through it. As it is, the soreness and inflammation of cutting only eight at once is terrific. After this, the gums are allowed time to heal over before any more come through. Horses at four years old are subject to spells of coughing, caused by the irritation from cutting the last teeth.

of the colt while it is going on, he will probably be astonished to find how hot and feverish those parts are. This is the most critical period of his whole life. It is undoubtedly a wise and kindly provision of nature that the colt's teeth do not all come at once; for if that was

## SHEDDING.

Closely connected with teething is the process of shedding, which is the replacement of the milk by the permanent teeth. The



Upper and low jaws of a horse that had an ulcerated fourth upper molar; the elongated fourth lower molar had grown up into it. The abscess had broken into the nasal cavity and discharged through the nose. Had been wrongly diagnosed as glanders.

first teeth do not come out and the lacerated gums heal over, as is the case with children, but the second tooth comes up immediately un-

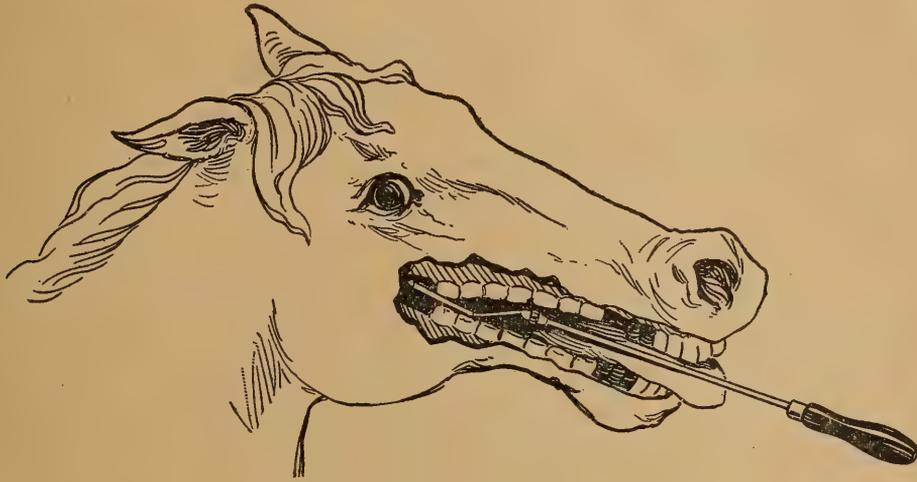
No. 1      No. 2      No. 3



Portions of three lower jaws from horses which died from diseased teeth. No. 1 shows where the third tooth had ulcerated and caused a running sore on the outside of the jaw. No. 2 is from a three-year-old colt, where the second and third molars had grown up into the upper jaw, and caused an enlargement on it. The animal had been treated for bighead, and no attention paid to the teeth. No. 3 shows a long first tooth in the lower jaw which had grown up through the upper jaw into the nose. The trouble caused by this was supposed to be glanders, and the horse was killed.

der the first one and lifts it entirely out of the gums. What is still more remarkable is, that while this is going on the under part of the milk teeth is being ground or worn off and its substance absorbed by

the surrounding parts, so that there is but a small portion of it left by the time the permanent tooth reaches the surface of the gum. As the under tooth comes up from its bed in the jaw, the gums being lifted up by it retain their hold upon the other until the second is near enough through to subserve the needs of the animal in eating; then all at once the gums release their hold on the upper tooth, which drops out, and then sink down around the new one, their swelling and soreness subsiding, and all is right in the mouth again. Colts shed



Showing Method of Working on the Back Teeth with Haussmann & Dunn's Float.

twelve nippers and twelve grinders. Two nippers above and below are shed at the same time they shed the first grinders above and below. This is at about the age of two and a half years; then at three years and a half they shed the middle teeth; they shed the second grinders all around at the same time. At the age of four and a half, they shed the corner teeth; at the same time they shed the third grinders all around. The last back grinders are full grown at five years old.

The twelve back grinders grow permanently and never shed. My experience in most cases is, that colts shed all their grinders by the time they are three and one-half years old; but the rule is for the grinders to shed at the same time that the incisors are shed.

#### HOW TO FLOAT HORSES' TEETH.

The surface (or crown) of the tooth should never be touched, the outside edge of the upper teeth nor the inside of the lower teeth. Be sure that the corner off of the first grinder and the last grinder is floated smooth. Caution should be observed that the membranes back of the tooth are not in any way lacerated, that is by running the

float back against them. I never use the tooth plane, such as Goings, as I have found in several instances where the tooth was splintered from its use. In old horses it loosens the teeth. Where the corners are long I use the tooth cutter to clip them off. In very old horses the operator should be very careful, as a careless operator is liable to make the mouth sore, and it is liable to remain so for a month or more, and the owner of the horse will be dissatisfied with the job.



Float for Filing Teeth.

#### DECAY OF THE TEETH.

The teeth of the horse, like those of the human being, are subject to decay. They become rotten, which is just the same condition that the dentist refers to when he speaks of caries of the teeth. The horses' front teeth sometimes show signs of decay, but generally it is the jaw teeth or molars that are affected.

It may be a novelty to the reader, but it is a fact that the horse very frequently suffers from toothache. This is one of the causes which so often makes him suddenly drop the corn or other hard feed from his mouth while eating. The owner or attendant generally sets this down as indicating some disrelish for the food at that particular time, whereas, the fact very often is that he has hurt his tooth. Having no hand to press to his mouth, the poor animal is allowed to suffer without there being so much as suspicion of what the trouble really is. If you find your horse has rotten or decayed teeth, take him to a horse dentist who has good extracting forceps, and have them taken out.

The human being has the advantage over the horse, that when the decayed tooth becomes filled with food and presses on the nerve, he can remove it by using a tooth-pick, and if the tooth should ache he can fill the cavity with cotton saturated in some antidote, as oil of cloves, etc., but the poor dumb animal has to stand and suffer the agony of death several times. Now if this pressure is allowed to remain it will in time cause the tooth to burst open, and this is why the horse's tooth should be removed at once. I have had many cases brought to me for treatment where the owner thought the animal was affected with some other disease, and I cite one case in particular.

HAUSSMANN & DUNN'S

SET OF INSTRUMENTS FOR HORSE DENTISTRY.

I have used this make of instruments for over fifteen years, and find them to be the very best made in the United States. Any kind of instrument can be had by addressing Haussmann & Dunn, Chicago, Ill.



Open Molar Cutters.



Open First Molar Cutters.



Half Open Molar Cutters.



Closed First Molar Cutters.



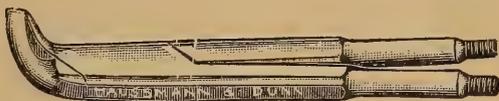
Closed Molar Cutters.



Closed Lower Molar Cutters.



Lower Molar Extractor.



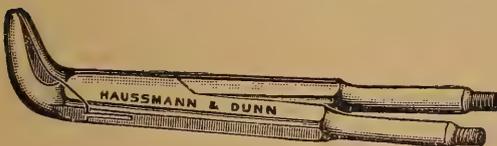
Small Molar Extractor.



Upper Molar Extractor.



Wolf Tooth Forceps.



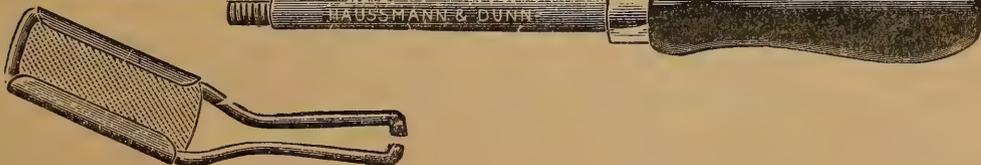
Root Extractor.



Straight Nipper Cutter.

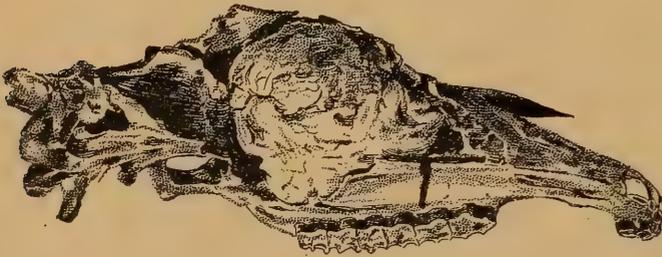


Handle for Complete Set of Forceps and Cutters shown above.



Haussmann & Dunn's Improved Float.

While at Fulton, Mo., a horse seven years of age that had been sick for five days and had not eaten anything, had been treated by a country doctor for lung fever, and a great deal of different kinds of medicine had been given. Upon examination of the mouth I found the third molar to be very badly ulcerated. Upon removing the tooth two or three ounces of pus follow from the cavity, and this gave the horse instant relief and he began to eat and entirely recovered. During this same visit at Fulton, a horse was brought into Martin's livery stable for me to operate upon, and I pulled the tooth and the horse fell back and expired within one hour. Death was caused from nervous prostration brought on by the shock of pulling the tooth. This is the only case that I ever had to prove fatal in pulling teeth, but I had two other cases where the animal would collapse after the operation and remain in this condition five or six hours before being able to rise.



Osseous or dentine tumor which had formed in the nasal cavity and weighed eight and one-half pounds. This is the head of a six-year-old mule that was foaled eight miles south of Tyler, Texas. The local horsemen believed it to be big-head; the mule died from strangulation from the tumor growing back to the posterior nares. In my opinion this tumor was caused by the last two molars being diseased.



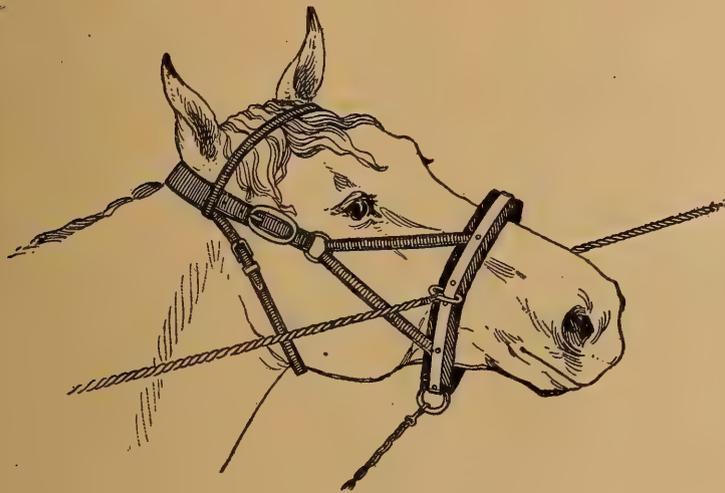
#### SYMPTOMS OF DISEASED TEETH.

A horse that is suffering from troubles of the teeth will, if the corn is fed on the cob, shell it off before eating it, and turn his head on one side and suddenly stop eating, allowing the corn to fall from his mouth; and will sometimes take a mouthful of hay and quid it and let it fall out also; and generally keeps up a continuous pawing. Sometimes when eating grass it works up on the sides until it shows a bulk on the side of the mouth. While drinking water he will suck the tongue and open the mouth, allowing the water to run out, and turn the head on one side as if in pain; while driving tossing the head, fighting the bit, champing the teeth, lolling the tongue, slobbering, starting suddenly, stopping short, shying and pulling on one

rein, lugging and running away. The hair will look bad and the animal will be hide bound and have running sores on the face and under the lower jaw. The horse will stumble badly and if driven until warm will scare badly.

#### HOW TO MANAGE THE HORSE WHILE WORKING ON THE TEETH.

I have worked on thousands of horses' teeth and do not cast one in five hundred. I have worked on all kinds of mules and wild horses. The best halter I have ever used is made by Hausman &



LUCAS' DENTAL HALTER.

The best device for securing the horse's head while operating, as it effectually prevents it from moving to either side or upward. The straps are adjustable, so that the head can be held in any position desired.

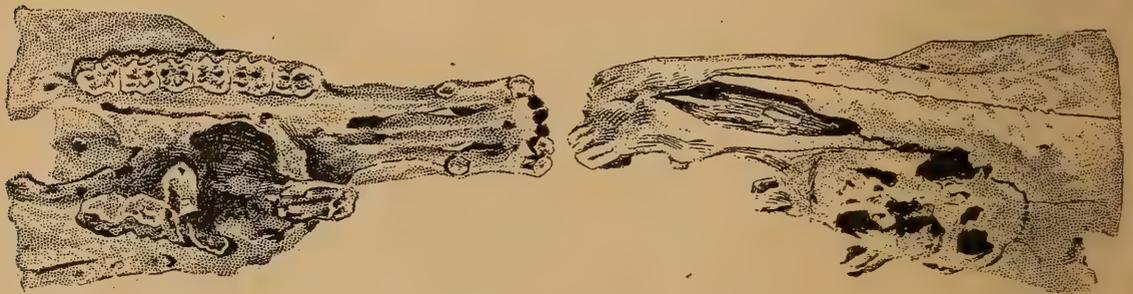
over another horse until they will smell like the horse. Rub the head of the horse to be operated upon and speak kindly and gently, and show him that it is not your intention to hurt him, and the operator should be very careful and not strike the horse with the float or forceps when beginning the operation, so as not to hurt or frighten him.

#### HOW TO PULL TEETH.

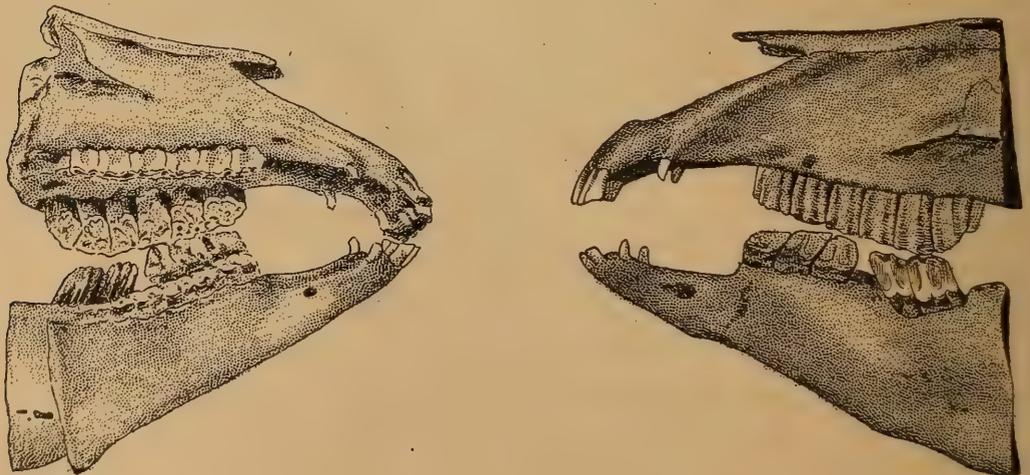
I never use a speculum in the mouth except in a few cases, but would advise beginners to use one, and I consider Hausman & Dunn's speculum (see cut on page 51) the best one made. After grasping the tooth with the forceps, a strap is very useful to wrap around the handles to assist the operator in holding the forceps in position. Teeth that are still firm can be loosened by light side movements of the instruments, but to avoid breaking the crown of the

tooth or fracturing the jaw, it is needful to proceed slowly and cautiously. Many operators make a mistake by putting too much strength and vim into the operations. When horses have passed eleven and twelve years of age, their teeth are easily removed as they are short, but young horses at the age of five or six years having long teeth, it requires a man of some strength to remove them with the common forceps, and sometimes teeth have a growth on the roots which makes it almost impossible to remove until trephining is performed and the obstruction is cut off of the top of the roots.

During my travels I run across many strange cases of disease caused by bad teeth, and here present a few of the most noteworthy. All of these plates have been engraved from photographs in my possession.



Skull of a horse that was killed for supposed glanders. Four of the grinders had ulcerated and split, and the food had worked up through them into the head. There were running sores on the outside of the face and the bone was badly decayed.



Shear mouth. The fifth lower molar was diseased, and the horse to protect himself against the pain caused by this diseased tooth had to chew on the other side; the upper jaw being wider than the lower jaw, moved the jaw to one side and these teeth having a continuous growth and not coming in contact with anything, had nothing to wear them down, and continued to grow until they wore into the gum and bone.

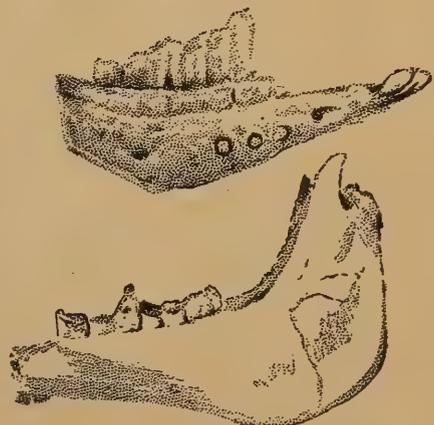
This plate shows part of the jaws of a mule, twelve years old. While I was lecturing in McKinney, Texas, the owner was in the audience, and at the close of the lecture, he came and told me he had



lost a mule from colic, but after hearing me describe some of the symptoms arising from bad teeth, he believed that that was really what caused the mule's death. He went and brought me the specimen. It can be seen that there were seven molars above and only six below, and in my opinion the extra tooth (the seventh above)

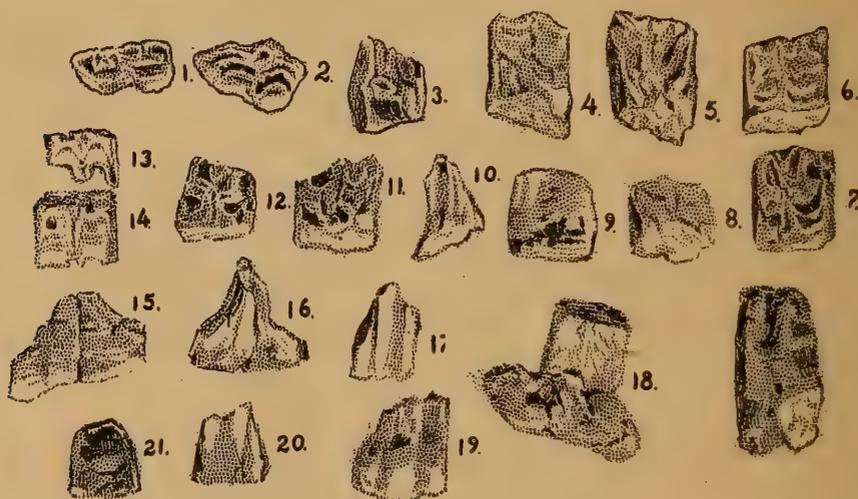
caused the trouble, as there was no tooth below to meet it, and it grew into the lower jaw bone and caused the fifth and sixth lower molars to become diseased and dropped out. In front of the first upper molar you will observe a small tooth, called a blind or wolf tooth. The sixth and seventh molars should have been pulled, and the part of the fifth tooth that projects should have been clipped off. Had this been done the poor animal could have been saved, instead of suffering death many times from the pain caused by these teeth grinding together. A peculiar feature of this case was that there was not the slightest external evidence of any disease. It is not necessary for a horse to have a good set of grinders on each side of the mouth. If he has one good side, and no long tooth on the other side to interfere with his grinding his food on the good side, he will thrive and get along all right.

In the next plate the upper cut shows the jaw bone of a mule. The lower cut shows a long tooth. The teeth had grown up inside of the upper teeth, and the upper ones had grown down on the outside of these. These lower ones had grown into the bone of the head and pressing against the nerve caused lock jaw from which the animal died. The upper specimen is from a fourteen-year-old mule, owned by a drayman in Honey Grove, Texas.





Here is another frightful example of the effects of a long tooth. The animal whose skull is shown in this picture began failing and became a mere frame of skin and bones, and finally died. He simply starved to death, because he could not eat on account of the pain caused by this long tooth cutting into the lower jaw. The owner did not know what was the matter until long after the animal was dead. This specimen is owned by Geo. W. Wilson, blacksmith and track-shoer, of Fredonia, Kansas, who is one of the finest mechanics I have ever met. He has made himself a fine set of instruments for horse dentistry, and does considerable work in that line.



Figures 1 and 2. Baby teeth or caps, first molar on left side and below.

Figures 3, 4, 5, 6, 7, 8, 11, 12 and 18. Are clipped from shear-mouthed horses.

Figures 9 and 10. Number 9 was a long tooth, the first molar on left side, and caused an abscess in the nostril. Number 10 was a point of a long tooth that was cut off.

Figures 13 and 14. Sharp edges clipped from a six-year-old horse.

Figure 15. Is the elongation of the third and fourth lower molars.

Figure 16. Is the elongation of the third and fourth lower molars. These had grown through into the nasal cavity.

Figures 17 and 20. Figure 17 is the elongation of the third molar and figure 20 is the elongation of the second molar out of same mouth.

Figure 21. An elongation of the first molar.

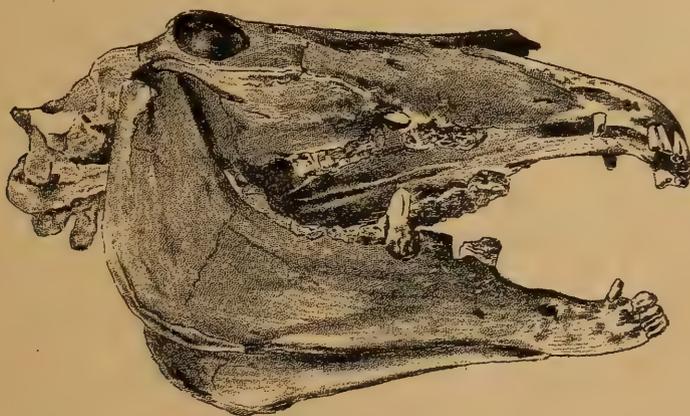
Figures 19 and 22. Came out of the same mouth. Number 19 was clipped off of

the last tooth on the right side. Figure 22 was a diseased tooth on the same side, being the last lower molar, and had ulcerated, and there was an enlargement on the outside of the angles of the jaw as big as a man's fist.

The enlargement on the point of figure 18 is an accumulation of the lime or calculus.



This shows the skull of a dray horse that died at Webb City, Mo., his death being ascribed to colic. It will be seen that he had an extra upper tooth like the one shown on page 65. This tooth grew down into the lower jaw, cutting it one-third way through, and was the cause of the death. This specimen was given me by liveryman, Jesse Kerns, of Webb City.



This cut shows the upper and lower jaws of a fourteen-year-old horse, where the third lower molar had grown through into the nasal cavity. This specimen was brought to me while I was operating at Peirce City, Mo., by a man named Elzey. This horse was foaled as his, and was a very faithful and kind work horse. About the time he was five years old an enlargement appeared over the third upper molar, on the outside of the face, and in six months this enlargement disappeared and then discharge began running from the nostril. The horse kept in good flesh until he was seven years old and then commenced to go down and continued to lose flesh until he died. The

discharge from the nose increased and became very offensive, and feed would work through into the nostril. Two years before he died, he became unable to do any work and the owner kept him in an old field to himself. The neighbors objected to his drinking at public places and being on the road, fearing that it was a case of glanders. Death finally relieved the poor horse from the intense suffering and agony that he had endured for years. This animal could have been operated upon, and by clipping off the long part of the tooth he would have been relieved and would have regained his flesh and made a useful animal, but the owner did not know that horses suffered from bad teeth until he heard the lecture.

#### FILLING HOLES WORN THROUGH TO THE NASAL CAVITY.

When you find a horse suffering from a long tooth, examine carefully and see if it has cut a hole into the nasal cavity. If so, the hole should be filled to prevent food from working up into the cavity. To do this get some gutta percha, soften in hot water, and carefully fill the hole in the bone. It will harden when cool.



Figure 1. A tooth that I removed from a three-year-old trotting mare at Lamar, Mo. Had an enlargement over the second molar as large as a goose egg.

Figure 2. The last two upper molars, four inches long, of a stallion ten years old, which I term mammoth teeth. There was a large abscess on the side of the head, right under the last molar.

Figure 3. A group of supernumerary teeth that I removed from the left upper jaw of a standard-bred trotting mare, six years old, belonging to Mr. Bowman, of Rockwall county, Texas.

Figures 4 and 5. Mammoth teeth, removed by me at Golden City, Mo., from the mouth of a four-year-old mare. This animal was brought to me for treatment for the bighead, as all the horsemen in that part of the country had pronounced it a case of

bighead. On examination I found these teeth, the first upper grinders on each side. The width of these teeth was crossways in the mouth and did not run lengthways as the other teeth had grown, until the face was bulged out on each side as large as a goose egg. They were two and one-half inches wide, one and one-half inches thick, and two and one-half inches long.

Figure 6. A mammoth tooth, first lower molar on the right side, four and one-half inches long. I removed this tooth from the mouth of a ten-year-old dray horse, owned by William Daily, of Springdale, Ark.

Figure 7. Abnormal growth of the third lower molar that I removed from a three-year-old mare, while I was making my headquarters at Dick Doniphen's stable, Neosho, Mo. This tooth is four inches long, and had grown through into the nasal cavity and there was a very offensive discharge from the nostril.

Figure 8. A supernumerary tooth that I removed from a two-year-old mare while operating at Carthage, Mo. This is an extra large and heavy tooth and had caused the animal's head to become very large, and the tooth had grown through and caused an abscess in the head, and there was a running sore on the outside of the face.

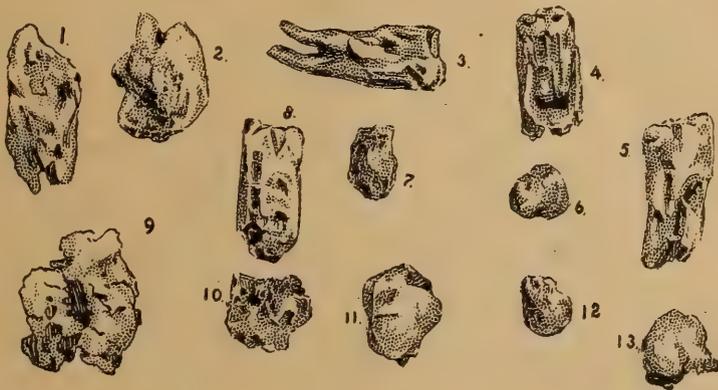


Figure 1. An ulcerated second molar removed by me from a horse that had an enlargement over this tooth, about the size of a man's fist. After removing the tooth I discovered a bony tumor, (see figure 2,) which I also removed by cutting through the face on the outside.

Figure 3. A third lower molar that I removed from the mouth of a three-year-old mare, while operating in Ft. Smith, Ark., at Schulte's stable.

Figure 4. A third upper molar removed from a jack by me. This tooth split open from the food being pressed into it and one part of the tooth had worked out of the mouth and left only the snag.

Figure 5. Fourth molar that I removed from a six-year-old horse that had a running sore on the face.

Figure 6. Osseous, or dentine tumor, (some writers call it a floating tooth) located at the base of the ear of a horse, from which there was an open sore.

Figure 7. A bony tumor that I removed from the inside of a horse's lip.

Figure 8. A fourth upper molar on right side.

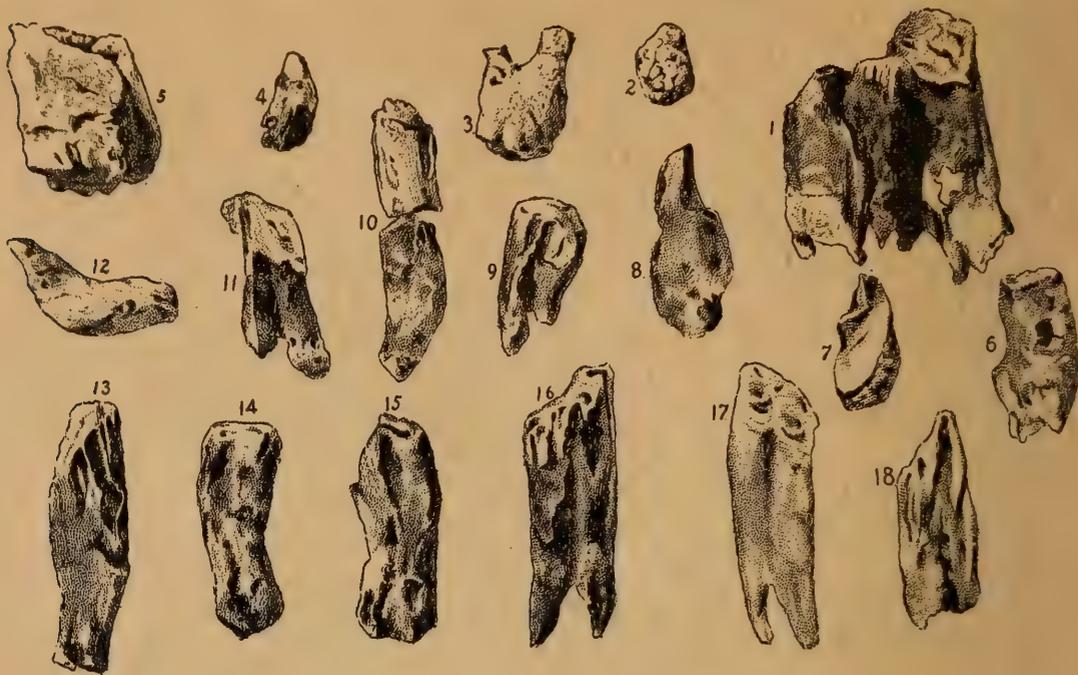
Figure 9. A bony tumor that I removed from the right nostril of a horse; caused from a tooth that had exostosis or bony growth on it.

Figure 10. A tumor that I removed from around the tusks that had become diseased.

Figure 11. A tumor that I removed from an abscess in throat above the swallow, or esophagus, Centralia, Missouri. It is of calculus or dentine nature.

Figure 12. A tumor that I removed from the eye of a horse. The eye was very much inflamed and swollen and upon removing the eye I found this osseous tumor.

Figure 13. A limy tumor removed from the saliva glands of a horse.



THIS IS A PLATE OF SUPERNUMERARY TEETH.

Figure 1. A supernumerary tooth that grew in between number 5 and 6, upper molars on right side. I removed this tooth at Baxter Springs, Kansas.

Figure 2. Osseous or dentine tumor that I removed from a horse in Paris, Texas.

Figure 3. A supernumerary or floating tooth that I removed from an eight-months-old colt in Van Alstyne, Texas. The owner brought this colt in for me to operate on. He had been told by the local horse men that the colt was affected with distemper. There was a large abscess between the under jaw, and this enlargement ran back under the neck.

Figure 4. A supernumerary tooth that I removed from the inside of the teeth, alongside of the fifth molar tooth, on the right side. This tooth was removed from the mouth of a four-year-old horse.

Figure 5. A supernumerary tooth that I removed from in front and alongside of the first upper molar tooth of the horse. There was no external showing.

Figure 6. Supernumerary tooth removed from alongside of the fourth upper molar tooth on the outside.

Figure 7. Was removed from alongside of the inside of the fourth lower molar; it had lacerated the tongue, and the horse slobbered badly.

Figures 8 and 9. Supernumerary teeth removed from the same mouth. Figure 8 was removed from the outside and alongside of the fourth upper molar. Figure 9 was removed from outside and alongside of the third lower molar.

Figure 10. A supernumerary tooth; was located back of the upper molar and had grown down into the tongue and had bored into it an inch and a half.

Figure 11. A supernumerary tooth removed from between the third and fourth lower molars; the roots were badly diseased.

Figure 12. An ill-formed, enlarged incisor that I removed from Anibell, a trotting mare belonging to Robert M. Hutchings, Galveston, Texas.

Figure 13. A supernumerary tooth removed from the lower jaw. This tooth had become crosswise of the mouth.

Figures 14 and 15. Supernumerary teeth removed from this same mouth from alongside of the third upper molar on each side.

Figures 16 and 17. Two supernumerary teeth removed from the mouth of a five-

year-old horse, on each side of the lower jaw.

Figure 18. A supernumerary tooth I removed from a three-year-old filley at Scottsville, Kansas, from the outside and alongside of the second molar.

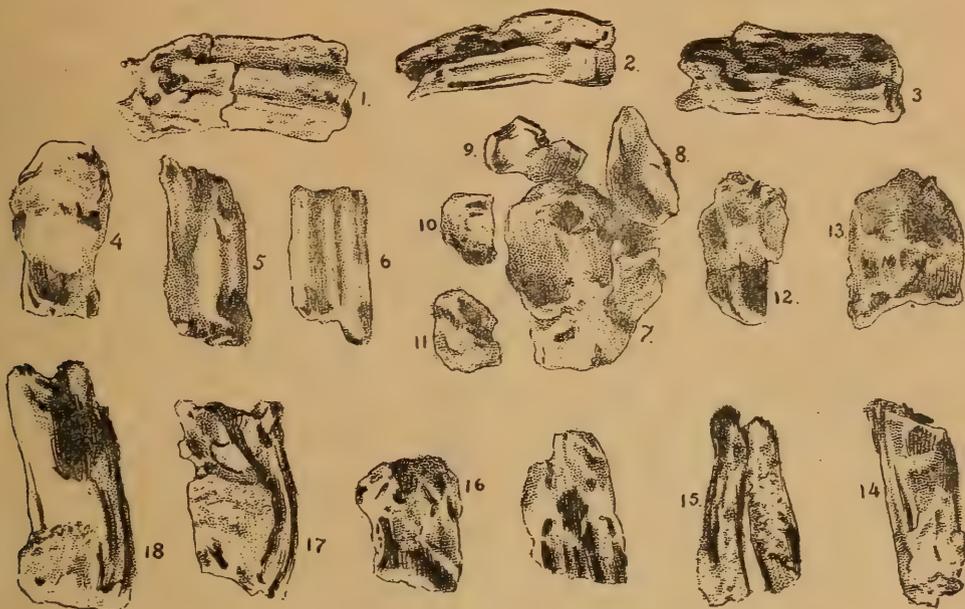


Figure 1. Ulcerated third molar that I removed from a horse while stopping at Reitnor's stable, in Sherman, Texas.

Figure 2. Third molar in the under jaw that I removed from a four-year-old horse, that had a running sore.

Figure 3. Badly ulcerated tooth that I removed from a mule.

Figure 4. A tooth that caused a running sore on the face of a six-year-old horse, with a big growth on the roots of the tooth. I attempted to pull it with the forceps. I succeeded only in shaking it loose, so had to trephine and drive it out.

Figures 5 and 6. Two ulcerated lower molar teeth removed from the lower jaws of a valuable jennet belonging to W. P. Brickley, of Farmersville, Texas.

Figures 7, 8, 9, 10 and 11. Pieces of one tooth. This was the fourth upper molar on the right side, that I removed at McKinney, Texas, from a three-year-old colt. There was an abnormal growth on the roots in a globe shape, and hollow in the center. There was an enlargement on the face of the horse, over his tooth, the size of a man's fist, and a discharge into the mouth from this tooth.

Figure 12. A badly ulcerated third upper molar that I removed from a mule.

Figure 13. A milk tooth, the first molar of a two-year-old colt, that I removed, which was badly ulcerated. The reason I mention this particular case is, that nature did not replace this tooth with a permanent one.

Figure 14. An ulcerated tooth removed from a horse at Fulton, Mo., that I mentioned previously, where he collapsed and died.

Figure 15. A tooth that is split from the food pressing into the cavity.

Figure 16. The teeth on each side of this figure are two badly ulcerated molars, extracted from a twelve-year-old horse.

Figure 17. An ulcerated tooth that I removed from a ten-year-old horse that had a bad case of rheumatism.

Figure 18. A tooth that caused a running sore on the face of a five-year-old horse. This was similar to the case at Sherman, Texas. In that the owner did not believe it was caused from a tooth and wanted me to treat the sore.

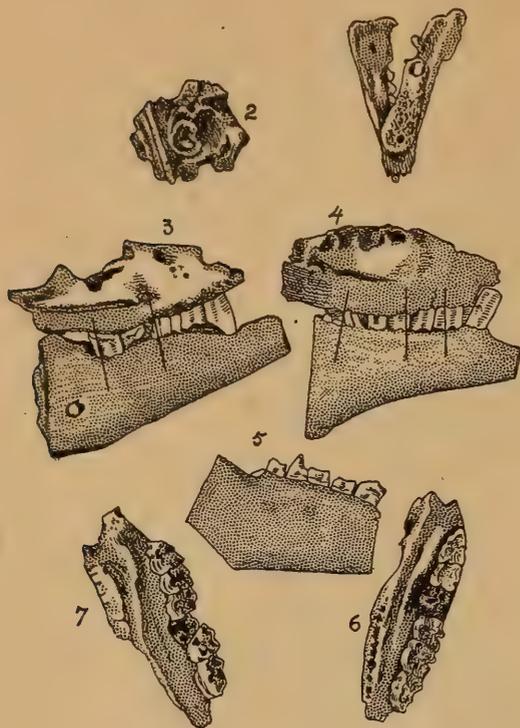


Figure 1 is the jaw bone of a hog which was enlarged from two ulcerated molars and there was a running sore through the jaw.

Figure 2 is the third upper left molar and the section of the jaw bone surrounding it. This was taken from a horse in Paris, Texas, that was four years old when killed.

Figure 3. In this figure the first upper molar is an elongated tooth growing into the lower jaw bone. Figure 4 is the opposite or the first lower molar growing into the upper jaw.

Figure 5. This is the jaw of an old horse, and they frequently get in this condition, showing irregular teeth, and sharp ones.

Figure 6. This is the right side of the upper jaw of a horse that the owner had spent about forty dollars on doctoring for bighead.

Figure 7. This is the right side of the upper part of the head showing a badly ulcerated tooth. This animal had belonged to Dr. Blackwell, a liveryman of Cooper, Texas, who attended one of my lectures in the court house at Cooper, and afterwards brought this head.

These are a few of the operations that I have performed, which I trust, will be of benefit and interest to the reader.

#### THE HORSE A SILENT SUFFERER.

It may strike the reader that I have devoted considerable space to the subject of the horse's teeth and the diseases incident thereto, but I would willingly use much more time and space if I felt sure that I could arouse the public to the great importance of this subject. If a horse is hurt externally, cut, bruised or lame, or has a sore of any kind, it is noticed, and something is done for it. But he may be suffering the tortures of death from his teeth and no one know it. He cannot speak, he cannot put a hand on the aching, throbbing spot of pain, he cannot even cry as a cat or dog in misery can—all he can do is to suffer in silence. Any man will sympathize with a horse that has a nail in its foot and will go a long ways to get it removed, but the pain of toothache or any of the many diseases of the teeth is just as bad, or worse, and because the teeth are hidden from sight, nothing is done to relieve him. Hundreds of horses have died of tetanus (lock jaw) caused by these excruciating pains. What I seek to do is to impress indelibly the importance of looking for trouble in the horse's mouth, and showing how to remove it when found. If you

have a horse whose teeth call for the services of a dentist, be careful what kind of an operator you employ. No man should be permitted to work on a horse's teeth who is not kind-hearted and full of sympathy for dumb animals. A brutal, unfeeling man, or an ignorant pretender, may do an injury that will leave the horse suffering more than he did before the work was done, and the object of such work should be to relieve suffering—not to cause it. There are men low enough to pull a sound tooth merely to make a pretense of doing something and to earn a fee. I am sorry to say this, but cases of this kind have come under my observation. Too many operators are in this business simply for the money there is in it, and have no thought of the good they may do. Others take pride in making a name as "bold operators," and try to show their "nerve" by cutting, slashing and otherwise cruelly hurting the poor animals entrusted in their hands. If you would be a really successful operator you must be moved by the higher motive of doing good for your dumb patients, handling them as gently as the case will permit, and removing as far as lies in your power everything that is causing them to suffer. No matter if it be an old horse or a poor horse—do the best you can for him, and if you do this at all times, regardless of what there is in it for you, you will be doing good, and that is the most successful thing in this world, and the thing that gives a man his best and most lasting satisfaction.

### HOW TO FIND A HORSE'S PULSE.



This cut illustrates where and how to find the horse's pulse. In health, the average number of pulsations are from forty to fifty every minute. In disease, the pulse varies in frequency and character. The smaller the horse, the quicker the pulse.

## MORGAN'S TWELVE RELIABLE REMEDIES.

The author presents the following remedies with the fullest confidence in their merit and reliability, having used them in his practice for over fifteen years, and thoroughly tested them. By their use any man of common sense will be able to doctor a horse intelligently for all ordinary and usual diseases to which the horse is subject. They are easily compounded, and are of simple, inexpensive materials, readily obtainable. The twelve remedies are intended to cover the whole range of horse diseases, and it will be a rare case, indeed, if the proper medicine cannot be found in this collection.

### WHITE HORSE DUKE'S LINIMENT.

Named after Dr. Morgan's well-known white horse, Duke.

Apple vinegar.....	1 quart
Spirits of turpentine.....	1 quart
Oil of organum.....	½ ounce
Oil of sassafras.....	½ ounce
Spirits of camphor.....	½ ounce
Tincture of capsicum.....	½ ounce
Oil of cloves.....	½ ounce
Two eggs.	

Break the eggs into the vinegar and shake well until thoroughly mixed. Next add turpentine and shake well. Let stand five hours. Then add the other ingredients.

This is one of the best general liniments for man and beast in the world, and contains all the virtues found in any liniment, besides being cheap and easily made. The older it gets the better it is, if kept corked.

FOR HORSES.—It is good for strains, bruises, weak back, sore throat, rheumatism, and all diseases of the joints or muscles. For distemper and sore throat, where the glands are swollen, it will draw the swelling to a head in a short time. Is also a fine thing to stimulate the growth in horses' feet. Pneumonia, lung fever, weak back, kidney disease and colic. In lung fever and pneumonia apply it over the lungs and chest. For weak back apply to the back twice a day. For kidney disease apply to the small of the back, over the kidneys. For colic rub on the belly and the flanks, and on the small of the back. This liniment can be safely used where any good liniment would be needed. When first applied it smarts and burns, but this is only for a few minutes.

FOR MAN.—Must be weakened by adding one pint of apple vinegar to the quantity given above. It is a sure relief for rheumatism, weak back, swollen joints or muscles, sore throat and lungs, strains, sprains and bruises, and it contains nothing that would possibly harm any one.

#### HEALING OIL AND GERMICIDE.

Fish oil .....	1 pint
Spirits of turpentine .....	1 pint
Raw linseed oil .....	1 pint
Canada balsam .....	1 ounce

Mix the above together and put in an open vessel such as a milk crock. Then add, sulphuric acid, commercial,  $\frac{1}{2}$  ounce. The acid will cause a kind of boiling, on account of the chemical action, and heat the mixture. Let stand until cool, then bottle. Be sure not to undertake to mix it in a close-mouthed bottle, as it is almost sure to break it.

This is one of the best remedies I have ever found for barb wire or other cuts near the hoof, killing all disease germs, and preventing the hard growth that so often forms in healing cuts. It is not necessary to stop working a horse to cure sore shoulders or sore neck with this oil. Also good for poll evil and fistula. My success in castrating ridglings and old stallions is largely due to the antiseptic properties of this oil. I use it in all operations where I use the knife. It can be used freely twice a day.

FOR MAN.—It is a wonderful healer of piles, old sores, cuts, burns and blisters. For piles inject with a syringe. Is perfectly harmless.

#### PRINCE'S COLIC CURE.

Named for Dr. Morgan's horse which wears a silver tube in his throat.

Fluid extract of buchu .....	1 $\frac{1}{4}$ ounces
Fluid extract of colocynth .....	1 $\frac{1}{4}$ ounces
Fluid extract of aconite .....	1 $\frac{1}{2}$ drachms.
Fluid extract of colchicum .....	$\frac{1}{2}$ drachm
Chloroform .....	1 $\frac{1}{4}$ ounces

Mix. This will make four ounces. A dose is half an ounce, so the above quantity makes eight doses. Directions for giving it: Half an ounce back on the tongue, full strength. Do not weaken with water, as it is necessary for it to excite the salivary glands so that the saliva will pass into the stomach. It causes an irritation of the mouth when first given, but this soon disappears. If the first dose fails to relieve the animal, give a second in half an hour, and a third dose may be given if needed, in an hour after the second.

This is very strong and should be given carefully according to directions. It is easily given, as it is not necessary for the animal to swallow it. The necessary thing is to get it back on the tongue, which may be done by using a large spoon, a small bottle or syringe. The great advantage of this cure over the old colic cures is the small dose, and the ease with which it is given. Many of the old cures are from a half pint to a quart, which must be got into the stomach, and in drenching the horse, he is often killed in his struggles. Nearly all the old colic remedies contained laudanum, ether and chloroform, and in many cases of supposed colic the real trouble was kidney disease; symptoms of these two diseases are so much alike that the average person could easily mistake the one for the other. Where the trouble is in the urinary organs and laudanum is given it checks the kidneys, and this is the reason so many horses die after being dosed for colic with medicine containing laudanum. The beauty of Prince's Colic Cure is that it is good and perfectly safe in any case of colic or other internal pains. It acts very quickly—on the bowels in 15 to 20 minutes, on the kidneys in about the same time, not however, causing urination that quickly. The bottle must be kept tightly corked.

#### FEVER DROPS.

Fluid extract aconite .....	1 ounce
Fluid extract belladonna .....	1 ounce
Alcohol.....	1 ounce
Sweet spirits of nitre.....	1 ounce
Sulphate of quinine .....	2 drachms

Cut the quinine with 20 or 30 drops of muriatic acid, so it will mix easily with the other ingredients.

Mix. Dose for horse, fifteen to thirty drops every two hours, for cattle thirty to forty drops every two hours, administered on the tongue, with a teaspoon generally.

This is very poisonous and should be handled with a great deal of care. In severe cases where the horse is chilled I have given as much as a teaspoonful at the first dose, or in bad cases of distemper. A few drops would kill a child, and hence the greatest care should be used not to leave in the reach of children.

This is the greatest remedy that I have ever used in reducing fever and inflammation. Some horses can not stand as much as others. When a horse has taken too much, he will slobber profusely. If the horse shows this symptom the drops should be given every three hours instead of every two hours. (These are the fever drops referred to all through the book.) In horses and cattle good for soreness of the lungs, cold in the head, fever, chills, coughs, stag-

gers, inflammation of the bowels, distemper, epizootic, bronchitis, sore throat, milk fever in cows and diseases of an inflammatory nature; also lung fever and pneumonia. Everyone should keep it in their stable. Is also good for "shipping cold." I gave a dose daily to jacks while bringing them across the ocean, and it kept them free from coughs or colds, and kept their bowels free.

#### CAUSTIC BLISTER.

Oleum tiglii.....	1 ounce
Oil of spike.....	1 ounce
Oil of cedar.....	1 ounce
Raw linseed oil.....	3 ounces

Mix. This is one of the best blisters I ever used when taken care of properly. It is one of the strongest blisters known, and yet is harmless if used properly. I have been very successful in applying it on fistula before it breaks, and in cases where they have been running for some time, and are inflamed, it removes the enlargement and inflammation. To apply to a fistula, cut the hair off of the swollen part, and then grease well all around, but not on the swelling, then apply the blister, and the grease will protect the skin around the spot where you want the blister. Generally one application is sufficient on a fistula. It is a good remedy for sweeny, but should be used lightly. Always after using this blister, be sure and wash it off, the next morning, and grease the blistered part well with hog's lard. Do this in all cases where it is used, for if you fail to do so, the blister will keep on eating, and make a bad sore. This, if used when the trouble first begins, will cure spavin, ring-bone, curb, splints, side-bones, bighead, or any bony growth, but after the enlargement has become hard and set, it will not remove it. It will, however cure the lameness in 70 out of 100 cases. In any case requiring a good blister, you can rely on this, the only caution to be observed being not to apply too much.

#### EYE WATER.

Sulphate of atropa.....	8 grains
Sulphate of zinc.....	1 drachm
Sulphate of morphine.....	15 grains
Rose water.....	6 ounces

Mix. Apply twice a day in the eye. The best way to apply eye water is as follows: Put a twitch on the animal. Place the quantity you are going to use in a small bottle, making sure there is no rough edge on the bottle. Pull the lower eye lid down, and you can then pour the eye water in safely and surely. It is a very poor plan to use a syringe or dropper, or to try and apply eye water without put-

ting on the twitch. Many a horse has been made mean about having his head approached just by the improper way in which eye water was applied. Right here I wish to denounce the cruel practice of some who throw salt in a horse's sore eye. Imagine how you would like salt put in your eyes, even if they were not sore. Besides being cruel, it is of no benefit, but rather an injury. This eye water will do all that any eye water can do to the eye, easing the pain and removing the inflammation.

#### IODINE OINTMENT.

Red iodide of mercury.....	1½ drachms
Crystal iodine.....	1 ounce
Oleum tigllii.....	40 drops
Vaseline sufficient to make a salve.	

Grind the iodine up fine in a mortar and cut it with a half ounce of alcohol. Then add the other ingredients and mix well. This is my remedy for bog spavin, blood spavin, thoroughpin, wind galls, or any soft enlargements. To use this, apply every other day, until four or five applications have been made, rubbing it in well on the enlargement. Some judgment must be exercised in using this, as the skin is thinner on some horses than on others. Should be repeated about every two or three weeks. It takes from three to nine months to remove a bad bog spavin.

#### CARBOLIZED IODINE.

Tincture of iodine.....	3 ounces
Carbolic acid.....	3 ounces

Mix and it is ready for use. This is used in fistula, poll evil, any old sores, warts, or anything of long standing. It is one of the best things I know of for caries of the jaw, where the bone is decaying. Apply with a small brush twice a day. If there is a running sore in the bone inject the medicine into it with a syringe. In fistula inject it into the pipes, and take oakum or cotton and saturate it with the medicine and work it down into the bottom of the pipes. It will not cause swelling or inflammation to amount to anything, and will kill any germs, being a safe antiseptic and having a tendency to ease pain.

#### RELIABLE PHYSIC.

Spirits of turpentine.....	1½ ounces
Fluid extract of aloes.....	1½ ounces
Calomel.....	1 drachm
Powdered ginger.....	1 ounce
Raw linseed oil.....	10 ounces

Mix. Give as one dose. Be sure and get *raw* linseed oil, as the boiled oil contains a drier that is extremely dangerous. This is a good strong dose, but harmless. Some allowance is made for spilling when drenching. For removing worms, add to the above, 1 ounce of fluid extract of male fern.

#### GENERAL TONIC.

Fluid extract of digitalis.....1 ounce  
 Fluid extract of nux vomica..... 1 ounce

Mix. Dose, from 15 to 30 drops, twice a day. For a heart tonic, in case of dropsy, swollen hind legs or any derangement caused by weak heart action. It is a fine tonic for old and weak horses. To administer, use a teaspoon, and place the medicine on the tongue. Do not use too long at a time; better to give for a week and then omit a week. It is a rank poison and should be handled very carefully.

#### HAARLEM OIL.

Haarlem Oil (Medicamentum Gratia Probatum), is a proprietary medicine made in Germany for over 200 years, and sold at all drug stores. It is a wonderful medicine for kidney and bladder troubles, expelling all impurities through the kidneys and bowels, and is a safe and harmless medicine. Use it in kidney and bladder troubles, gravel, and in all cases of fever. It is an indispensable remedy in every livery stable, being especially useful for swollen legs and ankles. The dose for a horse is one bottle, usually given every other day, except in very severe cases. Dose for cattle, a bottle and a half; dogs, 15 drops once a day.

#### BLOOD POWDERS.

Iodide of potash..... 1½ ounces  
 Dry sulphate of iron..... 1½ ounces  
 Powdered aloes..... 1½ ounces  
 Powdered stramonium..... 1 ounce

Mix. Divide into twenty-four powders. Give two powders daily—one at night and one in the morning. Administer with a long-handled spoon, well back on the tongue. This is a valuable blood remedy, purifying the blood and cleansing the system, and is a great help when treating for fistula or old sores that are hard to heal.

The above twelve remedies are almost indispensable to the horse owner, and especially should every farmer who is located at a distance from a drug store keep a supply. None of them is very expensive.

## SIMPLIFIED METHOD OF DIAGNOSING DISEASES

AND

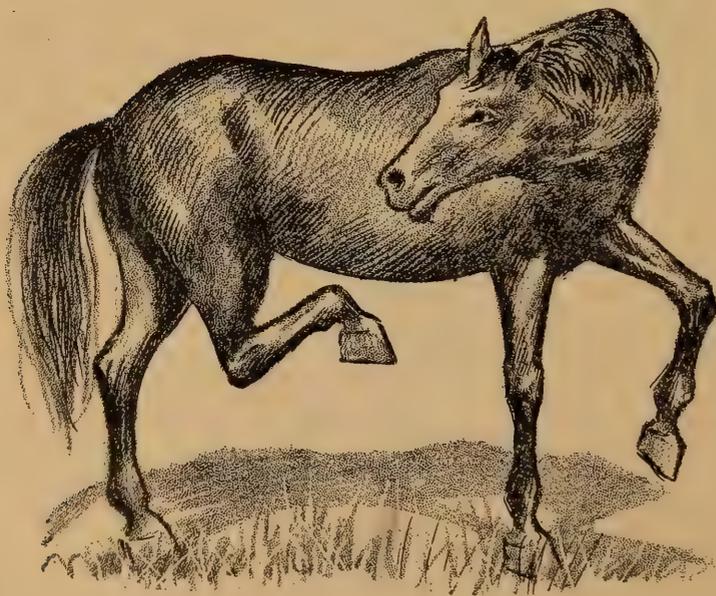
## APPLYING THE TWELVE REMEDIES.

BY PROF. DAVID B. MORGAN.

In this very important part of my work, I shall first treat upon colic. The term colic means pain in the colon (one of the large intestines) but is accepted for all pain in the abdomen. It is always very serious for two reasons; it is painful and very apt to run into inflammation of the bowels, which is usually fatal.

## SPASMODIC OR CRAMP COLIC

Is pain in the bowels from the violent spasmodic contraction and cramps of the muscular coating in the bowels. It is called spasmodic, on account of the pain and cramps being intermittent and not contin-



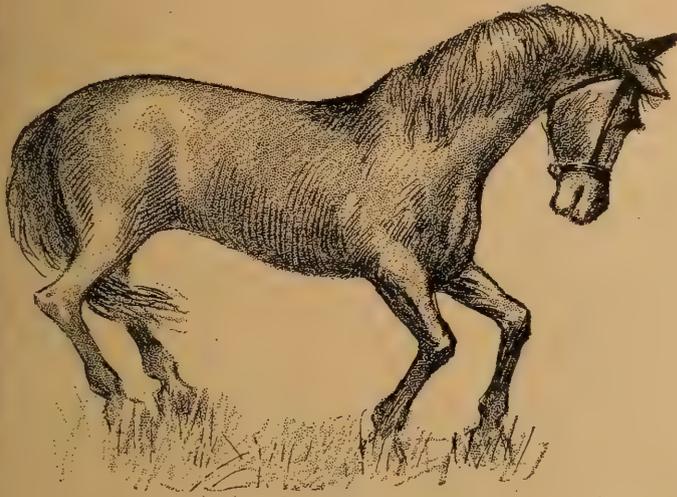
First Stage of Spasmodic Colic.

uous. There are moments of relief from the pain in which the animal will be quiet and at ease, but it is apt to commence again after a few moments.

Causes: It is caused by irritation in the bowels from some indigestible matter, also by drinking too much cold water.

How to recognize it: In the first stage the horse becomes uneasy, looks around, raises up his hind feet towards his belly, steps around from one side of the stall to the other, stops eating, and will curl as if to lie down.

In the second stage he lies down and gets up again after lying perhaps a couple of minutes. In the third he rolls, kicks, sweats profusely, has a haggard countenance, is inclined to turn upon his



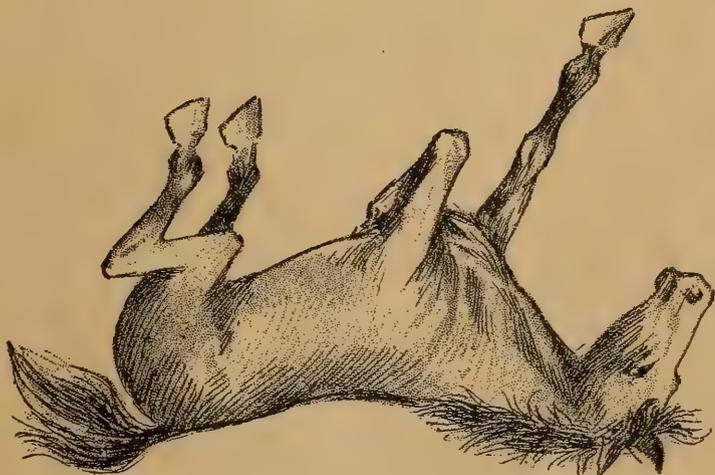
Second Stage of Spasmodic Colic.

back, and remain so. In mild cases, after kicking for half an hour or so, the horse usually gets better, the pain all passes off and he returns to his accustomed spirits and habits; but if it does not go off in the course of half an hour and from that to two or three hours it is apt to run into inflammation of the bowels and kill him.

**Treatment:** Use Prince's Colic Cure as directed on page 75. Also apply externally the White Liniment to the abdominal walls and over the kidneys.

A bottle of Haarlem Oil may be given to good advantage.

I have relieved the pain in all colics by the inhalation process. Take an empty twenty-five-pound cloth flour sack and placing a sponge in the bottom of same, saturate the sponge with the following:



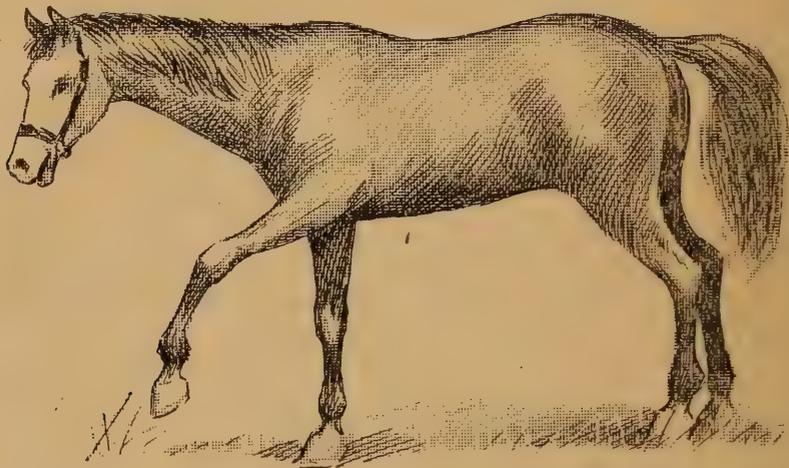
Third Stage of Spasmodic Colic.

Tincture of benzoin.....	½ ounce
Spirits ammonia, aromatic.....	1 ounce
Chloroform.....	½ ounce
Sulphuric ether.....	½ ounce
Oil of tar.....	½ ounce
Oil of mustard.....	30 drops
Spirits of camphor.....	1 ounce

I use this remedy in bronchitis, distemper, colds, lung fever and pneumonia, and get quick relief.

## GAS OR FLATULENT COLIC.

This is usually caused by over-feeding when too warm, or driving too fast soon after leaving the stable. You should never trot your horses when leaving the stable until they have had two or three passages of the bowels, and always make your fast drive on the "home-stretch." When a horse is driven too fast upon a full stomach, the food sours and an offensive gas is formed which can easily be detected as it passes from the animal. The animal will bloat badly and keep pointing his nose toward his flank where the greatest pain lies. The pain causes a contraction of the rectum and the gas is retained in the bowels.



First Stage of Flatulent Colic.

How to recognize it: The horse rolls, kicks, paws, tries to lie on his back, gets up and down, sweats profusely, has a haggard look in his face, gulps wind and food from the stomach in small quantities through his nose, and the food thus discharged is usually green and very sour. The nostrils are distended, breathing rapid and breath cold from the shallow breathing. The pulse is quickened at the start, but gradually grows harder and smaller as the fatal termination approaches. The belly becomes so distended that the flanks are above the points of the hips, and in some cases, when lying down, the legs are so spread from the distention of the belly that the animal is unable to get up. If it lasts very long the nervous system becomes exhausted; the muscles around the chest, shoulders and neck cramp and draw down so as to almost pull the horse to the ground, and he will sometimes scream out like a child from the pain. The ears and extremities get deathly cold.

If rupture takes place he will sit on his haunches like a dog, turn up his upper lip as though nauseated and try to vomit; but ow-

ing to the peculiar formation of the stomach the horse cannot vomit. The pulse gets weaker and smaller till he falls and dies from nervous exhaustion. When he dies in earlier stages it is from suffocation. The distention of the stomach and bowels presses on the lungs so hard that it forces them up into so small a compass that they cannot work, and suffocation is the result.

Favorable symptoms are cessation of pain, free evacuation of gas by the rectum; pulse returns to its normal condition, ears and extremities regain their natural temperature, sweating stops and the horse returns to his feed and customary habits.

Treatment: Give Prince's Colic Cure as directed on page 75. Give injections of warm soap suds, adding one half ounce spirits of turpentine to the bucketful.

Apply externally the White Liniment to the abdomen over the intestines. If this does not relieve him the instrument called a trocar must be used. Stick the sharp point into the flank on the right side,



Trocar for Horse.

and pull out the handle, leaving the tube in the animal, through which the gas may escape. This always proves successful. After the gas escapes and your horse is easy, remove the tube and grease the wound inflicted thereby. There is no danger in this operation.



Symptoms of Diseases of Urinary Organs.

#### BLOOD COLIC, OR RETENTION OF URINE.

With this colic the horse will be down often. He very seldom bloats until nearly dead. When standing on his feet he will stretch out, strain badly, and sometimes pass a little water, which is generally of a dark, reddish color. He will point his nose to his flank, the same as a horse with the gas colic; but there is seldom any bloating, hence, he will need no injection.

Treatment: Use Prince's Colic Cure as directed on page 75.

#### DO NOT DRENCH THROUGH THE NOSE.

In giving medicine to a horse he should not be drenched through the nose, because if strong medicine is given in this manner it is very

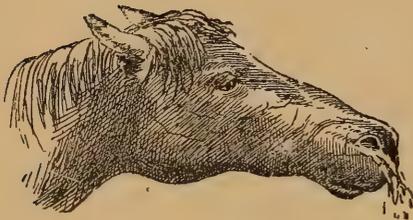
injurious and extremely dangerous, for the reason that horses cannot breathe through the mouth like humans, and when strong medicine is given by drenching through the nose, it is sure to enter the lungs and liable to cause death in a few minutes from strangulation; and if death does not result it leaves a cough which is apt to cause inflammation of the bronchial tubes.

#### INFLAMMATION OF THE STOMACH AND BOWELS.

This disease is often mistaken for colic. There is however, a vast difference. The difference is that it is continuous, while colic is intermittent.

Treatment: There is very little can be done to relieve a horse afflicted with a bad case of this kind. Use Prince's Colic Cure internally, White Liniment on the belly, and give injections of warm water, with a drachm of fluid extract of belladonna to the bucketful.

#### COUGHS AND COLDS.



Strangles.

When a horse has taken cold and coughs from it, there will nearly always be a discharge from the nose. He should be kept warm and not allowed to stand in a draught.

Treatment: Use the Fever Drops as directed on page 76, and rub White Liniment around the throat. In bad cases use the inhalation process on page 81.

#### SORE THROAT.

Give Fever Drops and rub White Liniment on the throat.

#### HORSE DISTEMPER.

All catarrhal affections are classed by horse owners under the common head of distemper. Common catarrh, epizootic or epidemic catarrh, laryngitis, bronchitis and all other diseases of this nature, arise from the same causes, hence, require similar treatment. It is now generally admitted that this class of diseases is attributable, in a degree to impure blood; therefore, in order to treat the disease correctly and eliminate it from the system, we must purify the blood.

Treatment: Give Fever Drops as directed, use the White Liniment on the throat, and give Haarlem Oil as directed. If abscess forms,

open it, so that pus can escape. There is a great deal of danger in opening these abscesses. (Hemorrhage and cutting the saliva glands.) The safe way to open an abscess is to grasp the skin over the same with left hand and pull out and make an incision with a knife in the skin and cut out. Then use a blunt pointed probe and work through muscles into the abscess. Then dilate it with the fingers. I have found a lead pencil to answer as a probe in these cases.

#### CATARRHAL FEVER.

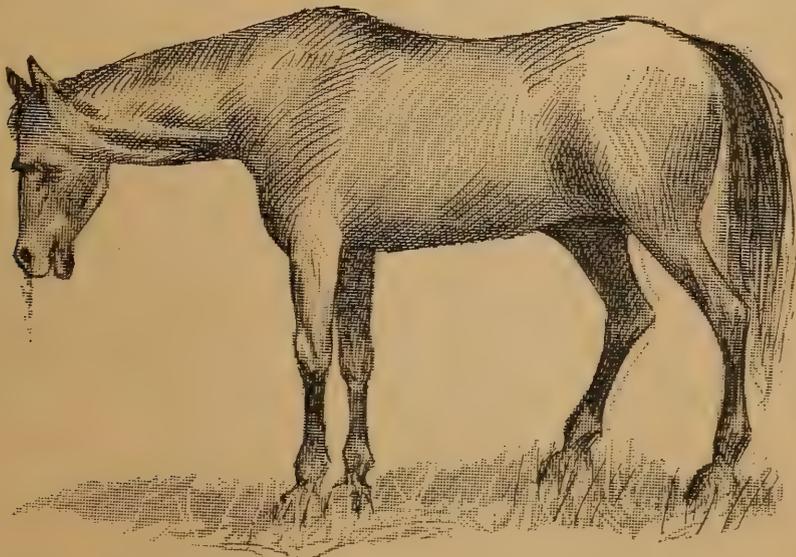
An acute contagious fever with catarrhal inflammation of the mucous membrane of the eyes and respiratory organs, occasionally involving the gastric-intestinal and urinary membranes, usually of two to four weeks' duration. If it should develop in a stable the horse should be isolated and kept away from all other horses. The disease is liable to spread and affect all the horses exposed, it being very contagious.

Symptoms: It resembles distemper, but differs in that the legs and joints swell.

Treatment: Same as in distemper.

#### INFLAMMATION OF THE LUNGS AND PNEUMONIA.

This disease is caused by over-exertion, sudden checking of perspiration, impure air, etc. The symptoms are cold ears and legs,



Commencement of Inflammation of the Lungs.

cold, clammy sweat on the body, shivering, the ears droop forward, the poor beast breathes short and evinces pain from any exertion.

He has a hacking cough that hurts him, and he stands with his legs bracing. He loses his appetite, does not drink well, and never lies down until he gets better or drops dead. He soon dies of acute congestion unless relief is obtained.

The animal should be blanketed and his limbs should be rubbed thoroughly and then bandaged with heavy woolen bandages. Give him fresh air, but do not allow him to stand in a draught.

Treatment: Give Fever Drops and rub White Liniment on the chest, over the lungs and around the throat. If the horse is weak, give one ounce of whisky in milk three times a day. Dose with Prince's Colic Cure every other day.

#### DROPSY.

Dropsy is rather the result of disease; generally following catarrhal fever and distemper, or result of the peculiar condition of the system, than a disease itself. It depends upon a debilitated condition, the result of other weakening diseases, especially of the kidneys. It is the want of proper circulation, indigestion, and sometimes comes from diseased and irregular teeth.

Treatment: Give General Tonic and Blood Powders, page 79.

#### BRONCHITIS.

Inflammation of the lining membrane of the windpipe and smaller air tubes leading to the lungs, characterized by a hoarse cough and shortness of breath.

Treatment: Same as in lung fever or pneumonia.

#### PLEURISY.

An inflammation of the membrane which covers the lungs and lines the chest, followed by the secretion of a large quantity of watery fluid inside this membrane, and consequent pressure on the lungs. It may be one or both sides, and last from seven to fourteen days.

Treatment: Same as in lung fever.

#### INFLAMMATION OF THE KIDNEYS.

With this disease the animal becomes dull and needs urging, shows signs of intense pain; seems to be stiff in the loins and hind legs; does not care to lie down; flinches when pressure is given over the kidneys.

Treatment: Use White Liniment on the back over the kidneys; give Prince's Colic Cure and Haarlem Oil.

#### DIABETES.

The habitual excessive discharge of urine. This is caused by the feeding of millet that has grown too rank, sugar cane, mouldy food of various kinds, musty, mouldy oats and hay and spoiled bran.

Symptoms: Keeping the stall wet with urine; the urine is clear, but with little or no odor and amounts to three or four gallons daily. The appetite fails but there is a great thirst; the pulse is weak, sometimes slower and sometimes faster than natural.

Treatment: Give the Blood Powders, page 79.

#### BLACK WATER OR HEMATURIA.

This disease is characterized by a large amount of blood in the urine. It may be due to injury, local disease, general disorder or the presence of entozoa.

Treatment: Use Prince's Colic Cure and Haarlem Oil.

#### HEAVES.

Powdered camphor.....	1½ ounces
Powdered opium.....	1½ ounces
Powdered digitalis.....	1½ ounces
Powdered calomel.....	1½ ounces

Mix and divide into twenty-four powders. Give one night and morning until twelve are given. Then give Reliable Physic, page 78. Then give the other twelve powders the same as before.

#### BLIND OR SLEEPY STAGGERS.

This disease is caused by over feed, over exercise in hot weather, or eating corn stalks or other food containing too much woody fibre. Such food is too dry, has no nutriment in it, hence the animal cannot digest it. He hangs his head, falls asleep, and sometimes becomes unconscious. His eyes are or seem to be, insensible to the light. Sometimes he plunges about and falls backward.

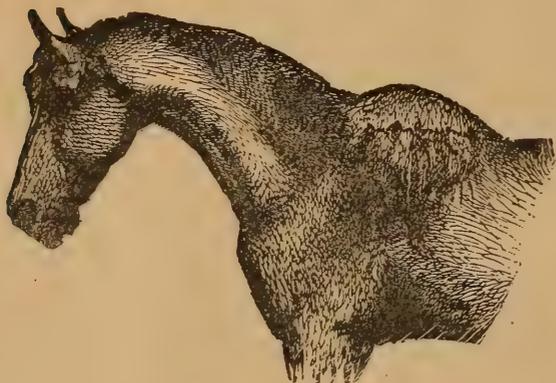
Treatment: Give Reliable Physic, page 78, Prince's Colic Cure, and keep an ice bag on his head. Rub White Liniment on the back. Do not let the animal have any food for at least twelve hours.

## FISTULA AND POLL EVIL.

Fistula and poll evil are the same thing, only the location is different, and are the same as a carbuncle on the human.

Fistula comes on the withers and poll evil on the poll, back of the ears.

Fistula comes from bruises and bites, or from rolling on a hard substance, or from a low stable, striking his withers against the sta-



A bad case of Fistula.



Poll Evil.

ble. Poll evil comes from checking the head too high, from pulling at the halter or by jerking the bridle too hard.

Treatment: Is the same for both diseases. If noticed when the inflammation is in an incipient state, use the White Liniment. If it is of long standing and pus has not formed, use Caustic Blister. If pus has formed, open it to the bottom and give the sack a good draining. Use the Carbolyzed Iodine as directed on page 78. If there is a running sore split to the bottom with a knife and use the Carbolyzed Iodine once a day. After the pipes are destroyed use the Healing Oil, which will keep the flies away and heal the sore. A fistula or poll evil should be bathed thoroughly once a day with hot water to allay inflammation.

The operation for fistula is a very painful one and a local anæsthetic injection should be used. The sufferings of the horse from the old fogy treatments of this disease have been intense, and some people are so cruel that they do not care for the suffering of the poor animal, but will allow any ignorant fool to practice upon him. Some cut the end of the tail off, while others break glass into small particles and pour it into the ears, and other cruel remedies too numerous to mention.

## DIARRHEA.

Give Prince's Colic Cure, page 75.

## DISLOCATION OF THE HIP, ETC.

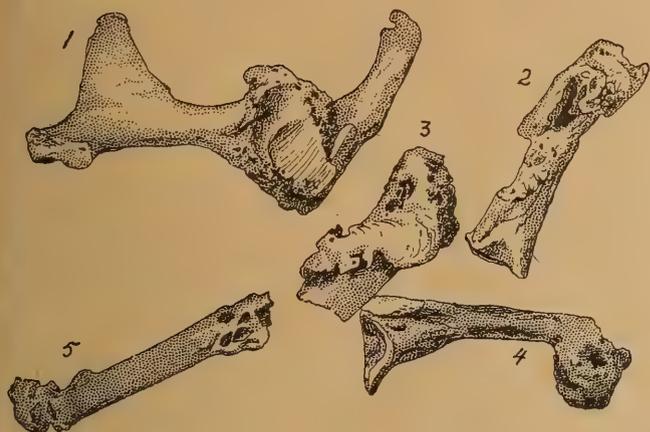


Figure 5. Is one of the dorsal vertebræ showing the diseases of the top or one of the pus pockets, caused by fistula.

Figures 1 and 3 show where the socket of the hip was broken, and nature throwing out deposits, a new hip was formed.

Figure 2. This is the tibia bone of colt that I threw to operate upon and in struggling broke his leg. This shows the condition; it was chalky and had no oily substance.

Figure 4. Showing a section of the pelvis bone, cut at the hip joint, and shows a fracture of ilium, or commonly called hipped.

## TUMORS.

The only certain treatment for tumors is the knife. After removing the tumor it should be thoroughly seared with hot iron until all the hemorrhage is stopped. Apply the Carbolized Iodine, page 78, once a day. If the tumor is near the foot it is apt to enlarge the tendons. In that case apply the Caustic Blister. After the tumor is killed, use the Healing Oil, page 75. A tumor or wart should be removed when it first appears, as it is then an easy matter. The illustration shows a tumor that had been allowed to go too long, and grew into the pastern joint. I refused to operate on it, as it was too late.



## TO STOP BLOOD.

If from an artery: Take up the end with artery forceps and tie with a silk thread or cauterize it with a hot iron. Chloride of iron is also used with satisfactory results in the stopping of hemorrhage; alum and flour are used in the absence of these remedies, by binding to the bleeding parts. In the absence of any medicine wrap cotton on the cut or wound and bind tightly.

## RHEUMATISM.

Give Blood Powders, page 79, and Haarlem Oil. Use White Liniment on the affected parts.

## CHOKING.

Symptoms: Are violent efforts to swallow, throat and neck are spasmodically drawn up and often the substance which chokes the animal is visible, or can be felt with the hand passed down the front part of the neck. There is great agony and a look of distress, cold sweats and exhaustion.

Treatment: Drench the animal with two ounces of glycerine, and then tie to a post, so he cannot move away, and with the help of one man, take an inch rope and stand on each side the horse. Grasp each end of the rope, allowing it to rest against the neck on the under side, and work back and forth, up and down from throat latch to breast, causing severe friction, and the horse will cough violently and spasmodic action of the esophagus will dislodge the obstacle. Sometimes I give the second dose of glycerine. The old practice of running a whip handle down the throat causes rupture and this proves more fatal than the choking. I have been called to see cases that had been choked for twenty-four hours and have removed the obstacle in five minutes.

## SCRATCHES OR GREASE HEEL.

These diseases are an inflammation of the skin of the heel, and very seldom come on the front feet.

Use the Healing Oil, page 75, externally, and for grease heel, give in addition, the Blood Powders, page 79.

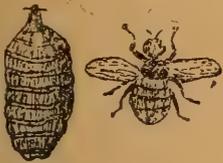
## THRUSH.

This is a disagreeable discharge of offensive matter from the cleft of the "frog" in the foot, and may be caused either by a bruise or filth. The foot should be cleaned out and cut down as thin as possible. Use Healing Oil, page 75.

## MUD FEVER.

It originates through uncleanness, exposure, mud and water, melting snow. It is of the same nature as grease heel or scratches, differing only in the legs' swelling high up.

Treatment: Same as in grease heel, and give in addition, Fever Drops, page 76.



Bot and Gad-fly.

#### BOTS.

Many persons think bots kill horses, but while I have not space to explain it, I will say that it is natural for horses to have bots, and they are harmless.

#### STIFLE LAMENESS, OR DISLOCATION OF THE PATELLA.

The stifle joint of a horse is the same as the knee joint of a man, and when a horse is stifled his knee cap is dislocated and slips to the outside of the knee. The cause of cramps in the hind legs of young mules is that the cartilage around the joints is too loose, and allows the patella to slip up and catch on the edge of the bone.

Treatment: Take hold of the hamstring with one hand and pull out, at the same time press the knee cap in towards the body with the other hand, and it will slip into place. Do not allow anyone to put on your horse that relic of barbarism called a stifle shoe. It is worse than useless, and is a cruel thing.

#### WEAK EYES.

Apply Eye Water, page 77. Keep the animal in a dark place.

#### PERIODICAL OPHTHALMIA, OR "MOON BLINDNESS."

The moon has nothing to do with this trouble, but it is so named because it comes on periodically. It is a change the system undergoes. Use Eye Water, page 77, and give the Blood Powders, page 79.

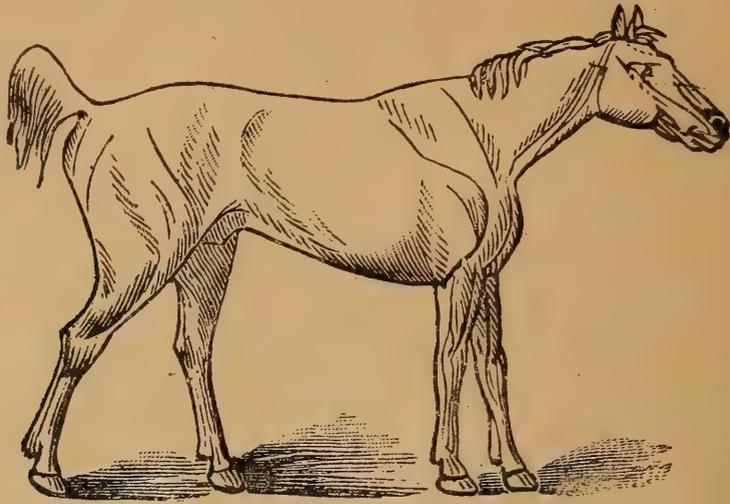
#### SORE AND INFLAMED EYES.

Use the Eye Water, page 77, bathe the eyes in warm water, and give the Reliable Physic, page 79.

#### LOCK-JAW OR TETANUS.

There are two kinds: Symptomatic or traumatic is the result of a wound; idiopathic is caused by too much alkali in the digestive tract. Symptoms are alike in both kinds of tetanus. The first thing noticed will be the haw of the eye drawn over the eye ball, showing more of the haw and less of the eye; the nose protruded, the neck straightened,

the tail elevated and trembling. He never lies down. If not relieved death usually follows in from three days to three weeks.



Horse Suffering from Lock-jaw.

**Treatment:** Very few recover from traumatic tetanus. Give Prince's Colic Cure, page 75, and use the inhalation process, page 81. If it is the idiopathic form, it yields more readily to treatment. Give Reliable Physic, page 78, and Prince's Colic Cure, page 75. Rub White Liniment on the back, and keep in a quiet place.

#### FOUNDER, OR LAMINITIS.

Inflammation of sensitive laminæ of the feet.

**Treatment:** Bathe the feet in hot water for half a day at a time. Use White Liniment, page 74, on the feet and legs up to the knees after bathing. Give Prince's Colic Cure, page 75. Give Reliable Physic, page 78, after the fourth or fifth day.

#### SIT FASTS.

These are callous tumors on the back, the result of saddle gall, or on the shoulder caused from collar boils.

**Treatment:** If of old standing and hard, use the knife and cut them out and dress the parts with Healing Oil, page 75.

#### SORE NECK AND SHOULDERS.

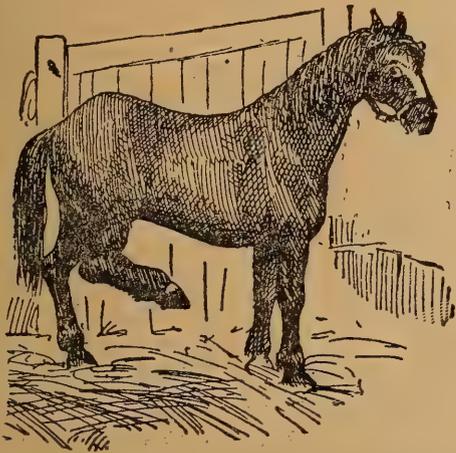
Use Healing Oil, page 75, twice a day.

#### COLLAR BOILS.

Use White Liniment, page 74.

## CRIBBING OR STUMP SUCKING.

It is caused by the teething in colts. It is neuralgia of the teeth, and to get relief they press the teeth against the manger and form the habit of sucking wind. I have experimented a great deal and have failed to find a cure. The fake remedy is to inject tincture of iodine around the roots of the teeth and into the gums. This will often stop it for two or three weeks.



## LYMPHANGITIS.

This disease is sometimes called elephant leg or milk leg, and if of long standing is incurable.

Treatment: Give Blood Powders, page 79, and Fever Drops, page 77. Bathe the leg in warm water.

Horse with Lymphangitis (Milk Leg.)

## TO MAKE A HORSE SHED HIS HAIR AND LOOK SLEEK.

Give him a teaspoonful of hyposulphite of soda in his feed night and morning for a week or ten days. This will also work on cattle, and rid them of ticks. Give cattle a tablespoonful at a dose.



## CHRONIC GLANDERS.

Symptoms: In chronic glanders the animal has a ragged, greenish looking ulcer in the nose, and is accompanied by a cough, and possibly the animal will keep in good flesh and live a year or so. Illustration shows horse with glanders in the last stage when the pus is mixed with blood from extensive sloughing.

Glanders.

## SWEENY.

This is caused by bad-fitting collars or diseased feet. Lameness in the feet will cause the shoulder muscles to waste away from lack of proper action.

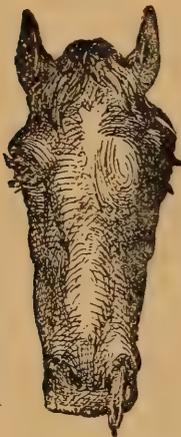
Treatment: Use the Caustic Blister as directed on page 77.

## WORMS.

Drench the horse with a quart of water to which has been added 1 ½ ounces of creolin. This should be given on an empty stomach. Four days later give Reliable Physic, as directed on page 78.

## PIN-WORMS.

They inhabit the large intestines, the rectum usually, and sometimes the colon, and cause the horse to rub his tail. They are easily destroyed by injection of one ounce of chloroform and two ounces of water. Inject once a day for three days.



Horse affected with nasal gleet and bulging of the frontal sinus.

## NASAL GLEET.

There is a continual flow of thick, offensive, yellowish matter, that will usually sink in water. One nostril usually runs more than the other, and often times the chronic trouble is entirely confined to one side. The face between the eyes will be found to be full and bulged out.

Treatment: If there is a bulging in the bone it should be trephined, and an opening made so that the pus can escape, then take a syringe and inject into the hole, and up the nostrils the Healing Oil, page 75. Give the Blood Powders, page 79.

## MANGE.

Apply Healing Oil, page 75, once a day and give the Blood Powders, page 79.

## BARB WIRE CUTS.

Use Healing Oil, page 75. If of long standing and proud flesh has formed, use the Carbolized Iodine, page 78. Dust it once a day with air-slacked lime. The Healing Oil will keep the flies off.

## AZOTURIA, OR KIDNEY AFFECTION.

A kidney trouble of uncertain origin. It occurs in horses that have been rested a day or two, and frequently when they are apparently in their best condition. After driving an hour or so the animal will slacken his gait, and act as if crippled in the hind legs,

break out in a sweat, and show that he is in intense pain. Then he will get down and the hind legs be paralyzed, and the muscles of the back over the kidneys will be swollen. The author has been very successful in treating this disease.

Treatment: Give Prince's Colic Cure, page 75, Haarlem Oil, page 79, and use White Liniment (page 74) on the back. Put blankets steeped in hot water on his back. The second day give Reliable Physic, page 78, and draw the urine with a catheter.

#### CAPPED HOCK.

Use White Liniment, page 74.

#### SHOE BOIL.

This comes right on the elbow from lying on the calk of a shoe in narrow stalls. Use Caustic Blister, page 77.

#### HIDE BOUND, OR INDIGESTION.

Give Blood Powders, page 79, and one dose Reliable Physic, page 78.

#### BONE SPAVIN.

This disease is so well known that I omit the symptoms. When the lameness first comes use White Liniment, page 74. If of a month's standing use Caustic Blister, page 77. After the enlargement becomes bone, firing is the best remedy. This operation is performed by heating red-hot a sharp-pointed instrument, and running it into the bony enlargement seven or eight times. Then use the Caustic Blister. Under the best treatment about six out of ten get well. The bony enlargement cannot be removed.



Position of  
foot and leg  
with Bone  
Spavin.

The most peculiar thing about a bone spavin is that a horse affected with it is sure to limp when trotting, though he may not limp when walking.



Bone Spavin.

#### RING BONE AND SIDE BONE.

These are the same as spavin, except they are located in different places. They call for the same treatment as spavin.

## SOUND AND DISEASED HOCK JOINTS.

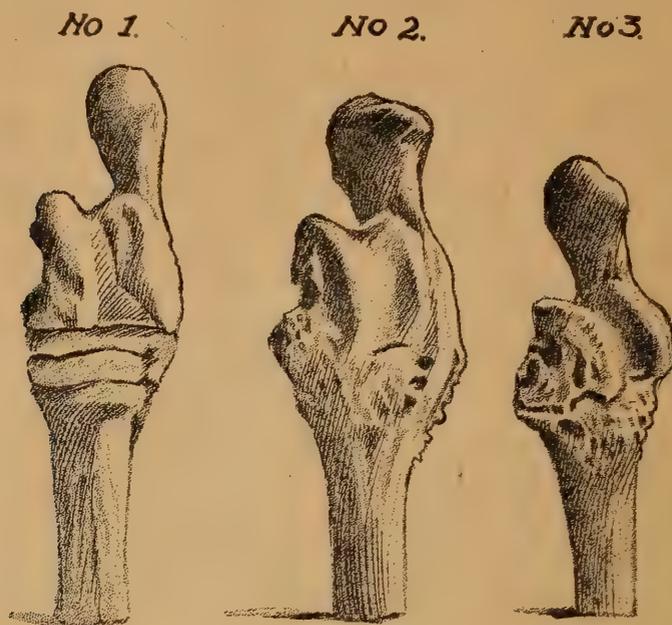


Figure 1 represents a sound hock joint. Figures 2 and 3 show the bony growth in joints, resulting from spavin.

## HIGH SPAVIN.

An enlargement of the upper and inner part of the hock and should be treated the same as bone spavin.

## OCCULT SPAVIN.

This disease is similar to bone spavin, except there is no enlargement or external showing. The symptoms are the same as in bone spavin. Use the same treatment as in bone spavin.

My experience teaches me that this disease is very rare.

## AN OLD DISEASE.

Bone spavin has been known as long as horses have been used. "Bobby" Burns referred to it in his poem, "The Inventory," as follows:

But ance, when in my wooing pride,  
 I, like a blockhead boost to ride,  
 The wilfu' creature sae I pat to  
 (Lord, pardon a' my sins, and that too!)  
 I play'd my filly sic a shavie,  
 She's a bedevil'd wi' the spavie.

## WIND GALLS AND SOFT PUFFS.

Use the Iodine Ointment, page 88.

## SPECIMENS OF DISEASED BONES.

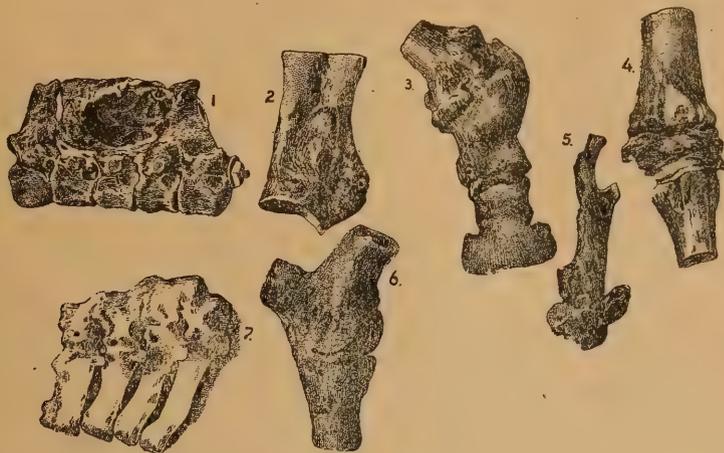


Figure 1 is a bony tumor on the backbone from an injury to the top of one of the dorsals. The injury was caused by the careless manner of putting on a saddle.

Figure 2 shows the end of the shoulder blade with a growth on it—what is commonly called big shoulder.

Figure 3 shows a very bad ankylosis joint and ringbone. This is caused by one prong of a pitchfork penetrating the joint and afterward receiving no treatment.

Figures 4 and 5. Figure 5 is one of the dorsal vertebræ that was diseased, caused by fistula.

Figure 4 shows the knee joint, where there is a growth, and the whole joint is almost destroyed.

Figure 6 is an elbow joint of a mule that was kicked; as can be seen by the cut there is a growth on the joint.

Figure 7 is a section of the backbone where it is grown together.

## BLOOD SPAVIN.

A dilation of the vein that runs along the inside of the hock, forming a soft swelling. There is no very satisfactory treatment. Take up the veins and ligate them above the enlargement.

## BOG SPAVIN.

This is a rupture of the covering of the tendon.

Treatment: Use Iodine Ointment, page 78.

## THOROUGHPIN.

This is of the same nature as bog spavin—the only difference is that it comes above the hock joint and in the hollow under the ham string. The treatment is the same as in bog spavin.

## SNAKE OR INSECT BITES.

Use White Liniment, page 74. Give Prince's Colic Cure, page 75.



A Curb.

## CURB.

A hard, callous swelling on the hinder part of the hock.

Treatment: Use Iodine Ointment, page 78.

## SPLINTS.

Use the Iodine Ointment, page 78.

## SPECIMENS OF DISEASED BONES.

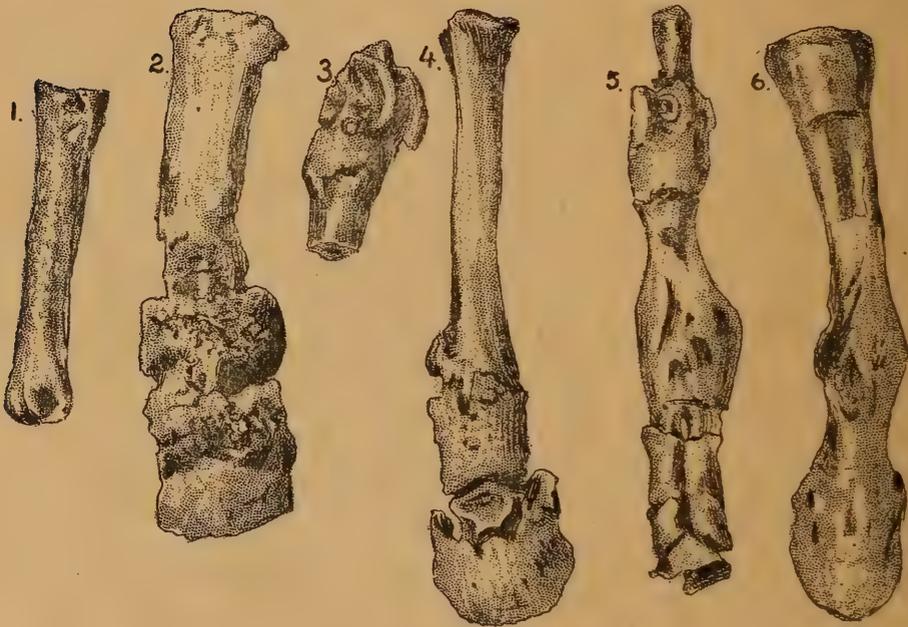


Figure 1 shows a bad case of splint interfering with knee joint, that was cured by the author by firing and the animal never showed any more lameness, leaving only an enlarged place.

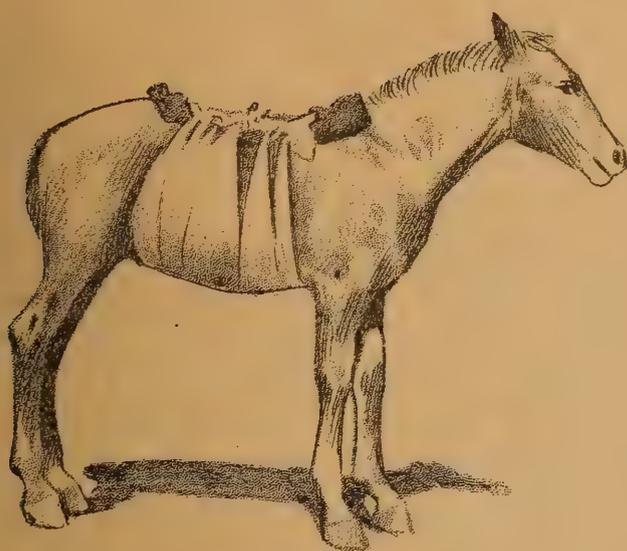
Figure 2 shows a severe case of ringbone and was incurable; both pastern joints were entirely destroyed.

Figure 3 is a case of bone spavin that was cured by firing. It can be seen from the cut that the small bones (tarsus,) of the hock are ankylosed or grown together. This relieved the pain and caused the animal to use the upper joint of the hock. There were no signs of lameness any more, only an enlargement, and he was worked very hard for three years before he died.

Figure 4 shows a very bad ringbone and side bones.

Figure 5 is the hind leg of a cow, showing where same had knitted together after a fracture.

Figure 6 shows a mule's front leg, from the knee down, after the skin was removed, showing tendons, etc.



Showing how to apply a bandage on a colt that is ruptured in the navel.

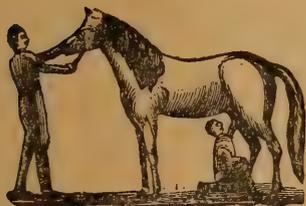


Mare with an abdominal hernia. Ruptured in foaling. No cure for such a case.

#### HOW TO BANDAGE A RUPTURED COLT.

Take heavy ducking, wide enough to reach from the fore legs to the hind legs. Split it down from each end every three or four inches apart, and this will give you a number of ends to tie together on his back. Make a pad as follows: Take a piece of harness leather, 4 by 6 inches. Wrap it in four or five thicknesses of the ducking. Melt harness wax and smear it on one side of the pad, and while still hot and sticky place it on the navel. Then put on the bandage of ducking and tie it. Place padding on each side of the back bone to keep the knots in the ducking from making the back sore.

#### FOUL SHEATH.

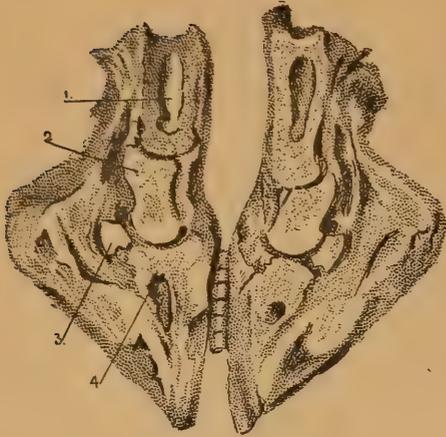


Foul Sheath.

The sheath of a horse needs cleaning about four times a year. In cleaning it, care should be used not to scratch or cut the lining of same with the finger nails. Use castile soap, sponge and soft warm water. The person washing the sheath should understand his business and be sure to remove the bean from the penis above the urethra, as this causes more harm than anything else. Grease the inside with olive oil, then take a dry sponge and wipe out the oil to prevent the dust and dirt from accumulating.

L. of C.

## DISEASES OF THE FOOT OF THE HORSE.



Skeleton of the Horse's Foot.

Figure 1, lower end of the long pastern bone.

Figure 2, Coronary bone.

Figure 3, Navicular bone.

Figure 4, Coffin bone.

A navicular bone is a small bone of very great importance and interest to veterinarians, because injury and inflammation of surface tissues is a frequent cause of lameness and is called navicular diseases.

The navicular bone bears no part of the weight, but is inserted for the purpose of giving increased leverage power to the tendon which passes from the long coffin bone backward over the navicular bone and up the limb.

I give here for non-professionals an idea of the structure of the foot; for it is a well known fact, "no foot, no horse."

## HOW TO DETECT LAMENESS.

Every one who owns a horse should be a close investigator to detect the lameness in a horse. It is easy to ascertain lameness in the shoulders, by taking up the suspected limb and placing it in three different, unnatural positions. First, hold the animal's head level, pick up the limb, place one hand on the toe and stretch the limb out at a straight angle directly in front. Second, raise the limb and place it on the outside of the opposite limb at about the height of the knee. Third, pick up the limb and pull it with force directly toward the hind limb; and if there be any pain the animal will indicate it while his limbs are out of their natural position, and you can locate the lameness.

The position of shoulder lameness is the pointing backward, the knee bent, and the feet behind each other, and the toe only touching the ground. To recognize navicular diseases, the animal is pointing the affected limb from ten to fifteen inches forward, stumbles very freely, and when the heel is raised to about an inch, he will bring the foot in equal line of the non-affected limb. I will have to mention to my readers, that every one who finds an interest in the welfare of the horse, with close observation, can easily detect the lameness if he observes the animal while at rest and in motion. I, therefore,

shall give here a table for non-professional horsemen to guide themselves by:

## SYMPTOMS WHEN AT REST.

SYMPTOMS.	SIGNIFICANCE.
Pointing one fore foot in front of the other, .....	Lameness of the leg.
The forearm extended, knee bent, the feet about on a line with each other, .....	Lameness of the elbow.
The limb relaxed, the knee bent, the feet behind each other, .....	Lameness of the shoulder.
Hind foot bent, knuckling over, .....	Lameness of hind foot.
Hind leg in front of its fellow, .....	Lameness in or below the hock.
Hind feet brought forward under the belly; head reared, .....	Lameness in both fore feet.
Fore feet pushed back beneath the chest; head hanging, .....	Lameness in both hind feet.

## SYMPTOMS WHEN IN MOTION.

SYMPTOMS.	SIGNIFICANCE.
Head nodding or dipping, .....	Lameness in the fore-quarters.
Foot lifted quickly, straight up, .....	Lameness of foot or hock.
Foot swung in a circle, not much elevated, .....	Lameness of shoulder.
Foot brought down toe first, .....	Side-bone sprain of back sinews, sprain of suspensory ligament.
Foot brought down heel first, .....	Founder, os pedis.
Little or no lameness at first, but increased on motion, .....	Splint or side-bone.
More or less lameness at first, but diminishing on motion, .....	Navicular disease.
Little or no lameness in a straight trot, but observable on turning sharply, .....	Strained back.

## SHAKY KNEES OR BUCK KNEES.

The old way of treating this disease is to lower the heel and raise the toe in shoeing, but this is exactly what should not be done.

Raise the heel and lower the toe and this will relieve the strain on the tendons. To illustrate: If a man's legs are sore in the calf, cut the heels off his shoes and let him walk a distance. The soreness will increase. Try raising the heels, and relief will follow. Soreness in the tendons is what makes a horse buck kneed.

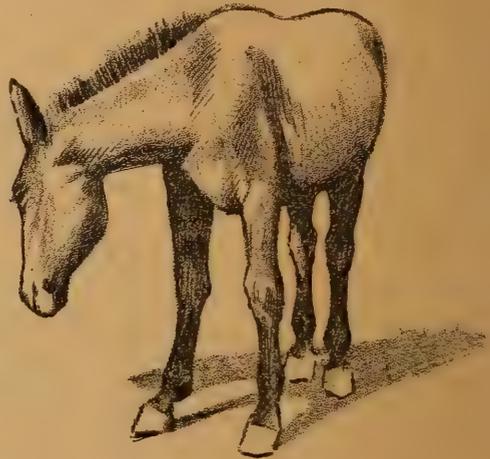
## INTERFERING.

Shoe with side weights. Pare the foot level and if it does not work on one side change to the other, that is change from right to left

and from left to right. If this does not prevent interfering put on a piece of leather under the shoe and have it project about one half inch on the inside of each foot. This will cause the horse to travel wider apart and therefore prevent his interfering. If he strikes his ankles the leather will strike first and not hurt as the shoe would. This is only used in bad cases.



Fore feet of a horse that had been neglected after being foundered.



Mule with dislocated neck.

#### NARROW HEEL OR CONTRACTED FEET.

Pare the bottom of the foot down thin and open the heel wide; pack it with oakum and Venice turpentine, and place leather under the shoe to hold the packing. Use Caustic Blister around the top of hoof.

#### OVERREACHING AND FORGING.

To prevent or keep a horse from overreaching, shoe with a heavy shoe in front with a rolling motion and a light shoe behind, and set well back under the toe of the hind foot.

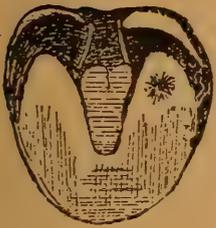
#### PUNCTURED WOUNDS FROM NAILS.

Pare the nail hole out good and clean, and pour in Carbolized Iodine, page 78, to destroy the germs. If very bad pack the foot with oakum and Venice turpentine, and put a piece of leather on to hold it in place. Use White Liniment around the top. Never poultice a foot for this trouble; it softens the foot and makes it very tender, and it is often three months before it gets over it.

## STUMBLING.

Trim the horse's foot long and narrow, front and hind the same. A horse with a short, light foot will stumble more than one with a long foot.

## TREATMENT FOR CORNS.



Showing a Corn.

Cut out the corn until it bleeds. Then burn it with a hot iron until the bleeding stops. Fill the hole with Venice turpentine, and pack the foot with oakum and Venice turpentine, putting a piece of leather under the shoe to hold it in place. Blister lightly over the coronet band with Caustic Blister, page 77.

## FOOT LINIMENT.

Crude petroleum.....	2 ounces
Oil of tar.....	1 ounce
Neatsfoot oil.....	16 ounces

Mix. Apply once a day. This will soften a hard foot and stimulate the growth.

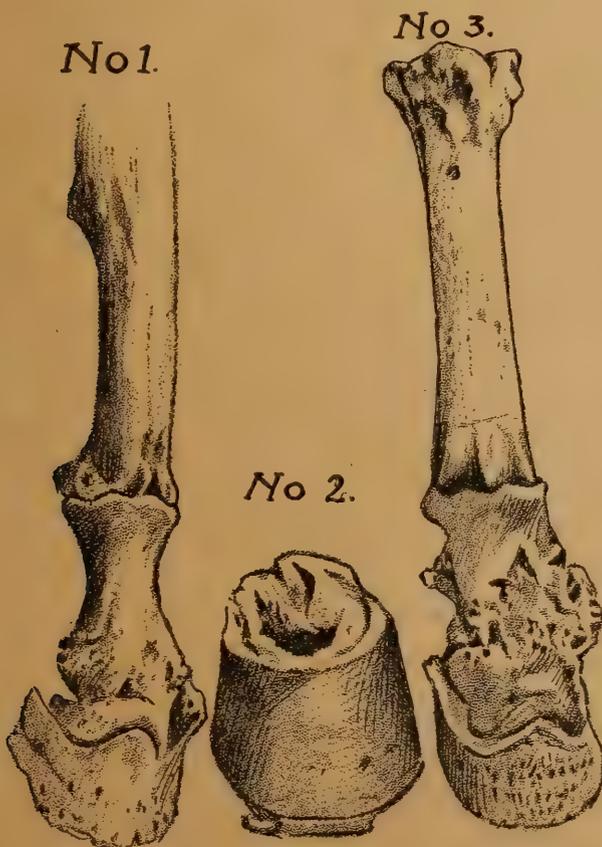


Figure 1 shows a ring bone that was cured by firing. Near the top of the figure is shown a fracture of the splint bone.

Figure 2 shows four inches of hoof cut from a horse's foot on which a shoe had been left for a year. After cutting off the four inches there was enough left for a good hoof.

Figure 3 shows an ankylosed pastern joint. The lameness caused by ring bone had been removed by firing.

## CASTRATION OF COLTS, OLD STALLIONS AND RIDGLINGS.

Since it is necessary to perform this cruel and painful operation to make the horse a more useful animal, it should be done in the most humane manner. I have, during my practice, castrated thousands of colts, ridglings and stallions. I have castrated them in winter and summer, all seasons of the year. I have operated upon them from two days old up to twenty-eight years of age and obtained good results.

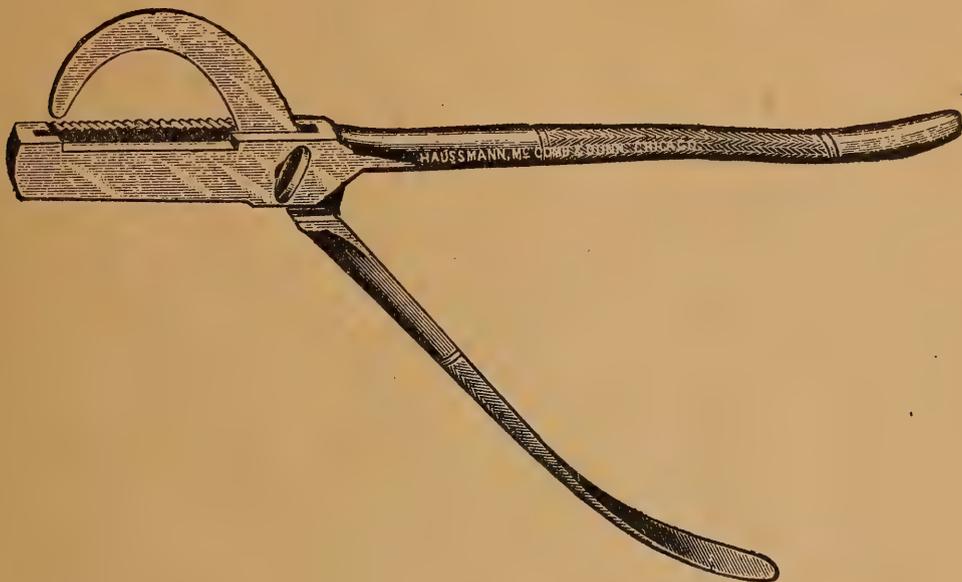


Method of Slitting Scrotum.

The time for castrating the colt is from twelve to fourteen months old. There are some who claim that the colt should be castrated earlier than this, but from my experience he is more liable to rupture and leaves a poor sheath.

Do not operate on a thin, weakly colt, nor upon one suffering from disease.

The animal should be in good order and fit for the operation. The colt should be kept from feed the night before. Be very careful that all the instruments required for the operation be scrupulously clean, and the knife sharp. After each operation they should be thoroughly cleansed and dipped in an antiseptic, and the scrotum should be thoroughly cleansed with a sponge dipped in a watery solution of creolin.



Emasculator.

In nearly all the operations that I perform I use Hausmann & Dunn's Emasculator.

Draw up the skin covering the seed with left hand, make an incision with a sharp pointed knife so as to expose the seed. Let it run parallel with medium line. Then the covering of the seed will be exposed called "tunica vaginalis;" then make another incision same as before in this covering. Grasp the seed with the left hand and sep-



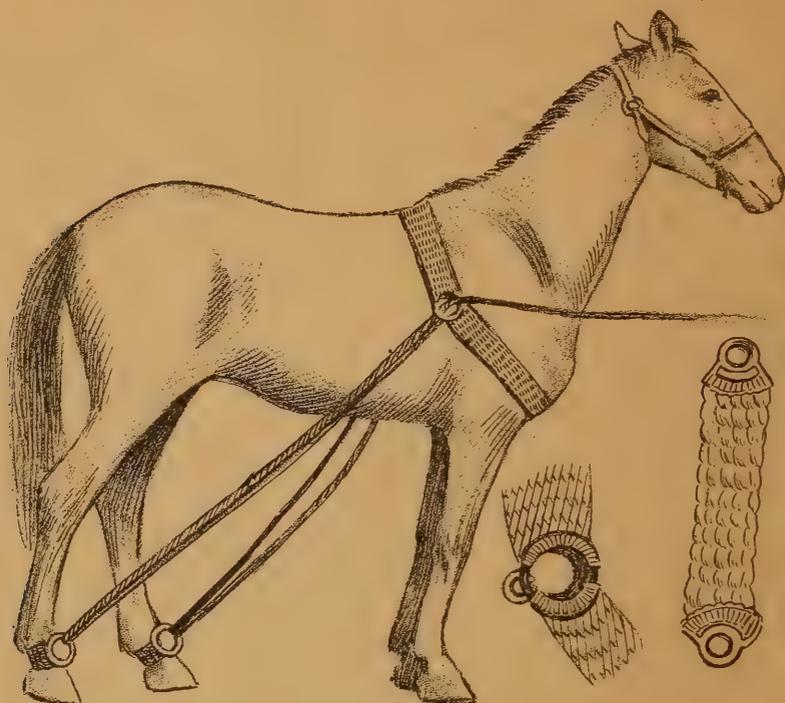
Ecraseur.

arate the muscles from the seed, sever the spermatic cord with the "Emasculator" or "Ecraseur," and apply freely to the opening the Healing Oil, page 75.

Be sure and make opening large and leave no pockets in the scrotum, so that there will be a possibility of pus being retained.

The proper way to secure a colt for castration is to cast him with "Knowles' Casting Harness," which is the simplest and safest. Some operators claim that the best manner to operate is with a twitch on the colt standing. I have castrated over 500 colts standing, and it is more dangerous operating in this manner, and my experience proves this to me. I have castrated as many as 145 colts in one bunch with

“Knowles' Casting Harness,” and never had an accident. The place of operation should be an old straw stack or smooth plowed ground. The colt should never be thrown on hard ground. Operating on colts standing is an easy way for the operator but a dangerous one for the



Knowles' Web Casting Harness.

colt. The operation has to be done as circumstances will permit, and not as it should be done. The opening is often left too small in the scrotum, and heals too soon, and pus often forms in it and causes blood poison. During one of my operations on a colt in a standing position, the colt gave a quick movement and I having a secure hold on the seed caused the cord to give way and death followed in thirty minutes.

#### CASTRATION OF OLD STALLIONS.

Always keep an old stallion without food for twenty-four hours before the operation. It is advisable to give him a stimulant just before the operation. Give from a half pint to a pint of whisky in milk. The operation is performed the same as on a colt. Old stallions will sometimes bleed too much after castration; in which case saturate a sponge in alum water and place it in the opening. Colic pains after castration come in from three to six hours. In such cases give from one to one and one-half ounces of laudanum.



Showing the position of the hand in operating on a ridgling, with the abdominal cavity open, showing the testicle.

#### CASTRATION OF RIDGLINGS (CRYPTORCHIDS.)

This is the removal of a testicle or testicles that have failed to descend into the scrotum, but have been retained in the inguinal canal

or inside of the abdomen. This is an operation that one cannot be perfect in until he has had vast experience. The reason for this is that the seeds are not found in the same position and alike in every horse, as all horses are not formed or constructed the same in the groin, and some are a great deal more nervous than others. Why the testicles go back into the abdominal cavity is not very well understood, as it is a fact that every colt is foaled with the testicles in the scrotum; hence, the testicles return into the abdominal cavity before the ring closes, through the inguinal canal.



Position of the testicle in the abdominal cavity of a ridgling horse.

There are three classes of ridglings, known as high flanker, low flanker and abdominal.

The abdominal one is where the seeds are within the abdominal cavity with the intestines.

The high flanker is one where the seed is up against the rim of the belly (inguinal ring.)

The low flanker is one where the seed can be located by an examination of the scrotum with the hand.

In operating, the horse should be cast by the same method that is used in castrating colts, and given the same stimulant as old stallions. The horse should be turned on his back and the scrotum should be cleansed thoroughly with watery antiseptic solution. The hands should be thoroughly cleansed, being careful not to leave any foreign matter under the finger nails. Then insert a sharp pointed knife into the skin and slit it out. Pour plenty of the Healing Oil, page 75, into the incision. Then with the first two fingers of your right hand follow down the natural channel (inguinal canal,) until you come to the inguinal ring or lining of the belly. Here you will find a small opening, (this opening is sometimes closed, in which case the fingers should be pushed through,) through which pass the fingers and get hold of the spermatic cord or some of the attachments of the seed and pull the seed through the ring. (At this point is where most operators make a mistake by becoming too anxious and excited; after the fingers have passed through the ring they should be only slightly moved, and in nearly every instance the attachments or seeds will drop into the finger.) After having pulled the seed through the opening, take it off with the emasculator if the cord is long enough. If the cord is too short to use the emasculator the ecraseur can be used.

I have met with a great many different kinds of accidents in casting horses. I cast a nine-year-old horse, healthy and in good condition. Before I got through tying him properly he broke both of the femur bones all to pieces.

Another case of an eight-year-old horse: Seemed healthy and in good shape. After securing him and while operating he struggled. On examining I found that the pelvis bone was broken in four different places.

In another case, I found a dislocation of the hip joint with a fracture of the socket of the hip. In all these cases I attribute it to throwing them on hard ground.

#### THE CONSEQUENCES OF CASTRATION.

These are either favorable or unfavorable, normal or abnormal. The normal or natural results are a varying or slight degree of

inflammation, some swelling, and a discharge of serum or pus.

The swelling which succeeds the operation varies very much in different subjects, in some limited to the sheath and consisting of a mere serosity, whilst in others it extends along the floor of the abdominal walls, even as far forward as the breast. This, however, need cause no alarm so long as the animal eats well, and usually a few punctures with the lancet, and also introducing the fingers into the incisions made in scrotum, will, by allowing the serum to drain away, cause its disappearance in a day or two; but when the cord becomes tumefied or swollen to any great extent, alarming consequences may be feared and endeavors must be made to suppress the inflammation, by the application of hot water, vinegar and salt mixed. Then grease the parts with pure fresh lard.

The unfavorable consequences of castration are rupture, scirrhus of the cord, peritonitis, gangrene, lock-jaw, loss of eye-sight, blood poison, paralysis of the penis, hemorrhage and water seed.

Hemorrhage need not occur if the operation is properly performed. A slight degree of bleeding from the vessels of the scrotum is of no importance.

The admission of air into the peritoneal sac, which often occurs when the horse rises after the operation and is demonstrated by a rushing or gurgling sound, never does any harm.

Paralysis is also recorded as a result, and in all probability it is due to some injury to the vertebræ or muscles of the back or loins, occurring while the animal is being secured for operation. The penis sometimes becomes paralyzed and the organ hangs suspended outside of the sheath and cannot be restored to its cavity. If pushed back it soon returns and even if retained by artificial means will remain in place only as long as the means are used to keep it there. The only radical cure is amputation, and this should be done only by an experienced person.

Lock-jaw may result from castration, although the operation has been carefully performed. It happens here as it does when caused by any wound or injury, and the operator cannot be held responsible, although attempts have been made to recover damages when death has so occurred.

**Blindness:** The loss of eye-sight is caused by excessive bleeding after the operation. In some instances the sight has been restored in a few days, while in others the animal has remained permanently blind.

Rupture is where the intestines come down alongside of the cord through the sac. This condition may be present before the operation is performed and where the sac is open the intestines will protrude. Should this occur, place the animal upon his back and work the intestines into their proper place. Then take a small curved clamp and clamp the sac close up to the belly, or sew the sac with catgut sutures.

Scirrhus cord comes from leaving the cord too long or bruising it while holding in the clamp to sear it and not making a clean operation.

Treatment: Dissect it until a healthy part of the cord is reached, then remove it with the Emasculator or Ecraseur same as in castration.

#### HYDROCELE OR "WATERY SEED."

This comes from neglect in removing enough of the cord and sac that surrounds the seed. Dissect all the sac that contains the water and get above the diseased parts and remove same as in scirrhus cord.

In peritonitis, gangrene and blood poison, bathe the swollen parts with hot water, after which syringe the wounds thoroughly and bathe the swollen parts with White Liniment, page 74, and inject the Healing Oil, page 75, into the opening.

#### TREATMENT OF MULES AND JACKS.

A mule has as much sense as a horse but no principle. The mule does not differ materially from the horse in the diseases he is afflicted with. He however, suffers less from them owing to his lack of sensibility. There is no difference in the treatment of the horse and mule.

The most common and fatal diseases among jacks are pneumonia, lung fever, kidney disease and rheumatism. The treatment given for horses for these diseases is also applicable to jacks.

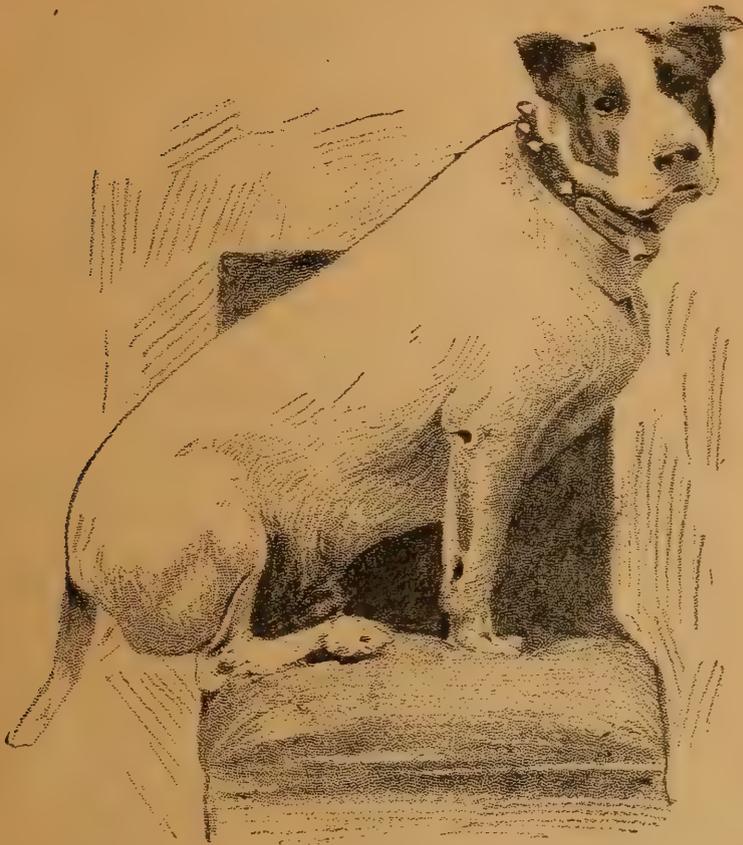
#### SORES ON JACKS.

In bad, raw cases use the Carbolized Iodine, page 78, and give Blood Powders, page 79. To heal it use the Healing Oil, page 75. This will also keep off the flies.



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## THE DOG.



“Monte.”

The above picture is a good portrait of an old friend of mine that traveled with me over fifteen states.

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### COMMON DISEASES OF THE DOG.

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#### THE DISEASE OF PUPPYHOOD.

The most destructive complaint to which puppies are subject is the stomach worm. The usual symptoms are lack of thrift, the dog being thin, hip bones prominent, the belly full or distended; restlessness, bad breath, colic pains, irregularity of the bowels, variable appetite, and a harsh condition of the coat.

Treatment: Twenty grains each of powdered aloes, jalap, ginger and soap; calomel, two grains; powdered wormwood, four grains. Mix and make into a pill with a little glycerine. This is a dose for a large dog. Give less to a small one. Give two doses, three days

apart. After these doses have been given, give a teaspoonful of turpentine in castor oil.

#### DISTEMPER.

This disease is similar to typhoid fever in a human being. The general symptoms are a high fever, hacking cough, mucous discharge from the nose and mouth; thirst, chills, loss of appetite, deranged condition of the bowels and rapid emaciation.



Treatment: Feed on beef tea, raw eggs and milk. If very weak, give a tablespoonful cod-liver oil and whisky, equal parts. Give one teaspoonful every two hours of the following:

Tincture aconite.....	30 drops
Tincture belladonna.....	30 drops
Sweet spirits nitre.....	½ ounce
Tincture gentian.....	½ ounce
Glycerine.....	2 ounces
Water to make.....	4 ounces

Give fifteen drops of Haarlem Oil once a day.

#### FITS.

Keep the bowels open and give the following:

Bromide of potash.....	2 drachms
Water.....	6 ounces

Mix. Give tablespoonful every two hours until relieved and give fifteen drops twice a day of Haarlem Oil.

#### CONSTIPATION.

Give Haarlem Oil, 15 drops, once a day, until relieved.

#### DIARRHEA.

Give two tablespoonfuls of hog's lard twice daily.

#### SORE OR WEAK EYES IN DOGS.

Use Haarlem Oil, placing in the corner of the eyes twice a day.

## MANGE.

Wash the dog clean with good carbolic soap, and apply the following salve thoroughly:

Powdered sulphur.....	2 ounces
Powdered black antimony.....	2 ounces
Lard .....	6 ounces

## SORE FEET FROM HUNTING.

Make a paste of tannic acid and vinegar, and apply every night to his feet.

## TO SPAY A BITCH.

This is a nice operation and it makes the best kind of a dog. I have spayed a great many bird dogs. They hunt better and mind better. The right way is to remove the fork parts of the uterus.

Make the opening in the belly between the two last teats, and pass a probe in through the vagina to the uterus. Then run the finger through the slit into the belly and you can feel the end of the probe; follow one fallopian tube with the finger to the ovary and pinch it off, then the other the same way; pull them out, tie just below the fork with catgut and cut off the tubes. Sew up the opening and dust the wound with iodoform. The bitch should be kept from food for twenty-four hours before being operated upon. After the operation feed on milk and gruel for a day or two, and if constipated give two tablespoonfuls of castor oil. Never spay a bitch while she is in heat. The best age is six months.

## POISONING.

The first thing to be done when a dog has been poisoned is to give an emetic. A teaspoonful of each, mustard and salt in luke-warm water. If this does not vomit him in one minute repeat it. This is the remedy when the dog is discovered immediately after being poisoned. If he is not found immediately after being poisoned give him all the hog lard that it is possible to pour into him.

## TO PREVENT PAIN WHILE PERFORMING AN OPERATION.

Inject the following mixture hypodermically:

Cocaine .....	26 grains
Carbolic acid.....	20 drops
Pure water.....	1 ounce

Of the above use on a horse from  $\frac{1}{2}$  to 1 drachm; on a dog about 10 drops.

## CATTLE.

All cattle should be dehorned. It makes them perfectly safe, and should be done to protect women and children if for no other reason. It should be done when the calf is about two weeks old, about the time the button appears and while it is still soft. Make a saturated solution of caustic potash and take a small brush or swab and apply a little to each button. Leave it from a half to three-quarters of an hour, and then apply a strong solution of tannic acid and vinegar, which will neutralize the alkali. If they have grown enough to become horny, take a sharp instrument and cut them out. Then apply the potash solution, following with vinegar and tannic acid. Be careful not to get any of the potash in the animal's eyes, or it will put them out. For dehorning older cattle the most satisfactory instrument I know of is the Eureka dehorner. Old cattle should be dehorned in cold weather. After the operation is performed apply the Healing Oil, page 75. In some cases the wound fails to heal and pus runs from the holes. If this occurs fill the holes with air-slacked lime.

### LUMPY-JAW ("ACTINOMYCOSIS.")

This is a parasitical, infectious disease, found chiefly on the tongue and jaw bones of cattle. The most frequent form, and one that is curable, is when the abscesses form about the jaws and teeth. The only treatment is the removal of the infected tissues. When the disease gets into the lungs or the digestive tract there is no known successful treatment. In order to gain a foothold on an animal the germ of this disease must reach a raw or sore place. It usually starts in the mouth, for the simple reason that so many animals have bad teeth, and consequently diseased jaws or sore tongues. In the early stage use Caustic Blister, page 97, applied freely, and if it draws the enlargement to a head, lance it. If it has reached the stage where the tumors break and run, cut them out, and pack the opening with oakum and Carbolized Iodine, page 78. This should be done once a week for three weeks. A stitch or two should be taken to hold the oakum in place. This treatment, taken in time, will cure six out of ten. In working about this disease the operator should be very careful not to get inoculated with the germs. As soon as an animal is found to have the disease it should be separated from the rest of the herd, lest it inoculate others.

## SORE FEET IN CATTLE.

Use Healing Oil, page 75.

## DIARRHEA.

Melt a quart of hog's lard and add two ounces of ginger. Give a cow as one dose; calves in proportion.

## AFTER PAINS IN COWS.

Give as one dose the following:

Powdered opium.....	1½ drachms
Powdered ginger.....	2 drachms
Powdered gentian.....	½ ounce

## SORE TEATS.

Apply the following mixture once a day:

Collodion.....	1 ounce
Tannic acid.....	10 grains
Glycerine.....	20 drops
Carbolic acid.....	10 drops

## COLIC AND BLOATING.

Give Prince's Colic Cure, page 75. If badly bloated use the



Trocar.

trocar or knife in *left* flank, allowing the gas to escape.

## INFLAMMATION OF THE UDDER, OR BAG.

Apply White Liniment, page 74, to the inflamed parts. Give the following purgative:

Powdered ginger.....	2 ounces
Epsom salts.....	1½ ounces
Haarlem Oil.....	1 bottle

This is the best and safest physic I know of for cattle in all cases where they need a purgative.

## BLACK LEG.

I know of no cure. Garlic is used as a preventive; give about six bulbs a day to each animal. The experts at the U. S. Experiment Stations claim that vaccination is a preventive.

## MILK OR PARTURITION FEVER.

Give the following dose:

Powdered ginger .....	2 ounces
Powdered tartar emetic .....	1 ounce
Powdered sulphur .....	1 ounce
Powdered mux vomica .....	1½ drachms
Epsom salts .....	1½ pounds

Use the Fever Drops, page 76. Many druggists may tell you that an ounce of tartar emetic is too much, but it is all right. I have given an ounce and a half with no bad results.

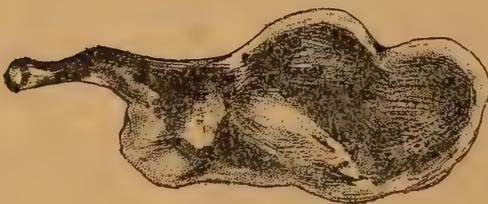
## BLOODY MURRAIN.

Same treatment as for milk fever.

## FALSE NOTIONS ABOUT THE COW.

The poor old cow has to suffer from the ignorance and superstition of man. Her horns are bored with holes for hollow horn; her tail is split open and filled with salt and pepper to drive out an imaginary wolf; she is given an artificial cud and expected to chew it when she is supposed to have "lost her cud;" and other things equally silly, useless or cruel. Don't do any of these things. If a cow looks sick and does not chew her cud, it is simply because there is something wrong with her stomach and she fails to belch the food up for mastication, as she does when in a normal and healthy condition.

## STERILITY (BARREN COWS.)



This is caused by a polypus or tumor growing on the neck of the womb. Sometimes the neck of the womb is closed. These can be discovered by greasing the hand and making an examination. When they are discovered remove with ecraseur. If the neck should be closed dilate same by introducing the finger.

## HOW TO MAKE A COW GIVE DOWN HER MILK.

Take a two-bushel sack, put in it forty to sixty pounds of corn or sand, lay it across the small of back. This will made her give every drop of it down.

## HOW TO BREAK A COW FROM KICKING.

Take a rope, tie it around the body in front of her bag and over the small of her back, and draw it tight. By doing this she cannot kick.

## GROWTH OF A COW'S HOOF.

This plate shows the abnormal growth of a cow's hoof, caused from the mother being foundered on acorns while carrying the calf. When the calf was dropped the hoofs were soft and never became hard, all the feet being in the same condition.



## CHICKENS.

## PREVENTIVE AND CURE FOR CHICKEN CHOLERA.

Creolin .....	2 ounces
Tincture of iron.....	2 ounces
Black antimony.....	½ ounce
Cayenne pepper.....	1 ounce

Put the above in a gallon jug and fill with rain water. For every twenty-five full-grown chickens, mix two ounces of the mixture with sour milk or corn meal, and feed once or twice a week as a preventive. If the chickens are sick give it to them daily. This recipe to also a fine thing to give hens in winter to make them lay.

Change your roosts once a year, and whitewash inside the chicken house, mixing a quart of crude carbolic acid with a bucketful of whitewash, and it is a good thing to fumigate the chicken-house twice a year by burning sulphur.

To kill lice and mites on chickens, mix lard and sulphur together and rub at the roots of wings, and around the head at the base of the comb, except on setting hens; for them use the powdered sulphur alone, as grease on the eggs would kill the eggs.

## HOGS.

### TO KEEP HOGS IN A HEALTHY CONDITION.

Copperas .....	1 pound
Sulphur .....	1 pound
Nitrate of potash.....	1 pound
Powdered aloes.....	1 pound
Powdered poke root.....	6 ounces

Dissolve all this in a kettle containing four gallons of hot water, then add one ounce arsenic, one pound slacked lime, and eight ounces creolin. This is a mixture for eight gallons, three-fourths water and one-fourth milk. Turn the hogs into a dry lot at night. Next morning give a bucketful of the mixture, having thoroughly stirred it before taking from the barrel. A bucketful is a dose for twenty hogs, and should be given once a day for three days. Can be mixed with soft corn or bran mash. Care should be taken and not allow the hog to get too much. The hog should be fed on bran mash, soft corn and milk while giving this remedy. This is a good preventive for hog cholera.

Nearly all sickness of the hog is supposed to be cholera, when in fact a great many die from pneumonia, typhoid fever and measles. There is, in fact, very little cholera. These diseases are caused by having too many hogs in one lot and allowing them to sleep in manure piles on cold nights where they will bed up and become very hot from the steam that arises from the manure, and when they get out of this bed in the cold air it causes them to catch cold and have pneumonia; and some make the mistake of allowing hogs to sleep under old barns or houses where it is very dry. This should not be allowed, as the dust they breathe causes all kinds of diseases. Some people imagine that a hog should be allowed to stay in filthy pens. This is a grave error as they should be kept in clean pens.

### HOW TO GIVE MEDICINE TO A HOG.

Take a rope and put two half hitches over the upper jaw, put the rope over a door or the limb of a tree, and pull him up till the fore feet barely touch the ground, and with a large spoon you can then put any medicine you wish to back on his tongue. Never turn a hog on his back to drench him, as when in that position the valve in his throat opens and the medicine enters the lungs. Hundreds of hogs have been killed in this manner.

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Open thy lips and speak,  
Protect the dumb and weak,  
Their cause maintain.  
Why should we them abuse?  
Why these kind friends misuse?  
O! let us never choose  
To cause them pain.

SIDNEY HERBERT.



## POSTSCRIPT.

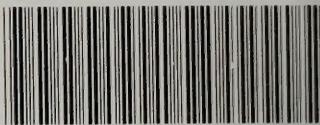
This is my fourth and best book on the Horse. I have given it my personal supervision in every detail, from Preface to Index, and assure my readers that I know it can be relied on in every particular. Most of the illustrations were engraved new for this work from photographs taken by myself in my travels, the plates being made by the Sanders Engraving Co., of St. Louis, and I wish here to thank them for the very prompt service and careful work they gave me. I also desire to acknowledge my indebtedness to Mr. Wm. D. Christman, of Fredonia, Kansas, who printed the book for me, for valuable assistance in reading the proofs and arranging the matter.

DAVID B. MORGAN.

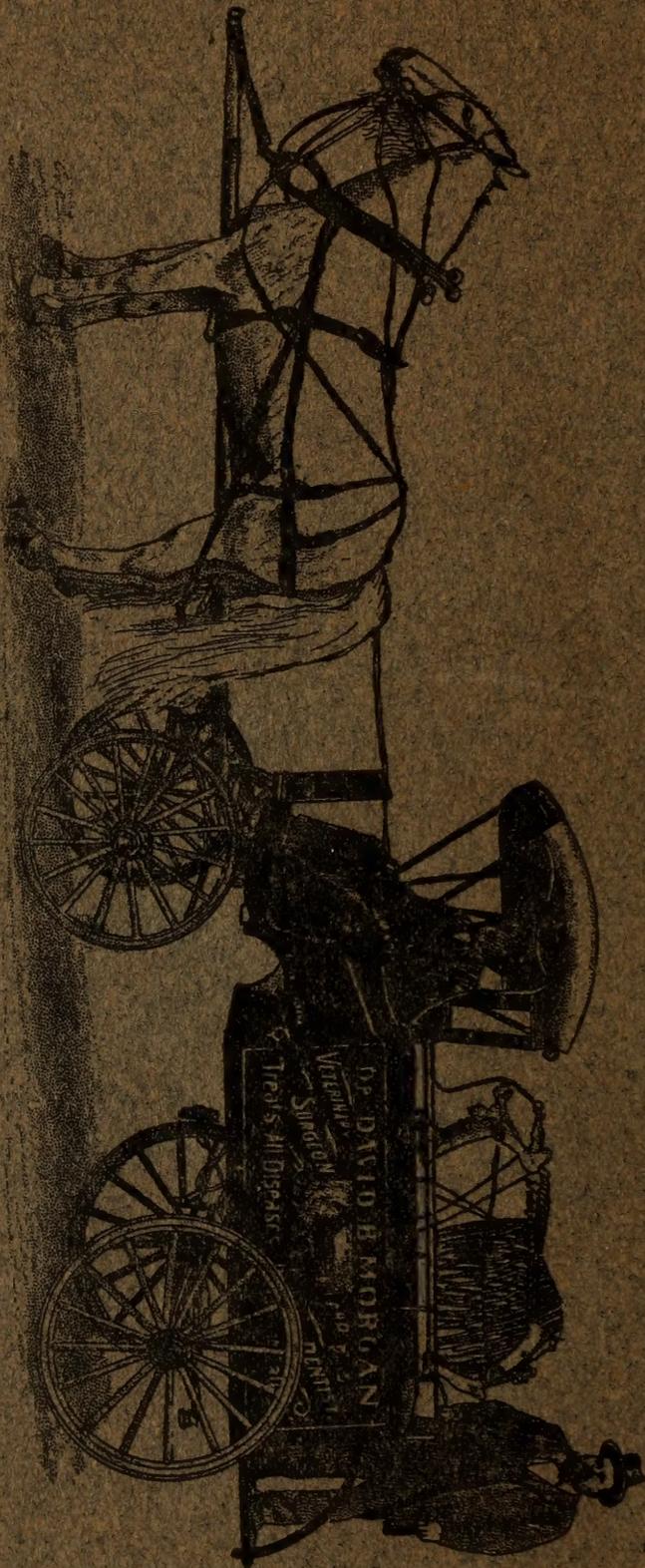


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