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THE
NEW AND IMPROVED SYSTEM
OF
EDUCATING THE HORSE.



NEW YORK:
FRANK M. REED, PUBLISHER.

THE

NEW AND IMPROVED SYSTEM

EDUCATING THE HORSE.

AND

A TREATISE ON EQUINE

MANAGEMENT

RECIPES FOR DISEASES OF HORSES

AND

THE VALUE OF THE TONGUE

BY

WILLIAM M. REED, VETERINARIAN

THE
NEW AND IMPROVED SYSTEM
OF
EDUCATING THE HORSE.

ALSO,

A TREATISE ON SHOEING,

WITH NEW AND VALUABLE

RECIPES FOR DISEASES OF HORSES.

TOGETHER WITH

THE RULES OF THE UNION COURSE.



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THE HORSE.

THE animal creation is said to represent the extremes and modifications of man's nature; the domestic animals his moral nature, and the wild animals the lower or animal part. The horse unquestionably stands at the head of the domestic animals, possessing not only the closest relation of character, but is by far the noblest and most valuable of all the domestic animals; and a knowledge of the principles of his successful education and government is not only one of the most interesting, but important qualifications of a practical education.

Every relation of life is so dependent upon the use of horses, and their value and safety is so much regulated by their good character and the ease with which they are made obedient to control, that the considerations of both happiness and success make it necessary that their education and government should be dictated by reason and humanity. Common experience teaches how great an effect good or bad treatment has in the influence of character upon man and woman. Ignorance and vice beget coarseness and viciousness, while gentle, intelligent, moral training develops the opposite—intelligence and the nobility of character; the reason or understanding being the medium through which the action of the different parts of the nature are made subordinate to the will, when skillfully and wisely acted upon; but when from ignorance or imprudence, they are excited and roused into resistance, the mind, ever understanding the intention, is neutralized and subverted in its action, and hostility exciting the animal's nature becomes developed, resulting in more or less of the vices common to life.

The inability of the horse to comprehend language, in conjunction with the low order of his understanding and his extreme strength, makes him more liable to become both vicious and uncontrollable. Unable to comprehend the object of restraint, confused and excited by bad treatment, he is prompted to get away at all hazards.

The colt is usually driven from the field, haltered by main force, after which he is harnessed and hitched by the side of a gentle horse; is

frightened and irritated perhaps to madness. He strives to go ahead, and, being too quick for the older horse, is jerked back by the bit. He thinks he cannot go ahead, and is afraid to do so; and not understanding the meaning of the bit, harness or horse talk, when told to go he does not obey. He is now shouted at and beaten because he does not go when commanded. He may make another more desperate plunge to go forward, becomes regardless of the bit and runs away, or is stopped after being exhausted from fright and exertion, and is made a nervous, impulsive, unreliable brute; or he may rear up, throw himself down, and become stubborn and baulky. Colts of a moderate disposition, if poorly kept and worked regularly, may in time become quite safe and useful horses; but those of high courage and spirit are almost sure to have fastened upon them one or more of the many bad habits, making horses unreliable or dangerous in character.

The horse when frightened strives to avoid the cause of danger, whether real or imaginary. The more unexpected, the greater and more lasting the sense of danger, to a degree that may act so powerfully upon the nervous system as to fix an impression of fear which it is difficult to overcome. Resistance once excited, the difficulty of successful restraint is increased; the horse learning the possibility of resisting control, the disposition becomes so strong it at once becomes a habit to persist in, and all the great energies of the animal are brought into requisition. No matter what the habit, this peculiarity of persistence is evinced when once learned. A weak halter broken once or twice, the horse will strive to pull loose at all hazards, when and where hitched, the foot is pulled away when attempted to be shod, and the habit becomes confirmed. Some minor part of the harness or wagon breaking, fear stimulates resistance, and once freeing himself, the horse will ever afterwards strive to get away under like circumstances. The same may be said of a vicious disposition. A stallion once encouraged to bite, and permitted to do so, leads to an eager disposition to bite ever afterwards.

It is not only important to address the understanding correctly, but it is also absolutely necessary to success, since causes of confusion and excitement not only make the animal unable to understand, but stimulate a hostile disposition, which tends directly to neutralize and destroy the success of the efforts.

Blended with the skill of showing and teaching the horse a knowledge of what is required, is that of forcing obedience. This was at first done by the rudest of coercive measures. The first account we have of any horse being successfully subdued is that of young Alexander adroitly mounting and fearlessly riding a certain wild, unmanageable horse, which

occurred about three hundred years before the Christian era. This principle of subjection, with slight variation, is still practised by the Indians of our Western plains, the Mexicans, Australians, and many savage and semi-civilized people in different portions of the globe.

Catching their horses with the lasso, the Indians mount and ride until from exhaustion and fatigue the animal becomes unable to resist. After thus forcing submission, it is a practice among the Brazilians to cut off the ends of the hair of the tail, to indicate they are broken, and again turn them loose. The Chilians tie the refractory horse in a stall, and whip him until he lies down in despair, or falls from weakness. He is then tried, and if still refractory, the process is continued until he becomes gentle.

The effects of rude treatment are particularly noticeable on horses of a sensitive, ambitious character. Such either fret or are dangerous, when subject to the management of an impulsive, irritable groom, though extremely docile and safe to a careful, patient person.

The great extremes of disposition and character in horses, show a peculiar adaptation for different purposes and requirements. The slow, dull, coarse-grained horse, naturally adapted for the cart or plough, cannot bear the active exertion necessary to great speed, while those of a higher or ambitious spirit would scarcely submit to this slow drudgery.

These extremes illustrate equally well the marked peculiarities of disposition and character. Hence the necessity of harmonizing the efforts to the disposition and intelligence as well as that of habit. A high spirited horse would not bear the excitement and force, as that of a slower and less excitable disposition. There are frequently evinced remarkable extremes of disposition in equine character. I have found during my professional experience a number of naturally so wild and untamable a character that they would scarcely act like horses, unable to learn, and unwilling to yield to the most careful and thorough treatment. It is needless to add, exceptions of this character are usually developed by some great cause of fear or excitement upon the mare during gestation. It is also a well known fact, that if a stallion, even of a docile character, is excited and maddened at the time of using, the colt is almost certain to prove of a bad, irritable and treacherous disposition. Want of brain, or the extreme development of a hostile nature are to be regarded as exceptions, the management of which is not to be considered a rule for the education of those of an average character. The consciousness of power to inflict bodily punishment, destroy or preserve life, is the law of supremacy among the lower animals, and the fearless confidence indicating this power has a great influence in preventing the development of a hostile disposition. When

one animal finds himself unexpectedly in the presence of another fierce, powerful one, he rushes to the conflict or retreats in haste. But when he confronts a man, who knows that his safety depends upon his standing unmoved, or who relies upon the use of some weapon of defence, he is disconcerted and discouraged at his boldness, and will usually retreat in fear. No animal has a keener intuition of the feelings, or is more easily encouraged to viciousness by the indication of fear, or more forcibly held in check by a fearless, confident expression of manner, than the horse. It is not, however, to be inferred that, "not being afraid" of a horse is by any means to be construed into foolhardiness. Courage and confidence should be dictated by the danger shown. The expression of the eye, action of the ears, lips, etc., indicate clearly the intentions, dictating the hazard to be incurred. Whatever be the feelings, great stolidness of expression and action is indispensable.

This not only aids in keeping resistance in check, but under some circumstances may be the means of preserving life.

The control of horses is like that of an intricate but powerful machine when under the subjection of skillful management. A machine has a part by the control of which it is made obedient to almost the slightest touch, and there are minor parts the derangement of which would destroy the usefulness of the whole. This, for example, is illustrated in the steam engine. All its parts must harmonize, and the right head of steam must be maintained to ensure working easily and with certainty. The principle is the same regarding the successful management of horses. If horses be subjected to skillful and prudent management, they will easily be made docile and controllable. On the other hand, subjected to rude, imprudent treatment, they are at once liable to become unreliable, hostile and impulsive brutes.

The generous reward of this skill should be an incentive to every one to acquire a correct knowledge of this duty. That there is great loss, and lamentable accidents caused almost daily in every neighborhood from the use of horses that are dangerously vicious and unmanageable, cannot be questioned. One horse will run away if given the least freedom. Another is liable to kick himself clear from the wagon should a strap dangle against the flanks, the breeching break, or anything unusual occur to excite his fears.

One horse will balk. Another goes when and where he pleases. Another can scarcely be harnessed with safety. Another will kick if the rein touches the hip, or is caught under the tail. One will not stand while being mounted, or while getting into the carriage. Another will not back. Others are frightened, and sheer and jump at a stone, stump or a white cow. One horse cannot be driven by a load of hay, a rail-

road track, etc., etc. While to others an umbrella, buffalo robe, or even a bit of white paper are terrible objects of fear. There are but very few even of the horses that are considered well broken, that have not some habit that makes them unpleasant, or greatly lessens their usefulness and value.

The loss occasioned and injury sustained by imprudence and defective training is almost beyond description, and above almost all other causes, is the source of a degree of anxiety and misery, the most hopeful view of which must be regarded as lamentable. At least nine-tenths of this loss and annoyance can be prevented if my instructions are faithfully adhered to. It is seen how easily I make the worst of horses yield to my control, and if my principles of management are observed in practice success must follow.

The consciousness of contributing to ameliorating the condition and increasing the value for safety and usefulness of the most noble and valuable of the domestic animals, is of itself a most generous reward. If he who teaches how to grow two blades of grass where but one was produced, is a benefactor, he who invents or improves machinery by which labor is lessened, and its effectiveness increased, not only adds to individual but that of the national wealth, and merits the reward of success. Yet how much more valuable and gratifying the consciousness of increasing the safety and value of an animal necessity compels the use of, under circumstances involving great peril, if not made gentle and safe to the command of its driver.

Well broken horses are a necessity demanded by the progress and intelligence of the age, and that the barbarous brutalizing custom of pounding and whipping, regardless of consequences, should be abolished. The consciousness of ability to make horses more safe and valuable is supplanted by the conviction that this success is due to the prudence and skill, dependent upon the exercises of the reason stimulated and encouraged by the action of all the higher faculties of the mind.

The genius by which the real point of success is brought to view, excites the feelings to a keener sense of the relation and responsibility, from the attitude of which a more grateful and hopeful conviction of responsibility is forced with constantly increased beauty upon the mind.

In its true sense the management of horses is in every way calculated to strengthen the mind and ennoble the character. This being true, what more desirable accomplishments than a knowledge of this science, which contributes so largely to the success and pleasure of life?

There are numerous charlatans before the public, professing to educate and train the horse, who are perfectly ignorant of the first rudiments of the science of their profession.

Necessity compels me to mention the fact that in consequence of the various deceptions practised upon those interested in horses, many are inclined to turn the cold shoulder.

I have now been upwards of eleven years before the public, and am professionally known, both North and South, as the most successful and practical teacher of this science.

THE GREAT SECRET OF HORSE TAMING.

The great secret of taming horses is, first, to get control of them. This must be by fear. They must be taught or shown that "man is master," that what he desires to do with them he can do.

In this regard, nothing in my experience, nor, I believe, in any of the tamers who have preceded me, of whom John S. Rarey is the most known, is more effective than the throwing of the horse. Nothing so completely disgusts him, so to speak, as to thus convince him that he cannot do as he pleases, but that he must submit to the master. Having been thoroughly convinced that he is under control, that his movements are entirely under control, he reasons that he had better give up.

Here let me give my pupil a few words of caution. Never let the horse perceive that you are angry; try patiently to subdue the animal, but never by beating, and particularly by striking upon or about the head. He who first aspires to govern must first govern himself. Nothing is more fatal to the attempt at government of men or animals than outbursts of passion and rage. If you feel your temper getting the best of you, leave the task for the time, or you will only still more enrage, frighten and bewilder the horse, and so render hopeless the controlling intelligently, for the time, of the animal.

How to Throw the Horse.

Place upon the animal a strong surcingle (leather I use, though a combination of the braided hair girth of the Mexicans would be preferable) about three inches back of the fore legs; connected with this must be a strong crupper. There must be a strong ring about one inch in diameter at the top of the surcingle, in the centre of the back, and another upon the right side in the centre. This being adjusted, proceed to strap up the left fore leg as follows: Take a common quarter strap, pass it two or three times around the leg between the coffin and pastern joints, and then buckle the leg closely up to the belly.

Now place around the horse's neck a 1-4-inch rope, or 3-8, loosely, fixing the knot so it will not slip; bring the end down the side of the

head on to the left side, pass it through the horse's mouth round the right side and through either of the two rings in the surcingle, the one in the centre of the side, if the first time, will give you greater control with less exertion. Upon pulling upon the rope, standing in any position, the horse must come upon his side and without injury. I have thrown thousands and never knew one hurt. In practice, all will perceive the decided advantage over the Rarey process. The operation must be repeated from ten to twenty times, or until the horse seems entirely disgusted with the controversy. This operation, if properly conducted, will have resulted in the obtaining control of the horse and in his willingness to be accommodating at least.

The next thing is to teach him the meaning of the word whoa, and obey it when spoken to him as a command. This also breaks him to the bridle. Place in his mouth the scissors or W bit, with headstall and lines attached (an ordinary bit will do, though the one named is preferable as being more secure). Now let the horse walk off a few feet (ten or twenty), and all at once jerk with all your force, accompanying the action with the word whoa. This repeated a score of times will teach the horse lastingly the word and the meaning. You must speak the word whoa just before you pull. This command to the horse must be repeated if at any time he grows restive and seems indisposed to obey the command whoa; though an occasional jerk while driving, preceded by the word whoa, with any ordinary bit, will keep the horse in remembrance.

This is also effectual in breaking up the habit of kicking and running away. You must be severe with this; it is easily learned to the horse, and is most effectual in preventing accidents. It is by this process of teaching that I learn horses to drive without headstall or bridle.

THE WILD COLT.

As the training of the horse must be based upon the observance of those principles of his nature requiring the exercise of his reason in everything forced upon his attention, and of conveying to his understanding most clearly what is required of him, it is advisable to commence our lesson on the management of the horse by explaining how to proceed with the Wild Colt. The first step to be taken is to see that the enclosure in which you intend to operate upon the colt is unoccupied by anything which will distract the attention of the colt, for instance, fowls and domestic animals, etc., and all persons except the one who is to undertake the training. This latter precaution should be taken for the reason that the presence of other parties would annoy the

colt. Also that by allowing them to be present you would violate the conditions of your instructions.

Being prepared, the object is then to get the colt into his training place as carefully as possible, using such gentle means as may be convenient and most likely to be successful without exciting the colt.

Every farmer or person at all acquainted with the management of horses, knows well enough how to do this in his own way without being governed by any fixed rule. The next thing to be done is to

Halter-break the Colt.

As soon as he appears quiet and reconciled to the restraint of the enclosure, go cautiously and slowly towards him, making no demonstrations at all, but talking gently, or singing, as you please. It does not understand your language, and your presence may attract his attention. If he begins to walk away from you, stop, but continue your talking or singing, and appear as careless as you can about his presence, until he becomes quiet again. Then start again and leisurely approach him as before, and so repeat, as circumstances require, until you are close enough to touch his withers, or permit him to smell of your hand, should he seem so disposed. Remember, you must be patient and gentle in all your actions. Now touch him on the withers gently, and gradually win his confidence, so that you can handle and rub him on the neck or head. Do not try to hold him or impose the least restraint; that would cause him to become excited and afraid of you.

Handle the colt in this way until he becomes reconciled to your presence, and will suffer you to scratch him as you please.

Now step back and take your halter quietly. The halter should be of leather. Rope halters are irritable to young horses; they are so harsh that they hurt the head whenever the colt pulls. Being hurt the colt will naturally try to get his head out of the halter, and the more it will hurt, because the tighter and harder it will pinch, which will frighten him the more, and he will try to free himself at all hazards, until he pulls himself down or breaks the halter. In that case his experience would have been a bad one, for you would have learned him to be a halter puller. You hold the halter in the left hand, having unbuckled it, and approach the colt slowly; don't be in a hurry; give him time to smell and examine every part in his own way. While he is examining the halter, caress and rub him; it will further your efforts greatly to give the colt something he likes, such as apples, oats, corn, salt, etc., that you can get hold of handily. Then take hold of the long strap which goes over the head with the right hand and carry it under his

neck, while you reach the left hand over the neck and grasp the end of this long strap; then lower the halter just enough to get his nose into the nose piece, then raise it up to its proper place and buckle.

This is the best method to halter a colt, and in cases of wild ones, perseverance and patience is required, always being careful not to become excited or angry, for in that case the colt will show a great deal more resistance, which, in the end, and at a great loss of time, you will have to overcome.

Hitching Colt in Stall.

Two principles are involved in controlling and teaching the horse to submit to the restraint of the halter while hitched. Prepare your stall, which should be about four or five feet wide, by attaching a rope so as to bring it across and fasten firmly, so as to strike the hind parts; or you can bore holes through so as to put a pole in the same manner as a rope. Now tie the halter long enough so that if the colt attempts to go back he will strike the rope or pole across behind him, before he can feel the restraint of the halter. You should in this, as in everything else you attempt, teach your colt to be gentle. In every case you should untie the halter before taking down the rope or pole. Another method:—Take a half-inch rope, place under the tail, cross on the back, bring forward and tie under the neck or the breast; then pass the halter strap through the ring of the manger and tie to the rope, so when the horse pulls he will be punished, and the impression will be made stronger than the above.

To Halter-break a Wild Colt.

First, provide yourself with a little pole about ten or twelve feet long; cut a notch in one end with your pocket-knife, and about seven inches from this end, drive a nail in, the head bent a little towards the end having no notch. Next, you want a good half-inch manilla rope, about thirty feet, with a slip-noose in one end, and a knot in the rope about twenty inches from the end with the noose, so that it will not draw so tight as to choke the colt down, but will allow the noose to draw tight enough to shut off his wind, so as to prevent him from making a very obstinate resistance. Now get a short breast strap, or a long hame strap will do. This put into your pocket, convenient to the right hand, for future use. Now approach the colt slowly and carefully as before described, remembering that all persons must be excluded. When you succeed in approaching to within four or six feet of the shoulders, retreat slowly as before, and take your stick all ready prepared, holding

the notched end from you and swinging it very gently a little to the right and left in a horizontal position. This is a new object of fear to the colt, and will be regarded with a great deal of suspicion. However, a little patience will soon enable you to get so near the colt that you can hold your stick gently over the back and shoulders. Then gradually lower it, moving gently as before till you can place your hand on his neck. As this is borne let it drop a little lower until it rests upon the mane. Now commence scratching the neck with the stick, gently but firmly. This will please the colt and cause him to stand quiet. While scratching with your stick in this way, slide your right hand slowly and cautiously along its surface until you get to the mane, when you scratch with the hand in the place of the stick. All this is proving to the colt that you will not hurt him; in fact you please, and hence he submits quietly. Now step back quietly to where your rope is and take the noose and place it on the stick, letting it rest on the stick, and between the nails or shavings, with the main part of the noose hanging below the stick, and large enough so as to be slipped over the head easily while you keep the other end of the rope in the hand with the stick. Your halter or noose now hangs upon your stick, so spread that you can slip it over the colt's head without touching a hair. Your halter arranged, holding it before you swinging upon the stick, you approach the colt in the same cautious manner as before until you bring it to the nose. This being a new object of fear to the colt, he will smell of it cautiously. While he is smelling it you are gradually raising it over his head, so gently he does not feel or care about it until you get it well back of the ears, then turn your stick, and your noose will drop on his neck. If he does not start, take the slack in your rope gently, at the same time approach his shoulders cautiously and rub him gently, if he will allow it.

If he should endeavor to run away, keep hold of the rope. If he tries very hard to get away he soon finds himself out of wind caused by the pressure of the rope about the neck, consequently he will offer but little resistance, and will very soon allow you to come up to him just as you please. Now you should use him gently.

As soon as he will allow you to approach, loosen the noose from his neck, and by kind words and caresses let him know you do not wish to hurt him. Keep on caressing him till he will allow you to rub his neck and ears. Encourage him by feeding from your hand something that he likes. When he submits so far as to let you handle his head and neck, take the other end of the rope and tie a round, hard knot in the end, and another knot about twenty-five inches from the end.

This knot should be left slack. Now take the end of the cord in the left

hand and carry it under the neck to the opposite side, while you reach over with the right hand and take it and bring it over the top of the neck again. Now put the knot in the end of the cord through the other and secure by drawing as tight as possible. Now make a loop by drawing it up as tight as possible. Now make a loop by drawing a double of the slack rope under the rope around the neck. Make the loop long enough to slip into the colt's mouth, which can be done easily by gently insisting on his confidence. A green colt is not bad about taking anything in his mouth if you use judgment and do not frighten him. Slip this loop well up above the bridle teeth, and place the lip well over the jaw, under the roof. Now draw upon your loop and take the noose you first had about the neck off entirely. You now take hold of the end of the cord. You will find you have a means of power in your hands that makes the strongest horse almost a plaything. And we claim the Comanche bridle, and its value in managing and training colts, cannot be over-estimated when used with judgment and handled withadroitness and skill. It should never be used so harshly as to excite extreme pain and yet with a touch that causes a fear of resistance. You now have your Comanche bridle, and can control the colt almost at will. If he should endeavor to run away from you, give him a quick, sharp jerk, and at the same time say ho, and repeat as often as he may make the attempt to get away. When he stops go up to him and caress him about the neck and head.

When he gives up to the rope enough so that he does not try to get away, then proceed to learn him to lead. With your rope in hand step back to his side, opposite his hips, and say, "Come here," at the same time giving him a sharp pull on the halter. He will swing around towards you, and if he only takes one step in the right direction let him know that that was what you wanted. To make him understand that he has done right, go up to him, speak kindly to him, and call him by name, at the same time petting and caressing with the hand.

Then walk around on the opposite side and repeat. Encourage him for every step taken in the right direction by caressing and kind words, and in a very short time he will come to you at the word, and follow you around like a dog. If the colt is wilful and stubborn, handle him with the Comanche bridle until he will stand quietly, then take your strap, previously provided, in the right hand, holding by the buckle.

Now commence raising gently the foot next to you. If he resists your efforts, reprove him with the halter, and keep on rubbing and caressing the leg till you can take the foot in your hand, then slip the strap around below the fetlock, putting the end through the keeper on the inside of the buckle; draw it up tight so that it will not slip up, then

pass the strap around the arm from the inside of the leg, and bring over to the outside, and buckle. By putting him on three legs he can offer but little resistance when pulled by the head sideways, and as he does not reason, will come around as readily with his legs free as he will on three. Now step back on a line with the hips, holding the halter firmly and say, "Come here." He of course does not obey; so you pull on the bridle and he is obliged to swing around to you. Now step to the other side and repeat; bring him around by the halter each time until, when he hears the words, come here, he will obey readily.

As soon as the colt submits to this step, remove the strap from off the leg and rub the foot gently where the strap has been. Now step back sideways, and as before, say, "Come here." If he does not come readily, give him a sharp pull with the rope, which shows him that you can handle him as well on four legs as you can on three. Now if he moves a little to obey, caress him, and so continue until he will follow you readily.

How to Handle a Colt's Feet.

After breaking the colt to lead well, caress and rub him on the shoulders as at first, and as soon as he will bear, work down the withers and leg; then lift lightly on the foot; if it is submitted to, rub it quickly and smoothly a few seconds, then put it down and take it again, and so continue until you can handle the foot as you please.

The main point for you to consider is, that you are to make the colt understand that you will not hurt him, and to do this you must be gentle. Now place your hand on the shoulder and run it back over the side and hips softly and quickly; handle every part thoroughly as you work along towards the leg, and as the colt will bear, work the hands around the leg until you reach the foot. If there is no resistance after, lift up a little, and if there is no resistance after letting it down, rub gently a little more; repeat each time, lifting it up a little higher, until you can take it up and handle it just as you please. Should he, however, resist, and jerk his foot away from you, you must resort to means to make him understand that resistance is out of the question.

In endeavoring to manage and control your colt, you should have your Comanche bridle on as before described. Now take the long rope that you hold in your hand and put it around over the front teeth of the upper jaw, and under the upper lip, carry it around over the top of the head, bringing the end down through the halter loop on the under jaw. Now take the end of the rope in your left hand and proceed as before to handle his legs and feet. If he stands quietly, use him gently, but if he should resist, correct him with your rope, by which you can

inflict so severe a punishment that he will submit in a very short time, and allow you to handle his legs just as you please. Persevere until you can hold the foot in your hand, moving it gently and caressing the leg until he gets over the fear inspired by the use of the cord under the lip. If more thorough treatment is necessary, see "Proper Management of Horses bad to shoe."

How to Bit a Colt and Make a Bridle.

Take your Comanche bridle, made exactly as before described, with the exception of the loop that goes around the neck: that should be made large enough to fit over the neck rather tightly where the collar is worn. Now bring your cord through the mouth from the off side, and bring back on the near, through the loop around the neck; now pull upon this cord and the head will be drawn back to the breast, tie with a bow-knot and draw down close, so that should the colt show signs of rearing backwards, with one short jerk you can relieve him, while, should he go over backward with the restraint on his neck he would be likely to injure himself.

You are now prepared to bit. Simply pull upon the cord a little, which will draw the head back slightly; after holding for a short time, render loose; then draw a little tighter, and repeat for four or five minutes, then stop biting, and repeat at some future time.

The great secret not only in biting but of training the young horse in any manner is in not confusing or exciting him to resistance by training too long. When your colt yields readily to the bit, you can check the head to suit. Making the check-rein rather tight causes the head to be carried high, while the delicacy given the mouth will prevent the nose being thrown forward. This method of biting may be regarded with little favor by those not understanding its effects, but all we have further to say on the subject is, give it a fair trial. Teach your colt to be perfectly submissive to your handling in every manner; to lead well, and back freely at the word. You are now ready for the next step in his training, which is usually driving in harness.

Breaking Colts to Harness.

Put on your harness carefully, which should be made to fit well, and great care should be used in having it safe and strong in every respect. Do not be tempted to drive your colt in an old, rotten harness, or hitch to an old, rotten wagon, as such are liable to give way at any time. Many of the accidents causing horses to become subject to bad habits

are the results of such imprudence. Let every step be made sure. Work safe and you are sure to bring about a good result.

With your harness on, allow him to stand in his stall until he becomes somewhat used to the presence and pressure of the different parts, and will allow you to rattle them about without his caring for them. Now lead him around for a short time, and as soon as he appears quiet, check him up loosely and take down the reins and drive him around the yard. When he becomes familiar with the harness, check and reins, and will stop and start at the word, and drive around to the right or left, you can drive him about the street with safety, though in making this step put on the Comanche bridle for safety. You should then drive to sulky. We prefer a sulky at first. Let your colt see and examine every part of the sulky, until he cares nothing about it; then draw forth a few times, then attach the harness. Before starting him, back him up against the cross-bar of the shafts. If he should act frightened speak to him calmly but firmly, at the same time holding your reins firmly so as to prevent him from swinging around, if he should try. Then go to him and rub and caress him until he gets over his excitement. Then run the sulky up against his haunches, at the same time soothing him by gentle words until you can shove the sulky against him just as you please and he not care anything about it. Now you can get into your seat and drive him around wherever you choose without danger. Let him go slow at first, until he becomes familiarized with the objects that are new to him along the road, as he is not as liable to become frightened while going slow as when driven fast.

Objects of Fear.

In driving, be careful about using the whip too freely. If a stone or a stump, or anything of the kind, should be regarded with fear, do not whip and drive the horse by. Let him stand a short time and look at the object until he seems careless about it, then drive closer, as he will bear, and so repeat, at the same time talking to him encouragingly until you can drive him up to the object. Be very sure to have your colt comprehend fully that such objects are harmless—as opportunity offers in this way—and he will soon become so fearless and confident as to be regardless of such things; but if you whip him for becoming frightened at such things, he will associate the punishment with the object of his fright, and be more frightened the next time he sees it.

The horse being unable to reason only from his experience, you should convince him by careful examination that the object is harmless. For example: if the sight or smell of a robe a few feet distant should frighten him, put on your Comanche bridle and take him alone into

your yard or barn, lead him gently to the robe, let him smell of it if he will, then take it in your hand, hold it gently to his nose, then rub it against his neck, side, and over his back, and so repeat for a short time. After being familiarized to it in this way, you can throw it over his back or tie it to his tail without causing him the least fear.

To familiarize a colt with any article that he may have regarded with fear, let him touch it with his nose, and rub him on the neck and side, and in a short time, when he finds it will not hurt him, he will become reconciled and care nothing about it.

To accustom your horse to the cars, lead him up to them, let him smell of them, and even put his nose on them, and in this way continue until he becomes familiar with them. And then do not fail to repeat your lessons until he cares nothing about the object. Should you fail by neglect, it may render him worse than as though you had done nothing with him.

Driving a Colt in Harness.

When your horse drives well before a sulky then you may hitch him to a light wagon or by the side of a broke horse, and if you are breaking him for a farm or for hauling heavy loads, you can gradually increase his load until he will draw to the extent of his ability without comprehending that he has the power to do otherwise. After your horse is sufficiently broke to the harness, you can either allow him to carry his head as nature may dictate, or by the proper use of the check rein bring his head and neck into such position of style as his form and temper will bear, or your fancy dictate. In teaching your young horse to drive well, do not be in a hurry to see how fast he can trot. Although your colt may be old enough to learn how to move well and perhaps drive gently as an older horse, he is not old enough to perform the work of an older horse, fully matured. Require but little at first, gradually increasing as he develops in strength and hardens in gait. Care should be taken to keep each pace clear and distinct from each other. While walking he should be made to walk, and not allowed to trot. While trotting, as in walking, care should be taken that he keeps steady at his pace and not allowed to slack into a walk. When occasionally pushed to his extreme speed in trot, he should be kept up to it only for a few minutes at a time, gradually requiring more as he becomes practised and capable of endurance; and whenever he has done well he should be permitted to walk a short time, and encouraged by a kind word. Under no circumstances should what is termed "his bottom" be tried and overdone.

The reins while driving should be kept snug, and when pushing him

to the top of his speed, keep him well in hand that he may learn to bear well on the bit, as it is by means of the reins mainly that the horse, when going at a high rate of speed, is kept steady in his pace. But while you should teach your horse to drive well to the pressure of the bit, be careful not to give him the habit of pulling too hard, for then he becomes not only unpleasant but difficult to manage. The art of drawing well cannot be taught by any written instructions. Practice and ingenuity in this respect can alone make a skillful horseman. Always strive to encourage and not overdrive your horse, and be careful not to whip only for merited reproof. The too frequent use of the whip will cause the horse to plunge ahead every time he sees or hears any unusual movement of it, or at any mishap that may occur.

To Train a Horse to Stand when getting into a Carriage.

Take your horse and lead him on the barn floor; place him in the position you wish him and say "ho." The object of this lesson is to teach him the word "ho," the most important word in horsemanship. You will proceed by stepping away from him, and if he appears to trifle and not heed you use the Comanche bridle, pulling upon him, to warn him to attend to you. Practice this until he will allow you to walk away in any direction without moving himself. Take a whip and crack it slightly, and if he moves put him back as before, increasing the cracks of the whip until you accustom him to stand while the whip is being flourished, and also to throw him and apply the method of controlling a nervous horse. If you are obliged to drive him while you are trying to break him, do not use the word "ho," as he is not yet accustomed to minding it, and it will only make matters worse. Shift the position of the horse and repeat the lesson, putting on the harness and leading to places where he is accustomed to refuse to stand, and teach him to stand in those places, as well as teaching him to obey the word "ho" before hitching him to the carriage. Then hitch inside a building with the door closed. Get in and out of the carriage, rattle the thills and shake the carriage, causing him to stand, by means heretofore alluded to. If it appears that the habit is caused by fear of the carriage behind him, take him out of the thills and lead him around it, allowing him to examine it, and even eat oats out of a measure set in the carriage. Now take him out of doors, and if he renews his attempt to start take him out of the thills and use the Comanche bridle, fetching him back between the thills, and say "ho." You will by this means soon teach him that "ho" means for him to stop and stand. For the sake of not undoing all you have

done, remember the caution heretofore given to say "ho" only when you mean to stop.

Horses Baulking.

This is the most aggravating of all the habits to which the horse is subject; it tries the patience of man to the utmost; yet by patience and perseverance, with proper management, even this habit can be broken up. It is rarely we find a baulky horse which is not a good one. They are usually very high spirited, quick of comprehension and of a strong nervous temperament. They resist because we have failed to make them understand what we require of them, or it may occur from overloading, sore shoulders or working until tired out. Particularly is this the case with young animals. To whip under such circumstances only excites them to more determined resistance. On the first attempt of your horse to baulk, get out of the wagon, pat him upon the neck, examine the harness carefully, first upon one side, then upon the other, speaking encouragingly to the animal while doing so; then jump in the wagon and give the word to go; generally he will obey; if he refuses to do so, take him out of the thills, put up the traces so that they do not drag upon the ground, then take him by the head and tail, reel him until he is almost ready to fall, then hook him up again and give him the word to go; this rarely fails. It takes that sullen spirit out of them and they start at the word.

I have failed but once in handling baulky horses, though I have handled a large number of them. By repeating the same operations every day for a week, usually breaks up this most perplexing habit thoroughly and permanently.

Another method which will prove successful to break a horse in double harness is, to take a hemp cord, pass around under the tail, bring forward through the terret ring of the baulky horse, and fasten to the ring of the other horse's collar or hame; when the other horse starts the baulky horse can do no other way than move with him, and in a short time, if the horse is hitched single or double, by taking your whip or any common stick and place on the back of the crupper-strap the horse will start readily.

How to Throw a Horse.

The only practical method of throwing a horse, first adopted by R. P. Hamilton, is easy to the person handling the horse and safe. The horse lays down quietly, almost as easy as when lying down by himself in the stall. To perform the work procure a rope or any strap long enough to pass around the horse, and tie in a knot on the back with an iron ring,

small size, tied fast; pass the end of the strap or rope around under the tail for a crupper, bring the end back, fastening to the belt around the body; then take a small cord of sufficient strength to hold your heft; pass around the horse's neck, tie in a knot that will not slip; then pass the cord through the horse's mouth, and stroll back to the ring on the horse's back; when that is accomplished pass a strap around the near fore foot twice and through the keeper, strapping the foot to the belt around the horse; when that is done, step back from the horse, taking hold of the small cord, pulling gently till you have the head to the side, then with a quick pull bring the horse to the ground, with his knee to steady him as he falls. It can be done with ease and safety. Whatever may be the bad habit of your horse, it is a very good plan to give him a regular course of training, and by throwing a horse down and handling him just as you please while down, demonstrates to the understanding of the animal that it is worse than useless to try to resist control. It is the best way we have ever found to handle nervous horses. After handling gently while down they find they are not hurt, and get over their fear, and will allow you to do with them as you like anywhere.

Pulling at Halter.

Place on him a common halter headstall. Put on a common girth. Take a half-inch rope about twenty feet long. Pass the centre of this rope under the tail in place of a crupper; twist the rope over a couple of times; pass the end of the rope under the girth, bringing an end up on each side of the neck, and pass the ends through the nose-piece of the headstall under the check pieces, and tie to a stout ring or place, leaving about three feet play of rope. As soon as the horse falls back, he being tied by the tail to the ring, he pulls upon the tail, and the hurt coming there instead of the head, where he expected it, he starts up, it being natural to go from the hurt. By giving him two or three lessons, making him fall by whipping him over the nose or exciting him with an object he is afraid of, the impression being so strong, he will not forget it, and the more so by repeating for one month or more lessons at different times.

To Break Horses from Jumping.

Tie a strap to the fore feet below the knees; pass it up under a surcingle around the body, and tie the other ends above the gamble joint to straps inclosed in a ring, so one will go above and the other below the gamble joint. You will see that when he attempts to jump a fence the

fore foot is drawn up under him, and as he springs to leave the ground the hind feet will be pulled up, and he will inevitably remain in the lot. The value of this plan is that it will in most instances cure a horse or cow of the habit.

Pawing in Stall and Kicking of One Foot.

Get a piece of chain ten inches in length, run a short strap through one of the end links and buckle it around the foot above the fetlock; or a piece of light chain can be fastened to a single block and attach it to the foot in the same manner when the horse attempts to paw or kick; the clog or chain rattles against the foot and prevents a repetition of the practice.

Cribbing.

The act of cribbing induces a peculiar contraction of the muscles of the neck—the larynx is forced down much beyond its natural position. The enlargement of the neck while biting or sucking wind enables us easily to prevent and cure this habit.

Have the throatlatch of the halter made of nice stiff leather, and fitted neatly to the throat. Take a piece of strap about five inches long and the same width of the throatlatch; drive eight ounce tacks in a row through the centre, about three-eighths of an inch apart. File the ends to an equal length and very sharp. Lay this strap on the inside of the throatlatch, on the part coming directly under the throat. Wind a waxed end around the centre and the throatlatch and knot firmly, and tie the ends down in the same manner. This brings a row of sharp points across the throat when the throatlatch is buckled up—when properly adjusted and fitted—that will stick into the neck at the least effort to crib, but do not interfere in the least during the ordinary process of eating and drinking. The throatlatch of the bridle must be armed in the same manner, so that the horse is not at liberty to crib under any circumstances. If the horse is young, and the habit is not of long continuance, there is but little doubt of being able to break it up with ordinary effort and care; and if it should not break the old horse of long experience in the habit, it can be relied on as a sure preventive. I would keep every young horse subject to this means as reproof for at least from one to three months. Much will depend upon getting the points of the tacks even and sharp, and everything fitted nicely. The throatlatch must not be so tight as to cause the points of the tacks to touch the neck when the horse is eating or drinking, or so loose as not to touch sharply when there is an effort to crib.

It seems almost useless to urge care and attention to these details to persons of no delicacy or aptitude, and yet success will depend almost wholly upon the skill and care evinced in arranging and carrying out these details to an exact adaptation, and seeing that it is maintained to the end of success. This habit can sometimes be cured instantly, by holding a bottle of spirits of ammonia in the hand, with the thumb firmly held over the mouth, so holding it that the instant the horse cribs, by raising the thumb the ammonia will be inhaled through the nose. The shock to the nerves when inhaled in this way is sometimes so great as to cause the horse to fall down as if shot, and will often produce so powerful an impression upon the mind as to cure the habit.

Another Way.

Place a roller at the top of your manger, six inches in diameter, reaching across the stall. Let the horse eat his hay and grain from the bottom of the manger. The stall should be wide enough so he can be tied to prevent him from cribbing at the sides of the stall, and also to be ceiled in front so as to prevent him. When he attempts to crib he must inevitably work on the roller which, when he places his teeth to crib, the roller turns, his lips comes in contact with the roller and punishes him at every attempt, and after a few trials he becomes satisfied and will not attempt to crib.

To lead a horse behind a wagon, take a stout cord or small rope, and place under his tail, cross on the back, and run through the rings of the halter; first hitch him to a post, and by hitting him over the nose with something, or to excite him, make him pull, which will satisfy him of his useless attempts at holding back on the halter; then hitch him to the wagon, and you will find no trouble in riding home without the many inconveniences of leading.

Kicking in Harness.

Kicking may justly be regarded as a bad habit, because of the danger incident to the use of such horses. It is well to remember that this habit is in most cases the result of carelessness or mismanagement. Proper attention is not given to the fitting of the harness; the straps dangle about the flanks of the colt, unacquainted with their nature, which frightens and causes him to kick. Or, what is more common, an old harness is used and breaks at some unlucky moment, which frightens the colt, and he kicks as a means of self-defence; when his feet and legs coming in contact with the whiffletree or cross-piece, causes him

greater fright, and he becomes reckless, springs ahead in a frantic endeavor to free himself from his tormentor, until he tears himself loose, or is stopped after being worried out with fright and exertion. Learning fear and resistance in this way, he becomes alarmed at the least indication of its repetition. This fear must be broken by familiarizing the horse with the causes of his fear, at a time when he is powerless to resist, and when he finds there is no danger of harm he will cease resistance. In the majority of cases this habit is broken by our means of control.

To break the kicking horse, you want to put him through a regular course of handling that will convince him of your ability to manage him just as you please, while at the same time you demonstrate to his understanding that he cannot help himself, and must submit unconditionally to your control. In the first place, then, give him a turn with the Comanche bridle, making him stop at the word *ho!* and come to you at the word. When he submits to that, proceed still further in convincing him of your power and mastery by throwing him down. To do this, fasten up the near fore leg, as described in "Handling the Feet."

Now put a strong surcingle, with a ring slipped on it, around the animal, and slip the ring to the right side of the horse, near the backbone. Now draw the end of your cord or Comanche bridle through the ring, bringing it over to the near side of the animal; now take the halter out of the mouth, thus leaving a plain loop around the horse's neck; then take hold of your cord with the left hand and straighten it out.

Now you have a plain double from the neck of the horse around to the ring on the right side; you put this into the horse's mouth, and draw up the end of the cord with the right hand. Now you have him completely in your power; you can handle him as easily as a boy could a top. Now step back by his side with a cord grasped firmly in your hand, say, "Lie down, sir," at the same time pulling steadily on the rope. His foot being fastened up he is easily thrown off his balance. He will gradually settle down on to the knee of the near leg, when a quick pull will bring him over on his side.

Now you have him down, use him gently; rub his head and neck; talk to him kindly, thus letting him know that your object is not to hurt him; that all you require is submission, and that you possess the ability to enforce that. After letting him lie for a while, make him get up on three legs, let him stand a moment, then put him down again. While down, handle his feet and legs as you please, and so continue until he will lie still and submit to you in everything you wish. Then take the

strap off his leg and let him get up; caress and rub his leg where the strap has been.

Now put the harness on. Use a blind-bridle with a W bit (or some call it a double-joint bit), and if you cannot obtain one at your harness maker's, go to a blacksmith and have one made. With this kind of a bit on your horse, you want to drive him around your yard, occasionally saying ho, at the same time setting him back upon his haunches with the bit. In a very short time he will stop when you say ho, without any pull on the rein; then go up to him and caress him about the head and neck; then take your whip and switch him around the hind legs and flanks, lightly, and if he shows a disposition to kick or run, say ho sharply, at the same time correct with the bit.

In your first lesson use the bit with severity; thus demonstrating to the horse your determination and ability to enforce obedience under any and all circumstances of resistance. When you can drive him around with a whip at a trot, and stop him at the word without using the rein, go to him again and pat and rub him to encourage him in well-doing. Then attach the long cord to your reins, and start him away from you at a trot, letting him go as far as the length of your cord will permit without pulling on the bit, when you will say ho. If he stops, go up and caress him, and keep on in that way until he will stop and start at the word, no matter how far away he is, so long as he can hear your voice.

After you have him so well in hand that he obeys readily and willingly take the reins in your hand and learn him to back, encouraging him by kindness when he does right, and correcting with the bit when he shows the least intimation to be rebellious and stubborn. When he will back at the word, back him against your buggy wheels, keeping an eye on his movements, and if he shows fear and a disposition to get away from it, do not force him against it at first, but drive him around and up to, letting him smell and examine it until he becomes satisfied it is not going to hurt him; then back him up to it again, right back against it, and if he is disposed to kick say ho, sharply, at the same time giving him a short quick jerk with the rein. By this treatment he finds that you still have the same power in your hands that has already controlled him so completely and easily, therefore he submits unconditionally.

You can now proceed to hitch him up; watch him closely, and if anything should excite him momentarily, and he should manifest a desire to repeat his old habit, say ho, and if he does not obey instantly set him back with the bit in a manner that shall leave no doubt of your ability to control him at will. If handled in this way for a few times, he becomes convinced of the uselessness of resistance, and careful man-

agement for two or three weeks will radically break the worst horse of this kind we ever saw.

People have often expressed wonder at our success in managing kicking and runaway horses. The simple laws of nature are to such unworthy of reflection, except the submission of the animal, the control is looked upon as the result of a peculiar gift. But we do control them perfectly and thoroughly by the word ho. In breaking to the word we use means that compel obedience. If your horse minds the word quickly and stops at your bidding, he is not going to do you or himself any damage by kicking, for if you stop him whenever the old habit is brought to mind, and let him stand until the excitement is over, he will have no incentive for kicking, and in a short time will forget the habit altogether. So with

The Runaway Horse.

Handle with the Comanche bridle, and by throwing the same as the kicking horse in harness, unless the habit is caused by fear of some object, such as an umbrella, buffalo robe or anything else that may frighten him and cause him to run away; if that should be the case, when you have him down put the frightful object—whatever it may be—around him, throw it onto him, at the same time rub and caress him, let him know that it is nothing that will hurt him, then let him up, put it on over him, rub him with it; and in that way familiarize him with it until he cares nothing about it. Then train him in harness until he will mind the word ho. Make him run, and if he does not stop at the word, stop him by the bit so suddenly as to disconcert him and destroy his confidence completely.

Although we have given a powerful means of coercion, and of impressing the horse of his inability to resist the power of man, still practical and thorough as those means are, they are of but little account if not used with prudence and judgment. Men are too apt to depend upon main strength and stupid harshness for success in the management of horses. And with equal stupidity the basis of control we have here given may be made in the hands of some power to be abused with reckless disregard of consequences. Be Firm, persevering and prudent in the exercise of your power when it necessary to impress your subject with a sense of mastery; but be gentle, attractive and affectionate when he is obedient and submissive. Train your horse thoroughly with the Comanche bridle each time before hitching up. We find by experience that horses subject to bad habits are ungovernable in the mouth. If we govern the mouth well, we have, in almost every instance, a good

control of the horse; and it is an important requisite, under all circumstances, in the control of horses in harness.

Then control while driving, until thorough and certain obedience is insured to the word. Strive to tell your horse exactly what you want him to do, and do not confuse him by attaching different meanings to the same word. It is quite common to say *ho* when it is intended to go slower, or to attract the attention of the horse when standing, to let him know of your presence. Now if anything should happen, and you wished him to stop suddenly, he would not be likely to mind without a pull at the bit; and why should he, as long as he has been learned in that hap-hazard way that *ho* meant anything and nothing at the same time? Such training confuses the horse so much that, though he is naturally obedient and tractable, he will become careless and obstinate.

Have a distinct word for every command, and make him understand that every command must be obeyed. Speak in a natural tone of voice to your horse under all circumstances. Nothing confuses a horse more than screaming at him to have him hear. He is as acute in the sense of hearing as man, and so sensitive, if nervous, as to have his pulse increased from six to ten beats a minute by one harsh word. Have your horse understand that things likely to frighten are harmless, and be sure not to whip for being frightened. If your horse is frightened at anything approaching, let him stand until it passes; but hold the reins snug and firmly, or he may swing round and upset you. If cars are passing, and are regarded with fear, let your horse face them, but hold him immovable with the reins. Always, under such circumstances, talk encouragingly to him, remembering the slower you move him the more power you have over him. There is but little danger of a horse kicking after being stopped or while moving slowly, and so with the runaway. He will seldom make a second attempt at the time he has been foiled and stopped.

A horse frightened becomes reckless, consequently never raise an umbrella suddenly or unexpectedly behind a horse afraid of such things. First raise it at his head and gradually carry it back, and then, to make sure, if you have not a bit that will control your horse easily, put on a Comanche bridle, and carry it back in the wagon or buggy. Fear and anger is something that a good horseman should never exhibit in his countenance or voice, as the horse is a close observer, and soon learns to take advantage of such indications to become careless, or, excited by anger, may become aggressive or unmanageable.

Let your lessons be thorough, but not very long. Be gentle and patient with the colt, but make the wilful, stubborn horse feel the full extent of your power. Make the old reprobate know that the only alter-

native is unconditional submission to your will; though if he should become too much heated and excited, it is prudent to stop and repeat the lesson at some future time; but repeat until there is thorough and unconditional submission. After a horse submits, let your treatment be characterized by gentleness and good-nature.

Bad to Shoe.

The habit of resistance to being shod or allowing the feet to be handled, like all others to which horses are subject, is the result of hasty and imprudent harshness. It would seem from the reckless disregard of consequences so generally evinced in handling young horses, as though man doubted his own reason, and would not take counsel of the teachings of prudence. If the feet had been handled gently at first, and blacksmiths had not vented so much of their vexation in the way of pounding with the hammer for every little movement of resistance in shoeing, this habit would never have been contracted.

The natural tractability of the horse causes him to yield a ready obedience to all reasonable demands that he comprehends. If the feet are jerked up roughly, and without an effort to reconcile him to being handled, the colt will strive to get away or free himself from what he supposes will hurt him. Never hold to the foot with all your might when the colt is trying to jerk it away, for in such a case strength is not your forte, and your struggles only convince the horse of your weakness. Handle the horse in conformity with the laws of his nature, so as not to excite resistance through fear of injury. If the horse does not very much resist the handling of his feet, put the Comanche bridle on him and put a short strap on his hind foot. Pulling upon the strap will bring the foot forward, and he will probably resist by kicking. The instant he kicks, reprove with the Comanche bridle, which is held in the other hand, and so continue until the foot is submitted without resistance. But if your subject is very bad, take a strap or rope about twelve feet long, and tie one end of it in a loop around his neck where the collar rests, pass the other end back between the fore legs and around the near hind leg below the fetlock, thence back between the leg and through the loop around the neck. Now step in front of the horse and take firm hold of the rope or strap and give a quick pull upon it, which will bring the foot forward. If the horse is bad, pull the foot as far forward as you can, which will give you the more advantage. The horse will try to free the foot by kicking. Hold the head firmly with the left hand, and with the other hold the strap firmly.

Stand right up to the horse's shoulder and whirl him about you,

which you can easily do while he struggles to free himself. As soon as he yields, handle the foot gently, and then let up on it a little, and so continue until he will let you handle the foot without resistance. It may be necessary to repeat the lesson once or twice, and be careful to handle the foot with the greatest gentleness.

If your rope is rough, put a collar on the neck instead of the loop, and fasten your strap to it. Use a smooth, soft strap, so as not to chafe the foot where it passes around it.

Shoeing.

If we examine the horse's foot while in the natural state, it will be found to be almost round and very elastic at the heel, the frog broad, plump, and of a soft, yielding character; the commissures open and well defined, the sole concave; the outside crust from the heel to the toe increased from a slight bevel to an angle of forty-five degrees; consequently, as the foot grows it becomes wider and longer in proportion to the amount of horn secreted, and narrower and shorter in proportion to the ground surface. If a shoe were fitted nicely and accurately to the foot after being dressed down well, it would be found too narrow and short for the same foot after the lapse of a few weeks.

Now if an unyielding shoe of iron is nailed firmly to this naturally enlarging and elastic hoof, it prevents its natural freedom of expansion almost wholly, and does not allow the foot to grow wider at the quarters as it grows down, in proportion to the amount of horn grown, as before shod; consequently the foot is changed by the continued restraint of the shoe, from a nearly round, healthy foot to a contracted and unhealthy condition, as generally seen in horses shod for a few years.

The principles which should govern in shoeing are few and simple, and it is surprising, considering the serious consequences involved, that it should be done with so little consideration. The object of the shoer should be, in trimming and preparing the hoof for the shoe, to keep the foot natural, and this involves first the cutting away of any undue accumulation of horn, affecting in the least its health and freedom. Second, to carry out in the shape of the shoe, that of the foot as nearly as possible. Third, to fit and fasten the shoe to the foot so as least to interfere with its health, growth and elasticity.

The preparation of the foot requires the cutting away of about the proportion of horn which, coming in contact with the ground, would have worn off, or which has accumulated since being shod last. If the shoes have been on a month, the proportion of horn that was secreted in that time is to be removed. If two months, then the proportion of

two months' growth. No definite rule can be given; the judgment must be governed by the circumstances of the case. The stronger and more rapid the growth of the foot, the more must be cut away; and the weaker and less horn produced, the less to the extremity of simply levelling the crust a little, the better to conform to the shoe. There is generally a far more rapid growth of horn at the toe than at the heels or the quarters; more will be required to be taken off there than off the other parts. Therefore shorten the toe and lower the heels until you succeed in bringing down the bearing surface of the hoof upon the shoe to almost a level with the live horn of the sole. Be careful to make the heels level. Having lowered the crust to the necessary extent with the buttress or knife, smooth it down level with the rasp. The sole and frog detach by exfoliation as it becomes superabundant. The sole, therefore, would not need paring were it not for the restraining effect of the shoe upon the general functions of the foot, which is liable to prevent such detachment of the horn.

We would be particular, also, in impressing the necessity of not confounding the bars with the substance of the sole, and setting them down to the common level with the sole.

Any man of common sense can see that the bearing of the bars should be equal to the outside of the crust upon the shoe, and that they offer a decided resistance to the contraction of the heels. The cutting away of the bars to give the heels an open appearance, is inexcusable, and should never be done. In a natural, healthy condition, the frog has a line of bearing with the hoof, and by its elastic nature acts as a safeguard to the delicate machinery of the foot immediately over it, and helps to preserve the foot in its natural state by keeping the heels spread.

It seems to be wisely intended to give life and health to the foot. Permitting the heels to grow down, with the addition of high-heeled shoes, raises the frog from its natural position and causes it to shrink and harden, and bears, in consequence, an important influence in setting up a diseased action that usually results in contraction of the foot. If the heels are square and high, and the hoof presents rather a long, narrow appearance, and is hollow on the bottom, there is a state of contraction going on, and you must not hesitate to dress down thoroughly. Do not hesitate because the foot will appear small. Cut away until you are well down to the level with the line horn of the sole, and if the foot is weak, use the same prudence in not cutting it away too much.

The shoer must always bear in mind that the sole must not rest on the shoe. Let the foot be so dressed down, and the shoe so approximate, that the bearing will come evenly upon the crust all the way

around without the sole touching the shoe. This requires the crust to be dressed level, and, although well down to the live horn of the sole, it should always be left a little higher. The corners between the bars and crust should be well pared out, so that there is no danger of the sole resting upon the shoe. Presuming that we have said enough on the subject of paring, we will now consider

The Shoe.

The main object should be to have the shoe so formed as to size, weight, fitting, and fastening, as to combine the most advantages of protection, and preserve the natural tread of the foot the best. In weight it should be proportioned to the work or employment of the horse. The foot should not be loaded with more iron than is necessary to preserve it. If the hoof is light, the shoe should be light also; but if the horse work principally on the road, his shoes should be rather heavy. In its natural state the foot has a concave sole surface, which seems to offer the greatest fulcrum of resistance to the horse when travelling. Most of the shoes now in use by intelligent shoers are fashioned on this principle, and, aside from the advantage of lightness and strength, they are considered to be an improvement on the common flat shoe. Geo. H. Dadd, veterinary surgeon, said once on the subject of shoeing: "The action of concave feet may be compared to that of the claws of a cat, or the nails on the fingers and toes of a man; the nails and toes are fulcrums: they grasp, as it were, the bodies with which they come in contact, and thus they secure a fulcrum of resistance when travelling or grasping." Now, in order to preserve the natural mechanical action of the horn and sole, the ground surface of the shoe must correspond exactly with the ground surface of the foot that is to say, the ground surface of the shoe must be levelled cup-fashion; its outer edge being prominent, corresponds to the lower and outer rim of the hoof, while the shoe being hollow, it resembles the natural concave form of the sole of the foot.

No matter what may be the form of the foot, whether it be high or low heeled, contracted at the heels, lengthened or shortened at the toe, or having a concave or convex sole, it matters not; the ground surface of the shoe must be concave. In every other part of the shoe alterations and deviations from any given rule or form are needed, in consequence of the ever varying form of the foot, and the condition of the same, both as regards health and disease; but the sole of the foot being concave, presents a pattern for the ground surface of the shoe which the smith, with all his skill, cannot improve on, and if all such crafts-

men were to follow this pattern more closely than they do there would be fewer accidents in falling, and a less number of lame horses. The shoe should be of equal thickness all the way round, perfectly level on the top side, and concave on the ground surface.

We cannot see the propriety, as given by a standard author, of seating all shoes alike, and of carrying them well back at the heel. Seating appears to be necessary only for the flat-footed horses, or the inside edge of the shoe must be lowered from the possible bearing of the sole, and enough to run the picker around between the shoe and hoof, to remove any gravel or foreign matter that may find a lodgment between them. If there is much space between the shoe and sole, it invites accumulation of gravel, and other substances injurious to the foot.

If the seating is carried well back, and the shoe is wide at the heels, and instead of bearing on a level surface, as they should, come down upon this inclined plane, it tends to crowd them together. If the shoe is not wide in web, and the foot strong and arched, it may be made perfectly level on top. At all events, that portion upon which rests the heels and crust should be level and accurately fitted. The shoe should be continued around toward the heel so far as the crust extends, as large as the full unrasped hoof, but no part must project beyond it, excepting at the extreme of the heel. The expansion of the heel and the growth of the foot requires that the shoe should be long enough and wide enough at the heels to allow for the natural growth of the foot during the time the shoe is expected to remain on the foot; for, as the foot grows, the shoe is drawn forward, until it loses its original proportion, and becomes too short and narrow. The shoe may be a quarter of an inch wider and longer than the extreme bearing of the heels, and the nail holes should be punched coarse and in the centre of the web. In the hind shoe, four in the outside and two or three well forward in the inside toe, as found necessary to retain the shoe.

The manner of fastening the shoe is what really affects the foot, and what requires the most special attention in shoeing; for the foot, being elastic, expands in the same proportion on the rough as on the nicely fitted shoe. It is the number and position of the nails that really affect the foot. If they are placed well back in the quarters, four on a side, as is common, the crust is held as firmly to this unyielding shoe as if in a vice, which utterly prevents the free action necessary to its health. Inflammation of the sensitive laminae is produced, which causes contraction and the consequent derangement of the whole foot.

If the free, natural expansion of the foot and the spreading of the quarters in proportion to the growth of the hoof is prevented by the nailing of the shoe, irritation of the fleshy substance between the crust

and coffin bone will result, and ultimately create so much diseased action of the parts as to cause contraction and navicular disease. Shoes may be securely fastened without causing such mischief, if the following method of nailing is observed: Drive four nails on the outside of the foot, the same as common, while you drive two or three well forward in the toe of the opposite side, which leaves the inside quarter virtually free and independent of the shoe, for the outside of the foot being the only part fastened, carries the shoe with it at every expansion, while the inside, being unattached, expands independently of it, and the foot is left as nearly as possible in a state of nature so far as its powers of expansion are concerned. It may be asked, will this style of nailing hold shoes on the feet of horses of all work? We answer, yes; experience has fully demonstrated that seven nails will hold the shoe on ordinary feet for any purpose, if the shoes are properly fitted, for a period of from four to seven weeks, which is as long as shoes should be on without resetting. If shoes are made with little clips, to keep them from being shoved back under the foot, they will require less nailing. If seven nails are found to be necessary, have the three on the inside drove in the space of an inch and a quarter, well forward in the toe, though in most cases two will be found sufficient for the purpose. Turn down the clinchers snugly.

Nothing should be done for what might be called "fancy." The hoof should never be filed or rasped above the clinches, as the hoof is covered by a peculiar enamel that prevents the too rapid evaporation of moisture from the horn, and ought not to be disturbed. The practice of rasping, filing or sand-papering the hoof to make it look nice, only produces mischief, and should never be allowed. Horses kept for light driving and irregular work, particularly those having rather square, upright heels, should be shod on the one-sided nailing principle, as the feet of such horses are much disposed to contraction.

So far as observation and experience teaches us, we find proper attention to paring down the feet and fastening the shoes so as not to interfere with the free expansion of the hoof (as above) will remedy contraction; though attention to growing down the crust, and the use of shoes that are slightly convex or levelled out, so as to have a tendency to spread the heels when the weight of the body is thrown upon the foot, and fastening on the principle of the inside quarter being left free, is regarded as much better; but the blacksmith must be a good workman to fashion and fit a shoe in this way properly. The nails should not be driven higher in the crust than seven-eighths of an inch, and not so deep as to possibly strike through to the quick. If the foot is light, and shows a thin delicate crust, the nails should be small and not driven

high or deep into the horn. As a rule, the fewer and smaller the nails used, provided they secure the shoe to the foot, the better. Shoes should be re-set as often as once a month, though in some cases they need not require setting so often. It is positively necessary at six, and must not be neglected longer than seven or eight weeks, if you would preserve the natural shape of the foot.

Interfering.

To prevent interfering, know first what part of the foot hits the opposite ankle. This you can do by wrapping the ankle with a white cloth, which cover with some kind of coloring matter over where the opposite foot hits; then drive the horse until you can discover by some of the coloring matter adhering what portion of the crust hits the ankle. Remove this portion of the crust, and have the shoe set well under the foot, but carefully fitted, so as to support the foot safely by bearing on the bar and heel. The hoof should be pared lowest on the outside, to turn the ankle that the other hoof may pass clear. Yet if the inside sole is not dressed, the rim soon breaks, and the inside is found to be actually lower than the outside. Shoes, to prevent interfering, should be light, or narrow web on the inside, with three nail-holes near the toe. They should be straight at the point where they come in contact with the opposite ankle. By adhering to this principle strictly of paring the foot and fitting and fastening the shoe, you will prevent a recurrence of the difficulty. Shoes, to prevent overreaching, should be long, and for the forward feet heavy, especially at the heels; and for the hind feet light, with heavy toes. The hoof should well pared at the toe.

Mechanic or Safety Shafts.

Get three scantlings or poles of good tough timber of about four inches in diameter, and fourteen feet in length each. Put down two of these, so as to bring them two feet apart at one end and thirteen at the other. Now lay the other pole across on the ends of the others widest apart, about six inches from the ends. Mark and halve them together. Then bore a hole through both pieces at each corner so fitted, and bolt them firmly together. To fix the other ends get a piece of tire iron, four feet long, and bend it in the form of a breast collar, the rounding side in, so as to have each end extend back on the inside of the poles ten or twelve inches, and fit up nicely to the wood. Have two holes punched or drilled through each end of the iron, by which to bolt it firmly to the poles. Then drive staples into or near the ends,

To finish the other ends, take two pieces of iron one foot each in length, and an inch in diameter, flat one end, and punch through two holes. Work down the other ends to a sharp point; bend down the ends so sharpened about six inches, in the form of a half circle; bolt these irons under the ends of the poles, the sharp ends pointing down and back, forming dogs, something like those on the ends of sleigh runners, to prevent the sleigh running back. Now harness your horse into this arrangement, taking the precaution to wind the irons around the ends with an old piece of cloth, and strengthening the harness, if at all likely to break, by tying a piece of rope around with the breeching and around the body, as may be thought necessary. Though, perhaps the best way to hold the shafts, as we will call them, nicely up to the neck, is by bringing a strong rope or strap over the neck and fastening around the iron near the wheel. It must be remembered that before hitching the horse into this, he should be subjected to the most thorough training of the mouth with the war-bridle; when hitched, get behind the cross-piece, holding the reins. If the horse attempts to go back, the iron hooks on the ends of the poles settle into the ground, making it impossible to do so. Should he attempt to turn short round, the pole extends out and back from the shoulders at almost right angles, preventing a movement in that direction. If he attempts to rear, the restraint of the breeching becomes a lifting lever upon the hind parts, and the horse is at once disabled. Now drive the horse forward to the cars, putting your foot upon the cross-piece, and holding the horse to his position when showing fear, to the end of forcing him up to the object of fear.

It must be remembered that a horse, once really frightened at an object which is likely to produce such great and sudden fear as an engine and cars, can seldom, with anything like ordinary effort, be made so regardless of them when suddenly and unexpectedly moved near him, as to be made at all safe for family driving, or purposes involving much responsibility when brought into possible proximity with them. But if the animal is much prized, and rendering him safe and gentle much of an object, go to work with a will, following up one advantage after another, driving the horse often perseveringly around near the cars until successful. But it must be remembered that fear is the least voluntary and least controllable to the reason of the feelings, when once really aroused, and when the nervous system is prostrated by its force and continuance, it is the most difficult of all manageable habits to overcome. There is a limit to the advantages of skillful management in this respect, so far as absolute success is concerned. It is not possible to make a horse of any spirit absolutely fearless, and the consideration which should govern an honest desire to hit the mark best is

to give a correct understanding of what it is practicable to do. My advice is, if the horse is really bad, do not trust yourself or family behind him. The risk is too great to be borne, or advised to be hazarded in the hands of most men.

Corns.

Corns appear in the angles of the hoof near the heel. They are generally caused by the shoe being worn too long, causing the shell of the hoof to grow over the shoe, which throws the weight upon the sole, or the angles between the bars and crust are not kept properly dressed out—for any accumulation of horn between the bars and crust which would prevent the free elasticity of the sole at the heel must increase the risk of producing corns, by the liability there is of causing the sensitive laminae beneath the edges of the coffin bone to become bruised, owing to the undue pressure it may be subjected to for want of elasticity in the horny sole. When the sensitive laminae is thus bruised, the horny substance of which the sole is composed is secreted in less quantities, the blood from the ruptured vessels mingles with the imperfectly secreted matter, and as the process is going on it soon makes its appearance on the outside.

To Cure Corns.

Cut the corn well down, but not quite to the quick; fit the shoe so as not to press upon the part, then saturate with fine gum which is found exuding from trees when cut. Fill the part nicely with tow, then put on the shoe, remembering that the shoe must be so fitted as not to oblige the part to support but very little, if any, of the weight of the horse. We have had horses troubled with corns treated in this way with very good effect. Horses with corns must be oftener and more carefully shod than those free from them. In shoeing, strive to keep the form of the foot natural. Be positive in the enforcement of this rule; and lastly, have the shoes se-set at least every six or seven weeks.

To Learn a Horse to Appear Intelligent.

As many of our scholars would like to know how to teach their horses tricks we will explain how it may be done. Teaching your horse a few tricks serves greatly to keep an interest in him and makes him appear fearless, intelligent and affectionate. In teaching a horse tricks it is best to give him one or two lessons daily of half or three-quarters of an hour each.

To Come at the Crack of the Whip, or Word.

Put on the Comanche bridle, stand off a few feet, holding the halter in your left hand, the whip in the right. Crack the whip and say, "Come here, sir!" He does not know what this means, but you show him by pulling on the halter a little, which he will obey by moving towards you a few steps. This movement you thank him for by feeding him something that he likes from your hand, and by petting and caressing him upon the head and neck; then repeat in the same way, rewarding him as before, and so continue until he will walk up to you every time you crack the whip or say, "Come here, sir," which he will soon learn to do. Each time he comes to you talk to him kindly, and do not fail to give him his reward of corn or something he likes. You can now take off the halter and turn him loose, and repeat until he fully comprehends that the way to avoid the whip is to come to you, which, with the encouragement of rewarding him for so doing, will soon inspire him with confidence, and he will come to you and follow like a dog. Be very cautious about the use of the whip or harsh language, remembering that perfect, cheerful obedience is your object, and that can be secured only by great patience and gentleness.

To Make a Bow.

Take a pin in the right hand, between the thumb and forefinger, and stand at his left side near the hips, tell him to make a bow. Then pricking him very lightly on the small of the back, this will make him move his head; keep pricking him until you get the right motion of the head, then caress him where you have been pricking him. Or take your pin as before and stand up to his shoulder and prick him on the breast lightly, as if a fly were biting, which to relieve he will bring down his head, which you will accept as a bow, and will reward by caressing on the side of the neck. Then repeat until he will bring down his head at the least motion of your hand towards his breast or any other signal that he will understand readily.

To say No.

Stand by your horse's shoulder, tell him to shake his head, at the same time prick him lightly on the withers or neck, which will cause him to shake his head as if to drive away a fly. You then caress as before, and repeat until he will shake his head at the least indication of your touching him with the pin. You can train your horse so nicely

in this way in a short time as to cause him to make a bow or shake his head by merely turning the hand a little or moving it slightly towards him.

To Lie Down.

To teach a horse to lie down quickly you must lay him down a few times with the rope and strap, as described in "Tampering with Vicious Horses." When down treat your horse with great attention and kindness. After putting him down a few times in this way he will usually lie down in a short time by taking up one foot and holding it in your hand, asking him to lie down; he will soon come down. When he will come on his knees by taking his foot in your hand, stoop as if intending to take it up, saying, "Lie down, sir!" Then make him come down by a motion of the hand, and finally by simply telling him to lie down.

In teaching a horse to lie down, be gentle, caress and reward him for lying down, and your horse, comprehending what you want and finding himself paid for compliance, will soon be as anxious to get down for the reward as you are to have him do so.

To Sit Up.

When your horse will lie down readily you can then learn him to sit up, like a dog, easily. First, cause him to lie down, having on a common bridle, with the reins over his neck; then step behind him and step firmly on his tail with the right foot, holding the reins in the left hand while with the right bear down firmly on the hips; thus in position, say, "Get up, sir." The horse rising from a recumbent position, first turns on his belly, throws out his forward feet and raises himself on them, springs forward and rises on his hind feet. Now standing on his tail firmly, and pulling back upon the reins when he attempts to spring forward and up, will prevent his doing so, and you will hold him sitting up. Hold him firmly a few seconds, talking to him kindly, before permitting him to rise on his feet. Repeat a few times, when instead of springing up, he will sit on his haunches a short time, which you are to accept as complying with your wishes.

Always say "Sit up, sir," every time, and hold him in the position as long as he will bear, by fondling and talking to him kindly, and your horse will soon learn to sit up for you as long as you please. But if your horse is heavy and strong it will be necessary to resort to other means to hold him down at first. This you do by putting on his neck a common collar, and causing him to lie down; then fasten a halter-strap to each hind foot and bring forward through the collar and draw up

close, which will bring the hind feet well forward. Then step behind as before, and when he attempts to rise on his hind feet he will find it impossible to do so, because you hold them forward by those straps. Repeat two or three times, when it will not be necessary to resort to such force.

To Learn a Horse How to Dance.

Put on the Comanche bridle; take hold of the cord some four or five feet from the horse's head, and with a whalebone whip tap him on the shin or ankle until he lifts his foot, then caress him, and do the same with the other; then make him raise first one foot, then the other, and caress him; then make him raise them several times, until he moves his whole body by the motion of the whip to the time of music.

To Learn to Waltz.

After he has learned to dance, put a surcingle around his chest and fasten the bridle reins to it, the left rein much the tightest, bringing his head well round to the left side. Then make him move forward, when he follows his head, and every time as he is turning his head from you give him a sharp cut with the whip, which will make him jump round quickly until his head comes around to you again. Then you should caress and encourage him by talking kindly. He will then be slower to move his head from you, but you must continue with the whip every time the horse's hind parts are to you and his head from you, caressing every few minutes, until he understands to move at the motion of the whip.

To Teach a Horse to Kiss You.

Teach him first to take an apple, or something that he likes, out of your hand; when gradually raising the hand nearer the mouth at each repetition until you require him to take it from your mouth, holding it with your hand, telling him at the same time to kiss you. He will soon learn to reach his nose up to your mouth, first to get his apple, but finally because commanded to do so. Simply repeat until your horse understands and he will do the trick thoroughly.

To Shake Hands.

Tie a short strap to the forward foot below the fetlock. Stand directly in front of the horse, holding the end of the strap in your hand, then say, "Shake hands, sir," and immediately pull upon the strap,

which will bring his foot forward, and which you are to accept as shaking hands, thanking him for it by caressing and rubbing his leg, and so repeat until when you make the demand he will bring the foot forward in anticipation of having it pulled up. This is a very easy trick to teach a horse. By a little practice a horse may be easily trained to approach, make a bow, shake hands, follow like a dog, lie down, sit up, etc., which makes him appear both polite and intelligent.

Never lose courage or confidence in your ability because you do not bring about good results easily. To accomplish anything of importance, remember, requires no ordinary resolution and perseverance. There will be no credit or importance attached to mastering and managing bad horses if not difficult and apparently dangerous. No duty requires more firmness of purpose in the control of the passions, or more fidelity to the principles of kindness and truth, than that of horsemanship.

RECIPES.

THE following recipes have been gathered from sources entitled to the fullest confidence as remedies of great value, and some of them at an unusual cost; and we present them with the hope of their being duly appreciated:

It is well to remember that to keep horses in health is much more important, less troublesome, and requires less skill than to cure sick ones. Abuse, overwork, and exposure, are to be guarded against, if the serious consequences of Inflammation of the Lungs, Colic, Founder, etc., are to be avoided; and if you have a sick horse, be cautious about doctoring too much until you are sure of what ought to be done.

Worm Ball.

Assafœtida 4 oz., gentian 2 oz., strong mercurial ointment 1 oz. Make into mass with honey. Divide into 16 balls. Give 1 or more every morning.

Purgative Ball.

Aloes 1 oz., cream tartar and Castile soap, $\frac{1}{2}$ oz. Mix with molasses to make a ball.

Fever Ball.

Emetic tartar and camphor, each $\frac{1}{2}$ oz., and nitre 2 ounces. Mix with linseed meal and molasses to make 8 balls, and give 1 twice a day.

Diuretic Ball.

Castile soap, scraped fine, and powdered rosin, each 3 teaspoonfuls; powdered nitre 4 teaspoonfuls, oil of juniper 1 small teaspoonful, honey a sufficient quantity to make into a ball.

Cough Ball.

Pulverized ipecac, $\frac{3}{4}$ oz., camphor 2 oz., squills, $\frac{1}{2}$ oz. Mix with honey to form into mass, and divide into 8 balls. Give 1 every morning.

with the water which the horse drinks. A bran mash should be given every other day. When the disease assumes a chronic form, which is seldom the case, injecting the nose with a weak solution of alum will remove the discharge. Young horses are very apt to have swelled legs unless they get walking exercise for a short time every day. This is owing partly to the weakness of the circulation, and partly to a deteriorated state of the blood having been engendered during the horse's sickness.

Cataract.

This can be removed from a horse's eye with finely pulverized burnt alum, blown into the horse's eye through a goose quill. Or take oil of wintergreen, get a small glass syringe, and inject a few drops into the eye, and after 3 days repeat the application.

Loose Bowels.

In cases of chronic diarrhoea, a good remedy is to put powdered charcoal in the feed, and if the disease depends on a digestive function—the liver included—give a few doses of the following: Powdered golden seal 2 oz., ginger 1 oz., salt 1 oz. Dose— $\frac{1}{2}$ an oz. twice a day.

Corns.

There are no fixed rules for the treatment of horses with corns. Corns occur to horses with the best of feet. The high-heeled and contracted quartered, the low as well as the broad, all occasionally become afflicted with this annoying disease, the common cause being the worst of shoeing. Success in the treatment of corns must rest entirely upon the intelligent understanding of the shoer. If he is master of the art he will see at a glance what parts of the foot require to be removed. In the preparation of the foot, no matter what its form, so long as there is no reason to suspect suppuration, no "paring out the corn" should be permitted. When such officious exploration is permitted, the healthy condition of the foot is interfered with; the scooping out of the horn at the angle formed by the bar and wall interferes with the natural growth of these parts, causes them to tilt over and to press directly upon the seat of the corn, thus inflicting injuries which frequently terminate in suppuration. Let the horse's foot be properly adjusted in all its parts, always leaving as broad and level a bearing as possible. With regard to the shoe, unless the condition of the horse's foot requires some special modification for its protection, we prefer a plain shoe, a small clip at the toe, moderately broad web, and of uniform thickness from toe to heel.

Cribbing.

There is supposed to be no remedy for this habit, but a person who has tried it says that a horse can be cured of crib-biting by nailing a sheepskin, wool side up, wherever there is any chance for the horse to bite.

Callous on Colt.

Take 1 oz. of bitter sweet, 1 oz. of skunk cabbage, 1 oz. of blood root; steep and mix with lard; make an ointment, and apply once or twice a day. This is considered a sure remedy.

Cough.

Take powdered squills 1 oz., ginger 2 oz., cream of tartar 1 oz.; mix well, and give a spoonful every morning in bran. Another remedy is to give the animal a feed of sunflower seed.

Hoof Dressing.

A good preparation, and one that will give the horse's hoof a rapid and healthy growth, is to take of oil of tar 1 pt., beeswax $1\frac{1}{2}$ lbs., whale oil 4 pts. The above ingredients should be mixed and melted together over a slow fire, and applied to all parts of the hoof at least once or twice a week.

Inflammation of Eye.

Keep the horse quiet, and dress the eye repeatedly with the following lotion: Take of tincture of opium 2 oz., and of water 1 pt.; mix. Much depends upon a proper application of the lotion, and a most advantageous proceeding is to attach several folds of linen rag to the headstall so as to cover the eye, and by being repeatedly saturated it will keep up constant evaporation, as well as a cooling effect. The horse should also be removed from excessive light. When the inflammation has been subdued, the opacity—more or less of which is sure to remain—must be treated by the application of either iodide of potassium or nitrate of silver, prepare thus: Take of iodide of potassium 20 grs.; water 1 oz.; mix; or take of nitrate of silver 5 grs., distilled water 1 ounce; mix. To be applied daily by means of a camel's hair brush saturated with the lotion and drawn gently across the eye.

Brittle Feet.

In a large majority of cases brittleness of hoof owes its origin to mismanagement of the feet, and especially to excessive moisture, the use of swabs, the bath tub, etc. In all cases where the hoof is naturally brittle the feet should be kept dry rather than wet. If convenient, we would remove the shoes, and rasp the wall moderately short and round

at its margin. Having cut the hair off short around the entire coronet, a little iodide of mercury ointment should be rubbed in. This will cause a rapid growth of horn. The horse should be kept during the day in a roomy box having a layer of tan or sawdust spread over the floor. When removed to his stall at night the feet should be washed clean, and, after being wiped dry, every part of the hoof should be freely anointed with the following composition: Take of oil of tar and beeswax, of each 4 oz., honey and beef suet, of each 2 oz., whale oil 8 ounces; melt the beeswax and beef suet first, then add the honey and other ingredients, stirring the whole until nearly cold. All sousing of the feet must be avoided.

Sand Crack in Foot.

This, as its name imports, is a crack or division of the hoof from above downwards, and into which sand and dirt are too apt to insinuate themselves. It occurs both in the fore and the hind feet. In the fore feet it is usually found in the inner quarter, but occasionally in the outer quarter, because there is the principal stress or effort toward expansion in the foot, and the inner quarter is not so strong as the outer. In the hind feet the crack is almost invariably found in the front, because in the digging of the toe into the ground, in the act of drawing, the principal stress is in front. If the crack be superficial—does not penetrate through the horn—it will cause no lameness, yet must not be neglected. If the crack has extended to the sensible parts, and you can see any fungus flesh, with a small drawing knife remove the edges of the cracked horn that press upon it. Touch the fungus with caustic, dip a roll of tow or linen in tar, and bind it very firmly over it. The whole foot is to be kept in a bran poultice for a few days, or until the lameness is removed. A shoe may then be put on, so as not to press on the diseased part. The pledget of tow may now be removed, the crack filled with the composition, and the animal may be then turned into some soft meadow.

Pumice Foot.

This is indicated by the hoofs spreading more and more and losing their shape. A properly constructed round (bar) shoe is the only reliable remedy, for it can be worn indefinitely without detriment to any part of the foot. The main object of treatment is to protect and preserve the deformed sole. The shoe must be chambered so as not to touch the sole, and no paring away of the latter must be allowed. Keep the feet clean and dry as possible.

Fracture.

Severe lameness is sometimes caused by the fracture of 1 or 2 bones

on the inside of the hoof—namely, the coffin of the navicular bone. Inclosed as these bones are on the inside of the hoof, and fenced in laterally by the cartilages, it is often difficult to detect, and we are obliged to depend on the general symptoms: the horse halts exceedingly, the foot is hot, and the pain extreme. As these bones are confined in the hoof no displacement can take place, therefore no *crepitus* can be detected. In all cases of fracture of either bone, a careful examination will, however, reveal the existence of a swelling at the back of the heels; immediately above the frog, and more or less fulness over the coronet of the foot. The treatment may be indicated in a few words—rest, absolute rest, is all-important. So long as the horse exhibits evidence of acute pain whenever his weight is imposed on the lame limb, the quieter he is kept the better. Warm baths, or cloths frequently moistened with a mixture of equal parts of alcohol and water, are useful adjuncts. It may be added that, in all cases of serious injury of the stifle, the hip-joint, or the pelvis, the horse is able to bring his heels “fair and square” upon the floor. In fracture of either the navicular or coffin bone, lameness sometimes continues long after recovery. It may turn out permanent.

To Cure Founder.

Clean out the bottom of the foot thoroughly, hold up firmly in a horizontal position, and pour in a tablespoonful of spirits of turpentine, if the cavity will hold that much; if not, pour in what it will hold without running over; touch the turpentine with a red hot iron (this will set it on fire); hold the hoof firmly in this position till it burns out, and care must be taken that none runs on the hair of the hoof, lest the skin be burned. If all the feet are affected, burn turpentine in all of them. Relief will speedily follow, and the animal will be ready for service in a short time. 2. The seeds of the sunflower—a pint of the whole seed—given in his feed, immediately the founder is discovered. 3. By standing the foundered horse up to his belly in water.

Galled Back.

So soon as an abrasion is discovered on the back of a horse, the animal should be excused from duty for a few days; the abraded parts should be dressed twice daily with a portion of the tincture of aloes and myrrh. This simple treatment will soon heal the parts. Should there be no abrasion, but simply a swelling attended with heat, pain and tenderness, the parts should be frequently sponged with cold water. Occasionally the skin undergoes the process of hardening (induration). This is a condition of the parts known to the farriers of old as “sitting,” and the treatment is as follows: Procure 1 oz. of iodine, and

smear the indurated spot with a portion of the same twice daily. Some cases of galled back and shoulders are due to negligence and abuse; yet many animals, owing to a peculiarity of constitution, will chafe, as the saying is, in those parts which come in contact with the collar, and neither human foresight nor mechanical means can prevent the same.

Kicking in Stall.

To prevent your horse from kicking in the stall, fasten a short trace-chain, about 2 feet long, by a strap to each hind foot. A better way is to have the stalls made wide enough so that the horse can turn in them easily. Close them with a door or bars, and turn the animal loose. After a while he will forget the habit, and stand tied without further trouble.

Flies on Horses.

As a preventive of horses being teased by flies, take 2 or 3 small handfuls of walnut leaves, upon which pour 2 or 3 quarts of cold water; let it infuse for one night, and pour the whole next morning into a kettle, and let it boil for a $\frac{1}{4}$ of an hour. When it becomes cold it will be fit for use. No more is required than to moisten a sponge, and, before the horse goes out of the stable, let those parts which are most irritable be smeared over with the liquor—namely, between and upon the ears, the neck, the flanks, etc. Not only the lady or gentleman who rides out for pleasure will derive pleasure from the walnut leaves thus prepared, but the coachman, the wagoner, and all others who use horses during the summer. Or take smart weed and soak it in water, and in the morning apply it to the horse, all over him, with a sponge. A decoction of quassia chips, made by boiling them in water, has also been recommended.

Grease.

This is a white, offensive discharge from the skin of the heels. Wash the part well with warm soap-suds twice a day, and if the swelling be great apply a poultice to it; when the sores are cleansed touch them with a rag or feather dipped in a solution of chloride of zinc, 1 grain to the ounce of water.

Inflammation of Kidneys.

Symptoms: Gradual loss of flesh, pain across the back, impaired action of the hind extremities, and the frequent passing of urine, which is very highly colored. In treating this affection, the horse should be allowed perfect rest, and he should also have a generous diet of easily digested food, and plenty of mucilaginous drinks. The loins may be rubbed every third or fourth day with mustard, and 1 drachm of tartar

emetic given every night. This medicine can be conveniently administered mixed with the food.

Warts on Horse's Nose.

Dissolve $\frac{1}{2}$ lb. of alum in a quart of water; with a brush, or cloth wet the warts twice each day for 4 days, and they will disappear. Another remedy is to smear the warts with salted butter.

To Cure Warts.

The safest and most effectual caustic for destroying warts is chromic acid. Having first picked off the rough outer surface of the warts so as to make them bleed, apply, by means of a small wooden spatula, a little of the dry acid, rubbing it well in. This will cause a free discharge of watery fluid from the surface. In a few days the wart is converted into a tough, leather-like substance, which ultimately falls off, generally leaving a healthy sore, which soon heals.

Worms in Horses.

1. Give every morning, one hour before feeding, 3 drs. of sulphate of iron and two drs. of assafoetida; and every night, for one week, throw up an injection of 1 oz. oil of turpentine and 10 oz. of linseed oil. Green food is to be preferred. 2. White ash bark burnt to ashes and made into a rather very strong ley; then mix $\frac{1}{2}$ a pt. of it with 1 pt. of warm water, and give all 2 or 3 times daily.

Contracted Tendons.

First try the effect of lowering the heels a little more than the toe at each shoeing, and applying a shoe with a plate projecting an inch or two in front of the toe. If there is much tenderness of the back sinews on pressure, this form of shoeing must be avoided until that has been removed. The thickened tendons must be rubbed daily with a mixture in equal parts of strong iodine ointment and blue ointment, until blistering takes place, when it may be discontinued until the effects have passed off. The horse should have a yard or small paddock to run in where he is not very likely to be excited to vigorous or irregular action, or, if kept in-doors, let it be in a roomy box, and give a moderate amount of walking exercise daily. Should several months of this sort of treatment fail to restore in part, it may be advisable, perhaps, to have the back sinews cut through.

Hoof-Bound.

Cut down several lines from the coronet to the toe all around the hoof, and fill the cuts with tallow and soap mixed; take off the shoes, and (if you can spare him) turn the animal into a wet meadow, where

his feet will be kept moist. Never remove the sole nor burn the lines down, as this increases instead of diminishing the evil.

Cracked Hoof-Quarter.

Many plans have been devised by which to heal a quarter crack—such as scoring with a knife, blistering, cutting with a sharp, hot iron, riveting and the like, all which, in many cases, have proved a failure. If the following directions are adopted, the fore feet will be sound in 3 months. Above the crack, and next to the hair, cut with your knife an incision $\frac{1}{2}$ inch long, crosswise of the crack, and about $\frac{1}{4}$ inch deep. Now from the incision draw a line $\frac{1}{4}$ inch each side, parallel with the crack, down to the shoe; then with your knife follow those lines, and cut through the enamel or crust of the foot. Now there is a piece of the crust to be taken out. This is done by loosening the top of the piece next to the hair with your knife, then with your forceps take hold of the piece and pull it off; that leaves a space of $\frac{1}{2}$ inch of the crust taken out from the hair down to the shoe. Fill the cavity with tar, and lace on a soft piece of leather to keep the tar in its place.

Keep the animal quiet for 3 or 4 days, and he is ready to drive, but it is best not to use him until the foot is perfectly sound. Shoe with a bar shoe, leaving some spring to the heel, so it will not bear hard upon the weak quarter, and in 3 months you will have a sound foot.

To Deodorize Horse Stables.

Sawdust, wetted with sulphuric acid, diluted with 40 parts of water, and distributed about horse stables, will, it is said, remove the disagreeable ammoniacal smell, the sulphuric acid combining with the ammonia to form a salt. Chloride of lime slowly evolves chlorine, which will do the same thing, but then the chlorine smells worse than the ammonia. Sulphuric acid, on the contrary, is perfectly inodorous. The mixture must be kept in shallow earthenware vessels. The sulphuric acid used alone, either diluted or strong, would absorb more or less of the ammonia, but there would be danger of spilling it about, and causing serious damage; and, beside this, the sawdust offers a large surface to the floating gas.

Itch.

To cure a horse affected with the itch, first reduce his daily allowance of food, putting him on a low diet, and then give him a teaspoonful of a mixture of equal parts of sulphur and antimony, and at the end of a week or 10 days the sores will have disappeared, and the horse will be covered with a fine coat of new hair.

Displaced Knec-Pan.

Feed the horse well on oats, barley, and sound hay; give him a drachm of powdered phosphate of iron daily in his food; keep in a stall with a perfectly smooth and level floor, and not less than $5\frac{1}{2}$ or 6 feet wide; apply a shoe with a bar welded to the toe, projecting 2 or 3 inches, and then let it be turned up; rub the joint with an ointment made of 1 drachm of powdered cantharides to $\frac{1}{2}$ an oz. of lard, repeating the application next day if it has not blistered. When a blister rises, wash it off with soap and warm water, and then anoint the part daily with lard, until the scab and other effects have passed off, when another blister may be applied.

Inflammation and Swelling of the Legs.

Rest, and the application of an active blister to the swollen parts, will effect a cure. No better blister can be used than the following: Take resin and black pitch, each 4 parts, beeswax 3 parts, sweet oil 11 parts, Spanish flies 6 parts, euphorbium 2 parts. Melt the resin, pitch, and wax first, then add the oil, and when thoroughly mixed remove from the fire; lastly, add very slowly the powdered flies and euphorbium. Before the blister is applied the hair should be cut close off, and the skin, if scurfy, washed with Castile soap and warm water, after which it must be thoroughly dried, and the blistering ointment rubbed in for 10 minutes. After applying the blister, the horse's head should be tied up to prevent his biting the part, or rubbing it with his nose. At the expiration of 2 or 3 days most horses may be set at liberty. In about a week rub sweet oil over the blistered part.

Lampas.

This consists in a swelling of the first bar of the upper palette. It is cured by rubbing the swelling 2 or 3 times a day with $\frac{1}{2}$ an ounce of alum and the same quantity of double refined sugar mixed with a little honey.

To Cure Broken Legs.

Instead of summarily shooting the horse, in the greater number of fractures it is only necessary to partially sling the horse by means of a broad piece of sail or other strong cloth, placed under the animal's belly, furnished with 2 breechings and 2 breast-girths, and, by means of ropes and pulleys attached to a cross beam above, he is elevated or lowered, as may be required. By the adoption of this plan every facility is allowed for the satisfactory treatment of the fractures.

Liniment for Galled Back of Horses.

White lead moistened with milk. When milk is not to be procured

Wound Balsam.

Gum benzoin in powder, 6 oz., balsam of tolu in powder, 3 oz., gum storax, 2 oz., frankincense in powder, 2 oz., gum myrrh in powder, 2 oz., socotorine aloes in powder, 3 oz., alcohol, 1 gal. Mix them all together and put them in a digester, and give them a gentle heat for 3 or 4 days, and then strain.

Sore Breasts.

This generally occurs in the spring, at the commencement of ploughing. At times the fault is in having poor old collars, and not having the collar properly fitted to the horse's breast; and, at others, the hames are either too tight or too loose. There is a great difference in horses about getting chafed or galled, and at times it has seemed to be impossible to keep their breasts from getting sore; but a thorough application of strong alum water, or white oak bark, to the breast of the animal, 3 days before going to work, will toughen them so that they will not get sore. Another excellent plan is, when you let your team rest for a few moments during work, to raise the collar and pull it a little forward, and rub the breast thoroughly with your naked hand.

Big Head.

When this disease occurs, every care must be devoted to improving the general health. Let work be regular and moderate. Have the stable clean, dry, and well ventilated. Feed on sound hay and oats, either bruised or cooked. Withhold all Indian corn—above all if raw and hard. 4 or 5 lbs. of linseed cake may be given daily. Give every day, in the feed, 2 drachms of phosphate of iron, and 4 drachms of powdered gentian.

Liquid Blister.

Take $\frac{1}{2}$ a pint of linseed oil, 1 pint of spirits of turpentine, and 4 oz. of aqua ammonia; shake well and it is fit for use. Apply every third hour until it blisters.

Big Leg.

To cure, apply the above Liquid Blister every third hour until it blisters. In 3 days wash the leg with linseed oil. In 6 days wash it clean with soap and water. Repeat every six days until the swelling goes down. If there should be any callous left, apply spavin ointment.

Breaking Down.

The suspensory ligament is attached superiorly to the back part of the knee, and inferiorly to the back of the fetlock joint. It is elastic and gives springiness to the limb. In motion and in standing it passively supports the horse's fetlock. If this ligament is torn or cut

across, the joint comes to the ground and the toe turns up; if severely strained, the fetlock descends unnaturally low. In breaking down, the fetlock is almost completely torn across, and the fetlocks come nearly or completely to the ground. Considerable swelling soon ensues above and behind the fetlock; there is great pain and symptomatic fever, and in severe cases the tendons are generally sprained. When the suspensory ligament is completely ruptured, and where the injury occurs in both fore legs, treatment need not be attempted. In severe cases the leg should be immersed in a pail of water, and kept in it for several days. When the pain and fever subside, wet bandages may be used. A dose of opening medicine should also be given. Bran mashes and hay should constitute the horse's diet at the first, and when pain and fever subside the diet may be more liberal. In bad cases a high-heeled shoe may be applied, or the horse may be slung so as to relieve the affected leg of weight.

Physic Ball.

Take 2 oz. of aloes, 1 oz. of turpentine, and 1 oz. of flour; make into a paste with a few drops of water, wrap in a paper, and give them with a bailing iron.

Fulness of Blood.

When this condition appears, the eyes appear heavy, dull, red or inflamed, and are frequently closed as if asleep; the pulse is small and oppressed; the heat of the body somewhat increased; the legs swell; the hair also rubs off. Horses that are removed from grass to a warm stable, and full fed on hay and corn, and not sufficiently exercised, are very subject to one or more of these symptoms. By regulating the quantity of food given to him, by proper exercise and occasional laxatives, a cure may soon be effected.

Nasal Catarrh or Corryza.

This malady is commonly known as a cold; it is an inflammation of the membrane lining the interior of the nose, and is observed in all the domestic animals. It occurs frequently after sudden changes in the temperature of the atmosphere, which checks or diminishes largely the action of the skin. In the early stage the animal is feverish; the membrane of the nose is dry and infected; the animal also frequently sneezes and coughs. There is a watery mucous discharge from one or both nostrils, which by degrees assumes a yellowish color. In young animals this affection is generally associated with swellings beneath the jaws. When the disease extends over a longer period than a fortnight it assumes a chronic type. *Treatment.*—Dissolve $\frac{1}{2}$ an oz. of nitre in a pint of water, and administer this to the patient daily, or it may be mixed

oil may be substituted. 1 or 2 oz. mixed at a time will be sufficient for a month.

Hoof Ointment.

Take $\frac{1}{2}$ a lb. of lard and 4 oz. of resin. Heat them over a slow fire until melted; take the pot off the fire, add 1 oz. of pulverized verdigris; stir well to prevent it from running over. When partially cool add 2 oz. of turpentine. Apply it from the hair down 1 inch. Work the horse all the time.

Liniment for Bruises, Sprains, etc.

Take 1 pint of alcohol, 4 oz. of Castile soap, $\frac{1}{4}$ oz. of gum camphor, $\frac{1}{4}$ oz. of sal ammoniac. When these are dissolved, add 1 oz. of laudanum, 1 oz. origanum, $\frac{1}{2}$ oz. oil of sassafras, and 2 oz. spirits of hartshorn. Bathe freely.

Nasal Glect.

or running at the nose—can be cured by taking $\frac{1}{2}$ a lb. of resin, $\frac{1}{2}$ a lb. of blue vitriol, and 4 oz. of ginger, grinding them all fine, and giving the horse a spoonful 2 or 3 times a day.

Palsy.

An attack of this kind is frequently followed by wasting of the affected muscles—they lose their rounded form, and present a more or less withered aspect. The most common causes of this disease are idleness and plethora. It may result from accidental violence, as blows or falls. *Treatment*—First, apply a blister over the loins. Then give the mare one of the following pills every morning for 8 or 10 days: Take gentian and ginger of each 2 drachms, linseed meal 4 drachms, strychnine 5 grains. Mix with water for 1 pill. The diet should be light, and the mare kept quiet in the stable, or, better, a box stall.

Over-Reaching.

Make the shoe its natural length, or a trifle longer—with the calk of the forward shoes high and the heel calk low. The hoof will then stand further forward, and be more removed from the stride of the hind foot, which, being shod with a low toe calk and high heel calk, will strike the ground before it reaches the fore foot. An interfering horse generally strikes with the inside of the hoof, about 2 inches from the toe; therefore make the shoe straighter on the inside, and rasp the hoof accordingly.

Acute Pneumonia.

They are first taken with a dry, depressed cough, loss of appetite, but thirsty; pulse feeble, but frequently the extremities are cold—sometimes when first taken, at others they retain their natural heat until the

disease assumes its worst appearance, and then the legs become cold. Respiration is very active and laborious; the animal pants all the time, stands with fore legs widely separated, never lies down, and is loath to move. Some discharge copiously from both nostrils, a thick, slimy matter, sometimes mixed with blood—in that case the whole body is excessively hot, and the extremities also, but other symptoms the same. The treatment in the early stage of this disease should be: 1. An abundant supply of cool, fresh air. 2. Abstinence from grain or corn. 3. Extra clothing and warm bandages to the legs. In all cases it is desirable that the patient should at once be removed to an airy, loose box. If these simple remedies do not bring about a subsidence of the attack within a short time, recourse must be had to medical treatment.

Rupture.

Rupture or hernia is the protrusion of a bowel, or some other part, from its proper cavity. It is sometimes congenital, and may then be reduced at the same time that castration is performed. At other times rupture may be produced by blows, kicks or falls. A hernia is dangerous to life when it becomes compressed or strangulated by a stricture at the orifice of protrusion. Skillful surgical aid should always be obtained in any such case at once. But sometimes, in the absence of a veterinarian, any one may restore the gut by introducing the hand into the bowel and drawing it up; the other hand, at the same time, making gentle pressure upon the swelling in the abdomen. No violence should ever be used in attempting this; and the bowels should first be emptied by a clyster.

Strangles.

Feed with light, cooling (green if it can be had) food; mix the food with sassafras tea, in which a spoonful of powdered sulphur and a teaspoonful of saltpetre have been added.

Staggers.

This is a functional disorder of the brain, which, when once it has declared itself, is said to be beyond cure. The following prescription may be tried: Give a mess twice per week composed of 1 gal. of bran, 1 tablespoonful of sulphur, 1 spoonful of saltpetre, 1 quart of boiling sassafras tea, 1½ oz. assafoetida. Keep the horse from cold water for half a day afterwards

Thrush.

This a discharge of very offensive matter from the cleft of the frog. It is inflammation of the lower surface of the sensible frog, and during which pus is secreted together with, or instead of horn. In its treat-

ment, almost any astringent substance will check thrush in its early stage. Tar and common salt mixed is a very good application, and tar and sulphate of zinc can also be highly recommended. Before the introduction of either of these preparations, the frog should be carefully inspected and all decayed parts removed. The dressing must be pressed to the bottom of the cleft and commissures of the frog, and this should be repeated every other day or twice a week.

Water Farcin.

Symptoms: The horse is dull and loses his appetite, and swells along the belly or chest and between the fore legs. **To cure:** Rowel in the breast, and along each side of the chest, as far as the swelling goes. Leave the rowels in until the swelling goes down. Give a spoonful of cleansing powders morning and night.

Stoppage of Urine.

Symptoms: Frequent attempts to urinate, looking round at his sides, lying down, rolling and stretching. **To cure,** take $\frac{1}{2}$ lb. of hops, 3 drs. oil of camphor; grind and mix. Make into 3 pills. Give 1 every day, with a drench made of a small spoonful of saltpetre and 2 oz. of water. This will cure, as a general thing.

To Cure a Wen.

Take equal parts of soft soap and slaked lime, well mixed. Lance the wen at the time of making the application, or two or three days after. Two or three applications will cure.

To Improve Wind in Horses.

It will be found, if tar water and powdered charcoal are mixed with the horse's feed, that it will have a most beneficial effect on his wind and condition.

Botts.

Botts are the larvæ of the gad fly, of which there are three different kinds. The female gad fly, during the summer months, deposits her ova on the horse's legs or sides, and they become firmly attached to the hair. After remaining on the leg for some time, perhaps 4 or 5 days, they become ripe, and at this time the slightest application of warmth and moisture is sufficient to bring forth the latent larvæ. At this period, if the tongue of the horse chances to touch the egg, its operculum is thrown open, and a small worm is produced, which readily adheres to the tongue, and with the food is conveyed into the stomach, and therein is lodged and hatched. It clings to the cuticular coat by means of its ternacula, between which is its mouth; and in such a firm manner does it adhere

to the lining of the stomach, that it will suffer its body to be pulled asunder without quitting its hold. Botts are often supposed to do a good deal of harm, but except in cases where they accumulate in very large numbers, we are of the opinion that they are almost harmless, because in ordinary cases they are chiefly attached to the cuticular coat, and the cuticular coat of the stomach is not possessed of a great degree of sensibility. Most horses that have been running at pasture during the summer months become affected more or less with botts, and their presence in the stomach is thus accounted for. When a horse is troubled with the botts, it may be known by the occasional nipping at their own sides and by red pimples and projections on the inner surface of the upper lip, which may be seen plainly by turning up the lip. To remove them take of new milk 2 quarts, molasses 1 quart, and give the horse the whole amount. 15 minutes afterward give 2 quarts of very warm sage tea, and 30 minutes after the tea give 1 pint of linseed oil (or enough to operate as a physic). Lard has been used, when the oil could not be obtained, with the same success. The cure will be complete, as the milk and molasses cause the botts to let go their hold, the tea puckers them up, and the oil carries them entirely away. The spring is the only season in which there is a chance to effectually remove them.

Inflammation of the Lungs.

First bleed thoroughly, then give tinct. veratum viride, $\frac{1}{2}$ oz; laudanum, 4 oz; tinct. aconite, $\frac{1}{4}$ oz. Shake well, and give a tablespoon half full every three hours, in a pint of water well sweetened; and if the pulse is not reduced in a short time, increase the dose to a spoonful until the fever abates. As soon as the horse recovers so as to eat and lie down naturally, keep him on hay alone, with a few carrots or potatoes, and daily give a bran mash with saltpetre, crude antimony and sulphur, for a week or ten days, and you will prevent dropsy on the chest, which is a sequel of inflammation of the lungs.

Colic in Horses.

Sulph. ether, 1 pt., aromatic spirits ammonia, 1 pt., sweet spirits nitre, 2 pts., opium, $\frac{1}{4}$ lb., assafoetida (pure), $\frac{1}{2}$ lb., camphor, $\frac{1}{2}$ lb. Put in a large bottle and let stand from ten to fifteen days. Dose, 2 ounces every two, three, or four hours, until the horse is relieved. This medicine is a sure cure for the worst form of flatulent colic, if taken in time. It should be given in sweetened water.

RULES AND REGULATIONS
FOR THE GOVERNMENT OF
TROTTING AND RACING
OVER THE
UNION COURSE, LONG ISLAND.

The following are the Rules and Regulations for the government of all trotting and pacing matches to come off on the Union Course, Long Island :

Rule 1—Nature of Rules.—All matches or sweepstakes which shall come off over this course will be governed by these rules, unless the contrary is mutually agreed upon by the parties making such match or stake.

2. Power of Postponement.—In case of unfavorable weather, or other unavoidable cause, all purses, matches, sweepstakes announced to come off, to which the proprietors contribute, they shall have the power to postpone to a future day, upon giving notice of the same.

3. Qualifications of Horses Starting.—Horses trained in the same stable, or owned in part by the same person, within three days, shall not start for a purse, and horses so entered shall forfeit their entrance. A horse starting alone shall receive but one half of the purse. Horses deemed by the judges not fair trotting horses shall be ruled off previous to, or distanced at the termination of the heat.

4. Entries.—All entries shall be made under a seal, inclosing the entrance money (ten per cent. on the purse), and addressed to the proprietor, at such time and place as may have been previously designated by advertisement.

5. Weight to be Carried.—Every trotting horse starting for match, purse or stake, shall carry one hundred and forty-five pounds; if in harness, the weight of the sulky and harness not to be considered. Pacing horses liable to the same rule.

6. Distances.—A distance for mile heats, best three in five, shall be one hundred yards; for one mile heats, eighty yards; and for every additional mile, an additional eighty yards.

Time between Heats.—The time between heats shall be, for one mile, twenty minutes; for every additional mile, an additional five minutes.

8. Power of Judges.—There shall be chosen by the proprietors of the course, or stewards, three judges to preside over a race for purses, and by them an additional judge shall be appointed for the distance stand; they may, also, during or previous to a race, appoint inspectors at any part of the course, whose reports, and theirs alone, shall be received of any foul riding or driving.

9. Difference of Opinion between Judges.—Should a difference of opinion exist between the judges in the starting stand on any question, a majority shall govern.

10. Judges' Duties.—The judges shall order the horses saddled or harnessed five minutes previous to the time appointed for starting; any rider or driver causing undue detention after being called up, by making false starts or otherwise, the judges may give the word to start without reference to the situation of the horse so offending, unless convinced such delay is unavoidable on the part of the rider or driver, in which case not more than thirty minutes shall be consumed in attempting to start; and at the expiration of that time, the horse or horses ready to start shall receive the word.

11. Starting Horses.—The pole shall be drawn for by the judges; the horse winning a heat shall, for the succeeding heats, be entitled to a choice of the track; on coming out on the last stretch each horse shall retain the track first selected: any horse deviating shall be distanced.

12. Riders or Drivers.—Riders or drivers shall not be permitted to start unless dressed in jockey style.

Weight of Riders and Drivers.—Riders and drivers shall weigh in the presence of one or more of the judges previous to starting; and after a heat, are to come up to the starting-stand, and not dismount until so ordered by the judges; any rider or driver disobeying shall, on weighing, be precluded from the benefit of the weight of his saddle and whip, and if not full weight, shall be distanced.

14. Penalty for Foul Riding or Driving.—A rider or driver committing any act which the judges may deem foul riding or driving, shall be distanced.

15. Horse Breaking.—Should any horse break from his trot or pace, it shall be the duty of the rider or driver to pull his horse to a trot or pace immediately, and in case of the rider or driver refuse to do so, the penalty shall be that the next best horse shall have the heat; if the rider or driver should comply with the above, and he should gain by such break, twice the distance so gained shall be taken away on the coming out; a horse breaking on the score shall not lose the heat by so doing.

16. The Winning Horse.—A horse must win two heats to be entitled to the purse, unless he distance all other horses in one heat. A distanced horse in a dead heat shall not start again.

17. Relative to Heats.—A horse not winning one heat in three shall not start for a fourth heat, unless such horse shall have made a dead heat. When a dead heat is made between two horses, that if either had won the heat, the race would have been decided, they two only shall start again; in races best three in five, a horse shall win one heat in five to be allowed to start for the sixth heat, unless such horse shall have made a dead heat; such horses as are prevented from starting by this rule shall be considered drawn, and not distanced.

18. On Heats and Distances.—If two horses each win a heat, and neither are distanced in the race, the one coming out ahead on the last heat to be considered the best. The same rule to be applied to horses neither winning a heat and neither distanced. If one horse wins a heat, he is better than one that does not, provided he does not get distanced in the race; then the other, if not distanced, shall be best. A horse that wins a heat and is distanced is better than one not winning a heat and being distanced in the same heat. A horse distanced in the second heat is better than one distanced in the first heat.

19. Horses Drawn.—Horses drawn before the conclusion of a race shall be considered distanced.

20. Outside Bets.—In all matches made play or pay; outside bets not to be considered play or pay, unless so understood by the parties.

21. Of Play or Pay Matches.—All moneys bet on play or pay matches by outside betters are not considered play or pay.

22. Betting.—Absent Better.—A confirmed bet cannot be let off without mutual consent. If either party be absent at the time of trotting, and the money be not staked, the party present may declare the bet void in the presence of the judges, unless some party will stake the money betted for the absentee.

23. Compromised Matches.—All bets made by outside betters on compromised matches are considered drawn.

24. Better of Odds, etc.—The person who betts the odds has a right to choose the horse or the field. When he has chosen his horse the field is what starts against him; but there is no field unless one starts with him. If odds are bet without naming the horses before the trot is over, it must be determined as the odds were at time of making it. Bets made in trotting are not determined till the purse is won, if the heat is not specified at the time of betting.

25. Horses Excluded from Starting or Distanced.—All bets made on horses precluded from starting (by Rule 19), being distanced in the race, or on such horses against each other, shall be drawn.

26. In Cases of Dispute and Improper Conduct.—In all cases of dispute not provided for by the Rules, the judges for the day will decide finally. In case of a trot or match being proved to their satisfaction to have been made or conducted improperly or dishonestly on the part of the principals, they shall have the power to declare all bets void.

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