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UNITED STATES OF AMERICA.

THE
IMPROVED SYSTEM

OF

HORSE-TRAINING

AS TAUGHT BY

PROFESSOR W. E. WALLACE,

TOGETHER WITH

*A Treatise on Shoeing, Diseases of Horses, and their
Treatment, Valuable Recipes, etc.*

WRITTEN BY

PROFESSOR W. E. WALLACE,

AUTHOR OF THE NEW SYSTEM OF HORSE-TRAINING.

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PREFACE.

THE great desire of those who have witnessed our success in handling and subduing wild and vicious horses to get our system in printed form, has induced us — contrary to our first intentions — to publish it, hoping by so doing to make our efforts more acceptable and useful. In doing so, we do not assume the capacity of those claiming distinction as horsemen. The only approbation we expect is that which we may deserve from the practical results of our system of instruction. We have endeavored in this, as in our lectures before a class, to make every principle presented by us clearly understood, and claim that our theory is valuable in its practical results, rather than for the words in which it is stated. This system of controlling and subduing horses is conceded by practical horsemen to be the most thorough and complete now known, and is the result of many experiments and a thorough investigation and trial of the different methods of horsemanship now in use.

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INTRODUCTION.

My object in presenting this work to the public, is, in one sense, the object of all other men in publishing books. Man, under the ordinary arrangement of society, seeks his own interests. This is a natural result of life, and it is from this fact that man naturally inquires in what that interest rests. I now propose, in this book, to set forth one of the greatest temporal interests of man — one in which nearly all men, everywhere, are equally interested, and in so doing I shall introduce as the great benefactor of man, the HORSE. According to the best authorities, the horse has been the constant servant of man for over four thousand years, ever rewarding him by his labor, and adding to his comfort and pleasure in proportion to his skill in managing him; but being very often a vicious and dangerous servant to those who govern him by brute force, and know nothing of the advantages and delight to be gained by a cultivation of his nature; while to the Arab, whose horse is the pride of his heart, and who governs him by the law of kindness, he is a very different animal. The manner in which he is treated from a foal, gives him an attachment for his master not known in any other country.

The first domestication of the horse—the greatest achievement of man in the animal kingdom—was not the work of a day; but, like all other accomplishments, was brought about by a gradual process of observation and experience. He first subdued the more inferior animals, on account of their being more easily caught and tamed. This noble animal, being the last brought into subjugation—owing, probably, to man's limited and inaccurate knowledge of his nature, and his consequent inability to control him—is, of itself, sufficient evidence of his superiority to all other animals.

Horsemanship has reached its present stage of perfection by a gradual process of experiments and discoveries. In all man's inventions and discoveries, he has invariably commenced with some simple principle, and gradually developed it from one degree of perfection to another.

The first hint of the power of electricity was Franklin's bringing it down on the string of his kite. Now, it may be said that man has entire control of the subtle element—making it the instrument of transmitting thought from one extremity of the globe to the other with a rapidity that surpasses time. And the great propelling power that forces the wheels of the steam car over vast continents, and plows the ocean and rivers with thousands of steamers, was first discovered escaping from a teakettle. And so the powers of the horse, second only to the power of steam, have become known to man only as observation and investigation revealed them.

We believe that the horse is governed by his animal instincts and nature, and that he has no rational conception of mind or thought; yet we

contend that he can be educated more easily than any other animal known to civilization, if taken in conformity with the laws of his nature. I will now give you the three fundamental principles of my theory, those principles being founded on the leading characteristics of the animal:

1. That he is so constituted by nature that he will not offer resistance to any demand made of him which he fully comprehends, if made consistent with the laws of his nature.

- 2, That he has no consciousness of his strength beyond his experience, and can be handled according to our will, without force.

3. That we can, in compliance with the laws of his nature—by which he examines all things—take any object, however frightful, around or on him, that does not inflict pain, without causing him to fear.

To take these assertions in order:

First, I will tell you why I think the horse is naturally obedient. Though possessed of sensitiveness to a greater degree than man, he is deficient in reasoning power—has no knowledge of right or wrong, or will of his own independent of government, and knows of no imposition practiced upon him, however unreasonable those impositions may be, consequently he can come to no conclusion what he should or should not do—because he has not the reasoning powers of man to argue the justice of the thing demanded of him. If he were able to take into consideration his superior strength, he would be useless to man as a servant. Give him knowledge in proportion to his strength, and he will demand of us the green fields as his inheritance, where he will roam at will, denying the right

of servitude to all; but God has wisely formed his nature so that it can be acted upon by the knowledge of man, according to the dictates of his will, and he might well be termed the unconscious and submissive servant. Then we can but come to the conclusion that if the horse is not taken at variance with the laws of his nature, he will do anything that he comprehends without making an offer of resistance.

Second, The fact of the horse being unconscious of the amount of his strength, can be proven to the satisfaction of any one who will take the trouble to observe him for a day.

Third, That he will allow any object, however frightful, to come around or over him, that does not inflict pain. We know from a natural course of reasoning that there has never been an effect without a cause. And we argue from this that there can be no action, either in animate or inanimate nature, without there first being a cause to produce it; and from this self-evident fact we know there is some cause for every impulse or movement of either mind or matter, and that that law governs every action or movement of the animal kingdom. Then, according to this theory, there must be some cause before fear can exist, and if fear exists from the effects of imagination, and not from the infliction of pain, it can be removed by complying with the laws of his nature, by which he examines objects and decides upon their innocence or harm.

I hold the theory that the horse is a teachable creature—that he can be educated, and when fully and properly taught, the knowledge is as durable as life—except the principles taught are forced

from him by systematic mismanagement—and I believe the horse is much easier taught than man. I claim for this system a superiority over all others, for the reason, that all other general systems that have been introduced have been both laborious and dangerous to man and beast, while this system is both safe and easy—from the fact of its being a natural one. I further contend and believe that this system of training the horse is the most perfect now known, and challenge the world to confute the principles on which it is based.

W. E. WALLACE.

HORSE TRAINING.

MAN'S SUPERIORITY.

Man is superior to the horse because of his intellectual resources, by which he can devise and adopt means to overcome the strength of the horse, or employ it against itself. The secret of training and managing horses lies in this mental superiority. The wisdom of Deity is infinite, and man must bow before it. Man becomes superior to ignorant horse only so far as he can manage and impress him with a sense of undoubted superiority. Recognizing the need of conforming to the laws of his nature so as not to excite his resistance, do not let him comprehend it possible to resist control. Seek in the second place to so disconcert and control him, under all circumstances, as to impress him most forcibly with man's power and absolute supremacy.

NECESSITY OF KINDNESS AND HONESTY.

The first step in the accomplishment of this is attained by uniform actions of kindness in his management, thus winning his confidence. And he takes man exactly for what he proves himself by his actions, and doubts and fears only as taught by our actions towards him. Learning as he does to associate with man's presence a feeling of protec-

tion and security, there can be no fear or doubt, because never taught to doubt by deception. Even among men the principle is the same: that man who is always found truthful and who performs exactly what he promises to do, becomes a standard of public confidence and trust; but he who disregards truth and the principles of honor, becomes an object of suspicion to all who know him. So we are forced to believe that the horse becomes, in the character of its habits, what he is made, in exact proportion to the teaching and example to which has been subjected.

THE NECESSITY OF INTELLIGENT MEANS.

Prudence in conforming to the laws of the horse's nature, and winning his confidence by kindness, though indispensable, is only as the caution guarding against the force of a momentum there is no ability to control, and there would be no need of subduing the horse by force had there been no law of his nature violated. Since effects must be the result of causes, every consequence requiring the genius of man to combat and to control, must be the result of his own imprudence or ignorance. Harshness and the neglect of this necessary attention, while mainly the cause of mischief, lead us to infer that the absence of such causes, with corresponding regard for the laws of kindness, are sufficient to win the bad horse to a forgetfulness of his power of resistance. The course of reasoning that teaches him man's ability to enforce his assumed supremacy, must also demonstrate to his understanding man's ability to enforce absolute and unconstitutional submission under all circumstances

of resistance, in fact, to disconcert and beat him on his own ground with the apparent ease and certainty of positive ability, without resorting to harsh means or inflicting pain. For as the aim of the physician is to subdue the force and effect of the disease by using remedies the least aggravating in their action on the system, so the aim of the horseman should be, in enforcing the submission of the horse, to do it, as nearly as possible, on a moral basis.

NECESSITY OF THOROUGH TRAINING.

The horse's confidence and rebellion being usually the result of long experience in successful resistance, his subjugation must be made convincing by repeated proofs of being over-matched, and that resistance is useless. For since his wilfulness and rebellion are based upon the limited reasoning of his experience, he must be thoroughly convinced by experience that unconditional submission is the only alternative, and this you cannot prove to the understanding of the horse without repeating your lessons until he submits unconditionally. But as nursing and care are needful to enable the patient to overcome the power of disease, in any given case, so in the subjugation of the horse. His submission should be encouraged and rewarded by kindness and caressing; that master is supreme in his control, and submission to his commands becomes a pleasure, who has the power to enforce his will, but who exercises it with the sweetening encouragement of love. While force is necessary, and you have the means of making your horse almost a plaything in your hands, let the silken

cord of love be the cement that fixes and secures his submission to your will. It is admitted that a good-natured clever man can teach a horse almost anything, and it has become a proverb that kindness will lead an elephant by a hair. So the horse should be treated with kindness and consideration. His spirit should be curbed and directed—but not subdued. Man has the right of control, restraint, correction, and even destruction of life, but we must bear the consequences of those violations of the laws of his nature to which he is thereby subjected. Show your horse exactly what you want him to do, and endeavor to use the patience and reason in teaching and controlling him you would at least believe necessary for yourself to understand if placed in like circumstances. Ignorant of the language and intentions of a teacher, who even preserved his patience and refrained from abuse, what progress would you make as a pupil, gifted as you are with all your intelligence? If possible, ennoble and elevate your feelings by relieving your responsibility to yourself, to community, and to the noble animal committed to your charge. Make your horse a friend by kindness and good treatment. Be a kind master, and not a tyrant, and make your horse a willing servant and a slave.

WINTERING FARM HORSES.

Some farmers treat their horses in winter much as they do their fattening cattle and sheep; they give them abundant food, and but little exercise, keep them in a warm and dimly lighted stable, and if they do not grow fat, with their cattle and sheep, they deem it convincing proof that the proper course

has been pursued. Now, horses in good working condition, at least, should always be seen on the premises of a good farmer, but his gratitude toward these faithful servants should not induce him, at any time of the year, to stall feed them. The butcher wants thick meat and plenty of tallow in the cattle and sheep, but the plowman looks for strong muscle, spirit and endurance in his team. The food and care of the different animals should be consistent with the ultimate purpose they are to serve. Fat horses that have been wintered mostly in the stable, without much exercise, are not fit for hard service at the opening of the working season in the spring, and a prolific source of disease is the hard work they are compelled to do when they are not in a proper condition.

The ordinary winter business of the farmer does not call for much exercise of his team, and if he have several, most of them may be entirely idle. In such cases it is an excellent plan to have a yard for their especial benefit, well littered and safe, and let them have access to it several hours each day. The horses should be unshod, and if any are vicious they may be turned loose at different hours from the others. The horses will show by their playful actions how much they enjoy this temporary relief from the stall. Another very important thing, often neglected by farmers, is the grooming of their teams. In the summer time, the horse by rolling in the pasture, to a certain extent cleans himself; besides, the rains have some effect. But in the stable he relies on the care of his master, and the keen enjoyment the curry-comb and brush evidently give him, should be ample reward for the labor. A well

lighted stable, thoroughly ventilated yet free from currents of air, should also be provided.

In regard to the feed for horses, most farmers, we think, will agree to the proposition that it is good economy to grind or mash all kinds of grain before feeding. It is well established that cut straw, corn-stalks or other coarse fodder, fed with some grain, is cheaper than to winter the horses wholly on hay. Without stopping to assign reasons, we think they also come out in spring in better condition than when fed on hay alone. Good wheat or oat straw fed with bran strengthened with corn meal, has been found excellent. When the weather is not too cold it is preferable to dampen the cut hay or straw and sprinkle the meal on it.

The wintering of horses should begin with the first approach of cold autumn nights. No work horse should now be left in the pasture, except in the daytime. Exposure to a single autumn storm might cause damage enough to farmer's teams to have paid for years of timely care.

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 lessons on the management of horses by explaining how to proceed with the wild colt.

First, prepare your barn, or such place as you design for your training room. Everything tending to annoy or excite your colt—hens, hogs, or dogs,

must be driven out. Endeavor to be all alone with your horse. Do not suffer the curious—who will be anxious to judge of your ability, as they would term it—to crowd in. Guard against such a nuisance, if possible, and as such persons are usually slow to take a hint, be decisive in your wishes, observing that it is a positive condition of your instructions. Your object next is to get your colt into his place, which you must do as quietly and gently as possible. You can accomplish this best by leading in and hitching in his view a broke horse. The colt will, generally, soon walk in of his own accord, but if he should not, do not be in a hurry to drive him in. Walk quietly around him, and gradually give him less room by closing in upon him. Be slow and careful, and he will not run or become frightened. Give him time to examine and look around, and in a short time he will walk in. When in, remove the old horse as quickly as possible.

There are two ways of haltering, either of which will answer. We will give both ways, and the scholar may adopt the one best suited to the case. The first is, to approach and familiarize yourself to the colt until he will let you handle him as you please, when the halter may easily be put on. The other method is, to get the halter on before you have succeeded in gentling him much. In ordinary cases the first one will be the most practicable, but if the colt is extremely wild and nervous, the latter is preferred; because a much quicker method, and does not excite.

FIRST METHOD FOR ORDINARY CASES.

As soon as he appears quiet and reconciled to the

constraint of the enclosure, go cautiously and slowly towards him, making no demonstration at all, but talking gently, or singing, as you please. He does not understand your language, and you talk or sing the sooner to reconcile him to your presence and 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 his neck and finally the head. Do not try to hold him or impose the least restraint; that would cause him to become excited and afraid of you. Fondle the colt in this way until he becomes reconciled to your presence, and will suffer you to scratch or handle him as you please. Now step back and take your halter quietly. The halter should be of leather. Rope halters are objectionable, for young horses in particular; they are so hard that they hurt the head whenever the colt pulls. Being hurt, the colt will instinctively try to get his head out of the halter, and the more it pulls 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 possibly breaks the halter. In that case, his experience would have been a bad one, for you would have taught him to be a halter-puller.

You should take the halter in the left hand, hav-

ing 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, and it will further your efforts greatly to give the colt something he likes—such as apples, oats, corn, or anything he likes that you can get hold of handily. Then take hold of the long strap which goes over his head, with your right hand, and carry it under his neck, while you reach the left hand over the neck and grasp the end of the long strap; then lower the halter just enough to get his nose into the nose-piece, and then raise it up to its proper place and buckle. This is the best method to halter a colt if he is not extremely wild; but if your subject is wild and nervous, the following method is much the best.

SECOND METHOD OF HALTERING A COLT.

The other method is to make the colt follow before putting the halter on. You first learn the colt what the words "come here" mean, which is taught him by using the words and giving the sign, for the horse learns nothing by words alone. To teach him the sign, first get the colt into a room say sixteen feet square; let him remain alone in the room ten or fifteen minutes, then enter quietly, whip in your hand, approach to the centre of the room, moving your whip gently, and talking low to the horse; then reach the whip towards him, at the same time rubbing the horse on the back and neck with it, giving him to understand he is not to be hurt; this will give him confidence in you, which should never be betrayed. You then say, "come here," and give

him the sign by tapping him on the opposite side of the neck with the whip, which will cause him to start around. Continue using the words "come here," and tapping him until you have him circled up to you. Let him know you are his friend by talking kindly and caressing him. You then reverse the operation and have him circle the other way, and when he comes to you repeat the caressing. This done, start off and tell him to come. If he does not start readily, tap him on the back with the whip, which will cause him to start forward, and when he does start a step forward caress him. In half an hour's time any colt will follow you.

HOW TO HANDLE THE FEET.

After submitting sufficiently to lead well, caress and rub him on the withers, as at first, and, as soon as he will bear, work down the shoulder and leg; then lift lightly on the foot; if it is submitted, 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 you will not hurt him, and to do this you must be gentle. Now place your hand on the withers 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, lift it up a little—just a little—and if there is no resistance, after letting it down rub and gentle 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 tampering with the colt you should have your Spanish halter on, as before described. Now take the long rope that you hold in your hand, put it around over the front teeth of the upper jaw and under the upper lip — carry it round 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 with your rope — by which you can inflict so severe a punishment that he will submit unconditionally in a very short time, and allow you to handle his legs just as you choose. Persevere until you can hold the foot in your hand, moving it gently in the same way, then let it down and gentle and caress the leg until he gets over the fear inspired by the use of the cord under the lip. If more thorough training is necessary, see “Management of Horses bad to Shoe”.

TO MAKE A COLT FOLLOW UNDER THE WHIP.

After he comes round to you readily by pulling a little on the halter, and follows freely, take your whip in the right hand, pull upon the halter a little, saying, “Come here, sir,” at the same time tap lightly with the whip over the hips. He will yield to you mainly because you have taught him to yield to a slight pull upon the head, and to come to you at this signal, and because he wishes to get away from the touch of the whip behind. As soon as

he comes to you, caress him and feed him something that he likes from your hand. Repeat this until he comes to you as readily by tapping with the whip as he did at first to the halter. Now, instead of hitting with the whip, commence by snapping it behind him. If he comes, caress and encourage him as before, and so repeat at each time, increasing the distance from him, until he will follow or come to you readily by cracking the whip. We give this method because it is simple, and, in our judgment, practicable to most any one, and will bring the desired result in a short time—indeed so well as to make your horse follow around the streets without halter or bridle.

TO TEACH THE COLT TO BACK.

Put on the Spanish halter; stand directly in front of your horse, having hold of the cord about twenty inches from the head with your left hand, resting your right on the cord six or seven inches from the head, you now say, "back, sir." Your horse does not know anything about what you want, of course, and does not obey. Immediately after saying "back," press down and back with your right hand sharply on the cord, which will set the head back with a jerk. Do not expect your colt to go back without a struggle of resistance. Repeat this four or five minutes, being careful not to get excited. As a rule the colt will not go back with one lesson, probably not with the second, but will be sure to do so at the third lesson. The more intelligent and spirited the colt, the sooner he will submit, and the more ready his obedience. The duller and slower your subject, the more patient and persevering must

be your efforts. It is now time to commence biting your colt.

BITTING THE COLT.

Some people seem to have strange notions. It would seem as if the style and position of the head depended entirely upon the attention given to biting. The object of biting, it should be borne in mind, is to teach the horse to obey the rein, and, at the same time, habituate the horse to give the head and neck as high an elevation as the form and temper of the animal will bear. But while it is admitted that careful attention to biting will improve the style and bearing of the horse, it should not be forgotten that the position in which the horse carries his head in harness will depend almost entirely upon his form and temper. No art can give the horse with a low perpendicular shoulder and short neck, a fine style of carrying his head and neck—even if he possesses good courage and spirit. The practice of straining the head and neck into an unnatural position, and keeping it so for hours, as is practiced generally in biting, is often a cause of injury. When the head is strained up into an unnatural position, and kept there for a long time, the colt will learn to relieve the pain and weariness he feels by resting the entire weight of his head upon the bit, and which teaches him to lug upon the bit, and causes the mouth to become insensible to pressure. We will now explain what we regard as an improved method of biting, which teaches the horse exactly what you require, and does not injure the mouth in the least, and by which you can bit a horse well in about one hour: by limiting your

lessons to five minutes and repeating until the head is rendered freely and readily to the purpose of the rein, seldom requiring more than six or eight lessons of five minutes each.

HOW TO MAKE A BITTING BRIDLE.

Harness your colt as an old horse. Use a straight smooth bit in your bridle; have bridle and harness fit well. Take a small cord, say half inch cord, twenty feet long, get the middle of the cord and hook it in the hook of the backband. Have two small rings, one on each side of the bridle, fastened to the browband where the throatlatch passes through; pass your rope through the rings, one end on each side, then fetch the ends down and pass through the rings of the bridle bit, one end on each side, and then bring the ends back to the backband of the harness and tie them there. The rope is not to be crossed anywhere. Do not make the rope too tight at first, but tighten it a little more every time you use it. After your harness and rope is on, back the colt into a single stall, his hind parts up against the manger; tie a rope from the rings of the bits, one on each side, to the two outside parts of the stall, to keep his head straight, and to prevent him from going out of the stall. The rope being passed loose through the rings, will let his head play up and down and not make the neck stiff or sore, nor make the colt stubborn. Twenty or thirty minutes twice a day is enough to use it.

HITCHING COLT IN STALL.

The stall should be prepared by having a rope

attached so as to cross the stall and fasten firmly, striking the hind parts just below where the breechen comes—or a pole can be substituted by using staples. Lead the colt into the stall, pass the halter through the ring or hole in the manger, and while holding the end step back cautiously and tie your rope across the stall behind. Tie the halter long enough, so that the colt would strike the rope before feeling the restraint of the halter, in case he pulls back; and untie the halter before taking down the rope. The character of the colt should determine the necessity for the use of this rope. If he is of a prompt nervous character, it will hardly be necessary; but if of a sulky disposition, and unused to handling, the above caution is necessary.

TRAINING 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 to hitch to an old rotten, rattling 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 in 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 streets with safety; though in making this step, you had better have your Spanish halter on 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 it up behind him, rattling and running it back and forth a few times, then attach the harness. Before starting him lead him around a little to get him familiar with everything.

ANOTHER METHOD:

Put the harness on the colt carefully, and allow him to stand in the stall, or run about the yard for a half or three quarters of an hour. Then remove it, and after awhile replace it again, repeating two or three times in this way, until the colt is thoroughly reconciled to the harness. Then tie the tugs into the breechen, so as to be drawn moderately tight. Now put on reins and gradually teach him to go ahead and be controlled to the right, or left, or to stop, as you please, by the restraint of the bit. Too much should not be expected of the colt at the commencement of this lesson. First gradually urge him ahead by touching the whip lightly over the hips, and as he moves turn him to the right and left, until he will move promptly and turn in any direction freely to the control of the reins. Teach him to stop and start at will, by urging him ahead by a touch of the whip, and stopping him by pulling on the reins, being careful to say "get up," and "whoa," as each requirement of going ahead or stopping is

made, until the colt learns to submit implicitly to the control of the reins, and is quite handy to drive in this way. This may require several lessons of half or three quarters of an hour each.

DRIVING THE COLT.

The sulky is preferable at first. Allow him to examine it from every position. Should he show fear and resistance, use the war bridle, and work him up with it until he is perfectly submissable. Attach him to the shafts, and for additional safety, put on a foot strap, (a description of which find on another page.) and hold as a third rein while driving. Let the colt move off, on a smooth level road, almost entirely as he pleases, at first, and then gradually teach him to submit to the control of the reins. Do not drive him too much at first, and never exhaust him. After learning to drive nicely, you can then let him gradually increase his gait—trotting a few rods, and increasing the distance gradually at each drive. Be careful not to overdo the work, and be careful not to overdrive him. A large number of colts are spoiled by anxiety to make them fast trotters before they are grown to full strength.

DRIVING DOUBLE.

It is customary to drive the colt at first by the side of a gentle horse accustomed to harness. The colt should be put on the off side, and to guard against danger, a short strap with a ring on it should be put around the near fore-foot below the fetlock. Fasten the end of a piece of rope or strap of about eight or ten feet long to the ring. Pass the other end

over the belly-band of the harness to the wagon. The strap is to be held with the reins to ensure the utmost control, should the colt become frightened and attempt to break away or kick. After driving well on the off side he should be reversed to the near side, there being less danger of becoming frightened from getting into or out of the wagon, or of seeing things while being passed to or from the wagon on account of being more from view on the off side. To lessen the probabilities of fear and resistance as much as possible, the off side is preferable at first. The limited understanding of the horse seems to require that the same impressions and understanding should be given of the character and appearance of things forced to his attention on both sides. If not, when driven alone, or on the near side, he may become suddenly frightened by the moving of a robe, etc., from that side.

TEACHING THE COLT TO BACK.

When the colt drives well to the reins he should be taught to back. This is most easily done with the war or biting bridle. Should he act stubborn after using the war bridle a few moments, reverse by putting the large loop over the neck, which will touch him more sharply. If, however, he should become warm, after a reasonable effort, or a lesson of five or ten minutes, stop and repeat the lesson at any time after becoming cool and quiet, when, with rare exceptions, the colt will learn to go back promptly. You can now, if the colt is not warm or excited, put on reins and learn him to go back by being pulled upon from behind. This lesson of backing to the reins should be repeated until the

colt is promptly obedient. He may now be backed to wagon, but first on a slightly descending grade, gradually requiring more, and repeating the lesson until prompt to back under any circumstances.

RIDING THE COLT.

Put on a bridle and tie the reins short over the neck; after caressing a little over the back, throw yourself lightly upon his back, and gradually work into an upright position. But if there is probability of much resistance, attach the end of a strap or web to the off fore foot below the fetlock. Take a short hold of this over the back; move the colt to the left, and when the foot is raised to step, hold it up. This may be done a few times until the foot is submitted. Then while holding the foot up by the strap with the right hand, rest the left on the mane, over the withers, and throw yourself lightly across his back and work gently into an upright position. Then, as may be necessary, move the colt, taking and giving the foot until there is perfect submission.

TO MAKE A WAR BRIDLE.

This is simply a fine threaded cotton cord of the best material, twisted hard, of about three-eighths of an inch in diameter, and twelve or fourteen feet long. Tie each end into a hard knot, just as you would to prevent its raveling, with the difference of putting the end through the tie twice. Then pull down tight and hard close to the end. Now tie another knot about twenty-four inches from the end. Pass the end around the neck, and the knot through the loop, which makes a loop around the neck which

will not slip. Then double the rope through the loop around the neck, making a slipping noose; put the slipping noose into the mouth. You then have the horse in your power, but because of this you must not be too harsh with him. The peculiar power this means of control enables upon the mouth is liable to cause accident when used upon a quick, sensitive horse or green colt, with too much energy in such a manner as to bring the restraint directly back upon the mouth, which would in many cases cause the horse to rear up and possibly fall over backwards upon the head. The objection to this form of knot is, that it forms so short an angle at the point of junction as to catch and prevent the cord from sliding back loose the instant slacked upon, which would increase the danger of a horse going over upon his head when jerked upon in a rough, imprudent manner. Of course a horse is liable to get killed by such an accident, and must and should be guarded against. But the difficulty of making and untying knots that would afford more freedom for the part passing through, make them objectionable. The principal danger is, however, from violent jerking too much on a line with the body backwards.

FOOT STRAP.

A piece of strap about twelve or fourteen feet long will answer on an emergency. But as simply tying or knotting around the foot, is objectionable, on account of chafing or preventing circulation, or possibly untying at some critical moment, we would recommend the following: Have a smooth strap made, about one foot long and an inch wide, with a

buckle on one end and holes punched in the other. Stitch a ring or D about an inch from the buckle, under the lap passing round the buckle. Dress the edges of this strap or cover it with smooth leather. This strap is designed to buckle around the foot below the fetlock. Fasten your web or long strap into this ring or D.

TO USE FOOT STRAP.

Buckle the short strap around the near fore foot below the fetlock, then pass the long strap over the belly band on the near side, to the wagon, and hold as a rein. This gives control of the foot at will, which so disconcerts and disables him as to make him comparatively helpless. Should he attempt to run away, run back or kick, by pulling upon the strap you throw him off his balance and disable him from his purpose. This, it is seen, can be repeated and followed up at will. The instant the foot is taken up, the horse is thrown off his balance, and to keep from falling he has to throw the other foot forward. There is no danger of the horse falling, and you hold him at a disadvantage that renders resistance almost impossible. If you strap up one of the fore legs, the horse cannot travel, and if disposed to kick, can balance on the other leg and kick, which he cannot do when the foot strap is used. The foot strap gives you a control over the horse which you cannot otherwise obtain, and at the same time allows freedom of travel. The short foot strap is a piece of web about ten feet long.

CAUSES OF FEAR.

To the excitements and impulses of resistance induced by fear, may be attributed, directly or indirectly nearly all the bad habits to which horses are subject. Hence it is of the greatest importance in educating the young horse to guard against any cause of excitement that would rouse the mind to an extreme sense of danger. Repeated and continued success teaches confidence, while failure weakens and destroys strength of purpose. The limited understanding of the horse induces great extreme of this peculiarity. Hence very susceptible to the influences of good or bad treatment and almost wholly in character, in accordance to the influences made subject. Were we to play upon a drum quickly or unexpectedly near a horse unaccustomed to the sound or appearance of a drum, it would in almost every instance induce the most terrible fear, and if successful in getting away, he would ever afterwards be frightened at the sound or appearance of a drum or anything of the kind—the rattle of the wagon, or flying of the blanket from his back he would, perhaps regard with equal alarm, and associating those things with the first cause of fear, they may become objects of equal repugnance and resistance. Kicking is the horse's principal means of defence. The excitement and fear prompts this act. This brings his heels in contact with the whiffletrees or cross piece, which adds to his excitement and fixes the impression that the object from which he is running has hit him. The struggle to escape the danger is redoubled both by running and kicking, and thus, the horse becomes not only nervous but a kicker, —possibly learns to resist the control of the bit and

becomes a headstrong, reckless, dangerous animal. But if the drum were brought to the notice of the horse slowly and gently, allowing him to feel of it with his nose, then touch it lightly with your finger, gradually striking harder as he would bear, it would be but a short time before the horse will bear the drum being played upon in any manner, even though it were resting upon his back, and he would care nothing about it, and be less likely to become frightened at the sound or appearance of a drum afterwards, but of other objects or sounds of a like character.

We see that when the horse is not given time to get a correct understanding of the harmless character of the object, or cause of excitement, his sensibilities are liable to be stirred to an anticipation of real danger and excite resistance, while gentle careful management, is a repetition of convincing proofs of the innocent character of causes exciting suspicion, until the horse becomes so fearless and confident, as to care nothing about ordinary causes of excitement and restraint. Now the great difficulty with most people is, they are too harsh and precipitate. They undertake to do, and require more than they have power to enforce, or than the horse is able to understand.

In educating the colt, the rule should be to do and require only so much as he will bear and understand, by commencing slowly, and gently repeating, and following up one advantage after another, to the end of inspiring entire disregard of cause of excitement. The horse's principal sense of understanding, is by seeing and feeling with the nose. This is his means of examining things new and strange to him. If in approaching

the colt you were to reach out your hand gently, he would smell and feel of it with his nose. Every other means of understanding seems to be subordinate to this, consequently in handling the colt we should always commence at the nose, then gradually work back as there is submission. The same care should be taken to overcome fear of being handled about the feet, &c. Commence at an insensible part and work to the sensible. In educating to harness the same prudence should be exercised by bringing the object to the nose, or leading the horse up to the object and allowing him to feel and examine it in his own way.

We must be satisfied with our ability to guard against and overcome these difficulties of fear as we can, or as circumstances and opportunity will offer. The great point of success is in guarding the horse from being roused to a great sense of danger from any cause, and gradually as he will bear, force the mind to an understanding of the innocent character of the object, or cause of excitement. Familiarity with any kind of danger blunts the sensibilities, and the object is to produce this result most easily and directly. I regard this care and prudence so essential and important in attaining real success in rendering horses gentle and managable, that at the risk of being tedious in my explanations, I subjoin details of management in reconciling horses to the most common causes of fear.

TO RECONCILE THE COLT TO COMMON CAUSES OF FEAR.

First, while held under careful restraint, let a

robe be brought up gently to the colt's nose. After smelling and feeling of it in his own way until satisfied, rub it gently against the head, neck and body the way the hair lies, as he will bear. Then stand off a little and throw it across the back, over the neck and head, gradually stepping farther, until you can throw the robe upon and around him as you please, though quite distant.

While holding the colt by the halter or war bridle as may be necessary, bring an umbrella up to his nose gently, rub it against the head, neck and body as he will bear, then spreading it a little repeat the process of rubbing, and so continue, gaining little by little, until you can raise the umbrella over the head and pass it around the animal as you please, without exciting resistance.

To reconcile the colt to the sound of a gun, first commence by snapping caps a short distance from the horse, gradually as he will bear, approaching nearer until you can snap caps while the gun is resting upon the back, over the head, &c. Then put in a little powder, and at each repetition increase the charge until you can fire off a heavy load without exciting fear.

To prevent fear of railroad cars, let the animal see them at rest, then gradually lead or drive him up to them, even to smelling them with his nose. Now as you have an opportunity drive the horse around while they are moving, working up nearer, as you can, at the same time turning him around so that he can see and hear them from different directions. This lesson should be often repeated, being careful not to crowd beyond what the colt will easily bear, until they cease to attract his serious attention.

Should the horse show fear of a stone or stump, or anything of the kind, he will naturally stop instantly and stare at the object in the most excited manner. Should the cause of fear be great and sudden, he may attempt to turn round and run away. This is to be guarded against, by sitting well forward on the seat and taking a short hold of the reins, at the same time speaking calmly and encouragingly to the horse. Bear in mind the horse has a great advantage over you, that once resisting in this position, he will try to do so again at all hazards, under like circumstances.

Speak encouragingly to the horse, but keep a close watch upon his actions. In a short time the tension of his alarm will not only be perceptibly relieved, but he will become calmer, and almost disregardless of the object. Then drive nearer, as he will bear, exercising the same patience and care. At each effort to get nearer, the horse will become apparently as much frightened as at first, but keep pushing a little at a time in this way until you can drive up to the object or by it, and you not only leave no bad impressions upon the mind, but gradually overcome the disposition to become frightened.

Sometimes a horse will dislike a wheelbarrow, baby wagon, turkeys, &c., but the treatment is the same. When the excitement is not so great as to endanger successful resistance, and the horse is disposed to play off or "soldier", it may be advisable to apply the whip a little sharply, but this is to be avoided when it is seen the resistance is wholly induced by fear, and the animal is not lazy.

Some horses while driven to carriage, will not bear the noise and excitement of other horses being driven up behind. This is principally on account

of the horse's inability to see and understand the cause of the excitement, or it may be owing to the fault of the driver. Some one drives up rapidly behind, perhaps wishes to go by, to prevent which the colt is hallooed at and whipped up to prevent such a result. This may be repeated a few times and the consequence is, if a spirited horse, the habit is acquired of rushing ahead to avoid the punishment expected under such circumstances, and very often, too, a horse is forced into this habit by being run into from behind.

THE BLINDERS PREVENT SEEING PLAINLY.

It must be remembered that the blinders in general use so cover up the eyes as to make it impossible to see things plainly side wise, and wholly so from behind, must tend to this result, and certainly we are convinced of this, when we see that to overcome the animal's fear of any object, the first and most obvious point is to induce an understanding of its appearance and character. Blinders are admissible only when there is a desire to conceal the defects of a large head, and to cause a naturally lazy horse to drive steadily, by preventing his ability to see when the whip is about to be applied.

The horse must see the object of fear from different positions, as it is one of his peculiarities to understand and be reconciled to an object or cause of excitement only from the position and circumstances brought to his notice. This seems to be on account of the horse's reasoning powers being so limited as to be unable to retain the same understanding of the object beyond the position from which brought to notice.

Every progressive change of position requires almost the same care and patience of that preceding. For example, if in teaching a horse to become regardless of an umbrella, it were shown only from the near side, upon carrying it to the off side it would inspire nearly as much fear as at first from the near side. Or, there may be aversion to some particular object, or resistance may be inspired only under certain circumstances. You may succeed in getting a colt gentle to be rode from the near side, but an attempt to do so from the off side would in all probability be resisted. A horse may be afraid of an umbrella while in harness and care nothing for it out of harness, but if not taught to understand its character in harness, would be apt to be as much frightened at it in that position, as if he knew nothing about it. A horse that is afraid of an umbrella is brought forward to illustrate the management of such habits. In a short time the horse will bear the umbrella over and around him in any manner without seeming to care anything about it. The owner is pleased with the belief that his horse is broken; but when in harness at some future time, he raises an umbrella behind the animal and is astonished to find him as bad as ever, and he naturally condemns the instruction as of no account. But when it is seen in the first place that it is often necessary to repeat the lesson several times a day, possibly for days, to fix an impression of the harmless character of the object, and in the second place that it is necessary to give the horse the same understanding of the object in harness; that expecting the animal to be broken of the habit by a single indirect lesson, only tends to defeat success. For without ability to control the horse, every attempt to force upon

him the object of aversion, only inspires greater resistance, because taught to a still greater degree to resist control, and a sense of freedom always tends to increase the animal's fear of the object. The efforts of the owner to control the horse directly in a position of so great disadvantage, may produce exactly this result, and then from an ignorance of the cause of failure, it is believed impossible to make the horse gentle. The main point of success in overcoming nervous sensibility, is in the tact of preventing the horse from becoming frightened from any cause, and when excited with fear of an object, as circumstances and opportunity will permit, to let him see and understand that it is harmless. Let the object be seen and brought to his notice from different directions, and above all, the lesson must be repeated day after day, if necessary, so long as the animal shows fear of the object, otherwise the efforts will be useless, and the horse made more timid and unmanageable than before.

THE MANAGEMENT OF OLD HORSES OF THIS CHARACTER

is the same as of colts: the only difference being in the greater restraint often necessary to overcome the extreme resistance a great sense of fear may cause. A horse excited with great fear of an object may not only try with all the energy of despair to free himself from restraint and get away, but fight most wickedly. A horse feeling extreme fear is likely at any instant to throw all his strength into the contest for freedom, and if held near the object, may strike or kick at it with the recklessness of despair.

The control of such should be made as severe as possible by the use of the war bridle.

The horse will be so disconcerted and disabled by this that he is unable either to wholly concentrate his attention upon the object, or resist the severe restraint upon the mouth. If an umbrella, robe, or anything of the kind is the cause of fear, it can now be brought gently to his notice, and gradually rubbed against his neck, head, and body. Should the animal prove to be not only extremely nervous, tie the head to the tail, same as for balking, and keep the horse moving until resistance becomes impossible, and while tied force an understanding of the object, gradually giving freedom and repeating the lesson as may be necessary. If a top wagon is the cause of fear, get thorough control of the mouth with the war bridle, then gradually work the horse up to the wagon, rattling it, &c. Then lead him into the shafts, and as he will bear, turning him round and backing him into and pulling the shafts upon him, raise and lower the top, repeating the lesson as may be found necessary. When the horse is attached to the wagon, the top should be lowered and the greatest care should be taken to have the harness strong, and every detail of the hitching perfect, and to guard against possible resistance or accident, attach a strap to one or each of the fore feet, with the ends carried over the bellyband back to the wagon and hold with the reins. Such a horse it must be remembered is likely to do its utmost to get away, and as it is not always possible to control by the reins, the advantage of controlling by the feet becomes indispensable. The horse must now be driven and made to submit to control, with the top up or down at

will, until regardless of it and is perfectly manageable.

Some horses get into the habit of turning around in the road and running headlong in defiance of the control of the reins when excited by fear of an object or sound. To brake such, get the utmost possible control of the mouth with the war bridle, and carry out this advantage by keeping the head checked high and using a sharp strong bit that gives purchase enough to jerk the horse off his feet at the least intimation of resistance. Now be gentle and prudent in overcoming the fear of the animal, as explained in other cases if necessary.

Horses often resist with so much energy in this way from a sense of great fear, or some particular object of sound, most commonly that of an engine and cars, that all sense of restraint is lost in the struggle to get away. To overcome such resistance, we use what we denominate a

MECHANIC OR SAFETY SHAFTS,

made as follows: 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 part 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 about a 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 across the ends with an old piece of cloth and strengthening the harness if at all liable to break, by tying a piece of rope around with the breechen and around the body as may be thought necessary. Though the best way perhaps 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 wood. 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 now 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 around, 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 breechen be-

comes 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, as 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 to 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 and 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 managable 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 practical 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.

KICKING IN HARNESS.

It is very essential, in the first place, that the mouth is made as managable as possible to the control of the bit. An unmanagable mouth is one of the great causes of mischief in many ways, and in none more than in kicking. If there is good control of the mouth, so that you can attract and hold the horse's attention and throw the head up the instant there is the least intimation given of kicking, by a sharp jerk on the reins, you can in almost every instance prevent the developement of this intention. Put on the war bridle (small loop), and work up the mouth thoroughly. If the horse is dull or hard mouthed, change the small loop for the large one, or colt's bridle, which has a more positive and severe effect upon the mouth. Repeat the lesson two or three times, or until the mouth is made perfectly managable. Then use a short snaffle bit that will enable the ability to retain this advantage.

If the horse is young and not very bad or determined in the habit, put on the foot strap, having the war bridle on. Now work the horse up on the floor, tripping and disconcerting as in teaching the colt to submit to being touched with straps or anything else about the legs. When there is submission to being touched in this way, hitch to a wagon and hold the foot strap as a rein while driving. Now trip and disconcert the horse by taking and giving the foot at pleasure, and so disabling him at each indication of resistance until gentle. This training should be thorough, and repeated until there is perfect submission. Now check up short

and control and hold the horse from kicking by the restraint and control of the bit. If the horse is slow and kicks only once in a while, take a rounded strap or strong half inch rope about twenty feet in length. Place the center of it on the top of the head, pass both ends through the rings of the bit, then through the gag runners and back through the terrets. Have a ring fastened to the back strap of the breechen, back of the hips, put both cords or straps through this ring, pass down on each side and tie short enough to the shafts to bring the head well up. Everything should be so strong as not to endanger breaking. The horse is now nicely checked up, with the restraint so connected that at the least effort to throw the hind parts up, the reins are so pulled upon as to throw the head up instantly, and the horse is thereby disconcerted and disabled from his purpose. A leather strap that has been nicely fitted and rounded at least from the head to the hips, add to the appearance of the harness, and shows the apparent intention only of a check. If the horse is a reckless determined kicker, more severe and positive measures of restraint and reproof are necessary. Put on the war bridle (small loop), and work up sharply right and left. If the mouth is hard and unyielding, change for the large loop, or colt's bridle, and work up three or four minutes. Then let the horse rest a few hours, and repeat until the mouth is sensitive and managable to the bit. Next put on the war bridle (small loop); tie a piece of rope tightly around the body, just back of the shoulders. Put a strong and well fitting rope halter on the head; tie a strong two-inch ring on the end of the hitching part, which should be of a length to extend be-

tween the fore legs, over and just back of the belly band. Have made two strong straps with rings in them, of a suitable length, to buckle around the hind legs above the fetlocks. Now draw down tightly upon the war bridle and tie into a half hitch. This will make the horse stand quietly while being handled behind. Now buckle the straps around the hind legs above the fetlocks. Then take a piece of strong manilla rope, long enough to extend from the ring on the end of the halter back of the belly band, to each hind foot. Pass the end of this through the ring to the center, and tie each end carefully into the ring on the straps around the hind legs, the whole so arranged in length that the horse can travel easily and naturally. Now untie the war bridle and let the horse jump and kick. If necessary restrain and punish with the war bridle. If the horse is a reckless, determined kicker, make him kick all he will, then treat him gently. If the horse submits pretty well, the straps may be taken off, and let him stand quietly for a few hours. The folly should never be indulged of trying to see if the horse would kick after the straps have been taken off. Then put on the straps, &c., as before. If the horse does not kick, treat him gently; if he does, force sharply until there is submission. But if the horse is a bad kicker, leave the straps on while standing. When he will bear being moved around in the yard without kicking, would hitch to a wagon and drive, repeating thoroughly day after day until there is no disposition to kick. Then take off the straps, and when driving, check up short. The best and most natural check for this purpose is made by passing the check reins through the rings of the

bit and fastening to the check pieces of the bridle up near the ears, or passing up and uniting the ends on top the head back of the ears. The gag runners ought to be well up near the ears, and strong, or use the Jackson form of check. Checking up the horse in this way, short, with the control and restraint of the reins, by pulling upon them sharply at the instant there is an indication of kicking, will now, with great care, enable the advantage of keeping the horse from kicking.

Bad kickers must be handled thoroughly and with great care, to be successful. It is necessary in some cases to leave the straps on a week or two, and then the control and reproof upon the mouth should be carried out in the most careful and thorough manner. The mouth is the grand point of control in most all cases, and especially in the management of the kicker is this essential. The mouth should be worked up once in a while with the war bridle, to keep it sensitive, and fix upon the mind a sense of submission to the restraint of the bit.

When the horse is very excitable and nervous, this is a serious and difficult habit to break up. If the training is careless and not made thorough, little advantage will be gained in the management of these bad kickers. With the most skillful treatment it is hard enough and, indeed, in many instances almost impossible, to make such horses practically safe.

BALKING.

The management of balkers requires the adroitness of patience as well as the most convincing powers of control. Neither will it do to excite the

balker much, excepting under circumstances of such great disadvantage as to make resistance the more hopeless.

If the horse balks in double harness, put on the war bridle (small loop), leaving the bridle on. Give the horse a few sharp pulls right and left; now throw the cord over the back; tie the hair of the tail in a hard knot; part the hair above the knot; pass the bridle rein through; draw it short, and tie into a half hitch. This will bring the head around towards the tail, and cause the horse to go around in a circle. The more prompt and lively the horse, the easier he will move, and the more care must be used not to tie so short, or force round so fast as to cause the horse to become dizzy and fall down. If the horse should not move fast enough, touch up behind with the whip, regulating the efforts so as to keep him moving sharply, but not fast enough to fall down. The horse should be moved in this way from three to five minutes. As soon as the rein is untied from the tail, grab the war bridle and jerk upon it right and left five or six times. Now let the horse stand for a few hours, Repeat the lesson during the afternoon, and once or twice during next day. You need not be afraid of training the mouth too hard, but not to the extreme of making it sore. That should be guarded against. Now bring the part of the cord that goes over the neck up to the ears, step a little sideways and forward, and give a sharp pull. If the horse comes ahead, loosen the cord upon the mouth, and caress. Then step a little forward again, and pull as before, repeating at slow intervals, always stopping and caressing for coming ahead. After training in this way four or five minutes, let the horse

rest for a few hours, then repeat the lesson, and so continue until the horse will come ahead promptly when pulled upon. When this end is accomplished thoroughly, put on the harness, leaving the war bridle on as before, and hitch on the off side. Tie a strong piece of cord or strap across from one hame ring to the other, between the collars. Now get a nice smooth stiff pole of sufficient length, and lay it between the horses. Fasten the back end firmly on top to the end of the true horse's whiffletree, the forward part resting on the strap between the collars at the centre. Bring a piece of rope or strap around the pole and fasten into the true horse's hame ring, so as to hold the pole from being drawn near the balky horse. This will bring the pole between the horses, forward of their heads. Now fasten the cord to the end of this pole, just short enough to pull upon the head when the horse does not keep up even with the true horse. Now get into the wagon and move the team gently. Stop and start them as may be necessary to make the balky horse move up promptly when required; would drive them when connected in this way two, three, or four times; and as the animal becomes accustomed to the harness, and disposed to work, put on a little loading, gradually adding more as the horse is willing and able to use his strength against the collar.

BALKING IN SINGLE HARNESS.

Train as before explained, up to pulling forward with the war bridle. Then put on harness, buckle the belly band tightly, run the tugs through the rings of the breechen, and tie up short. Now drive

the horse round with reins. If there is resistance, give a few sharp pulls upon the war bridle and touch up with the whip. This lesson should be repeated two or three times. Then hitch to wagon, being careful to have the harness fit easily and loosely. Let the horse move off almost as he pleases. Should there be resistance, give a few sharp pulls right and left with the war bridle. Should this fail, unhitch and swing the horse sharply for a few minutes, then hitch up again and move off moderately.

A balky horse must be expected to resist, but there must be coolness and determination to make him yield at this point. Should the horse be permitted to resist now successfully, all that has been done may be considered as lost. Hence the necessity of working slowly, surely and thoroughly, commencing back and making every step gained a basis for the next, until the habit is broken up. Should the horse be slow and dull, it is advisable to stir him up with the whip. Great and persevering whipping is not, however, admissable, as the horse is thereby roused into an excited condition so rapidly that before the acute effect of the whip can be made advantageous, the sensibilities become so blunted, and the resistance intensified, until the horse will stand reckless and regardless of the most desperate whipping. While the horse is standing in the stall, give him a sharp cut or two with a whip, around the hind legs, at the same time speaking sharply "Get up!" or something of that character. Repeat this two or three times a day for two or three days. This will make the horse very much afraid of the whip, and cause him to move up promptly when commanded. The balky horse

should be worked up gradually, carefully, but very thoroughly, especially when driven to harness. But the great consideration in the management of balkers, is being patient and careful.

BAD TO STAND.—BOLTING, ETC.

This is another form of wilfulness which horses of courage and spirit often work into. The horse resists the restraint of the bit, and rushes ahead as soon as hitched; or rushes up to some favorite stopping place; or it may be termed bad to stand while getting into or out of a carriage. Give the horse a few sharp turns, then put on the war bridle (small loop), and jerk upon it right and left six or eight times, then let the horse stand a few hours. You have two points to gain: first, to teach the horse to stand; second, to get such control of the mouth as will enable submission to the control of the reins. After letting the horse rest awhile, put on the war bridle and work up sharply as before. If the horse shows temper, and does not yield to the action of the cord upon the mouth, change the small loop for the large one, or colt's bridle, and work upon the mouth with it until it is made sensitive, and the horse will yield promptly to its restraint. Now take a whip and crack it behind the horse a little. Should he move, pull down sharply on the cord, and set him back to where he was standing, saying "Whoa". Repeat in this way, caressing when there is no resistance, and punishing when there is, until the horse will stand quietly while you crack the whip around and behind him as you please, without his moving. But as you wish to make your restraint as convincing as possi-

ble, get some one to go behind the horse and frighten him ahead, and at the least movement set him back sharply, repeating until the horse will stand regardless of any such cause of excitement. If the horse is now excited or warm, let him rest awhile. Then put on harness, leaving him to stand in the stall thirty or forty minutes. Now take him on the floor with the doors closed, and bring the wagon up to him, changing his position, and rattling the shafts. When this is borne, attach the harness to the wagon. Now is the point of delicacy, hence work slow and careful. Move around the head, working back, putting the foot on the step, and rattling the wagon. If the horse resists much, take him out of the shafts and punish him sharply. Then hitch to the wagon again, and repeat as before. When the horse will stand quietly for you to get into the buggy, in the barn, if warm and excited, let him rest until cool. Then take him into the street, where most apt to resist; bring up the wagon behind, repeating, as in the barn, until he will stand as required. Get to his head and say, "come boy," gently. Caress him for doing as you require, so that he will understand what the punishment is for. After going a short distance, checking sharply with the war bridle for any crowding ahead, stop, at the same time say "whoa." Then gradually work back to the buggy; then lead him ahead again, stopping and repeating, each time doing a little more, until the horse will stand quietly. Then learn him to move off gently while in the wagon, and stop and start when required. To do this well, in most cases, it is necessary to repeat the lesson in the street three or four times. It is necessary to be very gentle and patient, as well

as positive, with horses of this habit. They are usually horses of high nervous susceptibility, easily excited. It must always be remembered that after taking these fellows in hand they must not be permitted to resist in any way successfully. If there is a kind of half way work, make the horse submit a little, and then let him resist, your efforts will only make the animal worse. If you wish to be successful in managing horses of any character, you must not yield a point, at any hazard, to the horse, after you commence his training.

KICKING WHILE GROOMING.

Some horses are so sensitive and thin skinned that they can scarcely bear a curry comb on the flanks or legs, and when excited by rough treatment and too severe use of the curry comb, are easily made vicious to handle or groom. Put on the war bridle and work up with it sharply a few times, then pull down tight and tie into a half hitch. Now, while holding the cord in the left hand, rub with the curry comb on the back or some insensible part, gradually and lightly, to the sensitive part. Then, as there is submission, give a little more freedom to the mouth, and work back with the curry comb as before, being very careful to use it lightly. When there is submission to this, untie the cord and work back as before. If there is resistance, tremble a little on the cord, working lightly. If the horse seems unable to bear the curry comb, use the brush instead, lightly, if necessary. Put on the cord, and keep the horse, if necessary, reminded of your control, at the least intimation of resistance, by giving a few sharp pulls, or trembling on it for four or five

times grooming. Great care must be taken not to allow excitement or harshness with such horses. When the horse cringes ease up instantly, speaking gently to him, but never scream "whoa," and dig him with the curry comb. Work lightly and indirectly to the foot, holding attention by speaking gently.

KICKING IN STALL.

Train with the war bridle until the horse responds promptly to its restraint. Tie a knot in the cord about twelve inches or more from the end, and before drawing it tight put the end through the ring of the halter, through the mouth outward, through the ring on the other side, back and through the tie previously made. This forms the common small loop, but a little larger than common, and running through the rings of the halter, so that it cannot drop out of the mouth. Now bring the other end over the neck and put it down through the loop. Tie the horse by the halter in a wide stall, retain the cord in the hand when passing out, and tie the end on the side of the stall, leaving the cord long enough to give the horse the freedom of the halter. When it is desired to go up to the horse in the stall, take the cord in the hand, say "Get around, sir." If the horse does not obey, and shows an intention to kick, give a sharp pull on the cord, which will make him get around to the opposite side of the stall. Step up to the head, speaking gently. Keep the cord on in this way for a few days, and when going into the stall, if the horse does not step around to the opposite side when commanded, give a sharp pull upon the cord, which will force him to do

so. Be particular in attracting the attention of the horse before attempting to go into the stall, by saying "Get around, sir," in a firm, positive manner. There must be no intimation in action or language of fear, at the same time judging by the expression of the eyes and action of the ears, the intention of the horse. Glide in quickly, holding attention by saying something, and looking at the eyes. This adroitness of catching and holding the attention, disconcerts and holds the horse from his purpose.

The most gentle horses are liable to kick if approached and touched behind while in stall, without an intimation of warning. My horse, though perfectly safe and gentle to handle if spoken to, would be very likely to kick at any one approaching and touching him behind unexpectedly. Biters, strikers and crowdors in stall are managed by the same principle of control.

KICKING AND STRIKING WHILE SHOEING.

Some horses have a peculiar aversion to having the feet handled, and if once roused to resistance, from any cause, are apt to become pretty determined in the habit. If the foot is pulled away when taken up, or the horse is excited and injured in some way, while the foot is held, the fear of injury is produced and associated with the requirement, which by the usual pulling, hauling and kicking practices of the shop, makes the horse worse. The least intimation of ability to resist after being taken in hand, always inspires the horse to renewed confidence and resistance, and if there is not ability or perseverance enough to enforce the end of perfect submission, after trying to do so, the horse

is only made worse, more reckless and determined in the habit. As the object is to break up the habit, the energies must be concentrated as directly and forcibly as possible, until the horse is so disconcerted and shaken in the confidence of his powers of resistance, as to yield to restraint and submit the feet as required, when the submission must be made permanent by patient, gentle treatment. The treatment here given applies to the worst cases though we have found it necessary in some instances to resort to more severe treatment, but the exceptions are so rare, requiring the extreme of force, and may be the cause of accident to others, that we do not deem it advisable to give more than we would believe most practical, with rare exceptions. If the horse kicks and resists having the hind feet shod, put on the war bridle, leaving the bridle or halter on. Take a firm hold of the strap or rein, about six or eight inches from the head, grab the hair of the tail and swing the horse sharply four or five times around. This will make the horse dizzy. Pull the cord right and left a few times as quickly and energetically as possible. Then tie the end of the long strap around the neck, near the shoulders, in the form of a running noose; pass the other end back between the fore legs, around the hind leg, below the fetlock and back through the loop around the neck, drawing it through short enough to bring the foot well forward. Pass the end back under to prevent sliding, and retain in the hand. The horse will now be very likely to struggle to get the foot loose. Should his resistance be so great as to endanger injury, you can give loose on the end of the strap. When the horse ceases trying to get his foot loose, rest the left hand upon

the hip, with the right pull upon the foot forward and outward. If there is great resistance, pull the horse around by the head, which will enable you to keep him in proper limits. When the struggle ceases, go back and handle as before. When the foot is submitted to the hand, while held to the restraint of the strap, put the cord well back upon the neck, draw it down tightly, and tie into a half hitch. Then pull upon the foot with the hand as before. If not resisted, untie the strap and take the foot in the hand gently. Put it down and take it up, rubbing and handling until there is entire submission. Then carry it back with the right hand, keeping well forward out of danger, by resting the left hand upon the hip, and pulling and yielding to the foot until managable. Now pass the left hand down to the inside of the leg, and take it adroitly from the right and carry it back gently; put it down and take it up once or twice. Then hammer upon it lightly, gradually increasing until the foot is submitted as required. Untie the cord and tie it a little longer, and handle the foot as before. If there is an intimation of resistance, tremble on the cord, which will call attention to the mouth, and remind of previous control until the foot is submitted without restraint. Manage the other hind foot in the same way. Handle the horse in this way three or four times, with the difference of lessening the severity of force as there is submission, until the feet can be handled without resistance or fear.

The cord must not be kept tied down longer than two or three minutes at any one time, as the pressure is usually so great as to prevent circulation.

When of an extreme character, train with the war bridle thoroughly while the leg is tied up.

RUNNING AWAY

Is the result of a sense of freedom and want of control of the mouth. The horse throws the momentum of his strength against the bit, and if successful in resisting control, the habit is induced. It is true the resistance may be caused by the animal becoming frightened, but this only points to the principal cause of weakness: the feeble control there is over the mouth. Train with the war bridle (small loop) four or five times. If the mouth is very unmanagable, change for the large loop, and work back upon the mouth with it pretty thoroughly. This lesson must be repeated until the mouth is sensitive and managable to the bit. Then hitch the horse single, using a small steel snaffle bit, and having on the foot strap, move the horse gently. After going a few rods, pull on the foot strap, saying "Whoa". Trip, and stop the horse in this way a few times, by way of feeling of him. Then move him off sharply, and jerk upon the reins, saying "Whoa" in an excited manner. Repeat in this way, making the horse go slow or fast, and making him stop at will. You are now in a position to learn your exact control of the mouth. If there is prompt and unconditional submission to the control of the bit, you can trust to the reins. If not, that point must be attained by greater advantage on the bit. Take two straps, each about a foot in length, with a buckle on one end and a ring on the other. Run the buckle ends through the rings of the bit, and buckle on over the check pieces of the headstall, or the check pieces may be taken out, and these pieces put in place of them.

When arranged in this way, the rings must be so large as not to go through the ring of the bit. Fasten the reins to the rings on the straps. As the lines are pulled upon, now the bit is forced up in the mouth, which will greatly disconcert and disable the horse from his purpose. Now drive as before, stopping and starting at will. If there is decided wilfulness, or a determination in the horse to resist control, be decided and positive. I have had instances of such horses trying to run away in defiance of the control of the foot strap. If this temper is anticipated, put a strap on each forward foot at first, then if there is an attempt to rush ahead when the foot is drawn up, pull on the other, which will stop him at once. Care should be taken when this is found to be necessary, to select a sandy or sodded piece of road, to prevent having the knees injured. Now drive the horse fast or slow, as you please, and repeat, stopping him at will, until promptly obedient to the control of the reins.

If the horse runs away from fear of some object or cause of excitement, drive around and near such, stopping and starting the horse, until there is willingness to submit to restraint and look at things without attempting to get away. Remember, also, the slower the horse is moved, the less liable he is to become frightened, and the easier to control his actions.

The mouth should be kept thoroughly manageable by a sharp lesson with the war bridle two or three times a week, for a month or two.

If the horse runs away in double harness, work with the war bridle, as before explained, and drive with the foot strap, and repeatedly, until there is submission to the control of the mouth. The main

thing is, to get such control over the mouth as will insure ability to control the actions of the horse by the bit. This is the ultimate object, and must be aimed for from the first.

It is the worst of folly to hazard life and property behind a horse that has once run away, until thoroughly broken of the disposition to resist. If the horse is old and determined, the training must be made very thorough, and repeated until there is certainty of control with the reins under any circumstances of excitement. Short of this, the horse cannot be driven with safety, and had better be put off, or used for purposes not involving danger.

It is very remarkable what a powerful effect training will have on the mouth, and how strangely stubborn and unmanagable a horse may become after once learning to resist the restraint and control of the bit.

A strong, high-tempered horse, once nerved to the contest of resistance in this way, is not by any means to be regarded lightly, or easily controlled. The greatest care should be taken to have the harness and wagon used, safe and strong. The contest may be desperate, and it is part of your strength to provide against accident.

A very good way, although not so practical, to manage a desperate horse, is as follows: Have a little ring or loop attached to the head piece of the bridle, just back of each ear. Provide yourself with a strong cord, pass one end through the near loop from the top side, pass down under the throat up through the loop on the opposite side, and tie into the other part back of the head. The cord now forms a loop that draws directly upon the throat when pulled upon from the wagon, when

the other end is intended to be held, with the reins in your hand. When the horse attempts to run, you can instantly with the greatest ease, prevent his breathing, and he must stop or soon fall down from exhaustion. This is a terrible means of restraint and punishment, and is pardonable only when the horse is so desperately reckless as to resist other means.

TURNING AROUND WHILE DRIVING.

This is a serious and dangerous habit. The limited advantages it is possible to exercise over the mouth sideways while driving, makes it difficult to control the resistance of a determined, reckless horse, when once excited to opposition in this way. The horse is usually excited to resistance by being frightened in some way, and when there is, it is most always without warning, and with all the energy of despair. Without a sense of ability to control the mouth in the most thorough and convincing manner, it will be impossible to break up this habit. It is easy enough to prevent the horse turning around by other means, but there is so little disposition to use anything requiring any trouble to obtain or use, that they are not practical. Get the greatest possible control of the mouth with the war bridle (small loop). To do this well may require three or four thorough lessons. If there is not ability to control the horse with ease by the ordinary form of power bits, use one made as follows: Let the mouth pieces of the simple snaffle form extend out two inches from where the rings for the reins are, with rings on the ends. Now attach a strong double strap around the nose, from one in-

side ring to the other, quite short, but not tight. Buckle the reins into the rings on the ends. When the reins are pulled upon now, the joint in the center is thrown forward against the roof of the mouth, the strap around the nose being the fulcrum, while the great length of mouth piece outward, from where the strap is fastened, gives all the advantage of power necessary. It would be better, perhaps, by having two joints at the center, about an inch apart. The power over the mouth by a bit of this form if properly made and fitted, is very great. It gives the power needed to bring the head sideways. Associated with this habit is usually that of

RUNNING BACK.

To break up this habit, there must be established a thorough fear of the whip, so as to induce going ahead whenever commanded. Put on harness and tie the tugs into the rings of the breechen rather short. Now drive around with the reins, giving a sharp cut with a good bow whip around the legs, once in a while, if not prompt. As the horse learns to spring ahead when commanded, pull a little on the lines, gradually repeating, until he will pull quite hard on the bit to go ahead. Make this as thorough as possible. In driving, repeat, and carry out this, going ahead promptly, whipping up sharply once in a while if necessary. This purpose can be carried out with more certainty in driving, if the foot strap is used.

Persevere until the horse is made managable under the most exciting circumstances. If the animal is really reckless and dangerous, the mechanic or safety shafts can be used.

PULLING HARD ON THE BIT.

If the horse is of a moderate character, the resistance proceeds from a want of sensibility in the mouth. Work the mouth up with the war bridle (large loop) until made sensitive and thoroughly submissive to restraint. Use a wire snaffle bit: the object now is to keep the mouth sensitive to restraint. Whenever there is a disposition to pull a little too hard, give a short raking pull on the lines, repeating as may be necessary. Repeat the lesson of working up with the war bridle three or four times, to fix the impression of submission to restraint. As there is now a disposition to pull too hard while driving, give a quick raking pull on the reins, which will soon break up the habit. If the horse is sensitive and energetic, establish if possible a feeling of submission to restraint by careful and thorough training with the war bridle, both small and large loops. Use a small snaffle bit, and at each effort to rush ahead, give a sharp side pull right and left on the lines, as before explained, giving loose immediately, and so repeating at each effort to pull ahead, being careful not to show any excitement. The horse will soon learn to avoid the pain of these raking pulls, by going slower. By being patient and persevering in reproof and forcing obedience to control, whenever there is an impulse of resistance, with rare exceptions, the horse will soon learn to yield readily to the most gentle control of the rein. If the horse resists this treatment, drive with the purchase strap, as explained for the control of runaway horses.

WILL NOT BACK.

Put on the war bridle (large loop), step in front of the horse, and press back upon the bridle quietly. If the horse goes back a little, caress; if not, after a short interval, press a little harder, being careful not to be too hurried or excited, as by too great an effort to force at first, the horse is apt to become so greatly excited, and the sensibility of the mouth in consequence, so soon blunted, that the horse could be scarcely made to yield to very severe training. Continue at slow intervals, repeating the pulls upon the mouth, caressing and speaking encouragingly for the least effort to go back, but making the power of the bridle felt. Some horses do not seem to know how to back, or are so dull and sulky as to resist all ordinary effort. When the resistance is of this character, throw the short web over the back, and tie the end to the off fore foot. Pull the foot up with this web, then let it down gradually, and while doing so, press back gently upon the bridle. Holding the foot and letting it down in this way, brings it down back of the other, which weakens the resistance, and by a little effort, will induce the horse to move the other feet to an equal distance to regain his balance. Repeat this, until the horse will move back quite easily; then follow up the advantage by the control of the bridle, or get an assistant to attach a web or cord to the foot, and get behind the horse and pull the foot back, when you can press as before gently upon the bridle. To work easily and thoroughly, it is best to stop as soon as the horse becomes much excited or sulky, for an hour or two; then repeat. When

the horse will go back as required, then back while hitched to wagon, first a little down hill, then on a level, gradually in positions requiring more strength. Work gradually, but thoroughly, giving the horse time to understand what is required, thus gradually pressing him to do more, until he has learned and is willing to use his strength in this way.

PULLING ON THE HALTER.

Tie a piece of rope around the body, back of the shoulders, in the form of a girth; put on a strong rope halter, with the hitching part about ten feet in length. Lead the horse into his stall, and quietly pass the hitching part through the ring or hole in the manger, and pass it back between the forelegs over the girth, and tie around the hind leg, above the fetlock, long enough to enable the horse to go back four or five feet, before feeling restraint. When all is ready, strike upon the rope, fifteen or twenty inches from the head, with a pole in an excited manner. The instant the horse settles back to pull, the restraint comes equally upon the hind foot, which will so disable and disconcert him, that after a hard pull or two, he will jump ahead. If the horse is of a slow determined character, force back with energy. The instant the horse comes ahead, stop and caress. Then push him back by the halter, and at each repetition of settling back to a pull, make him pull as hard as possible.

This lesson must be repeated so long as there is the least disposition to pull. Hitch in the stall in this way for a few days, and as may be necessary to hitch in other places, attach to the fore leg above

the knee. The horse should be hitched in this way until there is certainty of his not pulling.

Almost any way of bringing the restraint upon the hind parts, if carried out with energy and prudence, will enable the changing of this habit. The halter can be attached to the hair of the tail, a piece of rope brought under the tail in the form of a crouper, tied together over the back, then brought forward on each side of the shoulders, and fastened to the end of the hitching part of the halter, would be perhaps a better way of doing this. When the horse is of a moderate determined character, the great point of success is in frightening and forcing back with energy, when hitched. Colts of a sanguine temperament, not accustomed to much restraint, are by far more reckless and determined than old horses. While they yield more readily than the old horse, they are more reckless at first, and would be apt to pull themselves down. Whipping and frightening the old horse with energy at the instant of his pulling, prevents this; but the colt is not likely to respond to the force of any excitement. He seems to lose all consciousness of feeling in his strong desperation, and you would be defeated.

Instead of tying the hitching part to the leg, bring round the leg and retain in the hand. Now if the horse pulls too recklessly, give loose on the halter, then lead him up again and repeat, until the resistance is so weakened that the halter can be attached to the foot with safety. It is always best to weaken the disposition in the colt to pull, by training with the war bridle, until there is prompt obedience to its restraint, when pulled upon ahead, as for bridle pulling.

PULLING ON THE BRIDLE.

Put on the war bridle, then step a little forward and sideways and give a quick energetic pull on the cord. In a few seconds, give another sharp pull, repeating at slow intervals, until the horse comes ahead a little. Immediately loosen the cord, and caress. Then repeat the pull and so continue for four or five minutes, when the horse should be allowed to rest an hour or two, and again repeat the lesson until the horse will come ahead promptly when pulled upon.

Now run the cord through the ring of the hitching post, having the horse stand three or four feet sideways from it, and give him a sharp pull. Should he come up to the post promptly, loosen the cord upon the head and caress; if not, repeat pulling until he does. When the horse comes up promptly get some one to frighten him back. Should he pull, hold against him until he comes up again and so repeat. It may be necessary to repeat this lesson two or three times to break up the habit thoroughly. Make the lesson of leading ahead very thorough. If the horse does not lead well, put the cord down on the neck and pull sideways, right and left, a few minutes, then bring the cord up to the ears and pull ahead until there is prompt obedience to the least restraint upon the halter.

PULLING ON ONE REIN.

Put on the war bridle (small loop) and pull in the opposite way, until the horse will come round promptly. Make this thorough by training two or

three times. Use a small snaffle bit and at the least intimation of resistance, pull on the line two or three times sharply. If the horse does not yield to this, put on the war bridle and give a few sharp side pulls as before. When the horse is roused to resistance, after there is an effort to change the habit, the training must be continued until there is unconditional submission.

BAD TO BRIDLE.

Put on the war bridle (small loop,) pull right and left a few times and tie down short. Handle the head quietly, rubbing the way the hair lies, gradually working up to the ears. As there is submission tie the cord a little longer. Then hold the cord in the hand, while the other is passed over the neck; as this is done, press down a little with the hand over the neck and head and pull gently with the other on the cord. When the head is yielded in the least, ease on the cord and caress and so repeat until the head can be handled freely. Tie down short enough to prevent the head being thrown up. Take the bridle in the right, bring it over the head and neck gently; with the left hold the bit lightly between the fingers. Press down with the right to hold the head steady, while the bit is being worked into the mouth gently with the left. If the horse does not open his mouth freely for the bit, press the lower lip against the teeth with the fingers, which will cause him to do so readily. Now gradually reduce the restraint, until the bridle can be put on easily without being tied. If the horse runs back and strikes, back him into a stall, put on the girth, press the cord between the legs over the girth back

to the head and tie into the part around the jaw. Now put on the bridle gently. It requires much firmness and prudence to manage horses of this character well. They are usually excitable, and however severe the restraint at first, it must be removed and the fear or disposition to resist, overcome, until the head can be handled and submitted as required. If the horse is disposed to resist the bit and it is simply desired to put on the bridle, pass the right hand under the neck around the nose and hold it firmly, while the bit is put into the mouth with the left, then bring the head part up gently and put it over the ears. If there is much resistance at any time, it ought to be immediately controlled by the restraint of the bridle.

BAD BITERS.

An old bad horse of this character, cannot be made reliably gentle, by the most thorough training. The least want of watchfulness, seems to be forever encouraging the horse to satisfy his propensity, and however thorough the training, if there is not watchfulness, the horse will be continually encouraged to break over and persevere in the habit. The main point of success is to fix and hold the horse's attention. Work up thoroughly with the war bridle, then reprove sharply for the least attempt to bite. Let the actions and language indicate confidence and power. In approaching the head, look at the eye and speak sternly, saying "Take care, sir," or something of the kind. If the eye is roguish and the ears are thrown back, bring the hand well up on the head, then down to the nose piece of the halter and grab

firmly where the check piece is attached. If there is an attempt to bite now, the hand is carried up with the head, and is held out of reach of the mouth. If the horse is not very old, with thorough training and good management the habit can be held in check, and possibly broken up; but an old bad horse of this character cannot be made safe. So long as there remains a desire to resist, the horse cannot be regarded as broken. The intention is most always held latent, liable to be developed at the least indication of weakness, and if the horse is allowed to bite in a determined manner, without instant and positive reproof, training will do but little good, and in fact the horse is liable to become worse by the experiment.

PAWING IN STALL.

Get a piece of chain about 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 small block and attach it to the foot in the same manner. When the horse attempts to paw, 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. This enlargement of the neck, while biting or sucking wind, enables us easily to prevent and cure this habit.

Have the throat latch of the halter made of nice stiff leather, and fitted neatly to the throat. Take a piece of a strap about five inches long and the same width of the throat-latch. Drive eight ounce tacks in a row through the center, 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 throat-latch, on the part coming directly under the throat. Wind a waxed end around the center and the throat-latch and knot firmly and tie the ends down in the same manner. This brings a row of sharp points across the throat when the throat-latch is buckled up, if properly adjusted and fitted, that will stick into the neck at the least effort to crib, but does not interfere in the least during the ordinary process of eating and drinking. The throat-latch 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 preventative. I would keep every young horse subject to this means of 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 throat-latch 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. This habit can sometimes be cured instantly by holding a bottle of spirits of amonia in the hand, with the thumb held firmly over the mouth, so hold-

ing 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.

GETTING CAST IN STALL.

Drive a staple into a beam, or the floor directly over the horse's head as he stands in the stall, to which attach a strap or piece of small rope of sufficient length to extend to within fifteen inches of the floor. Before retiring for the night, attach the other end of the cord or strap to the top of the halter, making it just long enough to allow the horse to put his nose to the floor. Being now unable to get the top of his head to the floor, he is prevented from rolling.

PUTTING THE TONGUE OUT OF THE MOUTH.

Make a bit of a straight, square piece of bar iron; make little nicks in the middle of one of the corners of the bit. Put the nick side up, and when the horse runs his tongue over the bit the nicks will scratch it, and cause him to keep it in its place.

TO KEEP A HORSE FROM JUMPING FENCES.

Put on a strong girth or rope around the horse's body. Fasten a ring to the girth, on each side of it, about midway up. Run a small rope through each ring, long enough to reach from the near fore

foot through the ring, and back to the near hind foot. Have straps buckled around the legs below the fetlock. Tie the rope in the straps. Fasten the legs on the off side in the same manner. Have the head free from everything. Put him in a small yard prepared purposely. Go in with your whip and make him try to jump out, and when he raises up to jump he is set over backwards. Continue making him try to jump. He will soon face the whip instead of the fence. He gets the idea that the fence knocks him down.

RUNNING IN PASTURE.

Put on the horse a nicely-fitting old five-ring halter; get a piece of thin leather from twelve to fourteen inches square (an old boot leg cut open is best); cut a hole in each corner of this leather. Now tie two corners up to the check piece of the halter, near the ears, with a couple of strings; tie the other corners to the check pieces below the eyes in the same manner. This brings the leather in front of the eyes with its corners so drawn back, above and below, as to prevent the horse looking forward above or below the eyes, though free to see in any other direction. He will not trot nor run, and is in consequence afraid to do so.

BREAKING UP WHILE TROTTING.

If the horse cannot be held down to his gait when forced on the trot, put on a light web halter. Have fitted a nice strong strap, long enough to extend from the jaw to the belly band of the harness, one end arranged with a buckle so as to enable

taking up or letting out, to fit, with a two inch ring stitched into the other end ; attach this to the halter, back of the jaw ; run the other end back between the legs, over and just back of the belly-band. Buckle two nicely fitting straps with rings in them, around the hind legs above the fetlocks. Take a strong piece of half inch rope and run it through the ring on the end of the halter strap, and tie the ends into the rings in the straps around the hind feet, regulating the length so as to enable the horse to move easily and naturally, but not longer. The horse is now free to trot, but the instant he attempts to run, the connection between the feet and head is shortened and the head is pulled back to a corresponding degree with the feet. The horse will soon learn this, and fear the effect of breaking so much as to hold to the trot at all hazards.

TO ADD STYLE.

Put on the war bridle, step in front, holding the cord in the right hand, give a slight pull. The horse will usually throw his head up, as the effect of the restraint is back and upwards, but if the nose is given back toward the breast, reverse the pull by throwing the hand up. If the nose is thrown out, pull down and back steadily, but firmly. As the horse yields, give loose and caress, repeating until the mouth is given back promptly.

SHOEING.

The system of shoeing now in general use is to fit a simple flat piece of iron, with or without corks, to the form of the foot and nailed firmly to the wall of the hoof. If this is done so as to restrict the natural freedom of the crust, or in any way induce an unnatural condition that will cause irritation and injury of the laminae, or fleshy substance, connecting and between the hoof and the coffin bone, a diseased condition is produced that results, in a greater or less degree, in some one or more of the common causes of malformation and lameness to which horses are subject. The principal causes of mischief from shoeing, directly or indirectly, are: First, lack of judgment, prudence in paring the hoof so as to simply bring it back to its natural condition. Second, in fitting the shoe so as to bring the bearing evenly and naturally on the rim of the hoof only, and nailing it on so as to interfere as little as possible with the freedom and enlargement of the hoof as it grows. And, third, in permitting the hoof to become dry and hard. In its natural state the foot will be found to be almost round, and very elastic at the heels; the frog broad, plump, and of a yielding character; the commissures open and well defined, and the sole concave. The outside of the crust from the heel to the toe, increased from a slight level to an angle of about forty-five degrees, consequently, as the hoof grows, it becomes wider and longer in proportion

to the degree horn is secreted, and narrower and shorter in proportion to the degree that horn is cut away from the ground surface. If a shoe were fitted nicely to the foot, after being dressed down well, it would be found too narrow and short for the same foot in the course of a few weeks. Consequently, if the shoe is nailed firmly, as is usually done, well back to the quarters, as the foot grows the restraint of the shoe prevents the foot from becoming wider, as before. The longer the shoe is kept on, the more increased growth of horn, consequently, the greater the pressure upon the quarters. If the bearing surface of the shoe is concave, as is usually the case, there is not only an increased lateral resistance upon the quarters on account of the growth of the foot against the restraint of nailing, but the tending of the heel to slide inward, as weight is thrown upon the foot, causes so much pressure ultimately upon the delicate fleshy structure between the hoof and the coffin bone, as to cause it to become bruised and injured. This tendency is increased by allowing the hoof and frog to become dry and hard. The increased heat induced by inflammation causes an increased absorption of moisture. The dryer and harder the hoof becomes the more it is contracted in size. Hence we see three disturbing causes of injury and contraction. If, also, the sole should rest upon the shoe at the heels, or in fastening the shoes to the feet the nails were driven too near or into the quick, there would be increased injury, which would cause a change of structure, or the formation of matter, resulting in serious or incurable lameness. In trimming and preparing the hoof for the shoe, the object should be to shape and reduce the foot to its natural size and form. If the shoes have been on a month, cut away the horn grown, more or less, ac-

according to the length of time the shoes have been on, and the quantity of horn grown. Bring down the bearing surface to almost a level with the live horn of the sole, making it nice and level. If the foot is in a healthy condition, it is seldom necessary to interfere with the sole or frog. The sole and frog throw off the old horn by exfoliation. Sometimes the shoe extends in over the sole so close and so far as to prevent this old horn either wearing or scaling off the sole. When this condition is found, it should be dressed out, particularly at the heels, at the angles formed between the bars and crust. The bars should not be cut lower than the rest of the heel, so that the bearing should be equal upon the shoe. The practice of trimming out the openings (commissures) between the bars and frog must not be permitted. The walls of this part of the hoof are quite thin, and cutting out this part, to give the heels an open appearance, only weakens the shell and induces greater tendency to contraction. The bearing surface should be leveled down nicely, but left a little higher than the sole, so that there can be no possible bearing of the sole upon the shoe. If the heels are strong and upright do not be afraid to cut them down; there is a tendency to contraction in such feet. The best rule is to cut down and level the hoof to its natural condition.

THE SHOE

Should be proportioned in weight to the size of the foot and work of the horse. If the hoof is thin-shelled, and the horse is not worked much, the shoe should be light; but if the work is hard, the shoes should be rather heavy. The form and size of the shoe should be adapted exactly to that of the foot, of an equal

thickness from the heel to the toe, perfectly level on the bearing surface.

The shoe should be fitted in size so that it will come out nice and even under the toe, when the hoof is rounded off a little from the clinches down, and come out evenly under the quarters, becoming a little wider at the heels, and long enough to extend back of the extreme bearing of the heels about a quarter of an inch.

It is customary to lower the inside edge of the bearing surface of the shoe, termed *seating*. The part coming under the crust is intended to be level, and should be, while the inside edge extending under the sole is hammered down, with the object of being lowered from the bearing of the sole. This *seating* is carried so far back to the extreme of the heel that when the shoe is set, if much wider at the heel than the foot, the level space is just outside of the crust, while the bearing comes on this concave surface. Indeed, nearly every shoe fitted by the average of smiths, is more or less concave at the heels. This should be strictly guarded against. The part upon which the heels rest should be perfectly level.

NAIL HOLES AND NAILING.

Much depends in the location of the nail holes in the shoe. If the smith were to examine the thickness of the hoof of an ordinary well bred horse, he would be surprised at its thinness, and he would see the importance, in the first place, of making the holes near the edges well forward in the toe, and of not putting the shoe so far under the shell as to betray into driving the nails too deeply into it ; or of having the nails so large as to split and shatter the hoof.

If the nail holes are made well into the shoe, and the

shoe should be a little narrow or short, and be set well under the hoof, the nails must be driven very near or into the quick, and the horse is made tender footed, or it becomes the cause of lameness. Therefore the smith must punch the nail hole so far forward in the toe as to prevent needless restraint upon the quarters, and so near the edge of the shoe as not to endanger driving the nails too deep into the crust. The nails should not be very large, nor a greater number driven than is necessary to hold the shoe.

Have the nail holes made well forward on both sides, three on the inner and four on the outer side, or nail well back on the outside quarter but well forward in the toe on the inside. If it is necessary to drive eight nails, they can be put in the same space at the toe. Care should be used not to file too deeply under the clinches, and in finishing off, the file should not be touched above the clinches, and below only enough to round the toe a little. The outside of the hoof is much more dense and hard than the inside. The small spaces between the fibers of horn are filled with a soft substance, the better to prevent a too rapid evaporation of moisture. If the whole surface of the hoof is rasped, the best part is not only likely to be cut away, but too rapid evaporation takes place, and the hoof is weakened and becomes dry, hard and contracted.

CONTRACTED FEET.

A contracted condition of the feet is produced so gradually by the causes before explained, that the owner does not notice the alteration of structure and diminished size of the hoof until the horse becomes so decidedly tender footed and unable to travel that it is found necessary to do something to restore the animal to a condition of usefulness. When the hoof is small and contracted, dress

down pretty thoroughly. The heel will be found to have grown very long and the sole much thickened. The foot may appear small, but do not hesitate to cut away until the sole is down to its natural thickness. The bearing surface of the hoof should be filed down level, while the sole must be so thoroughly and nicely thinned out that it will not touch the shoe. Fit the shoe so as to come out full and even with the hoof all the way round. Have the nail-holes well forward in the toe—the quarters and heels must now be given entire freedom. So hammer and file the bearing surface of the shoe at the heels that the outside edge will be about a sixteenth of an inch lower than the inside. This convexed form of surface should extend from the extreme of the heel well forward and gradually run out at the toe. Then fit the shoe nicely to the foot and nail it on lightly. The object next is to soften the frog and hoof: Stuff the feet with flax-seed meal and a little wood ashes and swab the hoof thoroughly with the preparation of Oil of Tar and Fish Oil, so as to keep the foot soft. The heels are now resting on two inclined planes, and the horn is so softened that its elasticity is restored, while the shoe is so nailed on that the heels are free to expand as growth and exercise gradually forces pressure upon the heels outward. The shoes should be reset often and the same care in fitting, nailing, poulticing, etc., be continued as may be necessary. The smith must be particular not to lower the outside edge of the bearing surface more than a sixteenth of an inch, with a simple flat surface from the outside to the inside edge, or the shoe must not be seated, and the lowering of the surface extend from the inside edge outward.

CORN

Appear in the angle 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 bar and crust are not properly dressed out. If the descending heel of the coffin bone meets with too much resistance by want of elasticity in the sole at this place, the sensitive sole is apt to be so bruised and injured as to cause this effect. Corns are a simple contused wound of the sensitive sole. If of an ordinary character, upon cutting away the horn there will be found a little red spot. If very bad the color will be dark purple.

If this condition is neglected, matter may be formed, or the inflammation may cause the lateral cartilages which are attached to the wings of the coffin bone to a bony condition. The corn should be well cut out and a little butyr of Antimony applied to the part, or saturate well with pine gum, which is found to exude from the sap of pine trees when cut. Fill the cavity nicely with tow and put on the shoe, so fitted that there will be no pressure upon the part. The shoes should be reset often, until a healthy condition of the parts is produced.

QUARTER CRACK.

When the hoof is dry and hard it is easily split. A hoof is often split by driving large nails. If the concussion is made very great, by driving the horse fast, over a hard road, and the hoof is thin, contracted and hard, the inside quarter is liable to burst open.

Cut down the hoof back of the crack, so that there is no pressure of that part of the bearing surface upon the shoe. Then soften and grow down the hoof rapidly by applying any good stimulating hoof ointment. A mixture of equal portions of tar lard and turpentine is excellent. Then sear with a hot iron across above the crack which will prevent the hoof splitting up as it grows

down. The fitting of the shoe should be carefully attended to, the hoof grown down as rapidly as is safe to do, and the part kept clean by covering it with a little tar or butter, or a mixture of tar and resin,

INTERFERING,

To prevent interfering, the shoe should be formed so as to bring the portion which strikes the ankle well under the hoof. To do this well, that side of the shoe should be made rather straight, with the web narrow, and the nail holes well forward in the toe. There must be no nails driven into the part of the hoof that strikes, as the clinches would be likely to cut. The object is to have the shoe fitted and filed nice and smoothly and set well under the quarters, so that after the hoof is rasped off, all it is prudent to do, and rounded down nicely, the shoe sets far enough under not to endanger its cutting, yet support the hoof and give a natural bearing to the foot.

PRICKING.

If the smith should happen to drive a nail so deep into the crust as to strike the sensitive part, he should by no means drive a nail in that hole again, so that if matter is formed by the injury there will be an outlet for it. If the horse becomes lame from being shod, examine the foot carefully. If pricked by driving any of the nails too near the quick, there will be heat and tenderness in the hoof, easily discovered. Have the shoe taken off. Cut down to where the nail strikes the quick, enough to allow any matter to escape. Poultice with flax-seed meal until the inflammation is reduced, when a little tar, resin and tallow, or something of this kind should be put on and the opening filled up with a little tow, to prevent gravel or dirt getting in, and the shoe put on again nicely. Shoes should be reset at least once in from four to seven weeks.

RECIPES.

WEAK EYES, OR HOOKS.

First, rowel below the eyes, and in the jaws—then if the eyes are much inflamed, bleed two gallons from the neck vein, and use the eye wash or eye lotion every morning; move the rowels every day, and let them remain in fifteen or twenty days. If the eye shows a white speck in the centre, there is no cure for it—the nerve of the eye is affected; but as long as the eye runs water or the eyelids swell, there is hope of it. All young horses are liable to have weak eyes.

EYE LOTION—HOW TO MAKE IT.

Take a good quality of linseed oil, 1 pint; add to it 2 oz. of spirits of ether, gum camphor, 1-2 oz. Let it stand in some warm place until the oil cuts the gum, and it is fit for use. Apply it to the eye every morning with a soft feather; get it into the eyes as well as possible. This is better in winter than the wash, but the wash is best for summer.

EYE WASH.

Take of sugar of lead, 2 drachms, white vitrol, 1 drachm, laudnum, 1 oz.; add to this 1 quart of soft water. Wash the eyes out well every morning, after first washing them thoroughly with cold water; follow this up for three or four weeks, and then if the eyes are not much better, bleed and give a mild physic. The horse should

be kept on low diet, and not over heated or worked too hard. Scalded bran and oats are good.

FISTULA, OR POLL EVIL.

Cause—A bruise or stroke of some kind produces fever in the muscles. Cure it before it breaks. Run a rowel or seton from the lower part of the swelling to the top, through the centre of the enlargement, then make the following lotions: Take of sal ammoniac, 2 oz., turpentine spirits, 1-2 pint, 4 oz. linseed oil, and 4 oz. spirits of tar; shake all well, and apply it all over the swelling every other day; let the seton stay in until all the swelling is gone down—move it every day, and when all is gone, draw it out. Bleed when you first open it; keep the part clean.

FISTULA AFTER IT BREAKS.

If you find by probing it that the pipes run down toward the surface, run down a seton through the bottom of the pipe, and annoint it with the following ointment: Take mercurial ointment, 4 oz., and cantharides, 1-2 oz.; annoint the seton every day until it runs a bloody matter. Then draw it out. If the pipes run down the centre of the shoulders, then run down a piece of nitrate of silver to the bottom, and use the liquid in the following receipt; apply it on the swelling and on the sore every day; keep the part clean with soap and water.

LIQUID FOR FISTULA, OR POLL EVIL.

Take olive oil, 6 oz., turpentine, 1-2 oz., oil of origanum, 1-2 oz., American or Seneca oil, 3 oz. Mix well and apply it to the affected part after the nitrate of silver has been used; apply this every few days, until it heals up. The cleaner you keep the part the better.

STIFF SHOULDERS, OR SWEENEY.

Rowel from top of shoulder blade down as far as there is no feeling; first cut through the skin, and then two thin fibres or striflings; use the blunt needle; move it back and forward five or six inches; draw in a tape or seton, and the next morning wet it with the tincture of cantharides; do this every day; move them every day; wash the part clean; let the tape stay in until the matter changes to blood; this is for both diseases. Let him run out if possible; he will be well in six or eight weeks; if for sweeney, you may work him all the time.

HOOF-BOUND, OR TENDER FEET.

Cause of this is fever in the feet, founder, or gravel. The symptoms are hot feet and a drawing in one inch from the top of the feet at the heels. Never have the feet spread at the heels, nor rasped above the nail holes, for it will do the foot an injury. Follow the directions given here. Use either the hoof ointment or the hoof liquid; apply it according to the printed directions. For hoof-bound or tender feet, apply it all around the top of the hoof, down one inch, every third day; if for split hoof, apply it every day. First have a stiff shoe on the foot, and cleanse the cut or crack. Never cut or burn for it.

HOOF OINTMENT.

Take resin, 4 oz., beeswax, 6 oz., lard, 2 lbs.; melt together, pour it into a pot, add 3 oz. of turpentine, 2 oz. of finely powdered verdigris, and 1 lb. of tallow; stir it until it gets cool. This is one of the best medicines for the hoof ever used. It is good for corks or bruises of the feet. Follow the directions.

HOOF LIQUID.

For tender feet, hoof-bound, etc. Linseed oil, or

neatsfoot oil, 1-2 pint of either, turpentine, 4 oz., oil of tar, 6 oz., origanum, 3 oz. Shake this well and apply it according to the directions for the ointment. This is the best if the horse has been made lame long; it penetrates the hoof sooner than the ointment; both of them should be applied at night, so the horse can go to work in the morning. He need not lose one day's work.

HOOF EVIL, OR THRUSH, GREASE HEELS.

Cause of this disease is over feed, and want of exercise or standing in a filthy stable. Symptoms, well known—a discharge of offensive matter from the frog of the foot, and around the top of the foot; often the frog of the foot will come out; then you must put a stiff shoe on the foot to keep the foot from contracting.

Cure—Bleed and physic, and poultice the foot with boiled turnip, and some fine ground charcoal; this must be done every night, for two or three nights, then wash the foot clean with castile soap and soft water, and apply the blue ointment every day; keep the horse on a clean floor and he will be well in twelve days.

HOW TO MAKE THE BLUE OINTMENT.

Take the ointment of rosin, 4 oz., 1-2 oz. of finely ground verdigris, 2 oz. of turpentine, mutton tallow, 2 lbs., 1-3 oz. oil of origanum, 1-3 oz. tinct. iodine; mix all well. This is one of the best medicines that can be made for scratches, hoof evil, or cuts, and is good to apply on fistula after the rowels are taken out.

LUNG FEVER.

Symptoms.—The horse is taken with a chill, then breaks out in a cold clammy sweat, holds down his head, never offers to lie down, but groans when made to move; his ears and legs are deadly cold. The cause of this is change from warm to cold stable, too much cold water when warm.

Cure.—Bleed four gallons from the neck vein, and take 1 oz. of aconite, add to it 1-2 gallon of cold water; drench him with one gill of it every three hours, blister him over the lungs, then give him water to drink that hay has been boiled in; add to each gallon of it 1 oz. of gum arabic, and 1-2 oz. spirits of nitre, give this every four hours; rub well; foment and rub the legs with alcohol and camphor, until they get warm; do not move him. Keep him in open stall if hot weather.

DISEASES OF THE LIVER, OR YELLOW WATER.

Symptoms.—The eyes run and turn yellow, the bars of the mouth the same; the hair and mane get loose, and he often is lame in the right shoulder and very costive.

Cure.—Give the following ball every morning until it operates upon the bowels. Take 7 drachms aloes, 1 drachm of calomel, 4 drachms of ginger, and molasses enough to make it into a ball; wrap it in paper and give it. Give scalded bran and oats, grass if it can be got. When his bowels have moved, stop the physic, and give 1 oz. of spirits of camphor, in a pint of water every morning for twelve days; rowel in the breast and give a few doses of cleansing powder.

CLEANSING POWDER.

This is good for coughs. It is used when the blood is out of order; good to restore lost appetite, and for yellow water. Take 1 lb. of good ginger, 4 oz. powder gentain, 1 oz. nitre, 1-2 oz. crude antimony; mix all well; give one large spoonful every day in wet food. This is perfectly safe.

NASAL GLEET, OR DISCHARGE FROM THE NOSE.

The cause of this is neglect in distemper, or over heat or cold. This is a white discharge from the nose, is not contagious, and can be cured.

Cure.—Stop working him; take of alum 1-2 lb., 1-2 lb. rosin, 1-2 lb. blue vitrol. Grind and mix well with 1-2 lb. of ginger; give one large spoonful every night and morning. Bleed one gallon. Keep him out of wet and do not work him.

DISEASE OF THE KIDNEYS.

Caused by feeding dirty or musty grain, hard drawing, over-loading him, or by giving him too much turpentine.

Cure.—Blister over the kidneys, and give the following pills every day: take 1 oz. rosin, 1 oz. juniper berries, ground fine, and flour, 2 oz.; make all into a stiff paste; divide into seven pills, and give one every night, then use the cleansing powder every day. If the horse has trouble to get up when he lies down, swing him up for two weeks. Give no food but that which is clean. This is half the cure. Do not work or ride him.

HOW TO MAKE THE WHITE OINTMENT.

For rheumatism, sprains, burns, swellings, bruises or any inflammation on man or beast, chapped hands or lips, black eyes, or any kind of bruises. Take fresh butter, 2 lbs., tinct. iodine, 1-2 oz., oil origanum, 2 oz.; mix this well for fifteen minutes and it is fit for use. Apply it every night; rub it in well with your hand; if for human flesh, lay on with warm flannel.

BLACK LINIMENT.

This is good to apply on poll evil, fistula. Take 1-2 pint linseed oil, 3 oz. tinct. iodine, 4 oz. turpentine, 1 oz. oil of origanum; shake well and apply it every day; rub in well with your hand; wash the part clean with soap and water before applying it. This is good on any swelling.

SORE MOUTH OR TONGUE CALLED CANKER OR THRUSH.

Symptoms.—The mouth runs water; the horse coods

or throws his hay out of his mouth. The cause of this is frequently from frosty bits being put into the mouth, or by eating poisonous weeds.

Cure.—Take of borax, 3 drachms, 2 drachms sugar of lead, 1-2 oz. alum, 1 pint of vinegar, 1 pint sage tea; shake all well together, and wash the mouth out every morning. Give no hay for twelve days.

GROGGY KNEES.

The cause of this is sprains or over driving, or by having corks and no toes on the shoes. This can be cured in the first stages, but if of long standing, there is no cure.

Cure.—Have shoes made thick at the toe and thin at the heel. Take linseed oil, 1-2 pint, alcohol, 4 oz., 1 oz. camphor spirits, 2 oz. laudnum; shake and apply to back part of legs; rub it in well every four days; still increase the thickness of the shoe at the toe.

HOW TO REMOVE WARTS.

Cut them out by the roots; take the tenaculum or hook, run it through the warts and draw it out. If it should bleed too much, take 5 grains nitrate of silver, and 1 oz. water, wet a sponge and merely touch the parts with the wash, and it will stop them. Treat it as any fresh wound. Every time you wash it scratch the scab off, so the scar will be small. This is the only sure way to treat them.

BOTS.

Symptoms.—Very much like those of colic; the ears and legs are hot, and sometimes the sweat will start in the flank and breast.

Cure.—Make 1-2 gallon of sage tea; add to it 1 oz. alum, drench with one-half of it, and if he is not better in thirty or forty minutes, give the balance, and bleed one gallon; in six hours give a mild physic; this will never

fail if given in time. Never give turpentine, as many do; it will affect the kidneys.

COLIC.

Symptoms.—The horse lies down and gets up often, and looks at his flanks; his ears and legs are cold. Cause of this is cold water, and change of food, over quantity of acid collecting in the stomach.

Cure.—Take laudnum, 1-2 oz., sulphuric ether, 1 oz., 1-2 pint water, milk-warm; drench, and if not better in forty or fifty minutes, bleed and repeat the drench. Do not allow the horse to be moved while sick.

FOUNDER, IN THE FIRST STAGES.

Symptoms.—The horse is stiff, his feet hot, and often trembles; very thirsty.

Cure.—Bleed from the neck vein three or four gallons, or until he falls, then give the following: 1-2 oz. aloes, 4 drachms gamboge, 1-2 oz. oil sassafras; make this into a pill, give it, and give him all the sassafras tea he will drink; turn up his feet and fill them full of boiling hot lard; bathe his legs in hot water, and rub them well. This will never fail to cure in forty-eight hours.

MAGRINS, OR DUMBNESS IN HORSES.

This disease makes its appearance in different forms. Frequently it is noticed by the dullness of the horse in driving, and the inclination to leave the road or bear hard upon one rein, and incline to sleep while standing; and again he appears to have lost all feeling, pays no attention to the whip, will go to sleep with a mouth full of feed; in other instances, the horse is taken with a jerking up of the head, and will run back and fall down, lie a few minutes, and get up again and go on. This is called by some, fits, but it is the same disease, and by another form caused frequently by high feeding and want of exercise;

this is by too large quantities of blood passing to the brain. It is supposed by some to be dropsy of the brain, but this is not the fact.

Cure.—Doubtful in all cases. Treatment for the dumb horse:—Bleed and physic; keep in cool stable; give regular exercise; reduce his flesh by taking strong feed from him, and give him fodder or blades of grass for the dumb horse; give him 1-2 oz. tinct. asafœtida every day for one week, and then tie the gum, open the bitts and wear it on them all the time. The same is proper in all forms of this disease. Horses in the Southern States are very subject to this disease. They call it sun-stroke. It is wrong to keep horses in hot cellar stables, without being well ventilated. The stable should be kept clean and lime applied every twelve days. Open the floors. The ammonia arising from the filthy stable is bad for this and all other diseases; hard on the eyes, etc.

DISTEMPER.

Symptoms.—Swelling under the jaws; cannot swallow.

Cure.—Bleed two gallons and physic; then if a tumor is found under the jaws, open it; if not, apply the general liniment to the swelling, or white ointment. Make it break on the outside, if possible, then give the cleansing powder for ten or twelve days in mashes. Turn him out if you can get pasture.

GENFRAL LINIMENT.

Turpentine, 1-2 pint, linseed oil, 1-2 pint, aqua ammonia, 4 oz., tinct. iodine, 1 oz.; shake it all well. This is used for different receipts, sores, swellings, sprains, etc.

SPRAIN OF THE STIFLE.

Symptoms.—The horse holds up his foot, moans when moved, swells in the stifle; this is what is called stifling; there is no such thing as this joint getting out of place.

Cure.—Bleed two gallons; foment the stifle with hot water; rub it dry, then bathe it well with the genenal liniment every morning and night; give him a mash and he will be well. Never allow any stifle shoe or cord on the foot or leg.

BROKEN KNEES.

This is caused by the horse falling on his knees. First cleanse the part of all gravel and dirt, then wash them; take 2 gills of alcohol, 1-2 oz. arnica; tie the knees up in coarse linen, and if they swell in twenty-four hours, bleed; keep the bowels open with mashes, and then apply the blue or the iodine ointment every other day. Do not use the horse until he is perfectly well, or it may cause the knees to break out again.

WORMS.

Symptoms.—The horse eats, but will not thrive; his belly gets big, his hair stays.

Cure.—Give 1 quart of strong tea made of wormwood, at night. The next day give 7 drachms aloes, 2 drachms calomel, make it into a ball and give it; give no cold water for forty-eight hours, make it milk-warm; give him two or three bran mashes, and some of the cleansing powder; if he shows any more symptoms, repeat the dose in three weeks. This will never fail.

PHYSIC BALL.

1-2 oz. aloes, 3 drachms gamboge, 20 drops oil of juniper, make into a pill with a few drops of molasses. Wrap it up in a thin paper, and grease it. Draw out the tongue with the left hand, place the gag in the mouth, and run the pill back with the right hand until it drops off; let the head down and give a sup of water. First prepare the horse by giving one or two mashes.

IODINE OINTMENT.

Get 1 oz. iodine, 1 pint alcohol, let this stand in the sun two days, and this is the tincture of iodine. Take 2 oz. tincture to 1-2 lb. lard, mix well, and you have the iodine ointment.

BIG OR MILK LEG.

This is brought on by a hurt, a want of action in the absorbent system; it is dropsy of the muscles of the legs.

Cure.—Apply liquid blisterer every three hours, until it blisters; then in six hours grease with soft oil of any kind; then in eight days wash the part clean and apply it again; repeat it for three or four times, then use the iodine ointment. If this does not remove it, apply the spavin medicine, which will.

LIQUID BLISTERER.

Take alcohol, 1-2 pint, turpentine, 1-2 pint, aqua ammonia, 4 oz., oil origanum, 1 oz. Apply this as spoken of every three hours until it blisters. Do not repeat oftener than once in eight days, or seven at least, or it will kill the hair.

MANGE AND SURFEIT.

Caused by running out in wet weather, over driving, and poor cleaning. *Symptoms.*—The horse rubs and is itchy all over, broken out in scabs.

Cure.—Bleed and physic, then take sulphur, 1-2 lb., 2 lbs. lard, mix well; grease the part affected every three or four days, stand the horse in the sun until all dries in; give him a few doses of the cleansing powder.

INFLAMMATION OF THE BOWELS.

Symptoms very much like colic, followed by purging, proceeding too often from over-doses of physic being administered to the horse, or from acid generated in the

bowels by food. In addition to the purging, considerable pain attends this disease, which is indicated by the horse frequently looking around to his flanks ; with heaviness in his breathing, a quick, feeble pulse, hot mouth, ears and legs.

Cause.—Large quantities of water when over-heated ; sudden change from warm to cold atmosphere ; plunging the horse when hot into cold water.

Remedy.—Bleed one-half gallon from the neck, and give the following: gruel, 2 quarts, prepared chalk, 1 oz., catechu, 4 oz., opium, 2 scruples. The above should be repeated every 6 hours until the purging ceases. The horse must be kept clothed and well rubbed. If there is much tenderness in the bowels, by the pressure of the hands, it will be proper to apply the liquid blisterer over the bowels.

CASTRATING HORSES WITHOUT THROWING THEM, OR THE USE OF CLAMPS OR MEDICINE.

First twitch the horse and apply chloroform to the nostrils with a sponge ; then go on one knee, in front of the left hind leg, grasp the testicles with the left hand, and cut back through the scrotum, or bag. Now you can clamp, if you see fit, but apply no medicine. Open the clamps, for it is rank poison to the horse. I do away with the clamps by using spermatic shears. They are made by having a half circle in each bit 3-8 of an inch, so when the shears are closed, the half circle comes together and forms a hole in the centre of the shears ; you place the shears above the stone, and draw the spermatic cord into the circle, then by closing the shears you cut all off but the cord, then you turn or twist the stone seven or eight times round ; this twists the artery and vein so it will not bleed when the testicles are cut off. The shears are made with a spring in the point, or the blades are united by a spring at the point.

SPAVIN AND RINGBONE MEDICINE.

Take of cantharides, 2 oz., mercurial ointment 4 oz., corrosive sublimate, 3 drms., turpentine, 3 oz., tincture iodine, 2 oz., gum euphorbium, 1-2 oz.; mix well with 2 lbs. of lard; color it if you like. Follow the directions here given. If for ringbone or bone spavin, cut off the hair from the part affected, and merely grease the lump with the ointment. Rub it in well with the naked hand. In two days grease the part with lard, and in four days wash it off with soap and water, and apply the ointment again. So repeat it every four days. If for windgalls or bog-spavin, or curb, apply the ointment every six days. for splints, the same.

JOHNSON'S LINIMENT.

Take oil origanum, 1 oz., alcohol, 1-2 pint, oil cedar, 1-2 oz., oil cloves, 1-2 oz., turpentine, 1-2 oz., olive oil 8 oz.—shake all well. This is used for almost all complaints of the muscles.

FRESH WOUNDS.

First stop the blood by tying the arteries, or by applying the following wash: 4 grains nitrate of silver, 1 oz. soft water; wet the wound with this, and then draw the edges together by stitches one inch apart, then wash clean and if any swelling in twenty-four hours, bleed and apply the blue ointment or any of the liniments spoken of. Keep the bowels open.

GREEN OINTMENT.

Take 6 lbs. lard, put into ten gallon kettle, add two gallons of water; cut jimpson weeds and fill them in and cook them four to six hours, slow, and cook all the water out; then put into a jar; add to each lb. of ointment, 1 oz. turpentine. This is a cheap and good stable ointment—good for scratches, galls, cuts, etc.

LAMPERS.

All young horses are liable to this trouble; it is nothing but inflammation of the gums.

Cure.—Bleed or scarify the gums; never burn, for it spoils the teeth, and adds to the cause of the disease. Give a bran mash; rub the gums with salt; give the cleansing powders.

EARACHE.

This is generally called flea in the ear.

Symptoms.—The horse is taken suddenly with shaking of the head and holding it to one side or the other; these attacks are generally as soon as the animal is taken from the stable into the air.

Cause.—This is frequently brought on by drenching the horse in the ear to cure fistula and poll evil. This practice should be abandoned.

Cure.—Equal portions olive oil and laudnum; shake well and drop fifteen or twenty drops into the ear every time the horse is taken. If you find, by pressing upon the under part of the ear, at the root, he flinches much, it would be proper to apply some of the liniment every few days.

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