GLEASON'S HORSE BOOK

JOHN A. SEAVERNS

Prof. Oscar R. Gleason.

GLEASON'S HORSE BOOK.

THE ONLY AUTHORIZED WORK BY

America's King of Horse Tamers

COMPRISING

History, Breeding, Training, Breaking, Buying,
Feeding, Grooming, Shoeing, Doctoring,
Telling Age, and General Care
of the Horse.

BY PROF. OSCAR R. GLEASON,

Renowned throughout America and recognized by the U. S.
Government as the most Expert and Successful
Horseman of the Present age.

PROFUSELY ILLUSTRATED.

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History of the Horse.

From the earliest ages this noble animal has been the friend and companion of man. Prized for his beauty, loved for his docility, and valued for his strength, he has ever been regarded as the highest in value and importance of all domesticated animals. In the remotest ages, as far back as authentic history discloses anything of the life and pursuits of man, we find that the horse occupied a prominent position in his service. Painters have pictured on their canvass the majesty and grace of the spirited animal. Poets have celebrated his strength and beauty in their verses, and even inspired writers have introduced amongst their most glowing descriptions the horsemen and chariots which formed a chief feature in the pomp and magnificence of those early days.

In the most ancient hieroglyphics we find him present, and always so represented as to show that, even in the remote antiquity from which they date, he had been brought into complete and serviceable subjection. In the oldest Egyptian paintings the horse is seen only in the war chariot, and in the descriptions of the siege of Troy only the Charioteer appears, from which it has been supposed that the first horses used by the Greeks were too small to be conveniently ridden. But in the lately-discovered paintings in the palace of Nimrod, at Nineveh, disinterred by Layard, and supposed to be more than three thousand years old, horsemen are exhibited both in the chase and in war.

But further back than even those distant times, in the ages

Mascot, 2.04, by Deceive--Miss Delmore.

Intelligence of the Horse.

In discussing the intelligence of animals I am aware that many persons, at the outset, would question the propriety of the term. Man has so long arrogated the exclusive possession of mind, or at least of a mind capable of rational reflection, that he is reluctant to concede the fact of its possession by the lower orders of animal life. Those acts which, in the brute creation, seem to proceed from the action of powers analogous to human intelligence, it has been usual to ascribe to an irrational faculty called instinct; a power invariable and despotic in its action, but in no degree the result of reflection; some metaphysicians even going so far as to assert that the action of animals is purely automatic, the difference in this respect between them and the automaton moved by wires and springs being that the former possess a consciousness of their acts, while the latter does not. Facts in myriads, exist which challenge the correctness of such a theory, while in almost number they assert the existence, at least in its embryonic state, of a mind capable of thought, and, to a limited degree, of reflection and comparison, with the ability to deduce conclusions from the facts which it considers.

This intelligence varies greatly in the different animal races, in some species being barely perceptible, while in others it is too conspicuous to be ignored; and between individuals of the same species there exists a difference so marked that, in the more favored ones which come under our observation, the in-

telligence is so clear as to almost startle us by the feeling that behind the full, liquid eye of the horse, or prompting the fixed gaze bent on us by our trusty canine companion, there may be a mind kindred to our own and which lacks only the power of articulate expression to respond to our thoughts by answering sentiments. It is the absence of the power of speech in animals which leaves us in doubt as to the exact degree of intelligence possessed by them. If, when the farmer says, "Carlo! the cows are in the corn—turn them out!" the dog should turn his head and reply, "Yes, sir, I'll have them out in a moment!" there could be no doubt of the intelligent interchange of thought. But the fact of his *doing* that which in the supposed case he would express, proves as conclusively his comprehension of the command and his purpose to obey.

The horse or dog, however fully he may understand the directions he receives, can give no other response than by his acts, and to words of praise or censure he can reply only by signs; these are clearly understood by us and show that our meaning is comprehended by the animal, proving a real interchange of thought. A popular author has said. "A dog may bark, a horse may neigh, but it not by these sounds that they express the delicate shades of ever-varying emotion; it is by a thousand varieties of gesture which few of us indeed can analyze but which all clearly understand. A dog converses with his master by means of his eyes and his ears and his tail, nay by every muscle of his body."

To test the existence and extent of intelligence we must determine the capacity for comprehending thought. We recognize this capacity in a child long before it can express itself in language. Its dawn is seen as the infant learns to associate certain articulate sounds with certain persons, acts, or things, and to distinguish the meaning of tones which encourage, restrain or chide it. It is only after a twelve-month or more of constant tuition, lovingly and intelligently given, that our children begin to express in language the thoughts which are awakened by our words and acts, yet the comprehension is as evident and the response as apparent before that time, for the whole mental pro-

Educating the Horse.

New Method of Haltering a Vicious or Wild Colt.

New Method of Haltering a Vicious Colt.

Having directed my attention for many years to compiling a system of educating the horse, and traveling over twenty-five States of the Union, together with nearly all the cities and towns in the Provinces of Ontario and Quebec, during the past eight years, it is highly improbable that few, if any, men are

necessity for air on the part of the horse, banishes his former feeling of sulkiness or anger and he yields to the almost irresistible impulse to spring to his feet and free his nostrils of the water.

If any one who has never applied this remedy should doubt its power, he only needs to try the experiment in a mild way on himself, when he will realize its power upon the horse.

I believe it would be impossible to devise another method so free from pain, so harmless to the horse, and yet so thoroughly efficacious as is the one here given.

To Educate a Colt to Drive before being Harnessed.

Place on him the Bonaparte bridle, as shown in engraving, with your cord in the left hand and whip in the right; the cord referred to should be about eighteen feet long; now drive him around a circle to the right about fifteen minutes; then drive him to the left about the same time. You have now educated your colt to drive, and may with safety put on your harness, observing to put the reins through the shaft tugs at his side; then commence driving him carefully for some fifteen minutes on a walk, turning him to the right and left as before directed. Do not use the whip more than sufficient to give him a knowledge of its use. Never drive a colt without blinders. It is better to first hitch him to a sulky or a cart, and do not put on breechings, but allow the cross-bar frequently to come against his heels, so that he may never be afraid, or learn to kick. Never forget, when your colt is obedient, to stop him, and walk up to and caress him.

I am unwilling to pass on to another article without more fully impressing on the minds of those who raise or break colts the necessity of kind and careful usage in educating their animals. Never approach your colt quickly. Never pull the halter or bridle off quickly. Always handle the colt's ears with great care. Never punish him on the body with anything but a whip, and with it as seldom as possible, as many colts become sulky and show signs of balking when severely whipped. It is better that you should give your colt two or three lessons each

day, as heretofore directed, at intervals of say two hours apart by this means you do not overtax his brain nor cause him to get weary. In this, as in many other cases, the wisest course is to "make haste slowly."

How to Educate a Colt to Move his Body when he Moves his Head.

Place on the bridle, then the harness; carry the reins through the shaft tug; take your position behind the horse (see engravings); now commence to drive, turning him around frequently, first to the right, then to the left, and he will quickly understand to move his body when he moves his head. By this means you are educating to the shafts, and educating not to be afraid of his heels, thus thoroughly breaking your horse at both sides and both ends.

Educating a Colt to Move his Body when he Moves his Head.

directed, to attach the appliance to the leg he paws with, reversing the straps when required, which will give a horse the

To Prevent a Horse from Kicking or Pawing in the Stall.

knowledge that when he paws he punishes himself, and the reader will see, by this treatment, the habit speedily broken up.

The habit of kicking in the stall is one that is not only disagreeable to the owner of the horse addicted to it, but is often destructive and costly, as a horse viciously inclined to that habit will sometimes even splinter the boards of the stall, and with so simple and effective a method of correcting the bad habit it should never be tolerated for a single day, and the possessor of this book would be inexcusable should he suffer it to continue in any animal owned by him.

The habit of pawing in the stall, though not so vicious in its nature as that of kicking, is yet sufficiently troublesome and unpleasant to deserve a speedy correction, and the owner of a

horse addicted to even the lastnamed fault will be more than compensated for the slight trouble caused in its removal.

It may seem needless to repeat what has before been said, in substance, that the seemingly small faults of a horse are the ones which most frequently lessen and impair his usefulness, and that the removal of any one, however trifling, adds a money value to the horse more than sufficient to compensate for the time and trouble expended.

To Educate a Horse not to get Cast in the Stall.

Drive a staple in the ceiling over the manger at the side of the stall, then another in the ceiling in the center of the stall

To Educate a Horse Not to Get Cast in the Stall.

over the horse's head; pass a small cord through the staple at the side of the stall; tie a horseshoe, or the weight of a horse-

My readers will, I doubt not, receive with kindly feelings not only the instructions on the important points of educating their horses to break off bad habits, but will profit by the ideas and examples given of the various means adopted by horse-handlers to create these habits. In the present instance, it is rarely, if ever, known that horses acquire the habit of rearing themselves, but are prompted so to do by the means used, viz., starting and stopping suddenly; pulling sharply on the reins, and then striking the animal with the whip, either of which is a sure and certain means of producing the result of causing the horse to rear up whenever you desire to move off.

The inconvenience and unpleasantness of such a habit are too plain to need more than a mention, besides its often occasioning great alarm to a timid driver; and the simple yet practical means I have given for breaking up the habit, will be found successful whenever it is tried, as it always should be where the habit exists.

To Educate and prevent a Horse from Cribbing.

Build a manger on the floor or from the floor up. In many cases this will prevent a horse from cribbing by getting his mouth below his chest.

Another method, *sure to be effective*, is to place a piece of sheepskin of long wool, eight inches wide and about three feet long, or long enough to reach from one side of the stall to the other, and on the skin sprinkle cayenne pepper; take soft soap and rub it on any part of the stall where the horse will be likely to crib. If the above instructions are strictly adhered to, and the horse is fed regularly, three times a day, there will be little danger of his ever becoming a cribber. The slight trouble which this remedy involves will be repaid a hundred-fold by the satisfaction felt in the prevention or cure of a most disagreeable habit, and one which, like every other fault, lessens the value of a horse. In using the cayenne pepper, a small quantity will be sufficient.

There are more bad results accruing from cribbing than many are aware of. From cribbing the horse may become a crib-sucker, which often results in colic, or, as it is sometimes termed,

SUPERFICIAL.
LAYER OF MUSCLES.

and sometimes most brutally, or the more sickening custom of procuring a bundle of straw or some shavings and setting them on fire under the body of the horse. Such kinds of treatment I utterly discard, and the reader will find, in another part of my book, that I give several methods which will prove effectual in eradicating this habit, only meting out sufficient punishment to secure obedience.

To Start a Balky Horse.

Below I give an excellent method of starting a balky horse, and one which will prove effectual, though it will not educate the horse to abandon the habit. When your horse balks get out of your carriage, walk up to him and commence kicking him with the toe of your boot under the fetlock joint, first one then the other using the word "shoo!" loud and quick every time you kick. Then take your seat in the carriage and use the word as before directed, when your horse will start at once. This process diverts his attention and causes him to move on.

Teaching Horses Tricks.

Many horses are susceptible of an education far more extensive than is necessary for ordinary use, and for the benefit of such persons as may desire to teach their horses something more than the usual accomplishments, whether for their own amusement, or for the purpose of seeing how far the intelligence of the animal can be developed, I have prepared a description of a variety of tricks, which, as performed by my horses, have been received with universal applause, both in the United States and in Canada. But that no person may be misled into supposing that this forms a part of my general system of educating the horse, I deem it proper to present these directions separately.

Though the tricks to be hereafter explained will add nothing of intrinsic value to the horse, nor of real benefit to his owner, yet the reader will readily see in them the demonstration of a highly important fact, viz., that horses can be taught the meaning of words, and to yield obedience to sounds to such an extent as to convince a candid mind that their intelligence is far in advance of that generally attributed to them. With these remarks I will proceed to explain the *modus operandi*, as I call attention to a variety of tricks they may easily be taught to perform. Before passing to this, let me impress on the reader some leading principles in educating the horse. First, never allow yourself to get in a hurry; impatience or excitement on your part will go far in defeating the object of your instructions. Second, do not prolong your lessons beyond twenty minutes at one time; and, especially, never use severity beyond that which may be absolutely necessary. Thus by kindness and patience in repeating your lessons at short intervals, you will surmount every difficulty and accomplish your purpose in a manner satisfactory to yourself.

not only to get up on the vehicle but to push it in front of him. After your horse has been thoroughly taught, you will discover that he is delighted to amuse you, and he will appear pleased to participate in the enjoyment of the trick.

How to Make a Horse go Lamé.

Tap him on the fore-leg till he holds it up, then caress him kindly; lead him with the left hand to the bit, and tap the left fore-leg with a stick in your right hand; repeat the word "lamé lamé, lamé," and your horse will soon learn to hold up one leg at the command.

To Educate the Horse to Walk on his Hind Feet.

Make the Bonaparte bridle, and put it on your horse; also put on a biting rig, which is no trouble, but necessary, drawing his head pretty well up and in. Now stand near his head with bridle in hand, and jerk upward, as though you desired to lift him up, at the same time repeating the words, "stand up on your hind feet!" repeat this several times, and if he does not make a move to please you, take hold of one leg, raising him up with one hand and using the bridle with the other, as before directed, not forgetting to caress him if he makes the slightest move in the direction of obedience. In order to ensure success, kindness and patience should be the ruling principles. After you have taught your horse to stand on his hind feet you will next educate him to walk upright. This can be easily done by observing the following directions. Stand in front of him, whip in hand, saying, "Get up!" then shake the whip in front of him, stepping backwards slowly, at the same time say to him, "Come here!" repeating it sharply and touching him gently with the whip on the knees. By carefully observing the above directions, you will quickly teach your horse to stand upright, and to walk on his hind feet.

How to Make a Horse Say "No."

Prick him on the neck at the terminus of the mane till he shakes his head, then remove the pin, caress him, repeat for a while, and your horse will soon shake his head when you raise

How To Buy.

. Get Correct Information.

Every horse owner sooner or later becomes a judge of what he is buying. If he depends entirely upon the lessons learned through cheats are practiced upon him by sharp jockeys, life is too short for him ever to become an adept in distinguishing vice, unsoundness, "dosed up" and used up horses as among the various tricks and swindles practiced upon the ignorant and unwary. Generally after being cheated, or absolutely swindled a few times, the breeder goes to the only correct source of information, concisely written and carefully illustrated books. He is thus enabled not only to study, but subsequently to carry in his mind what he has read and seen; he comes to compare critically the living animal with the illustrations and descriptions, and thus becomes an expert himself, and in a tenth part of the time by which he could acquire correct information in any other way. This is precisely the means used by any professional man in the acquisition of true knowledge in the pursuit of his profession, whether it be in a learned profession or in the education to practical art. Thereafter practice makes perfect.

II. The Buyer.

Suppose he is looking for stock from which to breed trotting horses. He must then consider the type of horse he wishes to breed; whether for speed alone, or for style and speed. That is, first class road horses, or large, strong, able horses, combining in as great a degree as may be large size, strength, endurance and such style as may be conformable with this class of horses.

A Fine Stallion Showing Thorough Blood.

A Light Hunting Horse.

1200 pounds, may be called a *general utility horse*. Such will command ready sale at any time, if well broken and trained, say at from \$200 to \$300 each, and if particularly nice and well matched, often at \$800 or \$900 a pair, as carriage horses when five or six years old.

III. Proportions of the Horse.

PROPORTIONS OF THE VARIOUS PARTS.

To arrive at a clear understanding of the proportions of the horse, we give an outline that will be a good study, not only for the beginner, but will be valuable for reference for any horseman, however expert he may be. This illustration combines the average measurements of six horses, accepted for perfect symmetry, and taken, says one of the most graphic and lucid of writers on the horse—two of them from celebrated stallions, two from thoroughbred hunters, and two from chargers of great value. This, therefore, will not apply to draft horses, but it will be

found that the nearer the general utility horse comes to these measurements, the better he will be.

	INCHES.
Height.....	63
Length from shoulder-point to quarter.....	66
From the lowest part of the chest to the ground.....	36
From the elbow-point to the ground	39
From the withers to the pole, just behind the ears, <i>in a straight line</i> ..	30
The same measured along the crest.....	32
Length of head.....	22
Width across the forehead.....	9 1-2
From the withers to the hip.....	22
From the stifle to the point of the hock, in the attitude shown in the plan.....	29
From the root of the tail to the stifle-joint.....	26
From the point of the hock to the ground.....	22 1-2
Length of arm from the elbow to the pisiform bone (the rear bone of those forming the upper articulation of the knee).....	19 1-2
From the pisiform bone to the ground	19 1-2
Girth varies from.....	78 to 79
Circumference of fore-cannon bone (large metacarpel or shank bone, extending from the knee to the fetlock)	7 1-2, 8, 8, 8, 8 1-2 and 9
Circumference of arm just below the elbow.....	16 1-2 to 18

The foregoing is not to be taken as a fixed rule in comparing ordinary horses, nor even those well-bred. For the hunting field, the fine saddle horse, or any of the uses to which practical men put their horses, aside from flat racing, select as many of the superior points of the horse as described, as you can find, and beware of low withers and high croup. The horse that will come to the standard that we have given in the diagram, is as a rule the horse to buy.

IV. The Cleveland Bay for Profit.

Of late years this admirable and stylish horse as improved from the old farm horse of fifty years ago, has attracted attention in the United States, and especially in the West, where many fair specimens have been imported. He often has dashes of white which do not detract from the style of any horse, and

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Morello, Winner of the Futurity Stakes, 1892.

Martha Wilkes, 2.08, by Aleyone-Ella.

The next step was putting the half-breed fillies, by thorough-breds out of Cleveland Bay mares, a second time to thorough-bred stallions; their progeny to become the hunters, while themselves and their brothers were lowered into the carriage horses; and the half-bred stallions which had been the getters of carriage horses were degraded into the sires of the new, improved cart horse.

V. The Light Harness Horse.

In many cases, where the roads are superior, and the animal is used in a vehicle of the lightest construction, to carry only one person, size is not always necessary. Very many horses of fourteen and a half hands, are exquisitely handsome and capable of very fast work. One of the best I ever knew was a St. Lawrence mare fourteen hands high, that very few large horses could get by on a smooth road—the “Baby,” as she was called—when driven on a track, always going as a pacer.

VI. Saddle Horses of all Gaits.

It is well that America's sons have taken kindly to the saddle. It is well enough for men of mature age to favor the buggy or light wagon, but every young man and woman who can, should learn to sit a horse perfectly, and to manage him at all gaits. In the South this is the case, but in the North the perfect saddle-seated rider is not so frequently found. Lately, thoroughly trained saddle horses are much sought after in our cities, and certainly there is no place where they may be so perfectly trained as in the West. It would be well for the farmer to have at least one well trained saddle horse to sell when called for. Twelve months training will put them in form. For good wear-and-tear, compact, able as a good leaper, of fine form, and undoubted bottom for any distance, the illustration showing a saddle horse of good form, will give an idea of what a saddle horse should be.

VII. The High-bred Hunting Horse.

When a long stride, great leaping powers, and ability to go long distances at high speed is required, the horse should be not less than one-half to three-quarters bred. A greater propor-

A Heavy Hunting Horse.

X. To Avoid Vices and Defects.—How to Detect.

They are legion. and he who at present buys any horse, whether for speed or work must be on his guard against them. Among the principal disabilities to be guarded against are :

1. **BONE SPAVIN, CURB, RING-BONE AND SPLINTS.**—To detect these look at the horse from before and behind for spavin and curb at the hocks; for ring-bone, at the fetlocks and for splints, below the knee. Feel the bones at all these parts for tenderness or enlargement. If they appear reject the horse instantly. He will be worthless as a sire, or for riding or driving.

2. **STUMBLING.**—Examine the knees to find if they are scarred or show the marks of previous injuries, or that have been operated upon for collosities. Then walk him over somewhat rough ground, and at a slow pace, with an entirely loose rein, to see if he trips or goes weaker on one leg than on the other. If he is a stumbler, he is the most dangerous animal a man can own, unless it be a kicker; in fact, more so than the latter, since kicking may be guarded against, when knowing the vice.

3. **KICKING.**—If this is suspected, the animal will lay back his ears if approached in an apparently careless manner, though horses do this sometimes from mere playfulness. If they are vicious, they will lay their ears more completely back, and the eyes will also denote their intention. Examine the stall where it is known they have stood for marks of the hoofs, and above all, give the animal a chance to show his propensity when the groom is not near.

4. **PULLING AT THE HALTER OR BRIDLE WHEN TIED.**—Tie him up in a close yard, with a halter he can easily break, leaving him quite alone for about half an hour, to exhibit his propensity if he will.

5. **CRIB-BITING.**—If the horse is a confirmed crib-biter, his teeth—the central incisors—will show wear where he has grasped objects to enable him to get leverage to perform the operation. Tie him out to a stump, or at a post about three feet high, and watch him, no person being in his sight.

6. **BALKING AND BACKING.**—Horses seldom balk under the saddle, when they do, they are dangerous in the extreme, often

11. **BLINDNESS.**—This is sometimes difficult to detect by the ordinary observer by looking at the eyes. In rare cases the eyes may seem natural. A blind horse, however, may be detected by his mode of progression. He will take high steps and often appear afraid to proceed.

XI. Other Faults and Imperfections.

The disabilities noticed in the previous sections are those of positive unsoundness, or else of determined vice. Some others that should not be overlooked, are easily examined by careful examination and test. These are :

1. **GLASS EYE.**—This, if not complicated with specific disease, does not interfere with sight in any respect. It is a serious defect, simply so far as looks are concerned. Usually only one eye has this peculiar white glassy appearance, the pupil perfect, and the iris quite natural. It should affect the price of the animal, only as detracting from elegance.

2. **WHITE SPOT.**—Sometimes a small white spot will appear on the eye of a young horse, generally after three years of age, and usually near the outer corner. It has a peculiar cloudy appearance, sometimes increasing to the size of a hemp seed, and occasionally larger. The duration is variable, sometimes lasting for years, and again disappearing in a short time. It really impairs the vision but little, if any. Unless its history is known a veterinary surgeon should decide whether it is incipient cataract or not. Some veterinarians have termed it spurious cataract, but this is entirely a misnomer. The name white spot describes it perfectly.

3. **ROARING.**—This is the result of obstruction in some part of the larynx or trachea, impeding the breath, and causing a peculiar roaring sound when the animal is in motion. It is rarely found in the United States, being chiefly confined to draft horses. It is often the result of chronic cough. In England it is quite common, and when present in a horse of fast work, will render him worthless for the road. It may be discovered by urging the horse to a fast gait.

For single or double light driving, all distinct colors are good. Uneven or curiously marked horses are allowable in a fancy team—as a mismatch in distinct colors—as it is called. The colors should be distinct and in strong contrast, or else harmonious. A chestnut and a dark bay would be harmonious, and yet distinct colors. So would be a chestnut and a brown; a cream with white mane and tail, and a chestnut with dark mane and tail would show a marked contrast, and yet be elegant; so would be cream-colored horses so marked. A pure white and a jet black would be the most marked contrast possible, and not for a moment admissable, except both were faultless in form and style of going. Here in fact is where the fine art lies in teams of two distinct colors: Whatever the mismatch in color, the team should be as near alike in form and carriage as possible.

XIV. Action.

There are really but two styles of action: low, smooth, safe action, and high-stepping, showy action. The latter of little account except for parade and showing off on the road in connection with fine style. A high-stepping colt is as unsafe as he ungainly. The action that is slow and safe, and fast and safe, if combined in an animal is invaluable.

A horse with really good action moves all his limbs evenly, and brings his hind legs well under him at every movement. Some horses with round action in front—paddlers they are called—are often staunch and sure-footed, but this in spite of this action, not in consequence of it. Horses that straddle behind are often exceedingly fast trotters. Yet neither of these movements are what would be sought, either in a fine saddle horse or in a good harness horse.

XV. Fast-walking Horses.

I have before stated that a perfect and fast walking gait is not only indispensable to every horse, but the most valuable gait a horse could have for every day use. Yet we seldom see a horse that will walk four and a half or five miles an hour, even

How to Feed, Water and Groom.

I. Laying the Foundation.

The feeding of horses must be either simple or complex according to the circumstances under which they are placed and the nature of the work required of them. It would, for instance, be as foolish with the farm or ordinary work horse to pamper with fire-warmed stables, highly stimulating food, and exquisite grooming, together with all the paraphernalia of blankets, hoods, bandages for the legs, and necessities of the trotting or racing stable, as it would be to allow this latter class to receive only the same care and attention usually bestowed upon the team kept solely for the plow and other drudgery of the farm. At the same time the extremes to which horses are subject, either in the farm or racing stables, might well be modified in very many cases to the health and well being either of the farm horse or the pampered and high-bred racer. That is to say, racers are often "drawn down" to fine, and the ordinary work horse too often suffers from neglect. Thus in the first class we see a number of diseases seldom shown in the stables of horses with sufficient care, while the stables of horses carefully kept seldom suffer with the class of diseases found when horses are allowed to go dirty from day to day, and often from week to week.

To commence at the beginning, the breeder who would succeed with any class of horses, should see that the mare, while carrying the foal, has sufficient food and shelter, and that the foal itself is sufficient nourished during the period of growth. Nothing is gained by insufficient shelter and food, whatever the use for which the animal is intended, and this brings us to the question of the food itself.

II. What to Feed.

In the West the feed of all horses of whatever class is oats, Indian corn, bran and hay. Whatever the work to be done, bran should always be kept, since a horse being off his feed, or slightly ailing from any cause not indicative of violent disease, bran mashes with good nursing will bring him out all right in nine cases out of ten. So, in the Winter when horses are confined to hard food, a bran-mash once a week should be given. On the farm there is nothing better than an occasional feed of roots—carrots, Swedish turnips, or mangel wurtzel—being valuable in the order named. If a peck of these could be given daily as an evening or noonday meal, the good effects of this feeding would be quickly shown. For the mares before foaling time, for the farm or draft horse, for the carriage horses of the citizen, and even for the fast driven roadster, or racer, when not being driven to exhaustive work, these will be found valuable.

The foal itself should be learned to eat roots as quickly as possible, and if the mare takes kindly to them it will not be a difficult matter for the foal to learn to eat them. As to the other food of the young colt or filly, oats alone with grass or hay, according to the season, should be allowed. In the Winter, half oats and half corn may be given with benefit, unless the young things are intended for racing or trotting, and are kept in warm stables; then Indian corn would not be desirable, as being too heating under the circumstances.

For the ordinary farm team, or other horses of slow work, Indian corn may be the main dependence in Winter, in connection with good hay; especially so if a few roots can be allowed as a portion of the daily provender. For fast working horses, sound oats and hay will be the principle dependence, but in the Winter I have always given one-third of the weight of the daily grain ration in Indian corn, and we have always thought, with decided benefit.

III. When to Feed.

The importance of strict regularity in feeding is underestimated by nine-tenths of the ordinary feeders, and by fully one-half of the stablemen having the care of well bred horses. The

horse, for whatever purpose he is used, if actively employed, should not get less than three feeds a day, besides the hay he eats during the night. All fast working horses should have four feeds a day. The hours of feeding are of prime importance. These should be, as closely as possible, at six in the morning, at noon, and at six at night, except at those pressing seasons of extra labor, when the morning feed may be an hour earlier and the evening feed an hour latter. In this case, however, nose-bags should be carried to the field, or they should be turned to the wagon at 10 A. M. and at 4 P. M. to take one-third their usual allowance, as given morning and evening, which meals, as a rule, should be rather more than the noonday feed. When corn is the main dependence as feed these lunches should be of oats, and if bruised so much the better.

Fast working horses should receive their food four times a day, at six in the morning, at ten, at two, and at nine at night. Carriage horses should be feed the same number of times, the first feed being at six, and the last after their real work for the day is done, say at nine at night, since simply going to some place of amusement at eleven o'clock or later can hardly be called work. The mid-morning and afternoon meals will depend upon the hours at which they are generally used, 9 A. M. and 1 P. M. begin the usual times for feeding.

IV. Watering.

Watering and the water used is of fully as much importance as the feeding. A horse is particular as to the water he drinks, but yet may be accustomed to any water without detriment if it be fit for human use. The water of large lakes, rivers and running brooks is best and in the order named. That of ponds without outlet or inlet the worst; in fact pond water should never be used; well water is altogether better and may be given without fear, when used constantly, but as with man, the horse accustomed to lake or river water, which is always partially soft, should be given well water, when necessity requires, with care and only in small quantities, the change being gradually made. Water should always be offered before feeding, and

DIGESTIVE APPARATUS.

- 1, Mouth.
- 2, Pharynx.
- 3, Oesophagus.
- 4, Diaphragm.
- 5, Spleen.
- 6, Stomach.
- 7, Duodenum.
- 8, Liver, upper extremity.
- 9, Large colon.
- 10, Cecum.
- 11, Small intestine.
- 12, Floccing colon.
- 13, Rectum.
- 14, Anus.
- 15, Left kidney and its ureter.
- 16, Bladder.
- 17, Urethra.

Then cover with sufficient hay to make the mess for the desired number of horses, weighing both hay and meal. Let it stand until feeding time, when the whole should be worked over and over until thoroughly mixed. If salt is given with the mess, put in the required quantity for each horse, from one-quarter to half an ounce per horse each feed. Many stablemen mix the mess half a day in advance, but this we do not like. Horses, like men, like their food fresh. An iron box is best for mixing, and it should be thoroughly cleaned after each meal.

VII. How to Make Mash, Gruel and Hay-tea.

The ordinary sweet mash, as usually made, is to take four quarts of good bran, moisten it gradually with hot water, and then mix with what boiling water will bring it up to the proper consistency for eating, covering it with a cloth and feeding either warm or cold as the animal will eat it. What salt will lie on a quarter dollar may or may not be mixed with it.

A better mash, especially for dry fed horses, is to boil two quarts of oats and a pint of linseed, for each horse, for about three hours, and then mix with it sufficient bran to bring it to a proper consistency. Cover with a cloth and feed cold. Such a mash given once a week, if the horses are on average feed, will keep their bowels in condition. If off their feed, add a little salt, and a half pint of molasses.

GRUEL is one of the best possible things for a beaten out horse. Stir gradually in a gallon of water, a pint or a quart of oat-meal, or half flour and half corn-meal, according as the horse likes it thick or thin, and fill up the pail with cold water. If the horse hesitates about drinking it, give him first a mouthful of water. If he be very tired a quart of sound ale will do him good, but under *no circumstances*, when exhausted, should he be given a feed either of grain or hay. If the horse will take nothing else, turn down a bottle of sound ale, rub him until dry and refreshed, and then feed.

HAY TEA is also a good stimulant. To make it—fill a bucket three-quarters full of bright, clean hay, pour over it enough boil-

Before work horses are littered down for the night they should be again thoroughly cleaned if necessary.

Whenever the horse comes into the stable from the plow or wagon, for the day, he should be thoroughly cleaned *when dry enough*, and if sweating or otherwise wet should be thoroughly scraped at once. The scraper is a thin, flexible piece of wood; a section of barrel hoop makes a good one.

XII. Care of the Feet.

The feet are half the horse, in fact a horse with bad feet, is as near a worthless animal as possible. Attention to the feet is therefore of the first importance. In this connection shoeing is to be attended to. Know that the blacksmith understands his business. The horse's foot should be a study, and every horseman should understand the anatomy of the foot. When the horse is brought in from work, each foot should be lifted, cleaned, and examined with the picker to see that no gravel or other hard substance has found lodgment between the shoe and hoof, or about the frog. Examine the frog to see that no substance is wedged therein, and that no nail or other sharp object has pierced the sole. If the hoofs are inclined to be hard and dry, fill them with a mixture of cow-dung and clay, or with oakum saturated with tar and petroleum. Watch them for contraction of the hoof, caused by allowing the shoe to remain on too long, or from bad shoeing. If the frog gets torn and ragged, cut the ragged edges but leave the frog intact. If the hoof be found pierced with a nail, and you are not perfectly sure you have pulled out every bit, cut it out at whatever labor it may be to you, or pain to the animal. Then dress the wound with tow saturated with tar. If the hoofs are inclined to be hard and brittle, oil them occasionally, or let the horse stand, say for an hour or two, or for a half a day on Sunday, in a box-stall of soft clay and cow-manure, coming pretty well up the hoofs.

XIII. Blanketing—When Necessary.

A blanket is always necessary when a horse is standing in the stable in Winter. A light sheet is about as necessary in Summer, during fly time. A blanket should always be thrown over the

Breeding and Raising Horses.

I. Importance of the Subject.

No subject connected with the rearing and use of stock can be of more importance to the farmer and stock-grower, the intelligent, practical business man, than that of breeding. That it is in every way more profitable to any one who rears and trains a single colt to have that colt of the very best rather than of any indifferent quality is almost too palpable to need a moment's consideration. That it is possible for every man of observation and good judgment to improve his stock is equally obvious. There is no line of work which horses are called upon to perform that has not its peculiar requirements, that can be better met by some specific kind of animal than by one chosen at haphazard. It is a matter, then, of the plainest common sense that every one who means to rear a horse for his own use should consider beforehand to what purposes he will most probably devote it. If it is designed for market, he needs no less to consult his interests by determining what markets are accessible to him, and what description of animal will be apt to find most ready sale therein, at most remunerative prices.

For the farmer who wants to breed and rear horses of all work, it would be manifestly foolish to seek a high-priced pure-blooded race, for his mares, unless the mares themselves were of such type as to render it necessary to breed to high and elegant stallions in order to obtain those medium-sized, but compact, and moderately quick-paced animals that are so well adapted to all the wants of the farmer.

On the other hand, one wanting a light and fleet animal would show his lack of judgment in a striking manner who should so disregard all the dictates of sound sense as to hope to succeed by any chance selection of either mares or stallions.

The growth of the mare is hindered ; her form is modified both by the weight of the stallion and by carrying the foal. And the foal itself is apt to lack fullness and power. Yet, it takes from the young mother that sustenance which she needs for her own development, so that she is dwarfed, while it grows up a more or less puny creature—of insufficient value to compensate for the injury done to the dam. No mare should be so used till she is at least three years old—four would be the better and more profitable age. It is said that mares which are allowed to mature, and are well treated afterwards, will not lose enough of their natural vigor to disqualify them for bringing forth good foals till after they are twenty years old ; but it is idle to expect good strong, well-formed, thrifty, and spirited offspring from a mare that is either too young or too old ; or that is subjected, even in maturity, to hard work, poor and insufficient food, and cruel handling.

IV. Principles of Transmission.

Let us next notice this principle, that *when the dam and the sire both possess a due amount of vigor, the foal will combine in itself the most marked characteristics of both, while any quality that is peculiar to either of them is apt to be prominent in the offspring.* This applies to both disposition and physical conformation.

It will be seen from this statement that no matter what the general line of policy to be pursued by the breeder ; that of *in-and-in*, or that of *crossing*, he must select his stallions and mares with the view to having one supplement the other. If the mare is deficient in any point, the horse should be full or predominant there, and *vice versa* ; and if any peculiar trait is desired, that should be very strongly developed in either sire or dam, while merely nominal in the other.

Another special point to be considered is this : that for the production of a full-formed, symmetrical, vigorous, and thrifty foal, *the mare should be proportionately larger than the horse.* An overgrown stallion, of great power, serving a mare of diminutive size, or of size somewhat less in proportion than his own, will beget her a strong embryo that will require more room and more nourishment than the mare can afford ; and the result must be weakness,

and, probably, deformity—almost inevitably diminutive size. Men's minds were particularly called to this fact in Great Britain when, during a course of years, the farmers of Yorkshire thought that by breeding their mares to the very largest stallions they could find, and without regard to the size of the mare, they could meet the demand in London for great overgrown horses, which it was then the fashion to drive in coaches and other heavy carriages. The result was a race of almost worthless creatures.

In other points than mere size, more depends upon the selection of the mare than that of the horse. The great majority are mares bred after their own stock unless the stallion is so powerful as to neutralize or overcome this physiological peculiarity; so that it is necessary for her to be of good lineage if the best results are wanted. If she has come from diseased, vicious, or in any way evil ancestry, though she may be free from perceptible taint, the bad points of her stock will very probably appear in her offspring. This principle makes it necessary to have a regard for her color and for the color that is known to have been prevalent in her line, since any dirty, vari-tinted, and otherwise disagreeable colors may appear in a foal of hers if her progenitors have had such a hue.

V. The Two Methods, "In-and-in" and "Cross" Breeding Considered.

As for the two leading methods of breeding, circumstances generally determine which the farmer or other breeder on a moderate scale is to adopt. He is now almost always under the absolute necessity of crossing; and the main point with him is, *how* to cross, in order to secure the best results. The main directions are already laid down, with sufficient minuteness to enable anyone of ordinary intelligence to judge as to the best means. One point must not be overlooked, that really to improve the stock of horses as to blood—to obtain a strain that has the power of transmitting itself, and of so continuing in a steady line of improvement, recourse must be had to pure blooded horses. The English racer or thoroughbred is almost our sole reliance in this respect: although an Arab may occasionally be found. The

others will go equally as long beyond this period. When once the time of a mare is known, the breeder can generally regulate her going to the horse so as to have the colt appear at whatever season he considers most desirable, but without this knowledge he cannot

After having being served by a horse, the mare should be allowed to stand idle awhile, as conception will be far more apt to take place if she is left to herself. If put to brisk motion, or to any strain immediately after copulation, she is apt to fail of conception. She should also be kept away from string-proud or badly castrated geldings, not only at this period, but during her entire pregnancy, as they are apt to worry her to the casting of the conception, or, at a later period, to slinking the foal.

After she has been allowed a reasonable season of quiet, moderate work will be rather beneficial than injurious; and this may be kept up until about the time for foaling. Special care should always be exercised to guard her against being kicked, heavily thrown, or inordinately strained in any way.

It sometimes occurs that at the time of foaling, a false presentation is made, producing difficulty of delivery; but no reliable instructions can be here given as to what course to pursue in these cases; and it is best to seek the aid of some skillful veterinary surgeon.

The mare which has had a colt will be found in season sometime within the next thirty days, and she ought to go to the horse at this time if she is to be bred at all. The ninth day after foaling will generally be found to be the right time. Whenever indications of heat are discovered, the matter should not be delayed, as the season may pass off and not return. After putting, the days of trial are the ninth, then, if she refuses, the seventh after this, and upon a second refusal, the fifth after this, which is sufficient to prove her.

VII. How to Know whether a Mare is in Foal.

It is often important for both breeders and traders to know whether a mare is really in foal; and one prominent writer has published the following directions for determining this point, which he says may be implicitly relied on:

tion; and if a mare once casts her foal, she is apt to do so at a corresponding period of pregnancy afterwards,—more especially if like provocation occurs.

Various other causes of abortion, some of which may be briefly referred to, for the purpose of pointing out certain preventive measures and suggesting others. Blows, strains, and any violent excitement may have this effect; and it is said that to allow a mare to see and smell food to which she has been accustomed, and of which she is fond, without suffering her to eat of it, will cause slinking. Feeding hogs or other stock upon corn in sight of a mare that is not also thus fed, is, for this reason dangerous. Sympathy, is a known cause: a pregnant mare, seeing another cast her foal, is apt to be affected in like manner. Nervous spasms, or a sort of animal hysteria, resulting from sympathy of the womb with a diseased stomach or other organ, occasionally results in causing the foal to be cast. Some affirm that a smell of blood, or of freshly slaughtered meat, will do it.

If a mare slinks because of a hurt, a strain, or some acute attack of disease, she is not apt to fall into the habit of abortion, provided proper care is taken to guard against exciting causes at a corresponding period of her next pregnancy.

When once this tendency is established, however, it is difficult to counteract it, as the slinking is more than likely to take place at times when the mare is not under observation. If symptoms of casting chance to be discovered in time, it may be prevented by promptly burning pigeon feathers (or those of other birds, if these cannot be obtained), on a hot pan, or a pan of coals, and holding them so that she will be obliged to inhale the smoke.

X. How to Raise Colts.

If the colt is healthy and thriving, he should be weaned at from five to six months old. If allowed to run with the dam after this period, he is an unnecessary burden to her, since he has already learned to pick up and devote to his own use other sustenance, and he may most judiciously be taken away. If at this time the dam is still inclined to furnish milk so copiously as to render the udder painful to her, she should be looked

Provisions must of course be made for his obtaining readily, and at such times as the wants of nature may dictate, plenty of pure water—the purer the better.

Thus much as to food, drink, and shelter. Another point of importance must not be omitted in his raising, that is, familiarizing him with his master or with whomsoever has charge of him. He should be handled sufficiently and in such a way as thoroughly to overcome all shyness, and to lead him to feel that man is his friend. This confidence once established, his training—when the proper time comes for that—will be easily and successfully accomplished; his subsequent relations with his master will be always pleasant, and his value thereby much enhanced.

And this, indeed, touches a fundamental principle in the care of all dumb beasts. Lead them to recognize that man is their friend; that they can depend on him to advance their comforts, and to secure their welfare.

XI. Mules.

The breeding and rearing of mules, so common in many portions of the United States, requires more than a passing consideration. To obtain the best results in crossing with the ass demands as much intelligent care as in the case of the horse; and the mule-breeder will find it much to his advantage thoroughly to inform himself as to how these results are to be obtained.

Many mistaken impressions prevail as to the relative usefulness of the mule, as compared with the cost of breeding and maintenance.

It is thought by the inexperienced that he is almost equally adapted to every kind of draft work to which the horse may be put; that his power as a pack-animal is much greater than that of the horse; that his endurance is greater; that he can subsist on less food; and that he demands every way less care. All these things are set down to his advantage; but in most instances the impressions are wholly erroneous. As a general thing, he is not well adapted to road or to city purposes at all. Especially are hard roads and pavements destructive to him if he is large of body and disproportionately small of leg. He is not so stout as

Flying Jib, 2.05%, by Alcorn-Middletown Marc.

- 1, Brain.
- 2, Spinal cord.
- 3, Cervical plexus.
- 4, Sacral plexus.
- 5, Pneumogastric.
- 6, Sciatic.
- 7, Sympathetic System.
- 8, Solar plexus.

THE NERVOUS SYSTEM.

SKELETON OF HORSE.

- a. Posterior iliac.
- b. Lateral iliac.
- c. Anterior iliac.
- d. Diagonal iliac.

The Breaking and Taming of Wild and Vicious Horses.

Nature of the Horse.

The horse has no reasoning faculties beyond the limits of his experience. Hence we can reason with him by acts alone. Literally, with the horse, acts speak louder than words; and hence the absolute importance of commencing every move with the horse right, for by our acts he learns. Secondly, early impressions are strong both in the human family and with the horse, and seldom, if ever, are entirely erased from memory's tablet.

Who is there in the human family that does not well remember the first impressions of his boyhood days; and as we journey on through life, what a controlling influence they exert over us; just so with the horse. Hence the great importance of having his first impressions of man, of such a nature as to convince him not only of man's superiority, but to satisfy him that man is his best friend. Obtained by a systematic course of handling, not only supreme power over him, but teach him also to repose trust and confidence in you and then never betray it. No animal has memory equal to that of the horse, and none will reciprocate a kindness or resent an injury sooner. I hold that man being on account of his intellectual resources superior to all other animals, is and has a right to be at

the head of all animal creation, for he can adopt means to overcome the strength of the horse or even use it against himself.

Always remember this: before any attempt is made to handle a horse, it is an imperative necessity that we must first consider his disposition, nature and understanding.

Names and Situations of the External Parts of a Horse.

1. Muscles.	15. Hock.	29. Heel.
2. Face.	16. Cannon.	30. Small Pastern.
3. Forehead.	17. Fetlock.	31. Large Pastern.
4. Poll.	18. Large Pastern.	32. Fetlock.
5. Crest.	19. Small Pastern.	33. Cannon or Shank.
6. Withers.	20. Hoof.	34. Knee.
7. Back.	21. Sheath.	35. Forearm.
8. Loins.	22. Flank.	36. Breast.
9. Hip.	23. Belly.	37. Point.
10. Croup.	24. Stifle.	38. Shoulder.
11. Dock.	25. Coronet.	39. Windpipe.
12. Quarters.	26. Girth.	40. Gullet.
13. Thigh.	27. Elbow.	41. Neck.
14. Hamstring.	28. Arm.	42. Jowl.

found the easiest subjects were horses of the following colors: Black, dark bay, dark brown and chestnut. Horses of iron gray, light chestnut or sorrel and light bay generally are horses of a mean disposition or a very stubborn will.

Thoroughbred horses require more hard work and longer lessons to get them under perfect control than a cold-blooded horse, but when once thoroughly taught what you want him to do he will never forget your teachings.

Question. How do you handle a whip to make a colt come forward.

Answer. Take hold of his halter with one hand (left hand), take a bow whip in your right hand, let the cracker of the whip touch him on the tail, carrying the whip directly over his back, as seen in the above engraving; touch him lightly with the whip and say "come here."

possible for the colt to throw him off. Lead him around for ten or fifteen minutes in this way. Then you can let go of the boy's legs, and one man can lead the colt. Be very careful to caution the rider not to touch his heels to the colt's side. Lead him around, say for ten or twenty minutes. Let the driver dismount and mount him again. Then put the colt away. In two or three hours bring him out again and get on him. If he should make any attempt to throw the rider the second time, let him take the left-hand line in four inches shorter than the other. That pulls the colt's head around to his side and sets him on a whirl. After he has whirled around six or eight times he becomes a little dizzy. You can then straighten up on the lines and say, "Get up," and he will move off nicely. Work as easy with him as you possibly can. I would advise that all colts, before being rode, should be thrown. Then you will have no difficulty whatever.

Handling and Driving a Colt.

Teach him not to be afraid of all kinds of objects. In the handling of a colt for driving purposes, first take an ordinary open bridle and straight bar bit and a surcingle, or a pad of harness, and run the lines through the thill straps of the harness; then step back behind the colt and take hold of the lines and commence to teach him to turn right and left by the bit. Never teach him more than one thing at a time. After you get him so he will turn quickly to the right and left by line, you then can teach him the word "whoa." Then after this has been accomplished teach him to back. Therebefore ever putting a colt before a wagon, be sure you have him thoroughly bitted and have taught him all of the above commands. Now, before hitching the colt, you want to make him familiar with everything that will be liable to frighten him on the start, such as umbrellas, tin pans, paper, fire-crackers, buffalo robes, blankets, top carriages, and in fact every object that frightens many of our horses and makes them run away. In order to control the colt, teach him that these objects are harmless, in the following manner:

Buckle an ordinary hame strap around each front limb below the fetlock joint; then take a rope twenty feet long, tie one end of this

Maud S. Showing the old style Wooden, Steel-Tired Racing Sulky.

ing careful not to inflict pain, and repeat this lesson to him every day for two or three days, and you will have him thoroughly broke. Use the same treatment for a halter puller.

Question. Can you give me any rule to buy a family horse by?

Answer. Your horse should stand sixteen hands high, the ears very small, pointed and furry inside, very wide between the ears; a large bright hazel eye standing out prominently; the nostrils must be large and thin; neck long and well cut up under the jaw; heavy muscle on top. The withers must always be higher than the hips; back broad and long hips, and close jointed.

For durability always buy a close-jointed horse, and one with fine, short hair. The finer the hair the longer-lived the horse. For a good road horse, he should measure exactly as much from between his ears and his withers as from withers to the coupling of the hip; that is, the withers should be exactly midway between his ears and

the coupling of the hip. From the point of the withers to the shoulder should be just as long as from the coupling of the hip to the point of hip by tail. The horse should measure from the point

of his withers to the bottom of his front foot fifty-seven inches, and from the point of the shoulder to the point of the hip; length of horse, sixty-two inches. Parties buying by this rule will find it invariable.

The Way to Shoe a Vicious Horse.

Take a strap and buckle around the hind foot below the fetlock joint, and take a rope ten feet long and place it through the ring upon this strap; take a wooden pin four inches long and an inch in diameter, lay directly across the hair of the horse's tail—doubling the hair over the pin makes a loop—then tie a slip-knot in one end of the rope and pass it over the end of the tail and the pin; now reach down and take hold of the rope, stepping directly behind the colt, and say to him “take up your foot, sir,” and pull the rope at the same time. After picking up his foot four or five times, by the

The Horse with Over-check.

In this illustration we see the law of curved line violated. Not only is the strap running over the head made unduly conspicuous, but a straight line running thus over an arching neck is as much out of place as a straight pole would be by the side of a bed of roses.

Again, this straight strap is not only a disfigurement of itself, but it is still further injurious to fine appearance, in consequence of taking the curve from the horse's neck and converting it into a straight line, besides wearing off and breaking to pieces the mane, which in many horses is a leading feature of beauty.

It will also be seen that the grandeur of the horse's bearing and noble pose of head are all destroyed by this peculiar method of checking which turns the eyes upward and nose outward, and makes the neck appear considerably smaller than it really is.

It is impossible to resort to a device that will more effectually destroy the handsome appearance of fine horses than does this foolish appliance for raising the horse's head by means of the overcheck. There is no beautiful object in nature but would have its beauty marred by a line that would hold it thus in constrained position.

Horse in Natural Beauty Without Check-rein.

As will be seen in the above, the horse, which is one of the most beautiful animals in existence, is largely so, because of its fine proportions and graceful curving outline.

In all her objects of beauty nature furnishes the curve. She never allows a straight line. We see this in the outer form of bird, leaf, blossom, tree, forest, mountain and planet. This is strikingly shown in the human countenance, which, when wasted by disease, loses its beauty through becoming thin, angular and full of straight lines. With returning health, the face becomes more full and more curved, and more color comes into its lines and beauty is restored.

Horsemen, in the dressing of the horse, should understand this law, as a well-cared for, well-groomed horse, cannot be improved in appearance by harness. There should be just as little of it used as possible, and every strap should be made as small as safety would allow. In short, the harness should be such as will allow the perfect outline of the animal, in all its parts, to stand freely forth.

Showing Horse Eating from a High Rack or Manger, an Unnatural Position.

Question. What do you think of horses eating from high mangers ?

Answer. It is the practice of almost every horse owner to compel his horse to eat from high racks or mangers. This is something that I do not approve of, as it is unnatural for a horse to reach up after his food. In the first place, all the chaff, hayseed, dirt, etc., are liable to get into his eyes and ears, and many times when horses are fed their grain they eat it so fast that they do not masticate it properly, and the result is that their digestive organs have to perform what their teeth ought to do.

Take and turn your horse out into a field, or say on the side of a hill, and you will never see him feeding up the hill ; he will always feed sideways of the hill or down the hill. I claim that many horses are made sprung knee, stiff necked, many times come out of the stable acting as though they were foundered, caused from the continual strain of standing and reaching up for feed, which is positively un-

natural for all dumb animals. Think of yourself getting your breakfast reaching three feet above your head for every mouthful that you get. It would be more pleasant and you would relish your meal more by having the food placed one or two feet below your mouth. I approve of having all horses fed in the following manner: Take your mangers and racks entirely out of the stall; feed the hay from the floor even with your horse's feet. In giving grain have a box made

Horse Eating his Food from the Ground, as Nature intended. The only Proper Way to Feed the Horse.

movable, and place the grain in this box, and let the horse eat that from even with his feet. He eats his grain slow, masticating it properly, and the result is that while you have had to give your horse twelve quarts of grain in feeding from a high manger, nine quarts fed from even with his feet will keep him in better condition than the twelve quarts fed from the manger; and I think that you will soon find out that my idea will save ten per cent. of food one year.

**This Engraving shows a Full Outfit, as used by
O. R. Gleason in Handling all Horses
of Vicious Habits.**

Surcingle Used by O. R. Gleason in Handling Horses.

How to Make My Surcingle.

In order to make my surcingle, have a piece of leather eight feet long, four inches wide, with rings upon it six inches apart, having it so that when it is buckled on the horse that two rings will be directly

under his body with one ring on each side of him and three rings on the top of the surcingle; one of these surcingles will be very useful and should hang in every stable.

To Educate Horses Not to be Afraid of Objects when Driving.

It is impossible to overestimate the value of the subjoined instructions respecting nervous and shying horses, therefore on this topic I wish to be particularly clear and explicit. Let the reader understand that horses take fright at objects because they fancy that those objects will harm them, and if you can by any means appeal to the horse's brain, and satisfy him that he is not going to be hurt, you have accomplished your object. And in order to do so you must have control of your horse. I do not mean by this that you are to adopt the too frequent course pursued by many, viz: subduing with the whip, or other harsh means, which will, without almost an exception, increase the fear instead of removing the habit. Again, when a horse shies, the driver commences to jerk on the reins nearest to the object, and at once applies the whip, fully determined to master his horse. Both man and horse get excited, and the horse comes off victorious, because he cannot control him by the means used, and the result is that the next time the animal is frightened it bears a two-fold character—the fear of the object and the fear of the whip punishment.

It is generally a crude habit of many persons when driving, a horse past an object of which he is afraid to begin with "whoa, boy! whoa, boy! whoa, boy!" and when the horse has passed the object, to take the whip and lash him with it, and say "I will learn you to shy," &c. Now when this treatment is pursued, I claim the horse believes that the object that he was afraid of inflicted the pain, and consequently he is made worse instead of better. Now my theory is to use the whip gently when approaching the object, and compel him to walk right up to it, and let him smell of it, stopping him, showing him that it will not hurt him.

Only use the whip when you give the word of command, speaking with force and distinction, as I believe nine-tenths of our runaways

Nancy Hooks, 201, by Happy Medium--Nancy Lee,
Showing the Bull-Beating, Pneumatic-Tire Sulky.

Another good way of breaking a horse to the cars, is to hitch your horse up beside a heavy team horse, where he cannot get away, and after he has been driven up to the cars four or five times he is then safe to drive to your single wagon.

Question. How would you break a shier?

Answer. I would first place upon him my double safety strap, which is thoroughly described elsewhere, and make him thoroughly acquainted with the beating of drums, the rattling of tin pans, floating the "Star Spangled Banner," and the shooting off firearms, fire crackers, music, &c., by driving him right up to them and giving him to understand he will not be hurt. And by repeating this lesson every day, for three or four days, your horse has become thoroughly conversant with them and will never show fear when approaching them. Always in giving these lessons to your horse, bear in mind that you must be very careful that none of the devices you use must hit him in such a manner as to cause pain.

above the hock joint. When the horse kicks the leader must expand, the result is the elastic prevents it from doing so, and the horse's habit of kicking in the stall will soon be broken up. Never use a strap or rope; if you do it will stop the circulation. In all cases use the elastic.

Question. What do you think of whirling a horse by his tail?

Answer. If you have a horse bad to harness, or will not stand to be bridled or saddled, take the halter strap in your left hand, take hold of the horse's tail with your right hand, and whirl him around eight or ten times. He will become dizzy, and the moment you let go of him he will stagger or fall. Then say "whoa;" pick up your saddle, harness or bridle, or whatever you want to put on him, and you will find that he will stand perfectly quiet. It is a quick and effective method.

Never tie your horse's head and tail together, but follow the above instructions.

him a general handling in the same way that I control kickers. After giving two lessons he will not bother you about bolting or plunging. If he should bother you in bolting on the street, or at any certain place, take him right there and handle him with the safety strap. If he should be inclined to balk, use guy lines as laid down for breaking balky horses.

Take four hame straps, or similar small straps, buckle one around each pastern. Then run a strap from the near side foot to the off side hind foot, passing it through the ring in the surcingle under the horse's body; also one from the off side front foot to the near side hind foot, leaving the straps loose enough to give the horse full use of his limbs in trotting or walking. When he kicks he will draw up his fore feet, striking on his knees. He will soon cease to kick.

Question. How do you prevent a horse from putting his tongue out of his mouth over the bit?

Answer. Get a piece of sole leather seven inches long from point to point and three inches wide. (See engraving.) Lay a straight bar bit in the middle of the leather, bringing the points up together.

cannot run or jump, as he cannot move both front feet at the same time. This can be used upon colts as well as horses.

Question. How would you keep a horse from tearing his blanket in the stall?

Answer. Sew a piece of leather about five inches square on each side of the halter, letting it come down even with his mouth; when he reaches down to grab the blanket he will have to chew the leather.

Question. How would you keep a horse from getting cast in the stall?

Answer. Put on the horse a halter; sew a ring in the halter over the horse's head; on top of the stall drive a staple and ring; at the side of the stall drive another staple and ring, take a rope ten feet long with a driving snap threaded into one end of it; feed your horse from the floor with a manger of oats. When

A Gentleman's Road Horse.

A Good General Business Horse.

his feet and legs. Then clean it off with a brush. Do not wash your horse upon coming in from a muddy drive. By following my instructions in this particular you will prevent scratches, greased heels and many other disagreeable diseases of the leg.

The Celebrated "Gleason Bridle."

For training and handling horses of all vicious habits, no ropes or cords to lacerate the mouth is recommended by me.

Having up to this time, during my professional career, used ropes in lieu of straps, for my Bonaparte and Eureka bridles, I now

The above engraving illustrates the use of my single foot-strap, which, the reader will readily see, gives the driver a double purchase

The above engraving illustrates the manner of branding a horse, showing where the brand should be placed, and which should be regulated by a law of the United States. Parties owning ranches where branding is necessary, should brand the horse on the left hind foot, and that brand should be registered. I recommend that the United States Government adopt this method in branding its horses.

Question. How would you handle a wild mustang?

Answer. In handling a wild mustang or any wild vicious horse, many times they are so dangerous that it is impossible to approach them with safety. I will lay down a rule to handle a wild and vicious mustang or western bronco. Take a half-inch rope fifty feet long, make a slip noose in one end of it, lay this on the ground, making a large loop about three and one-half feet across it, then lead the bronco into it, his front feet standing in the loop, as seen in the above engraving. The moment that he gets into the rope pull the rope, which will bring his two front limbs together; you pull to the left and the man that has hold of the bronco or mustang pull to the right; you will at once bring him to his back, as seen in the following engraving. Now you can take the mustang and put on my double safety strap and the driving bridle and handle him the same as I have laid down for handling any

him from getting up. Now put on your driving bridle, surcingle and safety strap. Commence the training by letting him get up and handling him the same as a runaway, kicker or colt.

Will You Answer these Questions ?

Can a cribbing horse be cured ? No.

Can ringbones be cured ? No.

Can spavins be cured ? Not after they have become seated.

Can heaves be cured ? No.

Can shoe boils be cured ? No.

Can blindness be cured ? No.

Can nervicular lameness be cured ? Not after long standing.

Can splints be cured ? No.

Do you approve of condition powder ? Yes, if made fresh every spring from receipts given in my book. Condition powders that lie in stores for five or ten years are not very valuable. The strength of the medicine must be gone. I would advise all horse owners not to waste their money in buying such trash.

Can contracted feet be cured ? No.

Can sprung knees be cured ? No.

Can curb be cured ? No.

Can bog spavin be cured ? No.

Can a meaner be cured ? No.

Can a corn from long standing be cured ? No.

Question. How would you break a yoke of steers and a kicking cow ?

Answer. First get your steer into a room or small yard, so that he can not run from you ; then approach him slowly, and if he runs

do not be in a hurry, but wait until he gets to the end of the room or yard; then approach him slowly, as before. A steer may run from you in this way several times; but do not try and stop him with your whip, or force him to think that he will be at all injured, until he will stand and suffer you to approach him. As soon as this is accomplished gently tie a rope around his body near the shoulders, rather loosely. Then take another strap or rope, and gently fasten one end to the near fore foot; then pass the other end over the rope or surcingle, beneath the body. This rope should be sufficiently long to allow him to run to the end of the yard without your moving, at the same time you holding the rope sufficiently firm to compel him to move on three legs. Then approach him again quietly, and so continue until he will allow you to approach and handle him as you please. Now take a short hold of the strap with your left hand, your whip in the right, which pass over his shoulders, and quietly touch him on the off-side of the head, at the same time saying, "haw," and continue this until he moves his head a little toward you. They understand what you require of them while yoked together.

If your steers have learned to run away from you, which is a common result of the ordinary method of training, put on the rope and strap to the foot. If hitched to a wagon or sled, let your man hold the foot-strap, which runs back between the steers, and the moment they attempt to run away he pulls up their feet, while you whip them over the head, which will stop them immediately and in a short time break up the habit.

Kicking Cows.

It is natural for the cow to stand while being milked, consequently the heifer knows nothing about kicking until hurt or frightened into it. The lesson in regard to heifers is therefore perfectly plain. Be careful and not hurt or frighten them. If by accident you should, and they kick, do not punish them for it. Kindness and gentle handling is the only remedy. If your cow kicks, let your reasoning for the cause be based upon the principle that she never kicked until she was injured, and the remedy will at once suggest itself. No cow was ever broken of kicking by striking with the stool or other

miles with no chance to rest themselves, crowding and pushing till they are all in a sweat and then allowed to cool off by the winds striking them through the unprotected sides of the car, and without food or water.

Railroad companies should be compelled by law to provide suitable cars for the shipment of horses. These cars should be built so as to protect the horses from the wind, yet thoroughly ventilated. Each horse should have room to rest himself and a place for water and feed.

One reason why most horses that are shipped are in bad condition for a long time, becoming acclimated, horsemen say, is that they catch cold and get themselves out of condition in the transit.

Let Congress look into this matter, order proper modes of shipping horses, and we will see a marked decrease in diseases among horses.

Special to the Farmer.

The necessity for improvement in farm stock to meet the exigencies of close times, of which considerable has been said of late, is one which does not end with cattle, sheep and swine, but includes the horse stock as well. Perhaps the improvement in these other descriptions of stock is of more importance because of their greater numbers, but a great deal can be gained by giving more attention to the character of the horse produced and maintained on the farm. Horses cannot be dispensed with on the farm, and no one makes the attempt, as the major part of the farm work is performed with their help, but the cost of their keep is a heavy burden. Many farmers do not realize this, because the food they consume is produced upon the farm; but inasmuch as if not consumed by them this food could be sold, or something saleable raised in its stead. The support of the horse stock is a very material item of farm expense. On a very large proportion of farms, if not upon the majority, the class of horses maintained is such that practically no return is secured from them beyond the labor they perform. This is a good deal, of course, but it is not enough, for with a better grade of foundation stock and more care in the selection of stallions, the production of horses can be made to contribute very handsomely to farm revenues without

Breed as good a mare as you can afford to own ; breed to as good a stallion as you feel that you can afford to use, but always keep in view the general useful qualities of the horse for any work covering good size, fifteen and one-half to sixteen and one-half hands, good strong bone, heavily muscled, good disposition, good appearance, with soundness of parts and well-gaited and high breeding, and you will not go astray. Above all, avoid the use of cheap, low bred country stallions standing at a low fee and dear at that ; also horses of unfashionable colors, and those that entail upon their stock white faces and three or four white feet. Such stock is not popular, and if buyers can be got to buy them it will be at a reduced price. A colt from a high bred horse can be raised as cheap as that from a low bred one, but when you come to sell him, the one by the high bred horse will sell for two or three times as much. Buyers appreciate the value of good blood and will pay more for it, because their experience has taught them that it is worth more and will sell more rapidly. Feed your colts liberally and they will well repay you for your liberality by making better horses at three and four years of age than they would if half fed at six years old.

I have presented these thoughts to you as I hastily jotted them down, but I have probably said enough to call your attention to the matter so that you can fully consider it.

What Errors in Feeding will Do, and How to Prevent Diseases of the Digestive Organs.

With very rare exceptions diseases of the digestive organs are results of errors in feeding, and all observations point to the conclusion that in the horse the intestines are more liable to suffer from disease than the stomach. The stomach of a horse is a simple organ, small in comparison to the size of the animal and in contrast with the volume of the intestines. It is but slightly called into action during the digestive process, and, provided the food be properly masticated and incorporated with the salivary secretions, it is arrested for a short time only in the stomach, but is passed onward into the intestinal canal, where the process of digestion is completed. On this account the intestines are more liable to disease. It is also a remark-

Oscar R. Gleason's Original Methods for Detecting Unsoundness in the Horse.

The result of an experience of over fifteen years duration, in which time he has handled over "twenty thousand horses," which, however, may seem incredible to the reader, but the truth of which he can clearly substantiate, and the fact demonstrated on referring to his Journals, giving the owners' names and addresses, the kind of horse and the character of their habits, and the date they were handled by him.

In meeting with so many unsound horses in my journeyings about the United States, I am awakened to the fact that I might enlighten many of my readers by my original methods of detecting all of the unsound points about the horse. In doing this I do not intend to make use of any scientific terms that belong to the veterinary college, but instead of which it will be my aim to use plain matter of fact language, and that which would generally occur in any and every community where people reside who admire and cultivate to improve that noble animal so highly estimated by man. In doing this it is certainly not my object to induce the reader to entertain the idea that I belong to the veterinary school. If, perchance, the reader should entertain the idea let me here disabuse his mind with regard to it. The veterinary college is an institution of a very high order, and one worthy of the patronage of the rising generation, and should receive the encouragement of the whole world.

How to Examine the Horse.

In the first place use your own judgment and do not listen to what your neighbors say. If you are in a locality where you can get a good veterinary to examine him, I would advise you to do so, unless you consider yourself fully qualified; if such is the case with the reader, I can only say go ahead.

Firing horses for any enlargement of the limb or any other cause, I consider a brutal treatment, and when left so treated, I consider him unsound.

Wolf teeth are two small teeth and found on either side of the upper jaw next to the grinders. If they set close to the grinder there is danger of their effecting the eye. They should never be knocked out as is practiced by many, but should be removed by a pair of forceps. They are peculiar to young horses or colts; after they have been abstracted, I consider the horse sound. By a careful perusal of what I have said upon the most natural causes that render the horse unsound, and a few suggestions as to the treatment of them, if I have rendered the reader any assistance and saved the noble horse, man's true reliance, any torturous treatment, I am satisfied.

THE TEETH.

A foal at birth has three molars, or grinding teeth, just through the gums, upon both sides of the upper and of the lower jaws. It generally has no incisor or front teeth; but the gums are inflamed and evidently upon the eve of bursting. The molars or grinders are, as yet, unflattened or have not been rendered smooth by attrition. The lower jaw, when the inferior margin is left, appears to be very thick, blunt and round.

A fortnight has rarely elapsed before the membrane ruptures and two pairs of front, very white teeth, begin to appear in the mouth. At first these new members look disproportionately large to their tiny abiding place, and when contrasted with the reddened gums at their base, they have that pretty pearly aspect which is the common characteristic of the milk teeth in most animals.

In another month, when the foal is six weeks old, more teeth appear. Much of the swelling at first present has softened down. The membrane, as time progresses, will lose much of its scarlet hue. In the period which has elapsed since the

cise time of the appearance of the tushes is uncertain. They may come up at the third or the fourth year ; sometimes they never pierce the gums, it being very far from uncommon to see horses' mouths of seven years without the tushes.

By the end of the fourth year the colt has certainly gained twelve teeth. By this time there should exist, on each side of both jaws, one new lateral incisor and two fresh molars, being the third and the sixth in position. The appearance of the mouth now indicates the approach of maturity ; but the inferior margin of the lower bone still feels more full and rounded than is consistent with the consolidation of an osseous structure.

The process of dentition is not finished by the termination of the fourth year. There are more teeth to be cut, as well as the fangs of those already in the mouth to be made perfect.

The colt, with four pairs of permanent incisors, has still the corner milk nippers to shed, yet while the provision necessary for that labor is taking place within the body, or while nature is preparing for the coming struggle, man considers the poor quadruped as fully developed and as enjoying the prime of its existence.

The teeth may be scarcely visible in the mouth, nevertheless such a sign announces the fifth year to be attained. There are, at five, no more bothering teeth to cut. All are through the bone and the mouth will soon be sound.

The indications of extreme age are always present, and, though during a period of senility the teeth cannot be literally construed, nevertheless it should be impossible to look upon the "venerable steed" as an animal in its colthood.

Gleason's Entire New Method of Telling the Age of a Horse.

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Question. How do you tell the age of a horse ?

Answer. There are many methods of telling the ages of horses, but I have a new method, and one that you can always tell within one or two years of their correct age, which is as follows :

UPPER JAW

LOWER JAW

A horse has forty teeth—twenty-four grinders, twelve front teeth and four tusks. A mare has thirty-six teeth—twenty-four grinders, twelve front teeth, and sometimes they have tusks, but not very often. Fourteen days old a colt has four nipper teeth, at three months old he has four middle teeth, at six months old he has four corner teeth; at one year old the cups leave the nipper teeth, at two years old the cups leave the middle teeth, at two and a half years old he sheds his nipper teeth, at three years old full size nipper teeth; three and a half years old he sheds his middle teeth, four years old full-size middle teeth; at four and a half years old sheds his corner teeth; five years old, full-size corner teeth; six years old, large cups in corner teeth, small cups in middle teeth, and still smaller cups in nipper teeth; seven years old, cups leave nipper teeth; eight years old, cups leave the middle teeth; nine years old, cups leave the corner teeth; at ten years old a dark groove will make its appearance on the upper corner tooth; at fifteen years old the groove will be one-half way down the upper corner tooth; at twenty-one years old the grooves will be at the bottom. At this age give your horse his time and let him have rest in his future days.

Vladimir, one of the Finest Percheron-Norman Heavy Draught Horses ever Imported.

The groove alluded to will be found on the corner tooth of the upper jaw, running down the middle of the tooth. When a horse is from fourteen days to six years old, I judge by the appearance of both jaws; when from six to ten years, by the lower jaw, and when from ten to twenty-one years, by the groove in the upper jaw. The above is the only true system in the world, to my knowledge, for telling a horse's age.

Gleason's Practical Illustrations of the Age of the Horse.

The Foal's Jaw at Birth.

Showing the Mouth of a Colt Two Weeks Old.

Showing the Mouth of Colt Six Weeks Old.

Showing Front Teeth of Colt at Nine Months.

Side View of Jaw of a One-Year-Old Colt.

Side View of Jaw of a Two-Year-Old Colt.

Showing Colt's Mouth at Two Years of Age.

Showing Mouth at Two and a-half Years of Age.

Showing Mouth at Three Years Old.

The Jaw of a Three-Year-Old Colt.

The Jaw of a Four-Year-Old Colt.

Showing Mouth at Four Years of Age.

Showing Mouth at Four and a-half Years of Age.

Showing Mouth at Five Years of Age.

Showing Mouth at Six Years of Age.

Showing Mouth at Seven Years of Age.

Showing Mouth at Eight Years of Age.

Showing Mouth Twenty Years of Age.

Showing the Mouth at Thirty Years of Age.

Having made a study of the horse's mouth during my fifteen years of experience, the above illustrations will be found accurate in all cases. But I will refer you to my new method of telling the age of a horse from fourteen days to twenty-one years old. Buy all horses by its instructions and you will never be deceived.

ANATOMY OF FOOT

and cheeks to become sore and lacerated, which, in a high-strung and nervous beast, causes him to balk. Now, to have your horse's teeth fixed, take a float or rasp and file off the inside edges of the teeth—just the sharp edges. Never let a man cut your horse's teeth with shears, as it is impossible to cut ivory without fracturing it. This operation of floating should be done once a year regularly. Always have the operation performed by a man of good judgment. Many a time a horse loses a grinder, then the opposite grinder is given a chance to grow, and eventually comes into direct contact with the opposite gum, making it impossible for the horse to eat at all. Examine your horse's mouth thoroughly; see that the teeth are even; if not, take a float and make them so. Many of our best veterinarians prescribe condition powders and medicines for horses that are in thin flesh, hide-bound, etc., when the proper operation upon the teeth will cure your horse without buying a lot of this trash.

HORSE-SHOEING DEPARTMENT.

Question. What do you think of horse-shoes and horse-shoeing in general?

Answer. There is no subject before the horse owners to-day that should interest them more than the subject of horse-shoeing. The force of this statement will make itself felt when you consider that there are in the United States at the present time over 14,000,000 horses, and that fully one half of them are badly crippled and almost spoiled by the sheer ignorance of the ordinary horse-shoer. I claim that more horses are made lame by this butchery than any other cause, for the reason that the majority of blacksmiths have not had the experience necessary to do the work as it should be done. They have not thoroughly mastered their profession. In order for a horse-shoer to understand the science of his profession and the anatomy of the horse's foot, it is necessary for

To Shoe a Horse for Quarter Crack or Bad Corn.

Question. How can I cure a sand or toe crack ?

Answer. Shoe the horse the same as for corn or quarter crack.

(See engravings for the above).

Question. What shall I do for a horse that stumbles when driven ?

Answer. Pare his toes; have them much lower than the heel, and use as heavy a shoe as possible, with all the weight of the shoe at the toe. This will give him the proper knee action, and prevent him from stumbling, unless he is weak in the tendons; if so,

use any of my liniments laid down in this book, rubbing them in the cords and tendons of the horse's limbs. Give him a little rest until you get him properly strengthened. Many horses stumble from nothing but weakness, and rest will cure them.

Proper Way of Shoeing for Toe or Sand Crack.

The following engraving shows a horse shod with a high-heeled shoe, which will cause him to stumble ; also will cause his tendons to become contracted and cause general disease of the limb. If you have caulks put on the shoe, have the toe caulk the same height of the heel caulk, giving the shoe an even bearing.

A Horse's Foot Perfectly Shod.

The frog, in cases where it can be, should come down level with the shoe. The above illustration shows the way all horses should be shod, except when caulks are required. Caulks should always be low, and all shoes be perfectly level, no thicker at the toe than at the heel.

Question. What are a few good general points on horsemanship?

Answer. Match horses with reference to size and motion, particularly to color, if you can.

Always have inside lines on double team quite long and back straps short.

Never check a horse if you wish him to last long.

Never feed from mangers. Let your horse eat his food from the floor even with his feet. A great many horses suffer from indiges-

Toe weight shoe

Non-paddling shoe.

*The foot ready for the shoe, showing
frog and bars as they should be left*

Front view of scoop-toe rolling-motion shoe

Hind foot shoe to balance the action.

Side weight shoe for hind foot.

Foot prepared for Charlier tip.

Foot shod with Charlier tip.

Plantar surface of foot with Charlier tip.

Right fitting.

Wrong fitting.

*a, Nail properly driven,
b, Nail improperly driven.*

Sound foot of two year old

Contracted foot.

Section across fig. 2, at x

Section across fig. 6 at x.

Section across fig. 7 at x.

Sound but flat foot.

Badly contracted foot.

SOUND AND CONTRACTED FEET.

Clamping iron.

Actual thickness of walls of hoof.

Iron for burning holes.

Clamp.

The clamp and nail remedies applied.

Quarter-crack with cross cut.

Toe crack. Wall removed to show absorption of coffin bone.

**Treated by clamping with nails.*

Cracked walls.

One effect of Quarter-Crack.

QUARTER-CRACK AND REMEDIES.

Skeleton of hoof showing cavities occupied by the foot.

FOUNDERED FEET.

Ring Bone,
after Dadd.

Bones of the foot,
after Chaveau.

Side Bones,
after Stonehenge.

Anatomy of the foot,
after Haubner.

Navicular Disease,
after Stonehenge.

RING BONE AND NAVICULAR DISEASE.

DISEASES OF THE HORSE.

Causes of Disease.

SCIENTIFIC men give three names when they speak of the causes of disease—*exciting*, *predisposing*, and *proximate*. The first may justly be termed the originators of disease; by the second is meant those more easily acted upon by causes that a more healthy animal would resist altogether; and the third is almost the disease itself. Of the causes with which we are acquainted, not many of them are alike, and their effects, that is, the disease, just as diverse.

These causes are named in the following table:

1. Electric, and other conditions of the atmosphere.
2. Food and water.
3. Overwork.
4. Poisons—animal, vegetable, mineral and zumins, or ferments.
5. Malformations, or badly-formed parts.
6. Age and decay.
7. Changes of temperature.
8. Hereditary influence.
9. Mechanical.
10. Starvation.

That the writer may be more clearly understood in regard to these causes, examples will be given in the order above stated.

The first is looked upon as the cause of the many diseases which take on an epizootic form. The second, rusty straw, and musty hay and corn fed to animals with weak stomachs. Third, riding too far and too fast, overloading, etc. Fourth, animals drinking out of leaden troughs, where pieces of old iron may be lying in the bottom, and inoculation by the virus from a glandered horse, are illustrations of animal poisons, zumins, or ferments. (See Glanders.) Fifth, a horse with point of hock inclined forward, which is the originator of curb. Sixth, an old horse or cow, with no teeth to chew its feed. Seventh, taking an animal from a warm and comfortable stable and exposing it to a cold, north-eastern storm.

CIRCULATORY APPARATUS.

Heart :

Right half, red.

Left half, blue.

Auricles, at upper end.

Ventricles, at lower end.

Arteries, red.

Veins, blue.

1, *Left carotid artery.*

2, *Left jugular vein.*

3, *Portal system.*

4, *Vessels of the liver.*

5, *Arteries of the stomach. (Celiac axis)*

6, *Vessels of the large intestine.*

7, *Vessels of the small intestine.*

8, *Artery of left kidney.*

drops of muriatic acid into the opening above once in the day, for a few days. This will destroy the disease.

Founder.—(1.) ACUTE FOUNDER.—Every school-boy is familiar with the name of founder when applied to a lame horse, but few horsemen ever comprehend the nature and seat of this affection. Founder in all its forms is inflammation of the laminae or leaves, which dovetail into each other, and bind the sensible and insensible portions of the foot together. Hence, it is called by some learned persons in diseases of horses *laminitis*, by adding the Greek word *itis*. Founder is again called by some persons fever in the feet. However, as to names, the disease is of frequent occurrence, and when left to itself, destroys many good horses by leaving them ever afterward sore and tender in *front*, as the horsemen have it.

Symptoms. The horse will scarcely move; stands upon his heels, with fore feet and legs stretched out as far as he can get to throw the weight off them. Thus, to all appearances, making the animal hollow in the breast, which appearance has given rise to the idea that the horse is chest-foundered. The hind legs are brought far in under the belly. The head of the horse is erect and high. Fever and constitutional disturbance are very great. The horse is extremely excitable, and breathing fast and laborious. Altogether, the poor suffering horse is the very picture of distress and disease.

Causes. Giving cold water when overheated, and tired from overwork. A tendency in the feet to take on inflammatory action. The animal not in proper health or condition for performing heavy or fast work.

Treatment. Place the horse in a wide and airy stall, with plenty of good straw for bedding to encourage the horse to lie down, which will relieve him very much. Indeed, so much is this the case, that it has been recommended that every foundered horse should be forcibly thrown and kept down, till the active stage of the disease has passed off. This, however, I do not advise, as the horse is excited enough without increasing it by throwing him from his feet. Rather give good bedding, and the majority of horses so affected will be ready and willing to lie down of their own accord. After the place is all fixed, and the horse moved into it, give him twenty drops of the tincture of aconite root in a cupful

1. Heart
2. Anterior aorta
3. Posterior aorta
4. Pulmonary branches
5. Venae cavae
6. Lung on right side
7. Esophagus
8. Diaphragm

INTERIOR OF CHEST SHOWING POSITION OF HEART AND DIAPHRAGM.

horse fly, *G. hemorrhoidalis*. This last fly deposits her eggs on the lips of the horse, and the former glues them to the hair of the legs. These various eggs are ultimately taken into the stomach, and in one year they have become sufficiently matured that they are thrown out to the outer world to get wings, and finally fly about and propagate their kind in the same manner as the parent stock. (See Worms.)

Humanity to Animals, Hints on.—(1.) Warm the bit in frosty weather, before putting it into the horse's mouth.

(2.) Let the horse lick a little salt from your hands whenever you offer him the bit.

(3.) Never startle a horse by striking him suddenly or unexpectedly. This caution is specially important if he has a blind bridle.

(4.) Uniformly gentle treatment will secure faithful and steady work. Anger, severity, and sudden jerking, endanger your harness, your vehicle, and your life, besides permanently injuring your horse.

(5.) Be well provided with horse-blankets, particularly at night. If you are waiting for passengers, while you look out for your own comfort by a warm fireside, or in thick wrappers, see that your faithful brute companion is also protected from the chilly air.

(6.) Wash the inside of the collar frequently with castile soap suds, and when it has thoroughly dried, gently warm the leather and soak it with oil, so as to soften it. But do not allow any oil to remain on the surface of the leather, unabsorbed.

(7.) If the shoulders are tender, feverish, and disposed to chafe, they should be well rubbed, and afterwards washed with salt water. This should be done after unharnessing, so that the parts bathed may be dry before work is resumed.

(8.) Do not be tempted by extra pay to overload your team. Overloading occasions blindness, spavin, splint, glanders, farcy, and other painful and fatal disorders, and thus risks the loss of your capital, besides injuring yourself by encouraging a cruel disposition.

(9.) See that the harness fits easily in every part, and that the shoes are tight and well put on. If there are chains connected

POSITION OF THE LEFT LUNG.

CHAMPIONS
OF THE
AMERICAN TURF.

AN AUTHENTIC ARTICLE ON OUR FOREMOST
TROTTERS, PACERS, AND RUNNERS,

BY

LESLIE E. MACLEOD,

EDITOR-IN-CHIEF "CHICAGO HORSEMAN."

Champions of the American Turf.

Training is as important a factor in the improvement and development of the horse as is breeding. In this book Professor Gleason treats of that branch of horse education which he has thoroughly mastered; and it is fitting that, as a complement to the subject-matter of the volume, a condensed treatise be presented, treating not of the method, but of the result of training in its other branch, viz., training for speed.

The great importance of training as a factor in breeding and improving those breeds of horses in which speed and endurance are prime essentials is appreciated by even novices in the study of the science of breeding. The great influence exerted by training on the improvement of a breed, generation after generation, is self-evident from the two basic principles adhered to by all learned writers in the laws of inheritance, viz.: *First*, That acquired habits and acquired capabilities are in greater or less degree transmitted from parents to offspring. *Second*, That the structural character, as well as mental organization of animals, are modified by and gradually adapted to their environments and uses. It is thus by development and by the selection for purposes of reproduction of animals that excel in special required capacities that through the courses of nature special types, or breeds, are formed.

No doubt, in the process of the ages, all our types of horses came from a common ancestry. Generations of breeding for size and strength, without regard to speed or grace, have given us, on the one hand, the massive, slow, and ponderous draft-horse, weighing a ton or more, the Norman, the Shire, and the Clydesdale; and on the other hand, breeding and training for speed for generations has given us the fleet, the lithe and gazelle-like race-horse, rarely much exceeding a thousand pounds in weight, glorying in his gift of speed, and with the finely-toned muscle and ligament, the light but dense quality of bone, the absence of all useless and clogging bulk, and the perfection of circulatory and respiratory systems that all contribute to extreme and sustained speed.

My function now, however, is no more to dilate upon the philosophy of breeding race horses than the method of training them, but the rather to sum up, historically and statistically, what has been accom-

plished through the science of breeding and the art of training applied by human intelligence with the purpose of improving the horse by increasing his natural speed and endurance.

From the earliest ages of the human race, horse-racing has held its place as the noblest sport. Just when horse-racing began we cannot say, but history records that chariot-races were a feature of the funeral games of Patroclus, in the twenty-third Olympiad, which would be about 684 B. C. The Olympic games, of which racing was a part, then bore a semi-religious character, for the belief that the dead would be appeased or gratified by the things that pleased them in life was a heritage of the early Greeks and Romans, and these games, including chariot-racing, archery, wrestling, and boxing, were generally held near some shrine or consecrated spot. The hippodrome in which these Grecian races were held was "a race-course 1,200 feet long and 400 feet wide, laid out on the left side of the hill of Kronos, and the whole circuit had to be traversed twelve times." To the chariots were harnessed two, three or four horses, and that large "fields" started is shown by the early Grecian poet Pindar, who praises a distinguished athlete of Cyrene, who brought his chariot through uninjured in a race where no less than forty chariots started. None but the rich and powerful could aspire to this kingly sport, and "even kings and tyrants eagerly contested for the palm." Among men enrolled on the list of victors were Cyclon, of Athens, the Spartan king Pausanias, and Archelaus, of Macedon.

According to Greek history, racing on horse-back dates from the thirty-third Olympiad, which would be forty years later than the chariot-racing first mentioned in connection with the funeral games of Patroclus. In the Homeric times the prizes awarded winners of horse-races at the Olympic games were said to be of great richness, but later the only prize given the victor was a garland of wild olives, cut with a golden sickle from a sacred tree, whose branches were, according to Pindar, "a shelter common to all men, and a crown of noble deeds." But the greatest honor and prestige fell to a victor in these ancient races. His name, lineage, and country were proclaimed by a herald, the garland of wild olives was taken from a table of ivory and gold, and placed on his brow, and as he marched in the sacred revel to the temple of Zeus his path was showered with costly gifts, and his name was enrolled in the Greek calendar. If an Athenian, he received

A SKETCH

OF

THE LIFE AND WORK

OF

PROF. OSCAR R. GLEASON,

THE KING OF HORSE TRAINERS.

BY

W. FLETCHER JOHNSON.

SKETCH OF THE LIFE

OF

PROF. GLEASON.

Oscar R. Gleason was born at Petersham, Worcester County, Massachusetts, on July 14th, 1856, his family name being a not uncommon one in the New England States. His father, Charles F. Gleason, was a stockman, who especially excelled in the knowledge and management of horses, and this trait was undoubtedly inherited by his son, who, at a very early age evinced a similar aptitude in a most striking degree. The elder Gleason was a man of magnificent physical proportions and powers, and was famed for his ability to conquer and tame the wildest and most refractory horses. He was always ready, and even eager to purchase horses regarded as vicious, and he never failed to make them entirely kind and gentle. For a number of years he was engaged in the manufacture of hats, etc., from palm leaves. He had six or seven establishments in different towns, and gave out much "piece work" to be done at home, in scores of houses in Massachusetts and even other adjoining States. He had, therefore, to keep many horses and wagons for cartage, and was himself on the road much of the time. "Whenever he heard," says the son, "of a runaway or vicious animal, he would go miles to buy it, claiming that only the best horses were vicious. He declared the best way to cure a runaway horse was to give him the end of the road. I never knew him to have a sick or lame horse in my life; although he gave his animals hard drives, he always took the best of care of them. He never drove less than 10 miles an hour on the road."

Oscar R. Gleason's mother was Ellen F. Drury, of Salem, Massachusetts; one of those earnest, determined and devoted mothers whose character and early teachings have done so much for the development of noble and successful manhood among the people of New England.

The family removed in 1868 to Dakota, Humboldt County, Iowa,

... A Work Endorsed by the Greatest Horsemen ...

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The Only Authorized Work by America's KING OF HORSE TRAINERS,

PROF. OSCAR R. GLEASON,

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SAVE A LARGE DOCTOR BILL OR A VALUABLE HORSE,

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Recognized by the United States Government

as the most expert and successful horseman of the present age.

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CHAMPIONS OF THE AMERICAN TURF,

by Leslie E. MacLeod, Editor of the *Chicago Horseman*, the greatest paper of its kind in the country; and a paper on the

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1

Leather
Leather
Leather

June 1st at night.

Record of date of turning 2 cows into Frank Percys pasture

June 8th Turned 2 mares in to Mrs Campbell's pasture on condition

that a successful settlement of existing difficulties with H. B.

would cancel the seasons pasturing.

June 6th

Turned Mary Whitney's daughter into E Perkins's pasture

by the season price \$1.00 each paid 5 Bushels of seed

potatoes to apply on bill at 30^c per Bushel =

\$1.50

} This contains the address of

} Merchant firm Addresses in Sweden
with whom I may correspond about seeds.

6-5-91

Chertier

W. C. C. C. C. C.

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W. C. C. C. C.

W. C. C. C. C.

W. C. C. C. C.

Association
Trade Dress

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The 22 November 1893

Gunboat Battery Building
Cleveland Ohio.

Directions obtained from
Katharine Douglas of Chicago
Robert Henderson
To be used in Will's Record

GLEASON'S
HORSE BOOK

ILLUSTRATED

GLEASON'S
HORSE
BOOK