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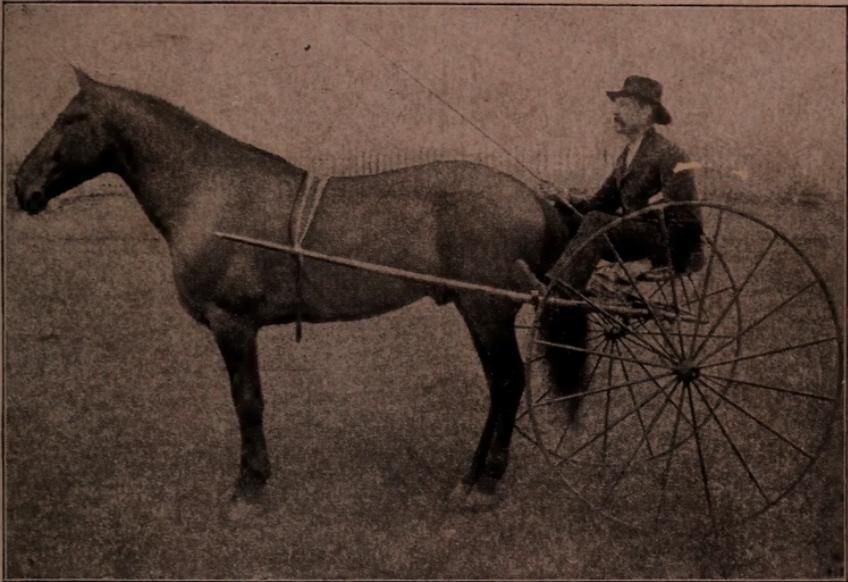




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# THE ECLECTIC HORSE TAMER, TRAINER AND EDUCATOR.



WAPSIE L. (See page 118.)

**J. W. MERCER,**

**Union Stock Yards,**

-

**Chicago, Ill.**



# THE ECLECTIC HORSE TAMER TRAINER AND EDUCATOR

✓  
By J. W. MERCER



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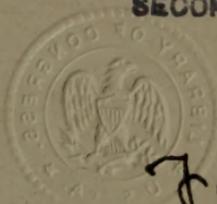
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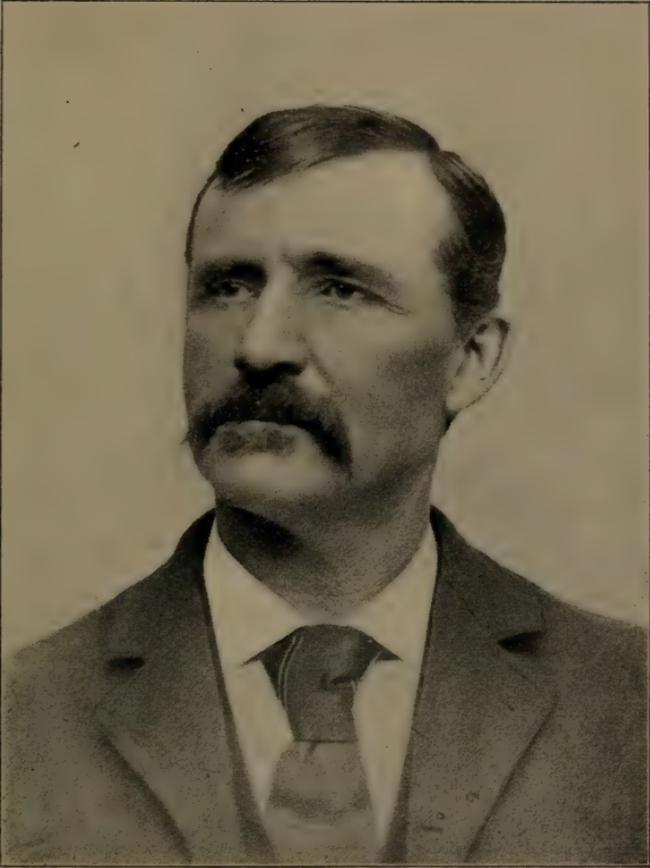
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J. W. MERCER.



## PREFACE.

PERHAPS a new work on taming and educating the horse may seem uncalled for in view of the many books on the subject now in the market and the number of trainers on the road. Yet upon investigation it will be found that none of them present anything new—the same old brutal system of throwing the horse is still in vogue.

Again, all professional horsemen—horse breakers—of the present and past, depend for their success upon their skill in making a popular exhibition out of the handling of vicious horses. While the system herein enunciated effectively precludes the possibility of developing a vicious horse.

There is fast approaching a crisis in the history of the horse—an irresistible conflict between the horse and the numerous mechanical locomotive devices which are rapidly coming into use, and the outcome must depend largely upon the conduct of the horse—especially the horse to be used for light driving. Every fault and objectionable characteristic that can be eliminated from his reputation is a point gained in his favor.

Heretofore, it has been the custom for people to be maimed and killed by the runaway horse with never so much as a murmur or complaint, because, perhaps, it was their only recourse—they must take a chance with the horse or walk. But this popular and time honored way of “shuffling off this mortal coil” is destined to experience a sudden check. The harness horse must “quit his meanness” or “get off the earth.” The knell of his “passing” is already sounding; and his only salvation lies in his complete reformation. The “Inductive” system of education herein enunciated, cannot fail to effect the radical refor-

mation of the horse, for right habits are inculcated to the exclusion of all disposition to wrong ones.

One of two conditions irrefutably exists—either I have made a wonderful discovery, meriting the everlasting gratitude of mankind; or all who have been responsible for the framing and the execution of the laws relating to the protection of the public, have been guilty of criminal negligence.

If the horse is to hold his own in the “irrepressible conflict” now confronting him, it can only be accomplished by the advancement of his education to the point that the runaway accident is wholly eliminated from the contingencies of his use. To the ordinary individual, and even to the expert horseman, this appears like an insurmountable obstacle, as it is a feature of the horse’s education taught in no book except this volume, and by no horseman except the writer. And yet, as herein elucidated, it is just as practical, and simple as the proverbial “falling off a log.” And if this work is so far successful, in disseminating “the new departure” in the education of the horse, as to result in the saving of a single human life, that, forsooth, may be sufficient excuse for its existence.

J. W. MERCER.

Chicago, Ill., Jan. 1, 1900.



## INTRODUCTION.

THERE are two remarkable features pertaining to the education of the horse: first, the real simplicity of the operation; second, the prevailing ignorance among trainers and drivers regarding the subject.

And still the wonder grows when it can be readily shown that the correct method of educating the horse is exactly what anyone at all familiar with his nature should readily infer; and further, when scarcely a person living pursues such a course—in many cases a course diametrically opposite.

The first proposition may be readily proven by experiment; the second by observation.

Take any number of horses, and conduct their education upon the “inductive system,” and in not one single instance will there be a failure. Go further, take a horse that has been spoiled by the “deductive,” or prevailing system, or lack of system, subject him to a thorough course in the “inductive,” system, and he will be completely reformed.

On the other hand, every spoiled or indifferently broken horse—and their number is legion—is a living witness of the truth of the second proposition.

The balky horse is a familiar example of the results of the deductive system of education. The driver has an idea of what he wishes the horse to do, but lacks the skill to communicate that idea to the horse, and administers punishment to the horse for not knowing what has not been taught him. Hence, the horse, acting upon a natural impulse, rears, bucks, runs backward, falls down, or sulks and refuses to move, accordingly, as

the notion affects him. A few repetitions of this lesson and a full fledged balker is evolved.

Whereas, by the "inductive," system, the horse is first instructed by means of a proper knowledge of his mental qualities, in what to do and how to do it, whence there is no occasion for punishment.

THE INDUCTIVE SYSTEM of educating the horse is based upon the theory that THE HORSE WILL WILLINGLY DO ANYTHING REQUIRED OF HIM WHEN MADE TO UNDERSTAND WHAT HE IS ASKED TO DO, AND HOW TO DO IT.

Hence, in breaking, or educating the horse, all that is necessary is to make him understand what he is wanted to do; and to show him how to do it. That is THE "INDUCTIVE SYSTEM," pure and simple.

Nor is punishment or harsh treatment necessary, but entirely foreign to the system.

His actions are to be directed, controlled, and restrained—by repetition—a right or wrong act becomes a habit.

Hence, in the education of the horse it is of the utmost importance, that his every action shall be right; and shall be repeated until he has no disposition—no power—to refuse to obey the commands given him.

### **Source of Vicious Habits.**

All the vicious habits of the horse are due to mismanagement—lack of skill and judgement—in many cases amounting to gross stupidity. The horse must not only be induced to do the right thing, but he must be effectively restrained from doing the wrong thing while he is being taught to do that right thing. Hence the value of the "grape vine hitch," the "head hitch," and the "stall hitch."

It is simply wonderful how easy and rapidly the horse will

learn when properly treated, and his tasks are brought within the sphere of his comprehension. And it is equally wonderful how fast he will acquire vicious habits when improperly treated, which necessitates double trouble for their correction.

THE HORSE LEARNS CORRECT OR VICIOUS HABITS BY THE REPETITION OF ACTS WHICH, EVENTUALLY, BECOME HABITS.

About the most difficult thing to teach very many horses is to stop and stand quietly. And, in his efforts to inculcate this very essential habit, for lack of proper methods, the trainer often, fails to accomplish the desired object, and through the means employed develops in his subject more serious faults—balking, running backwards, pitching.

When the horse is once thoroughly broken, he will endure much abuse and wrong treatment, without his being spoiled. For his habits have been formed and thoroughly established. For example: A horse that is thoroughly well broken to pull may be overloaded, beaten and abused; his shoulders may be raw sores; and still, after all, he will pull his best, when given a fair chance, despite his sufferings from sore shoulders, lameness, or any other consideration. On the other hand, the partially or indifferently broken horse, may be quite ruined, for a true puller, by overloading a few times; by trying to compel him to pull with an ill-fitting harness, or with the merest pimple upon his shoulder, to give him pain. The difference is in this—the one from force of habit, knows nothing but to pull when he hears the command; the other remembers his former pain or trouble, under similar circumstances, and repeats his former actions, and herein are involved the underlying principles of properly breaking the horse—he must be drilled upon every act, with its accompanying signal, until he knows no resistance or refusal—until he obeys automatically.

THE HORSE LEARNS TO DO A CERTAIN THING BY DOING THAT THING, NOT BY DOING SOMETHING ELSE.

### **Controlling the Horse.**

The horse's ignorance is the trainer's strongest hold—the secret of his success. And happy is the trainer if that ignorance is complete. For then there are no wrong impressions to eradicate before the right can be inculcated. If the horse is haltered for the first time, and, at once, tied fast before he has learned the use of the halter, and become submissive to its restraint, he is very certain to pull upon the halter, and make frantic efforts to effect his release. Whereas, if, before tying him fast, he has been educated thoroughly in the use of the halter, no matter how restive he may become, he will make no determined effort to break away. But, if this preliminary education is neglected, and the horse repeats his first pull upon the halter a few times, he is quite liable to develop into a chronic halter puller.

If the first, or any subsequent time before he is well broken to pull, the horse is overloaded, becomes restive, flies back in the harness, and refuses to go up into the collar and pull steadily, he has taken the first step to become a confirmed balky. This act has only to be repeated often enough, and he is completely spoiled.

Suppose you attempt to examine the horse's mouth, perhaps, to ascertain his age, and he resents this familiarity, by simply tossing his head; you make another attempt he again successfully resists by tossing his head; he has now acquired the "cue" to successful resistance, and may persist in the habit as long as he lives, if no systematic efforts are made to overcome it.

There are various other equally annoying ways horses have

of resisting having their mouths examined—rearing, striking palling back—all acquired by a repetition of their first act of successful resistance. Hence, the vital importance of effective restraint and control, in the incipient stages of any, and all over acts of insubordination, however insignificant, for, by repetition they become life-long habits, more or less annoying.

### **The Runaway Horse**

Is a striking, and often disastrous example of the effect of the repetition of a wrong act, for it is a well known fact that the horse that has even once indulged his predisposition to run away, can never, thereafter, be trusted. And, when the act has been repeated a few times, it becomes quite impossible to restrain him, in the presence of the inciting cause. Whereas, if the horse had been subjected to the proper treatment, previous to his first indulgence, he would have been entirely indifferent, to the cause which had so excited his terror.

It is unnecessary to indulge in a protracted argument to prove that most—at least a large percent—of the horses sent to market are indifferently, and many viciously broken. It is only necessary for one to observe the operations of “the hitching gang” at the Union Stock Yards horse market, for a time, to be convinced of the affirmation of the proposition.

Like all other branches of business in which men engage for gain, the farmer and the breeder raise horses for profit. And like all other enterprises, the better finished, and the better adapted the product is to its intended purpose, the more valuable it is, and the more ready its sale. This is doubly true of the horse, and so generally true is it that horses sent to market are lacking in proper education, or viciously broken, as to cast a depreciating suspicion upon all. Even though when tested, and no overtact of viciousness is developed, yet there remains

a suspicion, a distrust which militates against the value of the animal. But when horse after horse is tested, and shows his verdancy, or viciousness, then suspicion merges into a reality, re-acting adversely upon the value of all the horses on sale. It is impossible to approximate the aggregate loss to the trade resulting from this overhanging cloud of suspicion. Many of these horses are utterly worthless, being but a source of perplexity to their owners.

Suppose every horse offered for sale were known to be thoroughly and reliably broken—not as horses are so called broken, but as horses should be broken—perfect models of intelligent horse-hood: then the intending purchaser would not have to take into consideration the contingency of the horse's conduct at all.

Now, this is a practical problem which farmers and breeders have in their power to solve for themselves; and to their own great advantage. It is for them to say whether they shall continue in the same old ruts, or consult their own interests, and that of all who have to do with the horse, by putting into practice the more rational and up-to-date methods.

There is yet another problem of vital importance to be considered, and met, in connection with the horse interests—that very formidable rival—the automobile. And, perhaps, the most insurmountable obstacle in the way of the horse's continued supremacy as a motory factor for business and pleasure, over his more docile and tractable competitor, is the long trail of blood and disaster in the wake of his runaway contingent. If he is to hold his own, in any measure, he must at once, and forever eliminate from his future escutcheon this baleful propensity.

Now, while accidents arising from runaways are so common as to be reckoned unavoidable, the fact remains that in every case a runaway is the result of incompetency on the part of the

one who broke the horse, improper education or incomplete education. Education, in its more comprehensive sense, is the better term to use.

The great mistake consists in the fact that the horse's education is concluded when it is but fairly begun; he is taught to start and to stop; to go forward and perhaps backward; to turn to the right and to the left; and here his education ends. Whereas, he should have special instructions to prepare him for all possible emergencies that he may be called upon to meet; the wagon or carriage turning over or breaking down; the unhitching or breaking of the harness, whereby the vehicle is suddenly forced upon his heels or quarters; and all similar accidents which are liable to occur during his varied and eventful life.

It may be said that the life and the limbs of the whole human family are in jeopardy from the viciously educated horse; for it is not necessary for one to engage in his use to meet death at his "hands." Only go upon the street at night or high noon, and a runaway horse is liable to dart from an alley or cross street and run you down to your death. Hence the vital importance of giving special attention to these features of the horse's education.

To be sure all these branches require special instruction, by competent teachers, with other implements than the whip and club.

By way of illustration, imagine a fine, spirited young horse of, perhaps, more than ordinary intelligence. He has received the ordinary course of primary instruction given young horses in "breaking," and has always deported himself in the most decorous manner; consequently, is considered safe, as horses go, until some emergency arises wherein his education, or lack of education, is put to the test. Suddenly, while descending a declivity, the breast strap breaks; the carriage is forced upon

his heels; instantly the erstwhile docile animal is transformed into a most desperate and unmanageable brute. He follows his natural instinct to flee from what frightens him, and to employ his heels in the destruction of a real or imaginary foe. Whereas, a few special lessons administered for the special purpose of acquainting the horse with the harmless character of such occurrences, and how to act his part in such emergencies, catastrophies of the kind may never occur. The horse is capable of very great accomplishments; and it is only a species of criminal negligence which permits his education on these most important points to be so sadly neglected.

The time was, and not long since, when the horse, aside from the railroad, was about all the terrestrial locomotive power available. Then one was almost obliged to take a chance with fate. But with the advent of the bicycle, the electric car, and still more so the automobile, the necessity for using the horse is fast passing away. And if his use, and usefulness is to be continued, there must come a revolution in his education, whereby as many as possible of his undesirable qualities may be eliminated from his attributes.

The horse of the future must be quite a different animal from the horse of the past, otherwise "the passing of the horse," will be much accelerated.



## THE INDUCTIVE SYSTEM.

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**EXPLANATION** —What I have chosen to call "THE INDUCTIVE SYSTEM" of educating the horse has been in partial practice from time immemorial; but not as a system—only incidentally. As a scientific system, every species of punishment and abuse is entirely eliminated, and the horse is "induced" rather than coerced, to yield, or to perform an act, and from the first, his confidence and regard is to be cultivated, and never a cause given him to distrust man. His domestication is to be made complete, to insure which, his education should be commenced when but a few days old. See "Treatment of the Foal." But no matter when begun, the same kind, considerate treatment must be vouchsafed him.

**T**HE inductive system of educating the horse is based upon these fundamental principles: the horse is a creature of habit; he is governed by his natural timidity, actuated by impulse, and destitute of reasoning faculties; he has a very retentive memory; with him, repeated acts become fixed habits—right or wrong; when by proper restraint, and direction, he is induced to do the right thing and not allowed to do the contrary, that becomes his habit and incentive to action. This system assumes that the horse is ever ready and willing to do whatever is required of him if it is only brought within his comprehension. And when he fails to do the right thing it is not from any perversness on his part, but lack of skill in the trainer to make him understand what is desired. And to punish him for his apparent perversity is evidence of the ignorance on the part of the trainer. What would be thought of a school teacher who should call up a pupil—a beginner—and punish him because he was unable to pronounce, or spell a word that he had never before seen or heard of? By common consent, such a teacher would be pronounced drunk, a fool or a knave, and utterly unfit for his occupation.

The same is doubly true of the trainer who is guilty of punishing the horse for not knowing what he has not been taught. And such a trainer has no place in the inductive system.

If the horse is to hold his own in the fierce competition with the various mechanical locomotive devices, he must be placed upon his best behavior. He must leave off all his time honored vices; and the inductive system of education is the only available means for accomplishing the desired end.

### **Hard To Bridle,**



ILLUSTRATION NO. 1.

Many horses are hard to bridle; while many resist having their heads touched, or handled in any way.

Sometimes the trouble is about the ears or top of the head;

some horses there are that make no resistance to being bridled, but resist having their mouths touched or examined.

These various forms of the same general vice have all resulted from the repetition of a simple act of successful resistance, which like all other vices of the horse could have been much more easily prevented at the out set than overcome after having been practiced indefinitely. It is the repetition of the act that develops, and confirms the habit.

#### TREATMENT.

The treatment is similar for all such cases. Back the horse into a strong stall—see illustration 1—put on his head a strong, five-ring halter; have a tie ring, or staple near the bottom of each side of the stall; another at each side of the stall about even with the point of the shoulder; and another on each side, about even with the top of the head. Now tie him up snug and fast with this six guy ropes. The object of this arrangement is to make resistance impossible; at the same time teaching the horse that no harm will come to him by reason of having the offending portions of his head handled.

Now handle, rub, and caress all parts of his head, giving particular attention to the parts and features where resistance is most pronounced: ears, nose, mouth, chin—bridle and unbridle repeatedly. This like all other items in the education of the horse is a matter of repetition—of how many times.

When the horse has been thoroughly worked in this manner and has become tractable, back him into the stall, as before, but leave off the guy lines. Buckle a foot-strap around each front ankle and fasten the feet together. Now pass the halter lead down under the ankle strap back up and tie it in the halter ring whereby the horse is prevented from lifting his head. Now handle the resisting parts of his head or bridle him as the case may be. If the horse has been thoroughly subdued, he does not

figure out the difference between the two hitches, but will yield to the latter.

After he has been worked a few times with the foot hitch, that may be left off and the lead strap only brought round the front leg near the shoulder, and back up to the chin strap and held fast or tied.

A two fold object is subserved in this process of treating the horse: he is forced to submit to passive control, while he learns his fears of harm are groundless.

During the operation teach, him to eat sugar. Open his mouth and administer a small quantity of fine, or granulated sugar with a spoon; repeat this a few times, until he seems to relish it. Soon he will lick it from your hand; and later he will eat lump sugar.

Also, frequently give him a few bites of oats. His appetite is the source of a most powerful appeal to the horse's intelligence and affections.

The object of this treatment is to disabuse the mind of the horse of impending harm; reassure him, and cultivate his confidence

As this schooling progresses, his wild, scared, vicious look will gradually change to one of satisfaction and anticipation.

The number of times the horse is to be treated to the "head hitch," must be determined by the character of the individual. In some cases two or three treatments may suffice to effect a cure; while others may require several times as many—the number like the state prison sentence is indeterminate. But is to be repeated until a complete reformation is effected. And even then the culprit is to be released upon "parole during good behavior." However, when once the horse is fully reformed there will be no back-sliding, except from cause.

**Stall Hitch.**



ILLUSTRATION NO. 2.

The horse that is green, or vicious, in the stall, is really quite dangerous; and the management of such a one is often a perilous undertaking.

TREATMENT.

First give the horse thorough and repeated work in the grape-vine hitch when practical. This tames him and gets him accustomed to being approached and handled on all sides.

Before it is safe to enter the stall with a green horse, he must be taught to stand over to the opposite side; for if you

undertake to squeeze in by his side, he is very apt to crowd you; and even bite and strike.

To give the horse his preliminary stall education, tie him up short to the side of the barn, or a fence post, where he will be restrained from running round. Now take a fair sized rope twenty-five or thirty feet long; make the center of the rope fast to the post, or where the horse is tied, and bring a loose end of the rope back on each side of the horse. Now take one of the ropes while your assistant takes the other, and step to the rear of the horse—back out of danger as the horse may possibly kick at first. But if he has had proper work in the grape-vine hitch, he is not apt to kick now. Say “get over,” at the same time forcing him over to the right or to the left. Then work him over in the opposite direction.—If he shows a disposition to kick or offers much resistance, strap up a front foot with the knee-strap.—Work him over one way, and back the other, at each move saying: “get over,” until he steps over promptly.

Now let your assistant take the ropes while you, approaching the horse after the manner of entering the stall, place your hand upon his hip and repeat: “get over,” at the same time pressing upon his hip, or slapping him, while your assistant brings him over with the rope. Work him back and forth in this way until he will respond readily without using the rope.

When given a sufficient amount of this preliminary work, the horse may be tied in the stall.

It is always best to handle the horse first in a large, or double stall; afterwards in the single stall.

Take the rope that has been used to give him his preliminary work, or a similar one; fasten the middle of this rope to the tie-ring of the manger, and bring an end back over each side of the stall. Now lead the horse into the stall, and tie him up quite short.

Give the horse a work out in the stall similar to his preliminary lesson.

Perhaps so much detail in this particular connection appears unnecessary. But not so. It is this very lack of essential details in the education of the horse that has been the source of the trouble and disasters connected with his use.

But to proceed. Take the rope on the left hand side of the horse, carry it across behind him, bring it around the right hand rear stall post, draw it up snugly and fasten it securely. See cut 2. The horse can now neither run back, move forward, kick, or crowd.

Now go in and out beside him; handle him and talk to him. After a little treatment of this kind, loosen up the rope, carry it back in place, and bring the horse over with the right hand rope, and treat him in a similar manner upon the right hand side.

Continue this, alternating sides for a time. Teach the horse to stand over in the stall by the use of the rope, accompanied by the command "get over;" and the signal of the hand upon his hip, as before explained.

During this work with the horse, at each time, on entering the stall carry a measure of oats and give him a bite or two—this will be quite effective in gaining his confidence.

By this arrangement, the horse can be secured so that his stall can be entered with safety.

By tying him over, going in his stall, feeding him from the measure, and carressing him and talking to him, he will soon become gentle and glad to see you.

While it is far better to work out all green horses in the grape vine hitch, it is not absolutely necessary before educating them in the stall.

## THE GRAPE VINE HITCH.

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### **Superior to all other Devices for Subduing and Controlling the Horse.**

**I**T has been the general practice, from John S. Rarey, the pioneer horse tamer and trainer, down to the present time, to throw the horse as the principal means of effecting his subjugation, and for the purpose of enforcing submission to certain educational tests for the purpose of overcoming his natural timidity and idiosyncracies. Nor has the practice been lacking in marked success. But "the world do move" and, like all other antiquities this process must give place to the superior device—the grape vine hitch.

The merest novice will, at once, appreciate the great advantage of subjecting the horse to the various educational tests while standing naturally upon his feet, over that of lying prone upon his side. To say nothing about what can be done in the way of harnessing, bridling, hitching, saddling and riding him.

The first essential in the successful management of the green or unbroken horse is to be able to circumvent any and all his efforts at resistance while administering passive treatment to overcome his timidity and reassure him.

#### ARRANGEMENT AND USE OF THE GRAPE VINE HITCH.

Ry reference to the accompanying illustrations the arrangement of this device will be readily understood.

The essential parts of this device are two upright posts set from four to six feet apart to which to securely cross tie the horse; two strong ankle straps, which should be padded or made

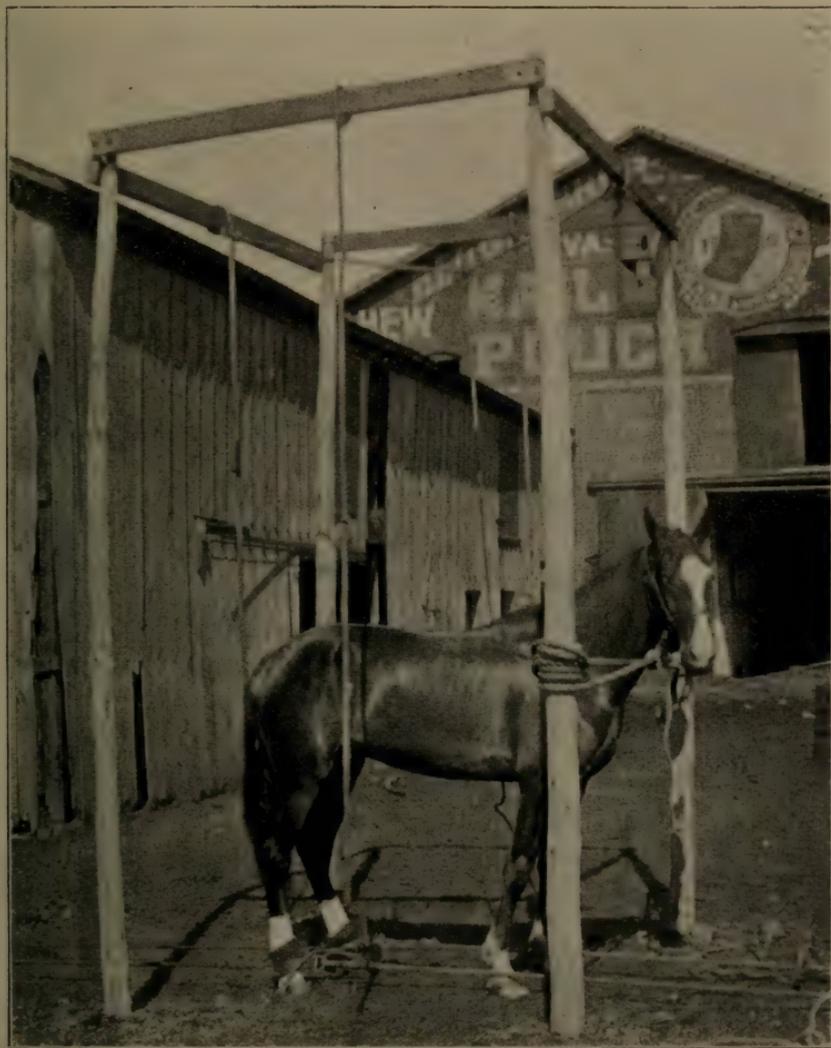


ILLUSTRATION NO. 3.

as smooth as possible, for the hind feet; each ankle strap to be furnished with two strong rings; two ropes each fifteen or twenty feet long with which to anchor the hind feet from the rear, and two stout pegs or iron pins to which to fasten these ropes. Then two more ropes twenty-five or thirty feet with which to fasten the feet from the front, and two stout pegs or iron pins to which to fasten these front ropes. Then a short rope or strap with which to fasten the feet together—ten or twelve inches apart. And two short ropes and two more pegs or pins to secure the feet from each side.

The object of this device is to secure the horse perfectly, upright upon his feet so that every thing done to him—and he will think they are many before he has done with them—shall be presented to him in a natural way while he stands upon his feet, and not while prone upon his side as is the case when the horse is thrown.

Now lead the horse into position, and cross tie him to the posts as indicated. In the cuts, four posts are used, fastened at the top; while this is a preferable arrangement, it is not necessary to use but the two posts. Pulleys are also used to the more readily draw the ropes taut; but they are not necessary, but useful. Put on the ankle straps, adjust the ropes, and pin him firmly to the earth. In order to get the best results, it is quite essential that the horse make a fight with his "environment."

It is also essential that every part of the surface of the horse be handled and tamed. If the horse is quite wild and nervous, he is to be handled carefully and gently at first. Let a man commence on each side of him, at the same time, beginning at his ears, handle and rub him all over—neck, breast, legs, back, belly and tail—all the while talking to him—"ho boy;" "take care boy;" "never mind boy." Repeat this over and over, beginning at his head again and again, until he is fully assured,



ILLUSTRATION NO. 4.

and has become docile. Now throw a blanket over him. This will startle him, and he will resume the fight. Handle and quiet him as before. Keep up the work with the blanket until he comes to disregard it.

Get on and off his back from both sides, and from behind.

Continue this passive treatment with the use of umbrellas; rattle-boxes; sacks filled with straw; tin pans; sleigh bells; newspapers; drums; anything and everything at hand; working them over, under, and about the horse until he becomes reconciled and ceases to resist.

This treatment should be administered in several or many lessons according to the requirements of the particular subject.

Now educate the horse to being bridled and harnessed. Put on and take off the bridle repeatedly. Continue to put it on and take it off until the horse has become entirely reconciled to both operations, and offers no resistance.

Now educate him to being harnessed in the same way: Put on the harness and take it off repeatedly. Put it on, adjust the crouper and take it off a number of times. Put on the breast collar, and tie up the tugs snugly in the breeching, and repeat. It is repetition—how many times that effects the education of the horse.

The cart may now be run up and the horse hitched up—still confined in the hitch. Shake the cart, tip, and carry it from side to side; get into the cart adjust the lines; drop the rattle box, sacks of straw and newspapers at his heels, round and under him.

By subjecting the horse to all these tests sufficiently often while he is so confined that he can offer no resistance, he will, eventually, lose all disposition to offer resistance—it will have been educated out of him. As elsewhere remarked, the successful education of the horse must partake of the characteristics

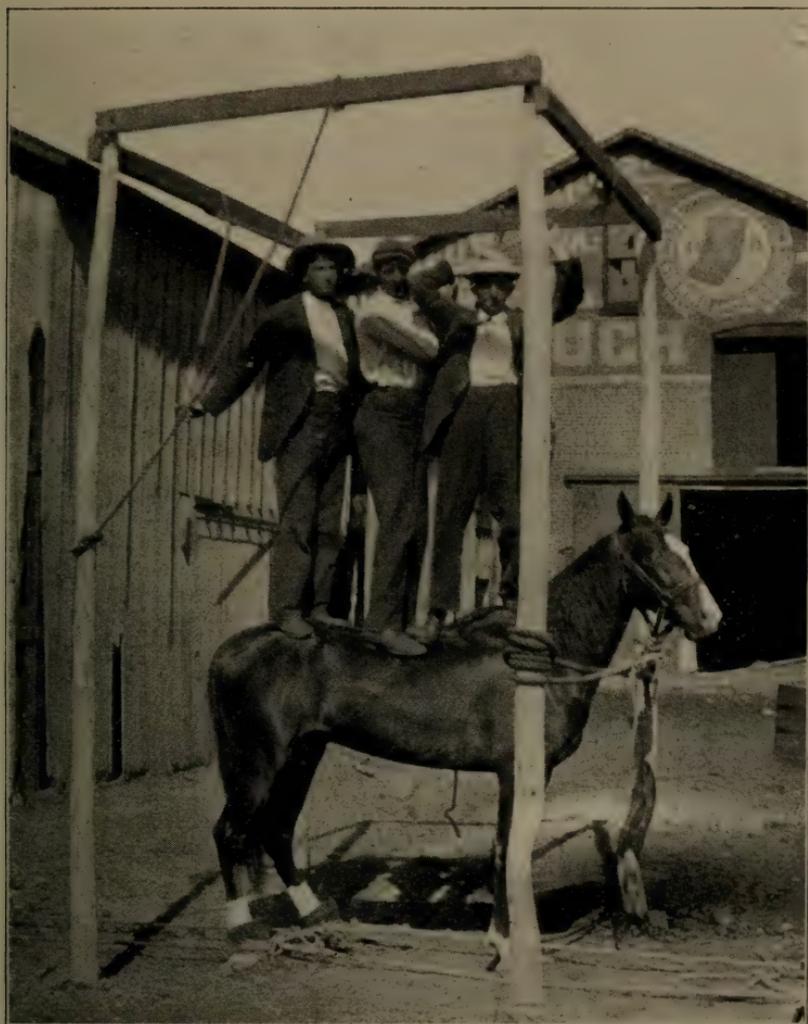


ILLUSTRATION NO. 5.

of a progressive schooling. The mistake made by the ordinary "horse breaker" is that he attempts to do the whole thing at once. He manages to get the harness upon the green horse,



ILLUSTRATION NO. 6.

hitches him up and tries to beat a finished education into him, all at one lesson.

The grape vine hitch is invaluable in the treatment of most kickers, and shyers, as a means of passive subjection.

Cuts 3, 4, 5 and 6, illustrate the many ways in which the 'grape vine hitch' may be used to educate the horse in docility.

Habits are the result of repeated acts. These acts may be right or wrong. If right, right habits are formed. If wrong, wrong habits. Hence, the importance of having such means of control as the grape vine hitch, the head hitch and the stall hitch.

There is scarcely a young horse living, no matter how well broken in the ordinary way, that would not be greatly benefitted and rendered far more safe and tractable by a thorough course in the grape vine hitch.



## HOW TO CURE THE HALTER-PULLER.

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**I**F the horse has been properly handled in breaking to halter he will never become a halter puller. But if his education has been defective, and has resulted in making a halter-puller of him, he may be treated as follows, see cut 7. Take a five-eighths



ILLUSTRATION NO. 7.

inch rope about twenty feet long; tie a small loop in one end of the rope, and make a slip noose round the horse's body just in front of the hips, bringing the knot under the center of the body.

Now pass the loose end of the rope forward, between the horse's front legs, up through the chin ring of the halter, and tie him fast in the stall or to a post. Now, provoke him to pull back by making demonstrations in front of him. He will make a number of efforts to free himself, but will soon give it up.

It will be best to tie him in this way for several days, when the habit will be entirely overcome, and he can be tied in the usual way.

### **How to Tie Up the Green Horse.**

The green horse or colt may be tied up with all safety after the manner described for the halter-puller. Indeed this is the surest way to tie him to insure his never developing into a halter-puller.

However, it is usually safe to tie the green horse up in the stall, with a good strong halter, providing a rope is stretched behind him so he cannot come back on his halter before he has learned to yield to its restraint.



## BREAKING THE HORSE TO HARNESS.

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SINCE the principal use of the horse is to work and drive in harness, the most important department of his education pertains to that feature. Nor can its importance be over estimated when the difference between the value of an intelligent, tractable, well broken horse, and one that is indifferently or viciously broken is considered.

If the horse is wild, nervous or restive, he should be worked out in the grape vine hitch. And whether he is or not it will be good for him, as precaution against accidents, while it gives him a safe introduction to the cart, but does not directly teach him the art of driving.

There are many different ways by which the horse may be initiated into the mysteries of driving, any of which may result successfully providing they are applicable to the nature and understanding of the horse.

Supposing the horse to be broken to lead, and fairly tame: Put on him a set of good, strong, single harness, tying the tugs quite snugly into the breeching rings. Now put on him an open bridle with side check—no over check should be used on the horse until he is well broken. The bit may be an ordinary joint or snaffle, with side yards; or, if the horse is inclined to be wild or restive, it may be well to use a Sanborn, Wilson or Rockwell bit.

At first, do not check the horse at all, or at most very loosely until you ascertain if he is disposed to fight the bit. Have a good strong pair of lines of extra length. Snap or buckle the lines into the bit, but leave them entirely free from the harness.

The best place to first work, or train the horse, is in a small paddock, or enclosure, from fifty to a hundred feet in diameter. And, if convenient, it is best to have the help of an assistant. The all-important thing is to show the horse just what you want him to do; how to do it; and have him do it: and repeat it until he fully comprehends what is required of him, avoiding all confusion, and harshness.

Supposing you have the desired enclosure, and the assistant: Having the horse harnessed as directed, have your assistant lead him into the enclosure, and a few times round it to the left, while, with the left line free pending from the bit, and the right line crossing the neck near the shoulders, you drive him along, the while clucking to him, and telling him to "get up," "go long." After going a few times round, have your assistant stop him by means of his halter lead, while at the same time you check him by means of the lines, and say "whoa." Then both approach him, caress and handle him, and compel him to stand for a time.

After working him for a time in this way, reverse sides and work him in a similar manner to the right. See cut No. 8.

As soon as the horse has acquired the proper notion of going around the enclosure, which often requires but a few minutes, your assistant may tie up or remove the lead strap from the halter, and, later, when the horse has acquired a pretty definite idea of what is required of him, tie the lead strap to the center of the breeching behind, and teach him to draw—gradually increasing the force used until the horse will readily draw the force of both assistant and trainer. As simple as this process appears to be, and so easy of performance, yet, when practiced as here described, the whole foundation for the speedy and effective education of the horse is laid. In fact, the horse has only to go on practicing what he has here learned, and his

education is complete, so far as that of the ordinary horse is concerned.

He has learned the use of the bridle and lines; the signals to start and stop; and to draw a light load. If he is to be used single, he must learn to work in the shafts; if double, he must learn the use of the wagon tongue.

Whether or not you have the desired enclosure in which to work the horse, the principles upon which he is to be worked, and the manner of working him is to be practically the same.

If you have not the enclosure, you must take him into the open field; or onto the highway; only more care must be exercised to prevent his getting away from you.

In any case, where the horse is wild or restive, whether you work him in an enclosure, or in the open—especially if in the open—it is best to put on the single foot rope to teach him to stop and stand. The all-important point is to make the horse think he must do what is required of him, before he, by practice, learns the contrary.

Supposing at any time you are driving the horse with the lines arranged as before described, and he should refuse to be controlled and start to run: you can drop one line, apply all your force upon the other, and cause him to face round and stop. Whereas, if the lines are in the terret rings, or shaft lugs this could not be done.

### **Time Given Preliminary Work.**

The amount of time devoted to this preliminary work is to be determined by the character of each particular horse—there is far more danger of its being too little than too much.

On the farm where there is no necessity for hastening the breaking of the horse, one or more lessons each day, given at odd times, will very shortly suffice.

But, in case you are to make a business of breaking one or

more horses—two can be broken in about the same time as one, since the one cannot be worked to advantage, more than half the time—if one, work him half an hour, then let him rest half an hour; if two, work and rest each alternately half an hour.

You must understand that the time mentioned—half an hour—is only approximately correct. But is to be varied according to circumstances.

### **Double Object Subserved.**

This preliminary work given subserves a double purpose—general and specific: it gets the horse under control, makes him tractable, and at the same time teaches him directly what is required of him. Every time the horse responds intelligibly to the command to start or to stop, or yields to the pressure of the rein to the right or the light; he has further developed, or intensified the essential steps leading up to his ultimate education.

### **Further Illustrations.**

Since so much of success depends upon the small, simple details usually overlooked by the ordinary trainer, at the risk of repetition—for the whole success in breaking the horse is dependent upon repetition—essentially the same ground may be covered again, from a different standpoint. It is very important that the horse should stand quietly while being harnessed and hitched up. Supposing you are about to harness the horse preparatory to giving him his first lesson in driving, and the place is on the barn floor or gang-way. Stretch a strong rope across the space, having a ring fastened in the rope conveniently opposite the center of the barn door, to which the horse is to be tied. If the horse be restive, and refuses to stand while being harnessed put on the single foot strap, or knee strap, take up a front foot and compel him to stand. Now, do not

throw the harness across his back in such a manner as to frighten him, but place it upon him carefully and gently. Put on the crouper, adjust the harness and buckle up the belly band loosely. Put on the breast collar and bridle—all quietly and carefully. Now, take the harness off and put it on several times, till he has become quite accustomed to it, and offers no resistance. It is not enough to simply put the harness on the horse once, as is usually done, but put it on, adjust, and take it off; then put it on again, giving him thorough practice in this important branch of his education. If, at this early stage in his education the horse is taught to stand still while being harnessed, it becomes a fixed habit with him. While if he acquires thus early, a restive habit, that becomes his subsequent rule of action.

The same repetition is to be observed in familiarizing the horse with the bridle—put the bridle on and take it off repeatedly, until he has become fully accustomed to it. All the while compelling him to stand, which, if he will not do otherwise, fasten up his front foot.

Having fully familiarized the horse with the process of harnessing and bridling, he is ready to take his first lesson in driving.

The horse is now standing cross tied—or tied to a rope stretched across the barn door—harnessed, with the tugs tied snugly in the breeching rings; has on an open bridle with side checks, either not checked up at all or very loosely; the lines snapped into the bridle, but in no way connected with the harness; he may or may not have on the single foot strap—this to be determined by the character of the horse. Now take the foot strap in your right hand and the lines in your left, have your assistant untie the horse and lead him out of the barn.

Now there are but a few things necessary to be taught to

the horse—very simple and easily taught, yet of the utmost importance.

The horse is supposed to be in the open ground, or, perhaps upon the public highway.

### **Details of the Work.**

Teaching the word "Whoa." Your assistant taking a short hold upon the lead strap leads the horse out of the barn walking a little to the left and in front of him. After moving along for a few rods at an understood signal (simultaneously) your assistant stops, you take up the horse's foot by means of the foot strap and say 'Whoa!' and the horse is brought to a sudden stand still. After standing for a few minutes start the horse along again, repeating this lesson until he has acquired a pretty correct idea of the meaning of "Whoa!"

It is immaterial whether the horse is moved forward in a straight line or in a circle, when receiving these lessons; but it is all-important that he be compelled to stop and to stand. After he has been repeatedly stopped by means of the lead strap and the foot strap, gradually introduce the use of the lines; and finally the lines only, discarding the other appliances. After working him for a sufficient time to give him a fair understanding of what is required of him, let your assistant step to the rear and take the foot rope while you further instruct the horse in the art of driving; repeatedly stopping him and approaching him from both sides, handling and caressing him.

As before remarked, it is immaterial so far as teaching the horse to stop and to start is concerned, in what direction he is driven. But an important feature of his education is comprehended in driving him around in a circle to the right and to the left. It is also desirable to change the diameter of the circle—some times wide and again narrow. When the circle is quite

narrow the inside line pending free from the bit, acts as a lead strap, teaching the horse to make a short forward turn, which will be much help to him, subsequently when he is hitched in the shafts—as will be explained further on.

When the horse is brought sufficiently under control the



ILLUSTRATION NO. 8.

foot rope may be discarded and the horse controlled wholly with the lines.

When working the horse in the open ground or upon the highways after he is fairly under control, work him over a small track in the form of the figure "8" by which means he

will be turned alternately to the left and to the right at each circuit of the track.

### **The Amount of this Preliminary Work**

to be given must be determined by the needs of each particular horse; but in all cases sufficient to thoroughly educate him so far as attempted. Indeed this is the foundation well laid for all his subsequent work.

Usually thirty to forty minutes is long enough for a lesson with about the same interval for rest.

If you have two horses to break work them alternately. If three or four work them in succession, varying the time devoted to each according to his requirements.

With some horses from three to five preparatory lessons may be sufficient: while with others several times as many may be given with advantage. No fear of giving too many for you are preparing the horse for his life work. And his future usefulness depends largely upon his early education.

### **Hitching the Horse Single.**

The horse is now ready to be hitched double or single. But supposing the design is to hitch him single. Bring him out upon the barn floor facing the door and tie him fast and short in his accustomed place and harness him as usual. It is best to put on him an ordinary kick strap—or a Sisson kick strap if you have it—at first and keep it on until all danger of his kicking is passed. The way to avoid accidents is to anticipate them. It is possible that the horse may take fright at the shafts or some other object and kick over the shafts and cause much damage.

If the horse has been thoroughly drilled as described, he has now really only to learn how to work in the shafts—he

has learned the use of the bridle, the line, breeching, collar and also to draw a light load.

Bring up the cart and hitch him up carefully and quietly. If he is restive and does not stand quietly take up one foot—the important point is for him to learn to stand while being hitched.

When he is all hitched up let him remain tied fast and if necessary let his foot remain up; let your assistant stand at his head to quiet and restrain him, while you get into the cart, take up the lines, work the springs up and down, get out, shake the cart causing the shafts to rub his sides. Get in and out of the cart a number of times.

Now unhitch the horse, lead him back to the stall, let him stand a few minutes, then bring him out again, hitch him up as before. Repeat this operation until he has become quite familiar with the process of hitching up and unhitching.

### **Driving to the Cart.**

Now hitch the horse to the cart—it is always best to have some kind of a break-cart, with long strong shafts—take the lines and your position behind the cart; let your assistant untie the horse and lead him slowly and carefully out of the barn.

If in any case there are doubts about the manageability of the horse, put on him the single foot strap.

Now take the horse to where he has been accustomed to doing his circular work. Work him around the circle both ways as in his preliminary work. When he has got fairly to going take hold of the cart with one hand and gradually force him to pull more than the cart. If at any time he seems disinclined to draw push the cart after him. It is only necessary

to have him think he can draw it and help him a little, perhaps, and show him how and all will be well.

At the proper time, which will be determined by how he takes his work, get into the cart and allow him to draw the additional weight. Later on your assistant may fall back at the side of the horse and gradually shift his position back till he takes his place behind the cart, and later, upon it. But, at any time that the horse gets confused, stops or refuses to turn the desired way, he must receive prompt assistance—don't try to force him under any circumstances, at this early stage of his education, and later it will be entirely unnecessary. Lead him out of his trouble.

Work the horse in this quiet, considerate way for thirty forty or sixty minutes, according to the prevailing conditions—if you have the time, and the horse takes his work kindly and does not seem to tire, why then his work may be continued much longer than otherwise. It is only a loss—or worse than loss of time to continue to work the horse when he is excited, nervous or much tired.

Bear in mind that if the horse is hitched and given a lesson of thirty minutes, alternating with thirty minutes rest throughout the day, he will have learned far more than if hitched up and worked the entire day.

To Illustrate: Suppose you hitch the horse at seven o'clock in the morning and begin his work. At noon he will have been harnessed five times; will have been hitched five times; will have had five lessons in driving; will have been unhitched and unharnessed five times.

Now give him an hour off for noon and duplicate his forenoon's program in the afternoon, and the result will be a quite well-broken horse.

This is the "inductive" system—the system by which the

horse is educated step by step by the method that appeals to his intelligence, every act required of him is so presented as to be comprehended by him and then by repetition he comes to respond cheerfully to all requirements.

Nor is there any direct punishment of any kind embraced or provided for in the system; or even harshness. In certain cases where restraint is necessary some pain may be unavoidable; but none inflicted intentionally.

Whereas, if the green horse is simply hitched up, single or double, the whip applied—which is the manner of the “deductive system”—and driven or worked all day, he is a very tired or exhausted horse that knows but little more about driving than he did at the expiration of the first thirty minutes’ work. For when the horse becomes tired his mind becomes torpid and he ceases to learn. For this reason it is quite possible to work the horse for several months on the farm and yet he will be far from being well broken.

If, as is often the case, the horse at any stage of his schooling develops an aversion to being bridled, give him a course of treatment as directed for the horse, “Bad to Bridle.” See cut No. 1.

At an early stage in the horse’s education it is best to begin handling his feet. See “Handling the Horse’s Feet,” cuts 9 and 10—and at each time the horse is harnessed and unharnessed take up and handle his feet all around.

### **Use of the Whip.**

When the horse has been fairly started—has had a few lessons in driving, he is ready to become acquainted with the use of the whip. It is essential that he shall early learn to move away from the whip; but this is to be taught him by scaring him rather than by punishment. If he does not seem

to be sufficiently afraid of the whip and is slow to learn, put on him the single harness or biting harness, turn him into a small paddock, chase and scare him around with the whip. A few lessons of this kind will usually suffice.

### **Bitting the Horse.**

Before beginning to break the horse to harness it is very desirable that he be subjected to a course of bitting. It will be good for him to wear the bitting harness and bridle for two or three hours daily—not checked up but loosely.

If he has not been bitted and the time has come to begin his education, he should wear the bitting harness at intervals when not otherwise engaged.

### **Use of the Saddle Horse.**

It is often of much assistance, and in keeping with the inductive system, to use a saddle horse in teaching the beginner to drive single. An assistant mounted upon a saddle horse takes the long leading strap and by leading soon gives the beginner a good start. This is a very good method in almost all cases, and far the best way where the horse appears slow to learn—and stupid.

### **Shaft Guard.**

The outside tube of a bicycle tire the single tube tire is best, being stiffer - which can be obtained at any bicycle repair shop, makes a good guard to prevent the lines from catching under the ends of the shafts. Cut a 28 or 30 inch tire in halves; take one half and slip the two ends over the ends of the shafts.

### **How to Manage the Shying Horse.**

The primary cause for the horse's shying is fear. Proper and judicious treatment will entirely overcome the habit, while

ignorant brutality will, as is frequently practiced, develop it to a vicious and dangerous degree.

As stated elsewhere in this work, the horse is, by nature, the consummation of timidity and, coincidentally, of fleetness. The two characteristics being co-existent, each having contributed to intensify the other.

If the horse had not been exceedingly timid, he would not have his present conformation which is so well adapted to rapid locomotion. While it would be, indeed, very convenient to have the horse divested of his foolish and groundless fears, to those fears are due all his valuable and superior qualities. If the horse's environment had been, during his formative stages, less fraught with dangers and alarms, he would not now be the agile, quick, fleet, beautiful animal he is, but correspondingly clumsy and stupid, for it is due to those prevailing conditions that those undesirable qualities have been eliminated from his nature. Hence, horse is a synonym for the super-combination for timidity and fleetness. From time immemorial the horse has fled precipitately from real and imaginary foes. This proclivity has left its impress upon his posterity, and finds expression in the shying of the horse, and in the runaway horse.

Doubtless, there was a time in the earlier periods of his existence when flight was a necessary condition to self preservation. But long after flight ceased to be an actual necessity force of habit and an active imagination was effective in perpetuating the propensity. This is readily seen in the transformation of the runaway horse. Every repetition of the act increases the temptation to runaway, until the animal becomes a veritable monomaniac.

The first offence is the result of a very common place accident—the single tree falls upon the horse's heels; a wheel comes off—the horse starts up suddenly, when, if the driver is unable

at once to control and reassure him, his alarm and flight are increased. He soon becomes terror stricken, and blindly dashes forward in his efforts to free himself from the trammeling vehicle. Finally, mad with fear and rage, he comes into violent collision with some obstacle, and is piled upon the ground bleeding, dirty and exhausted unable to extricate himself from the wreck and ruin he has wrought.

Now, if the horse possessed even the smallest degree of judgment or reason, he must readily perceive that his distress and discomforture were due to his own morbid imagination, and groundless fears; and he would resolve never to be so deceived again. But not so. He is manifold more disposed to run away on a recurrence of a similar accident than before; and his susceptibility is measurably increased by each subsequent accident. Eventually, after frequent indulgences, running away becomes his sole business and aim in life. And once a horse becomes addicted to this vice he is never to be trusted.

Not because it affords him any pleasure does the horse acquire and indulge the habit of running away, but because the instinct of predominating fear has been implanted in his being, first as a necessary precaution to self preservation, subsequently from indulgence, and force of habit.

The same sentiments actuate the shying horse. His fear and suspicion attains to superstition. He imagines every unfamiliar sight and sound to be a lurking foe ready to pounce upon him and drag him to his death.

While the horse is endowed with much intelligence and mental capacity along certain lines, the faculty of reason and judgment are quite wanting.

Why should the horse have such a superstitious fear of a stone, or other similar object lying beside the road; of paper or other object rolling along the ground? It is not because that

he has ever been harmed by any such object; or that his immediate ancestors have been. But because it was the wont of his earlier progenitors, during the evolutionary stages of their existence, to flee precipitately for their lives, from lurking, prowling, and persuing enemies. And this habit has left its impress upon the mentality of their progeny, just as definitely as have they their physical conformation adapting them to rapid flight in which they excel, all terrestrial animals; also the result of indulgence for thousands of generations.

Fear inducing the horse to shy, or impelling him to run away, causes him pain and suffering—a timid person can readily appreciate the feelings of the timid horse. And right here is where the ignorant and thoughtless driver makes his fatal blunder—increasing the horse's alarm instead of allaying it, by applying the whip.

While it is a fact that many horses can be forced up to objects, by the use of the whip, there are others that are rendered unreliable and dangerous by whipping for shying, and many lives have been sacrificed as a result.

Hence, prudence will suggest that the proper method is the one that will succeed in all cases, rather than taking the chances of failure and disaster in a single case.

#### TREATMENT.

From the diagnosis of the case, the remedy is, at once, apparent. The horse is in no wise to blame for his timidity, notwithstanding it appears utter foolishness for a great strong horse's becoming terror stricken at a newspaper or an empty barrel or similar harmless object, than he is for his color—indeed he is to be pitied more than blamed.

He is to be familiarized with objects which excite his fear, when his fears will vanish. It is a part—and a very essential

part—of the horse's education. This education is to be imparted directly and incidently: To reassure the horse and to secure his confidence and respect.

#### TREATMENT OF THE SHYING HORSE.

When the horse becomes alarmed at any object however trivial, it causes him actual pain. How cruel then for the thoughtless and ignorant driver to add physical suffering to the helpless animal by beating him. It must be readily apparent that the proper way to overcome the propensity to shying is to remove the cause. The cause is groundless fear—overcome it.

At the proper stage in the education of the horse he should be given some special lessons for the purpose of counteracting this natural disposition.

Place in the cart or wagon a number of articles—sacks of straw, papers, blankets, barrels—drive down the road and drop them out at intervals. Now turn round and drive back. On approaching the first object have your assistant get out and, if necessary lead the horse up to the object, pick it up and allow the horse to examine it. Drop it down and pass on to the next; handle it in the same manner; and so on with the entire number. Now turn round and repeat the lesson; go over and over it again and again until the horse has become quite indifferent to the sight or presence of the objects.

Now gather them up and distribute them in another locality and repeat.

Thus the horse is given direct education.

Incidentally the horse can be educated by taking him up quietly with reassuring language to all objects which excite his fear, allowing him to examine them and learn their harmless character.

This treatment has a two-fold effect—it teaches the horse

that such and similar objects are harmless, and gives him confidence in his driver which shall ultimately develop into complete assurance to approach with intrepidity any object that may be encountered.

To the ordinary horse-breaker such schooling doubtless appears unnecessary. But the horse is being prepared for his life work, and such preparation is far-reaching in its effect, directly and indirectly, and may be instrumental in saving life.



## THE HORSE'S FOOT.

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**N**O department of equine economy exceeds in importance that of the pedal extremities—the feet—unless it be the head. Hence, get his head right and his feet right then keep them right and the horse will seldom go wrong. Proper education and judicious subsequent treatment will keep his head right; but his feet—shod or unshod—must remain a constant source of solicitude and object of attention.

Apparently nature has been guilty of a grievous oversight in the structure and manner of growth of the horse's foot, or else man has failed to interpret her designs inasmuch as nine-tenths of all the ailments which disable the horse have their origin in certain pathological or abnormal conditions of the feet.

With the exception of the equine species there is no other animal—domestic or wild—whose feet require the intervention of man to preserve their integrity; and with him it is only in his domestic state, for in his wild condition his habits and the character of the ground over which he ranges is quite effective in keeping his feet worn to their proper form and size.

Not so is his domesticated brother “in the hands of his friends” whose neglectful ignorance of his requirements has doomed him to an existence of decrepitude and suffering.

### **Structure of the Leg.**

#### FUNCTION OF THE MUSCLES.

The function of the muscles by reason of their reciprocal action—contraction and extension—is to impart motion to

the various members and parts of the body and locomotion to the animal, the bones acting as levers upon which the muscles may act. Wherever alternate motion—as in the movements of the legs—is provided for, the muscles are arranged in opposing or reciprocal sets or pairs; one set of muscles moving the leg forward—extending it—and the opposing set carrying it backward—flexing it. Below the knee and the hock no muscular tissue is found; only the various tendons to which the muscles are attached.

When the fact that the knee and the hock together with all the joints below are almost rigid hinge joints; and the further fact of the intense strain to which all the joints are subjected in either drawing a heavy load, fast trotting or running, the necessity for a sure and safe foundation—a properly leveled and balanced foot—is at once apparent. And any deviation from this proper adjustment of the foot subjects the entire leg to a strain, the intensity of which is in direct proportion to the violence of the shock and the departure from the proper balance.

The leg of the horse is constructed upon a certain definite mechanical plan which presupposes the normal bearing or ground surface of the foot to conform to that plan, the whole constituting an effective and harmonious locomotory apparatus. But when once the balance of the foot is subverted the whole machinery of the leg is thrown out of harmonious action, resulting in the undue concussion and pressure of the bones at the joints, at certain points of their circumference and a straining of the tendons and the ligaments at the opposite corresponding points. For example: If the toe is unduly lengthened or the heel lowered too much the result will be to strain the tendons and ligaments at the back part of the leg and to crowd together the edges of

the bones forming the joints on the front part of the leg.

The same is true regarding the raising or lowering of any point of the plantar surface of the foot whereby its equilibrium, or balance is disturbed; on the one side disease is induced by crowding together the edges of the bones forming the joint; while upon the opposite side of the joint, increased strain is brought to bear upon the ligaments resulting in more or less severe lesions.

### **The Proper Balance and Angle of the Foot.**

The foot must be constantly watched and repeatedly rasped to retain its normal size and proportion. If nature had provided for the growth of the hoof as fast as needed to repair the wear, and no faster, why, then, the horse would have been relieved from a multitude of ills and ailments, and his owner of much solicitude and responsibility. However, as the matter exists every day's growth and unequal wear tends to unbalancing the foot. Nor is the equal growth maintained throughout the entire circumference of the foot. Hence, two causes—unequal wear and unequal growth—are constantly working to interfere with the balance of the foot.

The joints of the leg having relatively little lateral movement, any disturbance or variation, from the true lateral balance, as the raising or lowering of the inside or outside of the foot, subjects the foot and leg to dangers similar to those where the toe is too high; or perhaps even worse, since the leg by its structure and use is not so well adapted to resist a lateral strain as a perpendicular one. And the various ailments to which the leg is subject—spavin, ring-bone, side bones, splint, wind-galls, curb, thorough-pin, bog

spavin, navicular disease, diseased tendons—may all be superinduced by an unbalanced foot.

The front and back tendons of the horse's leg are so adjusted as to perfectly brace the leg—the bones acting as the fulcrum—and the horse stands at perfect rest and ease, in a natural position, only when the foot is perfectly balanced. When the toe is too high, the back tendons are strained, to relieve which the foot must be extended forward. If either side of the foot is too low or too high, the leg receives a corresponding lateral strain. Hence, it will be readily apparent that there is neither comfort for the horse nor safety from the constant menace of disaster to the leg except in the perfectly balanced and symmetrical foot.

It is essential that the foot be symmetrical; for if one half or portion of the foot is larger, as is often the case, than the corresponding opposite area, in soft and uneven footing, acting at a leverage, has quite the same effect as being elevated. In connection with the unsymmetrical growth of the foot is the unfortunate condition that where the foot tends to grow long or on one side, it wears down faster on the opposite side, each condition further assisting the other in destroying the balance of the foot.

While it is very essential to regularly and periodically dress and level the feet of horses running in pasture, the danger of disorders arising from unbalanced feet is by no means so imminent as where horses are kept at all times shod, or kept in the barn unshod.

Suppose the horse to have his feet properly dressed and leveled to-day, while possibly the same angle and level of the surface may be preserved, yet by the lengthening of the toe, and the growing down and forward of the heel, the supporting surface of the foot, is constantly carried forward, destroy-

ing the balance of the foot, and imposing undue strain upon the back tendons, as well as the navicular joint—in the front leg. And predisposing to curb, spavin, puffed hocks and ankles in the hind leg.

The natural structure of the foot has much to do with maintaining its proper shape and balance, whether left to take care of itself, or to the mercy of the unskillful shoer. While many prefer the cup shaped foot to the flat foot the latter is not nearly so prone to disease itself, nor to involving the leg in misfortune as the former.

The flatter foot affords more room and play for the internal structure; retains its normal frog pressure longer; and is much less liable to contraction.

While the cup-shaped, or thoroughbred style of foot is subject to the abnormalities alluded to in connection with the flat foot, it is also very prone to growing in length in such a way that the foot is carried downward and forward so as to bring the center of bearing of the foot abnormally forward—producing high heels and long toes, often causing the toes to bend upward.

Simply leveling the foot must not be mistaken for balancing it. The foot may be leveled perfectly, that is, the plantar, or bearing surface may present a perfectly plane, flat face, and yet, by no means, be a properly balanced foot—in a true sense. A balanced foot is one which in addition to the requisite level plantar surface, has the angle of the bearing surface so adjusted—fore, aft and latterly—as to bring into balance the superstructure—the leg. Hence, balancing the foot means balancing the leg by means of the foot. Therefore, the foot is to be leveled and symmetrized directly, and the leg above balanced, as a result.

The elevation of any point in the circumference of the

foot, gives the jointed bony column above—the leg—an unlevel base upon which to stand, with a tendency to lean in the direction opposite the highest point in the circumference of the foot. But being unable to lean in that direction, in order to relieve the pain or inconvenience arising from the unlevel base, the foot is advanced in the direction of the elevation—forward, backward, in or out. Hence, the vital importance of preserving the perfect balance of the foot cannot be over estimated; for upon its consummation depends in a marked degree, the preservation of the integrity of the foot and leg, and, consequently, the value of the animal

Long toes and high heels cause contractions for three reasons—the frog is raised above the level of the bearing surface of the foot, removing all frog pressure; as the heels grow down, they become more dense in texture and less elastic; in the action of the foot, when the heel expands by reason of the weight upon the foot, the toe acts as a hinge between the two halves of the foot, the rigidity of which is increased in proportion to the length of the toe.

The high or cup-shaped foot is much more liable to conditions here mentioned than the flat foot. And when such a foot is shod and neglected as is too frequently the case, the internal structure of the foot is soon compressed into an inelastic unyielding box, a constant source of inconvenience and pain to the animal, ultimately resulting in the destruction of the foot, and the ruin of the horse.

When the foot is properly balanced, the vibrations of the leg will be similar to the oscillations of the common pendulum - isometrical—the forward and backward swing of the limb will be exactly equal from the center of weight and attachment of the leg to the body. And herein subsists the basis of the science of the shoer's art.

Admitting this theory to be true: suppose that the horse's front feet are critically balanced so that he stands perfectly upon them, and that they have the true pendulum like swing forward and backward; and that the hind feet are faulty—that by reason of the toes' being too long, and the heels too low, in order to secure a firm base in standing, the horse is compelled to carry his hind feet abnormally forward; and for the same reason in action the swing of the hind feet is no longer iso-metrical, but the forward motion has been increased and the backward motion decreased, thus destroying the symmetrical action of the two pairs of limbs.

Suppose further, that the front feet are also unbalanced so as to abnormally increase the backward swing of the front limbs; this not only subjects the two pairs of limbs to possible injury from mutual collisions, but by inducing abnormal action in the animal's locomotory apparatus causes extra wear and worry upon the whole system, and consequent friction and loss of energy. Hence, the proper balancing of the horse's feet is a most vital problem from both an economic and a humane consideration, for if all the friction, inconvenience and pain incident to unbalanced feet be eliminated from the locomotion of the horse, the interests of both economy and humanity will be subserved.

### **Handling the Horse's Feet.**

As stated elsewhere the colt from a very early period of his existence should have his feet handled, and by rasping and dressing be kept constantly in proper shape and size. For it is a well established fact that the principal cause of curbs, spavins, ring bones and perhaps splints and side bones may be traced to malformations of the feet, due to the unequal wearing and breaking away of the hoof and its abnormal growth.

From the time the foal is a few months old his feet should be trued and balanced at regular and frequent intervals as long as he lives. And if such were the case, horses raised upon the farm would be as free from such blemishes as those raised upon

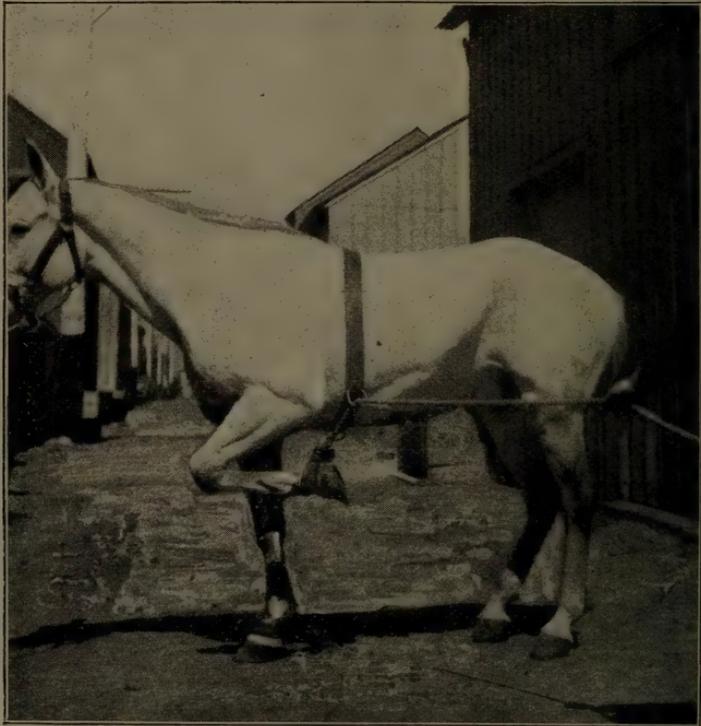


ILLUSTRATION NO. 9.

the plains, where due to constant traveling over hard, dry and stony surfaces, the feet are kept worn down to a relatively symmetrical form.

But, if, as is usually the case, this most essential requisite for insuring a sound horse, has been neglected, there is no excuse for further delay and the remedy should be applied at once.

To handle the front feet, see cut No. 9. Put on the surcingle and single foot strap on the left front foot. Take up the foot; tap it lightly—imitating the operations of the shoer. Con-

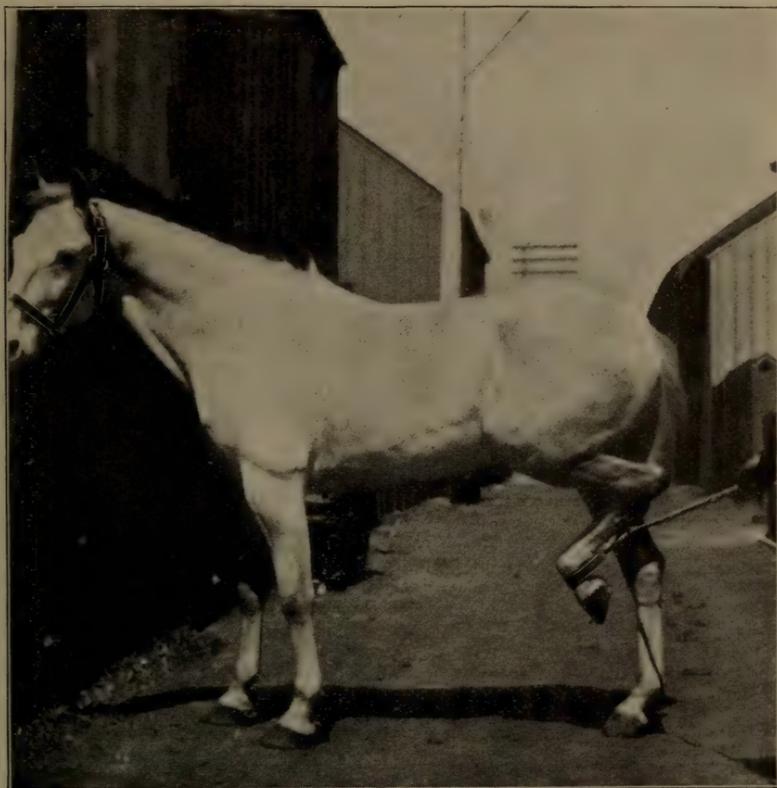


ILLUSTRATION NO. 10.

tinue working with the foot until all resistance is overcome and the foot can be handled without using the rope.

Then change the rope to the other foot and treat it in a like manner.

To handle the hind feet use the "tail hitch." See cut No. 10.

The same ankle strap used on the front feet will answer for the hind feet. Buckle the ankle strap around the hind pastern, take a half-inch rope—any convenient size will answer—splice a ring or tie a small loop into one end; tie a bow knot in the hair of the tail as close up to the bone as possible. Now just above the knot in the tail tie the ring end of the rope in a simple knot, as close to ring as possible; now pass the free end of the rope down through the ring in the ankle strap and up through the ring in the other end of the rope.

Cause the horse to take a step, draw up the slack of the rope, when the horse will find his foot securely anchored to his tail. Take up the foot and let it down repeatedly; and continue to treat it till all resistance is overcome. Then subject it to treatment similar to that prescribed for the front feet.

Now change the ankle strap to the other hind foot, and treat it in a similar manner. Repeat these lessons until the horse becomes entirely submissive.

Aside from its utility for the direct purpose of securing control of the feet, this treatment is a very effective lesson in subjection, since it is necessary to secure control of the entire superficial anatomy of the animal—body, head, neck, ears, mouth, tail, legs and feet.



## THE BALKY HORSE.

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### Cause for Balking.

THE balky horse is the legitimate product of the "deductive" system of education; for it is impossible to produce a balker by the "inductive" system. Hence, as may be readily inferred the proper way to treat the balky horse is to subject him to a thorough course in the "inductive" system.

The balky horse is one that has acquired a misapprehension of the ordinary conventionalities pertaining to driving. It now becomes necessary to supplant those misconceptions by the inculcation of correct notions and habits.

There are numerous ways of starting the balky horse. But simply starting him does not cure the habit. And yet it is a very important step in the right direction. Some of the methods are as follows: Kick or strike the horse upon the back part of the front ankles. Double a rope round the horse's front legs then standing in front of him, pull upon the two ends of the rope causing him to make a step forward. Push the horse round sidewise by taking hold of the shaft. Unhitch the horse, take his tail in one hand, his bit in the other, bring his head and tail together and whirl him round briskly for a time; or tie his head to his tail and whirl him, then hitch him up quickly and start him along before he has time to collect his thoughts. Lead the horse.

Upon the propriety or impropriety of leading the green or unbroken horse, there seems to be a diversity of opinion with a large preponderance in favor of the impropriety. How often you hear the expression—"Don't lead the horse or you will spoil

him!" Now there is no proposition connected with the education of the horse more absurd or erroneous. A moment's reflection will suffice to prove its fallacy. The horse is well broken to lead; hence, when you step in front of him—lead rope in hand—he surmises at once, what may be expected of him, and despite the embarrassing entanglements of the harness, is willing to try to follow your lead. The fact is the leading becomes the connecting link between the known and the unknown; and by the introduction thus given the horse is well started on his way. Whereas, when first hitched the horse is very liable to become much confused; and when urged to go forward to become more bewildered; and when the whip is applied, to become frantic and utterly disconcerted and do almost anything but move quietly forward as he should, and as he would if kindly and considerately led out of the difficulty. And not only led once but just as often as he becomes confused and knows not what to do.

If the leading be not accompanied with driving, then there might be some foundation for the supposition that leading the horse is not directly conducive to his knowledge of driving. But such is not—or should not be the case. When the horse is hitched all ready to be driven, the driver must take his place and the leader his.

Now, all being ready to start the driver gives the signal—clucks to the horse; says, "Get up!" slaps him with the slack of the line or touches him lightly with the whip. At the same time the leader starts along. The horse responds to his knowledge of being led and makes a move forward—the first step in his driving education. Repeat this lesson a few times and the leading part of the operation can gradually be omitted, and the driving continued till perfected. This is as it should be.

This cry: "Don't lead the horse!" like many others born of

‘ignorance, and repeated by the thoughtless, has done a world of harm. For no one with the brains of a bat and the sagacity of a toad but must see at once that such a hypothesis has no foundation in sense or reason. And yet it has been handled down from generation to generation of pseudo horseman whose obtuseness has rendered them unequal to the task of pricking the bubble. This very one little ‘classic’ has been the ruination of thousands of horses.

Those mentioned are among the methods pursued for starting the balky horse, some of which may eventually overcome the habit—all depending upon the character of the particular horse, and the skill of the particular driver.

Any method which will, without abuse, or under harshness, successfully start the balky horse by patient and persevering application, is quite sure to effect his reformation.

The occasion of the horse’s balking is not because he does not wish to go; but is the result of confusion arising from some misadventure or inadvertance, incidental to his education, before the commands and signals of his driver have taken definite form in his mind. No far-fetched or abstruse reasoning is necessary to prove this proposition, for it is a well known fact most balky horses are high-spirited nervous animals which when once fairly started are restrained with difficulty.

It is a significant fact that few persons find much difficulty in teaching the horse to lead. Nor is the reason for this far to seek. And why? Because the course pursued is simple, natural and in accordance with the nature of the horse: The horse is haltered; he readily submits to the restraint of the lead rope; all that remains to be done is for some one to ‘shew’ him along for a time, and he readily learns to follow his leader. The essential point was to get him to make a move in the direction of the lead rope; then another; then another; and straightway he is taught

to lead. And yet even this may result in failure, if proper tact is not exercised. If the green horse is haltered and an effort made to lead him by a straight forward pull he is quite sure to resist the pull; and at once perceive his ability to resist—or rather acting upon a natural impulse resist—and, by a few repetitions form the habit of resisting. But, by causing him to yield to the pressure of the halter by a side pull, and to move along by driving him up from behind, before he has formed the habit of holding back, he learns to lead in connection with the scaring or driving along, and thereafter leads as he is never able to analyze or separate the two acts.

It is a wonderfully simple thing to spoil the horse—cause or permit him to do a wrong act; repeat it a few times and directly it becomes a vicious habit.

Perhaps there is no vice to which the horse is subject that seems more foolish than that of balking. And yet it is the result of education just the same as in driving correctly. Lack of skill on the part of the trainer may result in imparting quite the opposite impression upon the mind of the horse from that intended.

It is readily seen that in teaching the horse to lead every thing is tending to that effect—nothing holding back but his own inclination. While in learning to draw even a light load, or even the lightest vehicle, there is some resistance to be overcome; and the horse must learn to go against it. For it matters not how slight it may be so long as he imagines he cannot overcome it, he will not.

Now from the drivers stand point, and as a matter of fact there is no reason in the world—outside of the horse's head—why he should not move right along. But the slight pressure upon his shoulders, or upon his breast forms in his mind an in

surmountable barrier. And whipping or any other punishment may only add to his confusion.

If at the crack of the whip the horse should spring forward and so learn that he can move along, the riddle may be solved. Get him to repeat it, and it becomes a habit for good. But otherwise, otherwise. If, instead of springing forward, the horse should jump sidewise, or backwards, permit or induce him to repeat that a few times, and that becomes a habit; and now you have a balky horse.

TO RECAPITULATE: The green horse is hitched to a vehicle—light or heavy. He has had no preliminary instruction in drawing. He is told to, "get up!" He does not comprehend the command, and stands fast. It is assumed that being a horse he should understand "horse language," and the whip is brought down, by way of emphasis, upon his unruly back. The horse is quite sure to make a move of some kind. If he moves forward, well and good. But there are many other points of the compass towards which he is liable to gravitate. Or he may "soar heavenward" a limited distance, or settle down prone upon the earth.

If he makes a forward move in any direction, he may pass the crisis in safety. Induce him to repeat the movement and success is likely to follow.

But "woe worth the day!" if the bent of his mind is to the contrary direction. The repetition of any other move than forward—right, left, backward, up or down—may prove disastrous. For any wrong move made by the horse shows at once that he has failed to comprehend the driver's meaning, and every repetition of the misunderstanding only leads to confusion worse confounded. For example: You tell the horse to "get up!" Well, he has not learned what that means, and makes no move. To teach him, you strike him with the whip. Not understand-

ing the proper application of the whip to the case, the horse backs up; you continue to strike him, and he continues to back. Finally you tell him: "whoa!" and he may stop. You tell him again to "get up," apply the whip, and away he goes backward again. And this performance may be continued indefinitely; or until the horse has been "converted" by the application of some method of instruction that shall reverse his acquired notion of the force of commands used in driving the horse. It is a very simple and easy matter to start the horse wrong.

Hence, if the horse, by reason of mismanagement, acquires the habit of not going at all; or of going in some contrary way to that indicated by his driver he is accounted a balker.

There is a certain class—the high strung, nervous, over-willing horse—when injudiciously managed, is quite liable to become balky. This may appear a little paradoxical, but it is, nevertheless, true.

This characteristic may be noticeable the first time the horse is hitched, or it may be gradually developed.

EXPLANATION: You have hitched up your high strung green horse; he has shown much nervousness and anxiety to go, giving you trouble in hitching him. However, you succeed in getting him hitched, jump into the cart, and let him go. Being vexed at his foolishness, perhaps, you give him a cut or two with the whip. Being an intelligent (?) horse he should know that you are punishing him for his foolishness (?) The next time—or some subsequent time, for such a horse, before he has been thoroughly drilled in this particular kind of work is liable at any time to develop some eccentricity—that you attempt to hitch the horse, he may be even more restive and anxious to start. And right here may arise a crisis in his education: He attempts to start; you set him back hard with the lines; he makes several attempts, and you as often set him violently back. And you

may be even foolish enough—some are—to punish him with the whip. However, you succeed in inducing him to stand still or run backwards when he thinks of starting forward, getting things badly mixed in his mind. And when you are ready to go he is not. Whereupon he is beaten for that—whipped to make him go. At this early stage in his education, and with his limited experience, he is unable to analyze the two widely differing applications of the same rule.

Hence, he has things so mixed and confused that he is completely bewildered, and consequently balks.

### **Treatment of the Balky Horse.**

Having investigated the causes which develop the balker, the remedy may now be considered.

Like all other vices of the horse, it is far easier to prevent balking than to overcome the habit. But since the horse's balking is due entirely to mismanagement, his reformation is to be effected by right management.

His education is to be commenced right over again, and he is to be drilled repeatedly—over and over—on the particular feature wherein he is faulty. For example: Consider a case similar to the one described in this connection, whose trouble arose from his eagerness to start. Such a horse should have been treated in this way. Bring him to the place where he is to be harnessed and hitched up. Tie him up short and fast. Give him a few bites of oats from the measure; brush him off; put on the bridle and harness. Now take them off, give him a few more oats, and put him back in the stall. After allowing him to stand a short time, repeat the operation. If he does not stand perfectly quiet strap up a front foot

After a number of these lessons vary them by running up the cart, and hitching him up—leaving him tied fast—get in the

cart, take up the lines, sit a few minutes, then get out and unhitch him as before. The design is to divert his mind from his idea of dashing off.

Now harness him up as before, take down the lines, have your assistant untie him, lead him out into the road, turn him round a few times, then back and tie him up to the post again. Repeat this a few times.

By this time his train of thought will have been broken up and he will be guessing what is coming next. Now, run up the cart, hitch him up, lead him out as before and back a few times, hitched. Now lead him out and start him off. It is not necessary to give him a long or a hard drive—only a lesson in driving. If this work out was given him in the morning, if convenient, give him another in the afternoon—going right over the entire program. However, do not delay longer than the following day, and don't fail to repeat every detail over and over, to insure success. Relatively the same course is to be pursued with all other faulty horses. All their faults are the result of mismanagement, which are to be corrected by continuous drill in the right course.



## THE RUNAWAY HORSE.

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### Gennesis of the Runaway Horse.

**H**OW few persons, when viewing with admiration the beautiful arch of the horse's neck and the symmetrical taper of his limbs—betokening the consummation of spirit and fleetness—realize that the causes which evolved that exquisite conformation have resulted in misfortune to thousands of human beings, and the destruction of hundreds of thousands of dollars worth of property, as I said in my article under this head in the Xmas issue of *The Horse Review* of 1899. For the runaway horse, as he exists to-day, was co-existent with his earliest subjugation and use by man. Nevertheless, investigation will prove the correctness of the proposition. The timidity of the horse during the evolutionary periods of his existence, and subsequently, was instrumental in imparting the arch to his neck and the fleetness to his limbs.

The geologist has proven to his own satisfaction, and the assumption is conceded by all classes of investigators, that the horse is descended, through long evolutionary vicissitudes, from an inferior five-toed animal no larger than the fox, the horse representing the extreme variation from his original progenitor.

Wonderful, indeed, is the story related by paleontology regarding the hundreds of thousands of generations intervening between the original five-toed phenacodus—no larger than the fox—and the horse of the present.

While in Europe no fossils representing the horse have been found extending farther back than to the three-toed ancestor, the mesohippus, in America the whole series are found—

the phenacodus, with five toes and corresponding limbs; the eohippus, having four toes and a rudimentary fifth; the orohippus, having four toes; the mesohippus, having three toes and a rudimentary fourth; the miohippus, having three toes on each foot, the protohippus, having three toes on each foot, but only one reaching the ground; the pliohippus, having one toe on each foot and slight rudiments of two others.

And finally the fully developed horse—*Equus caballus*.

Admitting the descent of the horse here narrated to be true, it becomes a most wonderful and striking illustration and example of "natural selection" and "the survival of the fittest." In the earliest stages of the existence of the progenitor of the horse, when his habitat was the lowlands and marshy plains, his five-toed foot, with as many appending hoofs, stood him in great stead. And had his environment remained the same, he would have so continued, if not exterminated—the same little, five-toed, horse-like animal. At this stage of his existence he was but illy-provided with the means of defense, and consequently, being timid, when menaced by danger sought safety in flight. And, fortunately, he was driven from the cover of the marshes to the open country, when began his race for life, his struggle for existence. And a fearful and a mighty struggle it proved to be, as is evidenced by the transformation wrought.

#### CAUSE OF TIMIDITY OF THE HORSE.

At this early stage was laid the foundation of his timidity, resulting in the "runaway horse." His little ancestor was chased from the covert of the marshes, and he has been on the run ever since.

"Thereby hangs a tale:" In his primeval chase from the marsh to the open ground, it was the more timid, alert, strong and active individuals that made their escape, while the more

clumsy and stupid were overcome and destroyed by their enemies. Thus constantly the more timid, alert, active and strong were the ones to survive and reproduce their kind, while the more clumsy, weak and stupid were being weeded out.

Even his numerous toes, once so indispensable in the marshes, became a positive hindrance on the uplands, in the presence of more powerful enemies. And in obedience to the law of "natural selection" his surplus toes began to disappear.

It must be seen that if the animal at this or any other succeeding stage of his development, before his complete evolution into the horse, had been permitted to "pursue the even tenor of his way," unmolested by his enemies, any further progress would have ceased at such corresponding stage, and the true horse never would have come into being.

Several essential attributes contributed to the preservation, or fixing, of the particular type of individual most developed, at any stage, toward the final climax of perfection, viz: The size of the animal—the large and strong one would stand a better chance of escape than the small and weak one. Hence, the larger and stronger were better able to escape and reproduce their kind, while the smaller and weaker were overcome and destroyed. The animal with the longer neck and higher head would have a larger range of vision; hence, detect the approach of an enemy sooner than the one with the shorter neck and lower carriage, and, consequently, get the start of his less favored companion in his race for life. The animal with the least cumbersome pedal appendages would also have a decided advantage over his less agile compeer. The animal most alert—timid—would be quickest to discover and flee from an enemy.

Hence, it is apparent that the several characteristics contributory to the development of the horse, from his inferior, five-

toed ancestor, have been called into existence by the necessities of intense activity.

While the horse's physical conformation was being so strikingly evolved, his mentality was meantime receiving the fatal bias of timidity, resulting in all the runaways that have marked his pathway.

At first thought, without investigation and observation, it would appear that an animal which habitually takes his food and drink from the surface of the ground should be low-headed, after the manner of the bovine kind. And such would have been the case with the horse had it not been counteracted by a more potent cause—his innate timidity. It is the habit of the horse, when alarmed, to raise his head and arch his neck, whether his fear be excited by a near or distant object, or an unfamiliar sound. It is a further observable fact that the horse habitually—except when feeding—carries his head above the level of his body, when standing, moving, or even when sleeping standing. This is the case with the domesticated horse, and is still more noticeable in the wild and semi-wild animal, which is ever on the alert for real or imaginary foes.

Hence, the ultimate transformation of the horse from his diminutive five-toed ancestor is fully accounted for by the laws of "natural selection and the survival of the fittest." Equally are these laws exemplified in his descent, or evolution.

#### SEQUEL—THE RUNAWAY HORSE.

While the timidity of the horse has contributed to make him a thing of beauty, it has also resulted in making him a veritable engine of death and destruction, when unrestrained. While his physical system was gradually taking on his fully developed conformation, his brain was undergoing a similar evolution, whereby his timidity was greatly accentuated by his fleetness, and his fleetness by his timidity. Notwithstanding he

is, and was, after his perfected evolution, a wonderfully formidable antagonist when brought to bay, his strong jaws and powerful limbs providing him at once with most effective weapons of defense and offense, yet his hereditary fear is so overpowering that he will almost never stay to fight if escape by flight be at all possible.

Animals of the bovine species, being provided with compound stomachs of great capacity, were wont to sally forth at their pleasure and, in a short time, gather a large quantity of grass or herbage, retire to the shade or fastness of the jungle, and there remasticate their food at their leisure and in comparative safety, while the horse, having relatively a very small stomach, was compelled to be abroad nearly all the time, mostly upon the open plain—as his food was principally grass—exposed to the plain view of all his foes, and the common prey of all carnivorae powerful enough or numerous enough to overcome him. Thus he instinctively fled, precipitately, from any and every object which he did not comprehend, and fought to the death any foe which he could not escape by flight, and thus may be accounted for the unaccountable fear in the nature and disposition of the horse.

Why should the horse scare at a harmless piece of paper lying in the road or fluttering by the wayside, or be alarmed at an innocent boulder, or a pile of brick, or similar objects? Such never harmed him, yet they are things which he does not comprehend. Hence, he but follows the impulse firmly implanted in the nature of his ancestors during the formative period of their existence, when such precaution was necessary to their self-preservation; and it has become an essential part of his existence—it is simply the horse of it—though the necessity which called it into being has long since ceased to exist.

Many dogs, before lying down, even upon the bare ground

or floor, turn round and round in imitation of the wild dog, their ancestor, making his bed in the grass. And through the force of heredity this trait has adhered to the dog regardless of the vicissitudes through which he has passed tending to its eradication.

The horse is the consummation, the very acme, of fleetness and timidity—an example of exaggerated heredity, the traits derived from his ancestors, for thousands of generations, which have given way to their frantic fears and fled, precipitately, from every real and imaginary foe.

If further evidence be desired, it is only necessary to cite the example of the horse that has been permitted to run away repeatedly, whereby his latent timidity is fully revived, and, anon, the docile, tractable animal, easy of control and restraint, is transformed into a treacherous, dangerous, worthless brute, never again to be trusted. By repetition the habit has become chronic, and henceforth his sole object and aim in life seems to be to run away—he has resumed the avocation of his ancestors.

### **More About the Runaway Horse.**

I do not wish to pose as an “alarmist.” Nor am I actuated by any sudden or spasmodic fit of sentiment on the subject, for I have been an advocate and expounder of this theory for a number of years. And I have educated successfully a number of horses by this system: Cuts 11 and 12 are from photos of the 5-year-old mare, Bird Conkling, by Rosco Conkling, now owned by Mr. A. P. Like, of Galesburg, Ill., engineer on the C. B. & Q., for whom I educated her.

The fact that, comparatively, so much space is devoted to THE RUNAWAY HORSE in this work, is not for the purpose of disparaging the use of the horse; nor to cast any undue reflections upon the noble (?) horse; but rather to arouse if possible

sufficient interest in the matter to effect a general and systematic effort, on the part of all who are responsible for his education, to consider and appreciate the vital importance of this "higher education." For it is so simple and practicable, as to be, at once, apparent to any one at all familiar with the attributes of the horse.

Now, let the friends of the horse rally to his rescue, and so elevate the standard of his virtues that, "like Cæsar's wife, he shall be above suspicion."

The *POUGHKEEPSIE EAGLE* of recent date says of "THE FATAL HORSE AND WAGON." "If the statistics of accidents could be collected it would, in all probability, be shown that the most dangerous way of traveling is with a horse.

We believe there is authority for stating that in proportion to the numbers of people in various conveyances, horses and wagons kill more people than steam-boats, railroads or trolley cars."

A Bangor, Maine, correspondent of *The Horseman* says: "The report of a statistician that more lives are lost in the United States every year through runaways than by all the railroad disasters, will be readily believed by Maine people, for in this state the runaway horse often causes more fatalities in a single month than can be laid to the railroads for the entire year. Bangor has long been noted for the runaways that occur almost daily upon her streets; and so pronounced has the nuisance become, that in certain localities matters have reached such a stage that a promenade in a saw mill is a safe undertaking compared with a stroll in Bangor's streets. Within a year two of the most eminent lawyers of the city, the Hon. Lewis Barker and Ex-Judge James F. Rawson have met their death in the street from runaway horses.

"New York's Medical Journal" speaking of the recent explo-

sion of a gasoline tank of a motor carriage, says: "Some new danger is almost always to be expected in connection with novel devices of the kind, but, on the whole, the power carriage, whether propelled by gasoline or electricity, is probably less dangerous than vehicles drawn by horses."

The "Metropolitan and Rural Home" says: "Hoofs, bones, flesh and skin may be combined to make an animal, but to-day they do not make a horse. They can be produced at an outlay of about eight or ten cents a pound; but they have but little value, and that grows less and less every year. Behind and over all these must be brains, if there is to be any value over and above that already indicated. The greater the intelligence, the more complete the education, the higher the value. The animal as grown will but little more than pay expenses; the profit comes from training and education." These citations may serve to show the trend of public opinion upon this important question. There must come an awakening, tardy though it has been.

### **Fatal Runaways.**

A very few of the fatal runaways, of the many which might be cited:

"Akron, O. Ex-Judge R. W. Sadler, aged 41, died of injuries received in a runaway. His skull was fractured."

"Des Moines, Ia. C. A. Stam, aged 40, of Prairie City, was thrown from his wagon, in this city, in a runaway to-day. He alighted on his head upon the brick pavement, and was instantly killed."

"Batavia, Ill. During a runaway, John Feldott was thrown from a wagon and instantly killed. His neck was broken."

"Ashtabula, O. Miss Elizabeth Bowman was instantly killed in a runaway."

"Peoria, Ill. Miss Grace White was killed, Mrs. Peter

Spurck fatally injured, and Mrs. Simon Killduff seriously injured in a runaway accident this morning.”

“Marshfield, Wis. Alderman Luecke, one of the earliest settlers of Marshfield, was instantly killed Thursday night, in a runaway. B. Serve, 75 years old, was probably fatally injured. They were both thrown from a wagon and struck the sidewalk.”

“Dr. Cooper, of Elmwood, Ill., well known in this county, was killed yesterday. His horse ran away with him, and he was thrown out and fatally injured.”

“Good Hope, Ill. H. G. Ritter, of this city, had one eye knocked out and his skull horribly fractured in a runaway Monday night. The horse was killed at the time, and Mr. Ritter died this afternoon.”

“Janesville, Wis. Edward Lay, a prosperous farmer, and his wife, were instantly killed by a runaway team to-night. They leave a family of seven children.”

“Niles, Mich. A team owned by a farmer named William Hicks, who lives southwest of here, ran away to-day, while Hicks and his family were on their way to Buchanan. The wagon was overturned; and two small children were instantly killed. The mother and father each had an arm broken, and received other injuries.”

This list of ghastly casualties might be extended indefinitely, so terrible is the gory record of the runaway horse.

Just imagine the statistics of all the runaways, of every city, town, village and rural locality of one county, to be gathered and recounted; now extend the lists to include every county—102—in the state of Ill. Heavens! How the numbers swell! But hold! Now increase the columns till they embrace the whole country, and the aggregate is simply appalling! Thousands upon thousands—and the tale is not told.

All needlessly sacrificed; for it is a practical possibility to entirely eliminate the runaway element from the characteristics of the horse. And it should have been done long since.

While scientists have been assiduously exploring the realms of disease, and running to earth the deadly bacteria; and corraling the festive bacilli; the destruction of human life by "horse power" goes merrily on.

It appears that death in a runaway is esteemed an honorable way to die; or, perhaps, a special dispensation of Providence to be endured with becoming Christian fortitude, without murmur or complaint, inasmuch as, in narrating such disasters no blame seems to attach to the horse, or any person, or anything: the wheel comes off; the axle breaks down; the breeching breaks; or the single-tree falls upon the horse's heels; a runaway results, and a whole family is exterminated from the face of the earth. That settles it! That is all there is to it! Nothing and nobody to blame—no negligence or criminality on the part of anyone is deemed chargeable.

### **Responsibility in Other Accidents.**

It is a most remarkable inconsistency that corporations, and transportation companies are held responsible for every species of accident—avoidable and unavoidable—while nobody on earth is conceived to be responsible or liable for all the damage and misery resulting from the runaway horse.

If a man gets drunk and stumbles into a cellar-way, in an alley, the city, or property owner is held liable for any injury he may sustain.

If an individual buys a ticket for a trip over a railroad, and in consequence of an unavoidable accident, he suffers only from a bad "scare" the company—according to a recent decision of

the federal court—is liable for heavy damages for “nervous shock.”

“AWARDED HEAVY DAMAGES.”

“A verdict of \$8,000 was awarded Thursday morning, in Judge Baker’s federal court, in favor of Robert J. Burgess, of Portland, Me., for injuries sustained in an Illinois Central wreck near Dixon, Ill. The train was derailed Jan. 2, 1893. Burgess was a passenger and sustained a “nervous shock” that has since unfitted him for business.”

On the other hand the breeder may raise, break and sell a horse to an individual, recommending him to be safe and all right—and really suppose that he is. And yet, the first time the buyer takes his family out riding, some little mishap occurs, the horse runs away, kills the owner and nearly the entire family. Is the seller held liable for his representations, or the conduct of the horse? Certainly not. But should he not be? Most certainly he should

Where is there any reason for this unjust discrimination in favor of the horse owner?

Now, in the case of the corporation, it may have used every precaution possible, to avert accident; and the accident may be wholly unavoidable—“above the reach and ken of of a mortal apprehension”—and yet, the corporation is held to as strict responsibility as if the accident were due to negligence.

Upon analysis, it will be seen that this proposition is right wrong—it is the horse that should be held responsible for his every act, since it is readily practicable to make his education such as to preclude the possibility of a runaway accident.

Not long since there was a bill introduced in congress providing: “That the city or county where mob violence results in the destruction of property; injury, or loss of life, shall be liable for damages; and action may be brought against officers of the

law for neglect of duty. In case of death, a sum not exceeding \$5,000 shall be awarded the relatives of the deceased. When the general government, in the case of a foreigner, pays an indemnity, it can bring action for recovery against the state in which the person was killed."

If a worthless tramp without a friend on earth is found murdered in a vacant lot, or in a box-car, all the country, is aroused, and no effort or expense is spared to discover and punish the murderer. And this is as it should be; it proves the common brotherhood of mankind, and a commendable determination on the part of all right-thinking persons to insure protection for the lives of all. And this only emphasizes the total apathy regarding the suffering, destruction of property, and loss of life, due to the vicious horse. All of which is practicably preventable.

It is a well established principle of law, that every transportation company is responsible for all accidents incidental to their business. Notwithstanding every precaution and provision to prevent accident be exhausted, yet the company is held strictly accountable for all injury to persons and damage to property. And in case carelessness is proven, the operatives are held to be criminally liable as well.

But what is said, and done, about the thousands who are annually maimed and killed by the runaway horse; nothing. Absolutely nothing.

Why this discrimination in favor of the runaway horse? For I must maintain that there never was a runaway that might not have been prevented.

Now, one of two remarkable conditions exist: either I must be accredited with having made a wonderful discovery, or people, all along, have been guilty of the basest form of criminal negligence.

I assert, with no fear of successful contradiction, that every horse can be so educated as to make him absolutely proof against running away, as a result of ordinary accidents which are the usual cause of runaways—if there be exceptions—some exceptions are said to be necessary to prove the rule—then any such should be either put to such use as to preclude the possibility of their running away, or destroyed outright, and not permitted to become a menace to life and limb.

Every other form of a perpetual menace to human life, has elicited the interest of master minds, and their endeavors for its amelioration. Hence, the inexplicability of accounting for this total apathy upon this vital subject, is akin to accounting for the unaccountable.

Why has this most appalling infliction been permitted to continue year in and year out, unchallenged? The rational conclusion to be drawn is, it must be due to the prevailing ignorance of existing facts and conditions, for there is no sufficient reason to attribute it to indifference in view of the manifest solicitude upon all other similar subjects wherein human welfare is jeopardized.

Nor is the remedy far to seek. For like many other valuable principles it is, at once, exceedingly simple and practicable. Briefly stated it is: instead of breaking the horse—which consists in advancing his education to the point where he is liable to kick or run away in case of accident—educate him. Give him a thorough and complete education covering every possible contingency or vicissitude through which he may be called to pass. His education is to be a complete schooling—a complete course of education—“primary, intermediate, grammar and high-school course.” It is to be systematic and thorough, with all brutality eliminated.

What can be more absurd than for a breeder to select'

with scrupulous care, the sire and dam, breed, keep and feed the produce until five years old—ready to begin his life work—then, instead of giving him the thorough schooling whereby his value is so greatly enhanced, only the most indifferent—often vicious—preparation. It is much like building a many storied house with sedulous care, and then leaving off the roof.

Not every horse will kick when an object is precipitated upon his heels: but many will, and none are to be trusted until they have been thoroughly educated and tested.

Not every horse will run away when a break-down occurs; but many will; hence, it is safest not to trust any until proven reliable.

“The Genesis of the Runaway Horse,” fully explains why the horse is as he is. Hence, it is best to assume that any particular horse to be a typical specimen of his species, except so far as education has wrought his reformation; and trust him accordingly.

The horse must be drilled in anticipation of every kind of accident liable to occur: a few years since an accident occurred at Independence, Iowa, whereby a little boy lost his life. It was in the early spring time; and a number of small boys were playing ball in the back yard. The old family horse was dozing in the sun, in the adjoining barn-yard. The ball was batted so that it rolled under the fence, at the heels of the horse. In his eagerness to secure the ball, the boy dropped down upon the ground, and rolled under the fence, with his head near the horse's heels. The horse was much startled at the—to him—unrecognized object coming suddenly in contact with his heels, following his natural instincts of self preservation, kicked the boy on the head and killed him.

Another very distressing accident occurred at Aledo, Ill., in which Mr. Davis, a citizen of the place was kicked and killed--

also by a gentle horse. Mr. Davis was leaning against one of the rear stall posts, when his feet slipped from under him, and he fell against the horse's heels, and was kicked to death. The horse is said to have had his head in the manger, and was taken wholly unawares. Hundreds, and, perhaps, thousands of similar fatal accidents have occurred. These two, I recall, as having come to my own personal knowledge.

In all such cases, the horse simply responded to his inmate instinct of self preservation, implanted in his nature during his grand "struggle for existence," and évolucional development.

And yet, the possibility of all such accidents are absolutely precluded by properly educating the horse.

Horses differ very much in their pre-disposition to kick. Some horses, even when quite green, are not disposed to kick when an unfamiliar object is brought in contact with their heels. They may crouch, cringe, and evince much fear, and still not kick. While others are quite the reverse—disposed to kick at every thing that comes near them.

A horse may be in constant use for twenty years, and scarcely have an object fall upon his heels; hence, retain all of his original "superstitious" fear engendered during his formative existence. For the system of "breaking" usually pursued studiously avoids any chance to disabuse his mind of his hereditary hallucination. Such a horse may be, in all other respects, thoroughly reliable; but when subjected to such a test prove utterly faithless. For, so far as he is personally concerned, while his mind, in every other particular, may be fully domesticated, in the one particular feature has been suffered to retain its fatal bias.

On the other hand, a few special lessons properly administered will insure the horse, for life, against such disasters.

### **To Stop the Runaway Horse.**

This is the most important item to be considered in the education of the horse. Only think of the thousands, and tens of thousands of accidents that have occurred; and the accidents that are occurring daily, the result of this innate propensity of the horse.

By referring to the article—"The Genesis of the Runaway Horse"—it will be readily seen why the horse is predisposed to runaway.

There have been numerous inventions to stop the runaway horse: An electric apparatus to shock him; carrying a winchester in the carriage to shoot him when he becomes unmanageable; with an endless variety of vicious bridles and choking machines. While the simplest and most effective remedy has been overlooked—education. Peculiarly, in the case of the runaway horse, is ignorance the mother of crime, and man's persistent stupidity is the negative cause of all the crimes chargeable to the runaway horse.

It is truly appalling to contemplate the terrible destruction and loss of life due to the runaway horse! And then to think that this might have all been avoided! The grape-vine hitch is the only device so far ever invented where with any and all horses can be effectually made proof against runaways.

### **Treatment.**

Give the horse thorough and repeated work in the grape-vine hitch. While yet confined in the hitch, put on the harness, and breast-collar, fasten a sack of straw to the tugs, and with a rope fastened to the sack, draw it back and let it fall against the horse's heels, at each time the sack strikes his heels say "whoa!" Now, put a number of tin cans and sleigh bells in a

sack to make as much noise as possible, and work this on his heels in the same way.

Continue this treatment until the horse takes no more interest in it.

After the horse has been thoroughly and sufficiently worked in this way, run up the break cart and hitch him up. It will be necessary to have an extra breast collar, or strap to which to attach the "rattle box." Now get into the cart and work out the horse thoroughly, being careful all the while not to hurt him, and at each drop of rattle box, say, "whoa!" The design being to teach the horse that when anything drops—especially at his heels, he is to stop instantly.

When the horse has had sufficient work to fully reassure him, and you feel safe in giving him his first trial, rig him up as above described, leaving off the grape-vine hitch—see illustration—and to insure against accident have a foot strap on the horse, or a good man hold his head, or both according to the disposition of the horse, for this is a critical juncture, since any negligence might cause disaster. Start the horse along, and when he has gone a few steps, drop the rattle box at his heels, lightly at first, gradually increasing the force. At each drop of the rattle box say, "whoa," and pull the horse up to a standstill with the lines.

The success of this, like every other department in the education of the horse, depends upon repetition—how many times. Eventually the horse will stop promptly at the drop of the rattle-box, without the use of the lines or the command.

Any practical horseman must readily perceive that the horse can be as effectively educated in this way, as in any of the ordinary ways, providing you have the means to do it. And yet the wonder grows—"Why have not horses been educated, whereby tens of thousands of lives might have been saved?"





And yet there is not a single instance on record, of a horse's ever having been so systematically educated except those which I have educated; nor a horse-book extant that teaches how this may be done; or even suggests its possibility, except this volume.

Of several horses so broken while at Galesburg, a number were shipped to Boston. Regarding one of these, here is an extract from a letter from Mr. Daniel McNally, of Pawtucket, R. I., who bought the mare. Mr. McNally says: "I was driving the mare down a steep hill, the other day, when a breeching hook broke, and the buggy ran upon her heels; she stopped so quickly that I had to put both hands on her rump to save myself from falling out of the buggy. I have been driving horses all my life, and never had a hook break so before."

Now, had this mare received only the ordinary "breaking" given the horse, doubtless another fatal runaway would have been added to the ghastly list; for the "mare in the case" is a large, powerful, high strung, active animal, just the kind to make short work of man and buggy, had not her education been such as to predominate over her natural propensity, for this occurred in June, and she was never bridled or harnessed till the previous December. This was one of the number used in giving public exhibitions on the streets of Galesburg, Ill., which was witnessed by thousands. The following are some extracts from the account published in the "Galesburg Republican Register:" "The exhibition of horsemanship given by Mr J. W. Mercer on the Public Square, Saturday afternoon, was entirely successful, and was witnessed by more than a thousand persons. The design of the exhibition was to demonstrate what can be done in the way of teaching the horse the harmlessness of such accidents as usually inspire a high spirited horse, educated only in the usual way to kick and run away. Promptly at the ap-

pointed time, Mr. Mercer arrived with three fine-looking, spirited mares, one bay and two brown, hitched to carts, and driven by his three assistants.

Mr. Mercer explained that his purpose was to give some practical object lessons in the education of the horse, never before practiced by any other trainer, or rather the results of those lessons, and what may be accomplished by this new departure. It was explained that the average horse, broken in the usual way, will scare and run away as the result of an accident where by an object is precipitated upon his heels. And that it is possible to so educate the horse that the instant anything falls upon his heels, he is to stop—not even waiting to be told or to be pulled up by the lines—an exemplification of the power of education over animal instinct; to illustrate which a fine large breedy-looking, brown mare was hitched to a cart and a large rattle-box affair, about the size of a beer keg was arranged to drop suddenly upon the heels of the mare when she was moving along at a rapid trot. Instead of taking fright, she instantly stopped. This was repeated a number of times with the same result, showing she fully understood her part. It was explained that an axle is liable to break or a wheel come off, allowing the vehicle to fall down: A nut was removed from one wheel of the cart, and the mare started off at a brisk trot, when suddenly the wheel rolled off and the cart fell to the pavement with a crash; but no sooner than the mare had stopped, without so much as a pull at the line or a word spoken.

The third and last test was truly alarming, and one which required great courage in the driver, or complete confidence in his horse. This was a peculiar device by which the seat of the cart, with all of its attachments—by touching the button—was precipitated, driver and all, through to the pavement below—an apparent total wreck—right against the horse's heels, where she

has driver and cart at her mercy, if she should kick or run away. But, as before, she stands fast while her driver crawls from the wreck between her hind legs.

The same tests with equal success were made with the other two mares proving conclusively, to all present, the practicability of Mr. Mercer's theory. These horses exhibited by Mr. Mercer are not, as some may suppose, horses that have been used for several years, but were harnessed for the first time the present winter, and have been worked only a short time. It is Mr. Mercer's method of education which has accomplished so much in so short a time. The method used is one devised by Mr. Mercer, and never before practiced by any one else. Yet its utility and efficiency were fully demonstrated.'

Since this is an entirely "new departure" in horse education I have gone outside for some "documentary evidence," for its substantiation, and shall now return to the text.

When the horse has been thoroughly educated by means of the rattle-box, he will be proof against dangerous fright from anything falling on his heels. Yet he should be educated to the use of the single-tree used in place of the rattle-box. And to the wheels coming off.

While yet giving him his work in the grape-vine hitch he should be subjected to the cross-bars running against his quarters: If the break-cart is used, strap a smooth bar across the shafts well up toward the horse, loosen up the shaft lugs, take off the breeching and run the cart up against the horse's quarters—first lightly and repeat more forcibly—at each time say, "Whoa." The design being to teach him in case of accident whereby the vehicle may come in contact with his quarters, he is not to take fright, but to stop at once. After working him in the hitch till all danger of accident is past, work him to the cart and repeat till he is thoroughly educated in the matter.

No matter how good a horseman you may be, it is a source of much satisfaction to know that in case of accident—an axle tree or wheel's breaking down; breeching or tugs breaking; single tree or double-trees falling off, breaststrap or neck-yokes breaking, causing the pole to fall down—your horse will in no possible event, take fright and become unmanageable.

There is another important matter that may be noticed in this connection. For your horse to continue reliable, and to go on improving, you must always treat him with due consideration, and cultivate his confidence—treat him as you should your best friend. Never get out of patience, and whip and jerk and scold him. Always treat your horse as though he is a gentleman and you are another, and he will never desert you or prove recreant in a crisis—providing he has been properly educated to start with.

While educating the horse upon any one particular point does not educate him on some thing quite different, yet it may contribute to the effect indirectly or in a general way by developing his mental aptitude.

For example: Once when driving the educated mare before alluded to, on the road, after dark, she suddenly stopped. I told her to go on. After taking a few steps, she stopped again. This led me to think there must be something wrong. Where upon I got out of the buggy to ascertain the dilemma, and found that the neck-strap had become detached from the breast collar, allowing it to slip down. This mare had quite thorough drill in connection with various mishaps, but none of this particular kind. Yet all her special drill had been to teach her to stop and stand when she found anything wrong. Whereas, without such drill, on the occurrence of this accident, she probably would have taken fright and become unmanageable. Again, if I had less confidence in the mare, I might have thought she had no

sufficient cause for her actions and tried to force her to proceed, resulting in accident. This illustrates something of the confidence that should exist between driver and horse.



## DEVELOPMENT OF THE TROTTER AND PACER.

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### **Scientific Development of the Trotter and Pacer.**

**I**N order to discuss comprehensively and scientifically the subject of developing and conditioning the trotter and pacer, necessitates a knowledge of the physiological characteristics and functions of the various organs and systems constituting the horse's make-up. And all training and conditioning not based upon such physiological and hygienic principles, is only random and haphazard work; and whatever excellence is attained by such methods, or lack of method is but the result of chance, with odds very much against success.

Among the topics to be considered are—**THE OSSIUS SYSTEM** or bony skeleton forming the substantial frame work of the body by means of which all motions of the body are effected. While, in addition, the bones of the limbs act as levers whereby locomotion is also effected.

**THE MUSCULAR SYSTEM**, by means of which all the motions, movements of the various members and parts of the body, and locomotion is effected—the result of alternate contraction and relaxation of the muscles which are arranged in opposing sets and pairs. Intimately connected with the muscles are the tendons and ligaments.

**THE DIGESTIVE SYSTEM**—the mouth, œsophagus, stomach, intestines, the various glands and fluids which assist and facili-

tate the digestion and assimilation of the food for the nourishment of the body.

THE CIRCULATORY SYSTEM—the heart, arteries, veins, lymphatics, by means of which all the organs are supplied with nourishment, and the effete and worn out matter is eliminated.

THE RESPIRATORY SYSTEM—the trachea, bronchial tubes, lungs—the function of which is to revivify the blood by the elimination of carbonic acid gas and other effect matter, and supplying it with the requisite oxygen. The circulatory and respiratory systems are very intimately connected.

THE NERVOUS SYSTEM—brain, spinal cord, nerves (motary and sensory)—the seat of intelligence and the mental faculties, pain and the control of all the motions of the body and its members.

Hence, the horse is a wonderfully complicated mechanism of vital, mental and physical systems and organs, the harmonious action of the functions of all of which is absolutely essential to his highest attainable excellence, in any capacity to which he is adapted.

It is well known that if the functions of certain organs are wholly interrupted for but a brief moment—as the action of the heart, or lungs—the horse will die at once. Hence, these are vital functions.

The function of the lungs in the process of breathing is to purify and oxygenize the blood; and that of the heart, through the medium of the arteries and the veins, to supply every organ and portion of the body with pure blood. If from any cause the horse is compelled to breathe impure air, the whole system must suffer in proportion to the impurity of the air—a total deprivation of air means death at once. A partial deprivation of pure air means partial death—or what is the same thing, a reduction of vitality, and, consequently, of ability to perform

an arduous task as is instanced in the case of a horse of requisite speed, yet is unable to perform a fast mile, or to win a race, by reason of an obstruction in his throat, the insertion of a tube—tracheotomy—has vouchsafed the vital fluid wherewithall he has been enabled to perform an otherwise impossible feat.

This example illustrates two important principles—the necessity for an abundance of pure air, and the ability to utilize it. And intimately connected with the action of the lungs is that of the heart. In order for the lungs to properly perform their function, there must be an abundance of pure air with free access to the lungs, and the heart must be fully equal to its task of propelling the blood to the lungs—the pulmonary circulation—and also throughout the system—the systemic circulation.

Hence, there are certain underlying physiological principles governing the development of the trotter and pacer, which must be observed to insure approximate, uniform success.

While, as in other departments of equine education, each horse has his own peculiarities—physical and mental—differing in some degree from all others, yet the same general principles may be said to govern; and yet many experienced trainers have got certain essential principles right, wrong; and have, unwittingly, ruined many a bright prospect in consequence.

For example: how often is the trainer seen working out his charge which seems endowed with a marked degree of speed and ambition, but faltering in the last part of the mile. And right here is where the trainer exhibits his utter lack of the science of training. Instead of taking back his exhausted horse with voice and whip he compels him to complete his exhaustion, lest he may become a “quitter.” In his dense ignorance of physiological facts, laying the foundation of the very trait he is endeavoring to avoid.

The horse's preparation and condition have fitted him to go

just so far, in a certain length of time; and to force him to go farther is to induce exhaustion, which will, by repetition, eventually become a habit—both a mental and physical disorder. Indeed, one severe ordeal of this kind is sometimes quite sufficient to sour and ruin a high strung animal.

All the energy of the horse—vital, nervous, physical—is derived from, and maintained by the food which he consumes. This food contains the crude elements from which every tissue—bone, cartilage, muscle, nerve, tendon, ligament, fat, (even the thoughts of the horse are embodied in the growing oats),—is elaborated. While water constitutes by far the larger portion, by weight, of the body, and performs a very essential function in the nutrition of the horse, it is in no way digested, or chemically changed.

The physical economy of the horse is such that the system adapts itself, within certain limits, to the methods of exercise to which the horse is subjected; and the waste and repair may be equal, or one or the other may predominate according to prevailing conditions.

There is a constant waste going on in the body even in a state of repose. This waste is accelerated by any and all kinds of movements, motions and exertions. The elements to repair this waste, is furnished by the food, through the operation of nutrition—digestion, absorption, assimilation—effected by means of the circulation of the blood.

It is the province of scientific training of the horse, not only to maintain the proper and natural balance of the muscular system, but to improve that system in both quantity and quality; and above all to develop that most essential quality of rapid recuperation. And upon this particular feature depends the ultimate success of the trainer's art, so far as the race horse is concerned. The horse may acquire a wonderful turn of speed,

but be utterly unable to carry it for the mile. Or, he may be able to go one fast mile, but incapable of fighting out a race of heats. There are two primary conditions, either of which may cause such a result—the horse may lack the proper kind of work or he may be over-worked.

For a short distance, at the run, pace or trot, the recuperative powers of the horse are not brought into requisition simultaneously with the muscular exertion—recuperation succeeds the effort. The foot-racer can, and does run fifty yards without once taking breath; but he is compelled to breathe more or less violently, subsequently, to restore the equilibrium of nutrition to the system. Every muscular exertion is attended with a corresponding loss of muscular tissue—death to muscular substance which must be eliminated from the system by means of the circulation and respiration, failing in which this effete, or exhausted matter becomes a veritable poison clogging the system.

The blood holds in solution the elements of which every organ and tissue of the body is constructed. And these elements are originally derived from the food. And so long as these elements are readily available from alimentation, the integrity of the muscles is preserved. But, in all muscular effort, the muscular tissue, itself, is, in part, consumed, and must be replaced, or suffer emaciation. Hence, there is a constant change in muscular tissue attending muscular exertion—the old being replaced by the new. And so long as the two operations—the loss and the gain—are equal, the proper balance of muscular tissue is preserved. When by judicious alimentation and exercise, the gain exceeds the loss, increased muscular power is the result. But lack of nutrition or over work, or both, will result in reducing the size of the muscles, and the power of the muscular system.

The functional economy of the constitution of the horse is such that a very moderate or slow locomotion can be maintained for a relatively long time without deleterious effects—the length of time being in direct ratio to the speed attained, the vital and physical operations of nutrition maintaining the equilibrium of waste and repair. But even the slowest imaginary locomotion must not be continued indefinitely, or waste of tissue and ultimate death will supervene. But by increasing the locomotion to a violent rate, the waste at once exceeds the recuperation and exhaustion results—sometimes fatal

The horse is endowed, by nature, with ability for rapid and complete recuperation from the most violent, yet brief, locomotory effort—the foal but a few days old will indulge in the most violent rushes back and forth past his dam while grazing in the pasture, when a few minutes rest will restore his energies.

The judicious and discerning trainer must base his art upon this provision of nature. If the race for the pacer and the trotter had been fixed at a quarter of a mile instead of the mile, and at greater distances, as is sometimes the case, much of the difficulty would be removed, as, in that case, speed would be the prime essential, and endurance of secondary importance. Few horses cannot be trained to carry a very fast clip for that distance. There have been many horses that could trot, and others that could pace a quarter of a mile in 30 seconds, and others even faster, but none yet has been able to go the mile in two minutes with the one exception. Hence, the trainer's capital stock is the horse's natural ability for rapid locomotion for a short distance, and, subsequent, speedy recuperation. It is the province of the trainer to elaborate, supplement and intensify these natural qualities.

The fact that ignorant persons without any knowledge of the fundamental physiological principles relating to scientific

training of the horse have succeeded in developing remarkable speed in the pacer or trotter, does not, by any means, disprove the necessity and efficacy of scientific training based upon physiological principles, for where one such has been trained successfully there have been hundreds of failures.

### **Senator Stanford's Five Rules.**

Exposition and analysis of Senator Stanford's Five Rules for Developing the Trotter, by J. W. Mercer, first published by me in "The Horseman."

Rule 1. "No horse in condition to be worked for speed shall be jogged, as it is then a useless waste of force."

Rule 2. "The amount of work to be given the horse, and the distance he is to be driven, must be determined by his condition."

Rule 3. To develop and to acquire speed, the horse must be driven short distances, but forced in some part of his work to a supreme effort."

Rule 4. "The horse should not be driven far enough to produce exhaustion, since, at that time relaxation occurs and break-downs are the result. Always go to the stable with the full speed left."

Rule 5. "When the horse has acquired speed, lengthen the drive gradually until he has developed the necessary motive and lung power to carry the speed the full distance he is expected to go."

Often we find that while many important and useful discoveries appear to have been the result of accident, they prove, when fully investigated and applied, to be based upon really scientific principles. On the other hand, many equally useful scientific facts are the deductions of theories and hypotheses demonstrated by actual test and experiment. This is

no less true regarding the trotter in training than in other departments of human endeavor. The theories and practices of former years have been very much modified—indeed, revolutionized in some respects. Could the shades of the immortal Hiram Woodruff return from the happy trotting grounds on the golden shore and view in panoramic procession the radical changes which have taken place in the trotting world since the grim flagman caught him outside the distance pole he could illy conceal his astonishment and admiration at the frail “bike,” nicely-fitting boots and lighter shoes with which the modern trotter is now accoutred, nor refrain from holding up his hands in “holy terror” at the quantity of grass fed to Allerton the evening before his race. While many good and fast trotters have been developed by all manner of methods, and by no methods, by systematic training and total lack of system in training, yet the fact remains that to insure the highest general success the trainer must conform strictly to the laws governing physical and mental development.

Ideal success is attained only when the horse has reached the highest degree of speed of which he is capable and possesses a disposition to exert his powers to their uttermost as long as he is asked to do so without any inclination to break from the trot. These attainments cannot be considered of a high order when represented by the “magnificent cripples” which are almost universally the product of the old systems of training. The ideal developed trotter is a paragon of soundness and health. Hence there is much that is radically wrong in any system of development which results in making a cripple of the average horse subjected to it even, as is often the case, before he has had the opportunity to accomplish the object for which he was bred, raised and trained, and may with reason be characterized as a failure.

Rule 1—No horse in condition to be worked for speed shall be jogged, as it is then a useless waste of force.

When the horse is in condition to be worked for speed—speed and the ability to trot the mile out being the great desideratum of the trainer—all his efforts must be exerted with this end in view, the most rigid economy of force must be observed, none to be frittered away in useless jogging. In obedience to the great law of compensation—of waste and repair—a certain amount of exercise is essential to the health of the physical and mental systems of all animals. With less than this, degeneration results; in great excess, relaxation and disorganization ensues. Light, heat and motion are only different manifestations of energy—the result of mechanical and chemical forces. During the life of all warm-blooded animals, as man or the horse, both mechanical and chemical operations are constantly going on within the body—the beating of the heart, the circulation of the blood, the oxidation of the carbon in the blood by means of which the temperature of the body is maintained. These operations are attended by a wasting of the material substance of the body which is replaced by matter furnished by the food and drink of the subject. This waste increases in proportion to the amount and nature of the exercise given.

Let us suppose that three horses, all in condition to be worked for speed, are standing in their boxes. One is allowed to remain in his stall, the second is hitched to a cart and walked three miles, the third is hitched to the "bike" and worked three miles for speed, doing several quarters at his best clip. The first horse has sustained a certain amount of loss of material substance by reason of the performance of the functions and the maintenance of the normal temperature of his body—which loss will be increased as the temperature of

the stall is lowered. The second horse has, in addition to the causes enumerated in connection with the first, to supply the waste occasioned by the exercise taken; while the third, which has been subjected to more violent exercise, has sustained a correspondingly greater amount of waste. The nourishment consumed by the horse is the source from which is derived all muscular and nervous activity by means of which he is enabled to make all exertions more or less violent, and his capacity to consume and assimilate food measurably determines his ability to make and sustain the effort necessary to trot a fast mile or race. The food is the fuel which supplies the steam to run the engine.

The fact that many trainers are accustomed to spend so much of their time and the energy of the horse in jogging gave rise to this first rule, which was a radical innovation in the methods generally followed. To illustrate we may introduce comparisons: The horse is in condition to be worked for speed. We boot him, harness him, and hitch him up just the same as we should to race him. Remember, we are not going to jog him, but to work him for speed. Of course he will be both walked and jogged incidentally, but not in the usual acceptance of the term as will be seen further on. We walk or jog him the reverse way of the track, up to the quarter pole; here we turn round and start along down toward the wire, finishing at a good stiff gate. Now we walk him back up to the quarter-pole and brush down as before, sending him along from the eighth-pole as fast as he can trot squarely. This is repeated perhaps five times. Each effort has aggregated a little more than half a mile—in all about three miles. If desired the horse may be started up and brushed back and forth through the stretch instead of in the manner described. He must now be properly cooled out and returned to his box.

It will readily be seen that no force or energy of the horse has been wasted in idle jogging, but expended in developing speed. Theoretically the horse is to be worked on this plan daily, and in accordance with rule 2. The illustration is only typical of the system of training.

Now let us consider what has been accomplished by our neighbor who came out with his horse hitched to the cart at the same time we came out with ours. He, too, has a rule, which is to jog his horse ten miles every day, he does not "repeat" him. He is a very moderate jogger, for many horses are jogged fifteen and twenty miles daily. He is kept quite busy and at the end of an hour the jogging is completed. His horse, covered with foam and sweat, is hurried off to the barn, for this trainer has another rule, which is to "always have a scrape on the horse when he is brought in so he can 'rub him out,' " and, if properly done, it will require an hour more to "cool him out." What has been accomplished? Surely no speed has been developed. On the contrary, no inconsiderable amount of "force" has been wasted and much valuable time squandered, for the horse can trot no faster then when taken from the stall, nor has the jogging in any way prepared him to increase his speed in the future. The next two days we work our horse in the manner described and our neighbor does his daily jogging.

Now compare results. By a well-established physiological law the animal organism acquires power, ability and facility to perform feats of strength and agility by practicing or repeating acts or feats leading up to the climax of the performance, always in a progressive manner, so that no overt act of violence may be done to any organ concerned. Our horse has been trained three consecutive days, on each of which he has exerted himself to his utmost, his full speed having

been required of him several times for a short distance; consequently he must be three days nearer the point where he will be able to trot a fast mile. Can the same be said of our jogging neighbor? Certainly not. All in the world his daily ten miles' jogging has effected is, perhaps, to better the condition of the horse to do the same thing—jog ten miles in the same or less time, or jog a little more than ten miles in the same time, depending entirely upon whether the horse was originally capable of jogging ten miles within the given time without injury, which may or may not be true. Certainly, in accordance with all physiological and hygienic laws, he has in no wise accomplished any direct improvement in his capability of going a fast mile.

Rule 2—The amount of work to be given a horse and the distance he is to be driven must be determined by his condition.

In our consideration of rule 1 we assumed five turns beyond the quarter-pole and back to the wire to be about the right amount of work for the horse, but in accordance with rule 2 the amount of work to be given must not be fixed arbitrarily, yet our jogging neighbor impartially gives each horse ten miles daily. He assumes that every horse in training needs ten miles at least.

As stated under the analysis of rule 1, there are two methods of applying it; the horse may be walked or jogged slowly up beyond the quarter-pole and then brushed back past the wire; or he may be brushed back and forth through the stretch or round the turn. The former method is preferable in the earlier stages of training, the latter when the horse is in condition to take more work. However, if the horse is to be given more than five or six brushes as mentioned, it will be well to take him from the track, walk and

rest him up for twenty-five or thirty minutes, then return him for further efforts; or he may be worked twice a day, over-work being studiously guarded against.

Rule 3—To develop and acquire speed the horse must be driven short distances, but forced in some parts of his work to a supreme effort.

Development of speed at the trot, like all physical and mental acquisitions, must be the result of efforts directly in line with the object to be accomplished. Every time the horse is induced or forced to trot faster than before, speed development is the result. In contra-distinction each day that the horse is jogged ten miles, as before mentioned, no speed is developed; but, on the contrary, he is developing the ability to trot ten miles at the rate at which he is driven repeatedly, whatever rate that may be. No horse possessing phenomenal speed can trot a mile relatively as fast as he can a quarter, however thorough his preparation; yet, ability to trot a fast quarter is reasonably presumptive evidence of an animal's capacity to trot a fast mile when properly conditioned. On the other hand, the horse that cannot learn to trot a fast quarter is not very likely to learn to trot a fast mile.

Rule 4—The horse should not be driven far enough to produce exhaustion, as at that time relaxation occurs, and break-downs are the result. Always go to the stable with the full speed left.

That few horses now remain perfectly sound during their course of training is, alas, too well known. There must be a cause for this wholesale production of cripples. The cause is not hard to find. A colt is considered sound at birth, barring hereditary weaknesses; but was there ever a colt free from entailed unsoundness foaled in domestication? Now, were

this colt allowed to run in the pasture "at his own sweet will," and never galled with the weight of harness or saddle, he might attain a ripe old age free from blemish or scar and be to all appearances, sound, with even his hereditary defects measurably obliterated.

Mother Nature's efforts may be exerted in this wise: The vital and physical energies not being called into frequent excessive action, as in the case of the horse or colt in training have leisure to repair and strengthen the innately defective or weak parts the result being a comparatively sound animal one, at least, with no visible deformities; whereas, when the nervous and physical forces are exhausted by long continued or too frequent violent efforts, there remains no surplus energy to repair hereditary or acquired defects. "A chain is no stronger than its weakest link," runs the old saw, and by too frequent excessive exertions the whole system is weakened and the defective parts give way.

Had former methods of training been less rigorous, and especially had these efforts been shortened, thereby permitting the restoration of the equilibrium of the vital and physical forces, strength would have been added to strength, in lieu of exhaustion and ultimate break-down. Practically the same perfection in the animal may be attained and maintained during the course of training as in the case of the horse in the pasture, if his efforts are never carried to a point approaching exhaustion and ample times is on all occasions allowed for complete recuperation. By this means and this only can perfection be approximated. Any course in which these facts are not observed is suicidal.

At some point during this daily training the horse is, if his work has been properly graduated and the conditions are right, able to surpass anything he has ever been able to do

before. This is the end to which all his training up to this time has been done. Very well; he is given the necessary preliminary preparation, he makes the effort, he trots the eighth, quarter, half or mile better than ever before—better than it was thought he could. Will wisdom or good judgment dictate that he shall be required to repeat the effort over and over—again till he is on the verge of exhaustion—nerves, heart and muscles all in a flutter—or that he be “returned to the stable with his full speed left,” to recuperate for a subsequent su-effort? The fact that a horse has surpassed all previous efforts is evidence sufficient that he needs immediate recuperation, for it is the high tension to which his system has been subjected that tells upon it, much more than an extended moderate effort. If he is repeatedly compelled to make the effort until, from exhaustion, he has neither the disposition nor ability to approach his best, his actual progress in speed development and racehorse qualities are materially retarded, if not permanently lessened. He has received a set-back in his work which time alone can repair. His disposition has been soured. Not only this, but any predisposed weaknesses are much aggravated, and culminate, perhaps, in positive lameness. His chances subsequently to excel his previous high-class performance are not nearly so good as they would have been if “returned to the stable with his full speed left.”

Rule 5—When the horse has acquired speed lengthen the drive gradually until he has developed the necessary motive and lung-power to carry the speed the full distance he is expected to go.

Theoretically, the horse has now acquired the requisite speed, and it remains to complete his condition to carry it the mile or series of miles. This feature of the horse's education requires quite as much moderation, skill and judgment

as in the previous stages of training; for, while every eighth, quarter and half-mile performed properly is a passport to his ability to go a fast mile, the faster he can go an eighth or quarter the more likely is he to be overdone. There are so many evils resulting from overwork that it cannot be too studiously avoided. These are manifest in a horse's hitching, hopping, breaking, side-reining and the many other faults which go to perplex the trainer and retard the progress of the trotter. Hence, to insure legitimate and permanent improvement, the horse must not be forced nor permitted to exert himself for any distance beyond which his previous preparation has fitted him to go without danger of overworking him, which is a more serious matter than many suppose.

It is a noticeable fact that a colt, however young, at least after a week or two old, is able to run a short distance, perhaps an eighth of a mile, at a terrible rate with no previous special preparation and with no apparent injury. Also that a young thing, perhaps less than a year old, may be harnessed to the cart and compelled to draw a man repeatedly for a short distance—an eighth of a mile—at the trot, pace or run, with no perceptible evil effects.

Why, a pacer fourteen months old, weighing less than 600 pounds, the past season often pulled a man eighths of a mile in less than 17 seconds—better than a 2:20 clip. Some parts of this distance he could pace a two-minute gait. But the clip was so terrific that if he started away at his best he was liable to falter at the finish of the 40 rods. The same is true of the fastest and best conditioned pacer or trotter that, so far, ever lived in going the mile. If he is strung out from the start he is sure to slow up before the wire is reached. Without entering minutely into the details of the hypothesis, suffice it to assume that any sound colt a year or more old can

trot or pace an eighth of a mile at his best clip without injury, that he can do this with no previous preparation other than sufficient to break him to harness, that he can do this repeatedly within reasonable limits, that he can go a longer distance at a correspondingly slower rate up to the mile. Conversely, the mile appears to be the utmost limit to which the horse can carry his clip; indeed, experience so far has shown this distance quite too long.

It is a consummation devoutly to be wished for by the trainer that he may ultimately be able to get his charge to carry his full speed to the end of the route. Hence the trainer's stock in trade is the eighth of a mile—forty rods—and his fortune to be amassed is the mile—320 rods. Therefore his success in business depends entirely upon whether or not he squanders his patrimony in riotous living or practices the necessary economy and frugality.

### **Practical Development of the Trotter and Pacer.**

There is scarcely a locality in the whole length and breadth of the country where the ubiquitous trotter and pacer is not now to be found.

And since the market value of the light harness horse is almost wholly determined by his education and his speed, a chapter on the practical development of the trotter and pacer is here included, which, it is sincerely hoped, may be of much value to all who have such stock to handle.

The scientific aspect of training the trotter and pacer is treated under the articles: "SCIENTIFIC DEVELOPMENT OF THE TROTTER AND PACER," "THE EXPOSITION AND ANALYSIS OF STANFORD'S FIVE RULES FOR TRAINING THE TROTTER."

Also the primary education of the horse; the care and balancing of the feet, in common with all kinds of horses is pro-

vided for. Hence, when the time comes to begin the practical development of speed, the horse is supposed to be thoroughly broken, and tractable; and that his practical development is to be conducted upon scientific principles.

Supposing the subject to be a young thing—yearling, two-year-old or three-year-old; or older; the work is to be conducted in the same general way—varied in accordance with the prevailing conditions.

And, since this department is intended especially for the amateur trainer, I shall enter somewhat into the minute details.

Supposing the colt to be well broken and tractable, and you are now to give him his first lesson upon the track. Have the colt's feet trued and balanced as directed elsewhere in the work, and work him a little time bare-footed. Or have him shod all round with light plain shoes at first, and study his gait and action.

Hitch the colt to a light cart, drive him on to the track, turn him to the left and proceed slowly the "reverse," or "wrong way," well to the outside. Drive him a few times round in this direction. Now turn him, go in well up toward the "pole"—inside—and drive him a few times round in that direction.

This work is to be continued and repeated daily, until the colt has become familiar with all his surroundings upon the track. Then he may be brushed along a little at intervals. It is always best to have him well disciplined before changing him from the cart to the sulky; for it is very important not to permit him to make any mistakes.

The amount of this preliminary work must be determined by all the attending circumstances—condition and disposition of the horse or colt; the season of the year; the time that can be devoted to this work; the kind of cart used—if you have one of the light modern speeding carts, then no need to hurry the

change to the bike. However, when the time has come to begin his work for speed—and this is just as soon as the track is in safe condition—the colt should be hitched up right, and hitched light; and his work begun, and no time fooled away in useless jogging.

We will suppose our subject to be a two-year-old trotter, of average size, and fairly gaited, well broken and educated to the track; shod—eight or ten ounce shoes in front, and four or five behind. It is best to boot him up pretty well, as a precaution against hitting himself—it is much easier to prevent faulty action as a result of striking, than to cure it. Put on quarter boots, scalpers, front and hind shin boots to start with: and any others that prove to be necessary to protect him.

After a time such of the boots as he does not need, may be left off.

Check the colt up loosely at first—sometimes a side check may be used to advantage. The manipulation of the check is a very important feature in training the trotter and pacer.

All the preliminaries having received due attention, hitch up the colt and drive out upon the track—supposing it to be a mile track. Go back up the stretch above the distance stand, turn round, and start back at a good fast jog. After passing the quarter pole, pull up and talk the colt back to a slow jog. Jog on slowly round to the three-quarter pole; here begin to move him along faster, gradually increasing his speed, finishing down past the wire at a good brush. Pull him up, turn round and walk him back up beyond the distance stand.

Now turn him round and brush him down well past the quarter pole, gradually swinging out from the pole toward the middle of the track, slow up, turn round and walk him back well past the first quarter pole. Turn round again, swing in close to the pole, start him along, and drive him on past the

half-mile pole, letting him step the last eighth about as fast as he can go good gaited. When well past the half pole, gradually swing out, slow up, turn round, and walk him back well past the half pole. Turn round and work the third and the fourth quarters in the same manner.

This will make a work-out for the colt. Now take him to the barn, unhitch him, give him some water, sponge off his mouth, nose, and eyes, take off his harness and boots, and sponge off his legs.

If the weather is cool, cover him up so he will be kept warm, and walk him ten or fifteen minutes. Then hitch him up and give him another similar work-out. And yet one or more additional ones, according to the circumstances of the particular case—always bearing in mind that it is far better to work the colt to little than too much. The colt may be worked in this way every day, so long as he keeps right, and shows improvement in speed, condition and disposition. If he gets a little stale, give him less work, and a day or two off; and to exercise him, WALK HIM; don't jog him, which, as is usually practiced, is an abomination.

There are several purposes to be subserved by this method, of working the colt. All his energies are utilized in developing speed and condition. He can be worked every day for speed. He can be given far more work with less danger of injury than by the ordinary method. This is the natural way to develop speed and condition. He is taught to rely more implicitly upon his driver. By constantly talking to the horse while speeding him he learns to take his cue from his driver and is governed accordingly.

This method of training early teaches the colt to square away and get on his stride promptly—a most invaluable acquisition in the road horse or the track horse. The horse that can

be relied upon to turn round, come to the wire on his stride, and get away at, approximately, full speed, has an immense advantage over the horse of the opposite proclivities, though the latter may outclass the former in the matter of speed. Often the erratic, speedy horse scores himself and most of the field to death; and loses the race to the horse of less speed, but more sense, and better education, that will go back up the stretch a short distance, turn short, get away fast, stop and come back at the tap of the bell; repeat this as often as required, and go for the heat fresh and strong when the word is given. This system of developing and training the colt prepares him for all such emergencies. The horse that has to be taken away back in the vicinity of the three-quarter pole and then carried away down near the quarter pole before being pulled up and turned, at each score, is fatally handicapped in comparison with the horse that has been developed and trained by this system—other qualifications being approximately equal.

And the driving horse that can turn round and get away promptly; or start up and get on his stride at once, is much more satisfactory than one that may have even more speed but is beaten in the brush before he can get started.

By this system of development, the colt never gets unduly tired and winded; while the contrary is true of the conventional system. And it is when the colt becomes tired that he hits himself and becomes bad gaited. And it is always the most promising and speediest colts that go wrong first when injudiciously trained; for their great speed quickly tires and exhausts them; then they commence to strike and go bad gaited. Continued repetitions of this mal-treatment causes the trouble to become chronic, the colt cranky and sour; and the brightest prospect proves a signal failure to the surprise and chagrin of both

trainer and owner. Hence, it is that the natural inheritance of extreme speed may prove fatal to its possessor.

As soon as the colt begins to tire he commences to lose his precision and harmony of action—goes broken or rough gaited—he is to be taken back at once; further fast work is a positive detriment.

Every time the colt performs a quarter as fast, or a little faster, than ever before, smoothly and good gaited, he shows substantial improvement. For it demonstrates that his improvement is progressive; and that he has suffered no deterioration from overwork or otherwise; and that he is one more point advanced toward the consummation for which he was bred, and is now in training. And every time the colt is forced to carry his clip beyond the distance for which his condition and preparation has fitted him, he must suffer injury; and, by indefinite repetition the injury becomes irreparable.

The development of speed in the colt should be constant and gradual—not spasmodic.

While the course already prescribed is to be generally practiced, and relied upon for the development of speed it is to be varied and modified: Occasionally work the colt the half in the manner prescribed for the quarter; that is—mix in a half in place of the quarter once in a while, as his work is advanced and his condition sufficiently improved. Then, occasionally, give him a slow mile—the first quarter fast, and the last eighth or quarter fast according to the condition of the particular individual.

Work the colt in company as much as possible.

At any time when the colt appears unduly warm, or distressed, either let him walk till he recovers or what, perhaps, is better, take him off the track and cool him out—it is suicidal to continue to work him for speed, while in that condition.

It may occur that after the colt has been taking work kindly and all right, for a time, on going out upon the track, as usual, he may not act like himself—appear cranky, and manifest ill temper in various ways; not inclined to step out with his usual spirit; breaks when urged to go along; shakes his head; fights the check.

Any real trainer, after working a colt long enough to become familiar with his individual, mental and physical idiosyncracies should be able to determine at once, when he is in proper form for work and not “shamming” as is often assumed. However this is one of the distinctions between the “would be” and the real trainer.

The sagacious trainer will apprehend, at once, that something is amiss with the colt; and not commit the egregious blunder that many do—whip and run him; pull and jerk him, because he is “cranky;” but take him from the track at once; unhitch him and return him to his box, and ascertain what is wrong with him. Learn the condition of his temperature and pulse. If no need for medical treatment is indicated, cover him up according to the temperature of the weather and give him a little walk in the open air—in the sun, if the weather is cool. and in the shade, if hot; give him some grass if obtainable. Get him back into form before trying to work him for speed.

The work of the colt so far prescribed, is designed, primarily, for the development of speed. And, yet, every fast eighth and quarter he has performed, has directly contributed to his abilities to perform a fast mile, by the enhancement of the two essential prerequisites—speed and condition.

So, also, shall his subsequent special preparation for the mile, continue to contribute to his speed development.

Supposing the colt's work has progressed satisfactorily, and the time has now come to prepare him for a mile trial.

Get him ready, go out on the track, and give him his preliminary brush work. Bring him in and cool him out.

Hitch him up again, return to the track, go back about 150 yards above the wire, and score him down 150 or 200 yards past the wire. Pull him up, go back about the same distance as before, and come to the wire about as fast as the colt can go—this time you are going the mile—and work him along fast, well past the quarter pole, then take him a little, keeping on, and when you reach the three-quarter pole, finish the mile as fast as he can go.

Take him in, cool him out, and work him another mile or two in the same way.

The following day his brush work may be resumed; and the next, his mile work repeated.

As his mile work progresses, it is to be varied by extending his drive in the first part of the mile beyond the quarter pole, gradually approaching the half pole.

Then easing him up through the second quarter, and working the last half fast.

Then, again, working the first and last quarters fast, with a good stiff drive all through the middle half.

The colt should now be worked only alternate days, and given a walk of about two miles twice a day, on the other days—not jogged.

Or worked two days and walked one. Or worked one day and walked two, to be determined by the condition, and requirements of the particular case. Under no circumstances, overwork him.

The colt can be prepared, and given a few mile trials, in this way, and then his work for speed development resumed.

And, at intervals, given further trials, if desired; but at no time should the colt be strung out for a mile—one that has suf

ficient speed and breeding to warrant his being trained for a track horse.

Nor is such a course at all necessary; for any one possessing sufficient skill and judgment to be a successful trainer, can determine approximately, what the colt is capable of doing, without the hazard of such a test.

There are no "cast iron rules" applicable to the training of the trotter and pacer.

While upon almost every page of this chapter, and upon some pages perhaps twice, I have admonished the trainer to studiously guard against over-working the colt, this feature of the work is of such vital importance that I am constrained to recall special attention to the matter again at the risk of being tedious.

There will be found colts possessed of different degrees of natural speed from the one that can scarcely hit a trot to the one that can "stop the watch."

And I apprehend that if the statistics were available, it could be shown that the phenominally promising colt has proven a failure quite as frequently as the one of the mediocre class. Why is this thus? Why this apparent—or rather real paradox?

Has nature's endowment of early speed necessarily entailed premature decay? Well, nay, verily. Everything else being equal, I will take the natural born trotter for mine. Yes, and I'll give you odds. Nature has made no mistake. It is lack of skill and judgment in the trainer that has wreck and ruin wrought.

The colt or green horse of the mediocre class has so little speed, and his development is so slow that his condition keeps quite in advance of his speed; while exactly the reverse is true of the born trotter—he is never in condition to do the work required of him. That is, by the average trainer. Hence, as a natural consequence, he must sooner or later, begin to go back;

and keep going back till surpassed by his 'erst while' much less favored brother. And yet such should not be the case. The natural trotter should and would, if properly treated, always out trot the artificial trotter.

The phenominally fast colt must be trained upon physiological principles, and with mathematical precision; and his speed and energy economized with as much assiduity as your bank account.

No off hand haphazard training is to be tolerated. Every rod the colt is driven must be for a distinct purpose, and counted in his work.

Always carry your timer with you and note accurately, and record every brush the colt makes. And when, at any time, he shows a brush considerably faster than ever before, which he is sure to do when treated in this way, why, then don't try to beat it the next time you come to the track, but take him back for a few days and bring up his condition to this advanced point.

Always work the colt or horse upon the track, when working him for speed. Never upon the road. All this talk about the horse's becoming "track-sick" is nonsense—if the horse is properly trained. The track is far more safe and suitable to work the trotter or pacer for speed; I have known many horses injured, and some ruined by working—jogging—them on the road. If you want to "city break" the horse, that should be quite a different thing, and can be best done as a separate accomplishment, when the time comes—at sometime at least, when he has no track duties to perform.

Having determined how much work you think the colt should have, it will be a very safe proposition to give him only about half the amount for the first sixty days—more especially if he has great natural speed.

But it is so easy and so natural to want to drive the speedy ambitious colt a little further and a little faster that it is so hard for some to refrain!

The colt in mind, in the work so far laid out in this connection, has been the two-year-old. However, the same kind of work, in general, is to be given to all undeveloped horses worked for speed, of whatever age. But the amount of work must be determined by the requirements of each.

All the while the colt is to be properly fed, cared for, booted balanced and shod; each of which considerations requires rare skill and mature judgment; and the lack or neglect of either may prove disastrous



This cut was made from a photograph of Wapsie L., by Wapsie, son of Green's Bashaw. He was a dun stallion, five years old at the time 1890—weighing 1250. He was a pacer with much speed, but not quite breeding enough to go the route,

I educated him to drive without the bridle or lines; and gave



WAPSIE L.

exhibitions with him at a number of places in Nebraska, as will be remembered by many.

Perhaps there is no practical utility in so educating the horse, further than indicating the possibilities regarding his education. If a young stallion can be so educated as to be perfectly reliable to be driven with neither bridle or lines, what may be said relative to the shameful inadequacy of the education usually accorded the horse?

## BREAKING THE HORSE TO RIDE.

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**E**VERY horse should be broken to ride, and by means of the grape-vine hitch, and the inductive system, it becomes a very simple matter attended with little or no danger of accident. Give the horse the usual work out in the grape-vine hitch. Get on and off his back from both sides, repeatedly. Ride him from his ears to his tail. Put on the saddle and take off, repeatedly. Bridle him; get on, take the reins and "make believe" riding him.

Give him this kind of work several times a day for several days, when he will be ready for his first lesson in real riding.

Now put on the saddle and bridle. Saddle up a good gentle horse broken to ride, with a good strong saddle with horn.

### **Breaking Horse to Saddle.**

Get on to the broken horse and take a turn or two of the lead rope round the horn of your saddle, bringing the horse up quite closely. Now let your assistant mount the green horse, and quietly start along.

The preparatory work given the horse in the grape-vine hitch has familiarized him with saddle and the man on his back. His education is to be continued by teaching him to move along and the use of the reins. By having a short hold on his lead rope he cannot run forwards or backwards; he cannot pitch or fall backwards. About all he can do is to go along. Indeed, that is about all he will attempt to do.

After working him for a time with a short hold, let out a little more slack; increasing it from time to time, eventually allowing quite a length of rope, accordingly as he can be trusted.

This is the inductive system of breaking the horse to saddle, by means of which any horse can be safely and completely broken without his ever learning to pitch or buck.

It is the consummation of brutal foolishness to put a double cinch saddle on a green horse, then mount him and punish him with spur and whip as is the manner of the "broncho buster."

During this preparatory riding, carry a light riding whip to touch up the horse. The proper use of the whip is quite an essential part of the horse's education.

After a few lessons in leading, the horse will learn to follow without leading; and later to go independently.



## TREATMENT OF THE FOAL.

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SINCE the value of the horse is so largely determined by his docility, intelligence and education, no pains and efforts should be spared to perfect these valuable qualities. And to one not familiar with the real conditions prevailing upon the farm where the horse is bred and raised, relative to his treatment, it may appear presumptuous to assume to instruct the farmer, who is an experienced and successful breeder of horses, and whose father and fore-fathers, from time immemorial, have likewise pursued the same avocation, in the details of his business. But "by their fruits ye shall know them." And by the same token, it is painfully evident that most of them have come far short of their possibilities.

The old adage—"Whatever is worth doing, is worth doing well," is strikingly true regarding the horse. If he is worth raising at all, he is worth raising rightly.

In order to give the foal the right kind of a start in his education, give him the right kind of parentage—don't breed from vicious stock—sire or dam. For the disposition—especially a bad one is most certainly transmitted. Don't breed from stock affected with any hereditary unsoundness, or malformations; it costs just as much to raise an inferior horse as a good one; and he is not worth half as much on the market, and is much harder to sell at that—a buyer will always hunt a good horse, while a poor horse has to hunt a buyer, and then does not always find him.

Sell your inferior stock and keep only the best for breeding. Then you will have stock that will pay for raising, and will be a source of satisfaction,

This has reference to his education, only. When the foal is but a few days old, his education should be commenced. The dam is supposed to be gentle and tractable. Approach the foal quietly, place one hand under its neck and the other back of its hind quarters. In this way it can be restrained from going forward, backward, or breaking away. It may struggle for a short time in its efforts to escape, but will soon become reconciled and quieted. When it has become passive to this treatment, after a few lessons, it may be further instructed by causing it to move forward—when starting it say: "Get up," or "Go on." After moving a few steps forward, say: "Whoa," and cause it to stop promptly. This informal instruction is the foundation of the education of the future horse; and it cannot be commenced too early.

### **Haltering the Colt.**

When the colt is a few days old, it should be handled with the halter, and thoroughly broken to lead. Put on its head a nicely fitting, light halter with a long lead rein provided with a snap. Pass the rein back, on the left side of the colt's neck across over the withers to the right side, around the quarters where the breeching comes, then forward on the left side, forward across the withers to the right side of the neck, and down through the chin strap of the halter. Now grasp the two parts of the lead rein under the neck with the right hand, and the chin strap of the halter with the left hand. The colt is now to be worked in the same manner as described above—moving it forward at first by drawing upon the rein about the quarters, with the right hand, while restraining and guiding it with the left. Gradually the pressure may be changed from the right hand to the left, as the colt learns to yield to the change.

It will much facilitate teaching the colt to lead to have an

assistant lead the dam about in various directions, while you direct the movements of the colt. In a few lessons of this kind the colt will have been taught to lead.

The head-stall may be left on the colt, and, at intervals, it should be given further practice in the art of leading.

### **Teaching the Weanling to Lead.**

In no case should the colt be suffered to go unbroken to lead longer than till weaning time. Suppose this to be the case, and the colt is now four or five months old. Of course, as stated elsewhere, the colt should have been thoroughly handled and tamed, beginning when but a few days old. If this has been done, there will be no trouble in putting the halter on it and very little in teaching it to lead.

If the colt has not been handled and is consequently wild, as colts usually are, get it into close quarter—a box-stall—and halter it, putting on it a good strong nicely fitting leather halter with lead strap attached. Now take a half-inch rope fifteen or twenty feet long, at one end of which splice in a two-inch ring or tie a loop through which the rope will pass easily. Pass this rope round the colt's body just in front of the hips, passing the free end of the rope through the ring at the other end, bringing the ring immediately under the body. Now pass the rope forward between the front legs, and up through the lead ring of the halter. Take a position to the left and a little in advance of the colt's head; say—"Come here!" at the same time giving a sharp strong pull on the rope. The colt will probably hump his back, switch histail, and may be kick a little. But no matter, he will also move forward in your direction. Talk to him kindly, caress him, and repeat the operation several times—to the right and to the left, when in a short time the colt will follow you in any direction. Gradually change the pull from the

body rope to the lead; then on both together; and finally upon the lead strap. It is well to have your assistant drive the colt along at first, and until it gets the idea of leading. It is entirely wrong to pull directly forward upon the lead strap at first, as this is sure to excite resistance by the colt. And in this instance as in every other in the education of the horse resistance on the part of the horse is to be studiously avoided, except when you have him completely under control, as when secured in the grape-vine hitch, the primary purpose of which is to convince the horse that resistance is fruitless.

To teach the colt to stand tied, take him into the stall, tie him quite short with the body rope, and more loosely with the halter strap, so that if he is disposed to pull back, the strain will come upon the body rope and not upon the halter strap. It is best to tie another horse in an adjacent stall for company for the colt. To further reconcile the colt give him a small quantity of grain and hay to work at. If he is inclined to pull back, no matter if he tries the body rope a time or two, it will only convince him of the uselessness of his efforts. But it is very important that he does not pull on the halter till he is thoroughly broken, and then he never will. Let the colt or green horse pull violently a few times upon the halter and lunge forward into the manger, and the chances are that you have developed a halter puller.

Even though the colt or horse may be thoroughly broken to lead, when first tied up in the stall, it is well to tie a rope across the stall behind him to prevent his backing out of the stall, or pulling back.

Not by force nor yet by punishment, is the horse to be educated, but by strategy.

Another method of teaching the colt to lead, is to take a rope of sufficient length, double it in the middle, drop it over

the colt's rump, allowing it to fall down about where the breeching comes, cross the rope over the colt's back, and bring an end of the rope down on each side of his neck, and pass both ends through the lead ring, or the chin strap of the halter, and buckle a surcingle snugly around the colt to hold the rope in place; and use this rope in the same manner as directed for the body rope. However, the first method is preferable.

One of the very earliest lessons imparted to the colt should be that of having his feet and legs handled. For two reasons should this be done: When the colt is young and small, it is much more easily handled, and offers little resistance. And in order to insure sound feet and legs, the colt and the horse must have his feet rasped and dressed at regular intervals.

Besides, for the horse to be educated, he must have every square inch of his surface, and every member of his body—legs, feet, tail, ears, nose, mouth, brought under complete subjection



## MISCELLANEOUS TOPICS.

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### **The Double Foot Rope.**

**T**HE single foot rope, and some of its uses has been previously mentioned. And while the "W." or double foot rope is the principal means of control, and education of most modern "horse breakers," the inductive system of educating the horse finds but little necessity for its use. However, the "eclectic" province of this system permits the use of any and every proper means to accomplish the desired end.

### **Arrangement of the Double Foot Rope.**

The simplest arrangement for the double foot rope consists in a strong surcingle on which are placed three common two, or two and a half inch rings; two ankle straps with a ring on each; and a rope of convenient size, long enough for the purpose.

Tie one end of the rope in the right hand ring on the surcingle pass the other end down through the ring of the ankle strap, back up through the middle ring on the surcingle, down through the ring on the left ankle strap, and back up through the left hand ring on the surcingle, and the appliance is complete. There are other ways of constructing the double foot rope, but this arrangement is simple and inexpensive. If you have not the surcingle, any strap or rope may be used for the purpose; or the back pad of a harness can be used, and the rings slipped upon the belly-band.

While it is very seldom necessary to use the double foot rope except for the purpose of laying the horse down, doubtless

there may be cases where it can be used to advantage. But care should be exercised to avoid injuring the horse's knees

### **Laying the Horse Down.**

Every horse should be taught to lie down as an accomplishment. But whether or not his education in this respect is carried to that extent, he should be laid down a number of times, until he can be readily restrained when down.

In certain accidents, the horse is liable to be thrown down, when it may be advantageous to keep him down while extricating him.

Take the horse out to a piece of yielding ground where he will not hurt his knees; put on the double foot strap, bring him to his knees, and while in that position, bring his head round against his right shoulder, when he can be readily brought over on his left side, and held in that position.

After laying him down a few times in this manner, at each succeeding effort he will offer less resistance; and eventually can be caused to lie down by taking up one front foot, or by tapping him at the back of the knees.

### **Teaching the Horse to Pull.**

What should constitute a very essential department in the education of all classes of horses excepting the light harness horse, is quite generally overlooked—systematic education in drawing a load; or, more particularly, in starting a load. This very important and valuable qualification, like many others pertaining to the education of the horse, are left to chance. Whereas it should be a matter of direct and systematic instruction.

The prior essential requisite to direct instruction in the art of drawing—starting—a load, the horse must have been taught

to stop and stand quietly, and to start off steadily—no jumping nor jerking.

An ordinary wagon with a brake is, perhaps, the most convenient and available vehicle to use in teaching the horse to pull.

If the horse is to be worked double, his mate must be a good steady prompt horse. Having such a wagon and horse, first be sure that the colt's harness—especially the collar and hames—fit him nicely; hitch up the team, and walk them for ten or fifteen minutes, and you are ready to begin the colt's first lesson in the art of drawing. Stop the horses and let them stand a few minutes, the lines lying loosely. Now draw up the lines, shaking the bits lightly, say: "Get ready boys." Pull up the lines so as bring the horses up squarely, then say: "Go on boys." Go forward fifteen or twenty rods, and stop. Let the team stand for a few minutes and repeat. After a number of starts have been made, and everything goes all right, apply the break—very lightly at first—gradually increasing the pressure, at each succeeding start. If the horse is quite green, or becomes restive about stopping and standing, just drive round a small circle, back to the original starting point each time. After working the team a few times round in one direction, work them in the other—alternating each way.

This work can be carried to any extent within the powers of the horses, by gradually adding to the weight by loading the wagon and setting the break; but for all ordinary purposes it is not necessary to carry the work to the extreme limit. Yet it should be continued and repeated until the horse has fully mastered the problem of starting a dead weight, which can only be accomplished by proper education and practice.

The horse may be taught to pull single, by the same system as prescribed for the double puller. He must be first thorough-

ly educated to stop and stand, and to start off steadily. Fit the harness nicely, so nothing will hurt or annoy him; hitch him to a single wagon with a brake, and subject him to the same course of instruction as laid out for the double worker.

### **Fitting the Collar.**

In either of these cases—single or double—constant care must be given to the fitting of the harness, particularly the collar, to guard against bruising or otherwise hurting the horse's shoulders. And, by the way, let me call the attention of the farmer and all others having the care of horses to the importance of having the collar fit the horse; and the hames to fit the collar. The ordinarily constructed collar, if the right size, will work all right on the horse having neck and shoulders of the ordinary type. But there are many horses having necks and shoulders varying much from the typical form. The shoulder instead of presenting an abrupt projection from the neck has a very sloping wedge-shaped structure. Then, again will be found horses whose shoulders are fairly well formed at the point, but the neck at the top of the shoulders is so thick that no common collar will fit them comfortably. All such horses should have collars made and fitted to them, by an expert collar maker; for it is impossible to work them in common collars without causing sore necks or shoulders—very often fistulous disorders.

### **Fitting the Harness.**

Having fitted the properly constructed collar to the horse, it is necessary to properly adjust the harness—particularly the hames. Bring the hames up closely to the collar from top to bottom, and adjust the draft properly—neither too high nor too low.

Very frequently when a green fleshy horse is put to work his

collar fits him, but he gradually loses flesh, his neck and shoulders shrink, and his collar becomes several sizes too large. All such horses should have daily attention to keep the collar and hames properly fitted.

### **The Kicker in Harness.**

The horse's habit of kicking in harness, like all his other chronic vices, is usually the result of mismanagement. Though some horses are very much more predisposed to kick than others. And this fact but emphasizes the necessity for the greater tact in the management of such, at the outset. As a preventative, there is nothing equal to thorough and repeated work in the grape vine hitch, by which means the horse learns the futility of his efforts to kick, as well as the harmlessness of his imaginary foes.

When he has given up his efforts to kick, and the time has come to hitch him to the cart, put on him a Sisson kick-strap if you have one; if not, take a three-eighths or half inch rope, long enough for the purpose, double it in the middle, run the two ends up through the bit rings, bringing the middle of the rope across the horse's nose. Now cross the ropes and pass the two ends through the over-check loops on the crown piece of the bridle, back through the territs, through a ring to be fastened firmly to the crouper strap a few inches above the tail, then down and tie to the shafts.

Where the ropes cross above the nose, they should be securely tied; or perhaps it is better to bring them side, and tie them without crossing, since this arrangement will cause the ropes to fit a little better. Should the horse try to kick, at each effort he will jerk his head up, and, following his unsuccessful effort in the grape-vine hitch, it is quite sure to reform him.

### **Working the Balky Horse.**

The horse that balks in double harness can usually be induced to go by the use of the rope arranged as for the halter-puller.

Put on the horse the rope arranged as for the halter-puller and hitch him up with a steady, true horse. Tie the rope to the hame ring of the true horse, quite short, so that when the true horse moves forward it will tighten the rope causing the balker to move up. If the balker is a very bad case, it may be well to first start him by hitching another horse to the rope, and start him a few times in that way. And the single balker may be started in the same way.

### **Pertinent Observations.**

Whoever assumes the responsibility of soliciting the time and money of another should have some thing of approximate equal value to offer, otherwise the exchange, if consummated, will not be a fair deal.

There have arisen from time to time, many professional teachers of horsemanship, each extolling the merits of his own particular device for controlling and educating the horse. But not one has there ever been who has essayed to advance the education of the horse, systematically, beyond the rudimental stage in vogue ever since primitive man first subjugated the wild horse of the plains.

The exhibition and the circus horse have received special education in their particular lines; but scarcely any advancement has been made in the economic—the common, every-day practical—education of the horse, during the past hundred years. A hundred years ago it was customary to educate the horse up to the point that upon the occurrence of an accident he was expected to kick or run away; and it is still the practice.

It seems never to have occurred to any one that it is both possible and practicable to carry the education of the horse beyond this point so far as to render runaways virtually impossible. In this work, is the first time the feasibility of such a hypothesis has ever been published in any book on horsemanship. And no where else in print except in a number of articles prepared by the writer, at various times and published in several horse papers.

With scarcely an exception, every professional horseman, has relied solely upon his skill in making an interesting show, or exhibition, in the operation of handling vicious horses of various kinds. Nor has there ever been a lack of material, due wholly, to no natural viciousness of the horse, but entirely to lack of skill in those responsible for their vicious treatment of the horse. And when the new departure, the "inductive system," has superseded the present "no system" in the education of the horse, such professionals will find their occupation gone for lack of subjects on which to demonstrate their skill.

### **Campaign of Education.**

It is designed to make this a campaign of education for both horses and drivers—especially drivers. For when the drivers are probably educated the horses will give no further trouble. Drivers will then treat the horse with deserving humane consideration; and discontinue all harshness and abuse.

### **Barbarous Appliances.**

All the variously constructed rope bridles, are barbarous appliances; and their excessive use is conclusive evidence of the thoughtless, unskillful trainer.

These implements have various names, as the Spanish bridle, the war bridle—first and second forms: the eureka bridle; the Bonaparte bridle; the double Bonaparte bridle—all composed of harsh ropes which lacerate the horse's mouth. The virtues of these vicious appliances have been highly extolled by their inventors, and made much of by their pupils. But they should all be relegated to the past, with the thumb screw, and like implements of torture.

## TESTIMONIALS AND REFERENCES.

**R**EGARDING the testimonials and references here submitted, I beg to say they are all from practical horsemen who are fully familiar with the statements made, as I have been at the Union Stock Yards horse market constantly for the past two years during which time I have handled several hundred horses—many of them as vicious specimens as come to this market.

When I arrived here, January, 1898, the only person at the yards with whom I was acquainted was Mr. Leroy Marsh, of the commission firm of Marsh and Kenyon. On opening up for business I had printed the following card:

**J. W. MERCER,** OF GALESBURG, ILL.

Has located at

**UNION STOCK YARDS HORSE MARKET,**

For the Purpose of Handling

**GREEN, SPOILED AND TRICKY HORSES**

Owners and Dealers having such Stock are requested to give  
Him a trial. Satisfaction guaranteed.

**REFERENCES:**

Marsh & Kenyon, Chicago Horse  
Review, Chicago Horseman, C.  
W. Williams. Also any horseman  
or business man in Galesburg.

**HEADQUARTERS:**

Marsh & Kenyon's Barn No. 7.

In answer to communications sent to "The Horseman" and "The Horse Review" requesting permission to use those publi-

cations as references on the above business card I received the following replies respectively:

CHICAGO, JAN. 24, 1898.

J. W. MERCER,

Dear Sir:

Yours received. It is an unusual thing for us to do, but we accord you the privilege of referring to us. We trust that this will be of service to you, and wishing you all success, we are,

Very truly yours,

THE HORSEMAN,

D. J. CAMPAU, Pres.

CHICAGO, JAN. 14, 1898.

J. W. MERCER, ESQ.,

Ross Hotel, Root & Halsted Sts.,  
City,

Dear Sir:

We are in receipt of yours of the 13th stating that you have added THE REVIEW to your list of references, and if it will prove of any service to you, you are entirely welcome to it, and should the opportunity present itself whereby we can personally recommend you to anyone with whom you are about to come in business contact, we shall certainly take pleasure in embracing the opportunity.

Wishing you the fullest measure of success, we remain

Very truly yours,

THE HORSE REVIEW CO.

At present I am pleased to say, that of the hundreds of gentlemen doing business regularly, in connection with the market, there are very few with whom I am not now acquainted. And in addition to the names herein contained who have personally signed their names for reference, I am presumptuous enough to assume that all the others with whom I have had business acquaintanc are willing that I may use their names for reference; and I thank them in advance. And I also extend thanks to all connected with the U. S. Yards horse market for ther uniform courtesy toward me during my two year's sojourn in their midst.

**Remarks:**

In regard to the system of developing speed in the trotter and pacer, as enunciated in that department of this work, I will say that those who have the Christmas "Review" for 1891, by reference to that issue will find that I won the \$50 cash prize for the best article upon "Colt Development" offered by that paper in competition with a large number of able writers.

The following year I acted as editor of the "ask and answer" column of the speed department of the "Review," as will be remembered by many.

I was paid a considerable sum by "The Horseman" for an article upon "The Development of the Trotter," for the Christmas issue of 1892. This article was published also in the "American Trotter" soon after. It was again published in "The Review" of Jan. 1, 1895, under the title of "Some Points on Development," and signed—"W. G. B." (Stolen.)

Besides, I have written numerous articles on turf topics for "The Review," "The Horseman," "The American Trotter," "The Trotter and Pacer," and other papers.

These statements are made in this connection that those who are not familiar with the facts may know that I have a respectable standing as a turf writer, and as authority on the development of speed.

In regard to my abilities as a practical trainer, I shall append but one recommendation—that of Mr. C. W. Williams. By reason of the fact that I trained over his track at Independence, Iowa, a part of the seasons of 1891, 92 and 93; and over his track at Galesburg, Ill., he had ample opportunity to judge of my methods and their results. And this is what he says:

GALESBURG, ILL., DEC. 13, 1899.

TO WHOM IT MAY CONCERN:

I have seen more or less of J. W. Mercer's system of training in the past seven or eight years, and the results long ago convinced me that Mr. Mercer was one of the most careful, systematic, and skillful trainers I have ever met.

C. W. WILLIAMS.

## TESTIMONIALS OF THE COMMISSION FIRMS, SELLING HORSES AT THE UNION STOCK YARDS HORSE MARKET, CHICAGO, ILLINOIS.

TO WHOM IT MAY CONCERN:

Among the horses received by us for sale are found those of almost every degree of viciousness from the ordinary green unbroken colt to the dangerous kicker and runaway horse.

In very many cases we have been obliged to sell such at "the halter," often at much loss to the shipper.

About two years ago, Mr. J. W. Mercer located near the yards for the purpose of handling and educating such horses. And we are pleased to say that Mr. Mercer has had phenomenal success in his treatment of all classes of green and vicious horses, including the green unbroken colt, the balker, the halter puller, the kicker, the striker, the biter, the horse hard to bridle, the horse foolish about his head, the horse wild and mean in the stall.

We are not familiar with Mr. Mercer's methods of treatment, but can certify to the successful results; for we know of his having handled several hundred horses since coming here with uniform success, which is certainly the best of evidence.

DENNIS & SWEET,  
MARSH & KENYON,  
J. S COOPER, Established in 1862,  
F. J. BERRY Co.,  
LOCKE & AVERILL,  
BLAIR COMMISSION CO.,  
ELLSWORTH & McNAIR,  
M. NEWGASS & SON,  
JACOB KOEHLER,  
E. H. SCHLOEMAN.

## TESTIMONIALS OF THE SHIPPERS, WHO SHIP HORSES TO THE UNION STOCK YARDS HORSE MARKET.

When shipping horses to this market, we have had, on several occasions, the misfortune to find in the load one or more animals whose education had been neglected, or faulty to such an extent as to greatly impair their market value. On several occasions we have employed Mr. J. W. Mercer, who is located near the yards, to handle such horses for us, with very satisfactory results—the horses being returned entirely cured of their faults, and uniformly improved in appearance and condition.

Judging from results, we cannot recommend Mr. Mercer's

methods too highly, and from the further fact that his system of treatment is entirely free from all harshness and abuse.

In as much as Mr. Mercer designs--so we are informed--going upon the road with the intention of organizing classes or schools for the instruction of breeders and owners in practical horsemanship, we feel no hesitancy in commending him and his methods to all concerned.

F. M. HANLAY, Bloomington, Ill.  
H. C. LOVETT, Watseka, Ill.  
J. T. GOULD, Chicago, Ill.  
F. C. DENNIS, Maquon, Ill.  
W. PHILLIP, Vermont, Ill. ✓  
W. CLARK, Macomb, Ill.  
JOHN GOLDEN, Cooksville, Ill.  
SAMUEL SIMPSON, Chicago, Ill.  
A. B. HUCKINS, Kewanee, Ill.  
C. F. FROST, Grand Rapids, Mich.  
BULL & HOWE, Allerton, Ill.  
A. N. HEMINGWAY, Plato, Iowa.  
G. S. IGO, Indianola, Ia.  
H. N. BOOTH, Walker, Ia.  
GEO. BARRETT, Peoria, Ill.  
FRANK MITCHELL, Clarence, Iowa.  
JOHN STANLEY, Watseka, Ill.  
WILSON BROS, Creston, Iowa.  
SAM BAIRD, Dunlap, Ill.  
P. A. IMMEL, Camp Point, Ill.  
W. G. SNYDER, Wyoming, Ill.

#### TESTIMONIALS OF THE MEMBERS OF THE HITCH- ING DEPARTMENT OF THE UNION STOCK YARDS HORSE MARKET, CHICAGO, ILLINOIS.

Having been engaged for several years in harnessing, hitching and driving the horses sold at auction at the Union Stock Yards horse market, we have had ample opportunity to observe the results of Mr. J. W. Mercer's methods of treating green and vicious horses--having had to do with the same horses before and after treatment by him. Hence we can speak from actual knowledge of the results of his treatment. And we can say that the results have been remarkable--often wonderful, the change effected. Horses so green and dull they could scarcely be urged out of their tracks; horses that could not be turned to the right nor to the left; in an increditably short time have been returned good mannered, well broken horses. How Mr. Mercer effects such a sudden and radical change in such horses we are

not aware; but such information should prove invaluable to all who are concerned in breaking and handling horses.

R. V. C. WEBB, Foreman Horse Com. Union.  
 JOHN MORAN, Driver.  
 F. E. LAWRENCE, Assistant Foreman.  
 C. H. CLACK, Driver.  
 JOHN WOOLLERTON,  
 LEVI WOODS, Driver.  
 JACOB STERNS, Double Driver.  
 JOHN MURRY,  
 WILLIAM BARRICK,  
 FRANK LEONARD.

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TESTIMONIALS OF PERSONS DOING BUSINESS IN  
 VARIOUS CAPACITIES AT THE UNION STOCK  
 YARDS HORSE MARKET, CHICAGO, ILLINOIS.

We are well acquainted with Mr. J. W. Mercer, and we are familiar with his work in handling horses at these yards; and we are pleased to say that his uniform success with all classes of horses has been really surprising, proving conclusively that he is a master horseman.

GRANT & MASON, Horse Dealers.  
 J. F. WENRICH, Salesman Ellsworth & McNair.  
 E. D. WARREN, Agent.  
 F. H. WHEATON, Clerk.  
 ROBERT HAYDEN, Export Buyer.  
 FRANK McKAY, Dealer.  
 M. L. NEWSBAUM, Horse Dealer.  
 DR. B. A. PIERCE, V. S.  
 JAS. WILSON, Salesman Ellsworth & McNair.  
 J. M. PARKER, Driver Ellsworth & McNair.  
 M. SHATTUCK, Dealer.  
 ARTHUR O'NEIL, Clerk for M. and Kenyon.  
 W. S. JOHNSON, Salesman for J. S. Cooper.  
 JOSEPH HABER, Salesman M. Newgass & Son.  
 HENRY SHULINE, Salesman M. Newgass & Son.

**REFERENCES:**

COL. J. F. COFFEY, who sold 46086 horses in 1899.  
 COL. L. F. PRUYN and DAVID MACFEAT are the auctioneers who sell all the horses sold at auction at the Union Stock Yards horse market. These gentlemen are quite familiar with the work I have done here, inasmuch as nearly all the faulty horses

which I have handled here, have been first sold at auction, rejected for cause, turned over to me for treatment and resold by them.

JOHN MACK, horseman and General Live Stock agent at the Union Stock Yards for the C. B. and Q. Everybody who ships stock over the "Q" knows "Johnny Mack."

OFFICER M. J. GALLAGHER, 19th Precinct Police Station, Chicago, horseman and "perpetual" special detail at the Union Stock Yards horse market - where he is to be found every day in the year on the look-out.

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E. N. NETTLETON, M. D. C.

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### **The Coming Educator.**

It appears to remain for Galesburg to bring forward one of the greatest, if not the greatest, of all the horse educators that have yet figured in modern history. We mean J. W. Mercer, who has for some time been attracting public attention by the astounding success with which he has tamed wild horses, conquered rebellious horses, made pets of what are called vicious horses, and reduced the most fractious colts to the kindest and most tractable drivers.

What to many may seem wonderful in Mr. Mercer is no wonder at all to one who makes a careful study of the man. There never lived a more industrious, a more untiring student of nature. He saw all that Rarey had done, all that Gleason had done, all that the great Bartholomew had done. He said to himself, this is excellent so far as it goes, but there is yet infinitely more to be accomplished than has ever been attempted. Passing beyond the books he gave himself to a thorough investigation of the peculiar nature and disposition of the horse.

Depending thus upon the only true source of light, it was not long till that many valuable truths has escaped the vision of his predecessors, and that, therefore, they had, in their methods, committed several egregious blunders, a few of which verged closely onto downright cruelty. In the correction of these blunders he marked out a new path for himself, and invented a system of tactics and a set of appliances which are not only original with him, but which are absolutely the very first that have ever been drawn from truly scientific principles. They are distinctly unique in the fact that they thoroughly accord with the mental character of the animal to whose culture they are to be applied, and are, therefore, in complete harmony with the highest behests of humanity. Herein lies the whole secret of the marvelous success of the Galesburg educator. In the curriculum which he has framed there is no abuse, no unkindness — none of that rude force work which characterized the Rarey trip-strap and the Gleason throwing hopples. The horse, however intractable, is never put off his feet, never laid prostrate upon his side. If he is disposed to rear or kick, he is so placed that it is impossible for him to do either of those things, but this is done by means of an apparatus so ingeniously contrived that he stands continuously in an easy, perfectly natural position till he is ready to surrender.

Nothing that will at any point begin to compare with this most admirable and humane invention was ever thought of till Mr. Mercer brought it forth; and in it we see the wonderful power of his mind and the equally wonderful depth of his goodness. It is indeed a beautiful exhibition of that profoundly spiritual worship of God, which, from every great heart, comes in response to the gifts of God, among the very best of which is that noble beast which Job was the first to immortalize in Hebrew poetry, and which has been the servant and the companion of man from the dawn of civilization to the present auspicious moment.

From the time the uneducated horse comes to Mr. Mercer till it leaves his hands it never knows the whip, never hears an unkind word, never feels the smart of anger, never has its fears aroused by the expectation of punishment. And if, when it

parts from him, it could be continually treated as it was treated by him, it could be handled and driven anywhere with the most perfect safety. That this should not be the case is no fault of his, but the fault of people who in things humane seem to know much less than a well educated horse.

Mr. Mercer is a man of high culture, of versatile powers, and of rare fertility of mind. On various subjects he has written many of the most instructive essays that have lately appeared in print. His contributions to the horse papers have been among the best that have ever graced the columns of that class of publications.

In the present (1899) Christmas Review he contributed an article entitled "The Genesis of the Runaway Horse," which showed a depth of conception and an originality of thought never surpassed by any writer of any nationality.

And while he is a man of great talents he is a man of a great soul. This is shown by his present leading purpose. Earnestly desiring that the world shall have to the largest possible extent the benefits of his discoveries and inventions, he intends, at his earliest opportunity, to commence a series of tours in which he proposes to go from point to point and to form and instruct classes of young men in the knowledge of the horse and the use of his methods of taming and educating horses. For the better performance of this work he contemplates the production of a work to be used as a text book in all the schools which he may organize throughout the country.

It is to be hoped that nothing may arise to prevent him from fully and successfully carrying out this noble design; for there is no field from which comes a louder call for missionaries than that in which the horse has so long been literally "broken." —"The Breeder and Farmer."

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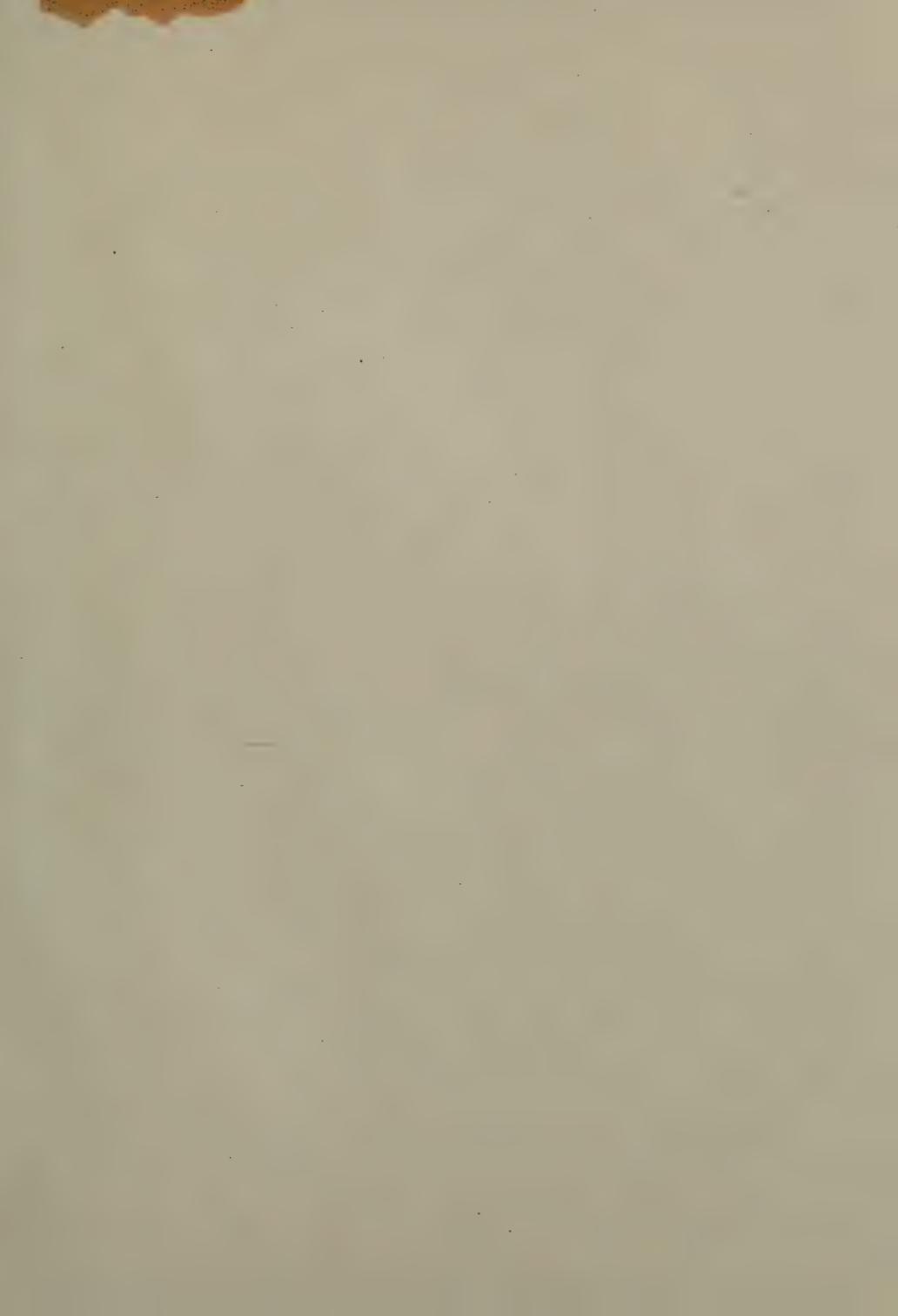
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