

THE HORSE.

Training and Driving Light Horses.

The value of a harness horse depends greatly upon his manners, and his manners depend largely upon his education. The age at which he should be taught to go in harness is a matter of opinion. Some apparently think that he should not be handled any more than sufficient to halter break him (and in some cases not even that) until he reaches adulthood, or at least three or four years of age, and is ready to be fitted for the market or to go to work on the road for his present owner. Under such conditions he is usually put to work without any preliminary education or fitting;

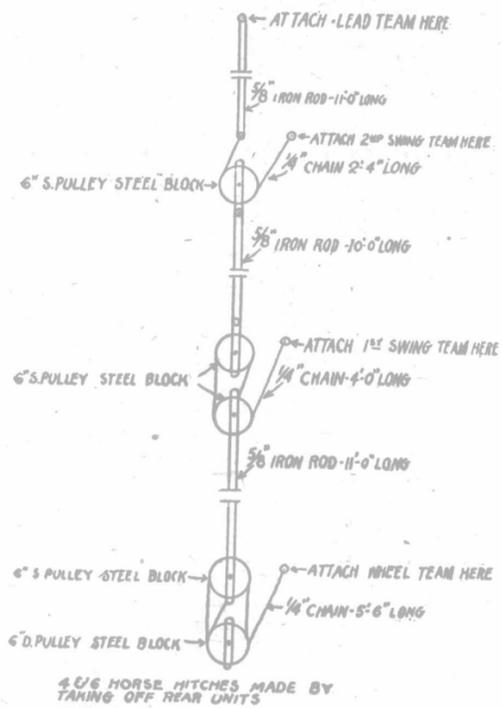


Diagram of a Eight-horse Tandem Hitch.

he is large and strong, has spent a few years in idleness, hence is unaccustomed to restraint. As a consequence he is more or less self-willed and stubborn, is hard to handle, and the exertion of fighting for his own way and performing the functions of a road or carriage horse is much harder on him than it would have been had he been prepared, both in training and muscular development, for the labors required. It also requires more strength, tact and skill on the part of the driver to handle a green, full-grown horse than it does to handle a younger animal, and, in the majority of cases, a horse that has been broken in this way does not make as reliable, safe and pleasant a horse to drive as one that has been gradually educated when young.

While we consider it very unwise to ask a colt to do much work until he is at least four years old, we think it advisable to teach him to go in harness when quite young. For racing purposes, where early money is the main object, the racing of one, two or three-year-olds may, in a manner, be justified, but when we wish to develop a sound, strong, mature animal, he should not do much work of any nature under the age already mentioned. If we note the career of racing horses we will notice that a colt that distinguishes himself on the turf as a one or two-year-old, seldom continues to attract attention as a mature horse. Excessive continued physical exertion in an immature animal of any breed tends to weaken the constitution and prevent development, and, while there are exceptions to this, the rule holds good in most cases. At the same time the gentle exertion necessary to educate a colt to go in harness has a tendency to increase, rather than impair, his growth and muscular development, and at the same time educate him gradually, rather than break him quickly. We advocate the very early handling of a colt, especially one of the lighter classes, whose future function will be to go in either light or heavy harness. He should be taught to lead when a few days, or at most a few weeks old, and the more gentle handling he gets at this age the better. It teaches him early to not fear man, to yield to restraint and do as he is asked, and in after years he has no stubborn will to conquer. He should be taught to stand tied the first winter, and he should also receive his first lessons in biting, or, in other words, "giving him a mouth." This can be done with little time or trouble by putting a nice, light bridle with an ordinary snaffle bit on him, and leaving it on for a few hours daily, until he

ceases to "fight the bit." He may also be taught to lead by the bit, and to stand tied by it instead of by the halter. In addition he should be taught to submit to having his feet handled and pared. The paring of his feet is, in most cases, necessary for his comfort and future usefulness, as well as for his education.

When the time arrives in the spring of his second year, when he is turned on pasture, his education usually ceases until the following fall. As soon as he is taken to the stable for his second fall and winter his schooling should be re-commenced. He has now reached sufficient age and development to be taught to drive, but he should not be asked to go in harness without further preparation. If possible he should be given a nice, large box stall, or if the weather be favorable, a paddock. During his first winter he was taught to wear a bridle without check rein, now he should be taught to bear pressure upon the bit, by fitting him with a light bridle with check rein, wearing a back pad and crouper or surcingle with check hook and crouper. He should be allowed to wear this for a few hours daily in his box or paddock. The checking should be very slight at first, and gradually increasing until the head is held the required height. When he has had sufficient handling of this sort, a set of harness should be put on him and left on for a few hours daily in stall or paddock until he has become accustomed to it. He is, or should be, now ready to drive, but should be driven a few times simply with the harness on before hitching him to a rig. He should be taught the significance of the words of command that he will henceforth be expected to obey. As few words as possible should be used. He should be taught to stand at the word "whoa," step backwards at the word "back," go forward at a chirrup or the command "go on," lessen his gait at the word "steady," etc. The same word should be used at all times to express a certain action. We frequently hear drivers use the same words of command to express different ideas, for instance, we frequently hear the command "whoa back" when the driver simply wants his horse or team to slacken their pace, and use the same words of command when he wants them to stand or back, etc. This has a tendency to confuse a colt; hence great care should be taken when driving a colt or older animal to always use the same command to express a certain action. When driving a colt with the harness only, the lines should pass through the shaft tugs, instead of through the terrets, as they then pass along his sides and the driver can prevent the colt turning, as he has a leverage on his hind quarters. When the colt has learned to obey the words of command he is ready to be hitched. It must be understood that both harness and rig should be so strong that there is little liability of breakage. It is wise to hitch him to a two-wheeled rig for the first few times, as there is less danger of trouble. It is also wise to use a kicking strap (or probably it would be more correct to say "an anti-kicking strap"). He should be driven a little every day until he becomes handy and reasonably safe.

While we prefer teaching a colt to go in single harness first, others think it better to teach him to go double, and where a steady, prompt and reliable mate can be had, it probably is as well.

During his third summer he should be on pasture, and during his third winter his education should be continued. When three years old he should be safe to drive, and may be asked to do a reasonable amount of work, but should not be asked to do hard or steady work of any kind until at least four years old, and we find that, with few exceptions, horses that are useful at a very old age, are those that have done little work until five or six years old. It certainly pays, when practicable, to go easy with horses until they are mature WHIP.

Multiple Horse Hitches.

BY WAYNE DINSMORE AND PROF. E. A. WHITE.

Introduction by Wayne Dinsmore.

The shortage of labor available for field work in tilling our farm lands has been marked in the last season, and will be still more noticeable in the spring of 1919. The monthly wage of farm hands has also advanced to the highest level ever known. These factors have directed attention to the use of hitches enabling one man to do more work than has heretofore been the rule.

Last fall, within six weeks' time, I was in New England, Pennsylvania, Ohio, Illinois, Iowa, Idaho and Washington. In New England, even on the valley lands,

free from stone, two horses, a 10-inch plow and one acre per day was the rule. In Pennsylvania and Ohio, sulky plows, three horses, and 2 1/2 to 3 acres per day was general practice. In Iowa and Illinois, 2 bottom gangs, and 4 or 5 horses, turning from 4 to 5 1/2 acres per day, was the usual plan, even among our better farmers. But in Idaho, Oregon and Washington, 3 bottom plows, with 8 and 10 horses or mules, turning from 8 to 10 acres per day, was the plan in vogue among the better farmers; and they made less fuss over driving ten horses than corn belt farmers do over driving five.

Regardless of the introduction and use of other power units, some horses will always be needed in farm operations. Experience has shown that under mixed systems prevailing in the Central West, 6 draft horses is the minimum allowance on a quarter-section farm,



A Six-horse Tandem Hitch.

and many of the best farms contain from 200 to 300 acres, 8 to 10 horses is the rule on a large proportion of our most effectively operated farms. On many of these, especially live-stock farms, all work will be done by the owner and one or two helpers, who may be immature sons. On farms of this sort, the 6 and 8-horse hitches will be found especially valuable, for one man can be started in the field, and the other, be he owner or employee, can proceed to other work, such as seed selection, adjusting machinery needed in the next farm operations, caring for live stock, or hauling out fertilizer from field lots and barns to fields, or some of the numerous other tasks waiting to be done on a farm. Actual experience satisfies us, however, that 6, 8 or 10-horse hitches should be trusted only to the owner of the horses, who should be a first-class horseman, or to a son or employee who is an A1 teamster, with his heart in his work. Careless, reckless employees, or boys too young to exercise discretion, should on no account be trusted with such teams. It must be reiterated in the strongest possible terms that these larger hitches will not be operated successfully by ordinary hired hands.

Frequent requests for information relative to the practical hitches for large teams, and observation of good results obtained on the Pacific Coast with such teams, led the writer to take up the subject in June, 1918, with Professors E. A. White and J. L. Edmonds, of the Illinois Experiment Station. These men were greatly interested in the problem, and were prompt to pledge their hearty co-operation in collaborating with the Research Society of America in carrying out a series of practical field tests calculated to help horsemen in dealing with this question.

The writer secured complete sketches of all hitches used in Montana and on the Pacific Coast, from Professor E. L. Potter, of the Oregon Agricultural College, who also furnished the details of the system of "tying in" and "bucking back."

This "tying in" and "bucking back" is the secret of the simple system of driving these 6, 8 and 10 and 12-horse teams, by driving the leaders only, and is the principle followed in driving the 28 and 32-horse or mule teams used on the combined harvest-threshers used on the Pacific Coast. Our especial thanks are extended to Professor Potter for his courtesy in furnishing all of this information, which we desired before starting our own work.

The mechanical end of the work was conducted by Pro-



An Eight-horse Team Working with No Side Draft.