FOUNDED 1866

suppose, as weel travelling through ated to gie a man

e healthy enough, rees an' the cool y. It was about I was there and, It was about snow beside the place "Glacier" the temperature rear. Ony person to get used to it. He said that he hrough the snow, lidn't seem to be either. It's hard ae far from hame. climate, workin'

t we got to a place oot o' the "Rockoing in a bed in a weather was fine in' as usual, it was anither line, across oned a while back, e trees, and where

I'll tell ye later o' e rule, but where nks o' prayin' for

у.

м. А.

IOTHS.—I. oths which, while

are sure to come anyone who takes eir large size these people who come alist for identifica. nature-study are in by their pupils. pia, Polyphemus. ong to the family loths.

ts wings sometimes half inches. The are crossed beyond as a broad outside near the apex of a crescent-shaped ts centre.

on many different been recorded as fty species of trees maple, basswood, alder and willows from the egg it is and is black. In es as a dull orange rcles. In about a ow, with two large t, two orange-red egments, and two er segments except ge yellow tubercle, ne tubercles along days a third moult ish-green in color, and last segments, the second and ercles on each of h moult the caterreceding stage but inches long and

ks the caterpillar ids of silk, which, spun from a gland nen makes a loose ds and then begins and M 's, until a des its subsequent completed cocoon er one being thick and firm, and besilk. At one end thwise, instead of through which the the spring. When llar sheds its skin oupa.

brown, the cases olded down around ed just in front of

the trees are well e cocoon. At the oist and wrinkled e wet wings soon becomes dry and as our largest, and

## THE HORSE.

Use some fly repellant when flies are bothersome.

You cannot keep a horse "good at the ground" if the feet are neglected.

A little flaxseed will put gloss on the horse's coat, but grooming keeps the skin in the proper condition and the hair right.

Keep the harness oiled and clean-it pays in dollars and cents. Leather goods are very dear, in spite of the fact that hides are cheap.

Bad manners in the show-ring spoil many a good horse's chances of success. Thorough, consistent training prior to the show is essential.

Keep the stable clean and well ventilated during hot weather. Decomposing manure soon fills the stable with strong odors that are unpleasant for man and beast.

Water the horse in hot weather as frequently as circumstances permit. There is no set time for watering. Like a man the horse should have water when he can get it, and when he wants it.

When weaning the foal place it in a box-stall or paddock suitable for the purpose. Many foals are injured at weaning time because they are not confined in a safe enclosure. Low windows, low walls, and low doors are dangerous.

Heavily fed horses that do not get out on grass occasionally are the better for a bran mash once or twice a week. Saturday night is a convenient time for a mash and the animal can be worked back on to full feed before Monday morning.

Horses require rest just as much as the man who drives them. Keep the stables well bedded and tie the horse loose enough to permit his head free play when lying down. A light weight attached to the tiestrap and of sufficient weight to take up the slack is preferable to tying at the manger. With this device a greater length of strap or rope is permissable.

Practically everyone accustomed to horses knows that it is not advisable to allow the foal to suck when the dam comes into the stable in a heated condition, but a good many take chances. Even if the young animal does not give outward signs of distress after nursing there is a possibility that some injury has been done It is better always to allow the mare a few moments to cool off before permitting the foal to suck.

The laws of this land are rather lenient in regard to the working of horses with sore shoulders or other parts where the harness bears heavily. Many horses have tender skin which is easily wounded, but in the majority of cases sore shoulders are directly due to negligence. If the collars fit properly and are kept clean, and the shoulders bathed and rubbed there is not much danger of bruised flesh or open sores. A real horseman is seldom found driving horses with bruised flesh or raw sores.

Breeding Fall Colts.

The advisability of having mares produce foals in the fall rather than in the spring, depends greatly upon existing conditions. In cases where the breeder does not require his mares for work purposes during the spring and summer, and where he understands the desirable manner in which pregnant mares should be fed and handled during the winter months, and sees that the details of such are observed, the production of colts in the spring is doubtless the most advisable. At the same time there are many reasons why the practice of having mares produce in the fall, rather than in the spring, should be more common than it is. Of course, for show or racing purposes, when the animal is under four years of age, the production of fall colts is not advisable, as the ages of horses for these purposes is reckoned from the first of January of the year they were born; hence, a foal born in the fall would have to compete with those several months older, either in the show-ring or on the race track. But the breeder who does not show or race his horses until they reach maturity, would probably find it more profitable to have his foals born in the fall.

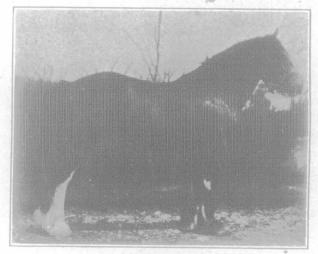
There is no doubt that a large percentage of the fatalities in spring colts is due to the manner in which the dams have been fed and taken care of during the last few months of gestation. Especially on farms where there are sufficient horses to perform the winter work and driving without using the pregnant mares. The latter are often allowed to pass the time in perfect idleness, often not even given box stalls to stand in, but are tied in single stalls and well fed on hay and oats, and when the weather is not fine, are not even allowed out in the yard or a paddock to take a little exercise during the day. It is an established fact that the produce of a mare that has been kept in only moderate condition and given daily exercise or light work during the whole period of gestation, especially the latter months, with few exceptions, produces a better and stronger foal than her sister which has been kept in the stable and pampered.

Then again, even where there is a disposition on the part of the owner, to exercise his pregnant mares, conditions often forbid it for a greater or less portion

of the winter months. When the ground is slippery it is dangerous, even though they may be well shod, and when the snow is quite deep it is also dangerous, as the driver cannot always keep his horse or team, as the case may be, out of the deep snow, where more or less plunging often occurs, and all breeders know that undue nervous excitement or muscular exertion should be avoided in pregnant animals. All experienced breeders will admit that regular, but not excessive labor is bene-ficial, and all observers have noticed in the majority of cases, (as already stated) the mare that has had such during pregnancy, especially during the later months, produces a stronger foal than the one that has been pampered and kept in idleness.

When breeding mares are not required for work, the necessary exercise is obtained on pasture in the summer time, much better than by being turned out ina yard or paddock for a few hours daily during the winter.
When the services of the mare are required, either during pregnancy or after parturition, we get more satisfactory service before than after the birth of the foal. All will admit that to get the best results the mare nursing a foal should be well fed, and live in comparative or complete idleness, hence we claim that, on this account, fall production is the better, as the mare can perform the ordinary work on the farm during the spring, summer and early fall, and then, after foaling, her labor is not usually required. She can then be given comfortable and roomy quarters for herself during the late fall and winter months, and in the spring after the foal has been weaned, it will be in good condition to be turned out on pasture, while the dam, if again pregnant, will be in a condition to have a season's work and reproduce again in the fall.

The feed that the mare consumes during the months in which she can be on pasture during the night tends to nourish the unborn foetus better than the feed usually given when horses are necessarily fed in the stable, and by breeding his mare as above a farmer loses practically none of her services, and at the same time increases his stock. It is seldom that the foal of a mare that has been on pasture during the later months of pregnancy is weak or delicate. Of course, the same danger of mal-presentation, causing difficult parturition, exists in one case as in the other, but the foals are usually



Bonnie Bydand.

Grand champion Clydesdale stallion at the C. N. E. in 1918 as a yearling, and winner of the Watson Challenge Shield, Champion at Guelph and C. B. champion at Toronto, 1919. Owned by Sir Henry Pellatt.

stronger and smarter when born after the dam has been on grass for some time. There is also less danger of joint-ill when the mare foals on grass, from the fact that the germ that causes the disease is not so liable to be

present in the pasture field as in the stable. All breeders know that the production of late-fall or early-winter foals is not an easy matter, as mares do not usually show oestrum in cold weather, but we advocate breeding the mares while still on pasture. The fall colt, as stated, cannot, with equal chances, compete in the show-ring or on the race track, during colt hood, with the spring colt, but when mature should be as good or a better animal, especially if the dam of the spring-born foal has been worked during nurs hence we think that the advisability of breeding mares in the fall is worthy of consideration.

## Horsemanship.

In these busy times grooming is becoming a lost art and good horsemanship is getting rarer and rarer. Horses are well fed, as a rule, on the farm especially during the busy season, but the teams do not get the care that brings them out of the stable in the morning glossy and prancing. Heavy work horses are not disposed to do much prancing at any time, but the appearance of the coat and condition of the harness tells the tale. Farmers and their sons do not take the interest in their horses that was common ten or fifteen years ago. The horse is made a beast of burden and little more and much of the pleasure that can be derived from holding the reins over a "bang-up" good team is not sought after or experienced as it formerly was. It is unfortunate indeed when one looses his zeal for a good horse; the most intelligent and most faithful servant of man. The Boston Work-horse Relief Association, organized to improve the horses and give them better care on that municipality, has published a book in which are many

hints and much good advice. The Stable Rules given by the association and published below are a good guide to teamsters and horsemen everywhere. may not lend themselves to farm practice at all seasons, but they are sound in principle, and worthy of consideration:

STABLE RULES.

1. The best order in feeding is: Water, hay, water again, grain.

2. Never give grain to a tired horse. Let him rest and nibble hay for an hour or two first. Grain in the manger before the horse comes in looks bad.

3. Water the horses as often as possible; but let the horse that comes in hot dials.

horse that comes in hot drink a few swallows only, until he is cool.

4. Always water the horse after he has eaten his hay at night. Do not go to bed leaving him thirsty all

Do not forget to salt the horse once a week; or, better yet, keep salt always before him. He knows best how much he needs.

6. Give a bran mash Saturday night or Sunday noon; and on Wednesday night also, if work is slack. After a long day in very cold or wet weather, a hot mash, half bran and half oats, with a tablespoonful of ginger, will do the horse good. Put very little salt, if any, in

7. If the horse does not eat well, or slobbers. examine his teeth.

8. Keep a good, deep, dry bed under the horse while he is in the stable, day or night, on Sunday's especially. The more he lies down, the longer his legs and feet will last.

9. In order to do well, the horse must be kept warm. Give him a blanket on cool nights in late summer or early fall, and an extra blanket on an extra cold night in

10. In cold rains do not tie up the horse's tail. The long tail prevents the water from running down the inside of his legs, and keeps off a current of air from

11. Take off the harness, collar and all, when the horse comes in to feed. He will rest better without it.
12. Never put a horse up dirty or muddy for the night. At least brush his legs and belly, and straighten his hair.

13. In hot weather, and in all weathers if the horse is hot, sponge his eyes, nose, dock, the harness marks, and the inside of his hind-quarters when he first comes in. 14. When the horse comes in wet with rain, first

scrape him, then blanket him, and rub his head, neck scrape him, then blanket him, and rub his head, neck, loins and legs. If the weather is cold, put on an extra blanket in 20 minutes. Change the wet blanket when the horse dries. Do not wash the legs. Rub them dry, or bandage loosely with thick bandages. It is far more important to have the legs warm and dry than clean.

15. To prevent scratches, dry the horse's fetlocks and heels when he comes in, especially in winter; and rub on a little vaseline before he goes out in snow or mud.

16. Examine the horse's feet when he comes in

16. Examine the horse's feet when he comes in, and wash them if he does not wear pads. If a horse in the city is not shod in front with pads, tar and oakum, which is the best way, it is absolutely necessary to keep his feet soft by packing them, or by wrapping a wet piece of old blanket or carpet around the coronet, or by applying some hoof dressing or axle oil, inside and out, at

least three times a week. 17. Let the horse have a chance to roll as often possible; it will rest and refresh him. Give him a little clean earth or a piece of sod to eat now and then;

he craves it, and it is good for his stomach and blood.

18. Speak gently to the horse, and do not swear or yell at him. He is a gentleman by instinct, and should be treated as such. The stable is the horse's hould be treated as running to the horse's hould be treated as such.

N. B. It is very important that stables should be

N. B. It is very important that stables should be well ventilated; but do not let a draft blow on the horses. Horses in stalls near a door or open window should be blanketed accordingly.

## LIVE STOCK.

## What is Pedigree?

A succession of female names of one denomination n a table is not pedigree. You may have ten succ Prides in an Aberdeen-Angus table, and yet have only fractional proportion of Pride of Aberdeen blood in the animal that is being sold. Brawith Bud may be the tenth dam of a Shorthorn bull, and yet the constituents of Brawith Bud's blood be only an infinitesimal proportion of the blood of the animal in question. A succession of Orange Blossoms in a pedigree record is not necessarily proof that the blood of the animal catalogued is greatly influenced by the blood of the first of that line. It is not possible to tabulate a pedigree record otherwise than through the female line, but that record has to be read with discrimination. On the other hand there is such a thing as predominant family resemblances, which persist, in spite of a succession of out-crosses having no relation to the family in which these parti-

cular characteristics appear.

Pedigree and its record are two different things, but pedigree is of no value unless it be recorded. It is undoubted that many of the so-called unpedigreed Shorthorns of the north of England—these first-class dairy cattle—are really as well bred and as true to Shorthorn type and character as many of the animals with the longest recorded pedigrees in Coates's Herd Book. But the unrecorded pedigree, however valuable it may be as a contribution towards the production of good cattle, is valueless as a guide to breeders. As one