### FOUNDED 1866

anaged tae get intae toon bread to mak' anither possibility only in the

one o' my nephews tae was, an' specializing in was all the time lookin be lyin' aboot, and breakhe had brought wi' him. buse an' says he tae me: ecimen I've just found the back-yard here I've umer, but I can make no ow how it ever got here sil of the Carboniferous

"if it's not worse. I think things once before." te a history, without a er.

### Diary.

H, M. A. HUSELAHS.

ts which modern science is the discovery of those usly as bacteria, microbes action of the compound ent development of aper things more readily nstrument, the cause of Now the bacteria which is have been discovered ombat them—that is to eir undue multiplication

acteria exist in countless in the air, water, soil, Fortunately the great non-pathogenic, that is, is the nitrofying bacteria the harmless bacteria little rance and general dismergies of bacteriologists he study of those which

which bacteria multiply e, likewise the fact that sistent to heat, cold and it is only very recently they may remain alive nch scientist, Dr. M. V. , that filter-paper sterioclave at a temperature red, upon tearing apart esence of ovoid bacteria of fibres and within the ing was shown by their This fact caused Dr. fluence time might have ontained in paper. He er of the 18th century, d paper from a boot paper from a book living bacteria present, some tetanus bacilli-

Dr. Galippe next secured nanuscript of uncertain to 1400, and found no ia, all capable of moveculture-media. Having ve for 600 years at least, agments of a papyrus tolemies, that is, about of this ancient papyrus a five kinds of bacteria s these micro-organisms, for so many centuries, use of twenty-four hous red signs that they were

Thus these minute ly as dead as Pharach's re still alive after 4,000 be veritable microscopic

### NOVEMBER 11, 1920

# THE HORSE.

### Wounds and Their Results-VI. FROSTBITES, BURNS, SCALDS.

FROSTRITES, BURNS, SCALDS. Frostbites.—The first effect of extreme cold is t<sup>0</sup> diminish the vital action of the part with which it comes in contact. This state of depression, when not too long continued, is succeeded by a more than ordinary activity, called a reaction, and, if this alteration be frequently repeated the parts become permanently weakened, becoming slightly swollen, of a purple color, (wh ch is plainly visible in horses with white skins) not so warm as normal, and later on becoming inflamed. The skin will now crack and discharge a semi-serous fluid. More intense and long-continued cold not only weakens, but entirely suspends vital action. Hence the results noted or even more marked results may appear after a single exposure. The parts become pale, insensible and shrivelled. The skin often sloughs from side to side, forming a strip of deadened skin, underneath which is a deep chasm. The heels of the horse are more subject to frostbite than other parts. In some cases, especially during long-continued snowy weather, with frequent thaws succeeded by sharp frosts, the deeper-seated tissues of the coronet lose their vitality, and deep and extensive sloughs are thrown off. The animal suffers acute pain, fever and emaciation, and in rare cases succumbs or has to be destroyed.

Treatment consists in the application of hot poultices, but these must not be too long continued. As soon as the slough is thrown off, astringents, as a lotion made of i oz. each of acetate of lead and sulphate of zinc to a pint of water should be freely and frequently applied. If the discharge be foul smelling, one-half ounce of carbolic acid should be added to the lotion. Constitutional treatment consists in administering a slight purgative, as six drams aloes and two drams ginger, good but easily-digested and laxative feed, and, of course, complete rest.

Burns and Scalds,—These are divided into three classes; first, those simply producing redness; second, those causing the formation of small blisters; third, those causing death of the part. The first class is attended with mere superficial inflammation, usually terminating without loss of skin, though with temporary loss of hair. The second class is attended with a higher degree of inflammation, causing the skin to exude serum, and to form blisters, followed, in some cases, by suppuration and the formation of ulcers that are hard to heal. The third class is attended by mortification from disorganization of structure, the skin and underlying tissues being literally roasted or boiled, and the blood coagulated in the vessels, hence the circulation of the part being completely arrested. In all cases of severe burns or scalds there is more or less supervening fever, manifested by shiverings, coldness of the skin and extremities, prostration and restlessness, frequent and feeble pulse and heavy breathing. The surface of the burned or scalded parts will become pale, cold and leatherly, the hair falls off in patches, leaving a denuded surface, from which issues a thin, serous discharge. The parts now swell, and, in a few days a line of demarcation surrounds the dead part by the division of the healthy from the dead tissues; the chasm widens, the burned or scalded part contracts and dries, leaving a granulating surface exposed. The granulations are whitish, springy and moist. There is no discharge of pus, but of a thinnish fluid, usually of a dirty, whitish color appears. The slough soon falls off, leaving a wound of greater or less magnitude (according to the serient of the burn

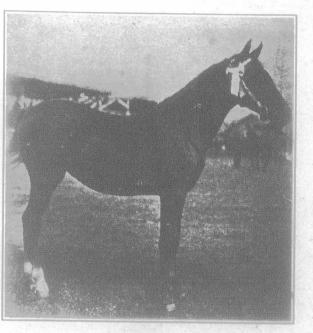
or less magnitude (according to the extent of the burn or scald) which is very slow to heal. It usually leaves a scar of a hard, dense, cartilagenous nature, which gradually contracts more or less, pulling the surrounding tissues into puckered folds which make an unsightly blemish. The most intractable cases are those which occur in the neighborhood of a joint, where the continued action of the part retards healing.

If the accident be so severe as to destroy the muscles, and expose the tendons and ligaments, and also destroy the tissues protecting the articulations, the patient should be destroyed. When the seat of the accident is muscular tissue, or does not immediately involve a joint, recovery will usually take place.

Treatment.-In cases of severe burns or scalds, the become very painful and sensitive to the action Darts of air. If the air be excluded without the application of pressure, as from bandages, etc., great relief from pain is at once rendered. Hence local treatment should consist in the application of a soothing dressing that will form a coating to exclude the air. For this purpose carron oil may be said to be a specific. This consists of equal parts of lime water and sweet oil or raw linseed oil the said to be a specific. oil. Lime water is made by slacking a lump of quick lime, then adding a quantity of water and stirring it briskly, then allowing it to stand. The undissolved lime will settle at the bottom of the vessel, and the clear fluid on the top is lime water, which, when mixed with equal parts of sweet oil or raw linseed oil forms carron oil. This should be applied freely and often, and it is good practice to dust flour over the oil, as it assists in forming a protective coating. In the course of a few days pug will be treated days pus will form, and the wound must now be treated as an ordinary suppurating sore, viz., kept clean, and a good anticeptic, as a five-per-cent. solution of carbolic acid or one of the solution time solution of carbolic acid or one of the coal-tar anticeptics, applied regularly. Constitutional treatment consists in acting gently upon the bowels by the administration of a pint of raw linseed oil or 4 to 5 drams of aloes. If pain be severe it should be added and the severe of an anodyne it should be allayed by the administration of an anodyne, as one and a half ounces of the tincture of belladonna in a pint of cold water as a drench every few hours as

### THE FARMER'S ADVOCATE.

indicated by the symptoms shown. The patient must have rest, good care, and light, easily-digested and laxative feed, as bran, carrots and good hay. If the burn or scald be slight, and the skin merely inflamed, it will not prove serious, and a few applications of carron oil, or carbolized oil, as 1 part carbolic acid to thirtyfive parts sweet oil or raw linseed oil is all that is necessary. WHIP.



#### Stella

Winner in the Roadster classes at the C. N. E. for C. "E. Hill, Milton, Ont. This mare also won the American sweepstakes.

#### How to Reveal the Horse.

For various reasons, which need not be explained here, the horse industry in Cana la has passed through a period of decline. Enthusiasm has waned. Interest in the horse as a great and fundamental factor in agriculture, construction, transportation, and a dozen other fields, has not been maintained. However, the pendulum is about to swing back. It is the psychological moment for horsemen—will they take advantage of it?

The horse is constantly and consistently being advertised into the background, and about all the horse breeders have co-operatively attempted to do is to secure larger grants for fairs and exhibitions. This passive and more or less ineffective method of boosting the best line of goods man ever offered to the trade dates back even to the time when the late Honorable John Dryden was Minister of Agriculture in Ontario. All that a worried bunch of horsemen could suggest at that time was larger grants to exhibitions, which have not been followed up with any real live program of educating the public to the potentialities of the horse as a source of power. Later came the Federal Assistance to Horse Breeding, which was followed recently by provincial aid in the Province of Ontario, which consisted of Government bonuses distributed for the purpose of encouraging the use of better sires.

We are not objecting here to any of these moral or financial encouragements to horse breeding, but we believe that through them alone the horse business will never be given new life. The grants to fairs are, no doubt, wisely expended. The Government assistance to horse breeding is apparently a necessary expenditure, and probably a fecund kind of work in the interests of the horse, but in the last analysis it is similar to bonusing an industry which makes no effort to sell its goods, and is continually coming back to the treasury for more funds. As we stated in a previous issue, the public must be educated to appreciate the value, the adaptability and the usefulness of the horse, and it is necessary to dissipate some false ideas which former employers of horse power have got into their heads. We would have it thoroughly understood that this article is not intended to disparge in any way the work

We would have it thoroughly understood that this article is not intended to disparge in any way the work which is already being done to foster the horse industry through grants to fairs, premiums, etc. They all have their place, and we intend to discuss them later, but our object now is to place before the Departments of Agriculture and horse breeders' organizations a few suggestions which might be utilized in a "boost-the-horse." movement. the farm with absolute certainty. Why could not a demonstration of this kind be held at the plowing matches and farm machinery demonstrations? The exhibition would be observed by 50,000 people, and the seed would surely bear fruit.

exhibition would be observed by 50,000 people, and the seed would surely bear fruit. This idea of demonstrating the horse could be carried still further, and the eyes of those in large cities and towns could be opened to the actual value of the horse in competition with other kinds of power. There is need of some such work as this to bring the horse back into favor.

UPREEP AND DEPRECIATION.

Some very valuable work could be done by the Ontario Horse Breeders' Association working in conjunction with agricultural colleges and experimental farms. By actual investigation it should be determined what the upkeep of a horse or horses really is, and how they can be maintained most economically. Another factor of no little importance is that of depreciation. We doubt if any kind of power-producing machinery will show as little depreciation as the horse. Farmers breeding horses can get three or four years' good service out of an animal, and he is then at his prime for service in the towns and cities, where he is good for another ten or twelve years. This matter of depreciation should be emphasized by horsemen, and the fact carried home to a great many large users of power who have never been told about the horse, but have been surficited with information regarding all other kinds of trucks and machinery.

All the horse needs is some judicious advertising to carry him to the front again; but before this advertising is undertaken, facts and information must be gathered and compiled. In this the horsemen can cooperate with agricultural colleges and experimental farms; and working together they will get the material that has long been lacking.

## LIVE STOCK.

Let the sun shine into the stable. It is good for man and beast.

Procrastination in making repairs about the stable is poor policy.

Vermin reduce the profit on stock. Do not permit them to gain headway.

Poor live stock or good live stock poorly handled seldom show a balance on the proper side of the ledger.

The demand for common bulls should decrease, thus necessitating the use of the knife on more of the male calves in registered herds.

Too many common to medium and not enough good to choice cattle are going into the market. Better herd sires will help improve the quality.

Hay and straw go further if cut and by damping and mixing in a few pulped roots, silage or grain can be made more appetizing to the stock. Rather poor quality hay can be utilized to better advantage by running it through the cutting box.

Try and keep everything in its place. A fork or shovel left in the passageway may get knocked down and probably injure someone going through the stable. A person coming in out of the light cannot readily see for a minute or two in many stables. Hang the forks up.

If your use the "A" type colony house for your hogs, why not plan to carry the sows through in it this winter? By putting two of them together, or even using one alone, they can be partially covered with straw and will carry the sows through the winter comfortably and in good shape.

A good butter-fat record for Shorthorn cows has been made by Snowdrop, a white eight-year-old cow, owned by Sherwood Farm, Far Hills, New Jersey. During the year ending October 20, 1920, she gave 15,550 pounds of milk, testing 4.45 per cent., 691 pounds of butter-fat.

1941

es. of experiments wa hical and bacteriological hich the ancient papyrus the banks of the Nilewith all its leaf-sheaths were discovered that had s of the Ptolemiac eramaterial similar colonies

time that low forms of ter into a resting stage, ccessfully resist drying, for some length of time, igher forms of life has ty, but it was not susarches of Dr. Galippe's our thousand years.

w farmers plowing this gle-furrow plow. This t and finishing, but it is k. Another horse and acre to the day's work.

#### ACTUAL DEMONSTRATIONS.

One way to reveal the horse is to demonstrate what can be done with multiple hitches, teams of various sizes, and of different combinations. There are now two large plowing matches held annually in Ontario, where nearly 50,000 people, all told, assemble to observe good plowing, and study the new inventions in farm machinery and motor-driven implements. If the Ontario Horse Breeders' Association would have set aside for them at these plowing matches a ten-acre field, and get together a sufficient number of good average horses they could advantageously demonstrate the true value of the horse.

The labor shortage has created a desire, and in some cases a craze, for large implements, in order that a man's time may be employed to the best possible advantage. Manufacturers of heavy equipment and motor-propelled implements have taken advantage of the situation and supplied the market. Advocates of the horse, however, have not come forward in this country and shown how, with multiple hitches and good reining devices, three, five or even more horses can be hitched to large implements and execute the work on From the recent statement of Lord Lee, Minister of Agriculture, England, to a deputation of breeders, relating to the question of allowing Canadian stores to be imported into England, it is definitely understood that the imporation of stores from Canada will not be allowed. After all is it not best to finish the cattle on Canadian farms and export the finished product?

Under the Diseases of Animals Acts of England, it is the duty of farmers, stockowners and veterinary surgeons to report immediately to the police every case where animals are suffering from a disorder of which the symptoms are not recognized, or where there is the slightest suspicion of foot-and-mouth disease. Noncompliance with this regulation involves liability to prosecution.

Boys and girls who were showing calves at the Miami County Fair, Ohio, made some money when their calves were sold the last day of the fair. The champion steer, an 1,100-pound grade Shorthorn, sold for \$1.33½ per pound, a total of \$1,468. This is the highest-priced steer ever sold in the United States, except at the International Live Stock Exposition. Forty head, weighing 42,080 pounds, sold for \$7,4 2.35, an average of 17.7 cents per pound.