

LIVE STOCK.

Winter Feeding of Beef Cattle.

(Continued.)

If the cattle are to be tied up and fed in stalls, it is well for the sake of appearance to arrange them in as well-matched pairs as possible, presuming that the stalls are double; or, in any case, to tie the largest ones at the end of the stable furthest from the entrance door, and the smaller ones nearest the door. This may not at first thought be considered an important matter, but even an expert buyer is impressed by uniformity of appearance, and the owner and feeder is likely to take more pride in the stock that is an even lot, and it is worth while to encourage any element of sentiment that can be worked into the business. There is another advantage in this arrangement, which is that in case the animals are let out of the stable daily for water, the larger ones being most likely to be more masterful than the smaller, and being first to re-enter the stable will take their places, and be in no danger of being hooked or bossed by those following them. At this point it may be well to say that while the cattle are out for water the manure should be removed from the stables, fresh bedding supplied, and a tempting feed placed in the mangers, so that they will take their places on returning to the stable, and after feeding will lie down and chew the cud of contentment. In case the cattle are to be fed loose in sheds or boxes, it is also well to give some attention to arranging them in uniform lots as to size and general appearance, and in either case it is, perhaps, better to have water constantly before them in troughs or drinking fountains, where they can take it at will, as the quieter the animals are kept the more rapidly they will gain flesh. There is room for a difference of opinion on this phase of the subject, as there may be good ground for the contention that exercise in the fresh air sharpens the appetite and quickens the circulation of the blood. The danger is that if cattle are watered but once or twice a day, and their feed is mostly of a dry nature, and they are left out half an hour or more on a cold day, after filling themselves with ice water, they are liable to become chilled and uncomfortable, and possibly to become ill and too lose time. Judgment must be used to prevent these contingencies, by watering more frequently if the feed is dry, and to leave them out a shorter time. One of the first things to be done on taking the cattle into the stables is to clip the hair off their backs, necks and tails, and shorten the switch of the tail. This is necessary in order to avoid itchiness of the skin, which is liable to occur on being confined in a warm stable, and it also facilitates currying, and the application, if need be, of a wash to destroy lice or ringworm, which are apt to appear and prove troublesome. For the first of these troubles the advertised sheep dips and cattle washes are generally effective, as is also almost any kind of grease or oil. For ringworm, a simple and sure cure is a mixture of lard or oil, and sulphur well rubbed in and repeated. Kind treatment, quietness and regularity in feeding are essentials to success in making the best gains in weight, and for this reason the less the animals are disturbed the better. For this reason, among others, some of the most successful feeders feed only twice a day, finding that the cattle improve quite as fast, or faster, than if fed oftener. When cattle become accustomed to fewer feeds they cease to expect them more frequently, and accommodate themselves to the circumstances. Feeding oftener than three times daily is certainly unnecessary labor, and hurtful rather than helpful to the stock.

It is well, if possible, to plan all the work so that after the cattle have fed they may lie down undisturbed from any cause until the next feeding, which should be done at exactly the same time each day, as otherwise the animals will become uneasy and fretful, and will not gain as they would if always contented. Salt should be supplied them regularly, either in the form of a lump of rock salt kept in a box in a corner of the manger, mixed in limited quantity with their food daily, or given in small quantity loose once or twice a week.

On changing the cattle from pasture to dry feed in the stable, constipation of the bowels and impaction of the stomach are liable to occur, and it is wise to furnish laxative food, in the form of roots or ensilage, or in the absence of these, a liberal supply of bran and oats, which are always safe feedstuffs, and should form a part of the ration at all times during the fattening term, stronger or richer and more fattening meal being added in the finishing period. Opinions may differ as to the advantage or otherwise of cutting and mixing the rough fodder with the meal and the succulent portions of the ration, but the consensus of opinion among successful feeders is, we believe, in favor of mixing the ensilage or pulped roots, or both, with chaff or cut straw or hay, or both, letting the mixture stand for twelve hours till it is heated before feeding, and the

meal, ground fine, scattered over or mixed with the other feed in the manger, so that each animal may get its equal share, and if any require more or less than others, the amount may be suited to their individual necessities.

Anthrax.

Owing to the frequent outbreaks of anthrax in different parts of the country, and the danger to human life through contact with the germ-laden blood during the skinning of the carcass, a few words of explanation regarding the nature of the disease, and the extreme danger of, in any way, touching the carcass of an animal dying of this disease will, we believe, be appreciated by the readers of the "Farmer's Advocate."

Anthrax is an infectious disease caused by a specific bacterium, the *Bacillus anthracis*, which is a microscopic organism. In form it is cylindrical, or rod-like, measuring 1-5000 to 1-2500 of an inch in length, and 1-25000 of an inch in diameter. Like all bacteria, they have the power of indefinite multiplication. In the bodies of infected animals they produce death by rapidly increasing in numbers and producing substances that poison and destroy the vitality and life-producing power of the blood. They increase in numbers by becoming elongated, then dividing in two, each new organism continuing the same process indefinitely. Outside the body, however, they multiply in a different way, as they are then under conditions unfavorable to growth. Oval bodies appear within the rods; these are called spores; these spores will remain alive and capable of germination after years of drying. They also resist heat to a remarkable degree, and nothing short of boiling will destroy them. They thrive best in soils sub-

except by a man thoroughly versed in the dangerous nature of such a course. In all suspected cases, a few drops of blood taken from the ear and forwarded to Dr. J. G. Rutherford, V.D.G., Ottawa, for examination, is decidedly the best and safest course to pursue. As the blood of an anthrax carcass is one living mass of bacilli, one drop in contact with an abraded spot on the hands, be it ever so small, is almost sure death. There is no known treatment; therefore, in a few words, the proper course to pursue is, if you find an animal dead, or if you have an animal die suddenly, don't touch it, much less skin it. Draw it out on a stone boat to some suitable place and burn it, and burn anything that has been in contact. If the carcass was in the stable thoroughly scrub all contact places with lye and disinfect, and any place the carcass has lain on the ground should be thickly covered with fresh lime.

H. VANZANT.

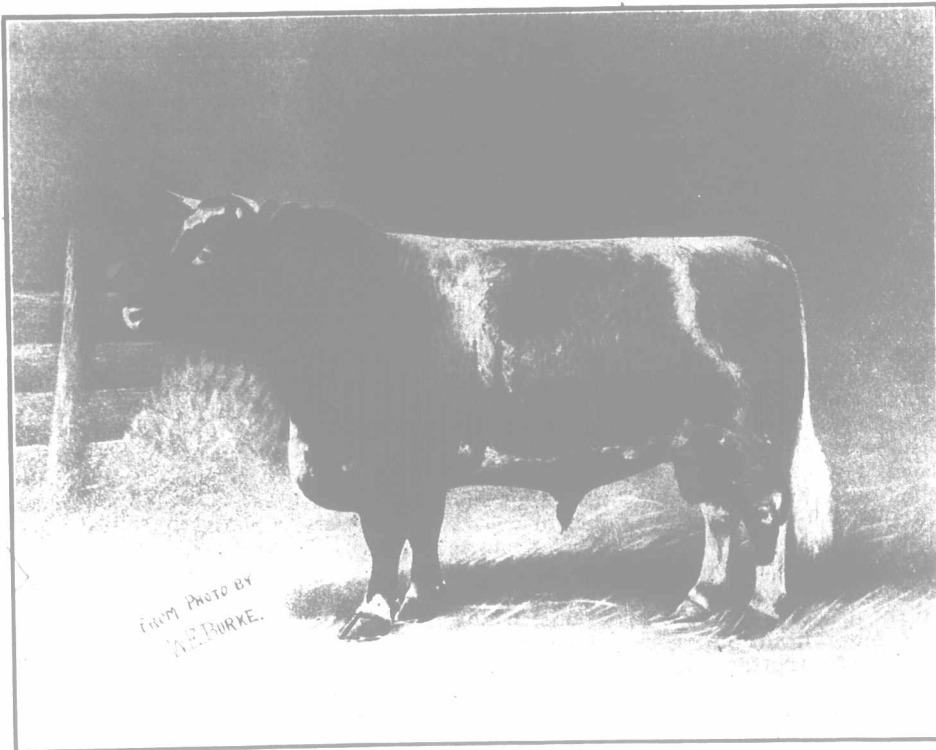
Administering Medicines to Animals.

(Continued.)

The administration of medicines to the ox or cow is, under ordinary conditions, not so tedious or so dangerous as to the horse. Medicines are generally given in a fluid state as a drench. The patient's mouth must be elevated, which can be done by the operator grasping the partition between the nostrils. By placing the forefinger of the left hand in one nostril and the thumb in the other and raising the nose until the mouth is slightly higher than the throat. It is not wise to elevate the mouth much higher than the throat, as this appears to render the muscles of deglutition (swallowing) tense and interferes with their

action. Some cattle are stubborn, and hard to hold in this position, hence it is well to have an assistant on the left side of the patient (the operator stands on the right side) to catch a horn in each hand, or, in the absence of horns, an ear, and assist in keeping the head in the proper place. The drench, having been prepared and put into a large bottle, is now taken in the right hand of the operator, and the neck of the bottle introduced into the mouth through the interdental space (that space between the incisor and the molar teeth), a small quantity of the fluid is allowed to flow into the mouth, when, if the patient works her jaws and swallows, it can be allowed to run freely, but if she holds her jaws tight and refuses

to swallow, it must not be allowed to flow, as if the pharynx be filled some of the fluid will pass down the windpipe at the first expiration and cause suffocation or mechanical bronchitis. When an animal acts this way the roof of the mouth should be rubbed freely with the mouth of the bottle until she commences to move her jaws, when she will, in most cases, swallow, after which the fluid may be allowed to flow freely. Under ordinary conditions, a quart of fluid can be given to an ox with less trouble and in less time than half a pint to a horse. If from any cause an ox persists in refusing to swallow, or is unable to swallow on account of a soreness of the throat or a partial or complete paralysis of the muscles of deglutition, as in cases of paraplegia, milk fever, etc., drenches must on no account be given in the ordinary way, as untoward results are sure to follow. In such cases a gag made of a piece of board about three inches wide in the center and tapered to one inch at the ends, with a one-half inch hole through its center, or other means of keeping the mouth open, should be put into the mouth and secured there. Then a piece of one-half inch rubber hose about five feet long should be passed through the hole into the gullet and on down to the stomach. The head of the patient being held in the same position as for drenching, the small end of a funnel is forced into the cavity in the exposed end of the tube and the fluid poured into it. This conveys the fluid directly to the stomach without danger. Medicines can be given in this way more easily if the patient be lying down. Medicines can be given to the ox in the



Old Lancaster Imp., = 50068 =.

First-prize two-year-old. Senior champion and grand champion Shorthorn bull at Canadian National Exhibition, Toronto, 1905. Property of Geo. Amos & Son, Moffat, Ontario. (See Gossip, page 1707.)

ject to floods and inundations, particularly loose humus soils and those containing lime, marl, clay, and in peaty, swampy soils, although no kind or condition of soil is exempt. In the Alps, 3,000 feet above the sea level, anthrax exists. It is a disease of world-wide distribution. A wet spring, followed by a dry, hot spell, is particularly favorable to the multiplication of the spores. The great source of the virus is found in and around the graves of the animals that have died of the disease. As the spores are practically indestructible, except by extreme heat, they live, multiply, and are capable of producing the disease years after the animal was buried. Some claim that thirty, forty, and even fifty years, is not long enough to effectually destroy them, hence the oft-times mysterious outbreaks of this terrible disease. Therefore, under no circumstances should the carcass of an animal dying with this disease, or the carcass of an animal found dead in the field or stable, be either skinned or buried; burning is the only safe way of disposing of them. All domesticated animals are subject to the disease. It is also communicable to man by contact with the blood, as in the act of skinning the carcass. It runs its course very rapidly; an animal all right at night is found dead in the morning. There are no regular symptoms by which diagnosis may be made. One animal may only appear dull, and rapidly get weaker, lie down, and die without a struggle; others may have colicky pains which continue until death ensues, which generally takes place in from four to six hours. Post-mortem examination should never be undertaken,

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