

the disease to another horse or to man, therefore dangerous).

As the disease advances this discharge becomes more pronounced. A little discharge from the eye will also be noticed. In an acute case of glanders, the animal becomes rapidly emaciated, and the discharge becomes profuse from both nostrils. Ulceration takes place inside the nose and the membranes of the nose—ulceration so intense that I have seen, inside of three days, in an animal apparently healthy, an aperture in the membrane between the two nostrils two inches in diameter.

In such a case there is a loss of appetite, a swelling of the legs, and a general bad condition of health, followed, of course, very rapidly by death. Some of these cases break out in repulsive and loathsome sores all over the body. I do not think there is any more miserable object than one of these acute cases.

Some cases of glanders, where the disease is acute, the temperature is very often so high that it would be hopeless to look for a rise in the temperature from the injection of mallein. In such cases we depend to a considerable extent upon the local reaction, which we always get, even in the most advanced cases.

It is very difficult to distinguish between an ordinary distemper in the initial stages and glanders in some cases. It would even puzzle a skillful veterinarian, without the use of mallein, in some cases. There is absolutely no immunity conferred by the use of mallein, and there can be no reaction excepting from glanders with the mallein test.

MODE OF DISINFECTION.

After cleansing the premises thoroughly and burning all debris, the interior should be well gone over with hot steam or boiling water, adding to the latter at least one quart of crude carbolic acid to each five gallons, after which the entire surface should be thickly coated with a hot solution of fresh lime wash, to which crude carbolic acid has been added in the above-mentioned proportion.

Outbuildings, fences and tying posts, with which infected animals have been in contact, should also, when possible, be thoroughly treated in a similar manner. All mangers, stable utensils, etc., should be treated with boiling water or burned. Lime wash with crude carbolic acid in it is used, because it should be the disinfecting has been done. Nobody's word is taken for it in a matter of this kind, and when there is fresh lime on the woodwork of the stable, that is pretty good evidence. Formaldehyde is used in some cases. Where people have old stables, burning is the thing, but no compensation is paid. Straw roofs are very bad. We like to get a new roof in the case of a stable with a roof of straw. We generally get the man to burn his feed boxes and everything of that kind there is to burn.

Infection will take place in a great many different ways. It will take place by inoculation, by ingestion, but most frequently by inhalation. There is danger in a public drinking fountain, but where the water is always running, not as great as is generally supposed. Still, there is danger there.

A good while ago veterinary surgeons believed that a stable would keep alive the germs of glanders for years, and years and years. We have found out since that there is nothing in it—that about four months is the extreme length of time that the bacillus will live outside of the animal body under the most favorable conditions. Now, the explanation of the prevalence of that old belief is the existence of those latent cases of disease which have been explained to us by the use of mallein.

CAUSES FOR THE SPREAD OF GLANDERS.

Among the most dangerous and persistent agents in the dissemination of glanders and other diseases are the range horses, which during the last ten years have been shipped from the Western States in large numbers to supply the temporary shortages arising from the unfortunate cessation of breeding which resulted from a depression of prices in the early nineties.

The mortality from the disease on the range itself is not very great, the conditions being favorable to its maintaining a latent form, but it soon develops when the infected animals are broken, stabled and put to work, as has been demonstrated again and again, a chain of outbreaks having frequently followed exactly the route taken by one of the numerous itinerant bands of broncos imported for the purpose of being peddled to farmers.

While inspection at the boundary is enforced, it is, in many cases, impossible to detect the existence of glanders without the aid of mallein. Although involving considerable inconvenience to importers, it would almost appear necessary to make provision for the testing of all horses introduced from the other side.

In many States of the Union no serious attempt is made by the authorities to deal in an

effective way with outbreaks of glanders, and, as a result, a good deal of private testing is carried on, the reactors being subsequently disposed of as soon as possible. As such horses are sold at a sacrifice, they are, as a rule, quickly picked up, and there is no doubt that some of them are brought into Canada, either by persons ignorant as to their true condition, or unscrupulous enough to run the risk of having them pass inspection at the boundary before the disease has developed sufficiently to admit of its existence being detected by ordinary method.

THE ONLY TREATMENT FOR GLANDERS IN HORSES IS THE BULLET.

After a trial extending over two years, the system of testing reactors was found to be unworkable and far from satisfactory, inasmuch as it was shown to be practically impossible to keep reacting horses under such close observation as might offer comparative freedom from the risk of spreading infection. Among groups of reactors held for further tests, one or more are likely to develop clinical symptoms, thus becoming virulent centers of infection, not only endangering the other reactors with which they are in actual contact, they being in no way immune from re-infection, but through the various indirect channels with which horsemen are familiar, threatening the health of other animals not actually housed with them. More recently, frequent proofs have been furnished that many of even the so-called ceased reactors can be by no means looked upon as permanently cured. Several serious outbreaks can be traced directly to such horses, and, making due allowance for the possibility of re-infection from outside sources, I may say that I am in possession of what I consider to be indisputable evidence in confirmation of the view that these animals are exceedingly dangerous. The risk attending their release is greatly increased by the tendency almost invariably shown by owners to dispose of them at the first available opportunity, when, falling into the hands of unsuspecting persons, they frequently introduce the disease among their new stable companions.

The policy of re-testing reactors having thus been fairly tried and found wanting, while that of slaughtering clinical cases and ignoring contact horses had proved worse than useless, there remained the alternative of leaving the disease alone, to spread as opportunity offered, or of applying the only practical, and, at the same time, the only specific remedy, namely, the destruction of all horses giving a typical mallein reaction, whether presenting any external manifestation of glanders or not.

The following paragraphs give the rule regarding compensation:

Horses, mules or asses affected with glanders, whether such animals show clinical symptoms of the disease, or react to the mallein test without showing such symptoms, shall, on an order signed by a duly appointed inspector of the Department of Agriculture, be forthwith slaughtered, and the carcasses disposed of as in such order prescribed, compensation to be paid to the owners of such animals if and when the Act so provides.

In the event of the owner objecting to the slaughter of animals which react to mallein, but show no clinical symptoms of glanders, the inspector may order such animals to be kept in close quarantine and re-tested, such re-test, however, in no case, to exceed two in number, and to be completed within four months of the first test, provided, however, that owners deciding to have their animals quarantined rather than slaughtered shall forfeit all right to compensation.

Compensation to the extent of two-thirds value is paid, up to \$150 for ordinary horses, the valuation of pure-breds being put at \$300.

In Manitoba, the work of dealing with glanders was supposed to have been carried on in an intelligent and systematic manner. It was not, however, the policy of the Provincial authorities to destroy reactors, clinical cases only being killed, while in some cases contact horses were tested and kept under supervision, and in others they were allowed to go without further attempt at control.

The results of pursuing such a policy are very evident, as will be seen by a reference to the figures. (In the light of recent events, the Manitoba policy helped propagate, rather than stamp out the disease.—Ed.) Glanders is practically incurable in human beings.

Eclipses All Rivals.

Mr. Dan. R. Chisholm, St. Andrews, N. S., writes: "You will please find enclosed one dollar and fifty cents, one year's subscription to 'The Farmer's Advocate.' I must congratulate you on your excellent paper. There is nothing like it in Canada on farming, etc. I used to see it many years ago in connection with our agricultural society. It will surely extend its usefulness in our growing country. With best wishes for prosperity."

Preparation of Horses for Exhibition.

Horses, like cattle, require a great deal of special treatment before they are fit to take a place in the show-ring and to win in keen competition, and, no matter how good an animal is, it can be made to look infinitely better by a course of preparatory treatment. It is, however, far more difficult to give explicit directions for the bringing out of horses to show condition than for the preparation of cattle, because in the case of the horse everything depends upon the age and the breed. The colt or filly cannot be, or ought not to be, prepared in the same way as the stallion, and the polo pony requires different handling to the cart horse or hunter. There is a fashion for each and every kind, but within the limits of this short series of articles it is impossible to do more than speak in general terms of the kind of treatment that will suit all kinds of horses which are being prepared for showing.

PUTTING ON CONDITION.

When bringing horses into show condition, it should be our aim to develop the muscles to the full, rather than to lay on too much fat. A well-fattened horse looks sleek and pleasing to the eye of the inexperienced, but the judge looks for the natural shapes and muscles, and does not want to have them hidden by a uniform layer of fat, which entirely spoils the contour of the body. It is all very well to fatten a bullock so that its back presents one unbroken line, and all natural depressions are filled up, but in a horse the judge looks for something more, and he estimates full muscular development at a far higher value than mere fatty development. No matter to what breed or class the horse may belong, it looks all the better if it possesses large, prominent, well-developed muscles.

This being so, it is plain that it is not alone sufficient that a horse which is being prepared for a show should be stall-fed, but that the animal should also be well and regularly exercised, so that the flesh may be firm and muscular. Owing to the horse's aptitude for rapid fattening, many exhibitors of these animals make the mistake of putting off the period of preparation too long, and then piling on flesh and fat too quickly within the last few weeks before the show. Horses can be prepared in this way, but it is not the best way; for rapid forcing is injurious, and it would be much more satisfactory to begin preparing three months before the show, by reducing the horse's work somewhat and increasing its food. The quality and quantity of food to be fed must depend entirely on the individual horse, and it would be worse than useless to attempt to lay down any strict rule for all horses. The owner must study his horse and feed the foods which seem to agree best with it and to give the results. It is advisable, however, to vary the food, and to be careful not to overfeed any one kind, especially if it be a highly-concentrated kind.

THE QUESTION OF GROOMING

is one which it is extremely difficult to deal with in an intelligible manner in a short article, owing to the many styles in which horses are nowadays brought out. One rule which still, however, holds good in all cases is that young, untrained horses do not need to be groomed to a nicety, and that adult-trained horses cannot possibly be too well done.

The preparation of an untrained colt may be summed up in a very few words. It is undesirable that too much of the rough hair, which the judge expects to see, should be removed by sheeting or by continuous brushing, and it is only necessary that the skin should be well washed two or three times a week before the show, and that once a day the coat should be groomed with a brush. The animal should be liberally fed and well exercised, so that it may show forward condition for its age, and it should also be trained to lead with a halter. Something may also be done in the matter of teaching it to show up its shapes and paces, but with an untrained animal very much cannot be effected in this direction.

A GLOSSY COAT MAY BE PRODUCED

in the case of trained horses by the use of certain condiments; but for the most part these are to be avoided as ultimately injurious to health, and owners ought to caution their grooms especially against using arsenical preparations. There is no condiment that will produce so good a coat as judicious and wholesome feeding, coupled with thorough grooming. Let the groom stick to it for hours every day, rubbing and brushing with all his might, and the result will be a shining skin that cannot fail to attract.

THE MANE, TAIL, HEAD, AND FEET.

Much can be done to improve the appearance of a horse by caring well for the mane, tail, head and feet. The style in which the mane and tail are to be done up depends, of course, on the class of horse—the hunter, the cart horse, the carriage horse, the polo pony having each its peculiar style. But whatever style is in vogue, unremitting attention to these parts, not only immediately before the show, but for many weeks before it,