STOCK.

Treatment for Contagious Abortion.

The above disease is so on the increase and so serious that the recent address by Mr. Jas. Peters on the subject is given here in condensed form, and in a manner easily understood :

I will give you, he said, in the briefest manner possible, an outline of the treatment I have adopted for the past fifteen years, both as a cure and a preventive. I do not for one moment claim that it is infallible, neither do I urge it on anyone. I have no personal advantage to obtain from its adoption. I can only say I have found it an invariable success. I give each cow a half-ounce dose of Calvert's No. 5 (crude) carbolic acid three times a week, or daily, if necessary. My mode of administering it is this : Take the requisite amount of acid—that is, half an ounce for each cow—add a little glycerine in order to make a perfect emulsion, mix with sufficient cold water to make a bran mash for each cow ; then add the bran, mix thoroughly, and divide the mash equally among the cows. In some cases a cow will, for a time, take exception to the smell of the mash, and in such cases I commence by giving her a quarter ounce or less, which is the maximum quantity I have been able to get a cow to take at a time. In addition to this, all cows should be frequently injected with an antiseptic solution, such as corrosive sublimate as recommended by Nocard, or, as I much prefer a coal-tar disinfectant, Jeyes' Fluid (practically creolin), for instance. These injections should be given at intervals of a fortnight, during pregnancy, up till within six weeks of calving. In any case where abortion is suspected to be in the herd, the bull should be carefully disinfected after serving each cow, by injecting the sheath with a disinfectant solution.

I have also found excellent results, as a preventive, from daily spraying the hindquarters of the cows, after milking, with a solution of Jeyes' Fluid (creolin), 1 in 30. This is easily done with a garden syringe, and is an excellent means of preventing the germs of abortion from entering the womb.

QUARANTINE AFFECTED COWS.

All cows that show any signs of approaching abortion should be immediately isolated. All afterbirth and discharge should be burnt, as well as all litter, and the place thoroughly disinfected. The vagina should be flushed daily until all discharge is cleared away, and afterwards (frequently) for three months before being bred again, the carbolic acid mashes being given about three times a week.

I was discussing the question of abortion with a veterinary surgeon the other day, and he mentioned a herd which he had cleared of abortion recently by frequently washing out the womb with a chinosol solution, and finally correcting its acid state by an alkali injection before serving the cow again. I understand this treatment was a complete success. If so, it seems quite simple, and well worth trying.

In conclusion, I should like to say a word as to the disinfection of the navel of the new-born calf, which, I think, is most important. Immediately the calf is dropped the navel-cord should be dressed with a strong disinfectant solution. I use crude carbolic acid, and this rapidly dries up the cord, and thus prevents the entry of germs, which have been proved by Professor Nocard to produce various kinds of scour. There are strong grounds for suspicion that the germ of contagious abortion and that of calf cholera, if not identical, are very nearly related, and anything than can be done to combat them should have the untiring attention of cattlemen.

It is significant that Mr. Peters' suggestions in the way of treatment were suppressed before the commission on contagious abortion in 1891.

Bicycle Pump Cures Milk Fever.

I had a case of milk fever this week. I got up one morning and found my one cow very sick. I drove about five miles to a veterinary to get his pump. When I got there it was broken, so I hurried home, got a bicycle pump from a neighbor and used on her, filling her udder with air, and in five or six hours she was up. It gave relief in less than ten minutes. I was surprised. I blanketed her and gave her a dose of ginger which warmed her up. I think the "Farmer's Advocate" is the best going.

Lincoln Co., Ont. P. MERRITT.

[Note.—There is danger in giving a drench in a case of milk fever, as there is apt to be partial paralysis of the throat and loss of power to swallow, the dose often going into the trachea and lungs, causing pneumonia and death. The air cure alone is a sure thing.—Ed.]

Reward Deserves Further Effort.

I received the knife you sent me all right. I am very much pleased with it, and will endeavor to get you other subscribers. A. W. MILNE.

York Co., Ont.

The Oxford County Show.

At the Oxford County Show, one of the first of the leading English summer stock shows, the cattle section was mainly Shorthorns, and was one of great quality. The Earl of Powis, with "Alastair," a roan five-year-old, bred by Lord Lovat, won first in the old bull class ; Messrs. Denny second with Ascot Constellation. Mr. R. P. Cooper, with Meteor and Speculator, was first and second in the two-year-old bull class, and Mr. G. Freeman with Emancipation took third honors. In the yearling bull section, Mr. W. T. Garne provided the winner in Partizan, a compact roan son of Marechal Neil, who was by Count Arthur, dam by Clan Alpine ; Captain W. B. Harrison with Caledonia, a Scotch-bred bull, took second honors.

In the cow class, Mr. J Coleman was first and third with Adeline and Hawthorne Flower, both by Cairo. Miss Alice de Rothschild was first and second for three-year-old heifers with Fanny 36th and Waddesdon Venus, and in the class for two-year-olds she also won first with Waddesdon Butterfly, who was the champion female of the breed. Welsh Maid won first honors in the yearling class for the Earl of Powis, and Mr. R. W. Hudson with Littlewick Gipsy Countess won second honors in the same class.

The Earl of Coventry, Mr. G. D. Faber, and Peter Coates, were the leading winners for Hereford cattle, exhibited in small numbers, but with good quality. Mr. W. B. Greenfield and Mr. J. J. Cridlan were the exhibitors that owned the best of a very good entry of Aberdeen-Angus cattle. Lord Rothschild, Lady de Rothschild, the Earl of Cadogan and Mr. J. C. Drew were the leading winners in the Jersey classes, in which the entry was an extremely large one and the quality superior.

The Guernseys were not largely represented Mr. J. Pierpont Morgan, Frank Hargreaves and E. A. Hambro were the leading winners.

Shire horses came out in good form and with many excellent animals. The older stallion class was headed by Mr. J. Thomson's Markeaton Combination, Sir P. A. Muntz taking the corresponding place in the two-year-old stallion class, followed by Sir A. Henderson's entry, that came second. This breeder was first in the brood mare class, and also in the class of four-year-old Shire mares. The three-year-old and also the two-year-old mares were headed by two particularly well-grown fillies from Sir P. A. Muntz's stud, and this breeder had the satisfaction of owning also the winning filly in an excellent class of seventeen yearlings.

One of the features of this show is the entry always found of Oxford Down sheep. This year's entry consisted of 145 pens, the largest entry of this breed that will be seen at any show during the year. Mr. A. Brassy, M. P., won, with shearling rams of superior merit, champion, first and second prizes. The third place in the class was occupied by a very fine sheep, indeed, sent forward by Mr. J. T. Hobbs, and other successful competitors were Messrs. James Horlick, H. W. Stilgoe, G. Hawkins, W. A. Treweeke. In the ram lamb class for pen of three, Mr. J. T. Hobbs took first honors with a wealthy-fleshed pen, of even quality. A pen denoting more masculine type secured second honors for Mr. A. Wilsden. Third honors and reserve number went to Mr. W. A. Treweeke. Mr. Brassy led, without question, in the yearling ewe class with a well-developed and good-fleshed pen, which are very ripe. Mr. Hobbs was second and fourth with two pens, either of which are in that condition that will well pay inspection from any purchaser who desires to take them to America for the autumn fairs. In the ewe lamb class Mr. Hobbs repeated the success noted for ram lambs, with an equally fine pen. Mr. A. Brassy was second with a pen of more scale, but hardly so good in quality. Mr. Treweeke's pen, which were third, had more quality, and probably better flesh. Mr. A. Treweeke won first and reserve number for flock ewes. These were most typical specimens of their breed. Second honors went to Mr. A. H. Wilsden, with a notable lot of sheep.

The Hampshire Down entry was smaller than usual, but lacked none of its accustomed quality. Mr. James Flower led in the yearling rams, ram lambs and yearling ewes, with very superior quality, first-class to touch, and of excellent character. Mr. H. L. Cripps occupied second place, with yearling rams.

Mr. W. T. Garne won all the money awards in the Cotswold classes, and it may be said of these exhibits that they were just about as good as could be.

The Berkshire pig classes were fully represented, and very good, indeed. Mr. G. T. Inman was winner of all the first prizes, except that for the younger boars, in which Mr. J. A. Fricker took precedence. Mr. Inman's Highmoor Mikado was champion boar. Lord Capthorpe, J. Jefferson, E. J. Morant and Mr. N. Benjafield were also successful exhibitors, the last named winning second honors in the older boar class with Commander-in-Chief, who was reserve champion. Mr. R. M. Knowles won all through the classes for other breeds, with Yorkshires, and the best boar and best sow were made champion winners for the best of their sex of any breed in the yard.

Parents' Influence on Progeny.

Dealing with living things, with animals or plants, we have yet so much to learn of the reason why we get certain results in our daily work, that it would often appear that we are groping in the dark, and playing at a hit-and-miss game in our breeding of animals and plants.

A great deal of time and much energy has been expended in endeavo. to discover some laws of breeding that would enable one to carry on his breeding operations more intelligently and with some idea of what to expect in the offspring. Very little systematic work has been done, however, but it is noteworthy that several careful experimenters and observers have been most successful in their efforts. As a result of this we at present have at least a partial understanding of the laws of nature that govern the transmission of characters from one generation to the next. What we know, while only a smattering, is enough to indicate that there is much yet to be discovered, and that patient and careful work will be rewarded by the discovery of more of nature's truths and of her ways of working wonders.

For our present knowledge of the principles of heredity credit is largely due to a German monk called Mendel, who lived and worked in his garden about forty years ago. He discovered and gave to the world what we know as Mendel's Law. It is only about five years since the results of his researches really came to light, as through their early publication in a somewhat obscure magazine, they were soon unnoticed, and it was not until 1900 that they were rediscovered. Since that time his results have been verified by various workers.

Mendel worked largely with garden peas. He selected plants having different and opposite pairs of characters ; for instance, smooth and angular seeds, long and short stems, full and constricted pods, white or gray seed coats, etc., and crossed the plants exhibiting the opposite sets or characters with one another. The plants produced from the cross-bred seeds were allowed the next season to fertilize themselves, and notes were taken on the proportion of the different types of plants produced. The seeds of these were again sown and the nature of the plants carefully watched through this and succeeding generations. In the first generation of the hybrids Mendel found that a certain proportion exhibited the character of the male parent, and in succeeding generations produced plants of that type only. The same proportion exhibited the character of the female parent, and the remainder were of an intermediate or hybrid nature, although having the appearance of belonging to one or other of the two classes already mentioned. In other words, a certain proportion of the offspring were pure-breds after the character of the male, and in future generations were incapable of producing anything but individuals having this character in a pure state. About an equal proportion transmitted the pure female character. The hybrids gradually split up in succeeding generations into individuals exhibiting the pure male or the pure female character.

In speaking of male and female characters, it must be borne in mind that only one set of unit characters is referred to; for instance, in wheats, the bearded and beardless characters; and in animals, the horned and the polled characters ; the one being exhibited in the male parent, the other in the female parent.

To take for the purposes of illustration the polled and horned characters, according to Mendel, although he did no work with these special characters in breeds of animals having horns there is always present a latent possibility of a polled animal appearing ; the horned character is "dominant," and the polled character "recessive." In each germ cell of the male and of the female there are present the two elements that go to produce the offspring, either horned or polled. In our polled breeds the polled element is the stronger, and hence we scarcely ever see any evidence of horns appearing ; in our horned breeds, the opposite is the case. So long, therefore, as horned animals are crossed with horned there is little likelihood of any but horned offspring appearing; but when a horned animal is crossed with one that is polled, we may have one of three produced—either an animal with a pure-horned character and capable of producing, with horned mates, all horned stock ; a pure-polled animal that will produce on polled stock only polled progeny; or hybrid stock that would, gradually, in future generations, split up into individuals exhibiting only the two pure characters.

Animals need not have any appearance of being hybrid, but have one character apparent, the other latent or recessive. It will thus be seen how, through the appearance of only one polled individual in a horned breed, the whole breed could eventually be polled.

In crossing two varieties of wheat, one bearded and one beardless, in the product of the hybrid, one proportion about 25 per cent. would