

refers to the ADVOCATE'S trophy as one for competition "between the dairy breeds." Readers might infer that some other breeds, such as Shorthorns, Galloways, etc., were not included. Such was not the case. (See August issue, page 242. Rule 1.—"Cows of any breed or age may be entered for competition.") The Devons were there and won second prize, relegating one herd of Jerseys to third place.

PROF. ROBERTSON AND HIS CRITICS.

The ADVOCATE dairy test premiums are offered again for 1891. There is now ample time to arrange details, and every breed making special or general purpose dairy pretensions, should be represented at the meeting of delegates from the breeders' associations. Let the valuation of foods, scale of points, etc., have a full, frank and fair consideration, so that, if possible, there will be no last-minute hitch, causing a dozen herds to retire, as at Toronto. Prof. Robertson has been the target for sharp firing, but his cuticle will probably stand it. A scale of points to suit all is not easily adjusted, as I find trouble on this very point in connection with English dairy tests. At Toronto some contended that the points for fat and "other solids" were not allowed in proper proportion, or at least they did not understand clearly the "why and wherefore" of the matter. In the meantime, here is one point the Professor might, with advantage, dispose of, viz., What was the reasoning or the calculation upon which 16 cents per pound was allowed for butter fat and 2½ cents per pound for solids other than fat? If there be haziness on this point, by all means let it be cleared away.

A POINT FOR CATTLEMEN.

Is this province carrying its proper quota of cattle? Early last year I entered a mild protest, which the ADVOCATE kindly printed, against the annual indiscriminate slaughter of calves, male and female, all through the cheese districts of Ontario, showing that the numbers of young stock were steadily declining, and, from what I can learn, more calves were reared last spring than formerly. In 1886 the cattle, including cows, in Ontario numbered over 2,000,000; now they are estimated at over 120,000 less than that. Almost everything in the shape of a steer or "springer," throughout Western Ontario, has been picked up by shippers, who report "stockers" very scarce. They have sold high, too. There has been a wonderful increase in exports to Britain. From Montreal last season there went nearly 124,000 head, as against 85,668 in 1889, or an increase of about 30,000. Is there not encouragement in the situation for the handlers of good animals for breeding purposes of the beefy sorts, particularly if they can show a milk backing?

JUDGING BY SINGLE EXPERTS.

Enquiry from the secretaries of the great state fairs of Ohio, Iowa, Indiana, Michigan, Minnesota, Nebraska, Kansas and Wisconsin, after the crucial test of experience, brought to light overwhelming testimony in favor of the single expert judge as a vast improvement on the old plan, and far more satisfactory to exhibitors. The suggestions by "D. M. C." and "Exhibitor," in the December issue, are timely. The subject needs overhauling, and now is the time to do it. One thing seems tolerably clear, and that is, that the old go-as-you-please, picked-up-committee-of-three, would do better to pack up their traps and depart. For live stock, the plan

now seems to be for fair managers to arrange with breeders' associations for competent, responsible judges of known integrity.

A WORD FOR THE PONIES.

Very interesting, and well worth preservation, were the articles for some months past on "Ponies and Pony Breeding." These diminutive horses are here for keeps. Hardy and easy keepers, they are, moreover, tractable, handy on their feet, and quite speedy enough for general around-town driving. For the use of ladies and children what can equal them? How about registration?

KEEP THE "ADVOCATE" ON FILE.

Speaking of preserving the pony articles, reminds me to suggest that no reader of the FARMER'S ADVOCATE should lose a single copy. Preserve them all for future reference. Begin with 1891, if you have not before. Bound with the index they make a fine volume for a farmer's library.

Cross-Breeding.

BY DAVID M'CRÆE.

Cross-breeding is the system of breeding animals from individuals of two different varieties. These may be two animals of different breeds, or a pure-bred animal of one breed and an animal of unknown or doubtful breeding for the other. If one of the animals be a grade of a pure breed, then, if mated with an animal of another pure breed, the produce would be cross-bred. Animals bred in this way frequently develop a good growth, and in size and appearance are something superior to either parent. This has been specially remarked in heavy draught horses. Animals bred from good Clyde stallions, with selected Shire mares, have frequently taken a better place for size and growth than either of their parents. The same thing has been noticed in the breeding of carriage horses from good roomy mares and thoroughbred stallions. In cattle breeding it has been followed with great advantage among beef-producing animals.

Miles, in his Principles of Stock Breeding, p. 238, says: "In crossing a pure-bred male of any of the improved meat-producing breeds upon native or cross-bred females, the sire is not only prepotent in determining the external form and characters of the offspring, but he has also a predominant influence upon the organs of nutrition, as is shown in the uniform superiority of the grade animal to its dam in size, feeding quality and early maturity." Notice, he says superior to its "dam." In very many cases he might have added superior to its "sire" also. And the excellence is in the points so much needed by the feeder, viz., SIZE, FEEDING QUALITY AND EARLY MATURITY. Judicious cross-breeding for beef has not been much tried in Canada. It is a paying investment in Britain; it can be made so here. Canada has a large market in Britain for almost any quantity of first-class beef. Our shipments to Britain last year were something over 80,000 head; this year they exceed 120,000, an increase of fifty per cent. in numbers. Many of these were very inferior animals, and were sent as stores. They went lean and unprofitable. Store cattle have been very high the past year in Britain; but the store cattle that will pay are those well bred ones under three years old, that have been well cared for and fed all the good food they could eat every day since the day they were dropped. For farmers breeding such a class of stock cross-

breeding is specially recommended. The bulk of the ordinary cattle in Ontario are either natives or Shorthorn grades. For the natives the best cross is the Shorthorn. For the Shorthorn grades it is not cross-breeding to use a Shorthorn bull; any of the other beef breeds, Galloway, Polled-Angus or Hereford, should give much better results. I appeal to the breeders throughout Ontario if it is not the case that from a pure-bred Shorthorn bull the produce of a common Canadian cow is frequently much better than that from the same bull and a grade Shorthorn, or even that from an inferior pure-bred cow. The first cross is specially good. Breeding from these cross-bred animals is irregular and uncertain.

The value of cross-bred animals for breeding purposes is diminished by the tendency to reversion and the loss of the power of transmitting definite characters to the offspring. And yet this very loss of power is where a point is made in cross-breeding. Inferior mongrel females will breed good animals to first-class males of pure blood. The more mixed the mother is in breeding, the more likely is the cross-bred to be good. There is plenty of room for expansion in this matter of breeding good feeding cattle. Use only pure-bred bulls. Try cross-breeding, then good feeding, warm winter stabling, plenty of grass and grain, and the result you will find to be shipping cattle a credit to yourself and to Canada.

Sale of Bow Park Shorthorns.

As advertised in our last issue, a draft of the famous Bow Park herd of Shorthorns was sold at public auction Feb. 18th. There was a large attendance of representative Shorthorn breeders present, the greater part of whom were Canadians, though a few Americans were present. Before the sale the guests made a thorough inspection of the premises, which revealed the fact that a wonderfully fine herd was kept and reared here, and also that the management of the stock and farm at this great establishment is conducted in a manner seldom equaled in America. Everything seems to be done in the most approved way. Although the writer has visited hundreds of the best herds and farms in Canada and the U. S. A., we must pronounce this apparently the best managed establishment we have ever seen. Mr. John Hope, the able and talented manager, conducted the sale and treated the buyers and visitors in a manner highly satisfactory to all. That well-known and accomplished farmer Mr. John I. Hobson, Mosborough, Ont., aptly remarked that it was easier to find a man suitable to fill the position of Minister of Agriculture than to find one capable of properly managing such an establishment as Bow Park.

The sale commenced at 2 o'clock p. m., and was concluded at five o'clock. In that time seventeen bulls two years old and under (the majority were about one-year-old) were sold at an average price of \$129 each, the highest price, being \$190, paid by Chas. Wilkinson, of Belgrave, Ont., for a very handsome, knightly bull got by Ingram's Chief. None of the bulls sold for less than \$100. The females, though a good lot, did not seem as saleable, which must be attributed to the extremely "hard times." A few heifers and heifer calves were sold, ranging in prices from \$50 to \$170, the latter being paid for an exceedingly fine three-year old heifer by Mr. James Guardhouse, Highfield, Ont.