

4. Great big stallions and small mares should never be mated to breed.
5. Half-bred stallions of any breed should not be used.
6. Avoid breeding in-and-in.
7. Do not breed from coarse, loose-made mares or horses.
8. Do not breed from black or grey mares or horses.
9. Do not breed from mares and horses which, having bred, produced bad colts.

*Positive.*

10. Determine exactly in your own mind the character of the horse you wish to produce, and never lose sight of it.
11. Avail of any opportunity that offers to produce the finest animals and blood that will suit your purpose.
12. To breed half-bred horses, select a pure thoroughbred horse and a big half-bred mare, the better bred she is the more valuable she will be.
13. To breed weight-carrying hunters, select a neatly made, large, roomy, healthy, young, well-shaped, sound, well-bred mare, with good temper and good action, or a tried mare that has been successful.
14. To breed weight-carrying hunters, select a pure thoroughbred stallion, compact, well-shaped, sound, healthy, vigorous, with good temper and good action, and one that is the sire of good running horses, and that has got good weight-carrying hunters.

#### THE MERINO SHEEP INDUSTRY IN THE UNITED STATES.

In his address to the Michigan Merino Sheep-Breeders' Association, the President, Mr. S. B. Hammond, spoke of the business of breeding and raising Merino sheep as somewhat deadened, but by no means killed. He deprecated the abandonment of the business, owing to a depression which he showed to be general, and referred to numerous former periods when the fluctuation in value had been great and the depression in prices most discouraging, notably in 1876 and 1879. The decline in wools from July, 1882, to September, 1884, was 20 per cent., but it was 17 per cent. in cotton; 20 in mess beef; 23 in hogs; 26 in mess pork; 28 in corn; 37 in wheat; 40 in nails, and 54 per cent. in steel rails. Mr. Hammond, while favoring an increase in size of the Merino sheep, was opposed to sacrificing quantity and quality of fleece to obtain it. The important step in breeding was the production of a more desirable fleece on a well-developed carcass. The speaker spoke in high terms of the good results of the Michigan public shearings, and their demonstration of the fact that Michigan followed the lead of few, if any, other States in the production of sheep or fleeces of acknowledged merit. These shearings had paid many times their cost to the parties making exhibits. He deplored the delay in the publication of the Register, and trusted it would not remain much longer "in embryo." Mr. Hammond referred at length to the tariff and its disastrous effects upon the wool industry, and to the meeting of wool growers in Chicago, May 19, 1884, at which he was present as one of the three delegates representing the society, at which, among others, a resolution was passed pledging members to vote only for such men in office as were in sympathy with the wool growers' interests. The utterance of Secretary McCulloch, in his annual official report, recommending to that body the propriety of removing all duties from raw material, in order that the manufacturer may be able to make goods more cheaply, and thus com-

pete more readily with the foreign manufacturers, was strongly denounced by the speaker, who declared that such a policy would bring every sheep in the country to the slaughter pens. The probability of the country's providing all the wool and mutton necessary for home consumption he did not regard as a proximate one by any means. In 1850, with a population of 23,000,000, the United States had 21,000,000 head of sheep; in 1880, the population had increased to 50,000,000, with 42,000,000 head of sheep, an increase of 100 per cent. of sheep against 117 per cent. of population. To secure a remunerative price for wool in this country, he argued, there must be suitable duties levied upon foreign wool and woollens.

Wool growers must, therefore, march shoulder to shoulder to the tune of "protection to wool and woollens." The manufacturer should not be forgotten, but it was generally conceded that he could take care of himself. Mr. Hammond considered it a reproach to the legislative body, and a shame to the people who elected it, that to secure wholesome economic laws it should be necessary to rise *en masse* with petitions and lobbyists. Such had, however, become the custom of the country, and therefore the wool growers must be up and doing. The loss sustained by the wool growers in consequence of the recent reduction in the tariff and the increase in the importations of foreign wool and woollens was not less than \$75,000,000, of which the share of Michigan was at least \$3,500,000. Michigan had sheared, in 1883, 2,240,965 sheep, which produced 12,737,343 pounds of wool; Jan. 1, 1884, there were 2,412,442 sheep, so that if the decline in wool had averaged but five cents per pound, and the decline in sheep but \$1 per head, it would in two years amount to that sum. The speaker could not, of course, say what action would be taken by the National Association, which would no doubt meet shortly, having been postponed from September, but no doubt such action would be taken as would at least present to Congress the needs of the wool growers, and he recommended hearty and prompt co-operation with the National Association in its work of bringing about such legislation as would promote the interests of wool growers. Michigan, the speaker regretted to say, would not be represented in the exhibits of wool at New Orleans. He himself had failed to obtain a single communication in response to the notice published by him on the subject.

#### MUTTON VS. WOOL.

In discussing the question of mutton vs. wool sheep, the New York *Market Journal* says:—"Sheep breeding is an art at the present day. Our breeders have classified sheep into breeds best adapted for either mutton or wool, and the mutton sheep have been classified into heavy and large breeds, while those bred for wool are divided into long wools and middle wools.

"The Americans give more attention to the production of wool than mutton, while in England the reverse is the case. While we are considering measures to prevent competition in foreign wool, our markets are badly supplied with mutton—not that there is an insufficient quantity to supply the demand, but the quantity is, as a rule, very inferior, and, as compared with that sold in the English markets, shows a lack of improvement in the sheep which are sent to the large cities in droves. With but few exceptions, there is great uniformity in the flocks that arrive at the drove-yards, an expert being able to see at a glance that the sheep are bred for wool in preference to mutton. They are marketed more with the view of sending them

off the farm to make room for younger stock than for their excellence for market purposes.

"In breeding for mutton it may be taken into consideration that the best wool sheep (the Merinos) are small, and do not arrive at a marketable age until well grown. They are hardy, are excellent producers of fine, soft wool, and make good crosses for that purpose with our native breeds; but they are not as suitable for market as the Southdown or Cotswolds. The Cotswolds are the largest of all breeds, have heavy carcasses, and produce long combing wool, but the objection to them is that they are not adapted to scanty herbage, and do not answer well for a first cross with our small natives. The Southdown is remarkable for its hardiness and the great improvement it makes in a single season. Its flesh is nicely interspersed with fat and lean, and the carcass is full, and the flesh very firm. Possessing fine bone, and producing only a medium quality of wool, there is little offal, and as they have dark faces and legs, and displayed in English stalls with the legs unskinned, they receive the preference from buyers, who willingly pay a higher price for such mutton, which is excellent in quality, and superior to that of other breeds of sheep.

"It is not a costly experiment to endeavor to improve a common flock in order to produce a better grade of mutton. If our wool market is overstocked, the field is still open for good mutton. We have not given the production of mutton that attention which it demands; and, if our flocks were increased in size and quality, there would be fewer complaints of loss from sheep-raising. In addition to the Southdowns we have the Shropshires, Oxfords, and Hampshires; but for a first cross the Southdowns are best, as their habits and characteristics are very similar to common sheep, and it is not best to make violent crosses by resorting to the very large breeds, as improvement is always more satisfactory when made gradual."

#### THE NEW ENGLAND DAIRYMEN'S CONVENTION.

At the Dairymen's Convention recently held in Boston some very interesting facts were elicited. Mr. O. B. Hawden furnished the following

##### DAIRY STATISTICS:

He remarked that the country contains upwards of 15,000,000 of cows, from which their products supply the demand and use of the people, and even with this estimate a cow has to feed more persons than the nutrition and good living of the people demand. It requires some 2,000,000,000 of capital to conduct this vast interest, an amount sufficient to have cancelled the national indebtedness at its maximum.

The men and women employed in the care of this immense herd, and the manipulation of its product, is some 650,000, and the food annually consumed is probably rising 60,000,000 tons.

Mr. Chamberlain made some interesting remarks on the subject of

##### CORN FOR BUTTER MAKING,

which are reported as follows:—

"We must produce our beef by paying less than 60 to 75 cents per bushel for corn. So it is with butter. We don't think of producing these articles without a very large percentage of corn in our feed. That is the staple and standard. The question then comes, Can we raise corn so we can provide it cheaper than now? I am making some investigations in that line this winter, and I have carried them to this pass that I want to make this statement,