

FINE-WOOLED SHEEP.

BY WILLIAM R. SANFORD, OF ORWELL, VERMONT.

THE adaptation of Vermont to wool-growing, and the peculiar advantages which would accrue to the people of the State from its introduction, became apparent at an early day to its most enterprising farmers.

The first pure-blood merinos were brought into Vermont by the Honorable William Jarvis, of Weathersfield, this State, soon after his extensive importation of them from Spain, in 1810 and 1811. The history of this gentleman's flock has been too fully set forth in various publications to need repetition here; from it sprung various full-blood and grade flocks, which were scattered over the State.

I can well remember the first merino ram brought into my own neighborhood. He was small, and had short wool, which was very dark and crusty on its outer ends. So strong was the popular prejudice against him that one person gave notice to his owner that if he got into the lot with his (native) sheep, he would shoot him! But, after a few experiments, the tide turned strongly in favor of the merinos.

In 1823, Honorable Charles Rich and Leonard Bedell, of this county, (Addison,) purchased a flock of Paular merinos on Long Island. Their purity of blood was amply established, and they were the origin of a hardy and valuable family of sheep which still continues to be a favorite one in this State.

They were, as a general thing, eventually crossed more or less with Mr. Jarvis's stock, imparting to the latter greater compactness of constitution, and receiving from them, in return, some improvement in the fineness and evenness of the fleece.

When the Saxon sheep were imported into the United States they made their way into Vermont. Some pure-blood flocks of them were started, and they were very generally crossed with the pure-blood and grade merino flocks already among us.

The Saxon sheep produced incalculable injury in this State. They were unadapted to our rigorous climate. They yielded far less wool than the Paulars and Jarvis sheep, and it did not sell for enough more per pound to compensate for the difference in amount. Yet for a time a mania to obtain them was universal. Even Mr. Jarvis, induced, as he declared, by the flattering representations of the manufacturers yielded to that unfortunate epidemic and crossed most of his flock with them. But the "good time" promised by the manufacturers never came. The worthlessness of these feeble little sheep became apparent,

and also the fact that they had by crossing nearly ruined our older merinos. But very few flocks of the latter, and those mostly small ones, had escaped the contamination.

Under these circumstances many persons sold out their fine sheep and abandoned wool-growing altogether. Some tried the experiment of breeding the large mutton sheep. But this generally resulted in entire failure. Others began to cast about diligently to recover the pure "old-fashioned merinos," as they were then called. I was one of the first to commence this, having purchased, about 1830, of Messrs. Grant and Jennison, of Walpole, New Hampshire, twenty pure-blood old ewes bred by Mr. Jarvis from his Spanish stock. Messrs. Grant and Jennison procured them when lambs, and being anxious to breed only Saxon, were induced to make the sale. These gentlemen afterwards remarked to me that the sale of these ewes was the greatest mistake they had ever made in sheep-breeding, as they then lost their pure merino stock. Myron W. C. Wright, esq., and Loyal C. Remilee, of Shoreham, Prosper Elithorp, of Bridport, Jesse Hines, of Brandon, and, I think, Alfred Hall, of Wallingford, and some others, at different periods between 1830 and 1840, procured small flocks of Jarvis sheep bred from his old Spanish stock.

In 1844 Mr. Edwin Hammond, of Middlebury, who had been a breeder of the early merinos, and subsequently of the Saxon, purchased, in connexion with R. P. Hall, of Cornwall, thirty full-blood ewes and three rams of Stephen Atwood, of Woodbury, Connecticut. In 1845 Mr. Hammond purchased twenty-seven ewes (one equal third of his flock) and one ram of Mr. Atwood. In 1846 Messrs. Hammond and Hall purchased more sheep of Mr. Atwood, but I am not informed of the number.

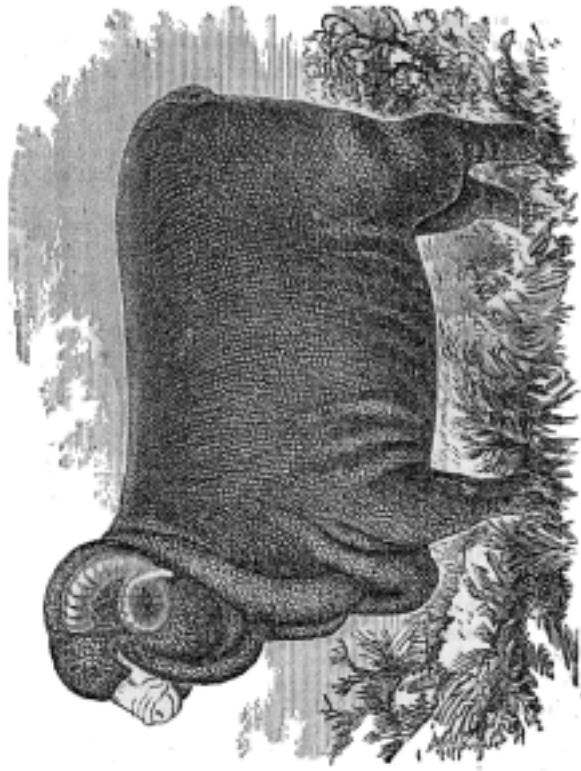
In the fall of 1844 Mr. W. C. Wright bought of Mr. Atwood, at the New York State Fair, a full-blood merino ram, which he took home and immediately sold to P. Elithorp and L. C. Remilee. Charles B. Cook, of Charlotte, bought a small number of sheep of Mr. Atwood about the same time, but as to the number I am not informed.

Mr. Atwood's sheep above-mentioned were pure-blood descendants of the merino flock imported from Spain in 1802 by Colonel David Humphreys, the American minister in that country. They are believed to have been of the Infantado family, and they were preserved from any admixture with other families by Colonel Humphreys, and by Mr. Atwood after his purchase, by breeding in and in, after the custom of Spain.

I continued breeding pure Jarvis sheep until 1849, using first a couple of rams from Mr. Jarvis, and subsequently those raised in the flock. In 1849 I purchased of Stephen and George Atwood the ram Old Black, (subsequently owned and used by M. Hammond, W. R. Remilee, and myself,) and thirteen ewes. In 1854 I bought of W. R. Remilee, of Middlebury, thirty-six ewes, (all of his yearling ewes and ewe lambs,) pure descendants of the stock bought by Messrs. Hammond and Hall of Mr. Atwood. Mr. Remilee had been a partner of Mr. Hall in those purchases of Mr. Atwood, and they, for a time, bred them together. To mark the change in prices since that period, I will state that my purchase of Mr. Atwood was at the rate of fifty dollars per head, and that my neighbors considered it an almost unheard-of price. The same year I bought seven yearlings and lambs of Abel P. Wooster, of Cornwall, which were got by the Wooster ram out of ewes purchased of Mr. Hammond.

Two or three years after commencing to breed Infantados, I found them superior to my old stock of Jarvis sheep and disposed of all the latter, and have bred my Infantados pure to this day. Mr. Hammond and all the leading breeders of this family of sheep in Vermont have never gone out of the original stock purchased of Mr. Atwood for rams, so that the family have been preserved absolutely distinct from all others.

The few pure Paular and Jarvis merinos left in the State in 1844, so far as I



MERINO RAM "COMET."

Five years old; bred and owned by Wm. H. Sanford, Cruwell, Wt.; weight of fleece, 24½ lbs.

know their history, were generally crossed, more or less, with the Infantados after the introduction of the latter.

The cross thus made by several breeders by means of the ram which Judge Wright purchased of Mr. Atwood in 1844, and its results, are recorded in Mr. Randall's Practical Shepherd. Many details are omitted in this account of our Vermont merino flocks, as they have already been given to the public with great fullness by the last-named gentleman in the work cited, and also in his "Fine-wooled Husbandry." To the great accuracy and impartiality of his statements I can, after thirty years' observation and experience in the sheep-husbandry of this State, personally bear witness.

This second cross of the Paulars with another family (the first having been made with Mr. Jarvis's sheep) is thought to have resulted in a still further improvement, and the produce constitutes the improved Paulars of the present day, as they are found in the flocks of the Messrs. Rich, of Richville, grandsons of the original introducer of the Paulars into this State, and of various other gentlemen. The stock has been formed by breeding back towards the Paular after each cross. They retain a distinctive character and are a hardy and valuable sheep. Some persons have mixed the different families indiscriminately and thus lost the distinctive traits of both families; but when judiciously bred these sheep, too, are valuable.

French merinos made their appearance in Vermont between 1840 and 1850 in considerable numbers. They attracted much notice and found warm admirers. In the last-named year the excitement ran high in respect to them.

In 1851 Mr. Hammond, Mr. William R. Remlee, R. P. Hall, and myself formed an association for the purpose of importing fine-wooled sheep from Europe, provided any could be found there which we esteemed superior to those already in Vermont. I was selected to go to Europe on this business, and reached France in February. I visited the royal flock at Rambouillet and the flocks of Mr. Gilbert and Cughnot, by common consent the most celebrated in France. I purchased twenty-three ewes and two rams of the two last-named gentlemen, the ewes costing \$40 apiece, and the rams \$150 apiece. The ewes were a good average of their flock, and I thought the rams the best Mr. Cughnot had, except two which he declined to sell that year.

Not being satisfied with the French sheep, I proceeded to Spain, reaching Madrid in March, where, through the kindness of the American minister, Mr. Barringer, I was introduced to some of the most prominent flock-masters of Spain, who were residents of the Spanish capital. From conversations had with these gentlemen, and by an inspection I was permitted to make of the wool of several of the large flocks stored in the city, I became pretty well convinced that the sheep I was in quest of could not be found in Spain. But having been instructed by my associates to spare no expense in prosecuting the search, I determined to proceed to Estramadura, two hundred miles distant, to examine some of the principal flocks of Spain, then in their winter pastures.

A Spanish gentleman, who was not only a large flock-master, but also a very extensive purchaser of wool, and acquainted with the best flocks of the country, through the kindly offices of Mr. Barringer, wrote to his mayoral, or head shepherd, who was in the habit of accompanying his master on his journeys to buy wool, and was very well acquainted with the reputation of each flock, to meet me in Estramadura and attend me on my tour of inspection. He accordingly met me with a servant, both mounted and armed to the teeth.

The travelling in Estramadura was in great state, in a cart closely resembling an American ox-cart, but rather lighter, with an awning sprung over it like an emigrant wagon, and no seat but a bundle of rags. This vehicle was drawn by three mules, one of them ridden by a postillion. The affair was not very tasty nor very comfortable, but it was the best to be had. I saw a number of flocks and examined them with sufficient care to form a satisfactory estimate of

their character. It was at once obvious that they were inferior to American merinos. They lacked greatly in uniformity, and were generally light-colored, compared with our sheep, though this was in part owing doubtless to the fact that they are sheltered in no part of the year. They were very bare of wool on the legs, belly, and somewhat so on the head, compared with the American merino of the present day. Their fleeces were obviously much lighter than those of the last-named sheep, and it is doubtful whether they would have weighed more than half as much, and the same conclusion was arrived at as when I examined the wool in Madrid. The wool was shorter than ours, not so thick, and, though fine on the shoulders and sides, it did not run as even over the whole body. They were small, rather long in the leg, narrow in the chest, and thin in the neck. On the whole, I regarded them as inferior sheep, and entertained no doubt that they had degenerated since the importations from these families into the United States by Colonel Humphreys, Mr. Jarvis, and others, in the earlier part of this century, and came to the conclusion that their blood had not been preserved pure. Indeed, the most intelligent Spaniards I conversed with admitted their degeneracy, and said it was occasioned by the confusion produced by the French invasions and the civil war, and that the standard flocks were broken up at that time, and had since disappeared. Some of them said they contemplated sending to Germany for rams to improve their sheep.

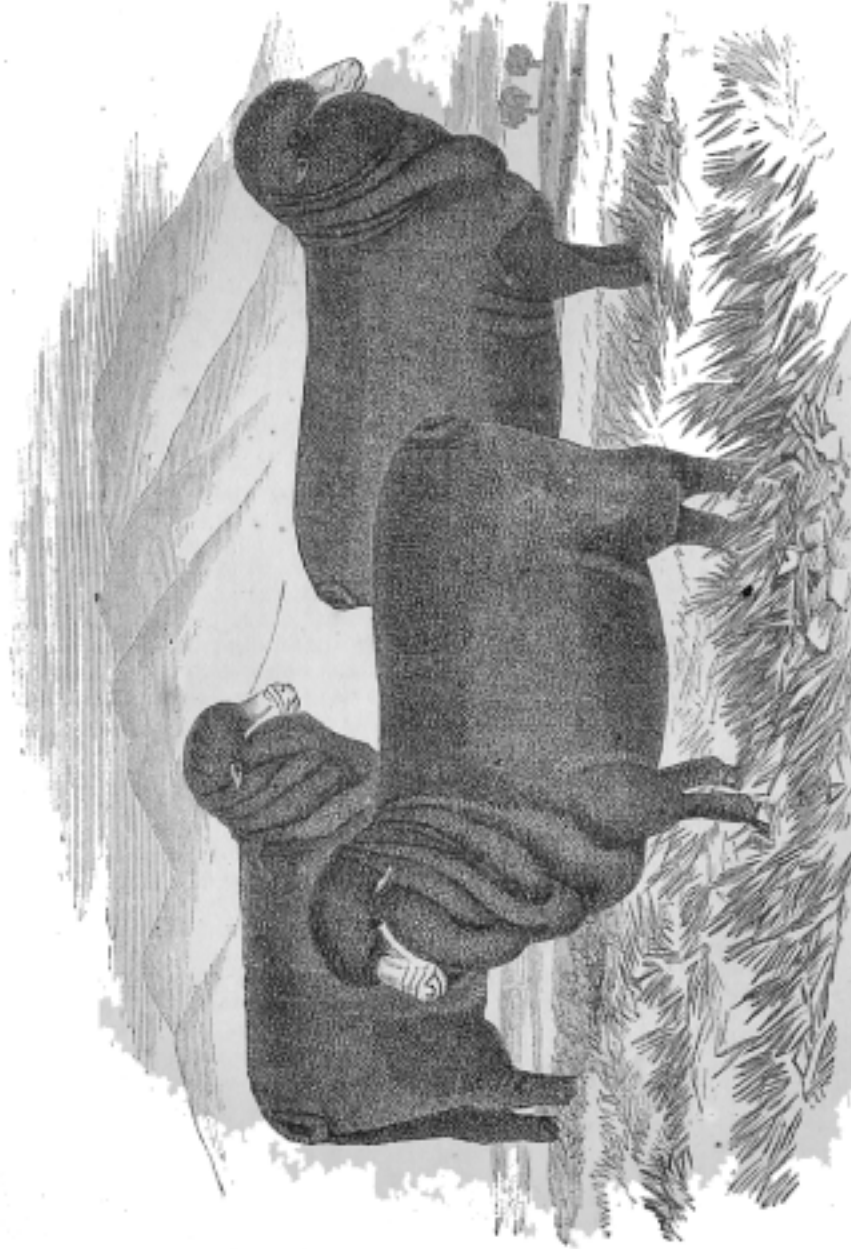
From Spain I proceeded to Germany, first visiting Stuttgart for the purpose of having an interview with Charles L. Fleischman, esq., the American consul there, who was German born, and had an intimate knowledge of the country and its flocks. Mr. F. kindly consented to accompany me during my examination of the German flocks. We first visited the agricultural school in Hohenheim. The sheep were small and fine, of the same type of the Saxon sheep already introduced into this country.

We then went direct to Saxony and examined many flocks. They were light-fleeced and exhibited marks of a delicate constitution. We next visited Silesia and saw many flocks, but found nothing desirable until we came to the flock of Louis Fischer, of Wirchenblatt. These were pure Spanish, having been imported from Spain in 1811. The father of Mr. Fischer brought from Spain one hundred Infantado ewes and four Nigretti rams, and these and their descendants had been held steadily together. I bought twenty-five ewes and six rams, a good average of the flock. They cost \$17 a head. I made no further purchases in Germany or in Europe.

I did not for a moment suppose that the French or Silesian sheep bought by me were what I went to Europe for, viz: sheep superior to American merinos, but I concluded to take home a few, partly by way of experiment, and partly to recover, by selling them, the expenses of my journey.

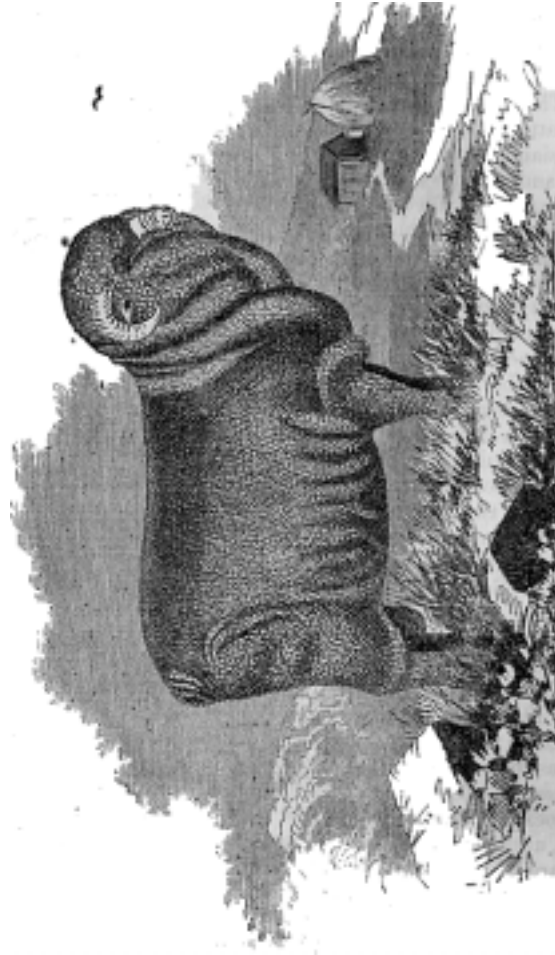
On my return to Vermont, Mr. Hammond, Mr. Remilee, and myself, divided the imported sheep between us. We were all satisfied from the outset that it would not do to cross our American merinos with either of these foreign varieties; that nothing could be gained, and that a great deal would be inevitably lost by such a cross. Neither of us ever made a single cross with the French merinos. Mr. Hammond and myself each put an American merino ram to one Silesian ewe. He got a ram and I an ewe. They were not as good as American merinos, and we disposed of them. These were the only crosses ever made by any member of our association with any of the imported sheep.

Our experiment with both families of foreign sheep resulted in failure. The French merinos sheared less wool, in proportion to size and consumption, than the American, and were less hardy. The same was true of the Silesian. They were a size smaller than American merinos, and the ewes sheared from four to six pounds and the rams from seven to eight pounds of unwashed wool. If not



MERINO EWES.

Owned by Gov. J. Gregory Smith, St. Albans, Vermont.



PAULAR RAM.

Bred and owned by J. H. Thomas, Cræwell, Ut.

sheltered from rain their fleeces bleached out white. After keeping our foreign sheep two years, we were glad to sell out all of them.

I suppose our experience with French and Silesian merinos accorded with that of other Vermont breeders, for considerable stocks of them had also been introduced by other persons besides ourselves, and after a few years they all disappeared. Neither has an advocate left in this country. The French merino answered one good purpose in other States, if not in Vermont, and it is the only good I know of them. Their great size gave them admission into regions where none but the large, coarse-wooled breeds were kept before, and where the comparatively small American merinos were looked upon with prejudice and aversion. Having demonstrated the utility of growing fine-wooled sheep, they naturally incited further inquiries, and ultimately gave place to a better variety of them. They thus became the pioneers of the American merinos in localities where the latter would otherwise have penetrated much more slowly if at all.

The Silesian sheep bore finer wool than the American merinos, and when the fine-wool manufactories of the United States become extensive enough to compel buyers to make an adequate discrimination in prices, I have no doubt these sheep will prove a valuable addition to our stock. But taking the prices of the different kinds of wool as they have been since my recollection, and as they continue down to this day, and taking all other circumstances into consideration, there can be no reasonable doubt that the American merino surpasses all others in profitableness for the great body of American wool-growers.

While I have a high opinion of both of the families of American merinos—considering either superior to the merinos of any other country—my own preferences are for the Infantado, or Atwood sheep, as they are called by some. It is generally a little larger than the Paular, and the best flocks excel the best flocks of the Paular in weight of fleece.

The improvement of the American merino in fleece and form has been rapid within the last twenty years. There is no doubt that Mr. Atwood made a marked improvement, particularly in weight of fleece, on Colonel Humphrey's sheep, imported in 1807, provided the latter bore even a family resemblance to the merinos of Spain, as I saw them in 1851, and I think the improvement which has been made in Mr. Atwood's sheep since their introduction into Vermont, in 1844, is equal or greater than that made by him on the Spanish sheep. The staple has been lengthened without any diminution certainly in its thickness. The fleece covers the carcass better, and especially so on the belly, legs, and head. The sheep is larger, shorter in the bone, lower in proportion to its size, rounded in the rib, and more compact and stocky in every particular.

There has been a manifest improvement in our Vermont flocks within the past five years; indeed, every year's crop of lambs ought to, and in the best managed flocks generally does, excel the preceding ones. If the same experienced skill, untiring effort, and disregard of money, or, perhaps, I should rather say, disregard of *immediate* profits now brought to bear on our best flocks, should be continued for ten years to come, I have no doubt that at the end even of that brief period we shall see another decided improvement in our flocks. Their average then may be as high, in point of quality, as are the best animals now.

What I mean by a disregard of immediate profits is, that our best breeders do not sell those particular animals which are most essential to carry on the improvements of their flocks, though they may be offered what the world esteems most extravagant prices for them. Prices far higher than ever were before heard of in this or any other country, for fine-wooled sheep, have been in many cases offered and refused during the past season for single stock animals, which the proprietors considered necessary for themselves to keep up the most rapid improvement of their flocks. From five to ten thousand dollars have been refused for single rams and from one to two thousand for single ewes.

The effect of in-and-in breeding our sheep has been the theme of considerable public discussion. It is said to be proper to speak well of a bridge which has carried you safe over. The Spaniards never went out of the flock for rams. To this extent Colonel Humphrey's sheep, prior to their importation, had been bred in-and-in for centuries. Colonel Humphrey's and Mr. Atwood pursued the same course, and their breeding was still closer, as their flocks were smaller.

As already remarked, others as well as myself have continued this system in Vermont. There is not a flock of pure-bred Infantados in the State, (or elsewhere,) which is not closely bred. The pedigree of my stock ram Comet—a cut of which accompanies this article—is no more than an average example in this particular. He was got by Victor Wright's California, by Longwool, by Old Greasy, by Wooster, &c. The three last-named were bred by Mr. Hammond, and their pedigrees, which exhibit their affinities, will be found at page 121 of the Practical Shepherd. The dam of Wright's California was got by Wooster, above named; his dam a ewe from Mr. Atwood. The dam of Comet was got by Old Greasy, above named, &c., &c. Comet's third fleece, taken off this year, (one year's growth,) weighed 24 $\frac{3}{4}$ pounds; his carcass, after the removal of the fleece, would weigh about 115 pounds. I had the opportunity of testing the public appreciation of him and his get by disposing of twenty-three two-year old ewes last August for the sum of \$15,000. These twenty-three ewes sheared last spring 12 $\frac{1}{2}$ pounds apiece of unwashed wool, exclusive of tags.

It will be seen that the in-and-in breeding of sheep does not hinder improvement, or induce degeneracy or decay. Indeed, I am well satisfied that an improvement embracing the essential feature of uniformity could not be carried on with anything like equal rapidity, if the breeder were compelled constantly to bring new blood into the flock to escape breeding between near relations.

The successful breeder must have a fixed and uniform standard of excellence, and pursue it with a single eye, and with the best *materials within his reach*, without regard to theories which experience proves to be false and worthless. He who looks at theories instead of facts, and who veers about, now using a ram of one stamp, and now of another, to escape some imaginary danger, will never climb high in this pursuit.

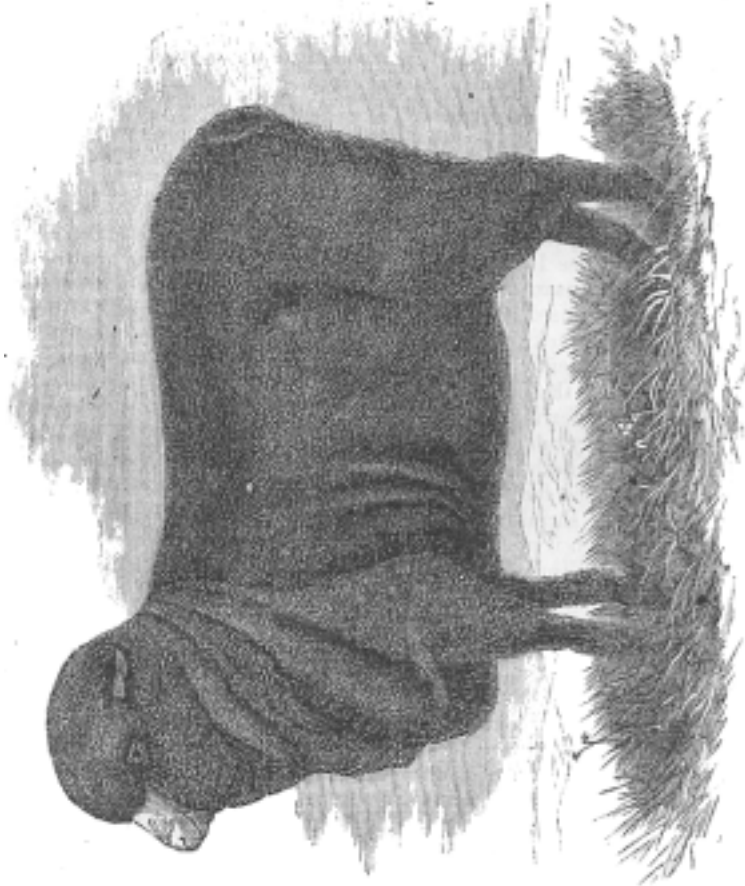
The attention of sheep-breeders is now called to a few leading points of practical management, and will begin with winter. It is always my aim to bring sheep into their winter quarters in good condition. To effect this, I feed sheep enough grain to prevent their dropping off in flesh after the grass has been rendered innutritious by fall frosts, keeping this up until they are brought into winter quarters and put on hay. There can be no greater mistake on the score of profit than to let sheep get poor, or even to losing condition just before the setting in of winter.

If they enter the winter plump and fleshy they are easily kept so; if they enter it thin or running down it is hard to give them a start in the opposite direction. Having got my sheep in good order on hay, I discontinue grain feed, except to rams, and sometimes to lambs if they are of good size and fleshy when they come into the sheds. I feed good hay, and do not keep over one hundred sheep together, and rarely as many as that. The lambs and yearlings are kept by themselves. I am particular to have the sheep feed about the same time each day.

My practice is to feed in box racks, and under cover when the weather is stormy and windy, my sheds and stables being so constructed that they can be closed and kept warm in cold weather, with sufficient ventilation, while they can be thrown open in pleasant weather.

Water is important to sheep in winter. They ought not to be compelled to travel far for it, because in severe and blustering weather they will go without it until they suffer, and when they do finally go they will drink to excess. Sheep drink often, and not much at a time, when they have convenient

PLATE XXIX.



PAULER EWE "COSSETTE."
Owned by John S. Delano, Mt. Vernon, Ohio.

access to water. I have observed the same sheep going to drink several times while eating a feed of hay, apparently relishing this mixing of solids and liquids as most men do at their meals.

In my own case I have the water brought into the sheds by means of pipes, so that the sheep can have constant access to it when they are shut in from storms.

Sheep, in my judgment, require exercise in winter as well as summer, and the want of this, combined with high keeping, is productive of injury and disease. Salt should be kept constantly before them, or fed to them often, both in summer and winter. I usually mix a little sulphur in it in the fore part of the winter.

I commence graining my breeding ewes from four to six weeks before lambing, according to circumstances, usually feeding corn and roots, beginning with a small quantity and increasing it gradually. After lambing I feed oats and shorts, with turnips or sugar beets, sometimes mixing corn or peas with the oats, in which case I have the grain ground. Oats are considered excellent feed to increase the flow of milk.

My lambs begin to drop about the 20th of March, preferring to have them come thus early, not only because they get a good deal more size and strength before winter, but because I can actually raise more of them, and at less trouble, than after the sheep are turned out on the pastures. I usually raise from 90 to 100 per cent. Lambs raised in sheds or stables are much tamer, and learning to eat a little from the racks and troughs, they will much more readily take hold of artificial feed when it becomes necessary to give it to them in the fall. I wean my lambs about the 20th of August, and aim thenceforth to give them the best of pasture, preferring the after-growth of meadows.

Washing sheep, in my opinion, is of no real utility, and, so far as it produces any effect, it is injurious both to the sheep and washer. It would have been done away with long ago, but for the rule which is practiced by buyers, and submitted to by sellers, of shrinking unwashed fleeces one-third. This rule may have been adopted when it operated fairly, but it certainly does not now when it is applied to wools clipped the first of May, before the yolk has started. Such wool weighs no more than it would if clipped in the middle of June, and washed as it is now fashionable to wash wool, *i. e.*, half wash it. Yet, in the former condition, it must be sold for one-third less. The wool-grower must submit to have this advantage taken of him or fall back into the old rut of late shearing. I regard early shearing as important for the benefit of the sheep.

Sheep sheared about the first of May have a growth of wool on them before hot weather sets in, which protects them from the flies and sun, and I think there is a better growth of it during the year than when it is sheared as the hot weather is commencing. They are also better protected from fall storms, and from the cold in winter.

It is true that sheep sheared in the beginning of May are liable to suffer from cold weather and storms in spring. To avoid this they must be housed for a few days, when it is necessary. They become safe from all danger in ten days or a fortnight.

There is nothing peculiar in my summer management of breeding ewes. I have their bags watched until they are dried off, keep them well salted, and keep a sharp lookout for fences and stray curs.

My sheep are not fed with grain after turning to pasture. I consider this an improper degree of pampering, tending to render the animal unfit to subsist and thrive on the food which nature made sufficient for its wants, nor do I believe in summer housing. I would, however, commence sheltering all my sheep from storms after the first of September, were my pastures convenient to my barns. As it is, I commence sheltering my lambs about the first of September, and my breeding ewes about the 20th of October, when I commence putting them to

rams. My rams are not permitted to run with the ewes during the coupling season, but are kept better fed and put singly. The lambs are stronger, and a valuable ram can thus be made to serve a much greater number of ewes. A good, vigorous one, neither too young nor too old, and properly managed, will serve a great number of ewes. There are a number of rams in this region which are now paying the interest on \$50,000 each. Comet will pay that sum this year on ewes I have taken in for him to serve, outside my own flock.

Are such prices disproportioned to the object attained? So far from it, the owner of the ewes frequently gets lambs in this way which will sell for double or treble the value of their dams, and at an advance over the average of the flock, which would pay for the same service five or ten times over. He gets on one side the benefits of the latest improvements which have been made in merino sheep, and thus gains, perhaps, fifteen or twenty years in breeding.

The subject of the profits of wool production in the future in this country is of deep interest to those engaged in sheep husbandry. It is not to be denied that the present period is one of excitement and inflation in all that pertains to that husbandry. Other branches of industry are affected the same way and by the same causes. Those causes grow out of the great civil war now raging. The question then naturally arises, will wool production and prices fall back to their former amounts when the war is over? They cannot. The prices were kept down by foreign competition. Our northern farmers could not compete with the cheaper lands and labor of South America, or with English capital in Australia and South Africa, under tariffs which let in these foreign wools, so that they could still be sold in our markets at 14 or 15 cents a pound. The average price of all the wool imported into the United States in 1860 was 14 cents a pound. Henceforth this competition, if not put a stop to by the present tariff, will at least cease to be destructive, and the question of high or low tariff is no longer an open one before the American people. A revenue tariff adapted to our present and future circumstances must necessarily be high enough to afford adequate protection to all kinds of American industry.

Is it probable, under the present stimulus to wool-growing, that the business will be overdone in a few years? In 1863 the home product of wool in the loyal States was 77,413,070 pounds; imports, 64,433,760 pounds. The imports of woollens amounted to the value of between \$24,000,000 and \$25,000,000, exclusive of shoddy and of free wool from Canada, which probably exceeded \$1,500,000 more.

The demand has unquestionably been greatly increased by the want of cotton, which want will be again supplied at some future day. But when we again have cotton, we again shall have the people of the rebellious States to supply with wool; and the rapid and steady increase of population in all the States will be continuous. In the opinion of the best informed persons, there is no prospect that the domestic supply of wool will equal the demand within the lives of the present generation.

Never before has there been a period of so much reasonable hope to the American wool-grower. His expectations now do not rest upon a tariff which another session of Congress may do away. They may be said to rest on the preservation of the public credit, for without a tariff high enough to give sufficient protection to all branches of American industry, the government cannot meet its necessary annual disbursements.

Every sheep-breeder, who possesses judgment and industry, may look forward for success in his calling, and there is room for tens of thousands more to embark in the business.