

evidently devoted much time and labor to his subject, and, besides, must have had facilities in his researches which no other individual could have enjoyed, gives his readers to understand that, instead of being dismayed at the productive powers of our women, and instead of sending forth what is called our "surplus population" into distant climes, there to contend with difficulties and endure the horrors of solitude, we ought to look around us and see whether our waste lands are properly turned to account, and whether we cannot devise some means of employing our spinners and weavers thrown out of work, and at the same time try if we cannot increase our stock of butcher's meat. Mr. Walton does not merely propound the question; but in a clear and powerful manner shows how the three desiderata above enumerated, to a certain extent at least, may be attained by the naturalization of a new species of sheep, the fleece of which, resembling silk, yields seventeen pounds of wool, worth from two to three shillings per pound, while the flesh holds a middle rank between mutton and venison.

Our limits would not allow us to dwell at any length on the utility of this really farmer's manual, or to point out the masterly manner in which the author has performed his task; but we think it our duty to convey some idea of the nature of the work, which will be best done by glancing at its contents. These briefly stand thus: history and properties of the alpaca—its wool and meat—its applicability to our soil and circumstances—benefits which would accrue to the farmer and manufacturer from its naturalization—results of the experiments already made—errors committed by our breeders—diseases and treatment—safe and economical mode of procuring stock—national advantages, &c.

From this little sketch, a tolerably correct notion may be formed of the scope afforded to the author; and in unfolding his subject we may safely say, that he has been ably and patriotically supported by some of the principal breeders in Ireland and Scotland, as well as in England, the results of whose experiments are given in their own words. Among the English amateurs may now be ranked Prince Albert, who, for the last year, has had a pair of alpacas at Windsor, one of which, from over-kindness, there is reason to apprehend, died about six weeks ago; and its fleece, weighing sixteen pounds, we are given to understand, is about to be manufactured, at Bradford, into dresses for the special wearing of her Majesty. Among the English breeders is the Earl of Derby, who is believed to be the largest proprietor of Andes sheep in the kingdom, but who has fallen into the great error of crossing the alpaca with the llama, and besides, keeps these Alpine animals in close parks and menageries, instead of allowing them a mountain range, and stationing them in a congenial clime. Mr. Walton hits his lordship rather hard, and we think deservedly too; for no man has had so fair an opportunity of conferring a great and permanent boon upon his country as the Earl of Derby, one of the earliest possessors of alpacas at a cheap rate, if he had only treated that interesting animal as farming stock, and not as a mere object of natural history.

We could not render that justice to this important subject which our inclinations prompt us to do, by entering into details, but there is one part of it viz., the applicability of the alpaca to our soil and circumstances, upon which it is but fair that the author should speak for himself.

From the Polytechnic Review.

#### THE ALPACA.

*The Alpaca; its Naturalization in the British Isles considered as a National Benefit, and as an Object of immediate Utility to the Farmer and Manufacturer.* By WILLIAM WALTON. Blackwoods.

At a moment when the philanthropist, alarmed by the results of the last census, and shuddering at the consequences of that distress which continues to prevail in the manufacturing districts, complains of our over-population, and recommends emigration as a remedy, this neat little volume, with two classical illustrations, will be deemed a seasonable acquisition by the public. The author, who has

"From the experiments already made, not only in the British isles, but also in several parts of Europe, we are now sufficiently well acquainted with the properties of the tame species of Andes sheep, to feel assured that they are hardy animals, and easily fed. From unquestionable authority, we also know that they were found in the highest degree useful by a race of secluded mountaineers, engaged in the peaceful occupations of pastoral and agricultural life, and who without them scarcely could have existed. Of the two kinds, the alpaca, as before stated, is evidently the most valuable; as, besides furnishing a wholesome and nutritious food, it yields a fine and glossy wool, which might easily be made the staple commodity of a new manufacture, and by thus opening another source of trade, help to remove that pressure which bears so heavily upon various classes in the community.

"By trials commenced more than twenty-five years ago, it is equally placed beyond doubt that this animal may, without any great difficulty, be naturalized among us, and made to propagate; and every day the facilities and the efficacy of the scheme to adopt it, become more apparent. The hardy nature and contented disposition of the alpaca, cause it to adapt itself to almost any soil or situation, provided the heat is not oppressive, and the air pure. The best proof of its hardiness is its power to endure cold, damp, hunger, and thirst, vicissitudes to which it is constantly exposed on its native mountains; while its gentle and docile qualities are evinced in its general habits of affection towards its keeper.

"No animal in the creation is less affected by the changes of climate and food, nor is there any one to be found more easily domiciliated than this. It fares well while feeding below the snowy mantle which envelopes the summits, and for several months in the year clothes the sides of the Andes. As before shown, it ascends the rugged and rarely trodden mountain path with perfect safety, sometimes climbing the slippery crag in search of food, and at others instinctively seeking it on the heath, or in rocky dells shattered by the wintry storm; at the same time that, when descending, it habituates itself to the wet and dreary ranges on the lowlands, so long as it is not exposed to the intense rays of the sun."

"Many of our northern hills would try the constitution of any sheep, and yet there the weather is never so inclement or so variable as on the Cordilleras of Peru. With so many advantages, why then shall not the alpaca have an opportunity of competing with the black-faced sheep, the only breed that can exist in those wild and inhospitable lands? Of the two, the stranger would fare best on scanty and scattered food, at the same time affording to the owner a far better remuneration. When ordinary sheep are removed from a cold to a warm climate, the wool becomes thin and coarse, until at length it degenerates into hair. This is the case with those taken from England to the West India Islands; whereas the merinos conveyed from Spain to Peru, and bred upon the Andes slopes, yield a fleece which, when well dressed, is preferred by the manufacturer to that of the parent stock.

"As regards the alpaca, we bring a lanigerous animal from a dreary and barren situation to one equally well suited to its habits and at the same time infinitely healthier and better adapted for feeding. The result, therefore, could not fail to be favora-

ble. The atmospheric changes in our climate can have little or no influence on an animal constitutionally hardy and so well coated; and by the adoption of this stock we not only secure to ourselves a new raw material for our manufactures, but also an additional provision of butcher's meat.

"If the animals take to the soil, and this, as before observed, they have done even in situations by no means well chosen, an increased weight of both fleece and carcass must follow. An improvement in the quality of the wool may be equally looked for; it being abundantly proved that pasture has a greater influence on its fineness than climate. The staple, also, cannot fail to grow longer, if the animal has a regular supply of suitable food; and, for reasons already explained, this is more readily met with on our mountains than on those of Peru, where the flocks are exposed to great privations.

"In other respects, the alpaca would prove an economical stock. It is freer from constitutional diseases than ordinary sheep, and less subject to those arising from repletion and exposure to rain; neither are its young liable to those accidents which befall the lamb. The mothers are provident and careful nurses; nor do the young ones require any aid to enable them to suck. Except at the rutting season, these animals stand in need of no extra attention; neither are they predisposed to take cold. In this respect, the alpaca is preëminently favored by nature. Its skin is thick and hard, and, being covered with an impervious coat, it is not injured by moisture. Snows and storms never affect these animals. Unhurt they pass through the utmost rigor of the elements, and hence the precautions adopted by our shepherds on some bleak localities, with them would be superfluous.

"Another remarkable feature in the alpaca is, that it does not often transpire; for which reason, and its peculiarly cleanly habits, the fleece does not require washing before it is taken from the back. Although often confined to regions, where

'Snow piled on snow, each mass appears  
The gather'd winter of a thousand years,'

the alpaca is not subject to catarrhs, or to those disorders which disable the limbs. The chest being guarded by a callosity, or cushion, which comes in contact with the ground while the animal reposes, the vital parts are not injured should the flock be obliged to pass the night in a damp or unsheltered situation. Besides being free from the diseases incidental to common sheep, the alpaca is less exposed to what are called 'outward accidents.' The facility with which this animal escapes from the fatal consequences of a snow-storm, is a valuable property. One shudders at reading the graphic description, given by the Ettrick Shepherd, of those sudden and awful calamities which have so often overtaken the farmer in the Scotch Highlands, when

'The feathery clouds, condensed and fur'd  
In columns swept the quaking glen;  
Destruction down the vale was hurl'd  
O'er bleating flocks and wondering men.'

"I know not whether, in our hemisphere, the winters have become more severe than in ancient times; but since the well-known 'Thirteen Days' Drift,' supposed to have taken place in the year 1660, at which period so large a portion of the Scotch flocks was destroyed, and so many persons perished, it is a fact that we have had no less than

thirty-six inclement seasons, during which the losses among sheep were incalculable. Nor have these misfortunes been confined to Scotland. The fall of snow, which occurred towards the close of February, 1807, was so heavy in England, that in exposed situations the herds and flocks extensively suffered. Of the large number of sheep, on that occasion, overwhelmed in the Borough Fen, near Stamford, only 600 could be dug out alive, the rest being completely buried in the snow. Upwards of 2000 perished on Romney Marsh, and the desolation equally spread to other places.

“ In our islands, sheep are sometimes smothered by the snow falling down upon them from the hills or perish in an accumulation of drift. Frequently they have not the courage, or the strength, to extricate themselves; but from his greater size, boldness, and activity, the alpaca is better able to contend with the storm. In their own country, these animals have an unerring foresight of approaching danger, and, collecting their young around them, seek the best shelter which the locality affords. After a tempest seldom is one missing, although they are, as it were, left to themselves, and the country bare of trees. Nothing can be more interesting than to see a flock of Andes sheep overtaken by a storm, and crossing a valley, with the drift reaching to their very backs. Raising their heads in a bold and majestic manner, the old males take the first line, and by pushing through the barrier, or jumping upon it when resistance is too great, succeed in opening or beating down the snow, so as to form a path for the weaker ones to follow.”—pp. 48—50; 55—61.

We are sorry that we have no room for further extracts; but, before closing this notice, we deem it our duty to state that, sensible of the importance of introducing the alpaca into Scotland, in 1841 the Highland and Agricultural Society offered their gold medal for the best treatise written on the subject, which was awarded to Mr. Walton; and this year, at the Glasgow cattle-show, which took place in the early part of last month, they announced premiums for the best pair born in the country, and the two best imported. The successful candidate was Mr. G. Stirling, of Craigharnet Place, Lennoxton, an extract from whose letter in reference to his little pet, two months old, and born on his own estate, we have it in our power to subjoin.

*August 12.*—My chief reason for delaying to answer your letter was my wish to see what would take place at our Highland agricultural show, which took place at Glasgow. The great day of the exhibition was upon Thursday, the 8th instant, and certainly it was one of the most splendid shows of *first-rate* stock, I believe, ever seen in Scotland; but I need not dilate upon it, as you will see it fully reported in the newspapers. My alpacas, with the youngster, were the only ones exhibited. They were much admired; and, indeed, latterly, they became the attraction of the immense multitude congregated together in the show-ground. The young one was particularly admired, and it was the wish of the committee that its likeness should be taken, but the day was unfortunately wet and cold, and it being so young, I was afraid to allow it to remain, and sent it home. However, it is quite well and was nothing the worse for its journey to Glasgow, and its long confinement in the show-yard. Notwithstanding the bad day, the number of spectators was immense; and, so far as I heard, no accident happened.”