

power. We then asked him if he had estimated the *weight* of such an engine with its necessary machinery, and of the carriage on which he proposed to mount it, to say nothing of the ploughs. He had not yet made the calculation! We then asked him how many horse power would be required to drag *one* plough through the earth at a depth of two feet. He had not made the estimate! Our advice was, to procure some reliable data, and then sit down and make these calculations before he asked aid from the Government or from individuals. We stated our belief as in the other case—1st, That the machine would not move itself in soft ground or up an incline; 2ndly, That if it did move its own weight, *one* plough two feet, or even eighteen inches deep, would *anchor it fast*.

There are certain *facts* in machinery as well established as any facts can be. The laws that govern matter, and all experience in the application of them, have established these facts beyond doubt or dispute; and we must therefore make them the starting points in the field of invention. To ignore them, is to insure failure beforehand. The most plausible expedient for overcoming the difficulties presented by the weight, or inertia of the engine itself, is that of a revolving track or "rail" for the locomotive. But even this, we fear, will fail when any considerable incline is to be overcome. A steam plough that will not move, except upon level surfaces, will never be worth much in Canada.

~~~~~  
 Royal Agricultural Society of England.—Meeting  
 at Carlisle.

We take the following Report of this recent meeting of this important Society from the *Mark Lane Express* of July 30th. Notwithstanding the very unfavourable state of the weather, the Show appears to have been signally successful:—

For the last time, at least as it is said, this is an "off" year with the Highland Agricultural Society. The meeting at Carlisle may thus be considered a joint exhibition of the two national associations. In some respects it has been so, but by no means to that extent which might fairly have been anticipated. It is only right to say that no blame rests with the management of that body under whose auspices the gathering took place. The Council of the English Society arranged distinct classes for Scotch cattle and sheep, and it only remained with our northern friends to enter for them. There was ample opportunity, if they only chose to avail themselves of it. This they did to only a limited degree. Many of the premiums offered entirely in compliment to them resulted in but little competition. With the cattle this was particularly the case; while with horse and sheep, on the other hand, we had some better evidence of what Scotland really could do.

If, however, this support was wanting in one way, it was by no means denied us in another. As far as a question of funds goes—"money taken at the doors"—the Carlisle meeting has been one of the most successful of all the Society's shows. The majority of these visitors, too, of course came from the North, and crowds that weather, from first to last almost altogether unfavourable, appeared hardly in any way to effect. On Thursday, above all, they still continued to throng in, and gather round their own favourites sorts. The grey Clydesdale horse, the mountain sheep, and the prize Galloway, were but seldom accessible. And if the Southron had not paid his half-guinea on the day previous, he must have found it hard work to come over the merits of these champions of Scotland's agriculture.

Fortunately, there was plenty to attract his attention in other directions. As a stock show, that of Carlisle is altogether one of the very best the Royal Agricultural Society of England has ever been able to command. Following the usual course of the prize-sheet, we scarcely remember a class but that was worthily represented. From cattle to sheep, from sheep to horses, and so on to pigs, of various sorts and sizes, and still we came on something very like general excellence. The prize list, to be sure, particularly in cattle and sheep, gave in names that alone assured us we should find the very best of their kind. More than this, however, those beaten were worth beating, and many an animal undistinguished here will live to see a better day. The reader has only to run his eye over the prize list to assure himself of the quality of the Carlisle Show.

Commencing with the first class in the catalogue, as now undoubtedly the most fashionable of all our breeds of cattle, we meet with extraordinary display of Short-horns. This, too, might have been expected. Yorkshire and Lancashire, despite the gradual distribution of the race, have still our best herds; and the houses of both York and Lancaster again did their best. Mr. Richard Booth—as we have just said, the name is a guarantee—took the first prize for the best bull, and again for the best cow; Mr. Townely for the two best young bulls, as well as for the best heifer. After them we have a string of other good men dividing the other premiums and commendations amongst them—Lord Feversham, Mr. Ambler, Mr. Fawkes, Mr. Douglas, Mr. Stratton, and Mr. Sainsbury. The mention of these alone will show what there was to beat. The first prize bull is worthy of especial commendation, and thus not only for his real merit in form and touch, his extraordinary length—that long, low, and even look, which argues so much for perfection of form—it is not only for this we would uphold him but, perhaps even more so for the condition in which, to borrow from another pursuit a most significant expression, "he was brought to the post." Of all the bulls entered at Carlisle, Mr. Booth's white "Windsor" was not only the best for shape and symmetry, but he was best fitted to breed from. Compared, indeed with some of the over-fed animals which stood near him, the superficial observer might wonder how he came to be placed first. It is, however, only the superficial that can be deceived in this way, while it is a very great fact to establish that a lean and really used bull did beat, on his innate merit, all that pampering and over-feeding could make up to show against him. As was well said by those who knew him best, "he was too good for that."

Lord Feversham's bull, which took the second prize here and the first at Paris, is one of Lord Ducie's highly-bred stock—a son of the Duke of Glou-