

made grants towards the erection of 14 Model Agricultural Schools, amounting to £4,600, and we awarded the usual grants of salary to 10 ordinary Agricultural Schools. We have struck off the roll, during the year, 3 Agricultural Schools. The total number of Agricultural Schools in connexion with us, on the 31st of December, 1848, was therefore 50. Of the Model Agricultural Schools only 8 are at present in operation.

The result of our limited experience has convinced us, that the establishment of *Model Agricultural Schools* will be attended with far greater expense than was at first anticipated, either by ourselves, or by the local applicants. We are at present making inquiries upon this important subject, and we have submitted plans for building this description of schools to persons of practical knowledge and experience. In our next Report, we shall give the plans of such school-houses, farm buildings, and residences for teachers and agricultural pupils; an estimate of the cost; the amount of our grant, and of the required local contribution, together with a statement of the general regulations upon which such schools are to be conducted. The amount of the liabilities we have already incurred, towards the erection of 29 Model Agricultural School, is £8,458 14s. 1d.

Agricultural Inspector.—In accordance with the intension announced in our last Report, we appointed an *Agricultural Inspector* in August, 1848. We selected for this purpose from a great number of highly-qualified candidates, Thomas Kirkpatrick, Esq., M. D., who had been one of the founders, and for many years one of the most active supporters of the Larne Model Agricultural School. Immediately after his appointment, he visited the principal institutions for agricultural instruction in England, and has since been employed in inspecting the various Agricultural Schools in Ireland, in connexion with our Board.

School Libraries.—Considerable progress has been made in the selection of suitable books for *School Libraries*; and our arrangements for establishing them, in schools where the local Managers approve of their introduction, will be completed in the course of the year. We shall commence with our District Model Schools, which we shall also supply with a series of works for the use of the teachers, assistants, and paid monitors.

Inauguration of the Queen's College, Cork.—This institution was opened with full ceremonial on last Wednesday, in the presence of the elite of the county and city. After some preliminary and routine business, the staff of the College were sworn. The oath, which is most important, is in the following words:—

"We do hereby promise to the President and Council of the Queen's College, Cork, that we will faithfully, and to the best of our ability, discharge the duties of Professors in said College, and we further promise and engage that in Lectures and Examinations, and in the performance of all other duties connected with our chairs, we will carefully abstain from teaching or advancing any doctrine, or making any statement derogatory to the truth of revealed religion, or injurious or disrespectful to the religious convictions of any portion of our classes or audience. And we promise to the said President and Council of the College, Cork, that we will not introduce or discuss in our place or capacity of Professors any subject of politics or polemics tending to produce contention or excitement, nor will we engage in any avocations which the President and Council shall judge inconsistent with our offices, but will, as far as in us lies promote on all occasions the interests of education and the welfare of the College."

Sir Robert Kane having delivered his inauguration address as President, speeches were made in approbation of the institution by W. Fagan, Esq., M. P., by the High Sheriff, T. R. Sarsfield, Esq., and by the Mayor of Cork, Sir W. Lyons. The advantages of a practical agricultural School and Botanic Garden were insisted upon and Sir Robert Kane on behalf of the College pledged himself to give every facility for carrying out the project.

Head Mastership of Rugby School.—At a meeting of the hon. trustees on Monday, the Rev. Edward Meyrick Goulburn, M. A., examining chaplain to the Bishop of Oxford, and formerly Fellow and Tutor of Merton College, was elected head master of Rugby School.

Literary and Scientific Intelligence.

Steel Railways.—A Vienna paper contains a curious account of the efforts making to advance the internal manufacture of rails. One foundry at Prevali in Carintha, is said last year to have furnished 1500 tons of rails with three furnaces. The fact is, that these rails are of such beautiful steel, for the most part, that they might be cut up into razors and sword-blades, as they are formed of the classical steel, which is as unique in our days as it was in the days of Horace, and for which, if there were but a decent road to Trieste, our cutlers would, probably, be glad to give more than double the weight of ordinary iron. Of this material the beautiful hanging bridge at Vienna is made, which is suspended upon two main

chains instead of the usual four, and which weighs proportionable about two-thirds of the weight of another suspension bridge, at no great distance from it, made of common iron, after a model by Browne. This is an amusing instance of the effects of protection to manufactures, which even beats ourselves, for there is a high export duty upon this steel in a raw state.—[The Times.

Atmospheric Phenomena.—It may be noticed as a curious circumstance of unusual occurrence at this period of the year, that lightning of intense brilliancy has been nightly visible in the environs of the metropolis during the past week. On Thursday night about 12 o'clock, and from that time until three the following morning, these electrical displays were more than ordinarily vivid, the atmosphere at the time being sultry and close. For the space of half an hour, flashes of light of a pale crimson color succeeded each other with scarcely an instant's intermission, from the south and south-west. The appearance of this phenomenon was preceded generally by a faint gleam of white light, which, from the reflection of dense vapoury clouds, assumed a ruddy tinge, similar in effect to the aurora borealis, though dissimilar in the length of its duration. About six o'clock a breeze sprung up from the south-west, and the clouds began to break away, but the oppressive heat still continued. The lightning was accompanied by thunder.—[London Paper.

The Moon.—The moon when closely examined by powerful telescopes has the aspect of a dislocated and shattered world; and that part of the terrestrial globe, from which Darwin supposes it to have been projected, abounds more than any part, with tremendous volcanoes, and has, even of comparatively late years, been subject to the action of earthquakes which have raised considerably above any former level its more extensive line of coast. The condition of the moon has been completely laid open to us by the telescope of Lord Rosse, which renders perfectly visible every object of the height of one hundred feet. Edifices, therefore, of the size of York Minster, (says Dr. Scoresby), or even the ruins of Whitby Abbey, might be easily perceived, if they existed, but there is no appearance of that nature. Neither is there any indication of the existence of water or an atmosphere. There is a vast number of extinct volcanoes, several miles in breadth, through one of them there is a line, in continuance of about one hundred and fifty miles in length, which runs in a straight direction, like a railway. The general appearance, however, is like one vast ruin of nature; and many pieces of rock driven out of the volcanoes, appear to be laid at various distances. Rocks and masses of stone are almost innumerable. From these circumstances, and especially from the want of an atmosphere, it seems impossible that any form of life, analogous to those on earth could subsist there. But on the supposition that the moon has inhabitants, the earth must present to them the appearance of an immense moon, but almost immovably fixed in their sky, while the stars must seem to pass slowly beside and behind it. Our earth to them will appear clouded with variable spots, and belted with equatorial and tropic zones, corresponding with our trade winds; and it may be doubted whether, in the perpetual change of these, the outlines of our continents and seas could ever be closely discerned.—[Wonders of Astronomy.

Rotation of the Sun.—We thought the time of the sun's revolution upon its axis was by this time pretty accurately known, but it appears that we are still uncertain two hours. By 22 series of observations of M. Laugier, on 29 different solar spots, he finds the time to be 25.34 days; the inclination of its equator to the plane of the ecliptic 7 degrees 9 minutes; and the longitude of the ascending node of the solar equator, 75 degrees 8 minutes, reckoning from the equinox of 1840. This time of revolution differs about two hours from Lalandis, now received as correct. But the most curious part of this is that M. Laugier's observations of different spots give the length of the solar day differing from 24.28 days to 26.23 days, or nearly two days difference. The astronomer has increased the space in which the spots are observed from 40 degrees to 41 degrees on each side of the sun's equator. A curious observation has been made by him, and thrown out merely as a guide for future observers to verify or not, namely that all the spots on either side of the sun's equator appear to approach the pole, or recede from it, altogether.—[Researches in Astronomy.

Cinderella or the Glass Slipper.—Two centuries ago furs were so rare, and therefore so highly valued, that the wearing of them was restricted, by several sumptuary laws, to kings and princes. Sable, in those laws called *vair*, was the subject of countless regulations, the exact quantity permitted to be worn by persons of different grades, and the articles of dress to which it might be applied, were defined most strictly. Perrault's tale of Cinderella originally marked the dignity conferred on her by the fairy by her wearing a slipper of *vair*, a privilege then confined to the highest rank of princesses. An error of the press, now become inveterate, changed *vair* into *vers*, and the slipper of sable was suddenly converted into a glass slipper.—[Dublin University Magazine.