

lowing, there would be no difficulty of drilling in the seed. It is only by this mode that the seed can be deposited in the soil, at a proper and uniform depth, so essential to a productive crop. It would secure the roots against the danger of being thrown out by the frost. One hoing might be given at one dollar the acre—it only costs half that amount in England. It is from our defective and negligent cultivation that we seldom see here, full and even crops, such as are seen in Britain. A large proportion of ears, even in our best cultivated fields of grain, are both short and poor, and this is a great drawback on the produce and sample. Let farmers that are in wealthy circumstances import drilling machines, and show an example. By hiring out these machines to other farmers, as they do in England, the cost of the machines would soon be refunded to the importers. A drilling-machine can be had from fifteen to twenty-five pounds according to size. Drills suitable for ridges of nine and of twelve feet wide would be best. In conclusion, we hope to hear that some will be imported in time to sow wheat this fall.

Though agriculture has been enriched by an introduction of many foreign plants, it still remains for us to adopt and naturalize others, and to extend the cultivation of those we now possess. The agriculture which is limited to the production of grain, supplies only a portion of the wants of society, but if it includes in its labours all the productions of which the climate and soil will admit the cultivation, it will provide for the workshop of the artisan the materials of his industry, and thus supply every necessary of life.—The lot of the agriculturist who cultivates only one species of produce, is always precarious; he is dependant not only upon the chances of the harvest, but upon the rate of sales, and the necessities of consumers, whilst he who can procure from the soil a variety of productions is nearly sure of obtaining a market for some of them.

Another advantage resulting to the agriculturist from the cultivation of a variety of productions, is the power of appropriating each portion of the land to the vegetable for which it is the best adapted, and, by this means, of preserving the soil in good condition. This mode of management offers to the agriculturist immense resources for the rotation of crops; where only grains are cultivated, it is impossible to establish a judicious succession of crops; since it is only upon a variety of productions that there can be founded that system of rotation or succession, which will preserve the land in a constant state of fertility, and permit it to produce without intermission. We have already introduced into agriculture, the cultivation of grasses, grains, oil, and roots, flax, and hemp, and have thus furnished the materials for a succession of crops.—*Chaplain's Agricultural Chemistry.*

PROGRESS OF IMPROVEMENT IN EUROPE.—On Saturday evening at the opening of Mr. Blanqui's course of Lectures, on Political Economy, at the Conservative des Arts at Metzgers, the professor made some remarks to his hearers, arising out of his visit to Constantinople, combating some opinions which have gained ground, in public he said: "You are told that the German Union in its state of happiness has become apathetic,

leaving to France and England to attain to the utmost limits of progress in the arts; that Turkey is a dead country, and that Russia resembles a camp filled with soldiers, ready to invade the south of Europe. There is no truth in all this—Germany is daily making immense efforts in productiveness; Austria is being covered with roads and railways, and her steamers are in every river and in the whole of the Black Sea; in Russia, I found exactly the contrary of what I expected to find, viz: immense manufactories scattered at all points, and producing abundantly and well. In the heart of Turkey I found an old Pacha, an ancient chief of Janissaries, who had hung up his terrible yatagan against the wall, in order to devote himself to commerce and the encouragement of the arts. Every where I found a powerful impulse given to manufactures and trade, and France must be active in order to maintain the rank which she holds."—*Galignani's Messenger.*

From the above paragraph we may conclude that the several countries of Europe are making great efforts to manufacture all their necessities, and that consequently, they will become less dependent upon the manufactures of Britain. In countries that are very populous, they cannot fail to introduce manufactories, otherwise a large portion of the people would not find employment, and would be idle. The cultivation of the soil would not give full employment to a numerous population, unless cultivated as a garden, and no part left in pasture. It is in countries such as British America, and other British colonies, that have a vast extent of waste but fertile lands, and a thin population, that manufactories cannot be established, and hence it will be in these colonies that British manufactures will be likely to have the most certain customers.

P. PUSEY, Esq., M. P., President of the Royal Agricultural Society, in the first page of their Journals, stated the average produce of Wheat in England was only 26 bushels per acre, and if this could but be raised to 27 bushels, it would add to the nation's annual income 475,000 quarters, worth, at 50s., about £1,200,000, which would be equal to a capital of twenty-four millions sterling, gained forever to the country by the trifling increase in the growth of one article alone; and that in England and Wales only. It is by making calculations similar to the above that we may be able to ascertain what might be the probable increase that it would be possible to bring the cultivated lands in British America to produce by a better system of Agriculture. We have no doubt whatever, that the produce on an average, could easily be doubled. That would, indeed, be a vast increase of the annual income of these Provinces, provided a profitable use could be made of this surplus produce.

Smith's Patent Albert Ploughs.

Such at the present time is the impetus given to pursuits of AGRICULTURAL SCIENCE, and so great is the interest taken in any and every discovery calculated to advance its prosperity, that of late the attention of scientific men has been especially devoted to objects of this class, not exclusively indeed with reference to the skillful cultivation of the soil, but in conjunction with it, and as an object of collateral, if not of equal moment, to the improvement and

perfection of various descriptions of agricultural implements in use amongst us. Hence it is that "the plough," that simple and most important of all agricultural implements, has grown up from its first simple rude, but unwieldy form, into a machine replete with scientific arrangement and artificial skill.

Amongst the most recent and valuable improvements in this department that have appeared; is an invention by Mr. Theophilus Smith, of Attleborough, Norfolk, who, himself a practical farmer, has discovered an improvement in the plough, for which he has obtained a patent, and which from all that has been said of it by the most experienced judges, is much calculated to extend the usefulness and efficiency of that essential implement of field husbandry. It is an invention of a very novel but simple character, and the object of the inventor in its construction, is to supersede the necessity of the person guiding the plough having to go to the head of the plough to make such adjustment in the apparatus, as is required to obtain the suitable elevation or depression of the plough-shave, or what is generally understood by "the deepening and flattening of plough." All which is accomplished, by this invention, by means of a simple lever, "affixed to the plough-handle, so that the ploughman never has to leave the plough for that purpose." In consequence of which, not only time is saved, and a more regular depth of furrow secured, than with ploughs in general use, but more work is done, and in a more workman-like style, and the management of the plough is so simplified, especially in reference to the wheel-plough, that a common farming servant, after a few hours trial, may obtain a better acquaintance with its workings, than often is acquired by a long practice under the old system. Practical men who have tried the invention, express a decided opinion that no farmer, once having tried the experiment, will ever return to the old method of arrangement. The Right Hon'ble the Earl of Abingdon, Sir Robert Beever, Bart., and the venerable Earl of Leicester, of Holkham Hall, have pronounced a highly favourable opinion on it. The inventor also had the high honour of an interview with His Royal Highness Prince Albert, who having taken the Windsor farms into his own cultivation, evinces a deep interest in the advancement of agricultural science, who having inspected the models of those improved ploughs, has spoken of the invention in terms of high approbation. Within the last few days an order has been received by the patentee from His Royal Highness, which is now being executed at Messrs. Ransome's foundry establishment, in this town, and there can be little doubt but that those improved ploughs will be brought into general use.

The above information is given in order to afford the farmer, an opportunity to make inquiry about new invented implements.

LONGEVITY.—A respectable farmer, named Cummins, residing within a few miles of Carlow, died a few days ago, at the advanced age of 111 years. Among those who attended his funeral was a man who had attained the age of 102 years.

"Why is it that the love of flowers takes such deep hold of the heart?" Why! Why! it is because they are the emblems of love. Show me one who does not feel his own heart expand as he watches the expanding beauties of some delicate flower, and you will show me one who knows nothing of that pure and perfect affection of the heart which binds the human family together.