"To give an idea how to manage potato seed for sale or use :--Hang up the apples in the barn or other out-house, in the light, until they become white, soft, and pulpy, like a ripe gooseberry; then press out the seed into water, and throw away the hull; wash the glutinous matter from the seed by change of water, and dry it in the sun; or take a pulpy apple and press out the seed between the folds of blotting paper, the paper absorbs all the glutinous matter, and you will find from 300 to 320 seeds a (sufficient quantity for one farmer). Another mode:-Cover the apples in sand, which will absorb the hull and glutinous matter; and in spring sow sand and seed together in a hot-bed, which is simply twelve inches of stable manure covered with two inches of earth. I transplanted 800 plants from a box four feet long by one foot wide, when the plants were from four to six inches above the earth, to drills eighteen inches apart, and sixteen inches between each plant. March or April is the best time for transplanting, and drills should be adopted in every instance in preference to lazy beds, because the latter retain rain and grow weeds, which prevent the circulation of air, and cannot be easily got at. The juices of the potato sleep during winter and awake in the spring; therefore, do not plant before February. The experiments stated in this paper can be tried and tested equally by the learned sage or unlettered peasant, for one shilling.

"This paper demonstrates, from the leaf being the lung of the plant, that the potato cannot possibly grow after the leaf dies, except we suppose it to grow upon decomposing matter; and the diagrams demonstrate that there never Why was any disease in the plant or potato. and whence then are these various antidotes against the 'mysterious incomprehensible potato disease' leading the peasantry of these realms to loose their land, manure, and labour, year after year? A Frenchman tells us to insert a pea in each set to absord the superabundant moisture -the cause of blight. An Englishman bids us plant in tan; a Scotchman tell us to plant in peat char, because, having ninety-six per cent. of carbon, it is, like the pea and tan, a certain The Royal Agricultural Society of Irecure. land has a gentleman that professes to take the sting or disease out of the potato by some chemical charm: and there is another gentleman who undertakes to extract the sting from the earth ! but neither of them tell how. These like other varieties of mysterious cures and causes whispered from man to man, stagger the senses and make Therefore, in order that the truth reason reel. of my views, and the virtues of these charmers, may be fully tested, I have lodged FIVE HUN-DRED POUNDS in the Provincial Bank, which I

now freely offer to them and the world, if they bring to this Society, within three years, the following potatoes, which have been the principal support of the peasantry of this country for the last thirty-four years—namely, the old Irish apple, the cup, the English-red, and the lumper, in the same strength that I shew this stalk, with apples upon the top, potatoes at the bottom, and remaining green from 12th April to 12th October.

"The potatoes now exhibited (and which are open to inspection until seed time) shew ten distinct varieties, ranging from one to six years old; these have never been in the world before, and their existence demonstrates that the power to grow them existed previous to, and since the blight of 1845 and 1846."

ON THE COMPARATIVE VALUE OF LARGE AND SMALL ROOTS.

By WILLIAM K. SULLIVAN, Chemist to the Museum of Irish Industry; and Alphonse GAGET, Assistant Chemist.

In consequence of the practical importance which was attached to some of the results obtained during the investigation into the composition of the sugar beet, carried on in the Museum of Irish Idustry, and which were published in the form of a parliamentary report, and especially to that of the relative value of large and small roots, which was so strongly dwelt upon by Mr. Sproule, in his paper read before the Royal Agricultural Society, it was thought advisable to continue the investigation of last year. As the examination was carried on as a part of our official duties, we could not make any use of them, prior to their authorized publication, but for the kindness of the director, (Sir Robert Kane,) who permitted us to lay a short abstract of the principal results obtained before the Society.

A great number of analyses of the usually cultivated roots have been from time to time published; but in consequence of certain necessary conditions not having been attended to, the results have been of little practical importance. Now, one of the first conditions is that of weight, which, as we shall now endeavour to show, exerts a very remarkable influence upon the composition of bulbous roots.

On the Continent, where the roots are grown for the purpose of manufacturing sugar, it was long since remarked, that large-sized roots yielded less sugar than moderate-sized ones, between one and three pounds in weight. Analytically this was fully shown by the researches of the continental chemists, who had examined the subject, and was fully confirmed by our results of last year. Forther than this, no practical application seems to have been made of the fact; and as very large roots grown in a rich and properly tilled soil may be better than moderate-sized ones grown in another place, no general law as to growth was surmised. In most previous investi-