which is that artisans, clerks and others, for whom technical education is primarily provided, while wishing to learn, have in many cases left school so recently that they do not wish to return, and those of maturer age are not always quite certain whether their dignity will allow them to go to school again.

THE WOBURN EXPERIMENTAL FRUIT FARM.

THE fifth report on the Woburn Fruit Farm, by the Duke of Bedford and Mr. Spencer U. Pickering, F.R.S., contains a very useful summary of the results of ten years' experiments and observations on apple-trees. The conclusions arrived at are based on measurements of leaves, trees, and fruits, and also on weighings of the fruit. The average size of the leaf of the tree seems gradually to diminish with age, and there is a similar but less marked tendency in the fruit. The experiments indicate no advantage from heavy thinning of the fruit, for the size was not increased; hard pruning proved unprofitable, unpruned trees were three times more productive than those heavily pruned; summer pruning was found not to be desirable, and even moderate root pruning was found to injure the trees. Apple-trees transplanted at 2-3 years old were found to grow better than either younger or older plants.

A very curious result which for some time puzzled the experimenters was that carelessly planted trees, though weak at first, ultimately made more growth than those carefully planted. A satisfactory explanation has, however, been found. The roots of carelessly planted trees are so much injured that they make scarcely any growth; the result of this is that numerous new roots grow from dormant buds higher up the stem, and these new roots, not having suffered from transplantation, ultimately surpass in size the original roots of carefully planted trees.

The results obtained at the Woburn Fruit Farm are to some extent due to the particular soil—a moderately stiff clay—but it is probable that the conclusions arrived at would be found to hold good in many English orchards. It is, however, a very difficult thing to judge how far conclusions of the foregoing kind, based on a particular set of conditions, apply under different conditions, and the practical value of the long series of experiments and observations made at Woburn would be very greatly increased if similar experiments were conducted on a soil, or soils, of different character. In any action which the Board of Agriculture and Fisheries may take upon the report of the "Fruit" Committee, it is to be hoped that the important work of the Duke of Bedford and Mr. Pickering may be followed up and extended.

T. H. MIDDLETON.

NOTES.

To commemorate the meeting of the British Association in South Africa, a scheme has been formulated to found a British Association medal for South African students. This announcement was made by Prof. Darwin at the close of his presidential address at Johannesburg. A visit was paid to the Johannesburg Observatory on August 30, and the opportunity was taken of pointing out to Lord Selborne the suitability of the site for a fully-equipped observatory and the necessity for more astronomical work in the southern hemisphere. Referring to this suggestion in the course of his speech introducing Prof. Darwin as president of the association, Lord Selborne is reported by the *Times* correspondent to have said that "he greatly regretted he had been obliged to refuse the only request

that the association had made to him—namely, to find funds for the establishment of a proper observatory in Johannesburg. He was obliged to say that all the revenue they at present possessed was required for the development of their material resources and means of communication; but where the Government was powerless, what a magnificent opportunity there was for a patriotic Transvaal. For a site in the purest atmosphere, 2000 feet above the highest observatory now existing, only 10,000l. was required. There they might establish a telescope which would help observers in the southern hemisphere to compete with the astronomers of the northern hemisphere. The site was there, and it was already occupied by a perfectly equipped meteorological observatory." All the papers on South African matters read during the meeting are to be published in a separate volume by the South African Association for the Advancement of Science. At the closing meeting, held on September 1, Prof. Ray Lankester was elected president of the association for 1906.

MR. J. W. DOUGLAS, one of the editors of the *Entomologist's Monthly Magazine*, died at Harlesden on August 28 in his ninety-first year.

THREE distinct earthquake shocks, the severest ever experienced in the district, were felt at Portsmouth, New Hampshire, on August 30, beginning at 5.40 p.m.

REUTER'S correspondent at Stockholm reports that Prof. Nathorst has received a letter in which Lieut. Bergendahl, who is a member of the Duc d'Orléans's Greenland Expedition, states that on July 27, as the expedition passed Cape Bismarck, unknown land was discovered. It appears that Cape Bismarck lies on a large island, and not on the mainland. The new land has been mapped as well as possible, and has received the name *Terre de France*. The expedition was unable to penetrate further north than 78° 16' N. lat.

At the annual meeting of the Academy of the Lincei, which was held on June 4 in the presence of the King and Queen of Italy, the president, Prof. Blaserna, announced the result of the competition for the three Royal prizes founded by the late King Humbert. In the section of normal and pathological physiology, the prize is awarded to Prof. Aristide Stefani, of Padua, for his published work dealing with the physiology of the heart and circulation, the non-acoustic functions of the labyrinth of the ear, and the serotherapeutic treatment of pneumonia. In the sections of archaeology and of economic and social science, the judges reported that the competitors were not of sufficient merit to justify the award of the prizes. This is the first occasion on which so small a proportion of the prizes have been conferred, and it is proposed that in future the section of archaeology shall embrace not only classical, but also Christian and mediæval archaeology. Ministerial premiums intended to aid original work among teachers in secondary schools were awarded in the department of mathematical sciences to Prof. Ciani (50l.), Prof. Pirondini (38l.), and Prof. Chini (20l.). Out of the funds available from the Carpi prize, a sum of 32l. was awarded to Dr. P. Enriques for a thesis on the changes brought about in absorbed chlorophyll by the action of the liver, and the relation existing between the derivatives of chlorophyll produced in the organism and the genesis of the hæmatic pigments. In his address the vice-president, F. d'Ovidio, discussed in general terms the question "Art for Art's Sake," dealing more particularly with the influence exerted on national life and character by art and literature.