

day—ten times too many half-educated teachers, and, alas! ten times too many university graduates turned out every year to crowd the ranks of the Bar, the schools, and journalism, and recruit the year's crop of miserable and hopeless failures. None of these people can dig as their fathers did; they cannot make shop-boys, or 'bus-men, or crossing-sweepers. Too many of them can only teach or starve. It is really impossible to deny that a certain degree of intellectual education unfits a man to work with his hands and earn his bread as a labourer. It may be that it ought not to do so, but in the present imperfect state of the world so it is. Therefore, somehow or other, places must be found for this enormous harvest of tolerable scholars as schoolmasters or something analogous in the social scale. Every year the problem is how to do it. That problem formerly the university solved by the fellowship system. The

number of scholars was small and they had a fellowship apiece. That solution is no longer possible, even if it were desirable. Then the universities tried ignoring the problem altogether. They, as it were, denied liability. Their position was, "Our business is to provide facilities for learning for those who wish to learn, and opportunities to study for those who care to study. We have no duties beyond that. When our men have attained, by the help of our endowments, to a degree, the connection between us terminates. They must shift for themselves." Theoretically, of course, this was undeniably a logical position which they could very fairly take up; but in practice they must be held responsible, in some degree at least, for the men whom they have raised out of their own position in life by scholarships and exhibitions specially offered for necessitous persons.—*Saturday Review*.

GEOGRAPHY.

STUDY SOIL:—In a recent lecture, Willis L. Moore, the new chief of the Government weather bureau, spoke on the importance of studying the soil as well as the air in forecasting frosts. The introduction of this feature added greatly to the efficiency of the predictions of the Wisconsin bureau when he was in charge of that. This State is noted for its cranberry beds, to which great damage is caused by early frosts. Often there were destructive frosts when the town temperature did not go below 42°. The frost depends, of course, upon the lowering of the temperature of the soil. If it is dry and porous it gives out its heat readily; if it is wet it has much of water stability of tem-

perature. A half inch of rain evenly distributed is enough to counteract many early frost nips.—*Boston Budget*.

THE RESPIRATION OF PLANTS.—In *Science Progress* there is an interesting article by R. Frost Blackman, M.A., Demonstrator of Botany in the University of Cambridge, in which he shows the importance of the stomata which occur on the leaves of plants in the performance of their respiratory functions. It has long been recognized that both watery vapor and carbonate acid are transfused with much greater freedom by way of the stomata, which from the openings of an extensive system of