DR. BURT L. HARTWELL, professor of agricultural chemistry in the Rhode Island State College, has been appointed director of the station to succeed Dr. Homer H. Wheeler, who recently resigned.

MR. E. G. ARZBERGER, H. R. Watts, J. B. Demaree, L. E. Melchers and J. T. Rogers, assistant botanists in the botanical department of the Ohio Agricultural Experiment Station, have resigned from their positions.

DR. J. W. NICHOLSON, M.A., Trinity College, Cambridge, has been appointed professor of mathematics in London University, being attached to King's College.

DR. W. H. PERKIN, F.R.S., professor of chemistry at Manchester University, has been elected Waynflete professor of chemistry at Oxford. A grant of £15,000 towards the erection of the new chemical laboratory, as well as a further loan, has been promised by the trustees of the chancellor's endowment fund.

DISCUSSION AND CORRESPONDENCE

A NEW WEED EXTERMINATOR

WILD garlic (*Allium vineale*) has become a serious farm pest, especially in the belt of territory extending from Maryland to Missouri. Beside having the usual competitive action as a weed in cultivated fields, the presence of bulblets in wheat lowers the market value, as the bulblets are about the size and color of the grains, and difficult to separate. The weed also gives an unpleasant taint to the milk and flesh of animals feeding on the leaves, and to flour made from wheat containing the bulblets.

Owing to the remarkable tenacity of life possessed by the bulbs and bulblets no practical method to rid the soil of the pest has heretofore been found, and in some localities fields have been abandoned and given over to the weed.

Nearly two years ago an investigation of the wild garlic was taken up as a special problem by the Botanical Department of the Indiana Experiment Station. The field tests were carried on in cooperation with Dr. H. E. Horton, agronomist of the American Steel & Wire Co., and Mr. Jacob Cronbach, of Mount Vernon, Ind. After various chemical sprays and cultural methods had been tried to little purpose, Mr. F. J. Pipal, assistant botanist in the Indiana Station and in direct charge of the work, suggested the use of orchard heating oil, as supplied by the Standard Oil Co., applied as a spray.

Remarkable results were obtained from the beginning of the tests. It was found that when the oil was distributed over the field in a fine spray by a sufficiently powerful spraying machine, that all growing vegetation was killed, not only above ground but below ground as well, except the long horizontal rootstocks of such plants as *Tecoma radicans* and *Solanum carolinense,* and the extra large roots of such plants as *Ipomœa pandurata,* the latter requiring a correspondingly larger amount of oil. It destroyed the bulbs of the wild garlic, however deep below the surface, and the bulblets at the tops of the stalks as well. The oil appeared to produce no lasting effects upon the soil, and new growth from seeds already in the soil and from subsequently sowed cereals possessed the usual vigor. The best times and methods for the application are now being tested.

The introduction of this new material for killing weeds is accompanied by a new method of application. Heretofore chemical sprays have been differential, and intended to kill only the weeds while leaving the crops essentially unharmed. Orchard heating oil acts as a complete spray, killing all vegetation, like plowing or fire, only more effectively than these, as it follows the stems and roots well into the ground.

J. C. ARTHUR
INDIANA EXPERIMENT STATION,
PURDUE UNIVERSITY

GREEK REFINEMENTS IN ARCHITECTURE

THE existence of subtleties of line and spacing in Greek architecture is now well known. A very interesting point is how much of the classic practise was lost in the Dark Ages and how much preserved. The following extract from "Evelyn's Diary" seems to bear upon the point. It shows, at least, that