

SINCE that time, the American chemical industry has not ceased to expand. In 1913-14 it produced 34 per cent by value—and much more by weight—of the world's chemical output; in 1923-24 this percentage had risen to 47 per cent. At the Congress it will be shown how the infant industries have become the bulwark of national defence, the basis of modern industrial progress and the source of an ever-growing percentage of national wealth. The honorary chairman of the New York Committee is Mr. Francis P. Garvan; the presidents of the great chemical companies are co-operating with the Society. At the chief symposium the outstanding addresses will be by T. Midgley on "Chemical Developments in the next 100 years", and W. B. Bell on "National Planning and the Chemical Industries". In addition, Senator Harrison will discuss economic aspects of the chemical industries in general. Mr. Lamot du Pont will deal with chemistry's sociological results and Senator Wadsworth will consider its importance in national integrity. The Congress will be divided into eighteen divisions ranging from foods to petroleum.

#### Hydrogenation of Coal

A LECTURE by Dr. Pier before the Technische-literarische Gesellschaft, Berlin, on the hydrogenation of coal, possesses an unusual importance in view of present interest in this subject and also in German efforts at national self-sufficiency. In Germany the first technical success was achieved in the hydrogenation of brown coal and tars produced therefrom. For several years large quantities of petrol have been produced from brown coal at the Leuna works of the I. G. Farbenindustrie A.G. Since 1932, interest has been directed to corresponding treatment of bituminous coal in the Ludwigshafen works of the I.G. Since last year, a plant capable of a daily throughput of 20 tons of coal has been working there, and it is the successful performance of this unit which forms the subject of Dr. Pier's paper. Actually, a somewhat similar plant has been in operation at the Billingham works of Imperial Chemical Industries, Ltd. since 1930, and the large unit (500 tons daily) projected in 1933 will soon be brought into commission. The results of the German tests leave no doubts as to its success.

HYDROGENATION reactions may take several forms, for example, in liquid phase with coal or oil, and in vapour phase with more volatile liquids. At Billingham the petrol is already being made from creosote oils in vapour phase units. The patent rights in these processes are held by the International Hydrogenation Patent Co., and since 1931 experience and information in these processes have been pooled by the I.G., Imperial Chemical Industries, Standard Oil and Shell Oil Companies. Although the literature of coal hydrogenation on the experimental scale is large, information about the construction and performance of manufacturing units has not hitherto been disclosed, and this lends added importance to Dr. Pier's paper. As a result of international

co-operation for scientific and industrial purposes, the work stands in marked contrast to corresponding efforts in the political fields.

#### Excavation of Norfolk 'Woodhenge'

ACCORDING to an announcement reported in *The Times* of March 29, preparations are being made by the Norfolk Research Committee, of which Mr. Russell J. Colman is president, to explore the site which, from its similarity to that on Salisbury Plain, has been called 'Woodhenge', at Arminghall, near Lakenham Baths, Norwich. The existence of this circle was first ascertained by observation from the air by the Royal Air Force, and certain preliminary examinations carried out soon after revealed the character of the site; but no systematic or extended excavation has as yet been attempted. The present operations will be under the supervision of Dr. Grahame Clark, of Peterhouse, Cambridge, and secretary of the Fenland Exploration Committee, and Mr. Rainbird Clark, honorary secretary of the Norfolk Research Committee. The work will begin in August next and, it is hoped, will be completed when the British Association meets at Norwich in the following month.

#### Jubilee of the Dublin Naturalists' Field Club

THE jubilee of the Dublin Naturalists' Field Club will be celebrated in Dublin on July 11-13 by a meeting of representative delegates from many of the natural history societies in Ireland and Great Britain, and probably from abroad. Formed fifty years ago with Prof. E. Perceval Wright as its first president, the man mostly responsible for the initiation of the Dublin Naturalists' Field Club was its vice-president, Dr. A. C. Haddon, the veteran anthropologist now at Cambridge. The formation of the Irish Field Club in 1894 brought the Society into closer touch with other natural history bodies in Ireland, while in 1892 it was largely responsible for forming the old *Irish Naturalist* as a monthly journal for the scientific recording of its and other societies' proceedings. Among the more notable workers of the Field Club in its history were G. H. Carpenter, the entomologist and mammalogist, for many years its president, as at the Galway Field Club conference of 1895; Dr. R. Lloyd Praeger, its secretary in late Victorian times, who wrote the flora section of the British Association Handbook for its Dublin meeting of 1908; and David McArdle, of Glasnevin, who wrote the section on mosses and lichens in the same handbook. Other prominent members of the Field Club in its early years were Prof. T. Johnson, its treasurer, Prof. E. J. M. M'weeney of Dublin and Prof. G. F. Fitzgerald of Trinity College.

#### Twelfth International Congress of Zoology

It is announced that the Twelfth International Congress of Zoology will be held at Lisbon on September 15-21 under the presidency of Prof. A. Ricardo Jorge, professor in the Faculty of Sciences in the University of Lisbon, and director of the Zoological and Anthropological Department of the National