The first floor provides two laboratories for the physics section, and two for the electro-chemical section, in which there is equipment for plating. The physics section, being engaged on investigating the geometrical and physical characteristics of metal surfaces, is equipped with a sensitive profilometer of the latest pattern, and will have electron diffraction equipment later in the year. The profilometer is a Talysurf machine, on which a stylus traverses the specimen and records the roughness of the surface on a graph, with an adjustable magnification of 400–100,000 times. It also provides a rapid 'average' reading for the surface of the specimen.

It was found necessary to instal this equipment on a thoroughly stable base, and one of the physics laboratories has had to be provided with a ferro-concrete floor, on which the Talysurf and the electron diffraction apparatus are to be housed.

The second floor has comprehensive metallographic facilities, with separate preparation laboratory and photographic room.

There are many problems which can be attempted within the scope of these facilities. Besides studies of metal surfaces, there are studies of the thickness and distribution of coatings of various sorts, and of the porosity of coatings. The Swansea team has already done considerable work on these subjects, which promises to be of ultimate benefit both to users and makers of the products concerned. Other problems which it will be the function of Sketty Hall to investigate include such questions as the influence of the composition of the steel and its method of manufacture on surface coatings; the physical and chemical characteristics of metal surfaces; the adhesion of coatings; electroplating; de-wetting and many others.

Other work carried out at Sketty Hall involves field tests on melting furnaces and works in the South Wales area, concerned with such matters as fuel distribution and gas flow in gas producers (in conjunction with the British Coal Utilization Research Association); the effect of deterioration of ingot mould surfaces on the surface of the ingot and subsequent products; the determination of the moisture content of hot raw producer gas, and the assessment of the value of instrumentation of open-hearth furnaces. For these purposes a quick immersion thermocouple is being used, and apparatus has been developed for rapid determination of the moisture in producer gases. These, together with other equipment, are being mounted in a mobile laboratory.

The organisation of the Swansea laboratories is the task of the Coatings Committee of the Mechanical Working Division of the Association, one of the six divisions under which the Association's work is organised. This Committee was formed about fourteen months ago, and the first meeting was held on May 15, 1946, under the chairmanship of Capt. H. Leighton-Davies, who remains the chairman to-day. The terms of reference of this Committee, for which the greater portion of the work of Sketty Hall is to be carried out, are: "To consider and investigate all matters concerning metallic and other inorganic coatings on steel and all processes for surface preparation associated therewith". This is, of course, a very wide field, involving close collaboration between research workers in allied fields (such as the co-operation that exists between the British Non-Ferrous Metals Research Association and the British Iron and Steel Research Association) and between research workers and users.

The formation of the Coatings Committee was not by any means the origin of co-operative research in South Wales, which was started in 1932 by the South Wales Siemens Steel Association and the Welsh Sheet and Plate Manufacturers' Associations. A team of investigators then worked at University College, Swansea, under Mr. D. Luther Phillips.

Early in 1946 arrangements were made for the British Iron and Steel Research Association to take over the work of the two research Committees, and it is the new function of Sketty Hall to house the continuation and expansion of their investigations. Mr. Luther Phillips is now in sole charge of the laboratories, and the closeness of Sketty Hall to University College, Swansea, ensures continuity.

A lunch at Swansea Civic Centre followed the opening ceremony. Besides Mr. G. H. Latham and the Mayor of Swansea, Mr. Percy Morris, M.P., Sir Lewis Jones (vice-president of University College, Swansea), Capt. H. Leighton-Davies and Sir Charles Goodeve (director of the Association) spoke.

Mr. Latham emphasized the part co-operative research has to play in ensuring that we have the steel output as necessary to Great Britain's economic recovery as the output of coal. Throughout all the speeches there was much emphasis on the healthy degree of co-operation which exists between the Research Association, the University College, the municipality and local industry. In inviting industrialists to make the freest possible use of Sketty Hall's facilities, Sir Charles Goodeve stressed the fact that science alone is not a panacea for our ills, but must be allied to strong and continuous effort. Tribute was paid to the very considerable amount of work that had gone into the conversion of Sketty Hall. Its rapid progress must be laid to the credit of Mr. Luther Phillips and his staff, and to the efforts of the contractors.

FORTHCOMING EVENTS

*(Meeting marked with an asterisk * is open to the public)*

Monday, July 21

ANGLO-AUSTRIAN SOCIETY (at Gas Industries House, 1 Grosvenor Place, London, S.W.1), at 8 p.m.—Prof. H. Mark (Institute of Polymer Research, Brooklyn): "Austrian Science, Past and Future".

Saturday, July 26

AMATEUR ENTOMOLOGISTS' SOCIETY (at Buckingham Gate Central School, Wilfred Street, London, S.W.1), at 2 p.m.—Annual Exhibition.*

APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

LECTURER IN PHYSICS (honours graduate, to teach physics to B.Sc. standard) at the Municipal Technical College and School of Art—The Director of Education, Education Office, Library Street, Blackburn (July 26).

JUNIOR TECHNICIAN for physiological research—The Secretary, The University, Aberdeen (July 26).

LECTURER IN ZOOLOGY AND CHEMISTRY—The Registrar, Merchant Venturers' Technical College, Bristol (July 26).

LECTURER IN MECHANICAL ENGINEERING—The Principal, Dudley and Staffordshire Technical College, Dudley (July 26).

LECTURER IN APPLIED MECHANICS at the Royal Naval College, Greenwich—The Director, Education Department, Admiralty, London, S.W.1 (July 26).

CHIEF LECTURER IN MECHANICAL ENGINEERING—The Registrar, Leicester College of Technology and Commerce, Leicester (July 26).

LECTURER IN GEOGRAPHY at the Liverpool College of Commerce—The Director of Education, 14 Sir Thomas Street, Liverpool 1 (July 26).

LECTURER IN CHEMISTRY AND MATHEMATICS at the Oxford School of Technology—The Chief Education Officer, City Education Office, 77 George Street, Oxford (July 26).

WORKS CHEMIST—The Secretary, Rochester, Chatham and Gillingham Gas Company, 95 High Street, Rochester (July 29).