

illustrations and objects to this exhibition. Among these were illustrations of Arabian surgical instruments from early fourteenth century manuscripts; examples of the medical and other works of Maimonides, the Hispano-Jewish philosopher and physician of the twelfth century; replicas of the earliest MSS. of the life of Andres Laguna, physician to Charles V and Pope Julian III; Roman, medieval, Hindu and modern surgical instruments; historical objects such as Egyptian artificial eyes, anatomical models, and a special section devoted to the evolution of

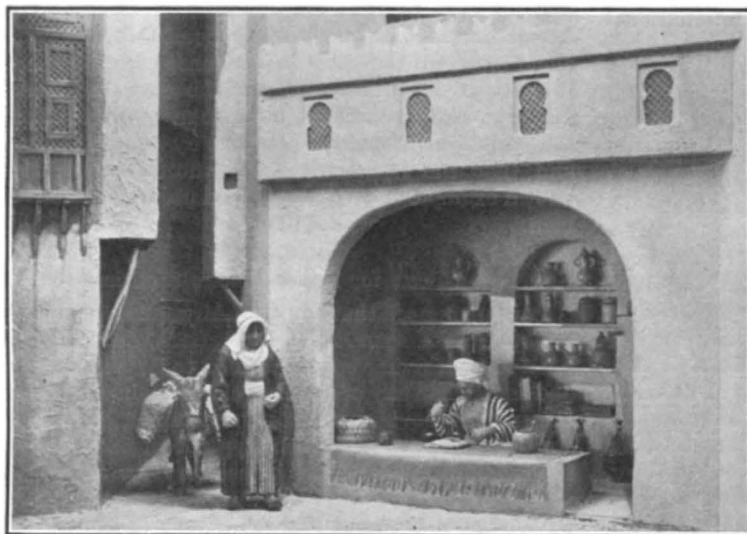


FIG. 1. Diorama of a Hispano-Moresque apothecary's shop.
Copyright: The Wellcome Historical Medical Museum (The Wellcome Foundation, Ltd.).

spectacles. Part of the Museum's exhibit comprised interesting dioramas including Nicholas Monardes of Seville (1512-88) depicted working in his private museum of curiosities; a historic incident connected with the discovery of cinchona bark as a remedy for malaria (1630); a thirteenth century apothecary's shop in Cordova (Fig. 1); and an interior view of the hospital of Santa Cruz at Toledo as it appeared in the sixteenth century.

Scientific Control of Road Traffic

ON September 10, at the British Association meeting in Norwich, Mr. A. T. V. Robinson opened a joint discussion in Sections G (Engineering) and J (Psychology) on the control of road traffic. He said that the question is far wider than merely the prevention of accidents; that it is how to move with a minimum of delay, discomfort and damage a system consisting of heterogeneous units of passengers and goods travelling for industry and pleasure in all directions. Of the year's total of 7,000 fatal accidents, about 2 per cent were due to the defects of the vehicle, somewhat less than 2 per cent to defects of the road, and the remaining 96 per cent were due to the personal equation. Engineers study either the roads or the vehicles, and the psychologist studies the drivers and pedestrians. Mr. Robinson emphasised the importance of the colourisation of the 'carpeting' of the road, and said we ought to endeavour to get

road carpeting of a lighter hue. In the future it is possible that on all the busy roads lights on the vehicles may be unnecessary and the approaching driver will see the oncoming vehicle, not as a couple of spots of dazzling light on a black background, but as a dark silhouette against an adequately illuminated road. The improvements in vehicles, especially the introduction of four-wheeled brakes, has greatly facilitated free movement of traffic on the streets, and the compulsory test for every new driver has worked admirably, about 12 per cent being rejected. It is recognised that certain drivers are 'accident prone', and these must be eliminated as soon as possible. Science may help us to keep the demonstrably unfit off the road, but until science, and not a human driver, assumes control of the vehicle, occasional breakdowns in traffic control are bound to occur.

Fewer Accidents in Well-Lighted Streets

ACCORDING to the *Electrician* of September 20 the first accident statistics for the section of the highway between Versailles and Ville d'Avray have been published. This road has recently been lighted with sodium vapour lamps (discharge tube lamps), and the statistics show a reduction of 74 per cent in the number of accidents, none of which

was of a serious nature. Local authorities should consider these figures, which prove that lives can be saved by the proper lighting of rural roads.

Closing Down of Private Electric Generating Stations

SEVERAL of the large factories in Great Britain have been considering whether it is an economical proposition to close down their generating stations and take their electric supply from the Grid. As the facilities offered by the public supply increase and the price diminishes, the advantages in its favour are rapidly increasing. Messrs. Lever Bros., of Port Sunlight, who were well known to have one of the largest and most efficient private plants in the country, have now entered into an arrangement whereby their power station becomes associated with the Grid, and will, under the direction of the Central Board, be operated by the Birkenhead Station. The load taken will be 40 million units a year, which is equivalent to the needs of a large town. The consumption of Birkenhead itself is 41 million units and the consumption of towns such as Oxford, Peterborough and Plymouth are less than 40 million units. Port Sunlight, the centre of the great soap and similar products manufacturing business, has an area of about 2,000 acres, and several other firms have established factories on the estate. The demand is likely to increase in the future. Among other large firms which have recently changed over from a private to

a public supply are the steelworks of Stewarts and Lloyds at Corby, those of Firth Brown at Sheffield and the thread mills of J. and P. Coats at Paisley.

High-Definition Television Transmission

IN connexion with the high-definition television transmissions which will be radiated from the Alexandra Palace, the British Broadcasting Corporation has requested Baird Television, Ltd., and Marconi-E.M.I. Television Co., Ltd., to send to manufacturers a complete specification of the waveform which they will radiate in their television transmissions from the palace. We have received from each of the companies their specifications, which are highly technical and will be mainly of interest to manufacturers. The ratio of the horizontal to the vertical breadth of the pictures is four to three for the Baird transmissions and five to four for the E.M.I. transmissions. The latter system transmits 25 complete pictures per second each of 405 total lines. These lines are 'interlaced' so that the frame and flicker frequency is 50 per second. It is claimed that good pictures can be received, although only a fraction of the radiated band is used; but the greater the width of the transmitted band utilised the better the received picture.

High Pressure Turbine Practice

IMPORTANT developments are taking place in the large power stations of electric supply companies. In the *Electrical Times* of September 19 there is an interesting account of the Loeffler boilers, which will supply steam turbines at the enormous pressure of 2,000 pounds per square inch. The exhaust steam from the high-pressure turbine is at a pressure of about 195 pounds per sq. in. and is reheated by steam from the boilers before passing into the low-pressure turbine. The North Metropolitan Supply Co. has two stations at Brimsdown called *A* and *B*. In the old station *A* the conditions were unfavourable to economical generation as the turbine pressure was only 150 lb. per sq. in. Owing to the favourable economic possibilities offered by the Loeffler boiler the station is being altered; two boilers each having a capacity of 210,000 lb. per hour, each operating at a pressure of 2,000 lb. per sq. in. and at a total temperature of 940° F., have been ordered from the Mitchell Engineering Co., Ltd., which has acquired the British rights from the well-known firm of Vitcovice. If petrol drops on the steam pipes at these high temperatures it bursts into flame. About twenty of these boilers are used abroad in Czechoslovakia, Germany and Russia. To get the best results it was necessary to have a set of 50,000 kilowatts. As a machine of this size could not be fitted into Brimsdown *A* it was divided into two. The high-pressure part has a power of 20,000 kw. and the low-pressure part has a power of 30,000 kw. It is claimed that certain advantages will accrue from running the machines in series.

The Lower Yield Point of Stress

THE report of the British Association (Section G), Committee on Stresses in Overstrained Materials,

presented at Norwich, states that particular consideration has been given to the requirements of the engineering profession and industry in view of present and future developments. By the increasing use of electric and other methods of welding in structural work, the problem of plastic overstrain has reached such high importance as to become one of the determining factors in design, and the Committee puts forward the considered view that the so-called 'lower yield point' affords the most satisfactory and reliable basis for the comparison of structural steels. The several advantages attached to its adoption are set forth seriatim, and a draft specification is submitted. The Committee, of which the chairman is Sir Henry Fowler, expresses the opinion that the lower yield point should be included in the British Standard Specifications, and recommends that the desirability of its addition be brought to the notice of the British Standards Institution.

Publication of Scientific Literature

THE projects for scientific publication and bibliography (cf. *NATURE*, 133, 641; 1934) have been implemented by a grant of 15,000 dollars from Chemical Foundation. As a result, a new Documentation Division of Science Service has been initiated in furtherance of activities in this field which were considered at a conference called by Science Service on July 11 and July 29. The immediate objectives being attempted under the grant are the development of camera, projection pointer, reading machine for microphotographs and other means for photographic reproduction, and the establishment of a project for the photographic publication of papers which at present cannot be published promptly or in full. This undertaking will be carried out with the co-operation of existing scientific journals and societies. The plans of the new division are outlined in a paper read by Mr. Watson Davis, director of Science Service, before the thirteenth Conference of the Institut International de Documentation at Copenhagen, September 9-14. It is considered that the scheme for the publication of scientific papers by microphotographic or similar methods should be self-supporting from the start. Possibilities of increasing the availability of existing literature by such methods are to be explored and the broad problem of scientific bibliography is also to be studied.

San Diego Natural History

SEVERAL papers recording new work have been published recently in the *Transactions of the San Diego Society of Natural History*. Vol. 8 (Nos. 6, 7, 8, 9), March 1935, contains a paper on new marine mollusca of West Mexico by Herbert N. Lowe, a description of a new trilobite from Northern California by Harry E. Wheeler, a revision of some Californian *Astrodapsis* by George L. Richards and some new species of molluscs of the genus *Triphora* by Fred Baker and V. D. P. Spicer. Both the mollusc papers deal with the shells alone, but there is in the first a good annotated list of shells collected at Punta Penasco, Sonora, Mexico. The trilobites include a very well preserved specimen