

of a technical character, are accounts of progress in various dyeing, cleaning, bleaching and finishing operations applied to textiles, furs and leather, and a review of the chemistry and technology of rubber and synthetic resins. The price of the special issue is 25s., but members of the Society may purchase one copy at a privilege price.

The National Physical Laboratory

THE report of the National Physical Laboratory for the year 1933 is a quarto pamphlet of 264 pages and 50 figures, many of them plates, and provided with an index of 10 pages. The condition of industry has reduced the demand for routine tests of instruments and for investigation of problems of manufacture, but the research programmes of the Executive Committee and of the Boards and Committees of the Department of Scientific and Industrial Research have been pressed forward. An important and promising method of bringing provincial industries into touch with the Laboratory has been tried during the year, by the senior members of the staff lecturing on the general work of the Laboratory and on specific problems of local industries at many large towns in the country. Each department of the Laboratory provides its report, and each report contains matter of great interest which is well illustrated by figures and easily followed. The Radiology Division has, for example, investigated the effect of heat treatment on metals which have been cold-worked previously, and finds that a magnet steel retains its magnetic properties better when in a state of strain than when the strain is relieved by heat treatment, and that transformer steel is the better for being free from internal strain. On one hand, the Department has tested for internal flaws two Diesel engine connecting rods of 4-in. diameter, and on the other, for the Medical Research Council, the structure of human teeth.

Quieter Motor-Cars

A RECENT report by Science Service gives a resume of the discussions during the annual general meeting of the Society of Automotive Engineers at Detroit. It was stated that in the earlier days of motoring the thrill of passing another motorist was incomplete unless your motor had a louder and deeper roar than his. Now motorists are worried even by the amount of noise their tyres make. Modern car mechanisms are so improved that at speeds below 40 miles an hour this noise is clearly audible. In fact some motorists utilise it to keep the speed constant. The low buzz or flutter is due to the trapping of air in parts of the tyres. Noise in motor-cars can be eliminated in two ways, either by absorption or cancellation by interference. In mufflers which absorb sound, the sound energy is converted into heat by resonators owing to the friction of waves passing through small holes and the use of porous materials. Mufflers that depend on wave interference get one part of the sound in opposition in phase with the other, so that they partially cancel. One new type of muffler passes part of the exhaust gas

through a venturi tube and it then operates the wind-shield cleaner. A silencer which utilises both resonance chambers and absorbing materials is sometimes effective in preventing intake noise (power roar). The noise to passengers can be considerably reduced by padding the bodies of the saloon by sound absorbing material in the same way as the acoustical properties of radio studios can be improved. One result of making motor-cars quieter is that the driver often unconsciously increases the speed.

Venereal Disease in Literature

IN a paper on this subject read on May 30 before the Medical Society for the Study of Venereal Diseases, Dr. J. D. Rolleston said that in no department of medicine is a knowledge of the lay writers on the history of the subject more necessary than in the domain of venereal disease. The information furnished by poets, dramatists, novelists and historians forms a valuable supplement to that derived from the study of contemporary medical works. In a survey of non-medical literature from the earliest times down to the present day containing any references to the three principal venereal diseases, Dr. Rolleston came to the following conclusions. There is no definite evidence that syphilis existed in Biblical times, classical antiquity or the Middle Ages. In striking contrast with the absence of any certain reference to the existence of syphilis in Europe before 1495, an immense amount of literature, lay as well as medical, dealing with the new disease followed that date. On the other hand, gonorrhœa, of which the first description is in Leviticus, dates from remote antiquity, but for about 250 years was identified with syphilis, the popular monosyllables for the two diseases being applied indiscriminately in lay literature to syphilis or gonorrhœa. Chancroid was probably as old as gonorrhœa and was well known in classical antiquity and the Middle Ages.

Human Sterilisation

THE April number of the *Eugenics Review* is largely devoted to the subject of sterilisation. Major Leonard Darwin makes a detailed analysis of the report of the Departmental Committee known as the Brock Report, Dr. E. Mapother discusses the necessary safeguards in eugenic sterilisation and Prof. Hans Maier of Zurich contributes an article on practical experience of sterilisation in Switzerland, where it has been practised in certain cantons under medical supervision for more than fifty years. The legal aspects of sterilisation in Great Britain are discussed by Mr. Cecil Binney, and Dr. C. C. Hurst contributes a paper on the genetics of intellect. An account is also given of discussions in the House of Commons, and the speech of Mr. Hugh Molson, M.P., in moving that H.M. Government give immediate consideration to the recommendations made unanimously by the Committee is reproduced in full. In all cases, emphasis is laid upon the need that sterilisation should be voluntary, and with proper safeguards, as any element of compulsion defeats its own ends.