

research. The object of the scheme is, I understand, to bring scientific knowledge to bear practically upon our every-day industrial and commercial life, to break down the barrier between theory and practice and to effect a union between science and commerce. This afternoon's ceremony is not merely a meeting of the representatives of an ancient and world-renowned scientific society for the purpose of taking over a new theatre of investigation and research. Is it not more than this? Does it not show in a very practical way that the nation is beginning to recognize that if her commercial supremacy is to be maintained, greater facilities must be given for furthering the application of science to commerce and manufacture? In the profession to which I am proud to belong there are, perhaps, special opportunities of gaining a certain insight into the general trade and commerce of the world and of comparing the commercial vitality of the different countries. And certainly abroad one finds an existing impression, which was confirmed by the experience of my recent and interesting colonial tour, that the superior technical and scientific knowledge of our foreign competitors is one reason why our hitherto pre-eminent position in manufactures and commerce is so considerably threatened. As a simple example I may quote the opinion of an expert authority in Australia, that the aniline dyes of Germany had given to a certain class of German-made goods a decided superiority over those of British manufacture. In Germany and America much valuable work has been carried out by the State. In this country the Government have provided these buildings and found machinery for the supply of light, heat, and power. They are at present not inclined to spend more money upon equipping the laboratories. It is therefore to the liberality of the public that we must look not only for money, but for presents in machinery and necessary appliances. Already the institution has benefited in the latter respect by gifts from Sir Andrew Noble, the Drapers' Company, Messrs. Willans and Robinson, Lady Galton, and others. The old established Kew Observatory now forms part of the laboratory. Important and growing work is carried out in the testing of telescopes, binoculars, sextants, and, more particularly, telescopic sights for the navy. Most of the scientific outfit supplied for the Antarctic expedition was tested at Kew. The laboratory will also supply a want which is much felt for standardising and testing the many other forms of apparatus in daily use, while investigations will be carried out on points of importance to the manufacturer or the merchant from the solution of which valuable results may be expected to accrue. I am particularly pleased to know that it is possible that within the precincts of this laboratory there will be established a work of the utmost importance—namely, a tank after the design of the late Mr. Froude, in which the performance of a ship can be predicted from experiments on a model. At present there is such a tank at Haslar, which is fully occupied in Government work. The Institution of Naval Architects, impressed with the demand for this work, have proposed to raise the sum required to erect the tank, and for the necessary appliances. But the funds at present at the disposal of the laboratory will require to be considerably supplemented if they are to undertake this much-needed work. No doubt the working expenses of the tank will ultimately be met by fees. But a difficulty may arise in tiding over the interval which must elapse before such fees are available. I am confident that, through the generosity of the public, the necessary means will be forthcoming to meet these difficulties and to secure that which is almost an essential to the shipbuilding industry of a country possessing the largest mercantile marine in the world. Before such an audience I have not presumed to speak of the value to science of this institution. Though the navy has given many notable names to scientific theory, it is the practical results which naturally appeal more to the mind of the sailor, and I am sure you will accept this as my excuse for having ventured to make my few remarks upon the future of this institution from merely a utilitarian point of view.

The representatives of the Society of Chemical Industry on the Council of the National Physical Laboratory are Messrs. G. Beilby, R. Forbes Carpenter, and W. F. Reid.

### New Books.

**THE ELEMENTS OF PHYSICAL CHEMISTRY.** By HARRY C. JONES, Associate Professor of Physical Chemistry in the Johns Hopkins University. The Macmillan Company, New York, U.S.A. Macmillan and Co., Ltd., London. 1902. Price 17s. nett.

8vo volume, with preface, table of contents, subject-matter filling 549 pages, illustrated with 67 engravings, and the alphabetical index. The subjects treated of in this volume are the following:—I. Atoms and Molecules. II. Gases. III. Liquids. IV. Solids. V. Solutions. VI. Thermochemistry. VII. Electrochemistry. VIII. Photochemistry. IX. Chemical Dynamics and Equilibrium. X. Measurements of Chemical Activity.

**THE SOAP BRAND RECORD AND TRADE MARK MANUAL.** By D. L. LAMBORN, B.S., B.S., Member of the American Chemical Society and of the Society of Chemical Industry. Chas. S. Berriman, 108, Fulton Street, New York. 1902. \$5.00.

8vo volume, containing table of contents, preface, index to advertisers, introduction, and 76 pages of text. Then follow, in tabulated form and alphabetical order, the various copyrighted trade marks for soap.

The work is divided into three parts, Part I. being devoted to a general enunciation of the laws regulating Trade Marks and Designs and Names; Part II., Trade Marks, &c., as applied to Soap; and Part III., List of Soap Firms, alphabetically arranged and consecutively numbered. Also List of Trade Marks, copyrighted and uncopyrighted, in present use and claimed ownership. The entire text fills 178 pages.

### Trade Report.

#### PATENT LAW AMENDMENT BILL.

DEPUTATION TO MR. GERALD BALFOUR.

(See this Journal, 1902, 287.)

MEMBERS OF DEPUTATION TO THE RIGHT HON. G. W. BALFOUR, M.P., PRESIDENT OF THE BOARD OF TRADE. (THURSDAY, MARCH 20, 1902. INTRODUCED BY SIR W. H. HOULDSWORTH, BART., M.P.)

#### Chambers of Commerce.

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