

Electrical Influence Machines. By JOHN GRAY. London, Whitaker; New York, Van Nostrand. 12°. \$1.75.

IN this volume Professor Gray, who is an associate of the Institute of Electrical Engineers of London, gives a very full account of the historical development and modern forms of electrical influence-machines, together with instructions for making them. The branch of electrical science covered by this treatise has been apparently somewhat neglected of late years; and for that reason alone the volume would be welcome, aside from the fact that it contains in compact form all that is really useful and interesting about influence-machines. It shows, also, that the neglect of investigators in this direction has been more apparent than real, for great progress has been made, but the greater progress made in the development and commercial utilization of dynamical electricity has made it seem that the static form had almost been forgotten. But, as the author shows, the influence-machine has an important field of its own, and, in some of its latest and most improved forms, is a simple and convenient generator of high-tension electricity, nearly as reliable as the induction-coil, and less expensive.

The work is divided into three parts. The first is devoted to a general sketch of the phenomena and leading principles of static electricity, a chapter each being given to experimental data, to a working hypothesis of the electrical field, and to electrometers. This part is sufficiently complete to serve instead of a text-book for beginners, and will enable those with little mathematical

knowledge to understand the nature of electrical quantities. The second part is devoted to the historical development of the machines, and also contains descriptions of modern ones, such as Varley and Töpler's, Holtz's, Wimshurst's, Sir W. Thomson's, Maxwell's, and "addition" machines such as Bertsch's and Carré's. The third part contains all the information needed by instrument-makers and amateurs to guide them in making the influence-machines most commonly used. The book is illustrated by two hundred and twenty-eight engravings, and has a very complete index.

AMONG THE PUBLISHERS.

It is proposed to publish the results of the research of the special students in the Department of American History at the University of Pennsylvania in a regular series of pamphlets.

—D. C. Heath & Co. will publish June 10, "A Compendious French Grammar," by A. H. Edgren, professor of modern languages in the University of Nebraska.

—The *New York Home Journal* just now is of especial interest to people who contemplate spending the summer, or part of it, in the country. It is issuing several editions of a "Summer Resort Guide," of which it has for years made a feature.

—The *Political Science Quarterly* for June opens with a defence of national sovereignty in the United States, by John A. Jameson, against the theories of the "analytical jurists;" E. I. Renick of the Treasury Department discusses the relations of the

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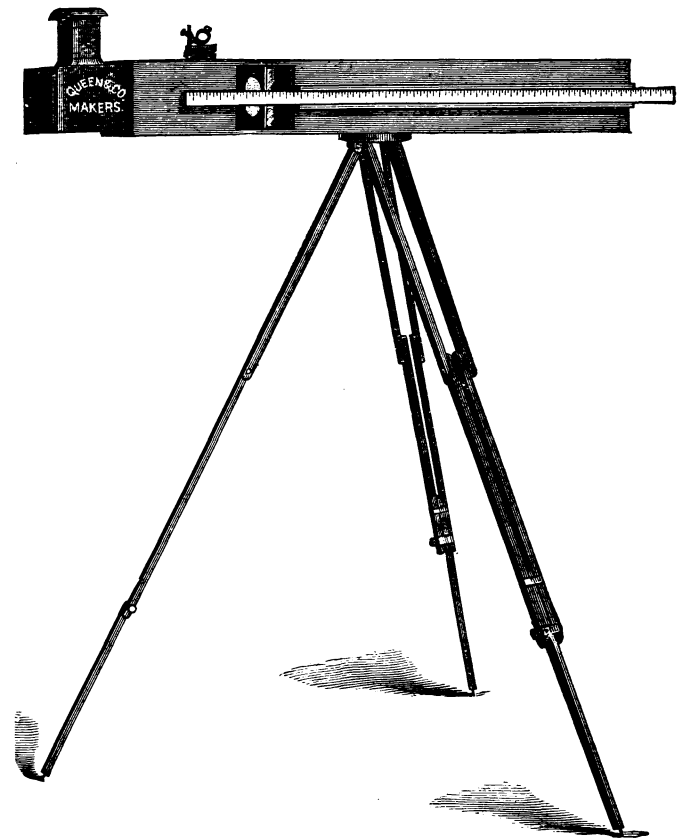
comptrollers and the courts in the settlement of claims against the government; Dr. Charles B. Elliott, writing of the legislatures and the courts, gives an interesting history of the origin and development of the power to declare a law unconstitutional; Professor R. M. Smith, in a timely paper on census methods, shows the scientific importance of the census, and suggests improvements in the methods of taking it; Professor Seligman contributes the first of a series of articles on "The Taxation of Corporations," containing an exhaustive review of all the legislation on the subject in the United States; and Horace White replies to Professor Patten's criticism of Wells's "Recent Economic Changes." There is the usual number of reviews, and a "Record of Political Events" for the six months ending May 1.

INDUSTRIAL NOTES.

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