

general results appeared in the *Journal* of this Institute in June, 1900. By following out these and other lines of work I am glad to say that a very marked reduction in the number of hot boxes has been effected in the past few years, in spite of material additions to our car and locomotive equipment.

Hot boxes are not by any means the necessary attendant of train service that they sometimes are considered, and careful study of the conditions and causes in any particular case may often effect remarkable changes.

Book Notices.

Galvanic Batteries: Their theory, construction and use; comprising primary, single- and double-fluid cells, secondary and gas batteries. By S. R. Bot-
tone. (With 144 illustrations.) 8vo, pp. xvi + 376. London and New
York: Whittaker & Co. 1902.

So far as the reviewer is aware, there is no modern work in English treat-
ing of this important branch of applied electricity. The works of Napier,
Niaudet and Prescott, very useful in their day, are now more or less antiquated,
and a modernized work on the subject by an author of good repute should
prove a welcome addition to current electrical literature. W.

The A B C of Photomicrography: A practical handbook for beginners. By
W. H. Walmsley, F.R.M.S., etc. 12mo, pp. viii + 155. New York:
Tennant & Wood. 1902.

The author endeavors in this work to fill the need for a handbook of
instruction in the elementary branches of the art of photomicrography, con-
cerning which there appears to be a dearth of literature. Mr. Walmsley is
one of the pioneers in this field and an expert of the highest repute. His
book should fill its intended purpose thoroughly well. W.

Franklin Institute.

[*Proceedings of the stated meeting held Wednesday, June 17, 1903.*]

HALL OF THE FRANKLIN INSTITUTE,

PHILADELPHIA, June 17, 1903.

President JOHN BIRKINBINE in the chair.

Present, 56 members and visitors.

Additions to membership since last report, 17.

The election of a member of the Board of Managers to take the place of
Mr. James M. Dodge, lately elected Vice-President, was, on motion, postponed
until the next stated meeting.

Prof. Lewis M. Haupt read a paper "On the Control of the Floods of the Mississippi River," and by special request supplemented this by a communication "On the Conservation and Increase of the Beach Front at Atlantic City, N. J." Both communications were illustrated with the aid of lantern slides.

The thanks of the meeting were voted to the speaker, and his communications were referred to the Committee on Publications.

The Yawman & Erbe Manufacturing Company, of Philadelphia, through one of its representatives, described and made a demonstration of a Rapid Roller Copying Machine for copying letters. Referred to the Committee on Science and the Arts.

Mr. W. N. Jennings exhibited a number of interesting lantern photographs, including a view over Boston, made from a free balloon by Prof. Samuel A. King, in October, 1860, and one of the alto-reliefs in the Broad Street Station of the Pennsylvania Railroad, made by an exposure of one hour to the incandescent electric light illuminating the Station.

Adjourned.

LOUIS E. LEVY,
Secretary pro tem.

Committee on Science and the Arts.

[Abstract of proceedings of the stated meetings held May 6 and June 3, 1903.]

MR. CHAS. E. RONALDSON in the chair.

The following reports were adopted:

(No. 2181.) *Enclose! Arc Lamp*.—C. J. Toerring, Philadelphia. Previously reported. On reconsideration, the Edward Longstreth Medal of Merit is awarded to the inventor. [Sub-Committee.—L. F. Rondinella Chairman; T. C. Smith, A. J. Rowland, W. C. L. Eglin, C. C. Heyl, Wm. McDevitt.]

(No. 2230.) *Speed Controller*.—Consolidated Machine Specialty Company, Boston, Mass.

Not susceptible of abstraction without illustrations. The Edward Longstreth Medal of Merit is awarded to the Company. [Sub-Committee.—Chas. Day, Chairman; Tinius Olsen, Lucien E. Picolet.]

(No. 2272.) "*Radial-Duplex*" *Gang Cutters*.—Gould & Eberhardt, Newark, N. J. (An advisory report.)

(No. 2273.) *Enclosed Arc Lamp*.—Louis B. Marks, New York. (An advisory report.)

(No. 2274.) *Valve Mechanism*.—E. J. Armstrong, Erie, Pa. (An advisory report.)

(No. 2276.) *Improvement in the Art of Butter-Making*.—Chas. M. Taylor, Jr., Philadelphia.

This invention describes an absorptive process for separating the butter-fat from the casein and watery constituents of cream. The report is reserved for publication in full. The award of the John Scott Legacy Premium and Medal is recommended to the inventor. [Sub-Committee.—S. P. Sadtler, Chairman; F. A. Genth, Edward Woolman, George Malony.]