

alleged facts," and their whole argument is founded upon a quibble. He shows that the Canadians do not rebut the evidence afforded by the many Canadian, English, French, German, Russian and other maps which mark the frontier line claimed by the United States, and calls special attention to the fact that in 1901, three years after the Quebec Conference, the English Government supported, through its official geographers, the British Admiralty, the claims of the United States by giving her a continuous lisière above 54° 40'. W.

Calorimetry. By Frank H. Bates. 12mo, ix+127 pp. Philadelphia: Philadelphia Book Company, 1902. (Price, \$1.00.)

A practical treatise on the determination of calorific value of fuels in steam-boiler practice. The subject is treated in a readily comprehensible manner. W.

Bricklaying. By Owen B. Maginnis. 8vo, pp.85. New York: Author, N.D. (Price, \$2.00.)

This work is a practical treatise on the art of bricklaying, intended for the use of engineers, architects and builders. It gives in concise form and with numerous illustrations the best modern practice of the art, and should be a useful compendium for those having occasion to obtain information on the subject of which it treats. W.

The Slide-Valve and its Functions, with special reference to modern practice in the United States (with ninety diagrams and illustrations.) By Julius Begtrup, M.E. (8vo, vii+143.) New York: D. Van Nostrand Company. London: E. & F. N. Spon, 1902. (Price, \$2.00.)

The author has endeavored in this work to explain and illustrate the fundamental principles of valve mechanism by new graphical methods, and describes and analyzes a number of special valve constructions to exhibit how the exacting conditions of higher steam-pressure and higher speed are now met by modern engine builders.

The several chapter-heads read as follows: I. The common slide-valve; II. Improved slide-valves; III. Four-valve systems; IV. Independent cut-off; V. The slide-valve on pumps; VI. Angularity of connecting-rod and eccentric rod. W.

Franklin Institute.

[*Proceedings of the Stated Meeting held Wednesday, March 18, 1903.*]

HALL OF THE FRANKLIN INSTITUTE,
PHILADELPHIA, March 18, 1903.

President JOHN BIRKINBINE in the chair.

Present, 121 members and visitors.

Additions to membership since last report, 16.

Mr. A. D. Bramhall, on behalf of the American Brazing Company, of Philadelphia, read a paper describing the process of brazing iron castings, invented

and efficient sectional counterbalanced door for warehouses and other commercial buildings.

The doors are made of wood, the upper half combining wood-framing with wireglass; also admits the doors to be of corrugated iron upon a suitable modern frame. The doors are hinged at their tops to the doorframe by butt-hinges or rod-shaped pintle and formed by an upper and lower section of substantially equal size, hinged together. The counterbalance-weights are secured by cords or chains which pass over overhead pulleys, thence down either side of the door to the guide-block or pintle-pins at lower end of bottom section of the door. Suitable hand-hasps are fastened upon the lower section of the door.

The Investigating Committee finds this door to be unique, being an improvement upon the swingdoor type; its nearest competitor being the "rolling-steel" varieties, to which it is superior in that it does not depend upon the integrity of its curtain, for the entire covering might disappear, and this frame would still work as before.

The report proceeds to enumerate a number of advantages claimed for this invention, all of which appear to be substantiated.

The report recommends the award of the John Scott Legacy Premium and Medal to the inventor. [*Sub-Committee*.—Charles E. Ronaldson, Chairman; H. R. Heyl, Ernest M. White.]

(No. 2264.) *Process of Purifying Water*.—J. M. A. Lacomme and Walter Lander, New York.

(An advisory report.)

Stated Meeting, March 4, 1903. (No. 2253.) *Speed Variator*.—Lodge & Shipley, Cincinnati, O.

Not adapted to be abstracted without illustrations.

The report grants the Edward Longstreth Medal of Merit to the inventor, Wm. Schellenbach, for the development of a device called a speed variator, being a means of obtaining from a source of power of constant speed, variable speed suitable for driving machine-tools and other apparatus where such variation is required. [*Sub-Committee*.—Charles Day, Chairman; Wilfred Lewis, Lucien E. Picolet, Tinius Olsen.]

(No. 2254.) *Apparatus for Cleansing Water Pipes*.—Norman W. Stearns, Roxbury, Mass. Inventor, Vincenzo Bonzagani.

(An advisory report.)

The following reports passed first reading:

(No. 2219.) *Method and Apparatus for Storing and Transporting Acetylene*.—John S. Seymour, New York. Inventors: Claude, Hess & Fouché.

(No. 2260.) *Hylo Incandescent Electric Lamp*.—Phelps Company, Detroit, Mich.

(No. 2266.) *Kodak Developing Machine*.—Eastman Kodak Company, Rochester, N. Y. W.