

**Completion of an Immense Safe.**—Mr. Chubb, the well-known English manufacturer of safes, has recently completed, for the Government of Buenos Ayres, an iron safe of gigantic dimensions, designed to receive the title-deeds and securities of the Department of Public Credit. It is a parallelopiped formed by plates of heavy iron, strongly riveted at the edges. Within this is a second box as solidly constructed as the first, and separated from it by an air-space. In this interior safe the valuable property is placed. The interior filling is made with a composition whose character is at present a secret, but which appears to have a certain quantity of alum in it. The dimensions of the safe are : height, eleven feet six inches ; length, fourteen feet nine inches ; depth, five feet. The plates are three-quarters of an inch in thickness, and at the corners the total thickness of the plates and braces is nearly five inches. Two doors, one and one-quarter inches thick, give access to the interior. They are made of steel and iron, and have compartments filled with non-conducting material. Two safety locks are attached, containing each a charge of gunpowder capable of firing fourteen projectiles in all directions. Each lock is of a different form. The safe, entire, weighed fifteen tons. It was shipped in pieces, and is to be put together at its destination by a competent mechanic, who accompanied it for that purpose.

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## Franklin Institute.

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HALL OF THE INSTITUTE, April 15th, 1874.

The meeting came to order at the usual hour, with President Coleman Sellers in the chair.

The minutes of the previous meeting were read and approved.

The Actuary submitted the minutes of the Board of Managers, and reported that, at their stated meeting held April 8th, the following donations had been received, to wit :

Dictionary of Elevations, and Climatic Register of the United States, &c. By J. M. Tonner, M.D. From the Author.

United States Textile Manufacturers' Dictionary ; comprising Woollen, Cotton, Silk, Jute, Flax and Linen Establishments. 1874. From the National Wool Manufacturers' Association of America, New York.

Transactions of the American Institute of Mining Engineers, Vol. 1. May, 1871, to Feb., 1873. From the Institute.

Report on the Swinburn Breech-loading Rifle. By J. Beverley Fenby, Esq., C. E., &c. From the Author.

Proceedings of the Academy of Natural Sciences, of Philadelphia, Part 3d. October to December, 1873. From the Academy.

Memoirs of the Geological Survey of India, Vol. 1 (No. 1), Vol. 4 (Nos. 3, 4), and Vol. 10 (Pt. 1). Calcutta. From the Superintendent.

Records of the Geological Survey of India, Vol. 6 (Pts. 1—4). 1873. Calcutta. From the Superintendent.

Annales des Ponts et Chaussées for September and October, 1873. Paris. From the Editor.

The Actuary likewise reported the following communication from the Committee on Science and the Arts, and the action of the Board thereon :

*To the Board of Managers of the Franklin Institute :*

GENTLEMEN,—At the stated meeting of the Committee of Science and the Arts, held March 6th, 1874, a resolution was passed, instructing me to recommend to you the award of the Scott Legacy Premium and Medal to George Westinghouse, Jr., of Pittsburgh, Pa., for his improvements in air brakes for railway trains.

Respectfully,

JOHN C. CRESSON, *Chairman Com. S. and A.*

*Philadelphia, March 26, 1874.*

The following is the action of the Board on the above : On motion, it was

*Resolved*, That, in accordance with the above recommendation, the John Scott Legacy Premium and Medal be awarded to Geo. Westinghouse, Jr., of Pittsburgh, Pa., for his improvements in air brakes for railway trains, and that the Actuary be directed to make proper publication of the same.

The Actuary further reported from the Board the following resolutions, viz. :

*Resolved*, That the Committee on Exhibitions be directed to secure a guarantee fund of \$25,000, and thereupon publish notice of the intended Exhibition, and make proper preparations for the same.

*Resolved*, further, that the Committee on Exhibitions be enlarged, by appointment by the President, so as to consist of 100 members, including all the members of the Board of Managers.

On behalf of the Committee on Exhibitions, the Chairman, Mr. Wm. P. Tatham, then made the following report, viz. :

The Committee on Exhibitions respectfully report that, by virtue of a resolution of the Board of Managers, passed April 2d, 1874, it has become a joint committee of the Board and of the Institute at large, to consist, in all, of 100 members, appointed by the President of the Institute, and in this connection they recommend the adoption of the following resolution :

*Resolved*, That the members of the Institute furnish the President with names from which to select persons to fill up the Committee on Exhibitions to the number of one hundred.

The Committee further report that the Board of Managers having, at the same date, directed the Committee to secure a guarantee fund of not less than twenty-five thousand dollars, subscriptions have been solicited and obtained already to the amount of over thirty-five thousand dollars—the list being still open. Members desiring to subscribe will find the list with the Actuary.

The Committee further report that, the conditions required by the Institute and the Board of Managers having been fulfilled, they have issued the following notice, which they desire may be considered part of this report.

On behalf of the Committee,

W. P. TATHAM, *Chairman*.

The following notice is the one referred to :

*The Franklin Institute of the State of Pennsylvania, for the promotion of the Mechanic Arts, will celebrate the fiftieth year of its foundation by an Exhibition of Arts and Manufactures, to be held in the City of Philadelphia, from the 6th to the 31st of October, 1874.*

The exhibition will embrace all materials used in the Arts, in every stage of manufacture, from their natural condition to the finished product, and all tools, implements and machines, by which the gifts of nature are changed and adapted to the use, the comfort, or the enjoyment of mankind.

The Committee desire to make this Exhibition represent as fully as possible the mechanical improvements of the last half century—to which the Institute has so largely contributed—and all artisans, mechanics, manufacturers and inventors throughout the United States are cordially invited to contribute their best productions, and compete for the prizes which will be awarded to the most worthy.

Every facility will be afforded for exhibiting machines in motion. All persons desiring to exhibit are requested to make early application for floor space or steam power, or for room to exhibit boilers or engines in operation to drive the machinery of the Exhibition.

Foreign materials or manufactures, not entered for competition, will be welcomed and fairly exhibited.

Communications are to be addressed to *The Committee on Exhibitions Franklin Institute, Philadelphia, Pa.* Detailed information concerning the rules and regulations governing the Exhibition will be sent in reply.

By direction of the Committee on Exhibitions,

W. P. TATHAM, *Chairman*.

*Philadelphia, April 14th, 1874.*

It was, thereupon, moved that the report be accepted, and the reso-

lution therein contained approved. Carried. Nominations were therefore made, to the number of thirty-nine, of names to serve upon the Committee, in accordance with the resolution above approved.

The President next announced a paper, by Mr. Hector Orr, on Phosphor-Bronze. The same was a general treatment of the nature of the new alloy, its physical properties, and the status of its manufacture in the United States.

The Secretary then read his monthly report upon Novelties in Science and the Mechanic Arts.

Under new business, the President made a brief address to the meeting upon the life and character of the late Joseph Harrison, Jr., a former member and officer of the Institute.

Mr. Hector Orr moved that a committee of three, of which the President should act as chairman, be appointed to draft resolutions of respect to the memory of the deceased. Carried. The President, in accordance therewith, appointed Coleman Sellers, Hector Orr and Geo. F. Barker as members of the Committee.

Mr. J. Morgan Eldridge mentioned the fact that the Agricultural Society of Pennsylvania intended holding their Annual Fair about the same time as the Exhibition of the Institute, and dwelt upon the desirability and mutual advantage of having the two events transpire in Philadelphia. He moved the following:

*Resolved*, That the Secretary be instructed to communicate to the State Agricultural Society the fact that the Franklin Institute will hold an Exhibition of Arts and Manufactures during the coming fall, and suggest the mutual advantages which would result from holding the two exhibitions in the same city and at the same time.

The resolution was carried.

Mr. Hector Orr then moved the following:

*Resolved*, That with regard to the contemplated Industrial Exhibition, to be held this year, we respectfully suggest to the Board of Managers to restrict the privilege of members to their personal entrance thereto by their usual tickets.

*Resolved*, Further, that we urge upon our members a liberal purchase of single tickets, in order to promote the financial success of the said Exhibition.

The resolutions were referred to the Board of Managers, and the meeting adjourned.

WILLIAM H. WAHL, *Secretary*.