

## Franklin Institute.

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HALL OF THE INSTITUTE, January 20th, 1881.

The stated meeting was called to order at 8 o'clock P. M., the President, Mr. William P. Tatham, in the chair.

There were present 123 members and 45 visitors.

The minutes of the last meeting were read and approved.

The Actuary presented the minutes of the Board of Managers, and announced that 14 persons were elected members of the Institute at the last meeting of the Board.

The Secretary reported the following donations to the Library :

Annual Report of the Department of Statistics and Geology of the State of Indiana, 1879.

Annual Report of the Indiana State Board of Agriculture, 1879.

Transactions of the Department of Agriculture of the State of Illinois, 1878.

From L. S. Ware.

Report of Select Standing Committee on Immigration and Colonization. Canada. 1878.

University of California College of Agriculture. Supplement to the Biennial Report of the Board of Regents. 1879.

Annual Report of Massachusetts Agricultural College. 1880.

Annual Report to the Council of the City of Manchester on the Working of the Public Free Libraries. 1879-80.

From the Council.

The Gold Standard ; its Causes, Effects and Future. Philadelphia: H. C. Baird & Co., 1880.

From the Publishers.

Annual Report of the Supervising Inspector-General of Steam Vessels to the Secretary of the Navy, for 1880.

From the Inspector-General.

Verhandlungen des Naturhistorisch-Medicinischen Vereins zu Heidelberg. N. S. Vol. 2. Pt. 5. 1880.

From the Society.

Holyoke Hydrodynamic Experiments made by Holyoke Water-power Company. 1879-80.

From the Company.

Annual Report of the Commissioner of Patents for 1879.

From the U. S. Patent Office.

Act and Bull. By Lewis A. Scott.

Monetary Questions Viewed by the Light of Antiquity. By R. N. Toppan.

Proceedings of Numismatic and Antiquarian Society of Philadelphia. 1865-66.

Falsifications of Ancient Coins. By S. K. Harzfeld.

Remains of an Aboriginal Encampment at Rehoboth, Delaware.  
By F. Jordan, Jr. Philadelphia, 1880.

From H. Phillips, Jr., Secretary of the Numismatic Society of Philadelphia.

The Actuary read the

#### ANNUAL REPORT OF THE BOARD OF MANAGERS..

The Board of Managers of the Franklin Institute of the State of Pennsylvania, for the Promotion of the Mechanic Arts, respectfully submits the following report for the year 1880 :

*Members.*—During the year 165 members have been elected, and 24 have resigned.

*Treasurer's Report.*—The following is a condensed summary of the Treasurer's report for 1880 :

##### *Receipts.*

Balance on hand Jan. 1, 1880, . . .	\$1,405 85
Investments of the Institute paid off, . . .	3,000 00
Current receipts from all other sources, . . .	11,567 44
	<hr/> \$15,973 29

##### *Payments.*

Amounts re-invested, . . . . .	\$2,526 25
All other current payments, . . . . .	11,937 03
Balance on hand Dec. 31, 1880, . . . . .	1,510 01
	<hr/> \$15,973 29

This statement shows our current expenses greater than the current receipts.

It is greatly to be desired that by an increase of membership this state of affairs should be reversed.

*Journal.*—The JOURNAL continues under the same general management as heretofore. The financial results of the publication show that it is more than self-supporting, and it is believed that this is due to the practical value of the matter published.

The size of the monthly JOURNAL has been increased by the addition of eight pages, making 80 pages of reading matter. Manufacturers are recognizing the JOURNAL as an excellent means of advertising.

*Library.*—The gradual increase of the Library has been continued, as is exhibited by the report of your Committee on the Library.

Although new bookcases were added in 1879 and 1880, there is still not enough room for the convenient arrangement of the books, and this evil must increase until a larger library room shall be provided.

*Lectures.*—In the beginning of the year Mr. Charles A. Ashburner, of the Pennsylvania Geological Survey, gave two lectures on petroleum, and the course was continued by Mr. A. E. Outerbridge, Jr., on the art of coining, and the spectroscope; Dr. Robert Grimshaw, on saws; Prof. Rachel L. Bodley, on structural botany; D. S. Holman, on motion in “not living” matter; Dr. Isaac Norris, on the physical properties of metals; Hector Orr, on printing; J. B. Nicholson, on book-binding; John Sartain, on engraving; Henry Bower, on glycerine; Dr. Carl Seiler, on vocal acoustics, and Prof. Joseph Remington, on the metric system.

In the fall, the course was opened by six lectures, given by Prof. John M. Child, on the mathematics of physical science, followed by three by Dr. Seiler, on applied acoustics; lectures by Prof. Rachel L. Bodley, on household chemistry; Mr. Reuben Haines, on water; Prof. Barbeck, on microscopic botany, and Prof. E. J. Houston's holiday lecture on electricity—all of which have been largely attended.

Practically, the lectures of the Institute are now free to the public. By the resolution of the Board, seats are retained for members until five minutes to 8 o'clock, after which all who come are made welcome, and, from the interest taken in the Institute by many visiting it for the first time, the plan cannot fail to be productive of good, and a number have expressed a desire to join, and aid all in their power to enhance its future usefulness. The average attendance since the change has been about two hundred persons, while upon two occasions nearly four hundred were crowded into the hall, proving how entirely inadequate the lecture room is to accommodate all who wish to attend, and how much more good could be done if the present valuable course of lectures were delivered in a larger hall.

*Drawing School.*—The increase in the number of pupils applying for instruction in this department of the Institute is very gratifying to the Board. Mr. Philip Pistor, the Principal of the school, reports 96 pupils attending, and the interest they take in their studies, and the emulation excited by the Bartol scholarships, show that this important work of the Institute is properly appreciated.

The course is a progressive one, and includes instruction in mechanical, architectural and topographical drawing, both free hand and instrumental, extending over three years; but pupils, if sufficiently advanced, may select any subject of importance to them, and receive in it individual instruction. Three evenings in the week, instead of two, as heretofore, are now devoted to the school, and, as the increase of pupils is about 33 per cent. over last year, it was necessary to give notice to the Pennsylvania Museum and School of Industrial Art that the arrangement of a joint occupation of the rooms would have to cease, and they have accordingly moved elsewhere. The Board regret extremely the necessity of the action, and the severance of the very pleasant relations which have always existed between the two schools.

The facts presented in this report of the condition and work of the Institute, show that, while it is nearly self-supporting, as at present constituted, its usefulness is cramped in every department but one, by want of room in the hall which we now occupy.

The library room and the lecture room are entirely too small, and the chemical and physical laboratories attached are altogether inadequate.

The cabinet of minerals has been stored elsewhere for want of room, and the models are scattered and visible everywhere on the tops of the bookcases. The drawing school alone has room to grow.

It seems to the Board that the time has arrived for an appeal to the public for means to place this Institute in a building large enough to enable it to meet the public wants.

Unlike other institutions of similar character elsewhere, the Franklin Institute has received no appropriations of money from either State or city, yet it is altogether a public charity.

It is true that we neither feed the hungry, clothe the naked, nor heal the sick; but, on the other hand, our efforts are to dry up the sources of hunger, destitution and disease, and to avert these evils by the diffusion of such knowledge as strengthens and directs the hands of the bread winner, cheapens the cost of food and habitation, and improves the construction of dwellings.

Our charity makes no paupers; for, however much it may benefit an individual, it never diminishes his feeling of independence, for it helps those who help themselves.

The Board renews the appeal made last year to the members to aid

the Institute by adding to their number. During the past year 70 persons were nominated and elected at the instance of a single member.

By order of the Board,

W. P. TATHAM, *President*.

### THE LIBRARY.

The Committee on the Library respectfully reports for the year ending December 31, 1880.

The number of volumes ordered by the committee from publishers was 81.

	Bound.	Unbound.
Number of volumes received from publishers (which includes orders given previous to 1880), .	150	135
Number of volumes received for notice in Journal, .	28	1
Number of volumes received as donations, .	216	707
Number of volumes received as exchanges, .	101	
Number of volumes received other than exchanges, .	71	
Total number of volumes added in 1880, .	566	843
Number of volumes in Library Dec. 31, 1879, .	14,813	
Number of volumes (bound) in Library Dec. 31, 1880, .	15,379	
Number of volumes repaired during the year, .		24
Number of circulars received during the year, .		571
Number of new exchanges ordered, .		18
Number of exchanges discontinued, .		14

Among the important donations were twenty volumes of the "Publication Industrielle," by Armengaud, from Mr. Frederick Graff; "Steam Boilers, their design," etc., by Schock, from Mr. B. H. Bartol; "Coney's Foreign Cathedrals," from Dr. Isaac Norris, and the "Annales Industrielles," from Mr. L. S. Ware.

A number of valuable exchanges for the Journal of the Institute, and for duplicate volumes of books in the Library, have been effected during the year.

A number of serial publications have been completed, and many books requiring it have been rebound.

The books purchased with the income from the Bloomfield Moore fund have been marked by an appropriate label, indicating the generous donation made to the Library from this source.

The number of members and other persons making use of the Library cannot be given, but the committee can report an evidently