THE FIRST

ANNUAL REPORT

OF THE

TRUSTEES OF THE COOPER UNION,

FOR THE ADVANCEMENT OF

SCIENCE AND ART.

JANUARY 1, 1860.

NEW YORK:

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1860.
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OF THE

COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART.

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H. C. THOMPSON. CHS. McLEAN KNOX.
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JOHN C. DRAPEL, M, D. P. H. VANDERWEYDE, M. D.

Mechanical Philosophy.
LEVI REUBEN. P. H. VANDERWEYDE, M. D.

Architectural Drawing.
JOHN F. MILLER. HENRY PALMER.
CLARENCE COOK.

Mechanical Drawing.
RICHARD S. SMITH. THOMAS D. STETSON.
GEORGE H. RABCOCK.

Free Hand Drawing.
RICHARD S. SMITH. CONSTANTINE HERZBERG.

Vocal Music and Vocal Physiology.
CHARLES GUILMETTE, M. D.

Receipts and Expenditures of the Cooper Union for the Advancement of Science and Art, from May 1, 1859, to January 1, 1860.

RECEIPTS.
Balance transferred by former Agent, ............................................. $259 26
By Rents of Stores, Offices, and Halls, ........................................... 10,599 08
Total Receipts, .............................................................................. $10,858 34

EXPENDITURES.
For Office Expenses, including Salaries, ...................................... $1,150 00
  Furnishing Building.............................................................. 2,101 75
  Care of Building.................................................................. 639 24
  Engine Department.............................................................. 427 75
  Fuel................................................................................. 220 25
  Gas................................................................................. 535 94
  School of Design................................................................. 420 83
  Picture Gallery................................................................. 61 60
  Reading Room.................................................................. 404 19
  Instruction Department..................................................... 379 00
  philosophical Department.................................................. 300 00
  Drawing Department.......................................................... 143 61
  Stationery......................................................................... 401 61
  Advertising....................................................................... 82 94
  Postage.............................................................................. 4 74
Total Expenditure, ...................................................................... 7,432 50

City and County } Peter Cooper, Edward Cooper, Abram S. Hewitt,
of New York, ss. Daniel F. Tiemann, Wilson G. Hunt, and John E. Parsons, being duly and severally sworn, do, and each for himself doth, depose and say, that he is a Trustee of the Cooper Union for the Advancement of Science and Art; that the foregoing is an account of all the Receipts and Expenditures of the said Trustees to the first day of January, in the year 1860, and that as deponents are informed and believe, it is a true and correct account of all such receipts and expenditures.

Sworn to before me, this 14th day of January, 1860,
E. D. MILLS, Commissioner of Deeds.

PETER COOPER,
EDWARD COOPER,
ABRAM S. HEWITT,
DANIEL F. TIEEMANN,
WILSON G. HUNT,
JOHN E. PARSONS.
THE Tenth section of the act by which this Corporation is created provides, that "The Trustees of the Corporation hereby created, shall, in the month of January, render an annual account under oath of all their receipts and expenditures, to the Common Council of the City of New York, the 'Associates of the Cooper Union for the advancement of Science and Art,' and the Legislature of the State." In submitting their Report under this provision of the Charter, the Trustees deem it their duty in view of the general desire which exists to obtain full information in regard to the Institution committed to their management, and the objects which are contemplated in its foundation, to enter into much greater detail than would be necessary if its establishment were not so recent, and its origin so unusual.

Peter Cooper, a mechanic and merchant of the City of New York, having become satisfied early in life that the working classes of this city required greater opportunities for instruction and rational recreation than were afforded by existing institutions, determined, if he could command the means, to found an institution designed especially to supply the needs, of which he himself had been conscious. Having by industry and enterprise gained the necessary funds, he purchased the entire block of ground at the intersection of the Third and Fourth Avenues, and proceeded
in 1854 to erect thereon a massive building of stone, brick, and iron, six stories in height and completely fire-proof, at a cost as shown by his books of over $630,000 for the land and building. An act of incorporation having been procured from the legislature at their last session, Mr. Cooper, in accordance therewith, on the 29th of April, 1859, executed a deed in fee simple of this entire property to the undersigned, without reservation of any kind, upon the trusts specified in the act of the Legislature, the first of which is, "that the above-mentioned and described premises, together with the appurtenances, and the rents, issues, income, and profits thereof, shall be forever devoted to the instruction and improvement of the inhabitants of the United States in practical science and art." In order that the nature of the trust may be fully understood, the deed of conveyance is annexed hereto, in extenso. At the same time the Trustees received in cash the sum of $250.26 which had accumulated in the hands of the agent, W. H. Beebe, from the rents of such portion of the building as had been rented, Mr. Cooper having himself carefully abstained from receiving into his possession one dollar of the revenue that had accrued previous to the conveyance to the Trustees. Mr. Cooper also authorized the Trustees to draw upon him for the further sum of ten thousand dollars, as it might be required for furnishing the building, providing suitable philosophical apparatus, and establishing the courses of instruction. With this act Mr. Cooper's personal connection with the institution ceased, and his fiduciary capacity as Trustee in common with the other Trustees commenced.

The Trustees in executing the plans of the founder as expressed in the trust deed, and the letter which accompanied it, laid down as a fundamental basis the following principles:—First, that the details of the Institution in all the departments should be arranged with especial reference to the intellectual wants and improvement of the working classes. And, second, that as far as might be consistent with the first principle, all interference with the plans or objects of other existing institutions in this city should be avoided. The night schools on the one hand, and the Astor Library on the other, afford without charge admirable facilities in special departments, which rendered it unnecessary

and inexpedient to attempt to offer similar privileges. Guided by these two principles the Trustees arrived at the following broad scheme, as best calculated to instruct, elevate, and improve the working classes of this city:

First.—Instruction in the branches of knowledge which are practically applied in their daily occupations, by which they support themselves and their families.

Second.—Instruction in the laws by which health is preserved and the sanitary condition of families improved; in other words, in personal hygiene.

Third.—Instruction in social and political science, by virtue of which communities maintain themselves, and nations progress in virtue, wealth, and power.

Fourth.—Instruction addressed to the eye, the ear, and the imagination, with a view to furnish a reasonable and healthy recreation to the working classes after the labors of the day.

This general scheme necessarily included both sexes within its scope, and hence it was decided to extend all the privileges of the institution to males and females alike. Of course, in adopting this general plan, the Trustees were fully aware it could not all be carried out at once, and that the respective divisions, although philosophic in their nature, must necessarily be intermingled to some extent in their execution. Nor is this any ground of objection, especially where the useful and practical can be mixed with the agreeable and the recreative.

It will be seen that up to this time the ground covered by the first and fourth divisions only have been occupied, and this because their necessity seemed to be most obvious. Early in October, the Trustees caused the following notice to be inserted in the daily newspapers:—

COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART.

The Trustees announce that since the execution and delivery of the deed by Peter Cooper, Esq., conveying to them in fee simple, without reservation of any kind, the property at the junction of the Third and Fourth avenues, commonly known as the
Cooper Institute, with all its rents, issues, and profits, they have been diligently engaged in organizing the institution upon the several trusts contained in the deed.

1.—The School of Design for Females will open for the reception of pupils on the 20th September inst., under the direction of T. Addison Richards, M. A., assisted by Mr. Robert O'Brien in the department of engraving on wood and copper. The design of this school is to prepare females to become teachers of drawing and painting, and to enable them to earn a livelihood by engraving. Pupils will be received into the industrial classes without charge, on complying with the rules of the school, which can be obtained at the office of the Union.

2.—Reading-Room. The great Hall on the third floor has been arranged as a reading-room, and will be supplied with all the leading foreign and domestic newspapers and magazines. It will be open after the 1st of November, from 8 A.M. until 10 P.M., free to all persons, male and female, of good moral character, who comply with the regulations. This department is designed especially for the use and instruction of the working classes; but none will be excluded so long as its capacity is not exhausted.

Attached to the reading-room is a gallery of art, in which are deposited the Bryan Collection, and other works of art, which will be open day and night, without charge to the public.

3.—Department of Night Instruction. Regular classes will be formed for instruction in architectural, free-hand, and mechanical drawing, (including the designing of furniture,) chemistry, mechanical philosophy, mathematics, and music. These classes are designed especially for the improvement of mechanics and mechanics' apprentices; but, as the arrangements are adequate for at least 800 pupils in each branch, no applicants will be rejected, unless the rooms are crowded, in which cases the preference will be given to the working classes. The instruction will be entirely free, but will be systematic, and continued orally, and by text-books and recitations, from about the 1st of November until the 1st of June. Only persons entering for the course will be received in any of these classes; but the public will be permitted to occupy the vacant seats at any of the lectures.

The instruction in chemistry will be given by Prof. John C. Draper; in mathematics, by Prof. B. S. Hedrick; in mechanical philosophy, by Prof. L. Reuben.

The drawing classes will be under the charge of competent instructors in the several branches, with special reference to the business of the pupils.

The instruction in music will be given by Dr. Charles Guilmette, and will consist of physiology, pathology, and Hygeine, as pertaining to the vocal and respiratory systems, classical solfeggio, vocalization, and lyrical declamation.

On Saturday evening, one lecture-room will be at the disposal of the students, for the purpose of debate and mutual instruction.

Applicants for admission to any or all these classes will register their names, ages, (which must not be less than sixteen years, except by special permission,) and residence, with a certificate of good moral character, without delay, at the office of the Union, between the hours of 9 and 10 A.M., and on Saturday evenings from 6 to 8, when tickets of admission will be issued.

In these departments no preliminary education will be required, except such as may be acquired at the public night schools, as the courses given in the Union are intended to impart such instruction only as cannot be got elsewhere by night, without charge.
each night in rotation. In the other sections a moderator is chosen, and the pupils examine each other. In this way they not merely gain knowledge, but they learn how to express it. This system is referred to here, because it will be adhered to in all cases where it may be practicable.

The rules and regulations adopted for the government of the institution are few and simple,* and the Trustees are happy to report, that they have been found amply sufficient for the purpose, the behavior of both students and visitors having been such as to secure the admiration and thanks of the Trustees.

DEPARTMENTS.

1.—The Class in Mathematics is under the charge of Prof. B. S. Hedrick, assisted by Messrs. Henry C. Thompson, John P. Appleton, James D. Wilson, and Charles McLean Knox. The number of pupils in attendance is 164. They represent a great variety of the professions and trades, as will appear in the tabular statement presented below.

Instruction is given in Algebra, Geometry, and Trigonometry, with the applications to practical science.

This class meets on the evenings of Monday, Wednesday, and Friday.

The Mathematical Lecture-Room will accommodate about eight hundred pupils, and four separate class rooms are assigned for Examinations and Exercises.

* 1. Attendance.—Pupils are required to be regular in attendance. The lectures will begin at half-past seven o'clock precisely, at which time the doors will be locked. Pupils absent without satisfactory excuse will be dismissed.

2. Visitors.—Occasional visitors are admitted to the classes of mathematics, natural philosophy, and chemistry, provided they enter before half-past seven o'clock, and occupy seats not assigned to pupils. To avoid interrupting the instruction in the other classes, visitors cannot be admitted to them without special permission from the Trustees.

3. Behavior.—Any breach of good behavior or violation of the regulations of the professors, will be punished by dismissal. Cleanliness in person and habits is required, and smoking strictly prohibited.

4. Examinations.—At the close of each course, pupils will be examined by a Board of competent examiners, and at the annual anniversary in June certificates of proficiency will be granted to those who pass satisfactorily.

2.—The Class in Mechanical Philosophy is under the charge of Professor Levi Reuben, assisted by Dr. P. H. Vanderweyde.

The number of pupils in attendance is 105.

The lectures are given on the evenings of Monday, Wednesday, and Friday. The lecture-room assigned to this course and to the course on Chemistry will seat about eight hundred pupils. It is arranged and fitted up with great care and expense, with express reference to its uses, and has attached a large laboratory and apparatus room, which contain the necessary appliances for these important branches of practical education, and the Trustees are careful to add from time to time whatever articles are required by the Professors for properly conducting the instruction.

3.—The Chemical Class is under the direction of Dr. John C. Draper, assisted by Dr. P. H. Vanderweyde. Instruction is given in the principles of Light, Heat, Electricity and Chemistry, with especial reference to their application to the Arts. The Class meets on the evenings of Tuesday and Thursday of each week. The number of pupils in attendance is 280.

Beside the regular pupils a large number of casual visitors have attended this course, which has been admirably conducted and has met with eminent success.

4.—The Class in Architectural Drawing is under the direction of Mr. John F. Miller, assisted by Mr. Henry Palmer and Mr. Clarence Cook. The number of pupils in attendance is 111.

It meets on the evenings of Monday, Wednesday, and Friday.

The rooms used by this Class as well as the Classes in Mechanical and Freehand Drawing, are spacious, and lighted in a manner specially arranged for the purpose. The instruction is given not for show, but with especial reference to the principles of mechanical drawing; mere copying is prohibited, but mechanical models are employed as the means of instruction. For this purpose a complete set of the Darmstadt models have been ordered from Europe, and a considerable portion of them have been received.

5.—The Class in Mechanical Drawing is under the charge
of Prof. Richard S. Smith, a graduate of the West Point Academy, assisted by Thomas D. Stetson and George H. Babcock.

It meets on Tuesday and Thursday evenings.

The number of pupils in attendance is 104.

The remarks made in reference to the Architectural Class apply also to this Class, which is in a most satisfactory condition.

6.—*The Class in Freehand Drawing* is under the direction of Prof. Richard S. Smith, assisted by Constantine Herzberg. It meets by sections on the evenings of Monday, Tuesday, Wednesday, Thursday, and Friday. The number of pupils belonging to the class is 102.

The Trustees regard the success of the night Drawing Classes with great satisfaction, as affording to the young mechanics of the city an opportunity to perfect themselves in their respective trades, and of which they have availed themselves in such numbers as to demonstrate the absolute necessity of the provision which has been made for their instruction.

7.—*The Class in Vocal Music, &c.*, is under the direction of Dr. Charles Guilmette, who has generously given his valuable services for this course.

The Class meets on Saturday evenings, and contains 380 members, of which 225 are males, and 155 are females. Besides giving a scientific knowledge of music with reference to the exercise of this delightful and pure recreation, many members of the Class prepare themselves to earn a livelihood as teachers, and members of church choirs. The Trustees were at the outset reluctant to undertake this course, but its success has demonstrated that the views of its necessity and value, entertained by Dr. Guilmette, were entirely correct.