

THE PRATT INSTITUTE.

WITH PICTURES BY LOUIS LOEB.



TWELVE students in its art department, five years ago, was the germ from which has sprung the Pratt Institute in Brooklyn, with its aggregate to-day of nearly four thousand students. Variety in its plan has come with development, but the conception of its founder underlies all its many lines of educational work, and binds them into unity. The Institute is not a heterogeneous grouping of departments. It is a collection of schools, each complete in itself, but all auxiliary the one to the other in the common task of helping man to help himself.

If the reader were being personally conducted through the Institute, he would not in all probability be taken first to the department of industrial and fine arts, though there are reasons why I should take him there at once; for there was the nucleus about which the other schools of the Institute have been gathered, and it is in a sense the central department of the Institute, being the one to which other departments look for the instruction of their pupils in graphic expression.

If, instead of taking the elevator, we had walked up the stairway, we should have found the art department already stretching out its hand to us. All the way from the basement to the top floor of the building are neatly framed photographs arranged in chronological order, and showing the historical development of architecture, painting, and sculpture. Besides material of this sort in the class-rooms and studios, the museum and library of the Institute contain much of interest to art students.

If our visit is made during the day, most of the students whom we see are those who have come for thorough and exhaustive training in art-teaching, or in some branch of industry or of fine art. Such students work five days of the week, both morning and afternoon. Then there are those employed in some trade or art during the day, who wish to gain such knowledge as will improve their prospects for advancement in their line of occupation. Such students work three evenings of the week. So popular are these evening classes that they fill eleven large studios. The students come year after year to perfect themselves in architectural drawing, in mechanical drawing, in drawing

from the cast and from life, or in clay-modeling and wood-carving. A decidedly smaller number comprises those so situated that they cannot study during the whole day, but come for instruction in the afternoon three times a week.

When these students, with their varied aims, have filled the rooms, the scene is most attractive. Perhaps the chief attraction to the ordinary visitor is that all seem to be striving after and making some tangible attainment. The thoughtful onlooker sees rather, in the very atmosphere of such work, a silent culture which may only be dimly hinted at by the thing attained; and it is true that the endeavor in the art and other departments of the Institute is to make the work not only practical but educative. Nevertheless, as we look at this group drawing from casts of the antique, yonder one working from life, this from the costumed figure, and yet others painting still-life groups in oil and water-color,—students, in short, doing all phases of fine-art work,—the practical eye can see that most excellent results attest the value of the instruction, and the talent of many of the students. There seems to be something in the method here which stimulates originality in the student, and, while checking wrong tendencies, allows the individuality of the pupil to come out in his work. One thing in the policy of the school deserves mention. Any visitors acquainted with art instruction would notice the large number of teachers. Not only are there many instructors, but they are employed for a long enough time during the week to enable them to give the student personal criticism and aid.

Among the students of fine art, some of these whom one sees drawing from the cast or working in water-color may have as their aim industrial art. The principle kept constantly in view is *that efficient special training must rest upon sufficient general training in art*. In the industrial-art studios the good results of this intelligent policy are manifest in the specimens of finished work, and in much that is unfinished. Here are designs for wall-paper, carpets, book-covers, knife-handles, brass-work, fine work in silver and gold, all giving evidence of a training artistic, educative, and practical. Students are not allowed to work with the idea of selling everything they make, but the advanced class are permitted, after submitting designs to the instructors, to sell what they can find

a market for. One thousand dollars' worth of designs was sold by the students last year.

Leaving the industrial-design studios, we come to a room where numerous specimens of work indicate very good results in wood-carving. In addition to instruction in the use and care of tools, and in technical methods in wood-carving, the student is required in the two-year course to practise free-hand drawing, design, clay-modeling, and to study the principles of construction. Across the hall from this room is the clay-modeling studio, where work is done both from the cast and from life. Here are gods and goddesses, and a group of earnest young women putting their best thought for the time being into clay. These are students of the normal art course. Most of them have had much experience as teachers in public and private schools, or have been engaged in various lines of art work. No other work of the art department is more vitally important than the training of competent teachers of art. The first graduate of the course went out in 1890, yet already sixty-one are employed in different parts of the country. Some are supervisors of drawing in large cities, others are teachers of drawing in normal schools and in high schools, and directly or indirectly are influencing the work of nearly 5000 teachers and of more than 245,000 students.

Next door to the clay-modeling studios are the architectural- and mechanical-drawing rooms. The aim of the instruction here is to turn out scientific, broadly trained draftsmen. The course of two years in each subject seems to be most carefully arranged with a view to much more intelligent and thorough instruction than the ordinary draftsman gets. These young men now working at the drawing-tables at some problem in construction or in design and composition, we may see later in the shops of the department of science and technology. Here we have one of many instances of the essential oneness of the Institute, the helpful reciprocity active between the different departments. It is considered that a broadly trained architectural draftsman should become familiarly acquainted with building methods. In the shops he is given practice in joinery, framing, and details of house-building, and studies the processes and materials employed in masonry, plastering, plumbing, and house-painting. In the mechanical-drawing course the student goes to the shop to learn joinery, turning, molding, forging, and machine-shop work. Both architectural- and mechanical-drawing students are given a course of experiment in the testing laboratories. Besides work in instrumental drawing, they are also required to practise free-hand and instrumental perspective, pen and pencil sketching, design, color,

and clay-modeling. That so much work in fine art should be made an organic part of the curriculum in the architectural-drawing course is certainly a favorable omen. It would seem natural enough that those who have so much to do with the antipodes of the esthetic as mechanical draftsmen, should need such training; but this fact has not been so generally recognized as to mar one's pleasure at seeing what is being done here in fine art in the mechanical-drawing course.

The art hall of the department, a large studio on the sixth floor, has top and side lights, and contains a conveniently arranged and most carefully selected collection of photographs illustrative of all phases of art. Beneath it are the art-needlework rooms, where the student is taught not only all kinds of embroidery, but is instructed in the making of designs. Lady visitors should not go to this room first, for the exquisite examples of ecclesiastical embroidery, tapestry, and banners, besides a thousand and one articles of household use in delicate and artistic designs and harmonies of coloring, will tempt them to stay too long.

Art-needlework suggests a natural transition to the department of domestic art, which gives morning, afternoon, and evening instruction in sewing, dressmaking, millinery, and physical culture to over twelve hundred students. Without any precedent in this country,—it might almost be said in the world,—the courses of instruction have been systematically graded, so as not only to insure a thorough knowledge of the subject, but to impress upon the pupil the value of order, accuracy, and economy. Besides instruction in methods and manipulation, the courses are designed to cultivate the pupil's taste. She is constantly led to consider the style of the making and coloring of hats and dresses from an artistic and hygienic standpoint. The instruction is broadened also by talks given in the class-room on the history and manufacture of materials and textiles used, and upon colors and form. Perhaps we shall hear the director of the department giving one of these talks as we walk through the pleasant, well-lighted rooms. If so, we shall listen to the doctrine that the desired end of the training given here is true economy of time, labor, and money in the attainment of beauty; and that this end may be more easily gained by studying the laws of art and nature, and trying to apply them to each article of dress or of household decoration. This is to be accomplished by putting much thought and some money into one really durable and beautiful thing in harmony with its use and surroundings, even though wilful fashion fly off at a tangent. This strikes a man as good orthodox reasoning; whether it is too far beyond the age to be more

than a dream remains to be seen. It is also argued by those who have shaped these courses that physical culture is essential in teaching the principles of artistic dress, since a well-proportioned body is necessary to symmetry of effect in dress. There is, therefore, a course in callisthenics, which students are encouraged to take. A course in drawing is given under the direction of the department of industrial and fine arts, beginning with pencil practice, and including study of drapery, drawing of waists and gowns, practice in use of color, problems of design, and study of the human form.

All of this suggests the danger of making these courses too esthetic to help the very classes most in need of help. But there is a great elasticity about the general plan of the department. There are one-year courses for training professional dressmakers and milliners; there are evening courses for those already engaged in work who wish a broader theoretical knowledge; and there are classes to which those may come who desire to learn millinery and dressmaking for household purposes. It seems to me that nothing could be more democratic than the ideal of the Pratt Institute. Here are girls who have known the pinch of want taking up the work for a trade. Near by is a girl who comes from a household where are many children, and she is acquiring the knowledge for use in helping to clothe younger brothers and sisters. Side by side with these may be found the society girl, who is going into the thing for fun, but soon finds it no joke; the wealthy girl, who is managing a mission sewing-room; and in a room near by are the sweetest imaginable little seamstresses from six to twelve years of age. It is every one according to her desire here. There is an opportunity for broad and exhaustive training, or for more special instruction.

From the rooms of the domestic-art division a short trip in the elevator brings one to the kitchens of the domestic-science division. Here is a most unique exemplification of the adage, "Cleanliness is next to godliness." Pure air and plenty of it, limpid sunlight, spotless floors, tables, and cooking-apparatus—all this is most interesting and invigorating to one who is haunted with the ghosts of unforgotten boarding-house dinners. These cases of food products, and of the chemical constituents of food; the charts showing what the food must supply to the human body; the models of different cuts of meat—all these facilities for instruction are only a hint of what is attempted in the kitchens, lecture-rooms, and laboratories. Even a carefully prepared exhibit can but inadequately suggest an educational curriculum. In a word, it is the train-

ing of women in the sciences underlying the right administration of the house, and in the arts based upon those sciences.

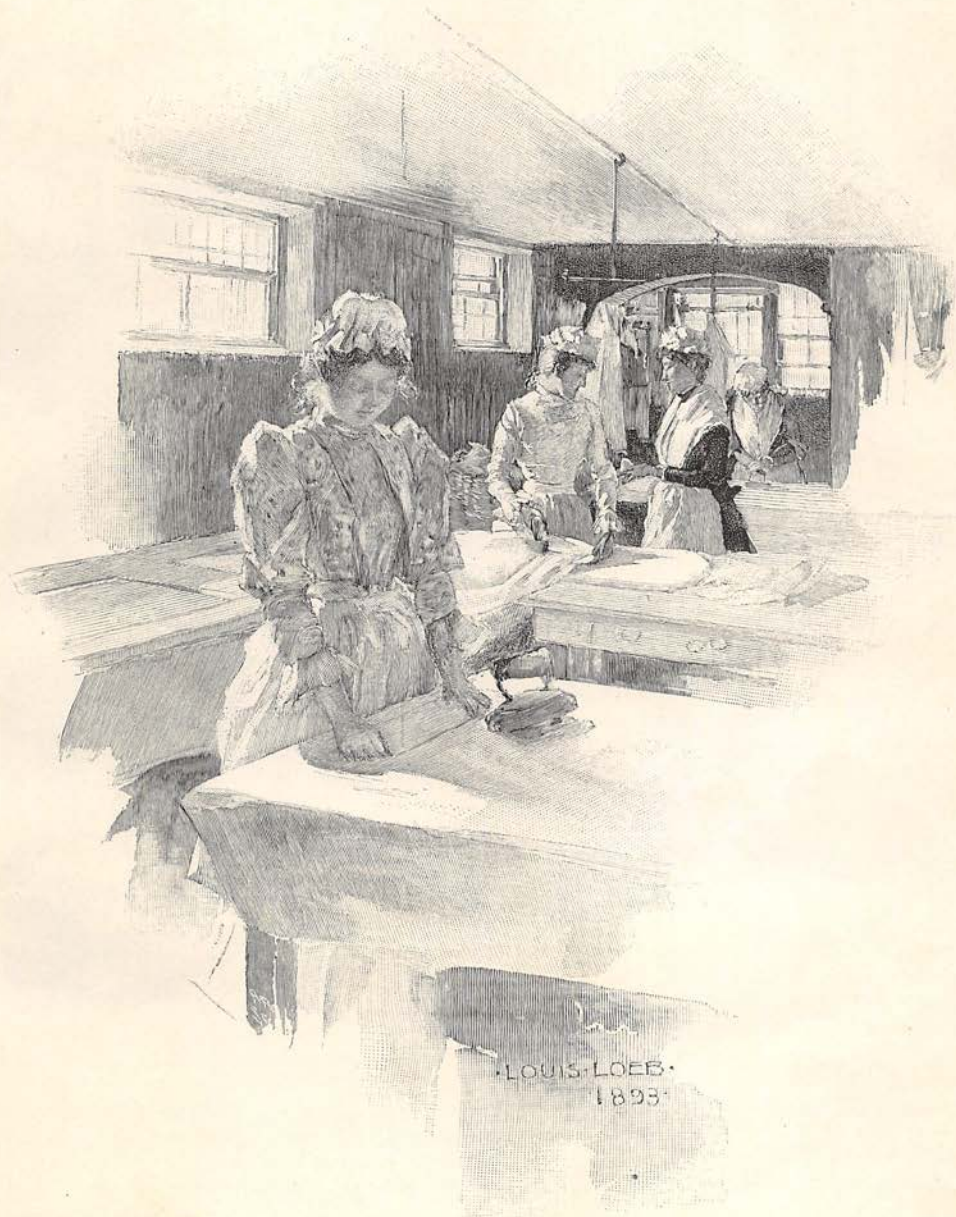
Here is the normal class in domestic science taking a lesson in practical cooking; but with these students the knack of the culinary art is a subordinate accomplishment. As they are to be teachers, their time is chiefly employed in studying the science at the basis of the theory, and the theory underlying the practice. It is a liberal course which they are pursuing, including German, the physical sciences, biology, psychology, household economics, and applied chemistry. All instruction is by lectures, quiz, and laboratory practice. Besides these as theory, they are given practice in cookery, and in laundry work. It seems at first a far call from German to laundry work. But there is close logical sequence throughout the curriculum. The same students now studying the proportion of ingredients, effect of heat upon food, or engaged in the creation of some toothsome dish, may in an hour be at the Hoagland laboratory studying bacteriology.

Besides the classes in cooking open to normal students, there are a Saturday-morning class for school-girls, a housekeepers' class, and a course for physicians and nurses. In the above the instruction emphasizes theory. There are other morning classes, and also classes in the evening where cooking is studied with particular reference to practice.

Here is an interesting class in hygiene and home nursing. It is not intended to compete with the hospitals in the training of nurses, but to give the mothers and sisters of our households instruction that will fit them to meet emergencies coolly and effectively, and will make them more efficient in the care of the sick. The boy on the floor has just been drowned (hypothetically), and the physician is giving the class an object-lesson in the treatment of such cases. Robust as the patient looks, he is a youth of many maladies. Ever since the year began the class have been putting his broken arms and legs into splints, bandaging his contused head, poulticing him, and, in brief, doing all in their power to make him comfortable.

The laundry course rather astonishes one with its revelation of the variety of processes, and the range from coarseness to exceeding delicacy of material dealt with. We who have seen our hard-earned belongings go to the tub—to return, alas! in how altered a condition—breathe a prayer that many such courses may send out their influence through the kitchens and laundries of the land.

If one is a privileged guest at the Institute, he can speak from the fullness of appetite



A CORNER IN THE LAUNDRY—DEPARTMENT OF DOMESTIC SCIENCE.

ENGRAVED BY A. E. ANDERSON.

awakened and satisfied by the delightful cooking turned out by its classes. So popular are they that the number in each is limited. The latest class organized is a camping-class of ladies and gentlemen, the pioneers, it is to be hoped, of a general movement toward reformation in the camp kitchen.

Both of these departments—that of domestic art and that of domestic science—are really divisions of one great department giving instruction to nearly two thousand pupils. While

we are yet in the hallway of this department, making our way toward other scenes, we come suddenly upon the myriad click of type-writers. We are all so familiar with the sound and sight that it is hard to realize that the invention is as modern as it is. In this room, an outpost of the department of commerce, a multitude of young girls are learning type-writing as a means of livelihood, or are acquiring the art as a part of their training as amanuenses. The department gives thorough training, morning,



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“THE DAILY NEWS CO.”

ENGRAVED BY E. H. DEL'ORME.

afternoon, and evening, in type-writing, phonography, bookkeeping, penmanship, English, Spanish, and arithmetic. Hundreds of young men and women are making a living by type-writing and phonography — arts which, added to a good education, make the amanuensis. Yet it was not earlier than 1872 that Mr. Cooper was persuaded to allow a class in phonography to be organized, and thus to open the field of stenography to the thousands young men and women who are now occupying it.

The public has become accustomed to thinking of business colleges as not worthy of serious thought. It is reassuring to find that the policy here is conservative, and that students are not admitted to any of the classes without such examination as will prove sufficient intelligence and education.

The development of the school is to be along the broad lines laid down by Sir Philip Magnus, who, after showing the advantage Germany has reaped from her superior schools for commercial training, says: “The study of



BALLOTING.

modern languages and of commercial geography, including the technology of merchandise, and the elements of science underlying it, constitute the groundwork of commercial education." Next year will see the beginning of a two-year commercial course, which will offer a broader training in commerce than has heretofore been attainable in any business college. The *raison d'être* of this course is suggested in the following quotation: "Boys are, as a rule, so anxious to leave school and obtain employment that they think they cannot afford the time necessary to acquire a high-school education, and devote a year or two in addition to commercial studies. The remedy for this is the establishment of schools to take the grammar-school graduate and give him a two- or three-year course in combined high-school and commercial work." The curriculum of the regular course will include history; commercial, physical, and industrial

geography; commercial law; mechanical drawing, and civics; English, political economy, and bookkeeping, or phonography and type-writing.

Crossing an iron-covered bridge from the department of commerce, we are in the high-school building. Perhaps we shall have a more vivid and lasting impression of the system of instruction in the high school, and of the nature of its curriculum, if we imagine ourselves to be spending a school-day with the classes. First, we shall meet with the whole school at chapel. Here, after the devotional exercises, the daily newspaper of the school is read. It is called the "Pratt Institute Daily News," and has a managing editor (one of the teachers) and twelve assistant editors, who also hold every other office on a newspaper from artist to printer's devil. Blackboards stretching around three sides of the assembly-room are filled each morning with important news,



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STILL-LIFE CLASS — THE AQUARELLISTES.

ENGRAVED BY F. H. WELLINGTON.

each editor being answerable for the news he places upon his blackboard. Maps and pictures are drawn to illustrate important events. Biographies are accompanied by portraits. The exercise lasts only twenty minutes, and doubtless has its value not only in keeping teachers and students up to date, but in its educative discipline. Other exercises of the school, in-



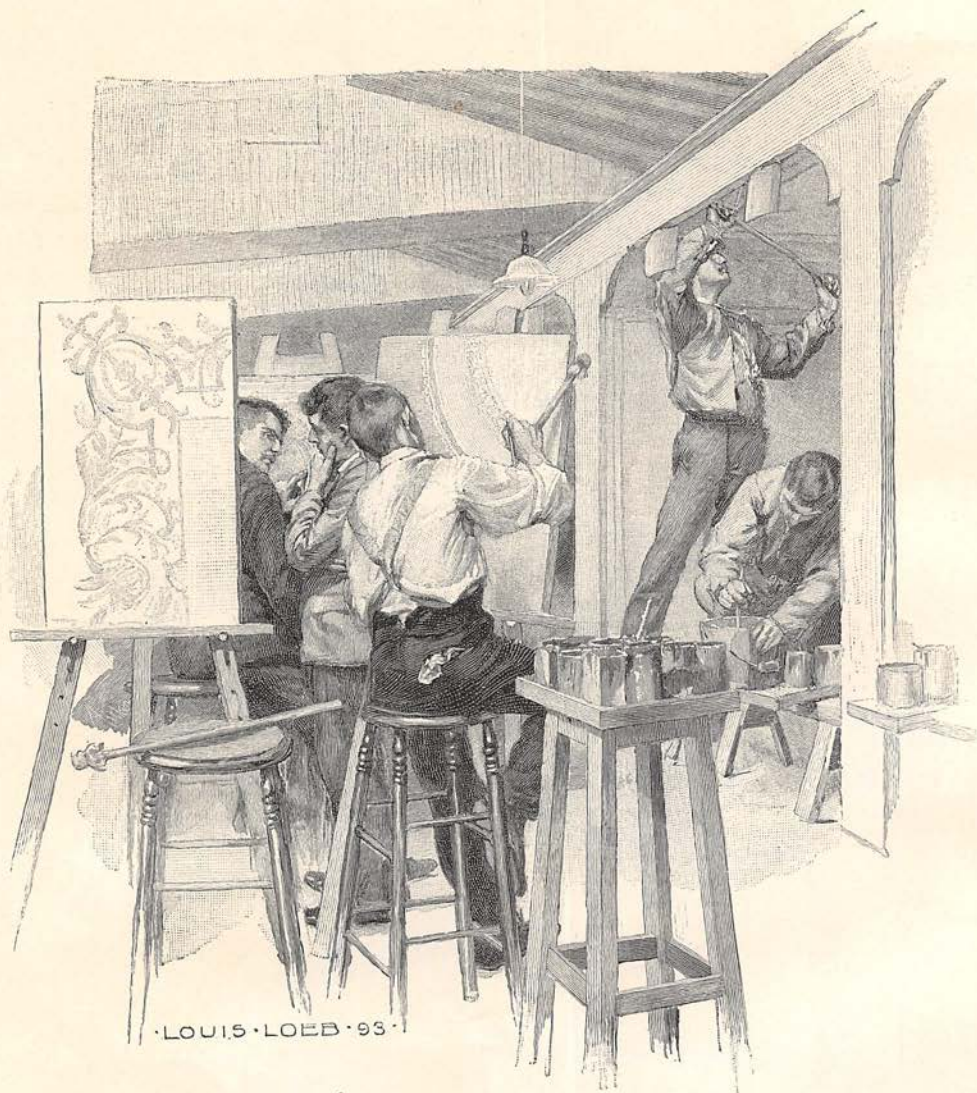
ART DEPARTMENT — COSTUME CLASS, ART HALL.

ENGRAVED BY J. W. EVANS.

tended to be supplementary to the study of civics and a training in practical politics, are campaign speaking, caucus, joint session of House and Senate, balloting, and registration.

The classes now disperse to their class-

rooms, and we find ourselves in a cheerful class-room attending a recitation in English. The hour is passed in very practical composition work. Criticism on the part of students and teachers is to the point, and the conduct



ENGRAVED BY PETER AITKEN.

DEPARTMENT OF SCIENCE AND TECHNOLOGY—FRESCO CLASS: DESIGNING AND EXECUTING.

of the recitation suggests not only intelligent preparation, but good class-room method. Written exercises are handed in, perhaps in the second stage of evolution, bearing the teacher's annotation and the students' corrections. If some magic rug could transport us to the literature-class up-stairs, we should find drawing hand in hand with literature study. At the blackboard are students making rapid sketches of costumes, of persons, and of buildings illustrative of the text. This is interesting as an experiment, and the students seem attentive. One of the greatest problems in school work is to give literature study its weight as an element of the first importance in the curriculum. Any method or methods which cultivate in the student not only interest but taste in

literature are legitimate. Such is the aim in the use of the devices I have mentioned, and in a variety of others. The school is evidently not in the well-worn ruts. Now the class goes to a botanical class-room, where there are good microscopes in number sufficient for individual use. Here we come at once upon one tendency in all the work of the school. In literature, language, and science the laboratory method is employed. Another flight, and we find ourselves in the history class, where the blackboard illustration is in the form of graphic charts invented by the students, and showing the chronology and philosophy of the subjects as they understand these. Map-drawing is a daily class-room exercise.

In mathematics and in the sciences, as well



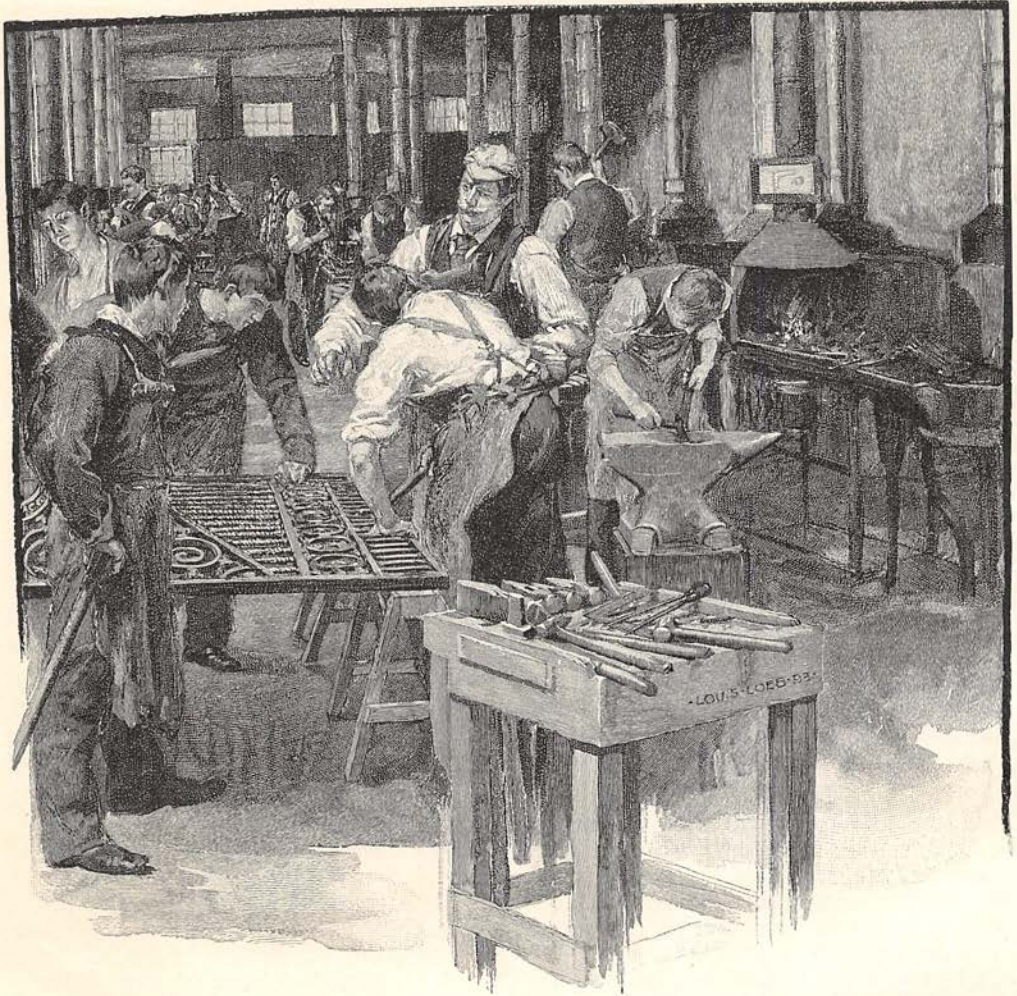
DEPARTMENT OF DOMESTIC SCIENCE — CHEMISTRY.

ENGRAVED BY C. SCHWARZBURGER.

as in the studies mentioned above, the student is, by a variety of methods and by judicious questioning, thrown upon his own resources. His training is intended to be for increase in power, whether that comes through acquisition or through reasoning, or through both. It is not that so much ground shall be traversed, that such and such examinations shall be passed, but that the student shall grasp principles first, facts second, and learn to generalize and correlate. Such is, I am informed, the ideal striven after by the school. A long step in the right direction is a college preparatory class, supplementary to the regular course. This obviates the necessity of unduly pushing pupils in the regular course. From the botany-room the class is, after an hour, dismissed to the drawing-room, where we find them drawing from the cast. After this exercise and a recess for lunch, the boys go to the shops of the department of science and technology, where for an hour and a half they are engaged in pattern-making. The girls spend the same length of time in sewing in the department of domestic art and science. If we had cast in our fortunes with the second-year class, we should have gone with them to the physical lecture-room and laboratory for their science. But in each year of the course drawing and manual work are an organic part

of the curriculum. It is this feature which chiefly challenges public attention. Unfortunately, it is a feature which has given rise to much misapprehension, even among intelligent persons. As we go down to the shops with these boys, and watch them for the time being transformed into Vulcans at the forge, or learning by practice the secrets of founding and tin-smithing, or intent upon the making of a close joint in the carpentry shops, the question naturally comes, What part does all this play in general training? The theory is that while literature cultivates esthetically and ethically, while science stimulates observation, while mathematics trains the reasoning powers, manual training disciplines and strengthens the will.

In the third story of the high-school building is a room which reminds me that a kindergarten department has lately been organized. The free kindergarten, in which the students of the kindergarten training-class have living contact with the work which is to be their profession, is in another building. Perhaps we can imagine them there learning the secret of helpful fellowship with child life. The pupils of the regular kindergarten training course of two years are brought much under the influence of the art department, that they may drink in as



FORGE SHOP — FINISHING THE GATE.

ENGRAVED BY C. W. CHADWICK.

much of the artistic atmosphere as possible. It helps them to appreciate the beautiful through the pencil, and to gain in power of expression. The whole course is carefully arranged so as to be an efficient training for kindergarten work, founded upon a sound educational basis and a true spiritual insight. The psychology taught is that of Froebel, as found in his "Mutter und Koselieder." Besides the training-class, classes of young mothers have been formed to study the same book. Here they can learn what the proper care of children means, can gain insight into child nature, and can see how the faculties of every child may be quickened and directed.

Directions are given for introducing into the nursery the kindergarten materials in the logical order of Froebel.

We now leave the high school, going through the great central office of the building. Here

are the secretary's rooms, and the offices of the Thrift, a savings-bank and building-loan association for the encouragement of habits of thrift. Amounts as low as five cents are taken on deposit. Here also is the editorial sanctum of the "Pratt Institute Monthly."

On the opposite side of the outer hall is an assembly-room used for public lectures, given as supplementary to the work of the various departments. Here also meets the choral society of the music department of Pratt Institute. If a stranger to the tonic sol-fa system should happen in when the choral society is practising, he would see much to astonish him in the feats of the singers in sight and sound reading, and in the rendering of the most difficult and classic music. Besides the advantages of the choral society for the practice and rendering of the best compositions, the music department has thoroughly organized courses. There is a

course for the training of teachers and supervisors of music, which has already graduated one class of successful teachers. A lecture course in music is open to all pupils. There is a class in kindergarten color-music, and a juvenile course held after school hours. Tonic sol-fa is the system in vogue, and the inspiring motive of the school's work is to bring all that good music means of esthetic and ethical influence within reach of classes now too much excluded from such advantages.

I have reserved one of the most interesting sights of the Institute until now. We are in the technical museum, which contains so many interesting things that the visitor is usually undecided what to look at first. In fact, the collection, though it contains much to interest the casual visitor, is intended mainly for the students. It illustrates the changes through which the native product passes in the process of manufacture. Here we see the lump of clay at one extreme, the graceful and most exquisitely artistic vase at the other. With this idea kept prominently in mind, much may be learned in a few hours here that many hours in a library could not so clearly reveal. The varied usefulness of such a museum in any educational institution and community at once suggests itself.

Stepping into the elevator, we drop like a plummet to the first floor, and, turning to the right, are in the reading-room of the library, in a realm of silence, "far from the madding crowd." The large reference library back of the main reading-room has gained a reputation more than local. As we talk with the well-educated attendants, who are here on duty all day long, and at night when the library is open, we can guess the reason for the growing reputation of this part of the library. In these days time is as precious to the library investigator as to the business man, and any institution which meets him half-way to help him in his work earns his sincerest gratitude.

Retracing our way from the reading-room, whose two hundred periodicals are arranged very conveniently for use, we come into the free circulating library. Here are all the usual facilities to be found in circulating libraries, such as well-arranged and accessible catalogues, and, last but not least, intelligent and most obliging attendants. Even the poor woman who cannot remember the name of the book she wants, but knows it had red covers and was oblong, is sent away happy, if possible. Upon the walls are bulletined the resources of the library as those bear upon topics of present interest. Discussions growing out of the New Orleans incident, a festival such as Arbor or Memorial Day, the death of celebrated men, such as Spurgeon or ex-President Hayes—all such events

and occasions find their bulletin-boards covered with library references. Just at present we should find a great deal cognate to the World's Fair. The general public has free use of the books in the library, and teachers and students have special privileges. A course of talks on the use of reference-books is given chiefly for their benefit. The library has grown from 1000 volumes in 1888 to 40,000 at present, and is growing at the rate of five to six thousand volumes a year. Last year it had a circulation of 170,000 volumes. In some respects this library is unique. It differs from most circulating libraries in being connected with an educational institution, and from most school and college libraries in having the free and public circulating features. A branch library in Williamsburgh has a stock of 2000 volumes, and a yearly circulation of 28,000. Some of those whom we see busy now at the library shelves are members of the class in cataloguing and library methods, which attempts to train librarians for the smaller libraries. The course includes English and American literature and English composition. The attendance is good, and graduates are doing satisfactory work in desirable positions.

Descending one flight of stairs from the library to the basement, and walking through the large Institute restaurant, we come out upon a spacious quadrangular court. Crossing this diagonally, we enter the department of science and technology. This department shares with the department of domestic art and science the direction of the high-school students in manual work, and in addition furnishes their instruction in mathematics and science. Its other field is the instruction in scientific and technical subjects, and in the principal mechanical trades, of classes quite distinct from the high school.

We find the physical and chemical laboratories of the department on the fourth floor of its building. At night these are full of students, whose earnestness is in their faces, and is patent in the fact that after a hard day's work they are here at all. Such classes are peculiarly inspiring to the teacher, and I sometimes think that because of the receptiveness of the pupil and its reflex influence on the teacher more is accomplished in the same time than in ordinary day-classes. In both physics and chemistry these students are afforded all the facilities of laboratories which have been developed to an exceptional degree of efficiency. Individual experimentation is specially provided for and insisted on. The courses of study have been arranged with extraordinary care to secure the best results in acquisition and in training within the time allowed for each course. In physics the subjects emphasized are mechanics and

heat, because of their practical bearing. The laboratory work follows the lecture, and gives the student opportunity to verify by actual experiment what he has learned in the lecture. The course in chemistry extends through three years, and includes a large amount of laboratory work. The elements and inorganic compounds, and their characteristic reactions, are studied in the first year. A thorough course in qualitative analysis runs through the second year, followed in the third year by practice in quantitative analysis and assaying. Every effort is made to give the student an insight into the conditions of actual practice. Many of the students in these classes are already engaged in manufacturing establishments where a knowledge of chemistry is necessary. The other scientific subjects taught in the evening are algebra and geometry. Care is taken to present the subjects simply, and as a direct preparation for the course in technology.

Under technology, the instruction is on the subjects of electrical construction, steam-engine, strength of materials, and machine-design. These classes reach young men already engaged in some technical pursuit, but in need of broader scientific knowledge. The marvelous extension of the application of electricity has made an imperative demand for such courses in electrical construction as this department offers. In all the technical subjects the instruction is by lectures, reinforced by laboratory practice. Even a visitor void of all mechanical trend finds something attractive in the sight of these young men computing the efficiency of an engine in the steam laboratory, or, in the testing laboratories, testing the strength of metal wires, or of material used in construction. And whatever impression one gets is deepened by the reflection that this is not play, but work which is both educative and of direct practical moment to the student.

The trade-classes are significant of that change which has come into the modern world from the introduction of the principle of division of labor. They are an attempted substitute for the old apprentice system, and are intended to give the greatest result at the least expenditure of time. This means that the learners shall be given a course of carefully selected exercises, each one of which illustrates a new principle.

In the carpentry shops we find a model house almost finished. It was built by students, and in building it they have seen and practised all the processes of house-building. The same principle holds good in the teaching of plumbing and fresco-painting. An encouraging sign in these trade-classes is the coöperation of the trade associations.

The classes in fresco-painting deserve special mention, so praiseworthy is the attempt to elevate the standard in an art which is with us

so much in our households. Here are the learners, working in little three-walled rooms, plastered on wall and ceiling. The instructor tells us that the purpose is not only to supply instruction in the technical practice, but to provide for thorough study of fresco-design. In the first year of a three years' course practice in technical operations is given. In the second year this technical side is left behind, and considerable time is spent on drawing from the flat and from the cast. The last year is devoted to composition of ornament, and to production of finished designs for friezes, panels, and ceilings.

The Pratt Institute is visited every week of its yearly session by hundreds of visitors. It is likely that only a small percentage of these grasp the scope or significance of the mission which the Institute is trying to fulfil. At the World's Fair may be found an exhibit so arranged as to show the detail and methods of the training, first by departments, then by courses, then by grades. Each department has its alcove, each case in each alcove containing work, charts, or other media suggestive of the progressive training afforded in the courses of that department. The methods and curricula in courses where the results of training do not become apparent to the eye in concrete material form are of course difficult to suggest. But even in the purely intellectual curricula much ingenuity has been shown in the indicating of method.

In addition to the general Institute exhibit above referred to, there is an alcove showing the work of the women pupils and graduates. The former is a presentation rather of the educational phase of the work; the latter aims to show how, while thoroughly educative, the Institute courses are valuable as a training in the arts and industries by the practice of which women may become self-supporting. The significance of such an exhibit cannot be even suggested in a few words. It is easy to talk sounding words about woman's emancipation. On the floor and walls and in the show-cases of this little room there is the blazon of a great victory. It is here evident that woman has not been crushed out of the battle for bread by the indiscriminating competition of the times. If invention introduced complexity into the industrial system, it also opened the way for woman's taste, skill, and deftness of touch. Almost every piece of work here is in some way connected with the idea of home. Woman's true emancipation, it would seem, does not take her from her mission as the maker and glorifier of home. The exhibit includes work done by women pursuing sixteen different self-supporting occupations learned at the Pratt Institute. The drawings, articles manufactured from stu-

dents' designs, wood-carvings, dresses, bonnets, etc., cannot here be described. The whole exhibit is highly creditable and very interesting. Of the great host of 2,700,000 women who are making a living in professional or in industrial occupations, 1320 are known to have received their training at the Pratt Institute. From the normal art course have gone out 61 supervisors and teachers of drawing whose annual salaries average \$768.06. Graduates from the courses in design, art-needlework, and wood-carving are holding positions as teachers, or are serving as designers in well-known establishments, or are practising their professions independently. Three alumnae of the architectural course hold good positions in an architect's office. Ninety-six of those trained in cookery and laundry work are earning a livelihood, and doubtless exerting an influence for good; for what is more redolent of ethics than a well-cooked steak, or where will you find more character than in a well-laundered shirt-bosom? From the courses in sewing, dress-making, and millinery, 3888 women have graduated. Of this number 44 are teaching, and 589 are practical workwomen in their own specialty. Sixteen of the 44 teachers are earning an aggregate of \$12,950, or an average of \$893.75 each. The classes in phonography, type-writing, and bookkeeping have trained 704 women as stenographers and bookkeepers. Of this number 486 have taken positions at an average salary of \$12 a week. The school in library training opened two years ago; and of its 34 alumnae, 21 have positions as assistants in libraries.¹

In reflecting upon the work of a great educational institution, especially one yet in its infancy as far as age is concerned, a natural inquiry is, What of the future? There are rocks ahead to be avoided, there are headlands to be weathered, and havens of opportunity to be gained. The building which the trustees have planned, and which it is hoped will be ready for occupancy in September, 1894, suggests something regarding the spirit and intention of the founder of the Institute. Though they are impressive because of massiveness and height, the present buildings of the Institute are, to say the least, not classic in exterior architecture; the reason for which was not a desire to limit in expenditure, nor a lack of appreciation of the beautiful, but a fear on the part of the founder that the idea lying in his mind might prove impossible of realization. Hence the

¹ The information in the above paragraph is taken from a pamphlet published for distribution at the World's Fair.

main building was put up so that if the school should not be a success, the structure might serve as a factory. The new building is to be not only admirably suited for its intended uses, but a thing of beauty within and without. Greatly increased accommodations for the library will be particularly valuable in its reference department. I know of no school having a better-managed reference library than that possessed by the Pratt Institute. In its new quarters it will have much greater space for growth, and will be enabled to offer largely increased facilities. If the ideal of the director of libraries is even approximated, the usefulness of the library to the various departments of the Institute must be incalculable. Another significant feature is an auditorium with a capacity for six hundred. Here are to be given courses of lectures bearing upon the work of the various departments. It is to be hoped that, not unmindful of the importance of their high school, the academic department of the Institute, lectures in history and literature may be heard in this exquisitely decorated auditorium. In the large art museum, which will occupy nearly all of the second floor, will be found casts illustrating the development of sculpture, ceramics, wood-carving, wrought iron, textiles, etc. Here the students may find material for object-lessons in the fine and the applied arts. On this same floor is a gallery for the exhibition of pictures. Not only will the honor productions of Institute students be displayed here, but occasional loan exhibitions will also be held. The art department will occupy the third and fourth floors, and the arrangement of studios, and the lighting of each, leave little to be desired. Broad balconies run about the central court of the building, and all rooms of the third and fourth floors open upon them. The walls of these balconies are to be hung with hundreds of Braun carbon prints illustrating the historic schools of sculpture, painting, and architecture, in such a manner as to form a large museum collection of these prints, which can be used by the public or by students.

Very imperfectly, and only in its general features, appears in the foregoing sketch an educational institution which is the living memorial not only of the beneficence, but of the character of its founder. I suggested at the beginning of this article that the germ of the institute was the twelve students who first sought its instruction. In a deeper sense, the impulse, or rather the steady conviction and faith, in the heart of one man was its creative cause, and is yet its vitalizing principle.

James R. Campbell.