THE NEW YORK ARCHITECT

VOL. V. JUNE 1911 No. 54

PUBLIC BUILDINGS*

By ERNEST FLAGG, F. A. I. A.

DEALING with the plans of cities, the placing of public buildings, and the rearrangement of streets, one seldom finds ideal conditions. Cities are seldom made out of whole cloth; a case like that of Washington does not occur once in a century. They start from small beginnings, and by the time they are large enough to require important public buildings, their habits are formed and changes can only be made with difficulty and at great expense.

City plans in this country can generally be classed under two heads—those which are of accidental origin and those which are of commercial origin. Neither type lends itself well to an artistic grouping of public buildings, or, as it is called, the establishment of civic centres.

If the city is old, the streets are apt to be narrow and crooked. If it is new, the plan expresses no higher aim than the desire to obtain the greatest possible number of city lots to a given area. In either case the open spaces are few in number and of small area.

At the centre all the desirable sites are occupied and land is expensive; in such localities it is almost impossible to rearrange the streets so as to provide a suitable setting for a group of public buildings.

American cities of to-day are unlike any others of the past, and public buildings intended for them should be considered in view of this fact. Rules which apply elsewhere require modification for our use. Background and scale must be studied from a new point of view.

In order to understand these conditions, one should know something of the causes which have led to them.

Within the last twenty years the steel frame and elevator have wrought a most extraordinary change in our way of building for commercial purposes, but public and private buildings have not, as yet, been much affected by the new methods.

A revolutionary change in construction, such as this, is a thing of rare occurrence; to find a parallel to it one must go back to the last years of the twelfth century, when what is called the Gothic method of vaulting made its appearance and, with incredible rapidity, spread all over Western Europe. Under normal conditions, the new method of construction should produce a new style of architecture. This is precisely what did happen in the twelfth and thirteenth centuries, when a whole new set of forms suggested by the new constructive methods and exigencies were invented, and the so-called Gothic style was created.

Unfortunately, architecture in America is not in a normal condition; it is, indeed, in a most abnormal condition.

In past ages architectural progress has been an orderly system of evolution. All building within a radius, which was sometimes contracted and sometimes extended, followed a common line of development; change was gradual, and fashion varied as a

* An address delivered before the Third Annual Town Planning Conference, held in Philadelphia, May, 1911.

result of the combined efforts of all the minds engaged on it—each builder trying to improve upon what he saw about him, and working in a medium with which he was perfectly familiar.

With the great multiplication of books of travel and illustrations from foreign lands, which began in the latter part of the eighteenth century, and which received such an impetus about the middle of the nineteenth century, through the introduction of photography; when pictures of buildings in all parts of the world were placed within the reach of everyone, the horizon of the builder was broadened; and, strange to say, with the most pernicious consequences. He was no longer satisfied to build in the style of his time and country, and to try to improve upon what he saw about him; he found it easier to copy than to invent. With the flood of illustrations came the desire to reproduce for modern use the buildings of every age and clime. America was not the only place visited by this craze for incongruous types; it was, however, the one where the disease was, perhaps, the most pronounced and where the results were the most comical.

Even France, whose architecture has always been characterized among the nations of Europe by the greatest restraint, sobriety and good taste, did not entirely escape the contagion, and under its baneful influence, during the early years of the nineteenth century, architecture in that country sank to the lowest ebb it ever reached before or since.

In the United States, after the Civil War, all the traditions which had given such charm to the productions of Colonial days died out, and an era of bad taste and vulgarity set in which is only now beginning to give way under the influence of the French school—an influence which has been applied directly through our young men who have gone there to be taught, and indirectly through the numerous schools of architecture which have sprung up here as a result of its teaching.

In the midst of this chaos and confusion, with public taste at as low an ebb as it has probably ever reached among people who claim to be civilized; with architecture, for the most part, in the hands of men who had had little training in, or knowledge of even the elementary principles of design, our new method of building was ushered in, and we were called upon to deal with a problem the proper solution of which called for more technical and artistic skill than we possessed.

If such a revolution in the method of building had occurred in a country where architecture was in a normal condition, or where architectural training was general and public taste cultivated, it is probable that the problem it presented would have been dealt with by our builders very much in the same way that the builders of Western Europe dealt with their great problem near the commencement of the thirteenth century; that is to say, they would have allowed themselves to be led by the methods used, and instead of trying to disguise their construction and to clothe it in antiquated styles which were intended for buildings of another kind, would have let their work show how it was made, and have sought to beautify it by inventing and using new and appropriate forms. In other words, they would have been truthful; and all good art is truthful.

It is needless to say we went about the task in an entirely different way. With a few notable exceptions, the steel frame was treated as if it were a thing to be ashamed of, covered up and disguised. We tried to make our buildings look like anything but what they really were, and a great deal of ingenuity was expended to accomplish a result which reason must pronounce as opposed both to good taste and to common sense. In saying this I claim no exception from the general rule for myself. I, like the others, have my sins to answer for; but I see a new light, and I have reason to believe that the same light is breaking upon many others, also.

No one man can invent an architectural style, and no body of men, working upon lines contrary to reason, can invent one.

The time is at hand when the absurdity and bad taste of our past methods will be fully understood and freely admitted.

We shall cease to wonder that cultivated foreigners are not favorably impressed by our tall buildings, and will set ourselves to work to make them as perfect and reasonable artistically as they are ingenious and daring mechanically and constructively. Sheet metal cornices, with profiles suitable

only for stone, will cease to be used at the tops of towering structures, where they serve no other purpose than to shut out some part of the sadly needed sunlight from the abyss below; stone work which appears massive, but which is in reality only a thin veneer over the iron columns, will not be thought necessary; terra-cotta will be used in a legitimate way, as a filling for panels where no strength is required, or as a covering for metal, to protect it from fire, and will no longer masquerade as stone; huge walls of masonry, which add nothing to the strength of the building, and which must be supported at great expense by the iron framework, will be dispensed with; the propriety of using colonnades and arcades as crowning features, perched on the top of facades hundreds of feet high, where they belie the interior arrangement, will be questioned; and a hundred other features which are not reasonable will give place to forms which are suitable both to the material used and to the purpose for which it is used. When this happens we will make progress in the direction of good art and the creation of a national style capable of a reasonable explanation.

But unless we take the matter in hand promptly, we shall find ourselves out-distanced by the French. The steel frame has only recently been introduced in France, and is used there chiefly for commercial buildings of moderate height, but already it is assuming a legitimate form. The logical Frenchman, like his ancestors of the thirteenth century, finding walls unnecessary, rejects them. The Gothic builders, when they found a way to support the vaults of their churches and take up the thrusts by piers and buttresses, discarded the masonry walls between as useless, and filled the voids with luminous screens made of delicate stone tracery and painted glass. So the modern Frenchman, finding structural walls unnecessary where the steel frame is used, dispenses with them, and fills the panels formed by the framework with light inclosures of terra-cotta faïence or glass. He hammers his iron work into graceful and appropriate forms, and gives to the whole construction an entirely new *cachet,* which is rapidly being developed into a beautiful style of architecture.

Although we have such a multiplicity of laws that it is a question whether the individual has not less freedom here than anywhere else on earth, yet every man's right to disfigure the city by the erection of eyesores and monstrosities along the streets has never been questioned; and many of those who build avail themselves of this license to the fullest extent. We have high buildings and low buildings in indiscriminate confusion; buildings in every conceivable and inconceivable style of architecture, side by side; buildings of every color and every kind of material jostle each other in the wildest confusion.

This is the American background for public buildings.

Who that has seen the splendor of the palace of the Louvre, in almost startling contrast with the masterly monotony of the long, simple lines of the opposite facade of the Rue de Rivoli, can fail to appreciate the immense importance which background plays in design when properly handled. Everywhere in the superb city of which the Louvre is an ornament, one is forcibly reminded of this truth. Public buildings seen in contrast with facades of uniform height and material, either as points of view at the end of the long vistas formed by the street facades, or rising majestically above the general mass of the city, gain immensely in dignity, beauty, and importance.

No such conditions can be found in this country. Wisely or otherwise, we have chosen our way, and must continue in it. Our architecture must always be of a more fantastic kind and of a less sober variety.

Whenever I have seen the design for a great municipal improvement intended for an American city, I have found indicated for the ordinary buildings the long, sober lines of the European city; but they are unattainable here. These plans are misleading. No background or setting of that kind can be had for public buildings, and the makers of such pictures deceive themselves and are doomed to disappointment. Except in few cases, the setting and background will be as wild, confused, and fantastic as a magician's dream.

Should our public buildings, then, be low and massive, of another type and of a different kind of architecture from the sur-

rounding structures; or should they out-Herod Herod, and dominate them in height and extravagance of design?

I think there is little doubt but that the latter course will be preferred.

It is, perhaps, fortunate that, while our gigantic commercial buildings upon half-baked designs have been going up, public buildings have adhered to their traditional form. Our architects have been gaining knowledge and experience, and public taste is improving. We shall be much better qualified to deal artistically with the tall public building in the future than we have been in the past.

When we leave off trying to force our iron frames into unsuitable coverings, and set to work to design in a more reasonable way, we shall, as I have said, begin to develop a true architectural style.

A true architectural style is capable of every shade of expression, from the most light and fantastic to the most majestic and dignified.

Our tall buildings represent no new style, but simply a new method of construction decked out in borrowed clothing.

Although we have failed to secure the applause of the rest of the world for these buildings, most of us profess to take a certain pride in them; but it is doubtful if the feeling is very genuine. We have a sneaking inward consciousness that they do not belong to the highest type of art. This conviction is clearly enough shown in our treatment of public work. When an important public building is to be built, we instinctively reject the high building type and turn to the ancient models as more appropriate. Our architects are more at home and sure of themselves on this ground. They do not feel the same necessity for deception and disguise in design which they practice with the tall building, where almost every detail pretends to be something which it is not. In buildings of the old kind, construction and design go hand in hand; columns are real columns, and support what they appear to support. Walls are real walls, which perform the functions they appear to perform, and so on all the way through; and one rightly concludes that this kind of construction is more dignified than one which, so far as outward appearance is concerned, is a tissue of falsehood.

But height in itself is certainly no detriment; height is not inconsistent with dignity. The very contrary ought to be true; the trouble is that we have not yet applied to the high buildings the same truthful, simple, and artistic treatment which ages of experience have taught us to use in monumental buildings of moderate height.

But the time will come when all this will be changed, and when it does come, I predict that public buildings in the United States will be carried to such amazing heights that the tallest commercial building will be dwarfed by them. I have no doubt that heights approximating two thousand feet will be reached within the next twenty-five years, for I see no reason why such heights should not be practical. The enormous weights involved will be carried by columns of cast steel of almost solid section, bolted together, and not built up of the rolled structural shapes which we now use.

Quite as important as form is the question of site.

Public buildings should always be, and in recent years fortunately are being, more and more considered in connection with general plans for city improvement. One hears the expression "civic center" with increasing frequency, and the opinion is rapidly gaining ground that no public building of great importance should be undertaken singly; but rather as a part of a general plan for city improvement. Many such plans have been made; but up to the present time few have been carried out. The trouble is that in making them we choose the line of greatest resistance rather than the one of least resistance, which has usually been followed where such plans have been carried out in Europe. Instead of selecting a new location upon comparatively inexpensive land, with the idea of improving the surroundings by the building up a new center, we adhere to the old location, where a general plan of improvement can only be carried out with great difficulty by destroying valuable existing buildings, and by condemning land which is extremely valuable. The European method is to reclaim slum districts, to use the sites of abandoned fortifications, or to go away from the existing center, and

establish a new town or locality alongside of the old one. A beautiful example of the last method can be seen at Brussels. The charming historic municipal buildings, which cluster about the square in the heart of the old town, have been left undisturbed, and a new quarter has been built at one side of the ancient city, where there was found abundant room for public buildings, spacious streets, and open squares.

In Paris, under Napoleon III, the new streets were cut through the worst parts of the old town; the poorest parts became the best and the lowly places were exalted. In Paris, too, and in many other cities of Europe, the sites of the old fortifications, with their moats, have been utilized for boulevards and other public improvements, which sometimes entirely encircle the heart of the city. Vienna has, perhaps, benefited most in this way, but the proposed removal of the present walls of Paris will place that city far in the lead of all others in this respect, for the space will be sufficient to provide for a plan of the utmost magnificence, upon a scale more extensive than any which has preceded it.

We do not have such opportunities here, but we do have our slum districts and undesirable quarters, which can be transformed, at comparatively little cost for the land, and where the improvement would so benefit the surrounding region that the increased revenue from taxation would almost offset, if it did not entirely offset, the cost of the improvement. A law to permit the city to condemn land in excess of its actual needs would certainly make it possible to carry out such plans at little cost to it.

When great sums of public money are to be spent, why not spend them in a way to accomplish the greatest good?

If public buildings are built at the existing center of the city, where their presence will not materially enhance present values and where the land which they occupy must be taken from the best part of the city's tax-roll, public welfare will be little benefited by the expenditure, and the city may lose many valuable historic associations in the destruction of the old landmarks. If, on the other hand, sites for the new buildings be chosen in poor quarters, which might by their presence be transformed and made valuable, the land would cost the city less, the revenue from taxation instead of being decreased would be increased, and old associations would be preserved. Under favorable conditions, a whole new civic center could be created at no greater cost than would be involved by the erection of a single building in the old locality.

The advantages of this method are so many and so obvious that it would seem there could be no room for discussion as to its superiority over the American way; but it does not find favor here at present, and until it does no very extensive city improvements, through the grouping of public buildings such as one sees so often in European cities, are likely to take place, for the cost will be prohibitive.

New York City at the present time presents a striking example of the difficulties of the American method. For several years it has been trying to find a suitable site for its proposed new court house.

Instead of adopting the simple expedient of going a little to one side and condemning a large area in an inexpensive neighborhood, where enough land might be had, not only for the court house, but for other public buildings of the future, at a cost hardly greater than would be required for a site for a single building near the present City Hall; we throw away this opportunity to benefit the city by the development of a new center which would in time become as valuable as the old one, and refuse to consider seriously any but the old locality for the new building. After years of deliberation and after recommending several other sites, the commission finally, in despair, proposed placing it in the City Hall Park. Fortunately, this raised such a storm of protest that it is doubtful whether the plan will be carried out.

It ought to be accepted as an axiom that the placing of public buildings in small city parks or squares is always a mistake and should never be resorted to.

The New York and Hartford postoffices are ever-to-be-regretted instances of this sort of folly, and here in Philadelphia one finds, perhaps, the most glaring case of all. Notwithstanding its immense cost, I do not think that public money could be spent in any other way so advantageously for the improvement of the city as in the removal of

the Philadelphia City Hall; for, standing where it does, it is nothing less than a monument to bad taste and a most conspicuous advertisement of the lack of artistic instinct in the people who permitted it to be put there. If the design were as good as it is bad, and the building was the finest architectural creation of modern times, it could be nothing but a disfigurement to the city in blotting out, as it does, the square on which it stands and in destroying the vista of the streets which it obstructs.

To me it seems the height of folly to expect any improvement in the appearance of our cities through the voluntary coöperation of individual property-owners. That can only come with the millennium, when the artistic feelings in every man take precedence of the desire for gain. But there is one influence at work which will eventually bring about a great change in the appearance of American cities, and a change which may be for the better; that is the gradual shutting out of the light by tall buildings.

The time will come when something must be done to counteract this evil, and if the remedy takes the form of a limitation of the area which can be occupied above a certain limit of height, as I think it will, great good, both practical and artistic, may come of it.

It is useless to expect that we in this country will limit the height of buildings at a point sufficiently low to be effective for securing light for streets and buildings. Such a limit would require that their height should not exceed the width of narrow streets, or be more than once and a half as high as the width of wide streets; and no such limit would ever be agreed to here. It may be that a higher limit will be tried; but, if so, it will be found ineffective, and some other expedient will have to be resorted to.

Now, my doctrine is, that above a certain limit—say, at a height equal to the width of the street—only a small part of the area of every lot should be built over to a further height, and that the high part of every building should be set somewhat back from the street. If a plan of this kind were adopted, there would be space for light and air to play around the upper parts of the structures and to find its way to the street. The street facade would have a fixed cornice line at the lower level, and the high parts of the buildings which would rise above this general level, being finished on all sides, would not be unsightly.

Some years ago we liked uniformity in city architecture. Our street facades were generally built up to a uniform height, and the buildings in certain streets were often made of the same material. To be sure, this sometimes produced monotony, but the monotony was not always without dignity. Now we have gone to the other extreme, and have reached a degree of confusion, disorder and fantasy which has never been equalled.

A reaction is about due, and a regulation of the kind I have just proposed might point the way to it.

This is a strange country. We go quickly from one extreme to the other, and no one can predict what the future may bring forth.

I do not want to be thought a visionary, but it would not surprise me if I lived to see the time when in some cities a uniform ordinance for certain streets up to the general cornice-line was established; such as one sees in many of the streets of Paris; as, for instance, the Rue de Rivoli, in the streets which converge at the Place d'Opera, at the Place Vendome, etc. It requires a long stretch of the imagination, but I can even conceive of a time when competitions may be held to determine the architectural ordinance for particular streets. When this happens we may have street facades which, though fantastic as compared with those of European cities, may still retain a certain degree of order with a picturesqueness entirely new.

CITY PLANNING CONGRESS AND EXHIBITION

By GEORGE B. FORD

IN Philadelphia there has just been held a most successful City Planning Conference and Exhibition. The exhibition will continue to remain open until June 15. It is held in the wide corridors of the second and third stories of the Philadelphia City Hall. The large attendance has amazed those who were at the London Town Planning Congress last October. This exhibition, for the first time in America, makes a person realize what a splendid development City Planning has had here. The exhibition is weak on the European side through no fault of the exhibition committee, but the remarkable aggregation of American material, gathered together for the first time, well warrants a special trip to Philadelphia. Most surprising is the number of cities and towns which have taken thought for the morrow, all the way from the little village which has designed an open space at the cross roads to the glorious great dreams of Chicago, which are impossible of more than a fragmentary realization. In general, however, the plans are convincing as to practicality even up to those most beautiful presentations of the new plans for Portland, Oregon. The City of Philadelphia, considering the shortness of the time of preparation, has in its new plans really accomplished a wonderful result. The economical handling of freight by land and by water is worked out in detail, at the same time the railroads and docks are placed where they will be as unobnoxious as possible. A comprehensive system of roads, boulevards, centers, parks and playgrounds has been evolved in a reasonable and straightforward way, all of which argues well for the chances of its being carried out.

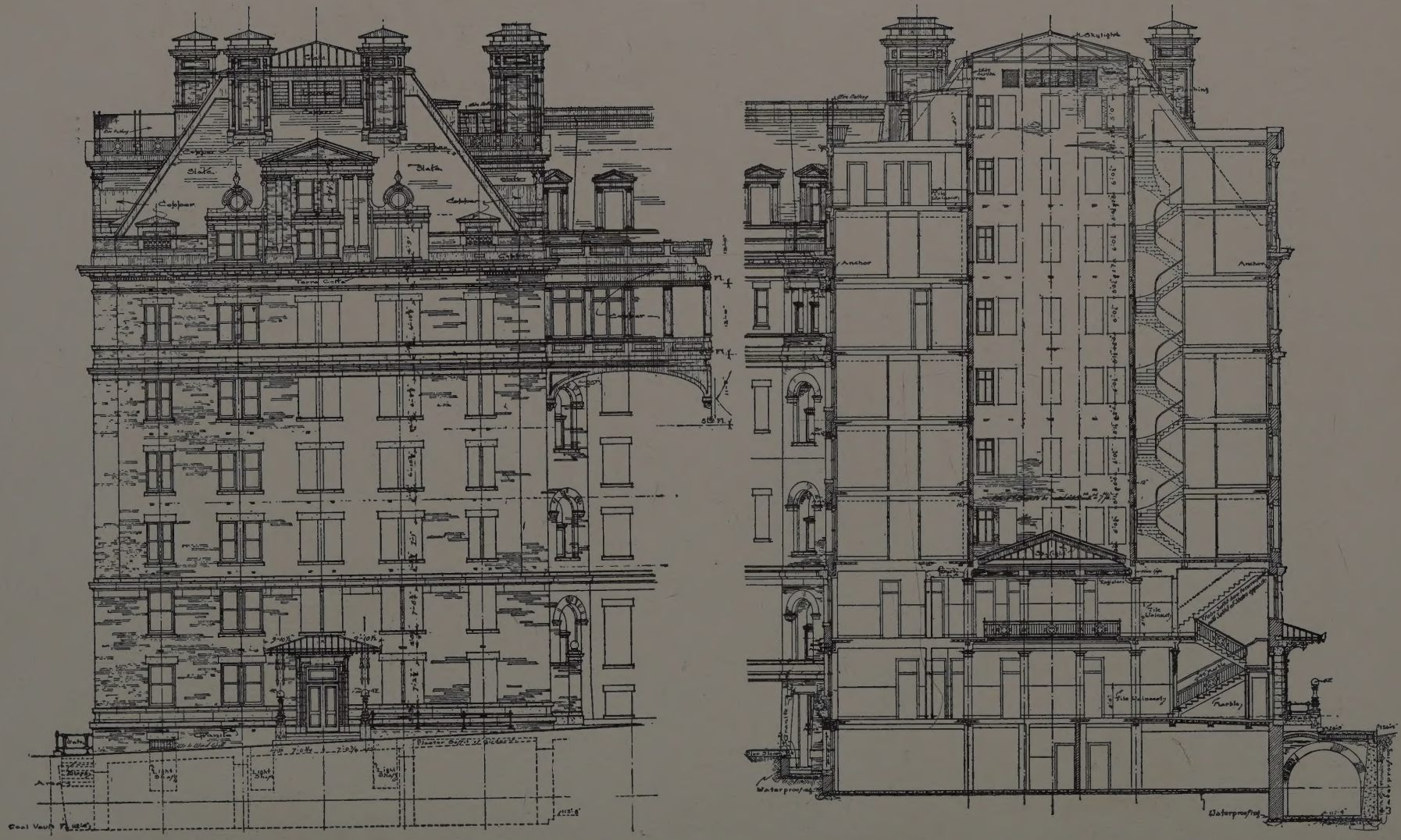
The whole exhibition is most worthy of careful study. Regarding it, information and the catalog can be had from W. Templeton Johnson at room 395 City Hall, Philadelphia.

The conference which was the third American National Conference was a notable success. The first Conference held in Washington two years ago at the initiative of the Committee on Congestion of Population in New York had only 25 or 30 active members, of whom very few were architects. The second Conference at Rochester last year had 70 to 80 active members with a larger proportion of architects present. The Conference of the 15th, 16th, and 17th of May, 1911, enrolled 300 to 400 members, and the architects took a prominent part in the program; in particular Mr. Irving K. Pond, Mr. Glenn Brown, and Mr. Frank Miles Day. Mr. Pond was so impressed with the importance of the Conference to the architect that he said that he was going to urgently recommend that every chapter of the A. I. A. have a good delegation at the next Conference.

The Conference was divided into seven three-hour sessions, each with its special subject. The topics treated were the Setting of Public Buildings, Street Widths, the Relation of Houses to Streets, Docks and Harbors, Municipal Real Estate Policies, Taxation, and the Legal Aspects. At each session one or two main papers were read followed by several ten-minute discussions, and then by three-minute open discussions from the floor. Every subject awakened lively debate, and much valuable testimony was brought out by representatives from all over America and Europe.

Next year a new set of special topics will be chosen by the executive committee, of which body Mr. Flavel Shurtleff, of 19 Congress Street, Boston, is the secretary. A dozen large cities are bidding for the honor of entertaining the next Conference, and it has every promise of being a momentous occasion. With the importance which the Conference has now assumed the architect can no longer afford to stay away.

It is expected that the various Chapters of the Institute will appoint delegates to attend the fourth Conference.



ELEVATION AND SECTION, TRAVERS PAVILION, ST. LUKE'S HOSPITAL, NEW YORK

ERNEST FLAGG, ARCHITECT

HOSPITAL LIGHTING

By MELVIN SPENCER

THE lighting of hospitals may be said to be divided into the lighting of ward rooms, operating rooms and the specialized local lighting that may be required. The proper illumination of the ward rooms presents the greatest difficulties, and is, by far, the most important. The specifications for this class of lighting are few, but should be most rigidly enforced. In the winter during the greater part of the day, and after sun-down throughout the year, the sick are compelled by necessity to be under artificial light, and the problem is to relieve, to as great an extent as possible, the evil psychological effects.

The rigid requirements of ward room lighting is a lighting fixture that can easily be cleaned, that will totally screen the primary source of light, and one that will give the required intensity and distribution. Artistic qualities are not required in the fixture, provided it is not unsightly. A simple semi-glossy fixture, without castings, is necessary to prevent the accumulation of germs and dust.

The use of chandeliers should be avoided in ward rooms, as the exposed lights are an annoyance and often a source of danger by reason of the weakened condition of the eyes of the majority of the patients.

The indirect system is now used in New York City Hospitals, and perhaps comes nearest meeting the requirements of ward lighting. Here the light is thrown to the ceiling by means of reflectors, where it is radiated for the general illumination of the room. In this way a thoroughly distributed and uniform light is spread throughout the room—in short, a light closely approximating daylight in its distribution and color value.

By the proper tinting of ceilings, or by the use of a diffusing screen of the proper tint, the light of the Tungsten lamp can be made to come within 5° of daylight spectral value. Absolutely no glare or naked lamps are in the direct line of the patient's eyes, and by this method the chief requirements of hospital lighting are complied with.

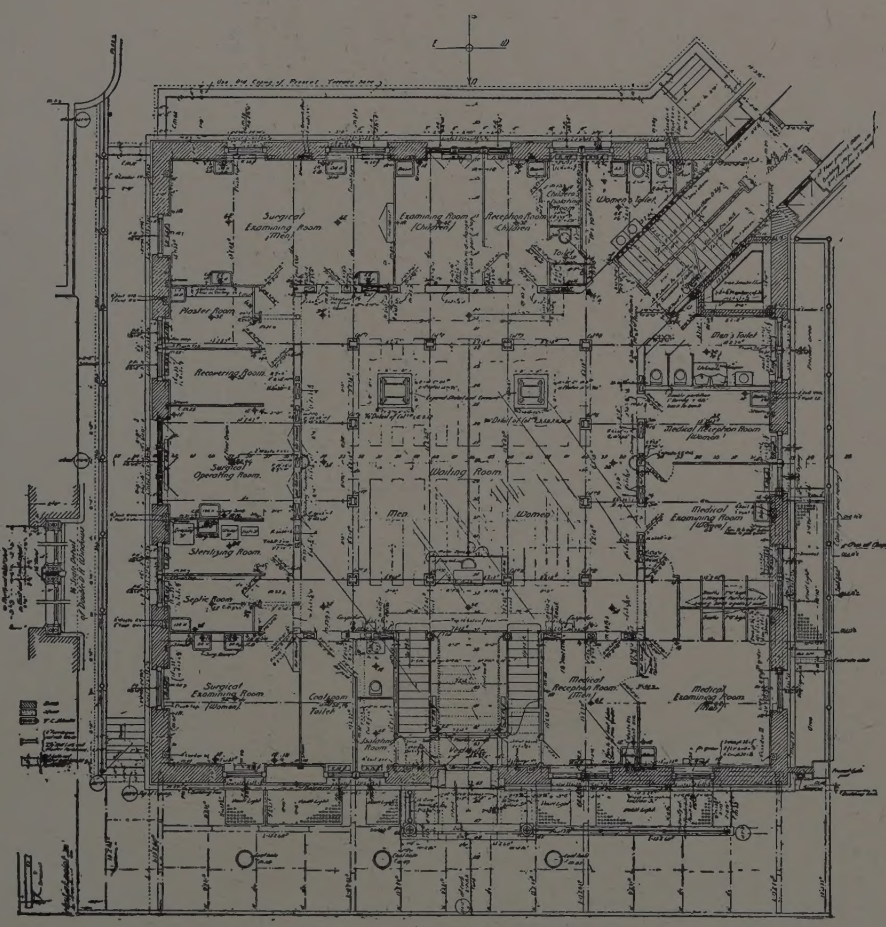
Varying intensities are needed in different wards and care should be taken to predetermine what the wards are to be used for, a lower degree of illumination being obviously needed in a ward, occupied by cases of nervous diseases, as the sensitiveness of the retina has, by physical weakness, been increased. An illumination of ½-1 ft. candle is ample for ward lighting.

Expert designers have now sufficient control of light rays to warrant architects demanding a specially constructed reflector for each ward, as the success of any indirect scheme depends largely on the accuracy of the angles of reflection. What is suitable for a narrow, low room would obviously not produce satisfactory results in a high, wide room. Unless the fixture is very carefully considered, poor results will ensue. The ceiling should be properly illuminated, but mechanical difficulties make an absolutely uniform illumination impossible. This difficulty presents some compensations, as a slight variation in intensity affords a resting place for the retina, which would ordinarily become affected by an absolutely uniformly illuminated ceiling. The shaded windows, furniture, and the fixtures themselves help to remedy this tendency. It is advisable to tint the side walls a tone in slight contrast with the ceiling, the tint of which should always be either white, cream, ivory or pale blue.

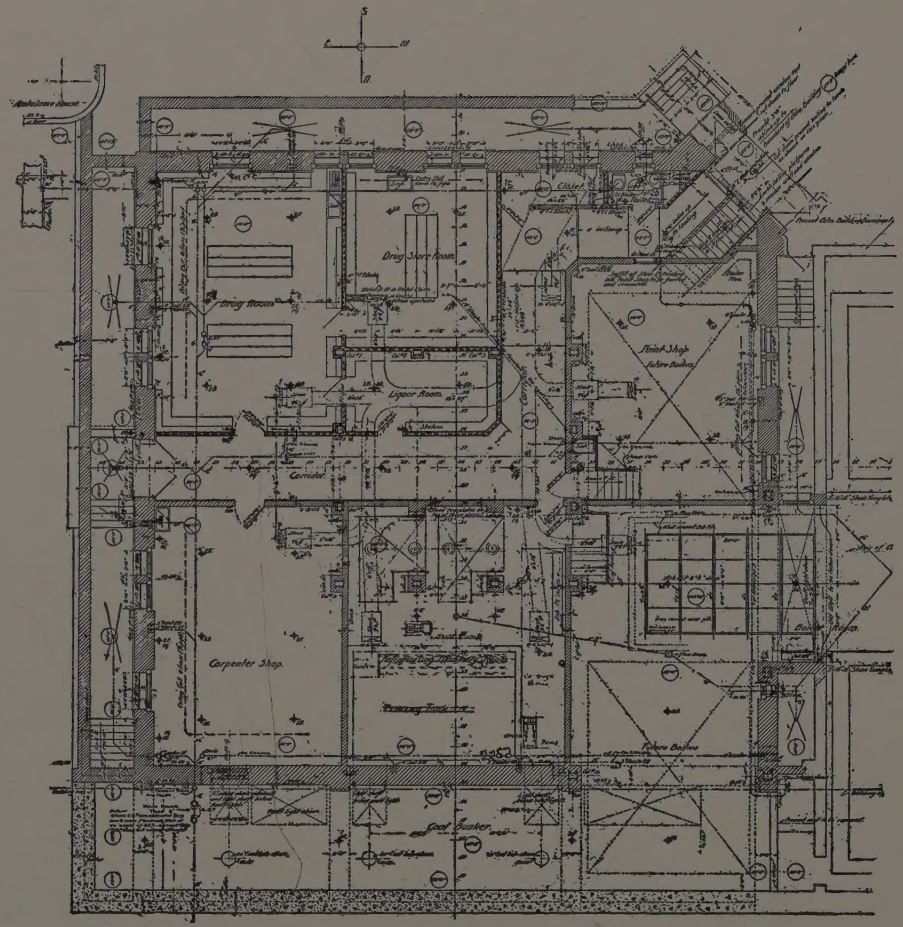
Thin blown glass is found serviceable when placed on the top of fixtures, as it keeps dust from collecting on the inside, and if tinted the proper shade, will render the diffused light of the Tungsten lamp, in its color value, practically as white as daylight.

Spun brass inverted dishes or domes, according to the particular needs of each ward, white enameled on the outside and equipped with silvered corrugated glass in sections, forms the basis of these fixtures.

A most important branch of hospital



FIRST FLOOR PLAN



BASEMENT PLAN

TRAVERS PAVILION, ST. LUKE'S HOSPITAL, NEW YORK

ERNEST FLAGG, ARCHITECT

lighting is the proper illumination of operating tables. Here an unusually brilliant and strong light, of approximately daylight value, is needed, and at the same time, a light that will generate a minimum of heat. While it has been possible to design a fixture giving sufficient illumination, the greater the candle-power developed the greater heat resulted, so that a surgeon, working under this light for an hour or more, would suffer great discomfort and be hampered in the performance of a delicate operation.

There has lately been introduced an operating fixture that has revolutionized this branch of hospital lighting.

This reflecting fixture produces an intensity of 20 to 30 foot candles on the plane of the operating table and will burn for one hour with a variation of but 2° in temperature. It produces an illumination with a variation of but 4 per cent. from the spectral percentage value of daylight. Six 100 Watt Tungsten lamps are used in a reflector of galvanized iron, white enamel on the outside and lined with silver-plated corrugated glass. A most ingenious system of double plate glass doors creates a forced draught so that when the air chamber between the two glasses becomes heated, the air rises and the surface of the table is thus kept at a uniform temperature.

This syphon arrangement is sometimes assisted by the use of suction pumps, as, for example, those installed in the German Hospital, New York. By means of tinted glass selected absorption sifts out the objectionable color rays, producing a practically perfect white light.

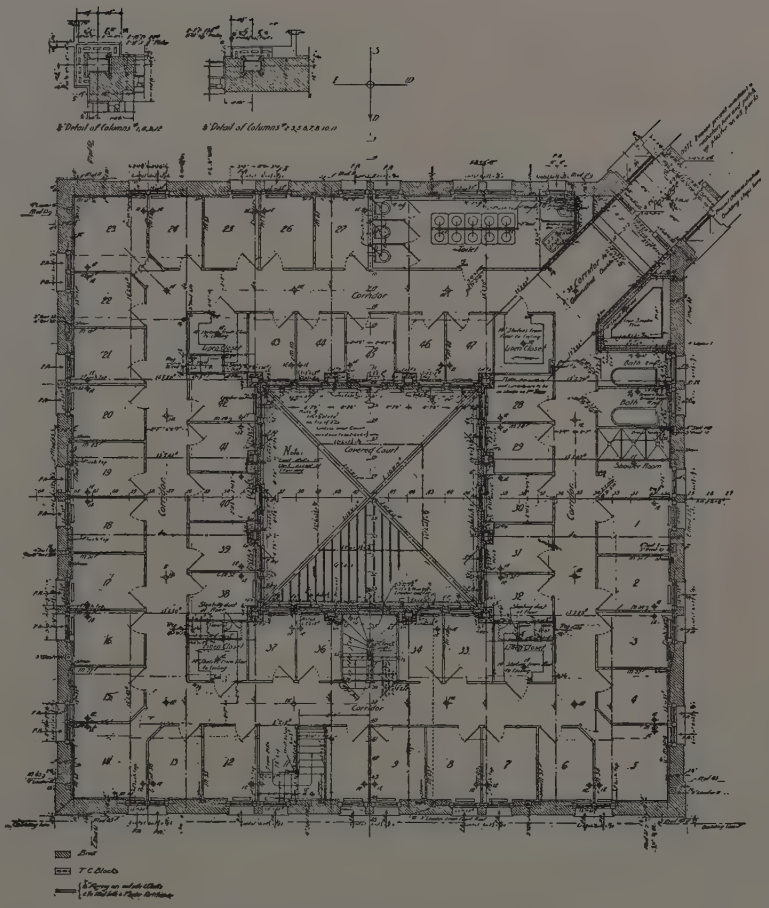
Referring to lighting methods for specific purposes, theraupeutic fixtures have been made of such power that an ordinary 32 candle-power incandescent lamp can be concentrated on a point with such intensity as to burn a hole in thin paper, much as a fire can be kindled with lenses in the heat from the sun's ray.

In the treatment of skin diseases, the ultra violet rays are utilized to good effect, and this in general is accomplished by throwing the light through a specially tinted glass screen.

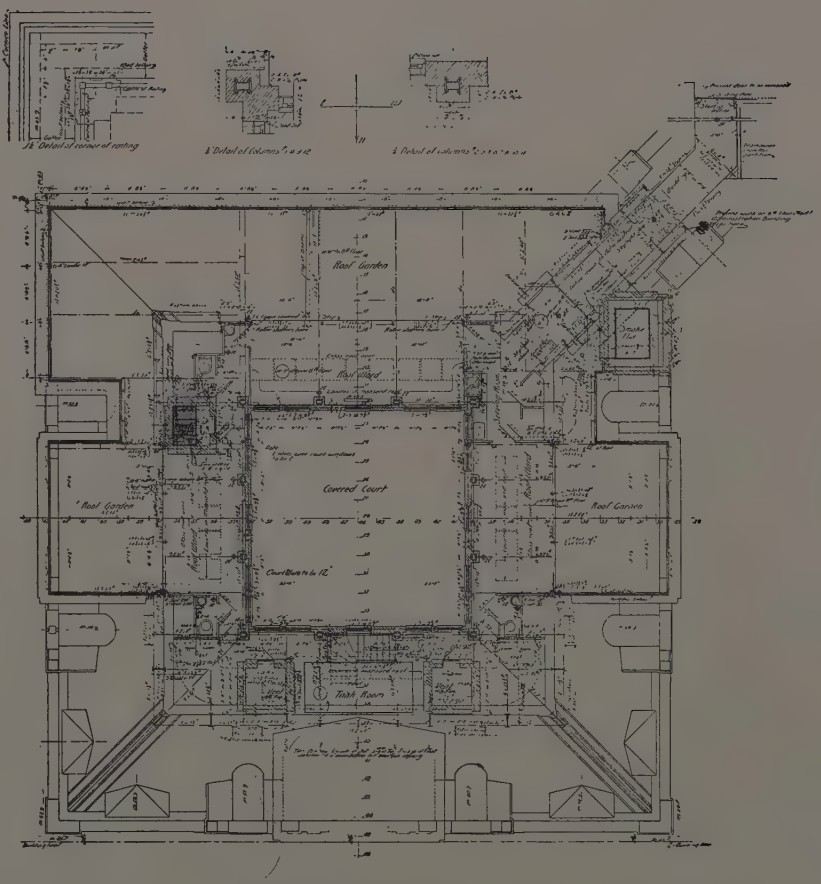
Perhaps one of the most interesting of these special fixtures is one recently introduced in the New York hospitals for microscopic work.

In pathological research it has been a matter of much annoyance to investigators because accurate results could not be obtained at varying times and various parts of the country. In order to facilitate the investigation and preservation to the bacteria, it is customary to stain them various hues. Naturally different light sources differ in their relative spectra. It is thus ap-

GENERAL VIEW, ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH
YORK & SAWYER, ARCHITECTS



THIRD OR TYPICAL FLOOR PLAN



NINTH FLOOR PLAN

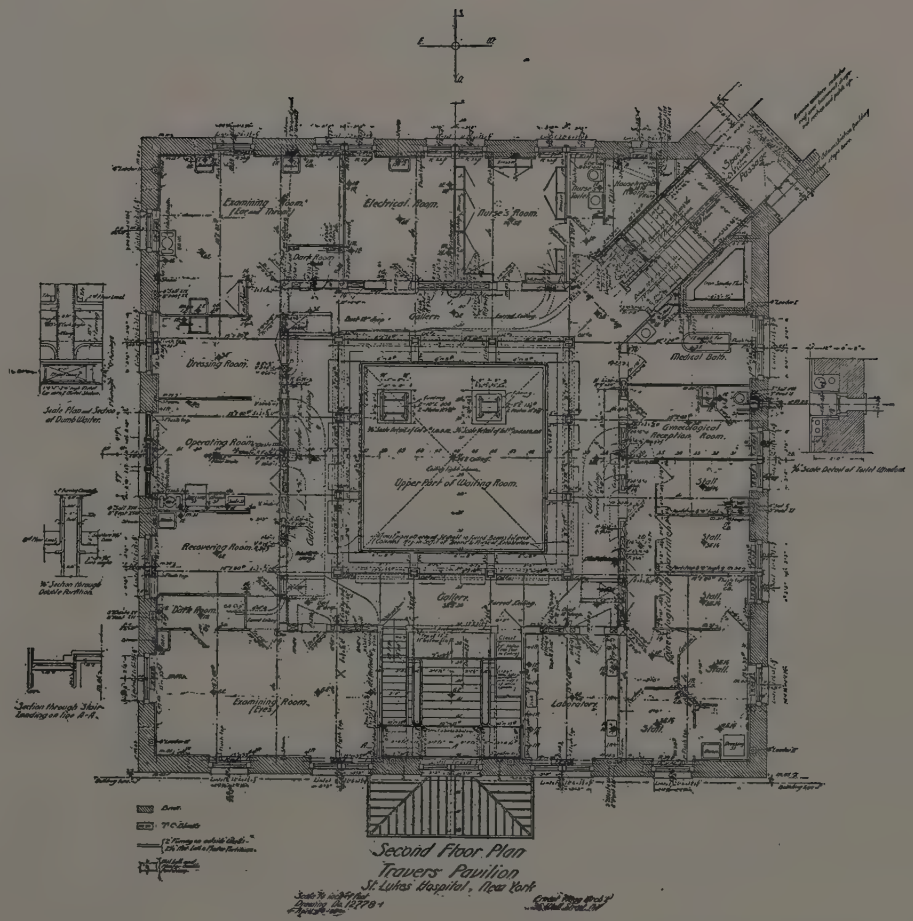
TRAVERS PAVILION, ST. LUKE'S HOSPITAL, NEW YORK

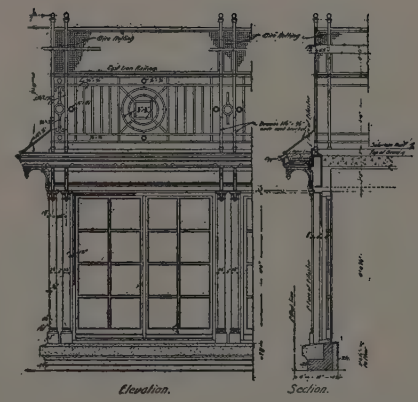
ERNEST FLAGG, ARCHITECT

WARD IN ISOLATION BUILDING, ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH
YORK & SAWYER, ARCHITECTS

parent that the stained bacteria would appear different under gas and electric light, and as the bacteria are identified by the means of their color, this phase of pathological work has been the cause of much inaccuracy. So difficult is it to test the different germs that often the difference between a clear and clouded sky would make considerable difference in the observation. It has long been desired that some standard should be established, whereby this work could be carried on both night and day, using a light source of uniform and constant spectra value.

Daylight under a clear sky provides the best background for this work, and thereby the problem was to develop an artificial light source which would approximate the color value of daylight. Visual accuity is increased under a monochromatic light, but in this work this was impossible. In order to obtain the same accuity considerable intensity was necessary. The light of the sun reflected from white cotton was taken as a standard of white light, and an elaborate series of experiments carried on until a light was developed which nearly matched the spectra desired. The standard of light consisted of a double conical reflector totally enclosing a 60 Watt Tungsten lamp and the objectionable predominance of red and yellow rays of the Tungsten lamp was sifted out by means of selective absorption, a liquid absorption cell of the proper concentration being used. In this way a strong concentrated light, of pure whiteness, was focussed on the mirror of the miscroscope, and bacteria of every hue was shown in bold relief under this light source. The pathological department of Bellevue Hospital has reported the greatest satisfaction in the use of these instruments, and the greater accuracy made possible through this contrivance has opened a new field in pathological research.





SECOND FLOOR PLAN AND DETAIL
OF SUN PARLOR

TRAVERS PAVILION, ST. LUKE'S HOSPITAL, NEW YORK

ERNEST FLAGG, ARCHITECT

THE FOLIES BERGÈRE, NEW YORK

HERTS & TALLANT, ARCHITECTS

THE Folies Bergère, illustrated in this issue, marks the introduction into this country of a type of amusement house, while more or less common in Europe, has no prototype in America.

This fact, and that of its quite recent introduction, is the more remarkable, as those who cater to the amusement-loving public in this country have been ever ready to bring to New York the latest development in novelties both as to theatre construction and artistic successors abroad.

It remained for Messrs. Harris & Lasky, the managers and promoters of the new amusement house, to make the venture, and their ideas have been most capably carried out by Messrs. Herts & Tallant, whose work in theatre design has already received the most emphatic approval. This latest addition to New York's already large number of places of amusement is located on Forty-sixth Street, just west of Broadway, and in the very heart of the theatre district, sometimes called "The Great White Way."

As already stated, in its planning it presents features not present in any other New York playhouse. While the general air of the typical theatre has been preserved, all of the usual sight lines being adhered to, and the retention of the usual proscenium, here similarity ceases. The impression conveyed, when the house is lighted and occupied, is that of a modern restaurant, with all the charm of color and handsome appointment that is the attribute of the cosmopolitan restaurant of the first order. The dominant color scheme of the interior is in the varying gray tones of mother-of-pearl, with counter-tones of turquoise blue, while the general wall treatment is of salmon-colored damask. The woodwork is painted in flat ivory tones, with an occasional introduction of Roman gold in the electric lighting fixtures, which are important and well designed features of the decorative scheme.

Flanking the proscenium and in those spaces usually occupied by the "boxes" are two decorations typifying the spirits of lyric and pastoral poetry. These serve to screen tiny auxiliary stages. These decorations, together with others throughout the house, are the work of Mr. William de L. Dodge. The stage and its mechanical equipment are the most modern and perfect that skill can devise. Every feature that becomes part of the modern stage, and makes possible those marvellous effects of setting and lighting,

VIEW OF INTERIOR, THE FOLIES BERGÈRE, NEW YORK

HERTS & TALLANT, ARCHITECTS

has found a place in this equipment. In addition, certain features have been added that are new and are certain of adoption in later theatre construction.

That this theatre is absolutely fireproof goes without saying. This essential of modern construction has received the greatest care. A complete high-pressure system of fire apparatus has been installed throughout the house, and this, together with the sprin-

kler system that has been introduced, makes the Folies Bergère probably absolutely safe.

The facade presents a simple blank wall treatment in glazed polychrome terra-cotta, the tones echoing the color scheme of the interior, and are old ivory, turquoise blue, and gold. The effect of color is eminently pleasing, and the ensemble presents a convincing argument for a more extended introduction of color in the facades of buildings of all descriptions. There is a wrought bronze cornice surmounting the building, beneath which is a heroic frieze, executed by Mr. Dodge. This frieze represents, in allegory, all the characters of vaudeville.

The three large entrance doors leading to the spacious lobby are of carved oak, and are framed in panels of mosaic in colors harmonizing with the general scheme of decoration.

The foyer is in Caen stone and white marble, with a colored mosaic floor.

The unusual character of the entertainment, the novel plan of the house, the well restrained decorative treatment, all in a most well conceived architectural setting, combine to make the Folies Bergère a most inviting amusement feature of New York.

LABORATORY BUILDING, ROCKEFELLER INSTITUTE

ISOLATION BUILDING—THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

YORK & SAWYER, ARCHITECTS

The New York Architect

PUBLISHED MONTHLY BY

THE HARWELL-EVANS COMPANY

118 East Twenty-eighth Street, New York

Aubrey Harwell, Prest. John R. Evans, Vice-Prest. and Treas.
M. L. Hotchkiss, Secty.
Jack Major, Advertising Manager

Subscription rates, Ten Dollars per year

Entered at the New York Post-Office as second-class matter

DONN BARBER, Editor

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The Folies Bergère

Municipal Waste of Opportunities.

WHILE those who are urging civic betterments and discussing the proper planning of future cities are using well directed efforts for the public good, certain problems that are in a sense legacies, and which require prompt solution, if they are to be solved at all, are ignored.

Among these, and one we believe of first importance, is the conservation of large and desirably located areas, for municipal buildings.

Perhaps in no city in this country has this question become as important as it has in New York, and this is largely due, we believe, to the topography of Manhattan Island. Here we have a city twelve miles in length and at no place more than three miles wide, with its narrowest width at the district of greatest congestion of population and business activity. Civic problems differing from any other city in this country are here present.

We have at one end of the plan the financial section and wholesale business, at the center the retail and shopping trade, while at the northern end of the city lies the residence district. Through this narrow channel of the width of Manhattan Island, the tide of travel ebbs and flows daily. Traffic problems are presented that are almost unsurmountable and the centralization of business has produced enormous land values, resulting in the erection of the many tall buildings for which Manhattan Island is noted. It would therefore seem to be but natural foresight on the part of those at the head of our City government, to secure and hold such large areas of land as was possible, in order to provide sites for necessary municipal buildings and thus avoid the present scattered location of subsidiary City departments.

The new Municipal building now in course of construction on Center Street, has so limited a ground space as to make it necessary to build it to a great height in order to find room for the departments it will house. Our judges have no sufficient building in which to hold court, and from time to time we are threatened with the invasion of the City's parks as possible sites for a much needed Court House. Meanwhile large areas that were admirably adapted to the City's needs for these and other purposes, and should have been bought by the City, have been promptly secured by private parties, cut up into small parcels and held at such high prices as to cause them to become unavailable to the City. The Orphan Asylum property on Fifth and Madison Avenues, near the Catholic Cathedral, the Lenox Library on Central Park East, are prominent instances of official apathy to the City's needs in conserving large areas for municipal occupancy.

A notable instance of this carelessness is the case of the Madison Square Garden property that has recently been purchased by private capital.

Here existed an opportunity, the like of which will probably never be seen on Manhattan Island. This property, covering the entire block bounded by Twenty-sixth and Twenty-seventh Streets, Fourth and Madison Avenues, could, it has been stated, have been secured for less than four million dollars.

The need for a site for a court house and for room to house minor city departments

has already been stated. In addition, there is the question of the advisability of the erection by the City of an open-air theatre, such as is common in many cities of Europe. The Madison Square Garden could, with its vast area, have been adapted to all these various purposes, and would have been a credit to the city and earned for its promoters the gratitude of all citizens.

Now it is too late and as it is inevitable that these various needs must eventually be met, the cost will be far in advance of what it would have been if this site had been secured by the city.

Historic Monuments and Their Preservation

WITH a high sense of civic duty and patriotism that is much to be commended, the Southern Pennsylvania Chapter of the Institute has set an example to other chapters throughout the country in the effort it is making to preserve the historic monuments that are extant within the limits of its jurisdiction.

While it is true, as stated in the Report of the Committee of the Chapter, that the American people have not made as much of their historic monuments as our friends across the sea have taught us by good example, it is equally true that we have not as long a history to draw upon. The very fact that we have comparatively so few of these historical landmarks is the best reason for their care and preservation. Owing to either a want of public spirit or the proper veneration for our historical traditions, many buildings to which we might to-day point with proper pride have either entirely disappeared, or been so changed by many alterations as to have lost even a suggestion of their original appearance, and are therefore entitled to neither respect or the solicitude of the people as to their preservation.

Heretofore it has remained for the patriotic societies of this country to take what little care and supervision has been given to these historical buildings, and it is extremely gratifying to note that the representative body of the profession is now seeking to supplement the good work.

It is worthy of record that the Southern Pennsylvania Chapter, while of course seeking in the first instance to protect such buildings as combine with historical interest the essentials of good architecture, do not propose to confine their efforts to this class alone, but will endeavor to safeguard every building irrespective of its architectural features.

Where buildings have disappeared or become but a ruin, it is intended that the site shall be cleared and appropriately marked with a tablet or monument.

This is a patriotic and meritorious effort that should commend itself to every member of the profession, and we hope to see this most commendable work taken up by all of the Chapters.

Even in our Western states where the earliest record of man's settlement and struggles to make and keep a home and blaze the way for those who followed, is of comparatively recent date, there exist many buildings that succeeding generations will, if they are preserved, regard with respect and veneration. These should be the objects of solicitous care. We hope that they may be preserved, and to whom could this labor more naturally fall than to organized bodies of architects?

NEWS NOTES AND COMMENT

Beaux-Arts Methods at Harvard University

Commenting on the appointment of M. Duquesne to the faculty of the architectural school of Harvard University, the London *Builder* states as follows:

It is now some forty years since the American pioneers of a more liberal system of education, Professors Ware, Letang and Chandler, added the Beaux-Arts system of the atelier method of teaching architecture to the curriculum of the students of Massachusetts Institute of Technology. Subsequently the older schools fell into line—first Cornell, next the University of Pennsylvania, then Columbia. Harvard held out longest. The Beaux-Arts method of instruction now permeates the United States, and thus far stands for the best education of the student of architecture. M. Duquesne, who will be so largely responsible for the formation of the new school at Harvard, won the Grand Prix de Rome in 1897. Until recently he held a position in the Government office as "architect en second."

The first meeting of the Utah State Board of Architects was held on May 24. Mr. W. E. Ware was elected president, and Mr. W. H. Lepper secretary and treasurer. The law states that all architects take out a license on or before June 20, 1911.

To Investigate Factory Conditions in New York

Members of the Fifth Avenue Association of New York and the Committee of Safety, have visited Albany and urged on Governor Dix to lend his support to an effort which is being made to obtain legislative investigation of factory conditions in New York City.

Existing laws, it was stated, do not empower the local Fire and Building Departments to prevent the use of loft buildings for manufacturing purposes. A letter was read from Henry L. Stimson, Chairman of the Committee of Safety, and addressed to the Governor, in which it was stated:

> The situation of the factory workers in the tall buildings of this city presents an emergency which is little less than appalling. Within a brief period of time the character of large portions of the city have changed completely. The city is being filled with huge buildings, constructed ostensibly as loft buildings, which are immediately converted to factory use without any safeguards attending such conversion. The local authorities frankly admit that under existing laws they are powerless to remedy the situation, in which thousands of workers in these factories are placed in deadly peril of their lives. The great majority of buildings occupied as factories are literally deathtraps in case of fire.

There can be no doubt that conditions as described, were responsible for the loss of life in the recent Asch Building fire. What is true of New York as to the conversion of loft buildings to factory purposes is, we believe, equally true in other large cities throughout the country. It is hoped that these conditions, so very apparent and needing the promptest attention on the part of those responsible for adequate legislation, will be speedily and effectually remedied.

Fires at Temporary Exhibitions

The frequent fires at temporary exhibitions, etc., where highly inflammable forms of construction are used, have decided the Executive of the British Fire Prevention Committee to issue a detailed report on the great Brussels Exhibition fire of last year, and to supplement it with suggestions as to safeguards against fire in future temporary exhibitions, etc., set out in the form of model regulations. The illustrated report (Red Book No. 154), by Mr. Edwin O. Sachs, Chairman of the Committee, is a useful and interesting work which can be studied with advantage by all concerned in the erection and control of buildings, especially at a time like the present, when so many temporary structures are being erected in connection with the Coronation processions. The view

of the Executive of the Committee is that the time has arrived when we should have either general regulations or a form of model by-laws that could easily be adopted by localities to meet special fire risks. The Brussels Exhibition disaster meant a loss of over £2,000,000, of which about £1,750,000 was insured; but many of the exhibits were entirely irreplaceable. At a show like that at Coney Island there will probably be a loss of over £250,000. But what is far more important is that if these fires were to occur when the public are actually in the exhibition buildings or "shows," a very serious loss of life is to be anticipated, much as at the Paris Charity Bazaar fire of 1897.—*The Builder,* London.

In Memory of Major L'Enfant

A tablet was unveiled on May 23, at Washington, in memory of Major Charles Pierre L'Enfant, designer of the plan of the National Capitol. The tablet is placed at the door of the old Lee mansion, at Arlington Cemetery, opposite that part of Washington where are most of the public buildings which Major L'Enfant provided for in his plan. Addresses were delivered by President Taft, Ambassador Jusserand and Senator Root.

PERSONAL

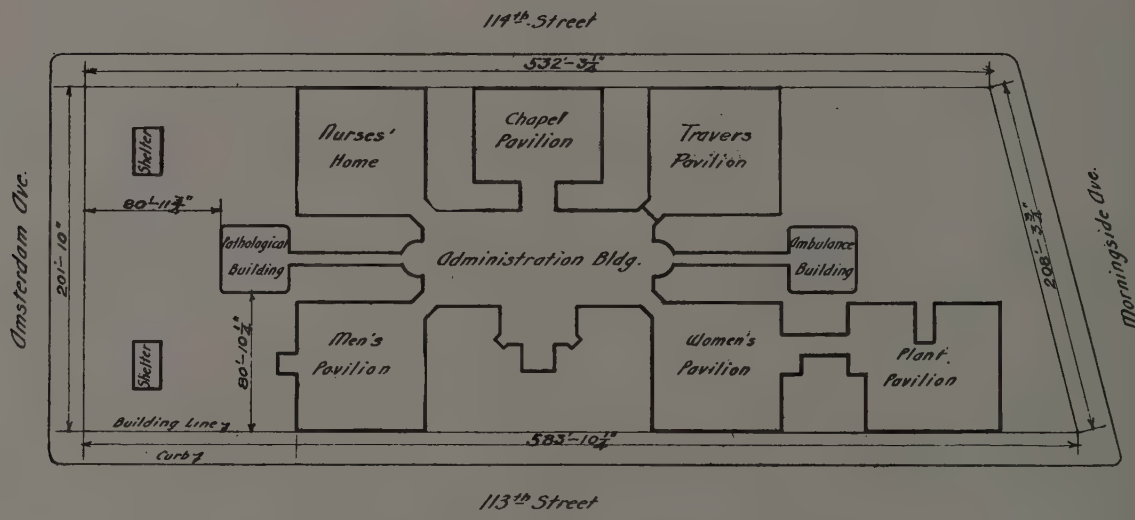
We are advised that Mr. Otto Block, architect, has removed his offices to 633 Mercantile Building, Rochester, N. Y.

Mr. Edward Shepard Hewitt announces that he has formed a partnership with Mr. William Lawrence Bottomley for the practice of architecture under the firm name of Hewitt and Bottomley, at his present offices, 527 Fifth Avenue, New York.

Mr. Peter Brust and Mr. Richard Philipp, Milwaukee, Wis., desire to announce that Mr. J. E. Heimerl has joined them as an associate in the practice of architecture, and that hereafter the firm name will be Brust, Philipp & Heimerl.

We are informed that Mr. J. Carlisle Pennington, formerly with H. B. Clement, architect, of Detroit, has formed a partnership with C. Howard Crane, of Detroit. They have opened offices in the Boug Building, Windsor, Ontario, Canada. Manufacturers' literature is requested.

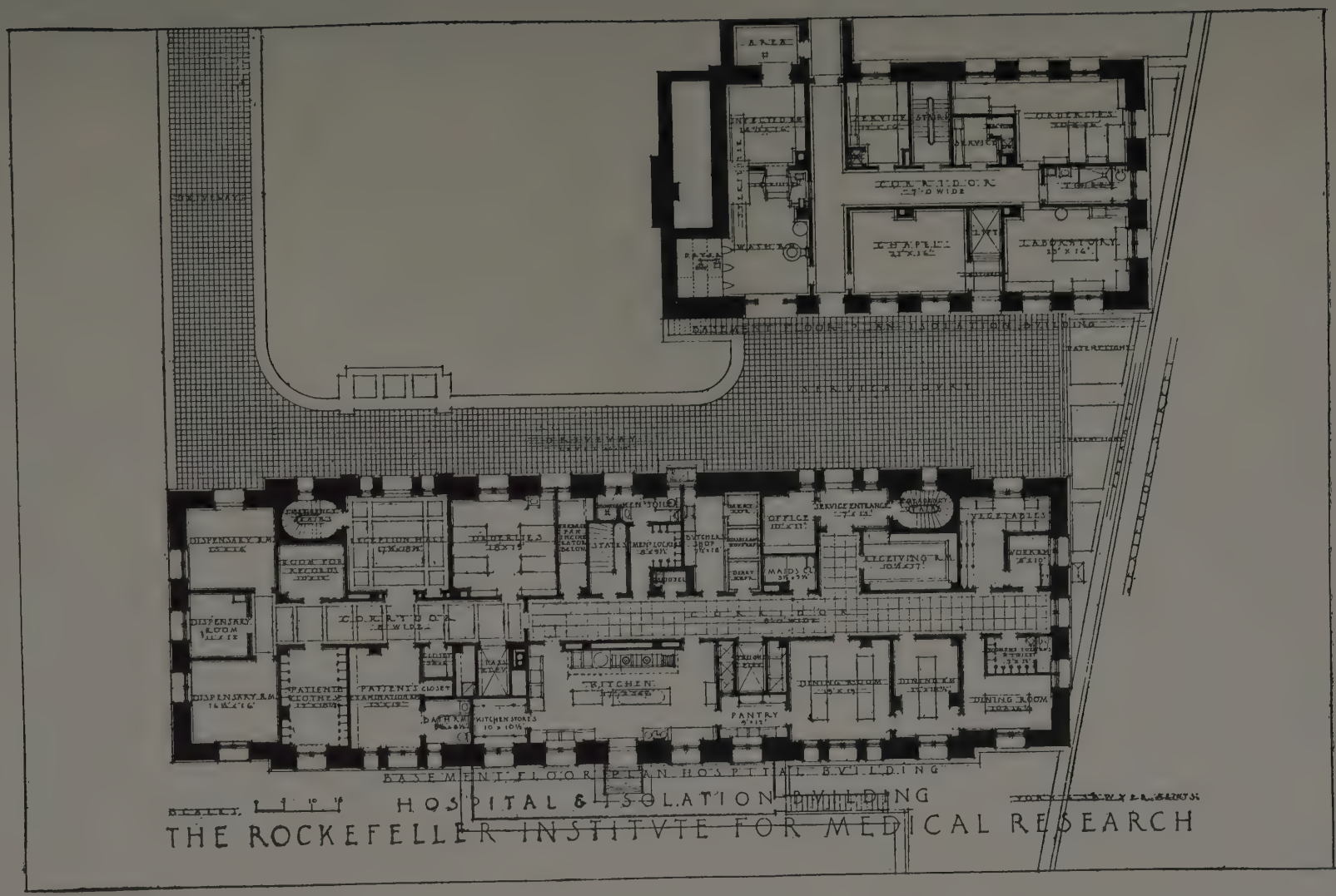
Jos. J. Eberle and C. M. Demmer announce that they have formed a copartnership for the practice of architecture under the name of Eberle & Demmer, at 1269 Broadway, New York City. Manufacturers' samples and catalogues are requested.

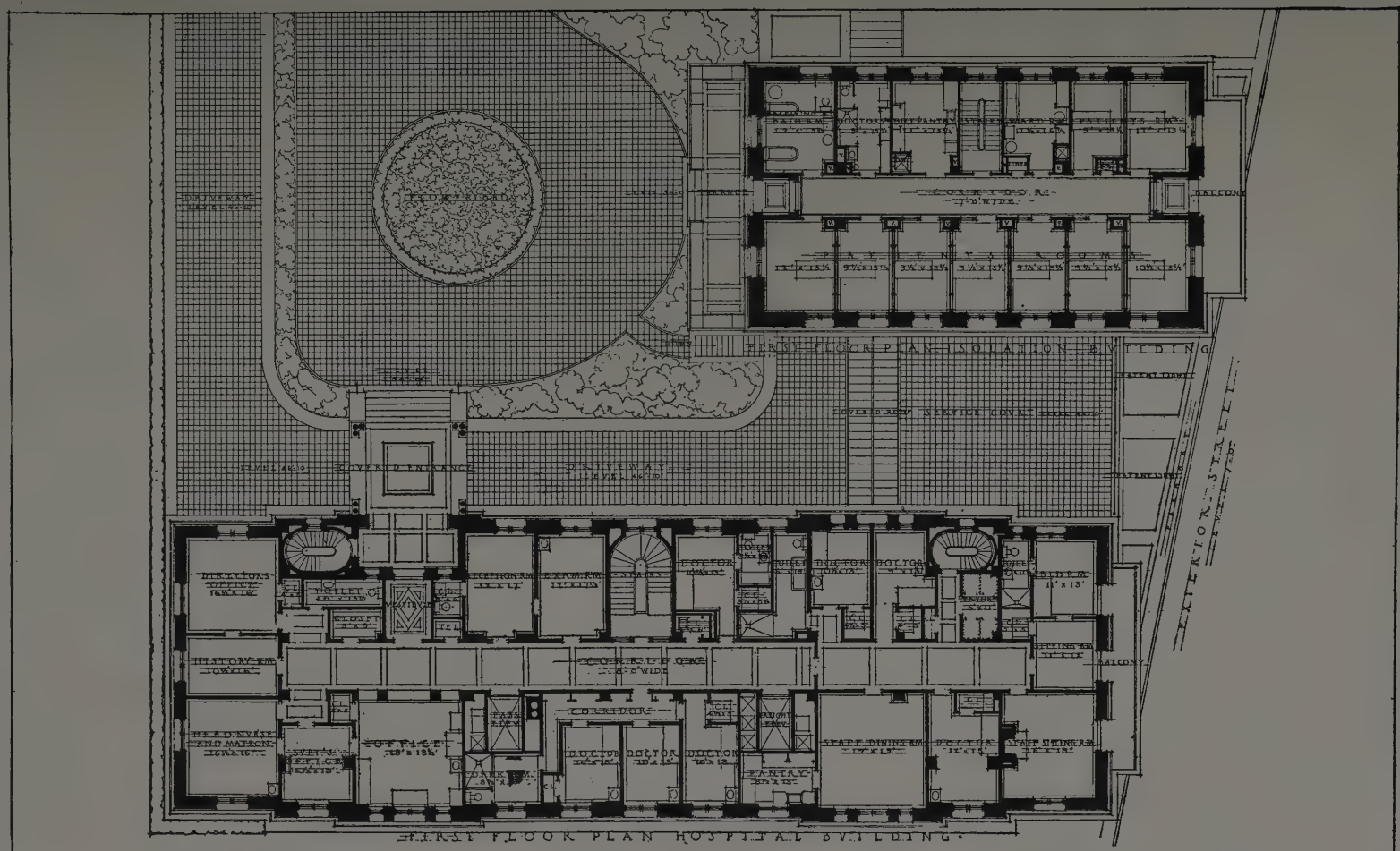


PLAN SHOWING RELATION OF TRAVERS PAVILION, ST. LUKE'S HOSPITAL, TO THE GROUP

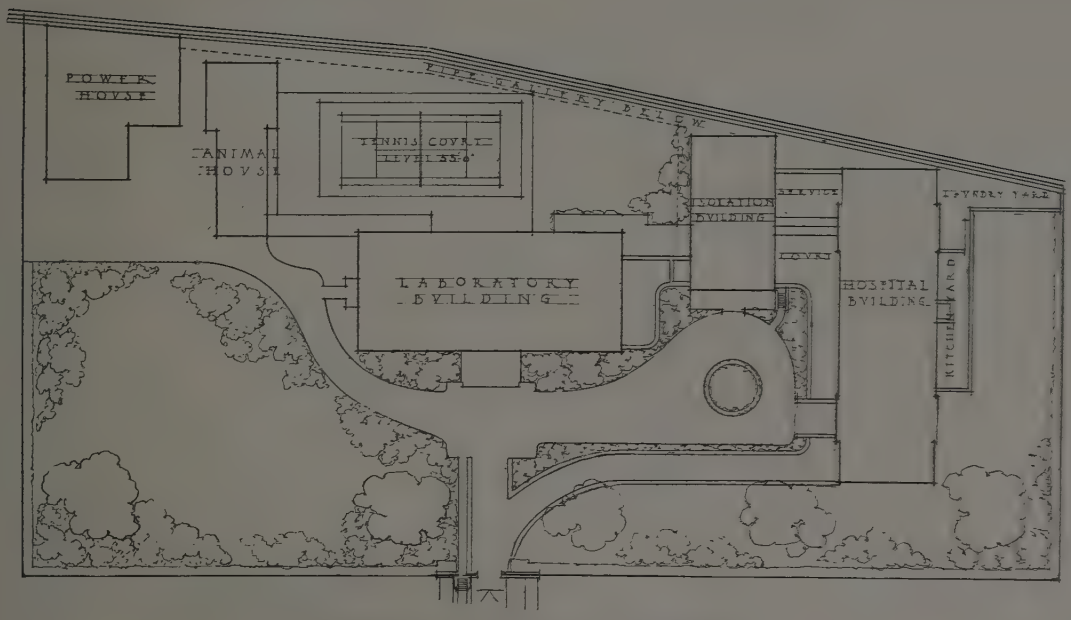
MR. ERNEST FLAGG, ARCHITECT


PIPE GALLERY TO POWER HOUSE
STORES
CORRIDOR
AUTOPSY R.M.
DAY YARD
HALL
PINEN STORE ROOM
LAUNDRY
MENDING & SEWING ROOM
PUMP AND TANK ROOM
SPACE FOR STERILIZERS
CORRIDOR
LAUNDRY
TANK ROOM
COAL STORAGE
MANGLE
WASHERS
CARPENTER SHOP
ELEV. MACHINES & STORES
MACHINE TABLE
PLANT OF FLOOR B (STORY BELOW SUB BASEMENT)
SUB BASEMENT PLAN
SCALE
HOSPITAL & ISOLATION BUILDING
YORK & SAWYER ARCHTS
THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

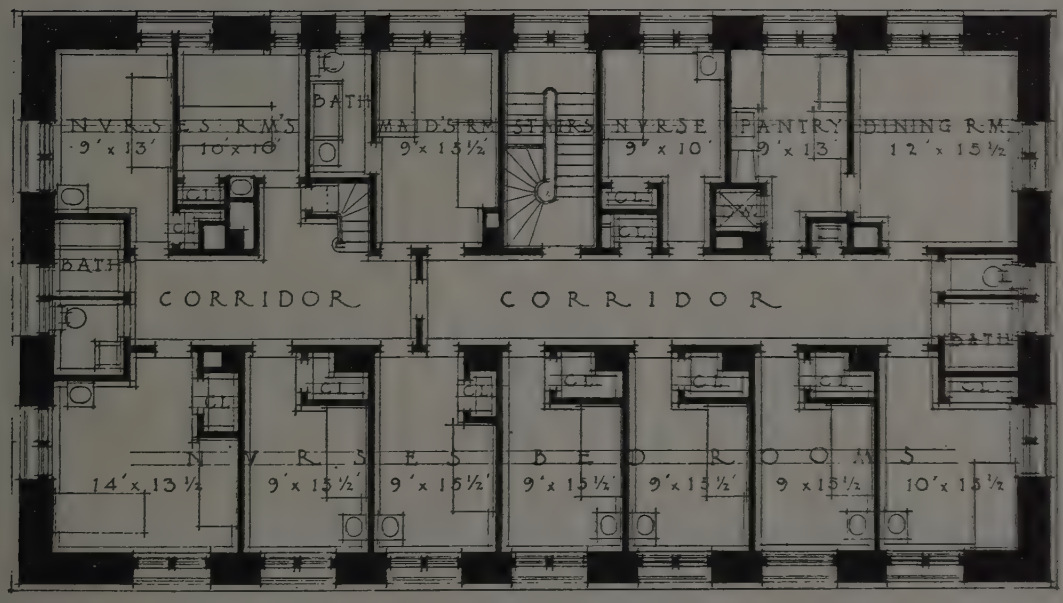

BASEMENT FLOOR PLAN HOSPITAL BUILDING
SCALE
HOSPITAL & ISOLATION BUILDING
THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH



THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH



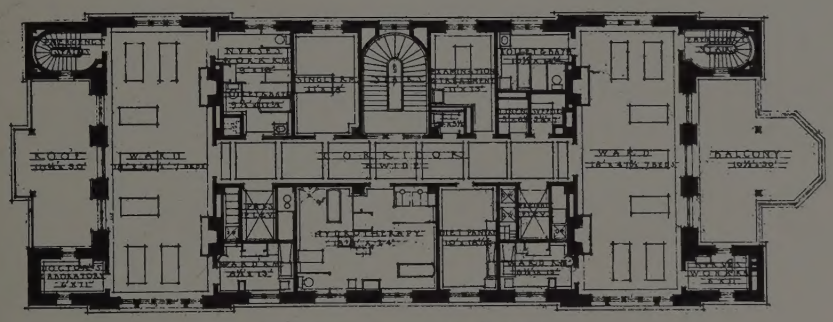
GENERAL LAYOUT OF GROUNDS



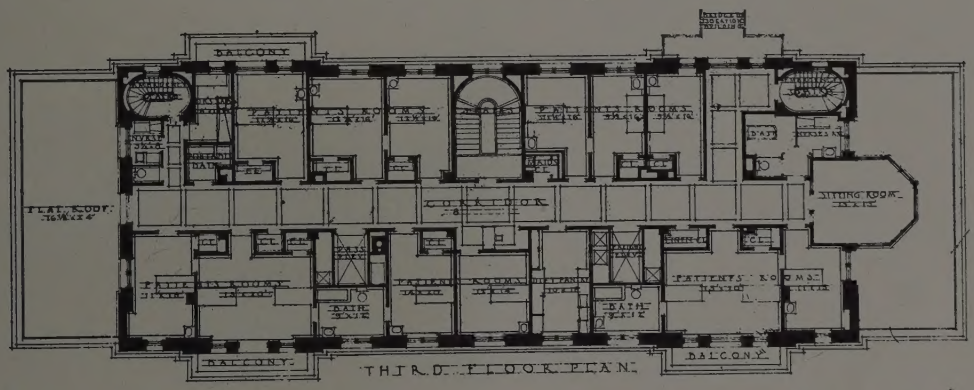
SECOND FLOOR PLAN, ISOLATION BUILDING

ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

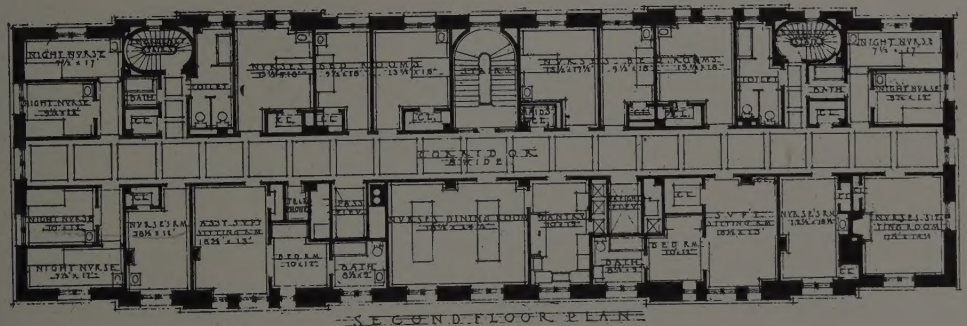
YORK & SAWYER, ARCHITECTS



FOURTH FLOOR PLAN



THIRD FLOOR PLAN

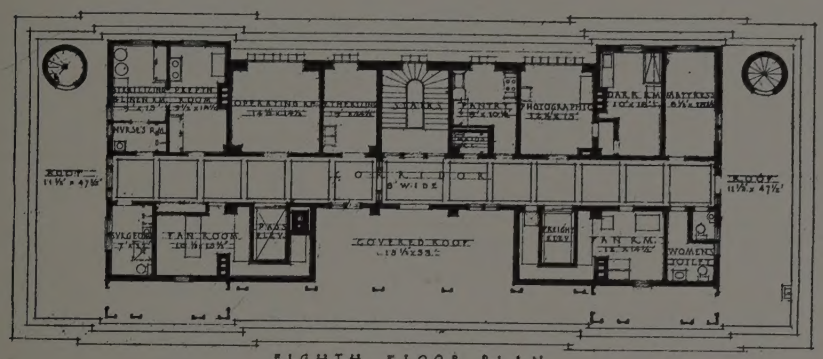


SECOND FLOOR PLAN

SCALE: 1" 0 1" 2"

HOSPITAL BUILDING — YORK & SAWYER, ARCHTS.

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH



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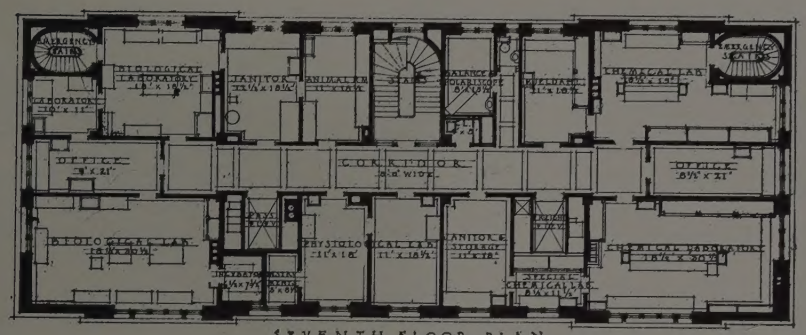
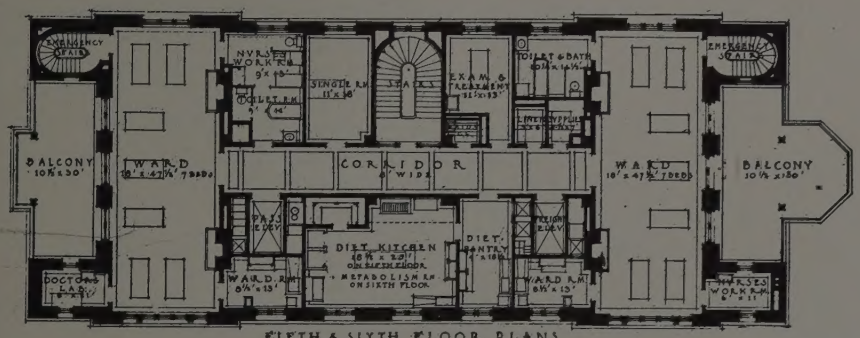


SEVENTH FLOOR PLAN



FIFTH & SIXTH FLOOR PLANS

SCALE

HOSPITAL BUILDING

YORK & SAWYER, ARCHTS.

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH