

THE AMERICAN ARCHITECT

FOUNDED 1876



THE SITE OF THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

THE BARCLAY-VESEY TELEPHONE BUILDING

McKENZIE, VOORHEES & GMELIN, Architects

By R. T. WALKER, A. I. A.

TO CONSIDER the architecture of the Telephone Building without giving attention to the intellectual and economic forces that came into the problem, is to regard external aspects only and to forget that harmony and unity are the assemblage of digested thoughts and reasons. A better appreciation of the result necessarily comes from knowing the mental steps in the process of the design.

The basis of all design is thought in which there should be no official or customary answer preoccupying the field. The design problem should be approached on its own merits, and our prejudices, our admirations, our distastes should be balanced in the logic of the solution.

Design in the Arts is governed by two distinct methods of approach. One—Handicraftsman—

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ship; the other—Machine craftsmanship. These methods develop two entirely different technologies that of necessity desire unlike results, and the great distinction between the architecture of the past and that of the future will lie in the wide differences of these results. It will be interesting to further consider these differences because they have a very noticeable bearing on the results that have been obtained in the development of the architecture of the skyscraper, and it is only in an understanding of the growth of these divergent methods of work that the future can be glimpsed. It is not difficult to look backward and sum up the results of the past methods, their reactions and their heritages to the present; it is not easy to try and balance the results of the newer ways and means.

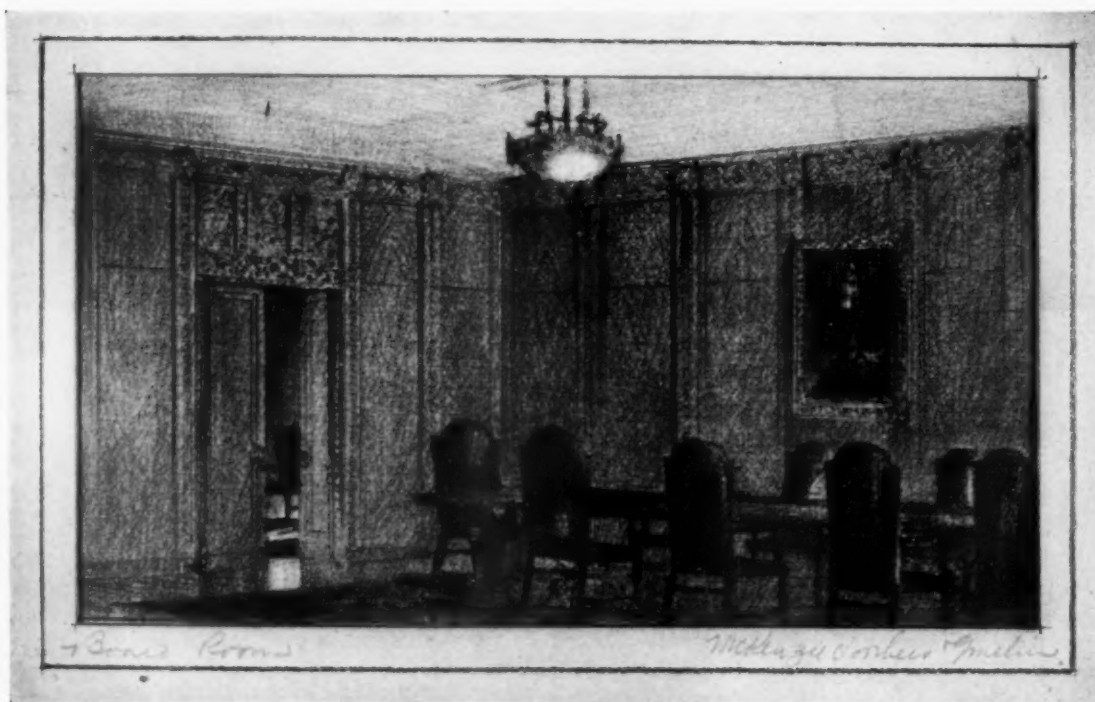
It is commonly thought that under a handicraft culture, each craftsman is free to design and execute without hindrance—that he might say with Walt Whitman, "I am sufficient as I am." Nothing is further from the truth, however, for he is guided in his design and fabrication largely by the customary habits which not only exist within his own craft, but also those which are in force in the community in which he lives.

These habits are of a hereditary and group nature, being handed down from father to son, from master to pupil, and are so imbedded within narrow provincialisms as to beget self-satisfaction with

the means and methods at hand. It has been very difficult for the craftsman to go far beyond that which was taught him by the master under whom he served his apprenticeship and he has been content to slowly reproduce with few added refinements that which he has slowly learned. The ordinary observer of the handicraft technology is impressed by the lack of inventiveness throughout the centuries, the ever-recurring use of the same design motifs and a real standardization of results.

This standardization produced that which we know as style and it is only through the momentary and generally forceful breaking down by wars of the provincial barriers, through an easier and more general means of travel and communication, that the style habits were changed, and the more widespread and reaching the effects of these disrupting influences, the more cosmopolitan for the time being was the architecture and the applied arts, and so spread such styles that are common in Europe.

In expressing these thoughts, there is no attempt in any way to belittle the arts of the handicraft eras, rather with a complete understanding of their beauty, but also with the realization that with the advent of machine craft, no matter how many methods of the former may still linger, a new technology is in evidence, a new directing force invades the field which must be considered and made use of unless we wish to become a pocket of archaic thought in the center of a world that progresses



FIRST STUDY OF DIRECTORS' ROOM

ever onward. It is only through the full use of the machine technology that there will develop not necessarily a national, but surely a modern type or style in architecture.

Contrastingly, machine technology easily breaks the limitations under which the handicraft labors, and contrary to most thought, produces great variety in both design and execution and rapidly changes and overthrows standards. It has within it a great discontent with methods—is constantly inventing new ones and because its large production must be disposed of, has a tendency to eliminate those habits and provincialisms we noted as existing before the advent of the machine.

The difference between the directing minds of the two technologies is obvious, for the craftsman hedged about with the limitations imposed by his craft is generally content within them, whereas the modern designer who is generally one of many working at the same problem is ever questing for new ideas, and because of the facility in obtaining them, new methods of fabrication. Through the many means of communicating and translating experience, not only has the designer at hand, the opportunity of observing what his near neighbor has accomplished, but also he may reach out without stirring from his work shop and take unto himself the ideas that have been produced the world over; not only those of his day but from historic time. This enables him to possess very early a fund of experience that heretofore it has

not been possible to accumulate in a lifetime's study.

It is generally true that the older the machine industry, the greater variety there is in both design and methods.

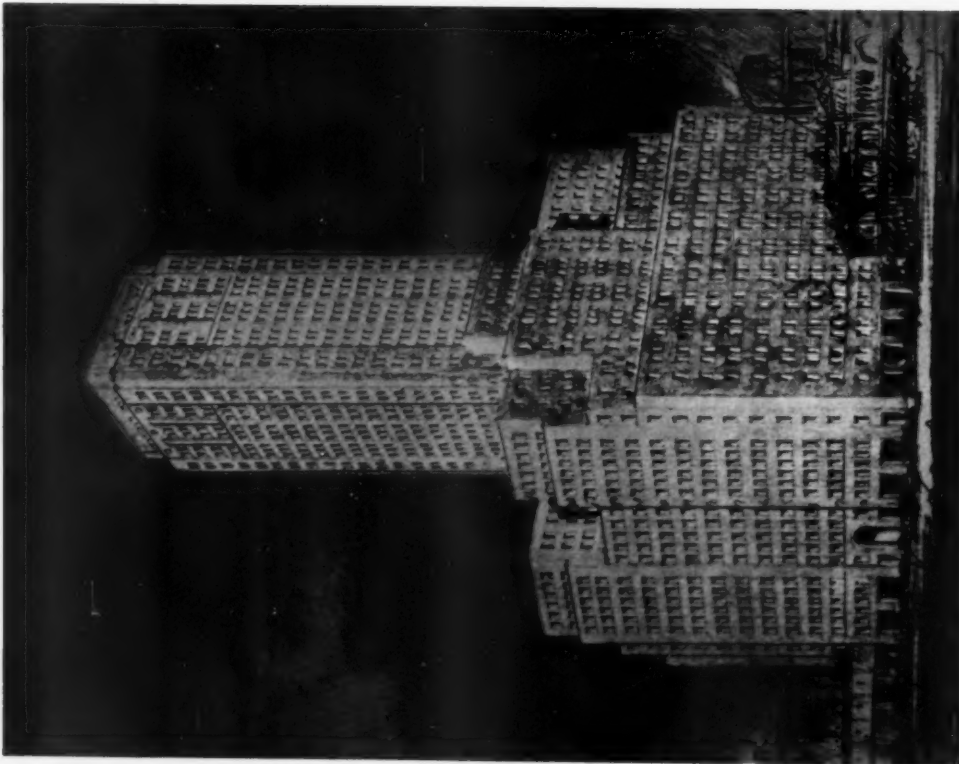
Architecture is the one great industry in which the directing force, the designer who himself works under conditions resembling those of the machine technology has to be largely content with the methods of the handicraft stage for the execution of his ideas. This influence is noticeable in that the large majority of architects not having had the great facility that is evident in other industries in producing their ideas, have been content to conform to the reproduction of those of a more hereditary nature. They have always assumed the official answer and so have limited the growth in architectural design except in the direction of good taste.

The only evidences until recently of the machine craft in the building industry, are the great variety, the increasing number and the excellent quality of the materials which have been offered the architect for his use, in the steel skeleton construction, and the use of reinforced concrete, but as far as any relation of their use is concerned, the architect has been mainly interested in producing tortured walls and roofs, which are fondly heralded as what modern sophistication can accomplish with medieval naivete.

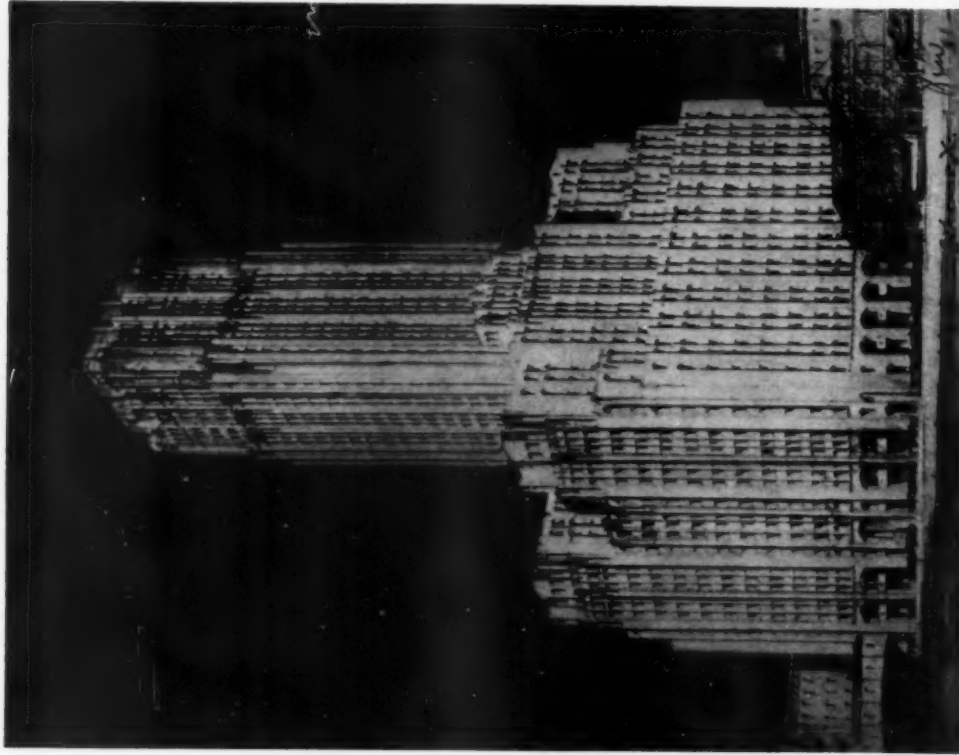
In general, the architect has been content to develop taste rather than to create, been prone to



FIRST STUDY OF OFFICE OF THE CHAIRMAN OF THE BOARD



THE MASS WITHOUT ANY THOUGHT OF ARCHITECTURAL TREATMENT, BARREN, UNINVITING; IT MIGHT EASILY, UNDER CERTAIN ATMOSPHERIC CONDITIONS, BE VERY IMPOSING; IT FILLS ALL THE HUMAN REQUIREMENTS SAVE UNITY AND BEAUTY



AN ATTEMPT AT MODERN GOTHIC, WITH DEEP WINDOW REVEALS, THE BREAKING UP OF THE HORIZONTAL MEMBERS SHOWS A VERTICAL UNITY THAT IS LACKING IN THE PREVIOUS SCHEME, ALTHOUGH THE WINDOW MOVEMENT IS DECIDEDLY HORIZONTAL

PRELIMINARY SKETCHES OF THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GRELIN, ARCHITECTS
(From the original drawings by R. T. Walter)

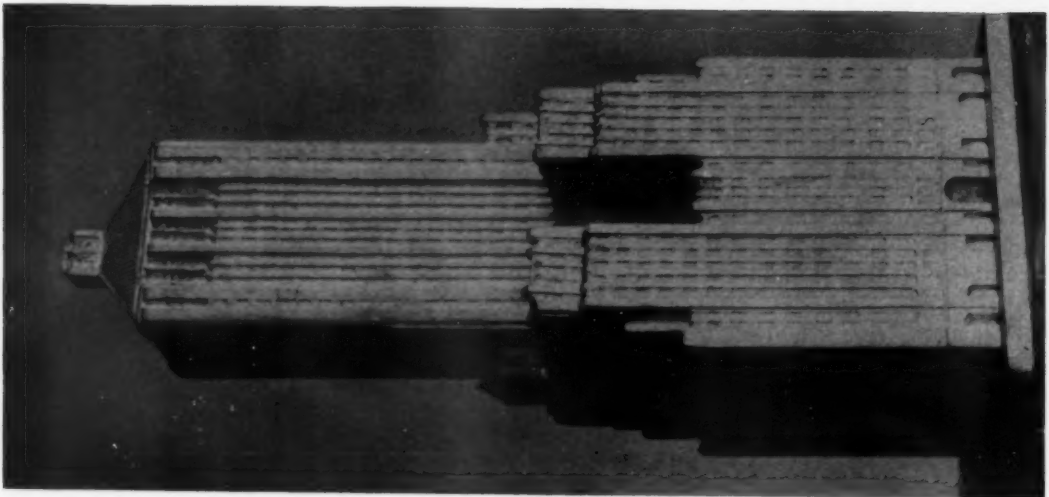
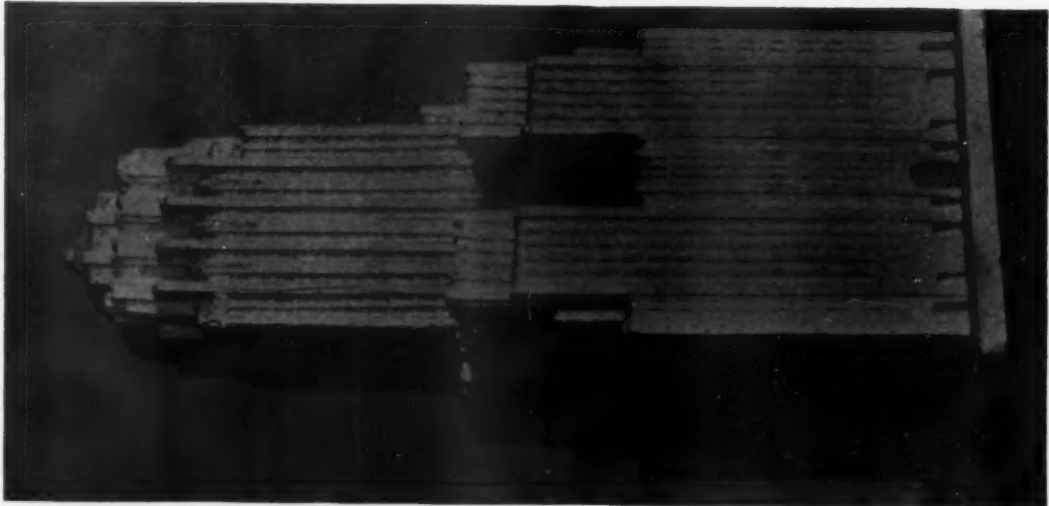
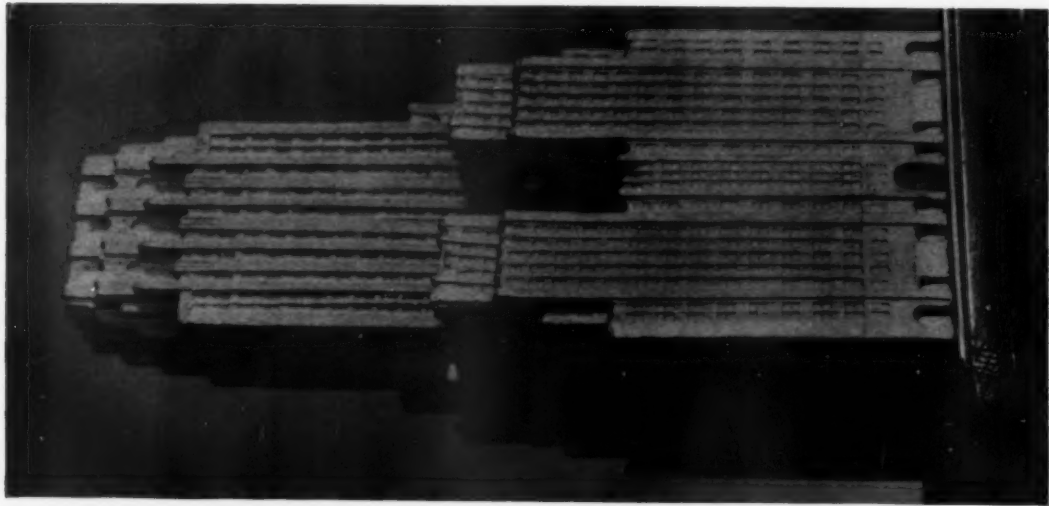


AN ATTEMPT TO MAKE THE BOX-LIKE MASSES, BY MEANS OF BRICK MOTIFS, COME INTO SOME SORT OF UNITY. IT WAS DESIGNED TO BE OF LIGHT BRICK. THE HORIZONTAL LINES STILL PREDOMINATE. THE SURFACES ARE INTERESTING, BUT THE MASS AS A WHOLE LACKS INTEREST. FROM THIS SKETCH, WHICH WAS THE LAST OF A GROUP COMBINED WITH THE ECONOMIC STUDIES, THE DECISION WAS MADE TO TREAT THE WALLS VERTICALLY. UPON THIS DECISION THE UNDERLYING THOUGHT OF THE BUILDING, HOWEVER, WAS TOTALLY CHANGED AND AN HONEST ATTEMPT WAS MADE ON THE PART OF THE DESIGNER TO TREAT THE PROBLEM FOR ITS OWN SAKE: TO MAKE IT AS MODERN IN CONCEPTION AS THE TELEPHONE ACTIVITY IT HOUSES

PRELIMINARY SKETCH OF THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

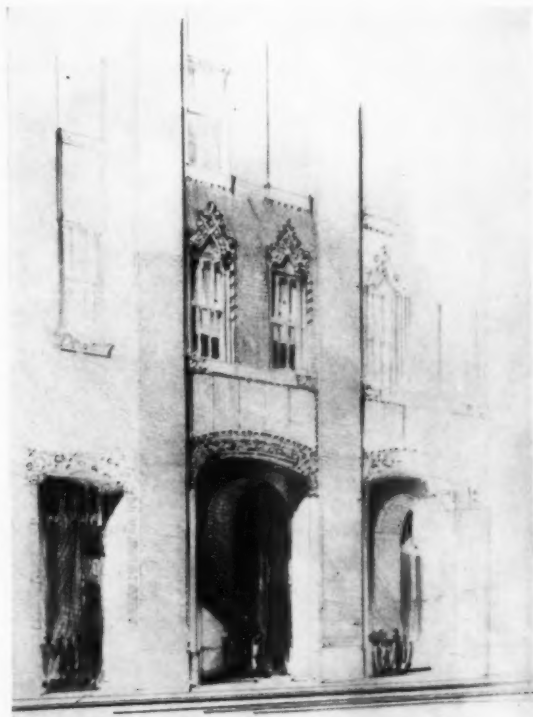
McKENZIE, VOORHEES & GMELIN, ARCHITECTS

(From the original drawing by R. T. Walker)



SKETCH MODELS SHOWING THE DEVELOPMENT OF THE FINAL SCHEME
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
McKENZIE, VOORHEES & Gmelin, ARCHITECTS

thank whatever God it is that looks after architecture that buildings can still be covered with the Classic orders or Gothic detail.

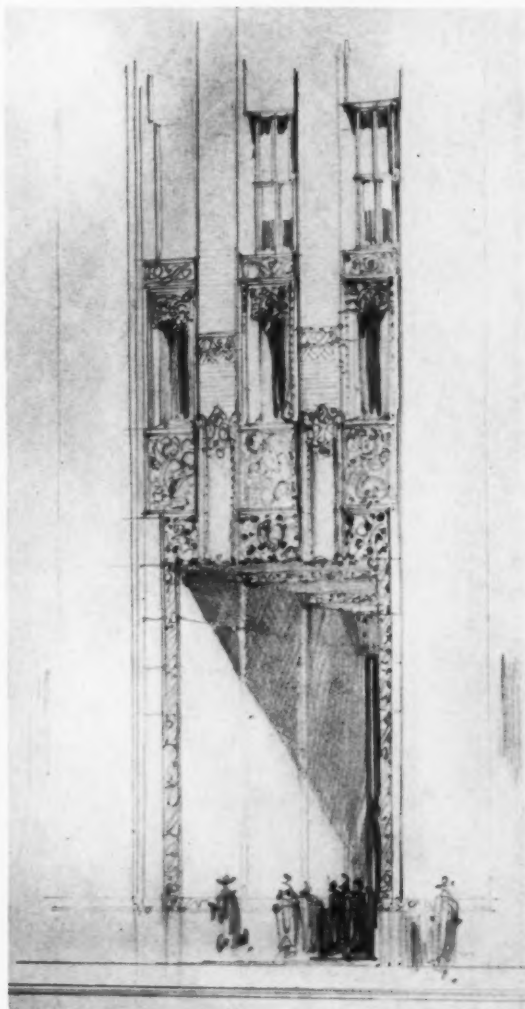


PRELIMINARY STUDY OF ARCADE MOTIVE
FROM ORIGINAL SKETCH BY R. T. WALKER

But the skyscraper, whatever we may think of its social aspect, is not only in its design methods but also more and more in its fabrication, an expression of machine technology and in fact it would be utterly impossible were the machine eliminated, for the use and functions of the building are so tied to mechanistic necessity that its expression in architectural form should and has a character that is largely mechanical. But the user of this machine and for whom it is made is after all man, whose nature fundamentally lacks that rigidity, that almost untiring service we have come to expect from the machine, so that the architectural expression of this type of building must therefore superimpose upon and closely knit into the machine those qualities of humanity that make for culture.

The hard mechanical quality of the modern office building is, no matter how much the designer wishes to avoid it, in evidence in the very best of them. The Woolworth, the Bush and the Shelton Buildings, possess under a camouflage of traditional forms a certain brittleness, a true loss of an intimate nature. I feel that successful as they are, and they surely stand head and shoulders above

their fellows, there is a lack of the controlling thought of the technology they should express, that it is not possible to take motifs and detail which have a definite scale to the provincial characteristics of Europe, increase them to Gargantuan proportions, and still have either the character they originally possessed, or have them bear any definite relation to the life and times which are ours.



PRELIMINARY STUDY OF ENTRANCE MOTIVE
FROM ORIGINAL SKETCH BY R. T. WALKER

It seems to me, therefore, that the architectural problem of the skyscraper, especially in New York City, is this: To express the efficiency of the mechanical parts made necessary by its size with the social requirements of its occupants, within these limitations—economy and those imposed by the zoning law. There has been a great deal written about expressing the steel skeleton of the sky-

scraper, and many attempts to do this by making walls that are mostly of glass with narrow piers and small spandrels. The trouble has been that the expression of the structure, generally faulty, as the beam and girder are as important as the column.

are just as necessary as the steel skeleton in making possible the skyscraper; that from the heating and ventilating standpoint, the building would far more easily function if there were no windows at all, and from the standpoint of lighting, a more



SKETCH OF ARCADE

FROM ORIGINAL DRAWING BY CHESTER B. PRICE

has as a stunt, always overlooked the purpose of the building and the physical comfort of the people who use it.

They forget that the steel structure is but part of the entire building, that it takes its place relatively with mechanical equipment, heating, ventilating, electric lighting and elevators, all of which

efficient working light less subject to change, would be possible were the windows eliminated.

Therefore the skyscraper from these viewpoints would be best expressed if it were a sheer mass of masonry absolutely lacking in any opening except the means of getting in and out.

Here is the designer upon the two horns of the

dilemma if he endeavors to express the structure and the mechanical plant.

What most people, who criticize the lack of that structural expression in the exterior of the skyscraper, seem not to appreciate, is that there are people more or less human who must work and live in these buildings and that the exterior must conform to their needs. The whole tendency in modern architecture, and this is especially true in Germany, has been to treat these humanly inhabited buildings with a lack of the humanities and to think of them in terms of the stark nakedness of silos and grain elevators.

It is easy to see why thought rebels against the machine age under such conditions as these.

The attitude is a false one. The terms as terms, the steel frame, heating and ventilating and all mechanical agents in the building must be eliminated from the thought of the problem except as a means, the most facile means that man has so far invented, enabling him to overcome what have been heretofore difficulties in housing himself in com-



DETAIL OF EXTERIOR ORNAMENT AT 10TH FLOOR

fort. If we admit this to be logical, the design of the skyscraper should express primarily the comfort of its inhabitants, and if daylight is, as it should be, psychologically still used as a means of illumination, the most satisfactory and comfortable light should be striven for and the windows should be so placed as to give the maximum of light without glare. This is best attained by having approximately an equivalent amount of wall and window and, of course, it should be realized that daylight does not penetrate street canyons; that it is dependent upon the reflection from an uninterrupted skyzone, that without this reflection there is no

daylight, at least not sufficient to penetrate very far from the window itself and that well considered artificial light is then absolutely necessary.

I have gone at length into a discussion of these thoughts as they had a large bearing upon the design of the Telephone Building. One of the most noticeable aspects of the building is the great amount of wall space in proportion to window



DETAIL OF EXTERIOR ORNAMENT AT 10TH FLOOR



REPRODUCTION FROM PHOTOGRAPHS OF MODELS FOR EXTERIOR ORNAMENT

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
MCKENZIE, VOORHEES & GMELIN, ARCHITECTS

opening. This gives a solidarity that is rare in commercial buildings yet the natural light on the interior is more than excellent and penetrates over sixty feet from the exterior walls.

The Telephone Building was a problem conceived of as a machine, which had certain definite functions to perform and to perform economically for the benefit of its occupants; and economy, and not extravagance was perhaps the strongest influence exerted upon the entire design of the building, both internally and externally. It was clearly appreciated that its result was to be the product of

made the dominant motif, and if this reasoning seemed logical, the cornice which with a flat roof is no longer a practical necessity, but has been retained solely for its ornamental character, no longer fitted the problem and should be eliminated and some other means found of obtaining the ornamental interest which the cornice has furnished in the past.

The Telephone Building was designed with this thought in view, that a mass of blocks piled one upon the other might under certain conditions of both light and distance, be very effective, but if it was desirable for the building to have interest at all



DETAIL OF SETBACK AT 17TH FLOOR

many minds so that very early in its design the general aspects were thought of in terms of the machine technology.

The zoning law setbacks of New York brought into the design an element of many roofs which were necessarily flat to save loss of valuable space within the building. These setbacks had the tendency to give the building the appearance of a series of packing boxes or children's blocks placed one upon the other, giving the mass a lack of unity, and the more the lateral border lines of these boxes were emphasized, the greater that lack of unity and the greater was the disruption in the design. Therefore, it appeared that the horizontal lines, as lines, should be so broken up, that the vertical movement up through that series of packing boxes should be

times, that it must achieve a unity and this result was obtained by the use of vertical piers which so pierced and broke the horizontal lines that each packing box melted into the other. It was felt that these horizontal lines must be further softened, that at the point of each setback the movement within these lines also should be vertical.

The building so designed had a vertical unity but a rigidity of line and mass. It was simple and straightforward and from a distance where a mass counts for most, seems a fair and happy solution, but on consideration that it must also bear a closer and more intimate inspection, it was felt that the hardness of line must be softened by the use of either a difference in texture or of ornamental surfaces; and as ornamentation is difference

in texture with larger possibilities in both shadow and movement than any other form permits, it should be used to give the softening, the refinement that was thought desirable, and keeping in mind the desired subordination of horizontal motifs, it was concluded that the ornamental interest was best contained within the surface of the walls to be decorated and that its general movement should also be vertical.

The function of ornament is to add texture and interest to the building which it embellishes. Its primary function is that of texture for it permits of relief from monotony; it enriches in such a manner as to soften otherwise severe surfaces; and it makes for easy transition from one material to another. Its secondary purpose is to afford a relief from the restlessness the mind cannot help but feel, if ornament is lacking. It creates a feeling of friendliness because of its interest to the passerby. In many ways, in the skyscraper it should afford to the eye a welcome rest from the gigantic power of mass and in so doing aid to bring down to a human scale, that which otherwise is too great for comfortable comprehension.

The ornament of the skyscraper should be designed then first to offer relief from the monotony its size is bound to present; again in such manner as not only to evoke interest once but many times.

Ornament is very much like language in that motifs, like words, have a tendency to become symbols. Just as there are many words which the educated man never consciously spells, so there are ornamental motifs which have become so symbolized to the average mind that it never sees them: such, for instance, are the egg and dart and most of the acanthus leaf motifs. They are as simple as the word cat, which once easily comprehended, never can arouse interest again.

Much of the hereditary ornament that is in use today is the product of simple and naive minds; it spells an interest in design similar to words of

one syllable, and on the skyscrapers, buildings of complicated thought, has as little reason for being as the overhanging cornice and the pyramidal roof.

The ornament of the skyscraper should be so complicated in its structure as not to be readily comprehended; its framework should be as hidden as the steel structure is itself. It should repay repeated interest and study; it should endeavor to present as many different aspects under normal conditions as does the mass of the building under the varying light conditions.

It should have the relative scale of the materials of which the building is built and not of the building itself. Its units should never be greater than the smallest unit used in the wall of the building, otherwise a loss of structural unity follows. It should be evenly enriched so that there are no focal points on which the eye comes to a pause, because, contrary to most thought, ornamental unity does not necessarily follow from symmetry but is generally disrupted by it.

It should first be thought of as textural relief, then its underlying structure be noticed and lastly its detail. And the more ornament is designed on these principles, the more often will it present different aspects under continuous inspections. It should always be difficult to read and comprehend at a casual glance, for he who runs does not read, and ornament first and last is for the entertainment of the many who stand and wait.

In sharp contrast with the vertical rigidity of the buff brick piers of the Telephone Building the ornamental stonework is carved with a free and flowing ornament so designed to be an integral part of the wall it decorates. Its method of carving, a combination of engraving and both high and low relief, was designed with the thought that the dust and smoke that occurs in a great city would have the tendency to increase its effectiveness, and while in no way does it endeavor to express the telephone it does have a bearing on the traditions of the site



REPRODUCTION OF PHOTOGRAPH OF MODEL OF ORNAMENTAL WINDOW SILL

and the neighborhood in which the building stands.

The interest of the passerby, whether he is a commuter, whose approach to the city is at the building's feet, or a user of the markets in the immediate vicinity, is caught by ornamentation that is not meaningless but by flowers, fruits, plants and game that are either in the gardens at home or in the neighboring market stalls.

The interiors of the building, where common use by its occupants suggested the need of a change from the efficiency of the departmental floor, were designed to give pleasant relief from the labors of the day. The main corridor on the first floor, the cafeteria and restaurant in the basement were planned to give the greatest let-down from the tension of modern business.

It is impossible in the design of such a great undertaking to give just recognition to all the designing minds that entered into the conception of the building and all its decorations. To a very great extent the success of the ornament is due to Ulysses Ricci of Ricci & Zari, and John DeCesare of Stifter and DeCesare. Their patience, ability

and ready acceptance of the possibilities have given to vague ideas the realization of a new method of ornamentation. To the members of the firm of Mack, Jenney & Tyler and Edgar Williams is due the credit of the color decorations on the interiors. To the designers of the Edward F. Caldwell Company, the Sterling Bronze Company, the Cassidy Company is due the excellence in the design of the lighting fixtures. The designers in the firm of McKenzie, Voorhees & Gmelin,—David C. Comstock, Oliver Razor, Joseph Ballantyne, Chauncey Pierpont, and John Baker, were noted for their eagerness in forsaking the beaten path and solving the problem for its own sake whether it was of great importance or little.

To these men, willing to co-operate and giving expression to pent-up ideas together with the fine spirit of craftsmanship that pervaded all the firms who had the execution of the work, both principals and employees, is due any greatness the work might possess for otherwise the underlying and lifegiving idea were dead indeed.



REPRODUCTION OF PHOTOGRAPH OF MODEL OF ORNAMENTAL WINDOW SILL



REPRODUCTION OF
PHOTOGRAPHS OF MODELS OF
EXTERIOR ORNAMENT ON FIRST FLOOR
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
MCKENZIE, VOORHEES & GRELIN, ARCHITECTS



RENDERING OF THE FINAL DESIGN

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GELIN, ARCHITECTS

(From the original drawing by Chester B. Price)

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VIEW OF BUILDING FROM THE HUDSON RIVER

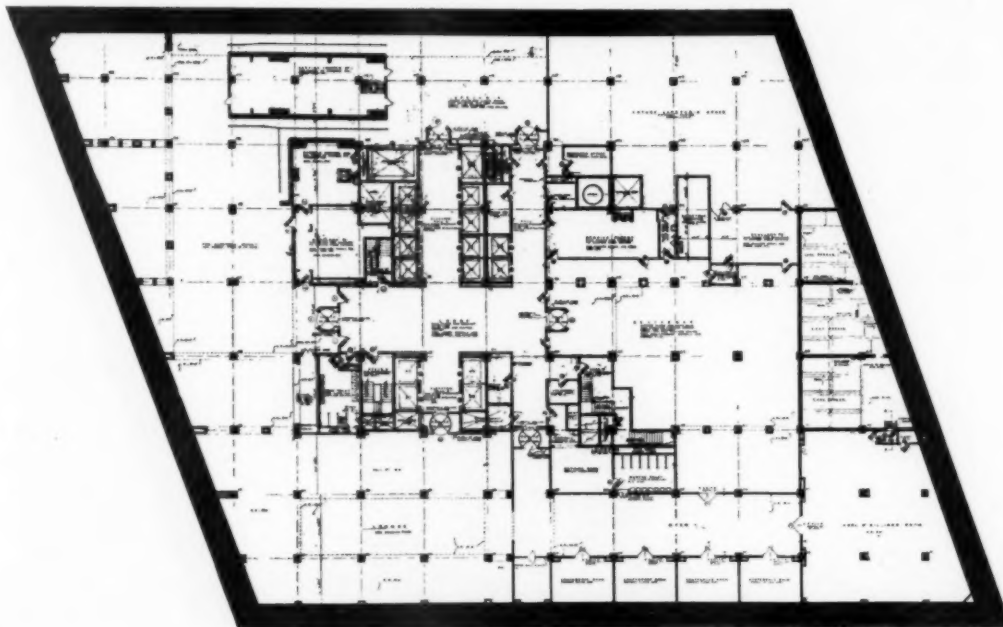
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GELIN, ARCHITECTS

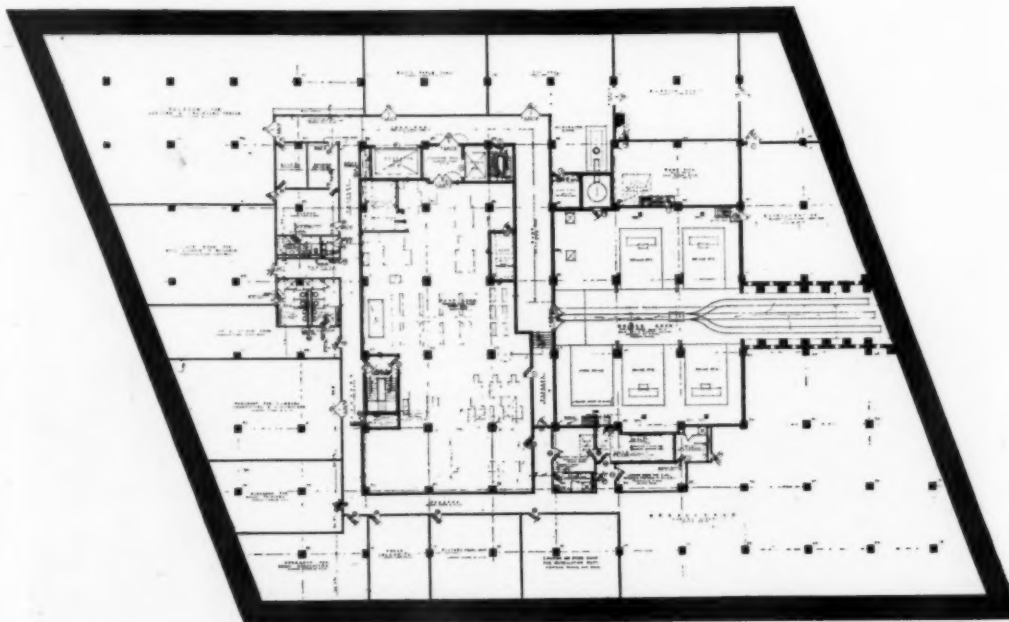
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BASEMENT B PLAN



BASEMENT D PLAN

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
McKENZIE, VOORHEES & GMELIN, ARCHITECTS



VIEW OF BUILDING FROM VESEY STREET

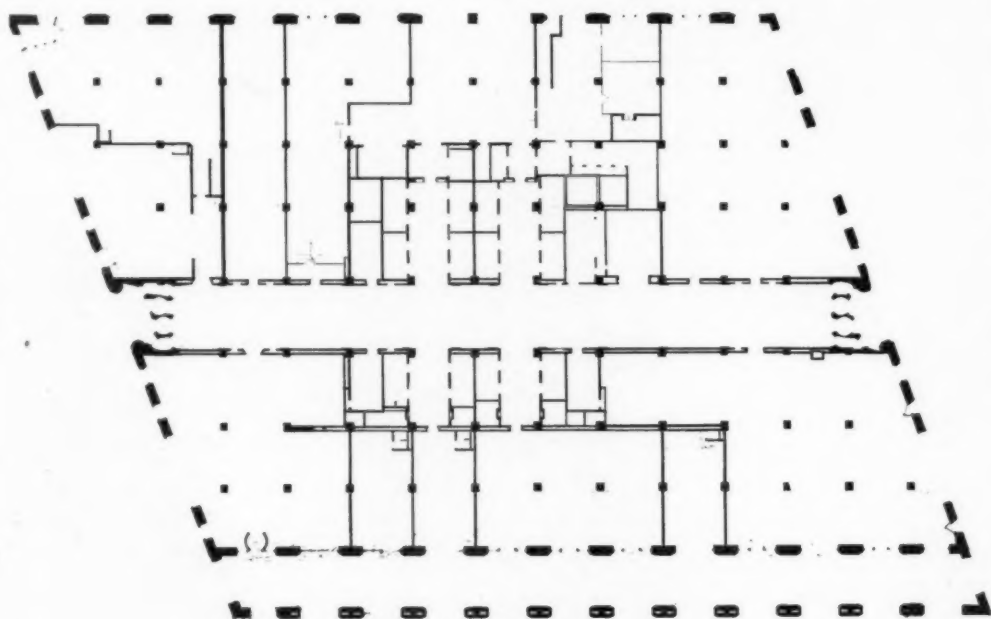
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

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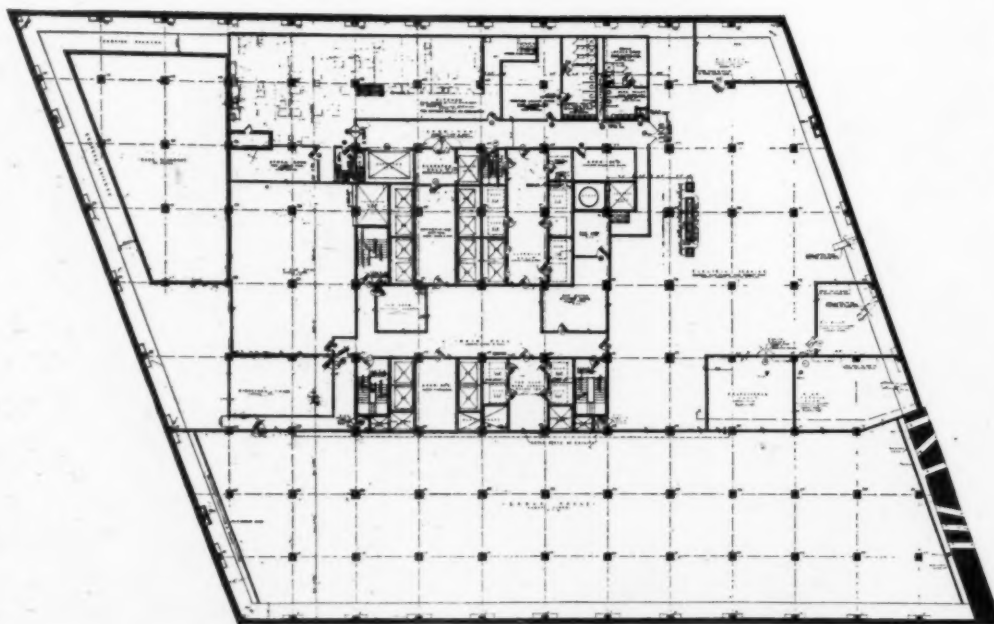
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FIRST FLOOR PLAN



BASEMENT A PLAN

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
McKENZIE, VORHEES & GMELIN, ARCHITECTS



VIEW OF BUILDING FROM THE SOUTHWEST

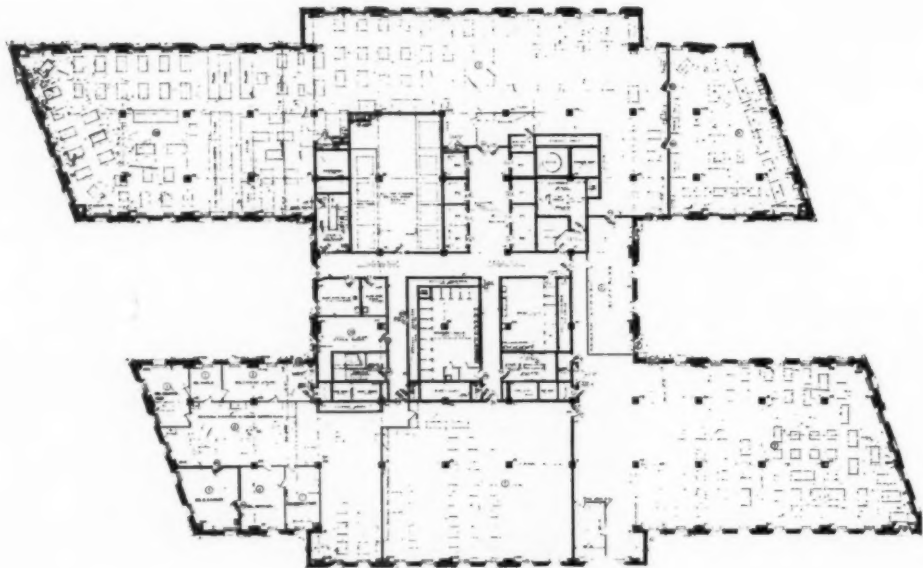
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GELIN, ARCHITECTS

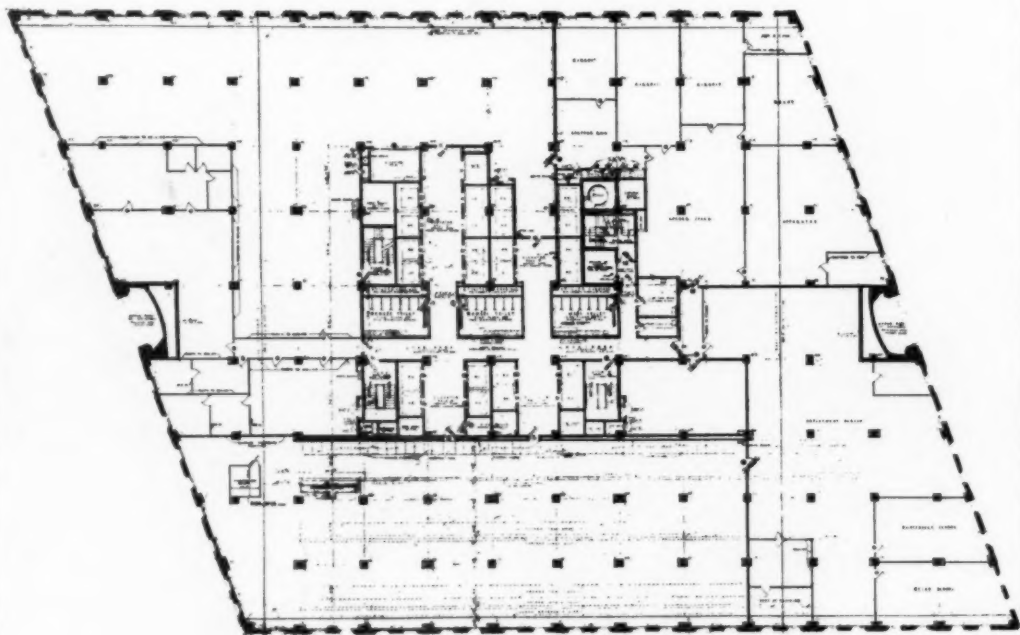
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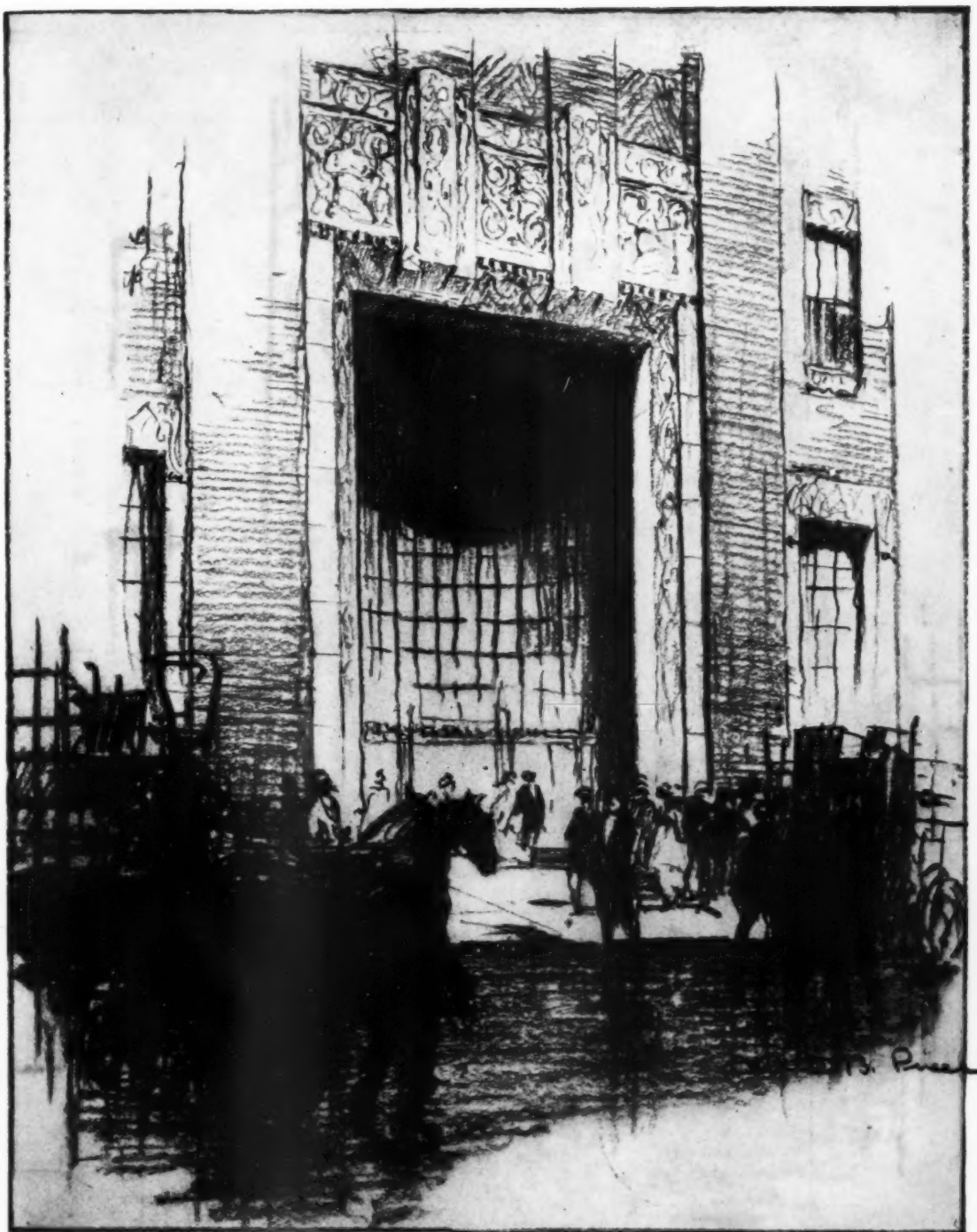


SEVENTEENTH FLOOR PLAN



SECOND FLOOR PLAN

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
McKENZIE, VOORHEES & GELIN, ARCHITECTS



SKETCH OF ENTRANCE

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

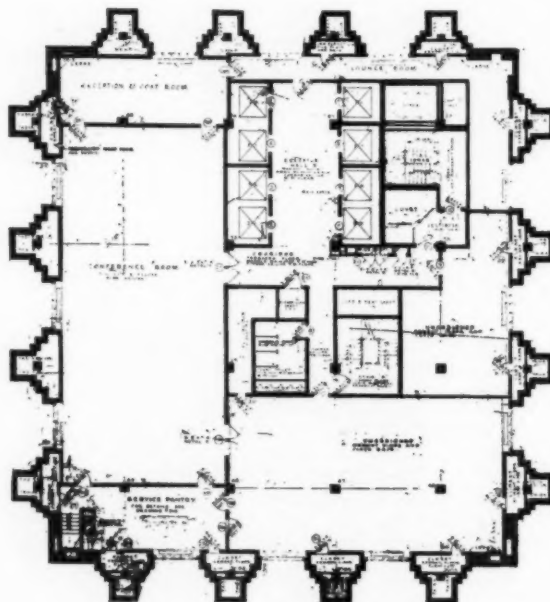
McKENZIE, VOORHEES & GMELIN, ARCHITECTS

(From the original drawing by Chester B. Price)

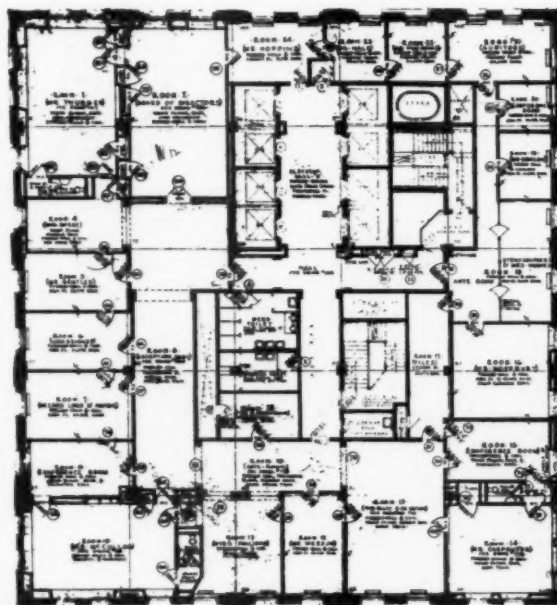
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THIRTY-FIRST FLOOR PLAN



TWENTY-NINTH FLOOR PLAN

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
MCKENZIE, VOORHEES & GMELIN, ARCHITECTS



DETAIL OF ENTRANCE

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

McKENZIE, VORHEES & GELIN, ARCHITECTS

(See details of ornament on back)

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DETAILS OF EXTERIOR ORNAMENT ON ENTRANCE
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
MCKENZIE, VOORHEES & GRELIN, ARCHITECTS



DETAIL OF BRONZE ENTRANCE

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GELIN, ARCHITECTS

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MAIN CORRIDOR

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GMELIN, ARCHITECTS

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DETAIL IN MAIN CORRIDOR

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GELIN, ARCHITECTS

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DETAIL OF ONE OF A SERIES OF DECORATIVE CEILING PANELS IN THE MAIN CORRIDOR.
BY MACK, JENNEY & TYLER

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
MCKENZIE, VOORHEES & GMELIN, ARCHITECTS

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DETAIL OF ELEVATOR DOORS AND LETTER BOX IN MAIN CORRIDOR
 THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
 MCKENZIE, VOORHEES & GRELIN, ARCHITECTS

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DETAIL IN AUDITORIUM

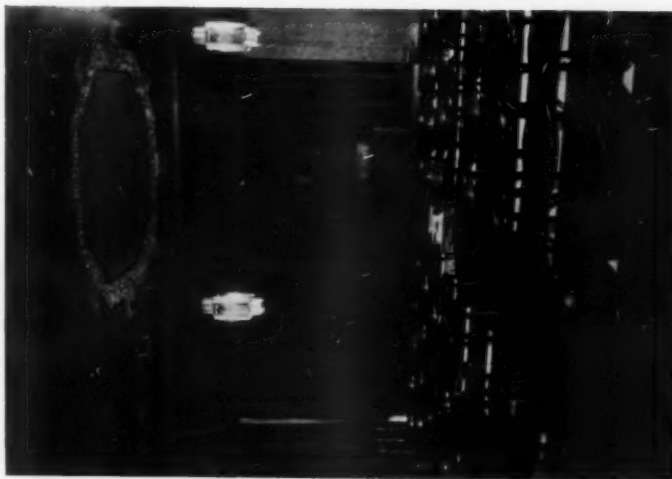
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GMELIN, ARCHITECTS

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AUDITORIUM



DETAIL OF RADIATOR GRILLE IN AUDITORIUM

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

McKENZIE, VOORHEES & GRELIN, ARCHITECTS



RECEPTION ROOM TO DIRECTORS' ROOM
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
McKENZIE, VOORHEES & GMELIN, ARCHITECTS
(See details on back)

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DETAIL OF HARDWARE
THE WORK OF SAMUEL YELLIN, CRAFTSMAN



DETAIL OF OVERDOOR
ENTRANCE TO DIRECTORS' ROOM
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
McKENZIE, VOORHEES & GMELIN, ARCHITECTS



DETAILS IN DIRECTORS' ROOM
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
MCKENZIE, VOORHEES & GRELIN, ARCHITECTS

THE AMERICAN ARCHITECT
November 20, 1926 PLATE 294



EXTERIOR DETAIL OF ARCADE

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GMELIN, ARCHITECTS

THE AMERICAN ARCHITECT

November 20, 1926 PLATE 295



S-90

VIEW OF ARCADE

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

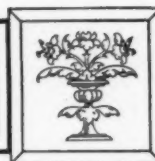
McKENZIE, VOORHEES & GRELIN, ARCHITECTS

THE AMERICAN ARCHITECT

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EDITORIAL COMMENT



IN this day and age, size is the *sine qua non*. We think and talk in terms of millions, whether they be dollars, soldiers or cubic feet. The number of stories a building has arouses more interest and comment than the perfection of its detail or the rarity of the *objets d'art* it may shelter. It, therefore, follows that the larger a building is, the more important it is from the standpoint of arousing public curiosity in architecture; and public curiosity is the initial step in the development of public taste.

I do not say that this should be so; but it *is* so. By all right standards of judgment, the perfection of the proportions of a building, its adaptability to its environment and use, should be its claim to architectural immortality. Art should be qualitative not quantitative. A miniature may be as great a work of art as a mural painting. But in modern architecture, quantity is in a sense becoming more and more an inseparable adjunct to quality. A small building, at least in our tightly built city streets—McKim's Morgan Gallery on Thirty-sixth Street, for example—even though it be, as that building is, a perfect gem of architectural probity, is passed unnoticed, while the towering giant next to it, reflecting the glint of the setting sun on turrets and pinnacles, catches and holds the attention of the passerby.

We Americans are beginning to develop an architectural taste because we have begun to acquire architectural curiosity. What has produced these conditions? Surely not the glimmering glass shop windows on Fifth Avenue, nor the rows of brownstone fronts that we inherited from the closing years of the nineteenth century, nor the yellow brick elevator apartments of the still young twentieth century. We who worship size, have had our vision enlarged by the skyscraper. Every new skyscraper that stands conspicuously silhouetted against the blue sky, especially one which has a prominently discernible position in New York's elaborately serrated skyline, excites comment because of its bulk and mass, and it thereby becomes a new and important factor in the determination of public taste. Hence every new skyscraper demands the closest scrutiny and analysis to determine to what extent it may affect the trend of architectural ideas.

The New York Telephone Building on West Street between Barclay and Vesey Streets, stands half way between lower Manhattan, where money is gathered in, and mid Manhattan, where it is lavishly spent. This building is not only the latest and newest to appear in this rapidly moving town (the hour and date of writing are eight P. M., October 17), but it is also among the largest for it occupies an entire block and has 17,000,000 cubic feet of contents piled on approximately 51,000 square feet of ground.

What then is this great building's part in architectural development, and what will be its influence on the trend of good architectural design? Does it carry a message to every architect and if so, what is that message?

From the river or from the street, there is to be seen a building clean-limbed and sure-footed, rising with sheer cliff-like walls, and whose only architectural embellishment is long ver-

tical lines. There are no projecting cornices to break the upward sweep of the eye. The setbacks, handled with the greatest skill, enrich and strengthen the vertical motifs until they culminate in a massive tower. The play of light and shade in this mass changes constantly; the silhouette against the sky is handsome from every angle. But this might be said of more than one recent example of the skyscraper. Wherein is the Telephone Building especially notable?

In the first place, one wonders what trick of plan, what practical disposition of interior arrangement made possible such a great depth of building. But on examination it is to be found that spaces for the central operating system of the telephone exchange, spaces which must be away from the noises of the street, and which must be artificially lighted in order to have light concentrated on the switchboards and unconfused by cross lights, have been placed in the core of the building. The offices which require natural light have, therefore, been placed in a band enveloping this core. This arrangement, which meets the exigencies of the practical situation perfectly, has given the entire structure a massiveness which would have been impossible had the customary light courts been necessary.

Furthermore, the building contains not one single archaeological motif which has been used simply because it was handed down from the past and perpetuated because it was found good in another age. It is one thing to copy a moulding out of a book; it is another to develop architectural embellishment which functions as embellishment, yet derives from this age and uses the materials and methods of this age. It seems to me that it is here that the architects of the Telephone Building have been particularly inspired. The materials are the simplest. The brick is no different from the brick employed in a hundred other buildings. Yet it is used in a way that makes it take on a distinction that few buildings of the period possess. Besides, every bit of detail is designed with reference to its manufacture by machinery. In a machine age it is passing strange that so many buildings should employ an immense amount of detail which has to be executed by hand labor. In large buildings, such detail, where it is not as in the majority of cases positively ineffectual, has to my mind a certain innate dishonesty which robs it of all appropriateness. But the detail of the Telephone Building, conceived as it is in relation to the machine and its function in modern life, is straightforward and appropriate and eminently right.

The Telephone Building will be and has been criticized, as what daring step forward has not? It is said by some captious critics that it is too simple, too stark. But let it not be forgotten that every new form in art is a shock until such time as the eye and mind can readjust themselves to the new conception. The Telephone Building is worth the careful study of every modern architect, and should receive the admiration of every layman. Let it be hoped that it stands at the dawn of a new day, both for architects that sin and the public that is sinned against.

HARVEY WILEY CORBETT, F.A.I.A.

ANDREW C. McKENZIE, A. I. A.

1861-1926

ANNOUNCEMENT was made in our issue of October 20 of the sudden death, at his home in Brooklyn on October 10, of Andrew C. McKenzie, senior member of the architectural firm of McKenzie, Voorhees & Gmelin.

It is pathetic that this useful man and fine architect was not spared to share with his associates the praise that is so justly due on the completion of the Telephone Building in New York. Mr. McKenzie's life work has been crowned by an achievement that places him and his firm in the forefront of the profession of architecture, and his sudden death is regretted throughout the entire profession, as marking the passing of a fine personality and an architect of distinction.

Born in Dunkirk, N. Y., and educated in Buffalo, Mr. McKenzie came to New York in 1884, where he became associated with Babb, Cook & Willard. This connection continued until he later became associated with Cyrus L. W. Eidlitz, and became his partner in 1902. It was during this partnership that the Times Building on Times Square was designed and built. No building had up to the date of its erection excited more favorable comment, not alone for its architectural expression, but also for the engineering features of its foundation. Upon the retirement of Mr. Eidlitz from this partnership in 1910, the present partnership with Stephen F. Voorhees and Paul Gmelin was formed.

This partnership at once assumed large proportions among the architectural firms in New York. Many important buildings were designed and suc-

cessfully completed. Successively such important buildings as the West Street Building of the New York Telephone Company, the telephone buildings in Albany and Buffalo, the building of the Brooklyn Edison Company, and the Municipal Building of Brooklyn were all designed by Mr. McKenzie's firm. Many other buildings of lesser mass but of equal architectural importance were completed

before Mr. McKenzie's death. The culmination of this fine association is the Telephone Building which is very thoroughly presented in this issue.

Mr. McKenzie's activities were well spread along the fields of every endeavor that would attract a man who, trained as an artist architect, found interest in every worthy effort that was allied to his profession. His close affiliation with The American Institute of Architects and The Architectural League of New York, was valuable to those organizations. His social activities combined membership in the Union League Club, the St. Andrew's Society and the Canadian Club of New York. And to the civic activities of New York, at a time when the counsels of a man so well trained in the civic

needs of that city would be of large value, Mr. McKenzie gave aid as a member of the City Planning and Survey Committee.

A review of a life marked by intensive effort, always in the right direction, leads to the direct conclusion that Mr. McKenzie's death is a distinct loss to the profession of architecture and to those various other activities that mark the lives of men of this country who are the nation builders.



ANDREW C. McKENZIE, A.I.A.

INTERIOR ARCHITECTURE

THE INTERIOR OF THE BARCLAY-VESEY TELEPHONE BUILDING

McKENZIE, VOORHEES & GMELIN, *Architects*

THE interior design of the Barclay-Vesey Telephone Building affords additional proof that interior architecture is a vital thing, and not a purely decorative element, as, unfortunately, it is so often considered. Interior design throughout this entire building is based on the fundamental principles on which architecture itself is so firmly grounded. Structure is everywhere the root of design; decoration is introduced to add interest to the architecture to correlate it to the entire scheme, thus accentuating the architectural motives. By this method the design of ornament lends distinctive character to the architecture by emphasizing the purpose for which the building is intended—that of housing the New York Telephone Company. The archi-

itects have given the same thoughtful and conscientious attention to all the various elements that are today largely incorrectly called interior decoration, as is given to those larger and more pronounced elements that dignify the exterior of the building and proclaim its worth as an outstanding example of American architecture.

The design of the interior, carrying forward that of the exterior, is entirely free from any suggestion of historic periods and styles. Rather is it a simple, straightforward solution of a commercial building done in a style that is best suited to the purpose that the building is intended to serve. While the design of the ornament does not in any way endeavor exactly to express the telephone in its relation to our



ONE OF THE PRIVATE OFFICES ON THE TWENTY-NINTH FLOOR OF THE BUILDING

daily lives, it does have a bearing on the traditions of the site and the neighborhood in which the building stands. The character of the ornament embellishing the exterior, depicting certain forms of plant and animal life, is retained in the ornamentation of the interior. The emphasized vertical movement by which the design of the exterior is characterized is also peculiar to the interior design, to be discovered in the design of the lighting fixtures and even to a detail so comparatively unimportant as chair legs. In short, the building, without and within, has been considered by the architects as one composition and the unity and continuity from the exterior to the interior is its greatest appeal for architectural excellence.

The feature of the main corridor on the main floor—the entrance and exit of the day's work—is the sweep of murals down the entire length of the ceiling. There are ten panels painted in brilliant colors, which illustrate the advances of human communication from the earliest times of beating a drum or burning a fire, while the center panel represents the modern triumph in communications through the telephone, the radio and the telegraph. Two bronze chandeliers determine the focal points of the corridor—the elevators, the grand staircase of the skyscraper. In design, these lighting fixtures very cleverly conform also to the general silhouette of the building, with "setback" lines and emphasis on the vertical movement.

The executive suite on the twenty-ninth floor has



THE PLATFORM AND STAGE CURTAIN IN THE AUDITORIUM



SPECIALLY DESIGNED FURNITURE IN THE DIRECTORS' ROOM IN WHICH THE VERTICAL MOVEMENT IS EVIDENCED



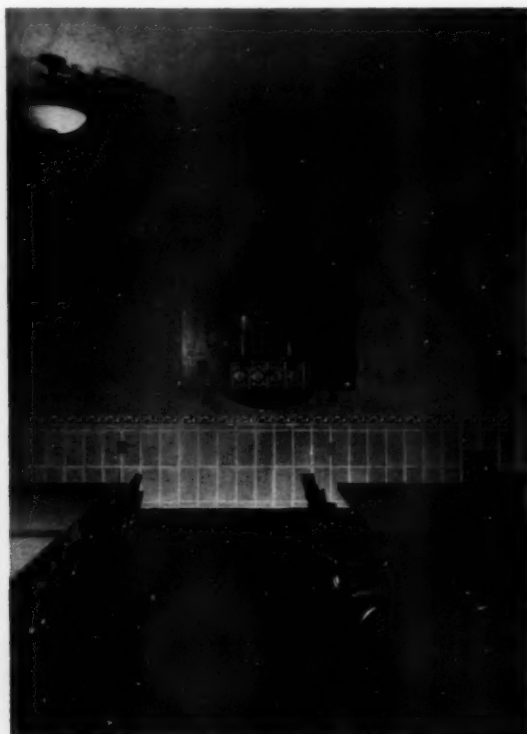
THE DIRECTORS' ROOM WITH WALLS PANELED IN MAPLE AND FURNITURE IN BLACK WALNUT. THE RUG CARRIES THE GENERAL COLOR OF THE WOODWORK

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

McKENZIE, VOORHEES & Gmelin, ARCHITECTS



APPROPRIATELY DESIGNED PUBLIC TELEPHONE BOOTHS
OFF THE MAIN CORRIDOR



AN ORIGINAL TREATMENT IN THE CAFETERIA OF A TILED
WALL DRINKING FOUNTAIN



DETAIL OF OVERDOOR PANEL IN THE DIRECTORS' ROOM, IN THE DESIGN OF WHICH THE CHARACTER OF THE
ORNAMENT IS SIMILAR TO THAT EMPLOYED ON THE EXTERIOR OF THE BUILDING



THE PRIVATE OFFICE OF THE PRESIDENT OF THE COMPANY, PANELED IN MAPLE WITH CARVED ORNAMENTS IN CHARACTER PECULIAR TO THE BUILDING

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

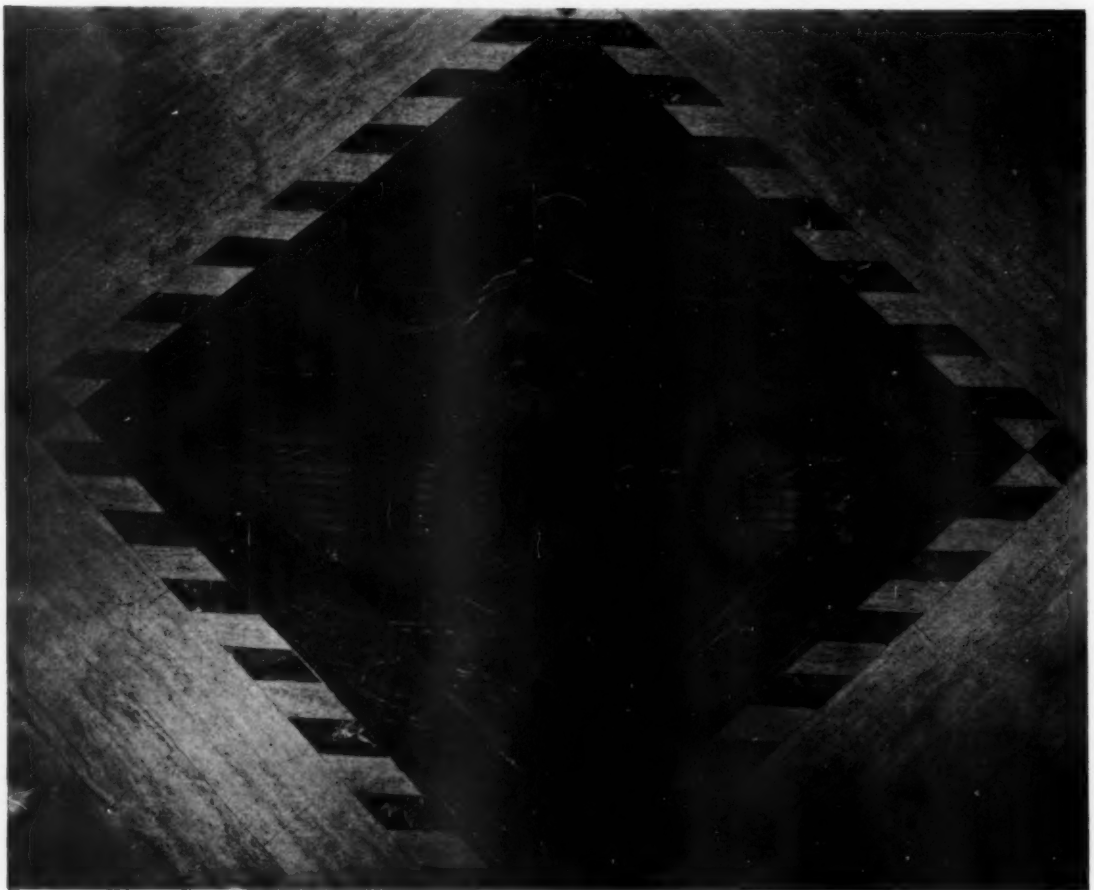
MCKENZIE, VOORHEES & GRELIN, ARCHITECTS

been designed with an underlying tone expressing simplicity and dignity without ostentation. In several of these rooms a wainscoting of curly maple has been used. The maple panels in the board room are outlined by inlay strips of ebony. Besides serving a decorative purpose, these inlay strips take up the shrinkage that always occurs in veneer panels of any size. A similar treatment is applied to the walnut panels of the elevator cabs. Door heads, window and door trims and frames of built-in bookcases have been carved in ornament peculiar to the style of the building. The ceilings in every case are of hand-modeled plaster, and floors of straight-grained wide oak planks, for the use of which special permission was obtained from the Building Department. The vertical emphasis is again evidenced in the design of the furniture which is constructed of American black walnut and which was especially made for the directors' room.

In one of the basements is a large cafeteria and restaurant with recreation rooms adjacent. The architects contended that employees eating their luncheon in the same building in which they work

during the balance of the day desire to forget their jobs for the time being. For that reason any suggestion of architectural or decorative design peculiar to the rest of the building has been purposely avoided. Such an environment affords recreation to employees during their noon hour and a complete change in the character of their surroundings without leaving the building. The rooms have been decorated with tiles and decorative paintings, a part of the wall being treated in fresco representing an imaginary scene on the Mediterranean as if one stood in a farmhouse in Spain looking through the loggia over the sunlit sea. The Spanish idea has been followed in every accessory, even in the design of the wall drinking fountain and the cigar counter. The adjoining recreation room is invitingly furnished in a cheerful and comfortable way with a color scheme that makes for restfulness.

Throughout the entire building there is a lack of projecting mouldings, as may be seen by reference to the illustrations. Even in the detail of the ornament the surfaces have been maintained. Economy, too, has been considered, discernible in the use



BRONZE PLACQUE INSERTED IN THE FLOOR OF THE MAIN CORRIDOR, SYMBOLIC OF THE SPIRIT OF THE TELEPHONE SERVICE

of marble, cut by machine methods, on the walls of the corridors.

The ornament, which is so definitely related to the architecture in both the interior and exterior design, by serving to accentuate architectural lines and proportions, is interesting on its own account. In its design it is intended to be of a character that will interest the majority of passersby, who, in this case, are commuters, many of whom cherish a love for their garden at home and the plant life which grows therein. Nationalism, and an absence of period ideas and European motives, are thus stimulated by the ornament and individuality emphasized in the architectural design. As already suggested, the character of the ornament of the exterior is retained in the design of the interior and unity between the one and the other becomes even more apparent. Particular attention is called to the illustrations of the ornamental overdoor panel in the directors' room, to details of the ornament in the main corridor, to the design of the auditorium and to the furniture in the directors' room.

Success throughout the interior design seems to

lie in two things: individuality of purpose and painstaking consideration as to details. For it is not only in the larger and more important elements that this individuality of purpose is pronounced:—the design of the public telephone booths off the main corridor has been just as carefully studied as the details of the prominent bronze screens at the entrance doorways. It is, then, in the careful consideration to details, so often slighted, combined with a knowledge of interior architectural design, that the design of the interior of the Barclay-Vesey Telephone Building is among the best and most outstanding architectural performances on Manhattan Island. Wherever the eye rests, there is a motive of design, a suggestion of completeness, fitness, and an indication of a thoroughly sympathetic attitude. The entire building impresses one as a labor of love, guided by a strong sense of the fitness of things. It seems remarkable, too, that the architects were able to imbue every one associated in the work with the same enthusiasm and love for his task that dominated themselves.



ANOTHER OF THE BRONZE PLACQUES INLAID IN THE FLOOR OF THE MAIN CORRIDOR, CHARACTERISTICALLY DESIGNED



THE RECREATION ROOM, SHOWING WOODEN GRILLES AT ARCHED OPENINGS TO CAFETERIA



THE CAFETERIA, PORTRAYING THE ATMOSPHERE OF SPAIN BOTH IN COLOR AND DESIGN. THE TREATMENT OF THE WALLS INCLUDES A WAINSCOT OF WARM YELLOW TILE WHICH IS REPEATED ON THE COLUMNS. ABOVE THE WAINSCOT, CERTAIN WALLS ARE DECORATED IN FRESCO, THE DESIGN REPRESENTING AN IMAGINARY SCENE ON THE MEDITERRANEAN

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GMELIN, ARCHITECTS



THE STRUCTURAL DESIGN OF THE BARCLAY-VESEY TELEPHONE BUILDING

McKENZIE, VOORHEES & GMELIN, Architects

IN the design of the Barclay-Vesey Building, planned and built for the New York Telephone Company, the first serious problem placed before the architects by the owner was that of the "bigness" of the building. It was determined that the building should provide for the housing of a certain amount of telephone central office equipment, offices for headquarters departments and the storage of records.

Two definitions of the limit up to which it would be economical to produce yield area were established. These were first the point at which the annual cost per square foot is least, and second the point at which the annual cost is equal to the market value of like space. It was decided that if the limit of area was reached under the first definition and before the second was reached, the second consideration should be the determining factor.

The first definition took into account the fact that with a given cost of land, plus certain other constant factors in which size is not involved, the cost per square foot decreases as the quantity of space increases. Certain items of construction cost increase with the height which means that on a site of limited area, the cost increases with the quantity of space. When the limit is reached it becomes economical to select another site to produce the balance of the space desired.

The second definition recognized the value of having space in one building rather than two, and that office space is as valuable to the owner as like space is to other enterprises as shown by the rental rates current in the vicinity.

Designs were made for buildings of ten, sixteen, twenty-six, thirty-six and forty-two stories. Cost studies of each were prepared and all reduced to the annual cost per square foot of yield area. Results thus obtained became measures of height. The particular heights mentioned were selected after careful consideration of many factors, the most important



MASONRY ENCLOSING WALLS CLOSELY FOLLOWED THE STEEL SKELETON FRAME SKYWARD

PROGRESS PHOTOGRAPH TAKEN FEBRUARY 28, 1925

being the New York Zoning Ordinance which required a major setback at the eighteenth story but permitted the tower portion to go skyward indefinitely.

A curve was plotted using the costs per square foot of the various buildings as the abscissa and the quantities of space as the ordinate. The curve indicated that the economical point under the first definition was reached at 16 stories, and under the second definition at 29 stories. The economic height of the tower was to some extent limited by the height and area that could be served by one

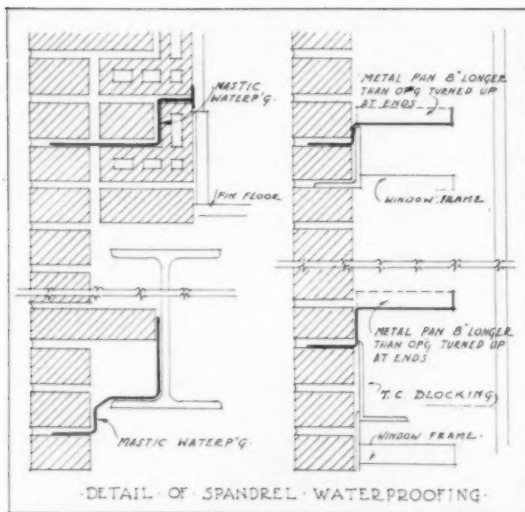


DIAGRAM SHOWING THE METHODS USED TO WATERPROOF THE OUTSIDE ENCLOSING WALLS

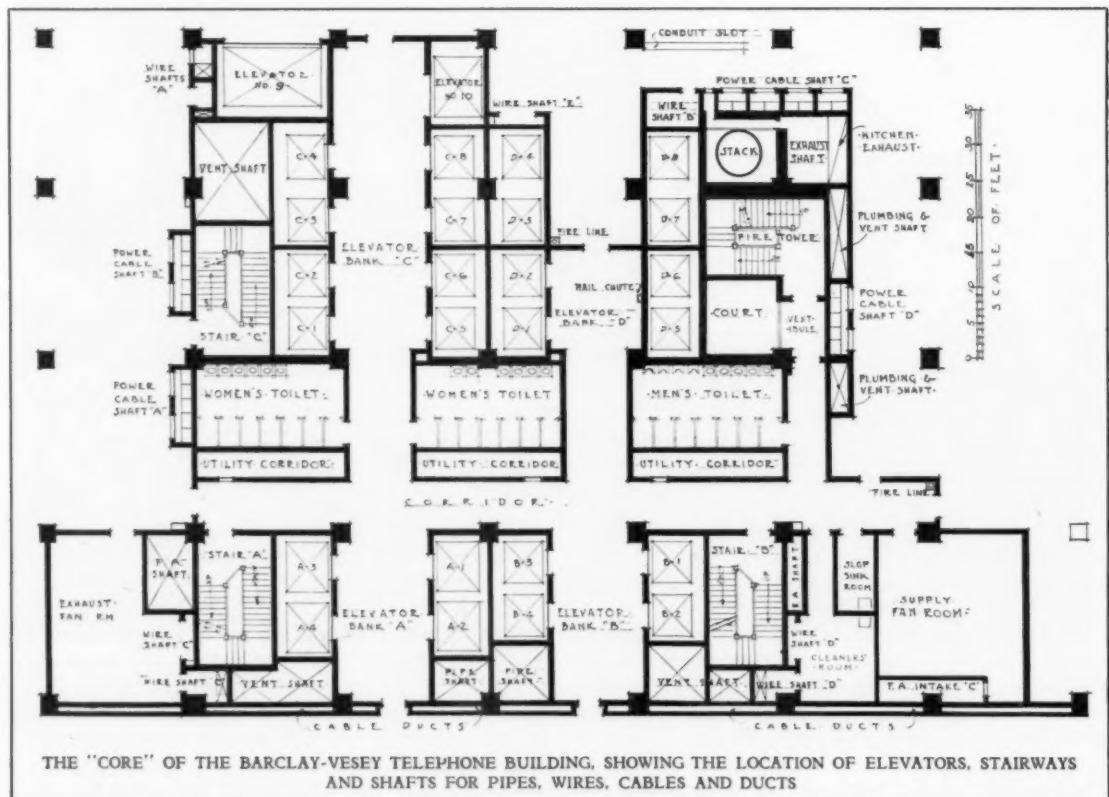
bank of elevators. When the height of the tower reached the point where two banks of elevators would be required, a decided rise in the cost per unit square foot was obtained, since the second bank materially reduced the rentable area.

The second big problem was that of service to the occupants of the building. Like a machine, a building is designed to perform necessary or desirable functions that may be described as the services of support, security, transportation, comfort and beauty.

The service of support includes the foundations, described elsewhere in this issue of THE AMERICAN ARCHITECT, and the steel skeleton frame and concrete floor structure.

The service of security against interferences from the outside such as man, fire and the weather, is performed by the walls, windows, roofs, fire protected stairways and certain mechanical equipment.

The exposed location of the building required complete protection of the outside walls against the penetration of rain under wind pressure. Several bricks possessing the color and texture required by architectural considerations were selected and tested. A brick having an absorptive value of less than 10% was determined upon. The brickwork was laid in Portland cement mortar in which a waterproofing compound was incorporated. Joints are approximately $\frac{1}{2}$ " thick, tooled slightly concaved, and rubbed to obtain a dense surface. Further to exclude the water likely to penetrate the walls, spandrel waterproofing consisting of mastic water-



proofing or metal pans were used over all window openings above the second story.

Windows are of the solid section metal, counter-balanced type with metal stools designed to support the radiators. The sash and frames were detailed for felt packing, to exclude wind and rain.

As security against lightning the pier caps are covered with sheet copper bonded to the steel frame. The copper sheets also serve to exclude water from the pier caps.

Interior security is provided by a fire resisting "core." This central area or core contains corridors, stairways, firetower, elevator shafts, boiler stack, toilet rooms, fan rooms, and shafts for pipes, wires, cables and ducts. This core comprises an area about one hundred feet square and is located approximately in the center of the building. This arrangement takes complete advantage of the exterior wall area to secure natural light for office space arranged around all sides of the core.

The Barclay-Vesey Building may be analyzed as a building of 17 stories and 2 mezzanines covering a parallelogram about 212 x 255 feet, surmounted by a tower 108 x 116 feet of 15 stories and 1 mezzanine. The 17th mezzanine story divides the entire building into two mechanically separate units that can be operated separately or together. This mezzanine is in reality a basement for the tower and contains, with the exception of boilers and pumps, all the equipment normally found in the basement of the average building. It also contains for the lower section of the building the equipment normally found on the roof.

Mechanical equipment is by-passed so that while under usual conditions the base and the tower are separately operated, in emergencies substantially all of the equipment can be combined or the equipment of the tower section can temporarily serve the lower section without interfering with the operation of the entire building. Basement A was de-

veloped as an extra high story to permit pipes and ducts to be run near the ceiling and still obtain adequate head room in the kitchen. There is a section in basement A about 4 feet deep between the first floor construction and the hung ceiling utilized entirely for pipes, ducts and electrical feeders.

The services of transportation, comfort and security are described elsewhere in this journal. The service of comfort includes provisions for wet and dry cleaning, heating, lighting and ventilating. It also includes facilities for rest and recreation, and wholesome eating served in architecturally inviting and comfortable dining rooms.

A kitchen, completely equipped with all modern facilities, serves the large dining rooms operated with both waiter and cafeteria services. A feature of the kitchen and cafeteria is the use of hoods made of wire glass set in non-corrodable metal frames. Ventilators at the ranges terminate in flexible elbows that permit ready control of the direction and quantity of the air supply.

In the architectural design of this building it was necessary to give consideration to not only the limits which the mechanical design made upon the architectural possibilities but also to consider the limits which the architectural design imposed upon the mechanical equipment. The executed design indicates that a happy compromise was reached and demonstrates the value of carefully studying the location of equipment and the space required.

The Telephone Building contains 850,000 square feet of usable floor space. Demolition of buildings on the site was begun May 23rd, 1923. Foundation work was started June 20th, 1923. The building was ready for its first occupants February 19th, 1926, and completed on June 30th.

The consulting engineers were Moran, Maurice and Proctor; Meyer, Strong and Jones; Todd, Robertson and Todd; and H. G. Balcom. Marc Eidlitz and Son, Inc., were the general contractors.



AT LEFT: STEEL FRAMING OF A TYPICAL STORY. AT RIGHT: GRILLAGE AND COLUMN STUB SECTION FOR COLUMN 75. GRILLAGE CONSISTS OF NINE 24" I'S 115# 8'-6" LONG. SLABS 40" X 4" X 6'-10". COLUMN STUB SECTION MADE UP OF FOUR ANGLES 8" X 8" X 1". TWO WEB PLATES 17" X 1". TEN 15/16" COVER PLATES AND TWO 3/8" COVER PLATES. TOTAL WEIGHT 11 TONS

FOUNDATIONS OF THE BARCLAY-VESEY TELEPHONE BUILDING

McKENZIE, VOORHEES & GMELIN, Architects

THE New York City block bounded by West, Washington, Vesey and Barclay Streets, now the site of the 32 story New York Telephone Company's building, was at one time outside of the original shore line of the Hudson River. The present West Street thoroughfare today throbbing with life, was never then in the wildest dream, the scene of a structure rising 500 feet above the surface, and extending more than 70 feet below ground.

Excavators brought to light many relics of New York's early history. Evidence of an old cedar swamp was disclosed. Pewter spoons, coins of circa 1790 and a sunken ship evidently the remains of an old whaling boat with its keel of oak still in a state of perfect preservation were unearthed, in addition to timber cribwork and other filling material such as is usually found in filled-in areas.

A preliminary survey by the engineers disclosed the physical difficulties which a site of this character imposes. Borings indicated that bed rock varied throughout the site from 55 to 75 feet be-

low high water level with tide water level from 2 to 4 feet below the street curb. To float a high building of the type of the Telephone Building seemed impracticable, and foundations on rock of unquestioned bearing value, essential.

Conditions predetermined as unusual required special methods of foundation construction by the pneumatic caisson process. A continuous concrete cofferdam surrounding the entire site and resting on bed rock was determined to be desirable. The cofferdam was formed by a series of pneumatic caissons and was placed before the open excavation was begun. Calculations showed that caissons 8 feet thick would be required to resist the great exterior pressure due to adjacent street and building loads and hydrostatic pressure.

Twenty-two caissons each eight feet thick and about forty feet long were sunk to depths varying from 55 feet to 75 feet. A vertical space of about 20 inches left between caissons was filled, under air, with concrete and keyed into the ends of caissons.



PORTION OF HULL OF AN OLD WHALING BOAT UNCOVERED IN EXCAVATING FOR THE FOUNDATIONS. AMONG OTHER RELICS OF THE PAST A WOODEN WATER MAIN DATING BACK TO THE EARLY DUTCH SETTLERS WAS UNEARTHED SIX FEET BELOW THE SURFACE ON VESEY STREET

To conform to the shape of the site the corner caissons were beveled at the ends. Fill, silt, stone, boulders, peat and quicksand were successively encountered in sinking the caissons.

Enormous exterior pressure on the cofferdam required the use of heavy cross-lot bracing while the interior area was excavated. The Telephone Building is among the first to use permanent steel, cross-lot bracing at the level of average maximum pressure in combination with temporary cross-lot timber bracing.

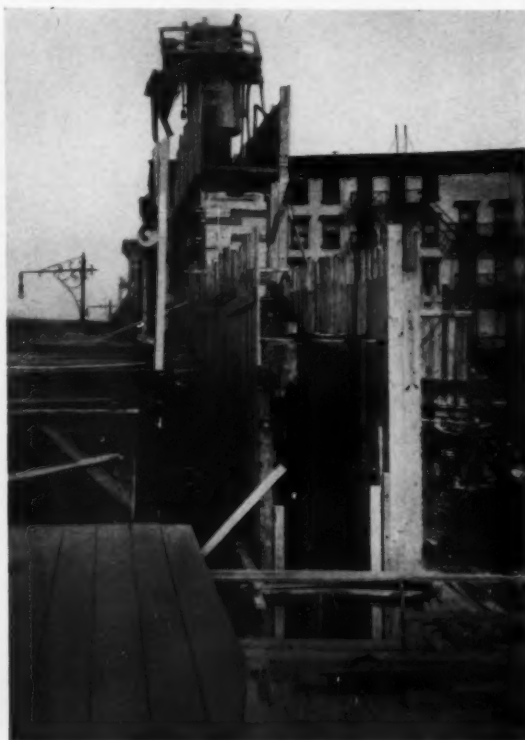
The original plans contemplated four basement levels, A, B, C and D, with the boiler room located about eight feet below the D basement level. Studies made to develop economic comparison between various foundation designs and cost of cellar space produced, disclosed that the unit cost of cellar space decreased rapidly as the volume of space was increased. Since effective use could be made of all cellar area obtainable, it was decided to cofferdam the entire site and carry the cellar excavation to maximum depth without involving rock excavation except that required to level up.

While factors determining the design of deep foundations can be determined within reasonable limits, a certain element of uncertainty is usually present. To limit the amount of reinforcement in the caissons it was decided to limit the final loca-

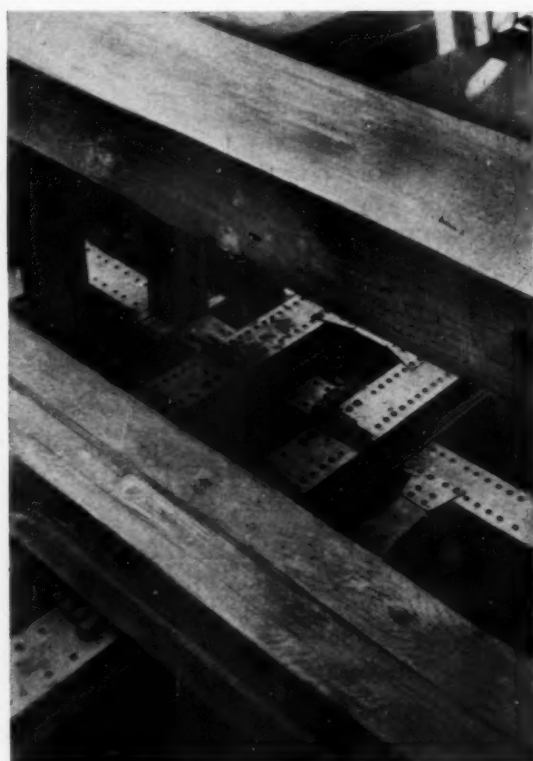
tion of the caissons to within $4\frac{1}{2}$ feet above or below the point determined upon when the plans were drawn.

The concrete floors at basement A, B and D, were designed to resist the thrust of the caisson retaining walls and proportioned in thickness and reinforcement to the stresses involved. At the C basement level, the point of average maximum pressure, a tier of steel struts was used. This tier performed both the function of temporary and permanent cross-lot bracing. The struts were arranged in pairs in two levels, at right angles to each other. The East and West tiers were placed under and supported the tiers running North and South. The pairs were designed and spaced so that square openings at the intersections occurred at column locations. The steel columns were lowered through the openings thus provided to their individual pier foundations without interfering with the horizontal bracing.

The permanent steel bracing was placed as soon as excavation reached the C basement level. A series of bents built on square oak piles were used to support the steel cross-lot bracing until it could be riveted to the interior columns. By placing permanent struts at this level, to receive the largest portion of the load, it was estimated that about 50% of the usual timber bracing could be omitted.



FOUNDATIONS UNDER CONSTRUCTION BY THE PNEUMATIC CAISSON PROCESS. GENERAL VIEW SHOWING CAISSONS IN VARIOUS STAGES OF CONSTRUCTION AT LEFT. DETAIL OF CAISSON FORM SHOWING AIR LOCK AND STEEL REINFORCEMENT AT RIGHT. CAISSONS WERE 8 FEET THICK, 40 FEET LONG AND SUNK TO AN AVERAGE DEPTH OF 70 FEET



AT LEFT: WEDGING OF TEMPORARY CROSS-LOT TIMBER IN PLACE AGAINST THE FOUNDATION WALL. AT RIGHT: STEEL WEDGES IN PLACE BETWEEN THE MEMBERS OF PERMANENT STEEL CROSS-LOT BRACING AT BASEMENT C LEVEL

To prevent the possibility of overloading the supports at A and B floors through arch action of the caissons, steel wedges in C tier were first driven to the point that the struts took up about one-half the stress for which they were designed. After the interior columns were set the steel wedges were driven up until the struts developed the full designed stresses.

The original intention was to place the D basement floor on earth and sink piers supporting the interior columns to rock. Owing to the character of the ground encountered at D level, this was found to be impractical and greatly increased the difficulty of sinking the column piers. As a result, excavation was continued to bed rock which permitted an additional basement E at little additional cost. Column piers, however, had to be built in E basement as the steel columns were at that time being fabricated. This additional depth required additional timber bracing, and concrete buttresses were added to the cofferdam walls at the column points below D level to receive permanently the additional thrust due to the increased height of the basement wall.

Before pouring any column piers, holes four to five feet deep were drilled in the rock to determine the presence of mud seams along stratification and

fault planes in the rock. Where seams were found, these were grouted with cement under pressure. A bearing on solid rock was thus assured under all column and foundation piers.

Reinforcement in the caissons was designed for points of support at the various floor levels. Since the location of bed rock was variable and not definitely known before the caissons were sunk, reinforcement was designed for horizontal supports $4\frac{1}{2}$ feet above or below the assumed floor level. For this reason some caissons had to be stopped and underpinned before rock was reached. In most instances at least one end of the caisson was on rock.

The caissons were filled with concrete made with premixed aggregate. This aggregate, brought down the Hudson River on barges, was tested at the dock. Sample concrete cylinders were made from time to time and tested for uniformity and strength. These tests indicated that higher concrete strength values were being obtained than those used as the basis of design by the engineers.

The entire site is surrounded by a wall 8 feet thick which was plastered on the inside with a cement waterproofing coat. Assuming the adequacy of the waterproofing, the only way water from external sources could enter the building would be through crevices in the rock bottom and through

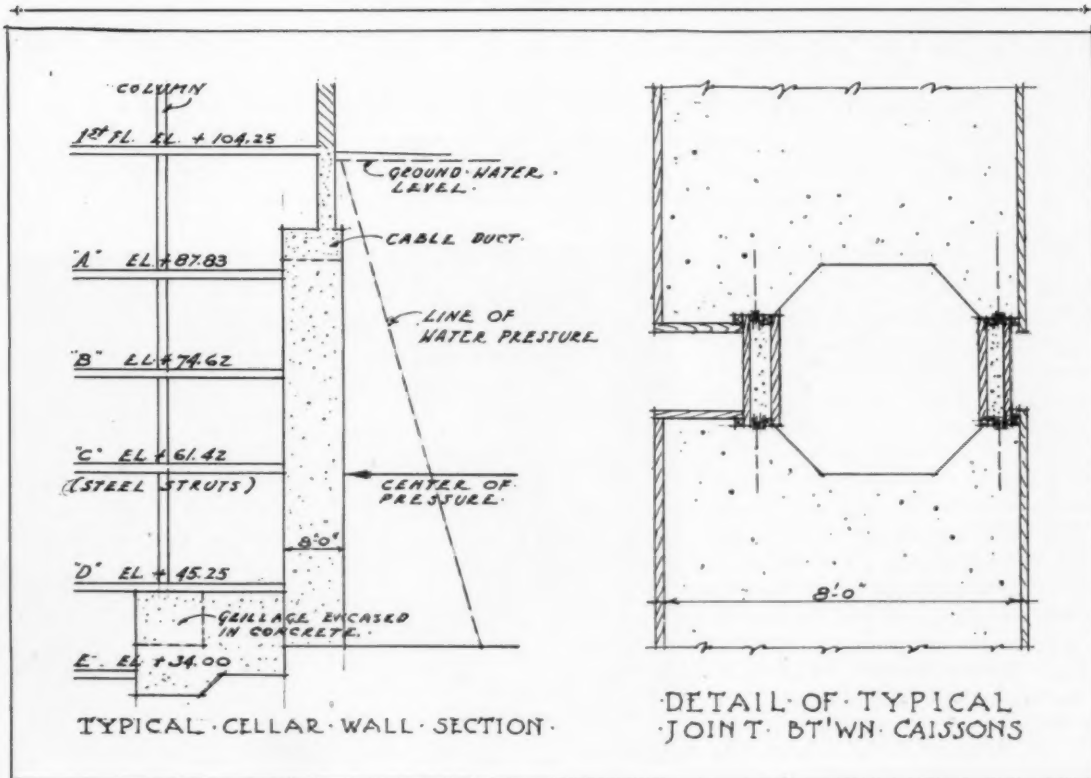


DIAGRAM ILLUSTRATING THE CONSTRUCTION OF THE FOUNDATION WALLS. GROUND WATER LEVEL IS MORE ACCURATELY REFERRED TO AS TIDE WATER LEVEL. UNUSUAL DEPTH OF THE EXCAVATION AS WELL AS UNUSUAL HYDROSTATIC PRESSURES REQUIRED THE USE OF A PRACTICALLY NEW TYPE OF VERTICAL JOINT BETWEEN CAISSONS

the key joints of the caissons. To relieve the pressure at the key joints, terra cotta drains were built in near the inner surface of the wall to carry ground water down below the bottom of E basement floor. The "joint drains" were connected with a drainage system located below the E floor level and lead to a sump pit about 30' x 60' x 6' deep built in the center of the building. Water flows into the sump at the rate of 180 gallons per minute and is pumped out and used for purposes outside of the building.

A factor peculiar to telephone buildings, required provision for the entrance of 700 cable ducts to a maximum depth of 15 feet below the curb. Ground water practically up to curb level necessitated construction at the cable entrance by a method that would prevent water from flowing in and flooding the cellar. Tunnel sections at each separate group of cables were constructed through the top section of these caissons, where entrance is effected. Ledges, waterproofing laps and reinforcing steel ties were provided on the outside of the caissons for the connection of the duct tunnels at a later time. A thin reinforced concrete wall blanked off each tunnel on the inside face. This wall was removed after each duct tunnel had been brought through the cofferdam and waterproofed.

It is of interest to note that conditions peculiar

to this building and its site introduced new features of caisson design. The foundation design took advantage of and further developed new methods required in the design of the New York Federal Reserve Bank substructure. This is noted particularly in the use of permanent steel cross-lot struts wedged up to a predetermined stress. Records of the wedging of the struts used at the Federal Reserve Bank proved invaluable in connection with the work on the Telephone Building.

The total excavation for the foundations amounted to 137,925 cubic yards. The caissons, piers, basement floors, and walls required 32,500 cubic yards of concrete and 1,056 tons of reinforcing steel. Timber for caissons, cross-lot bracing, forms and temporary platforms amounted to over 2,800,000 board feet. The space created in the substructure was in volume 3,175,000 cubic feet or 228,500 square feet of floor space.

In addition to pipe machines, blacksmith shop, the plant for building the foundations included six air compressors; fourteen derricks for handling caissons, eight derricks for general excavation, and three concrete plants.

Moran, Maurice and Proctor were the consulting engineers for the foundations of the Barclay-Vesey Telephone Building.

SERVICES OF TRANSPORTATION, CLEANING, COMFORT AND SECURITY AS PROVIDED IN THE BARCLAY-VESEY TELEPHONE BUILDING

McKENZIE, VOORHEES & GMELIN, Architects

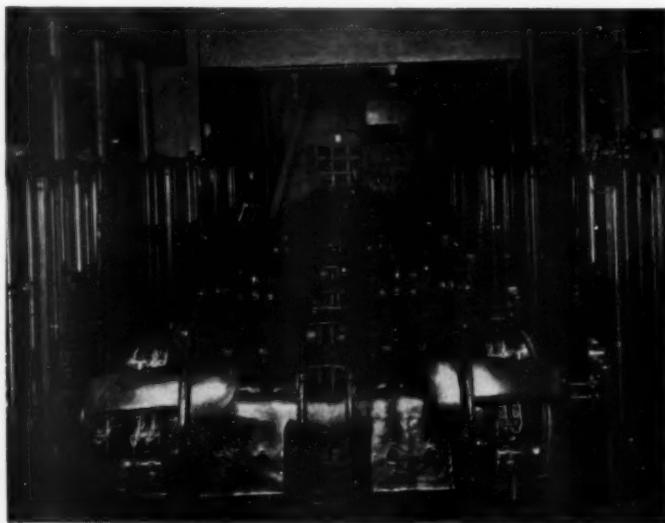
A STRUCTURE designed to house a population of more than 6,000 persons, necessarily requires an unusual quantity of pipes, ducts and transportation facilities. To describe in detail the many features contributing to the comfort, convenience and security of the inhabitants would possibly become a monotonous recital of confusing statistics. The editors, in co-operation with members of the staff of the architects' office, and with the enthusiastic approval of Stephen Voorhees, developed the accompanying plates that are intended to visualize the fundamentals of the mechanical and electrical equipment and their extent. The accompanying text contains reference to special features and description that could not be readily indicated on the plates.

—The Editors.

THE SERVICE OF TRANSPORTATION

THE problem of transporting a great number of people and distributing them through a large building with the minimum of delay, is analogous to the traffic problem of a railroad system, the difference being that one is vertical and the other is horizontal. The basic requirements of vertical transportation in the Telephone Building were, first, to handle the arrival and departure of the entire population of about 6,500 people, and all transients calling on the various departments; and, second, to handle the interfloor traffic as efficiently as possible. The elevator system is so arranged that at no time is it necessary for any passenger to make more than one transfer within the building regardless of which floors he may be traveling between.

From an economic and service viewpoint, the Telephone Building being a modern tower type, the type of elevator that will render the maximum service in the minimum floor space is justified. It was determined, therefore, that the high rise elevators should run at high speeds with rapid acceleration and retardation characteristics. These speeds and retardation characteristics are so high that manual stops would be difficult to make without loss of time. Two banks of eight cars each, running at 800 ft. per minute, with full automatic



BANK C ELEVATOR MACHINE ROOM ON THE SEVENTEENTH FLOOR MEZZANINE. SELECTORS THAT INITIATE THE MOVEMENTS OF THE CARS ARE SEEN AT EITHER SIDE OF THE MOTOR-GENERATOR SETS

control of the machines and pneumatically operated hoistway and car doors serve the upper portion of the building. The only manual operation of these cars consists of pressing buttons that initiate the closing of doors and starting the cars. The lower portion of the building is served by two banks of four cars each, running at 700 ft. per minute, with manual operation of cars and doors. There is also a manual control service elevator running at 600 ft. per minute, a freight elevator lifting $7\frac{1}{2}$ tons at 300 ft. per minute and a full automatic push button elevator running from the top floor to the roof and observation galleries.

All elevators in the Telephone Building have variable voltage direct current control from unit motor generator sets with direct current primary motors. To obtain the minimum acceleration and retardation time, starts and stops, of the full automatic high speed elevators are made from machine operated devices called selectors. These cars also have "micro-levelers" that level the car with the floor and maintain the car in this position as long as the doors are open.

During the morning arrival peak each bank of elevators has a 20 second interval between cars leaving the first floor. During the maximum arrival

(Continued on page 425)

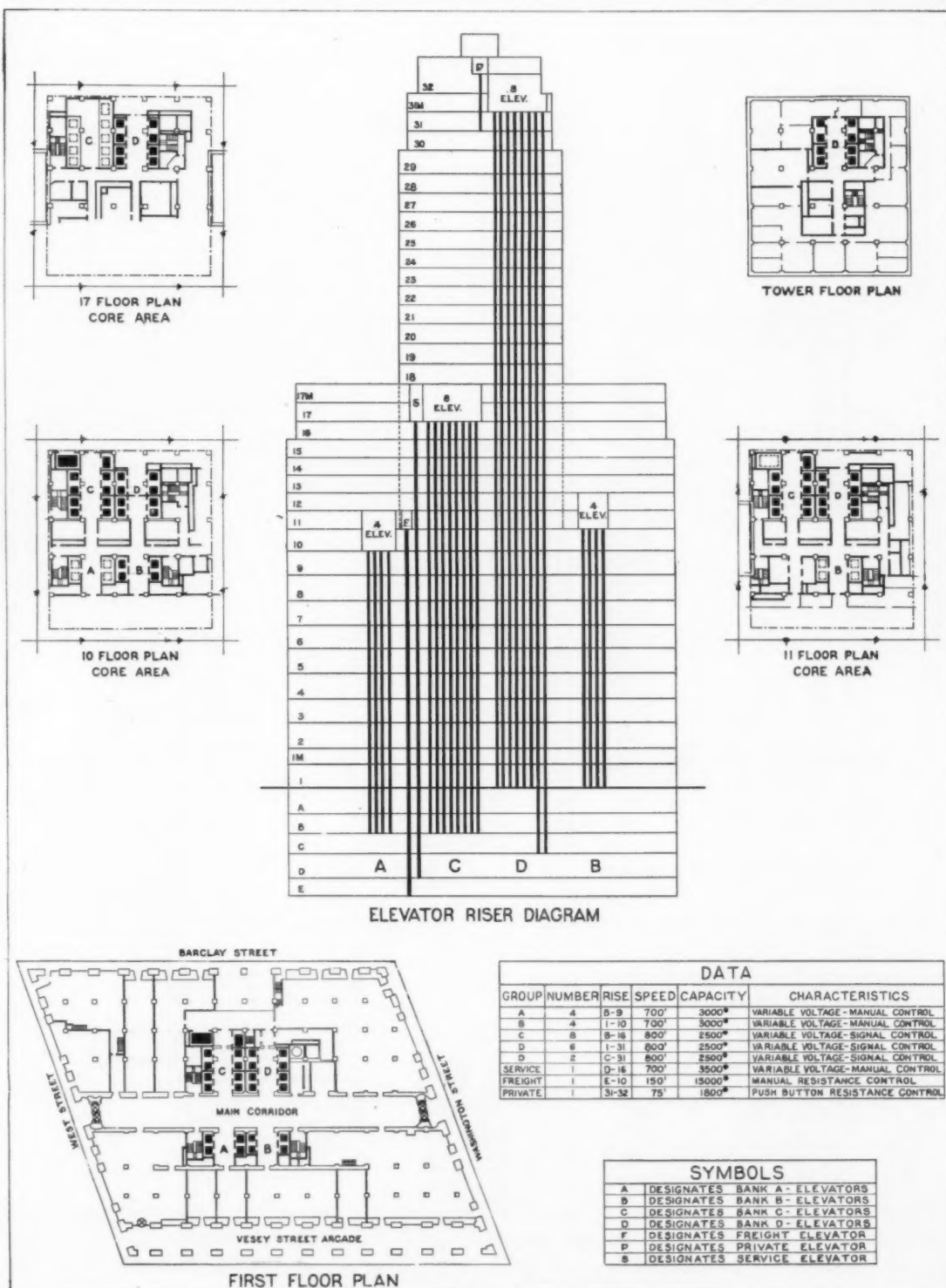


DIAGRAM OF THE ELEVATOR SYSTEM
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
McKENZIE, VOORHEES & GMLIN, ARCHITECTS

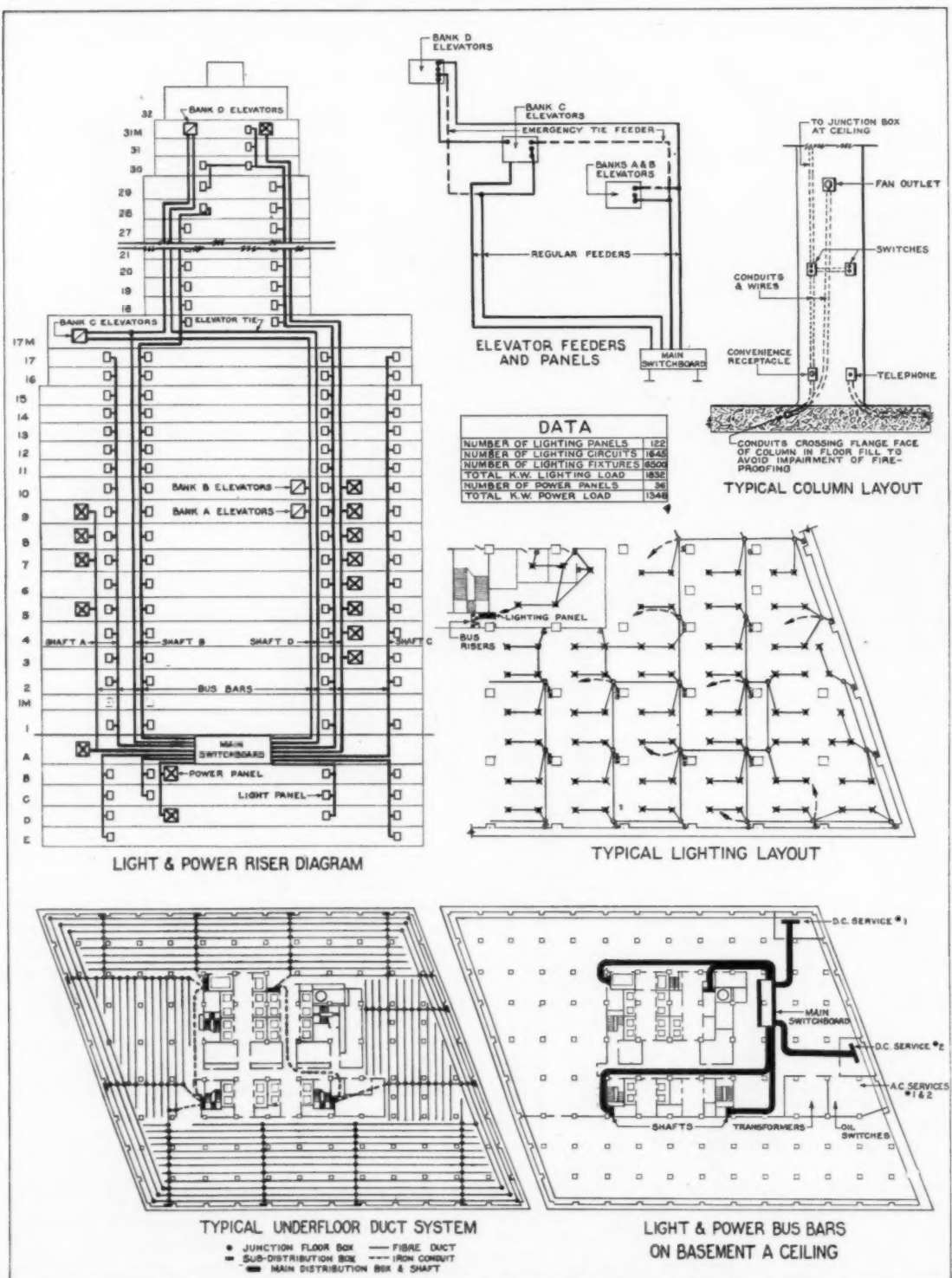


DIAGRAM OF THE ELECTRIC SYSTEM
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
McKENZIE, VOORHEES & GMELIN, ARCHITECTS

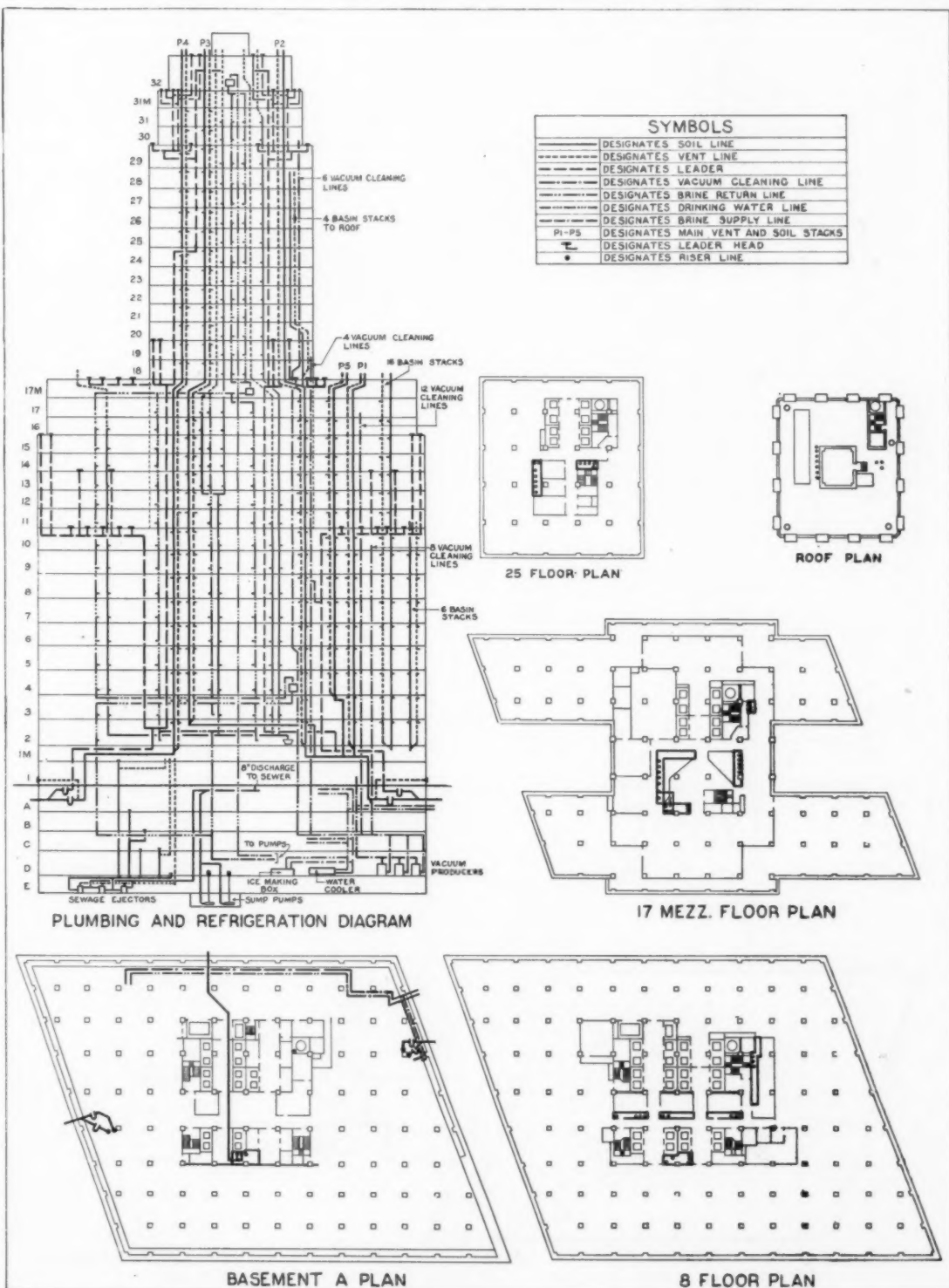


DIAGRAM OF PLUMBING, VACUUM CLEANING, AND REFRIGERATION SYSTEMS

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GELIN, ARCHITECTS

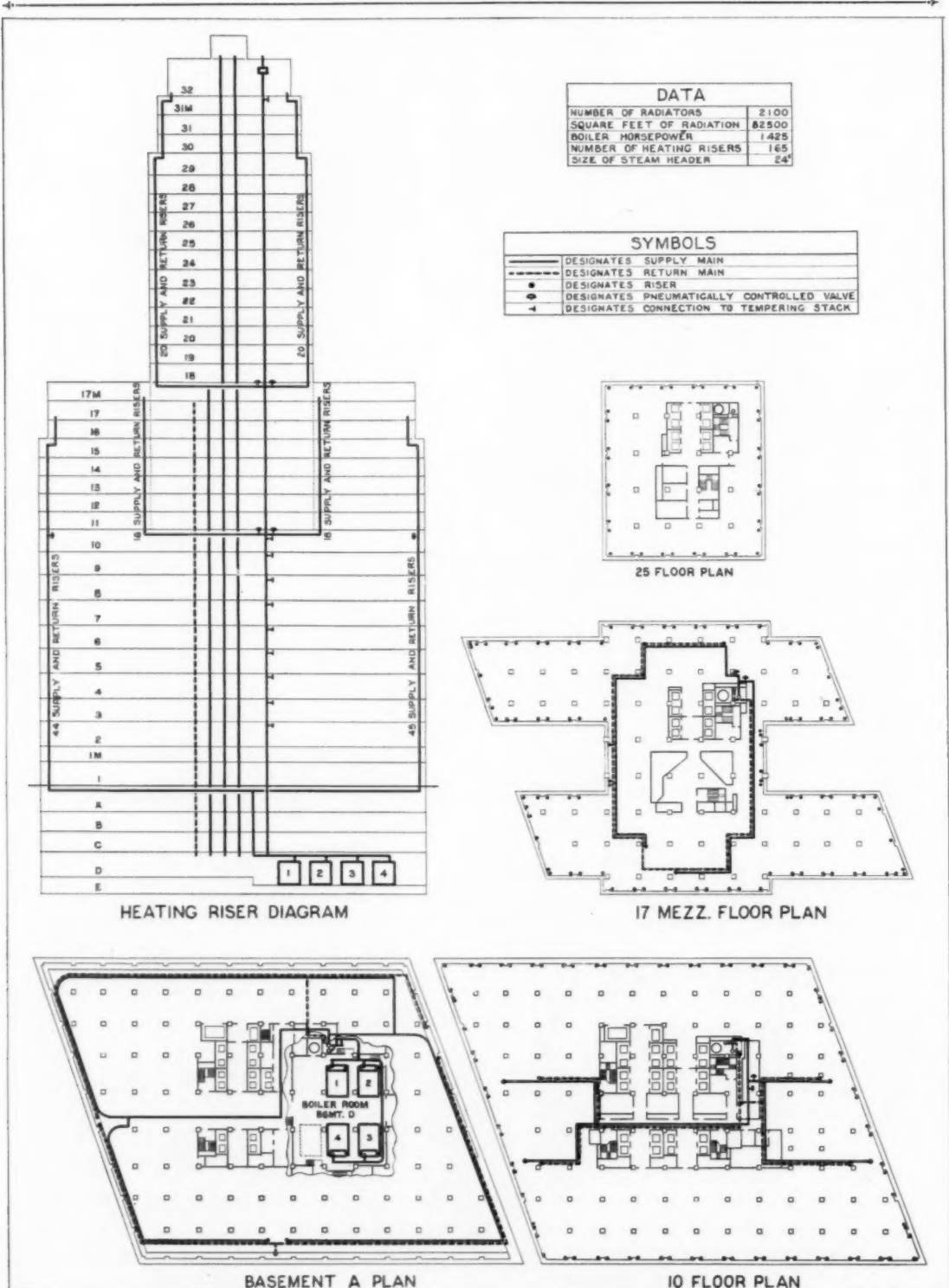
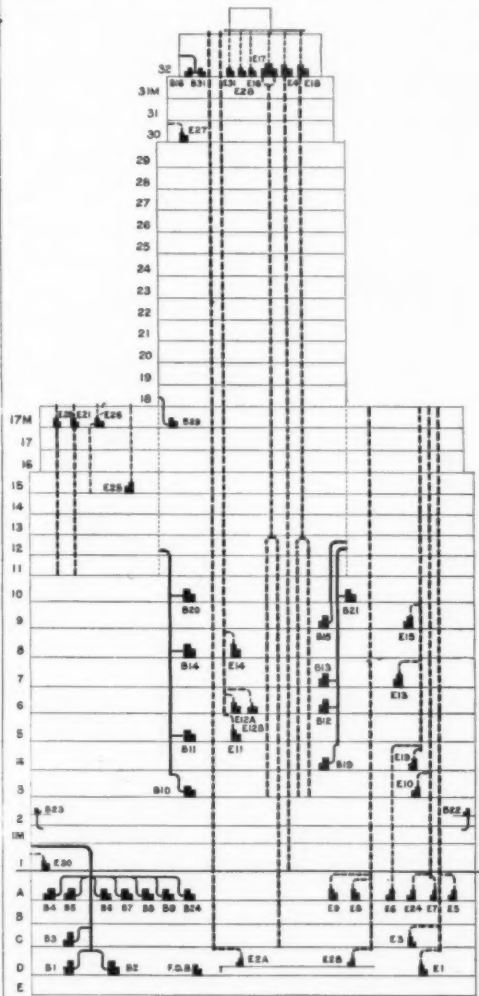


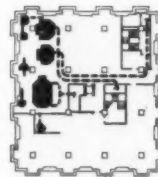
DIAGRAM OF THE HEATING SYSTEM
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
MCKENZIE, VOORHEES & GMELIN, ARCHITECTS



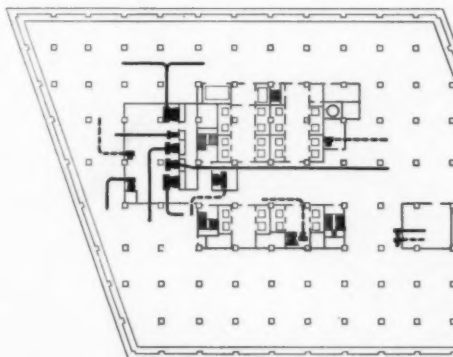
VENTILATION DIAGRAM

DATA		
FAN NUMBER	SPACE VENTILATED	CAPACITY-CFM
B1	E1 BASEMENTS D AND E GENERAL	35865 31225
B2	E2A BOILER & MACHINERY ROOMS SUPPLY-BOILER ROOM EXHAUST	48598 10000
B3	E2B MACHINERY ROOM EXHAUST	21708
B4	E3 BASEMENT C GENERAL	13045 13045
B5	E4 KITCHEN IN BASEMENT	22816 31600
B6	E5 CAFETERIA	20485 20787
B7	E6 BANK VAULT	3500 3700
B8	E7 BASEMENTS A & B GENERAL	4648 3730
B9	E8 ELECTRIC SERVICE ROOM	9243 9243
B10	E9 TRANSFORMER ROOM	5000 5000
B11	E10 THIRD FLOOR	35038 27000
B12	E11 FIFTH FLOOR	40850 36210
B13	E12A SIXTH FLOOR SUPPLY-SIXTH FLOOR EAST EXHAUST	30532 8944
B14	E12B SIXTH FLOOR WEST EXHAUST	17040
B15	E13 SEVENTH FLOOR	40250 36220
B16	E14 EIGHTH FLOOR	40250 36220
B17	E15 NINTH FLOOR	36894 33228
B18	E16 CONFERENCE ROOM-THIRTY FIRST FLOOR	11250 11250
B19	E17 WEST TOILETS EXHAUST	86000
B20	E18 EAST TOILETS EXHAUST	55000
B21	E19 FOURTH FLOOR	18342 15000
B22	E20 TENTH FLOOR SOUTH	19866 17882
B23	E21 TENTH FLOOR NORTH	20273 18314
B24	E22 FIRST FLOOR CORRIDOR (EAST) RECIRCULATING	4350
B25	E23 FIRST FLOOR CORRIDOR (WEST) RECIRCULATING	4350
B26	E24 BASEMENT A LOUNGE & LIBRARY	15173 11803
B27	E25 FIFTEENTH FLOOR MEDICAL DEPARTMENT	1418
B28	E26 FOURTEENTH FLOOR BLUE PRINT DEPARTMENT	6144
B29	E27 THIRTIETH FLOOR CLASS ROOMS	1550
B30	E28 THIRTY SECOND FLOOR KITCHEN	3842
B31	E29 ELEVATOR MACHINERY ROOM	10000
B32	E30 MAIL ROOM	4480
B33	E31 BOARD OF DIRECTORS ROOM-THIRTY NINTH FLOOR	1208 1000
F.D.B.	FORCED DRAFT FAN FOR BOILERS	

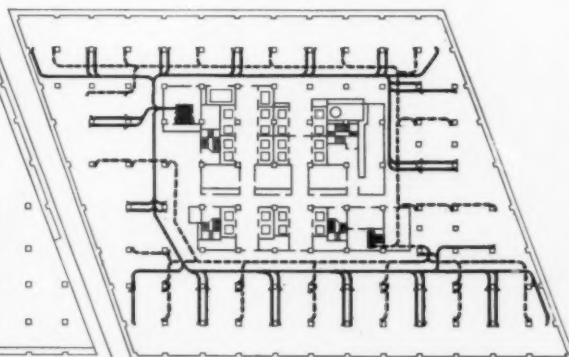
SYMBOLS	
B	DESIGNATES BLOWER SUPPLYING FRESH AIR
E	DESIGNATES EXHAUSTER REMOVING VITIATED AIR
F.D.B.	DESIGNATES FORCED DRAFT BLOWER FOR BOILERS
—	DESIGNATES FRESH AIR SUPPLY DUCTS AND SHAFTS
- - - -	DESIGNATES EXHAUST DUCTS AND SHAFTS



32 FLOOR PLAN



BASEMENT A PLAN



5 FLOOR PLAN

DIAGRAM OF THE VENTILATING SYSTEM

THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY

MCKENZIE, VOORHEES & GMELIN, ARCHITECTS

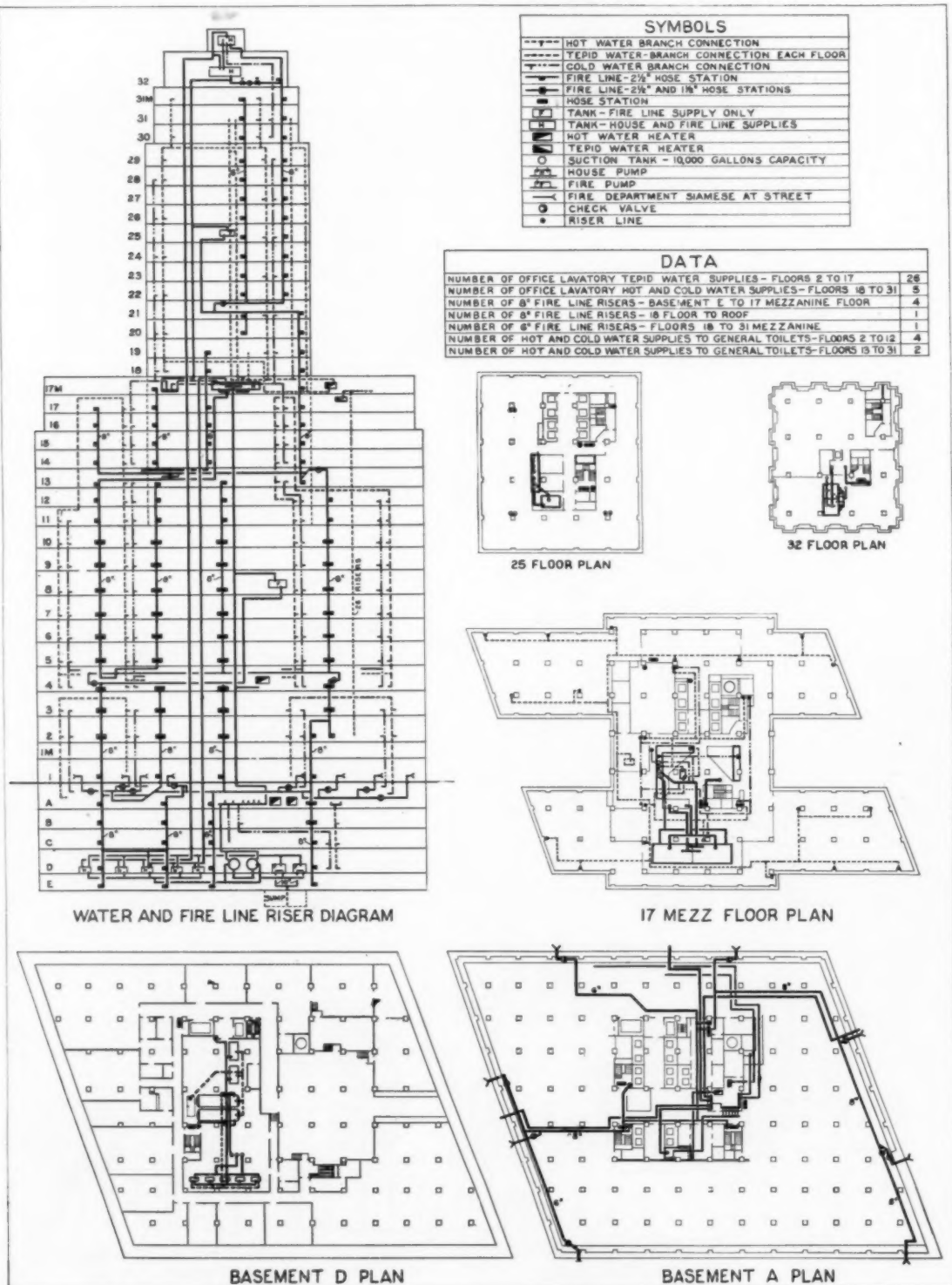


DIAGRAM OF THE WATER AND FIRE LINE SYSTEMS
THE BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK CITY
MCKENZIE, VOORHEES & GMELIN, ARCHITECTS

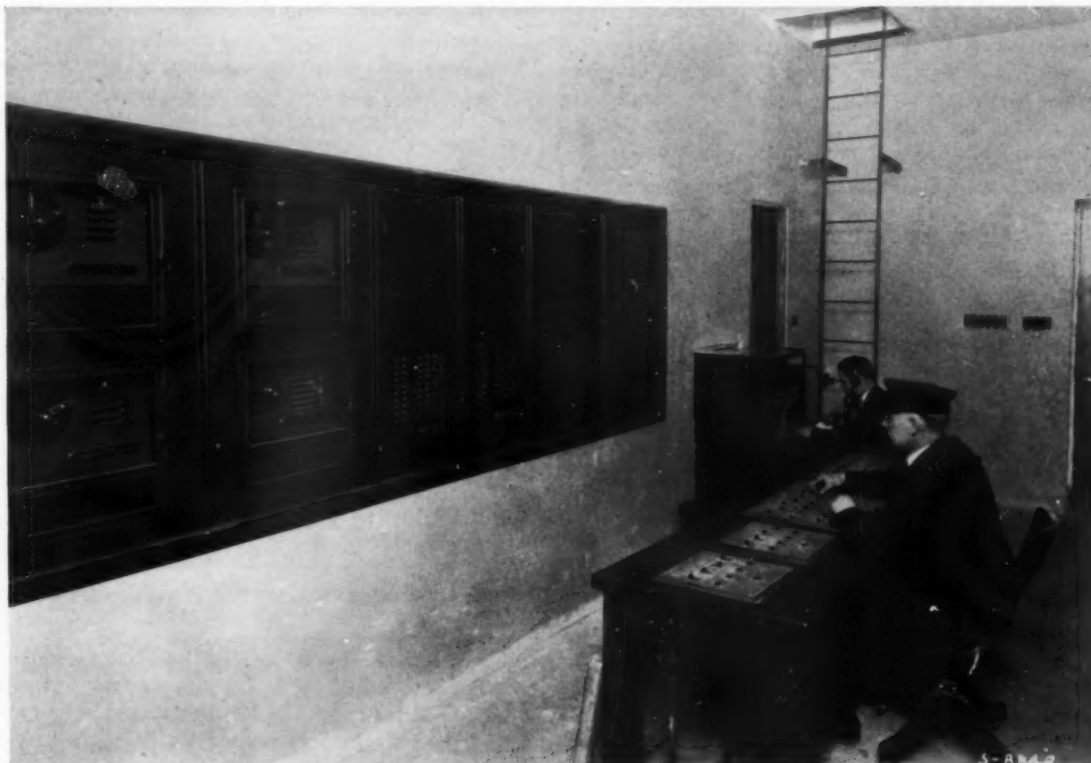
(Continued from page 418)

period an elevator leaves the first floor every five seconds. More than 180 persons per minute are received and handled by the elevators during the peak of this period. The densities, direction and character of the traffic movements within the building change from hour to hour. The main traffic divisions are: the arrival period, 9 A.M.; transient and interfloor traffic, 10.00 to 12.00; restaurant and cafeteria traffic, 12.00 to 2.00; transient and interfloor traffic, 2:00 to 4:00; and departure, 5 P.M. These changes require different systems of elevator operation and bank grouping.

A transportation system of this magnitude and varying demands could not well be operated without an executive head or elevator dispatcher. The dispatcher's office is located adjacent to the main entrance corridor on the first floor. This room is provided with a complete control board with signals indicating at all times the various conditions of traffic and position of the elevators. There are devices which show the exact position and direction of travel of every elevator, as well as the banks as a whole; the position of waiting passengers and the direction they intend to go; the position of each car as to whether it is ahead or behind schedule;

when any car has reached its capacity load; and the traffic schedule in operation at any time. The dispatcher has an assistant with direct telephone connection to every car, elevator machine rooms, operators' locker room, and other important contact points. The traffic system divisions based upon the fluctuating elevator demands can be changed by push buttons located in the dispatcher's office. The operation of any button not only alters the starting schedule but simultaneously changes the elevator sign wording throughout the building so as to follow the traffic load. The dispatcher can also transfer signals from car to car to maintain the schedule and elevator spacing; and place certain cars on special service such as express service to the medical or other departments. The dispatcher as head of the transportation system within the building has complete control of the elevators, with the exception of the actual starting or stopping of the cars which is, of course, initiated by the car operator through the control levers.

The elevator operator is kept advised of the position of the car in the hatchway by a system of vision panels in the cars located in front of the operator. Hatchway indicators are also located in the upper corner of the door opening.



ELEVATOR DISPATCHER'S OFFICE. WALL PANEL CONTAINS ON RIGHT SIGNAL LIGHTS INDICATING THE POSITION OF CARS IN EACH BANK AND DIRECTION OF PASSENGERS ON EACH FLOOR. APPARATUS ON LEFT OF PANEL ARE "TIMERS" THAT AUTOMATICALLY START CARS FROM THE FIRST FLOOR AT A PREDETERMINED INTERVAL. SWITCHES ON DISPATCHER'S TABLE ENABLE HIM TO CONTROL THE MOVEMENTS OF ALL ELEVATORS

The corridor elevator signals are of red and green Fresnal glass designed on the principle of a railroad lens. Illuminated elevator signs throughout the building indicate the bank or banks of elevators serving that particular floor as well as directions for reaching any other floor. These signs are so arranged that their legend changes automatically when any change is made in the bank ar-



INCINERATOR FOR BURNING WASTE MATERIAL

rangement or grouping of cars so that the signs synchronize with the existing schedule of elevator operation.

In conjunction with the elevator installation it is of interest to note that the elevator doors and frames were fabricated in the shop to a very small tolerance. These were completely assembled at the time the hatchway was enclosed and permitted the hatchway to be completed and the elevator equipment installed more rapidly than is usually the case.

ELECTRIC SERVICE

Electric service has many ramifications interlocking with the services of transportation, comfort and security. Electrically operated equipment has made it possible to concentrate thousands of workers within single buildings. This equipment includes elevators, direction signs, light, ventilating fans, pumps, vacuum cleaners, heat control and communication systems. In addition, there is the various electrical office machinery for tabulating, bookkeeping and many other purposes besides specialty machines such as photographic equipment. Any modern office building should be so wired that electricity of the proper character may be available in the kind and quantity desired.

The extended use of electricity in the modern office building was recognized in the design of the wiring in the Telephone Building and the architectural plans were prepared to provide for adequate space to accommodate the conductors required for various purposes.

From the service entrance in basement A current for light and power passes through the necessary switches, fuses and meters to the top of the building through a bare copper bus system. The

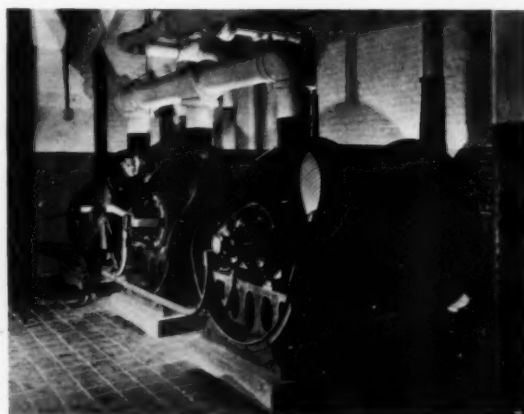
use of bus bars is economical and flexible and replaces the insulated cable in conduit that has been more commonly used.

Round bus bars originate at the main switchboard in basement A and extend through four shafts to the 32nd floor. The bus bars are suspended from the tops of their respective shafts and are thus free to expand downward when heated by the electric current. Slate barriers at each floor and at other levels prevent the bars from coming in contact with each other. Connections are made to the bars by special terminal clamps soldered on. Weatherproof solid wire extends from these terminals to the light or power distribution panels also located in the bus bar shafts.

The wiring layout for lighting, wall fans and machine outlets is generally uniform throughout the building without regard to particular office layouts. Outlets are located off the center of column faces in anticipation of future office partitions being located on the center of column faces.

The floors from the 2nd to the 10th will be used initially for office purposes, but will be gradually converted into telephone exchange use. Since an entirely different electric layout will be required for exchange purposes provision was made to facilitate future wiring changes in these stories and shafts for future telephone power feeders were installed.

Distributing telephones in a building of this character is a problem requiring serious study. It was estimated that one telephone would be required for every 60 square feet of rental area. A half round



TURBINE EXHAUSTORS OF THE CENTRAL VACUUM CLEANING SYSTEM

fibre duct system in the form of a gridiron was laid with the top about one inch below the finished floor. Outlets are installed in this system wherever required after the floors were laid. Wires are easily installed in these ducts as needed and can be brought to within two or three feet of any desired point. Telephone distribution boxes, centrally located to serve all areas, are connected by the underfloor duct

systems to main distribution boxes on each floor. Vertical shafts for telephone cables extend from the basement to the top floor.

Two large direct current 110-220 volt services, each capable in an emergency, of supplying the total load on the building enter the building at widely separated points. For normal operation the electrical load is divided equally between the two services. Two large double circuit breaker units on the main switchboard automatically transfer the electrical load to the good service, should either service fail.

In addition to the direct current services, two 13,400 volt, 3 phase alternating current services, reduced to 220 volts by transformers in the building, will be installed to drive the motors on the machine switching equipment of the future telephone exchanges.

THE SERVICE OF CLEANING

The service of cleaning includes the plumbing, drainage and vacuum cleaning systems.

The site of the Telephone Building on the water front of the North River, where the street grade is at approximately maximum high water level, necessitated a plumbing design of a type that would prevent backflow through the sanitary lines and fixtures in the building in case at any time the street sewers should fail to discharge their contents. The height of the building and the confinement of all main stacks within the core area made it advisable to offset the main stacks at various levels to re-



FIFTEEN THOUSAND GALLON HOUSE SUPPLY WATER TANK IN THE THIRTY-SECOND STORY

duce the velocity of flow and possibility of high impact on the lowest fittings.

Sanitary and leader drainage were divided to serve approximately equal areas. Above the first story two main sanitary stacks were installed in order to allow each stack to serve alternate floors. The sanitary system below the second story discharges into air operated ejectors located in basement E. These ejectors discharge at 100 pounds

air pressure into main house sewers beyond the house trap of the drainage system.

Roof drainage is separately connected with the street sewers to prevent possible backflow into the sanitary system due to the high pressures under which the leaders operate. Emergency drips, floor drains and subsoil water discharge into a sump of 70,000 gallons capacity located under the floor of



TYPICAL GENERAL CLERICAL SPACE. NOTE VENTILATING SUPPLY OUTLET NEAR CEILING. AIR IS EXHAUSTED THROUGH DUCTS CUT OFF ONE FOOT ABOVE THE FLOOR. ONE OF THESE DUCTS CAN BE SEEN AT THE EXTREME RIGHT

basement E. The sump water is pumped out of the building by two 300 gallons per minute pumps.

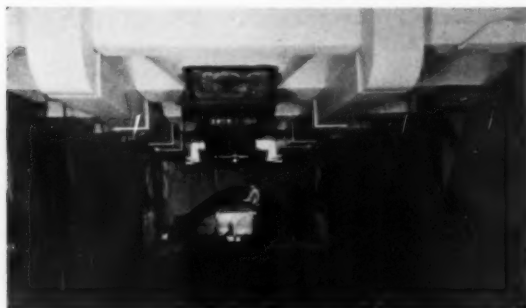
The water supply system is divided into three horizontal sections to avoid excessive pressures in the lower section of the building. The portion of the building below the second story is supplied directly from the city street main. All stories from the second to the sixteenth are supplied from a tank of 33,500 gallons capacity located in the 17th floor mezzanine and served by two pumps of 300 gallons per minute capacity each. The tower portion of the building is supplied from a tank of 15,000 gallons capacity located in the 32nd story. This tank is served by two pumps of 200 gallons per minute capacity. A fifth or stand-by pump that can be operated on either service is provided for emergency use.

The hot water supply system is similarly divided into three sections. Instantaneous steam type water heaters are located in Basement A, fourth story and the 17th floor mezzanine. The kitchen and cafeteria are supplied by hot water at a higher temperature from an independent heater installed in basement A. All hot, cold and circulation water supplies for each section of the building are centrally controlled from leaders in the tank rooms. The water supply system is so arranged that in case of failure of any tank, street supply or water line, all tank water above any given story is available for use through a valve controlled bypass.

Water closets, lavatories and drinking fountains are of the wall hung type. All exposed metalwork and trimmings of plumbing fixtures are of solid

Benedict white metal. Plumbing pipes are located in convenient shafts that also serve as ventilating shafts for the various toilet rooms.

To avoid carrying pails of water for cleaning, mop tanks on trucks are employed. The cleaners' rooms contain a specially designed floor drain fixture over which the mop tanks can be filled or emptied.



COAL CHUTES FROM OVERHEAD BUNKERS CONVEY COAL TO CARS ON INDUSTRIAL TRACK AND THENCE TO THE BOILERS

Each lavatory in all toilet rooms is supplied with liquid soap through a special design combination soap dispensing and lift waste fixture. The soap dispensing system is supplied from three central storage tanks located in the 8th, 17th floor mezzanine, and 32nd stories.

All cleaning throughout the building is done by a central vacuum cleaning system. Provision has been made for the cleaning of central office equipment by the same method. Vacuum cleaning outlets are so located that a 75 foot hose is the maximum length required. The equipment is capable of operating 45 outlets simultaneously. Three vacuum producers of 30 H. P. turbine type, and dirt separators are located in basement D.

THE SERVICE OF COMFORT

Heating and ventilating are primarily services of comfort, although the item of security from freezing is also involved. To produce uniform heating throughout the various stories of the Telephone Building, cognizance was taken of the so-called chimney effect due to its height and size, and the increasing wind velocities at the higher levels.

The nature of the occupancy of the building made it advisable to divide the building into three horizontal zones, namely: basements to 10th floor; 11th to 17th floor; and 18th floor and above. The distribution to these three zones is controlled from an indicating control panel in basement D which operates pneumatic valves located in the 10th story and 17th floor mezzanine.

The heating system is of the two pipe vacuum type with steam driven vacuum pumps. There are four water-tube boilers operating at 80 pounds

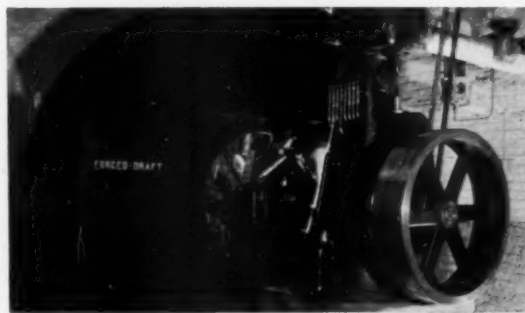
pressure with a total normal rating of 1424 H. P. Coal is supplied to the boilers from a 1500 ton capacity overhead coal bunker, and discharged through chutes to cars on industrial tracks and thence to the boilers. Provision has been made for future oil burning equipment. Instruments located in the boiler room analyze the flue gases and continuously record the load carried at all times by each boiler unit.

Complete supply and exhaust ventilating systems were installed for the 2nd to 10th floors for densities of clerical force of 50 sq. ft. per person. These systems are arranged so that part of the heating is provided by the ventilating system. The temperature of the air in the ventilating systems is controlled by pneumatically operated thermostats. All air for the basements is filtered before being distributed.

Toilets are ventilated by using the plumbing utility shafts as ventilating ducts. A main exhaust fan in the 32nd story discharges air from these shafts at the rate of more than 100,000 cubic feet per minute.

Two recirculating systems taking hot air from the ceiling and discharging it at the floor were installed in the main entrance corridor. This was determined as essential because of the great number of people passing through the entrance doors, and the large difference in air pressure resulting from the height of the building.

Cool drinking water is pumped to a supply tank in the 32nd story from which it "cascades" down through the supply risers and is cross connected to tanks in the 17th floor mezzanine, 8th story and basement D pump room. The tanks above basement D are employed to keep the pressure at the

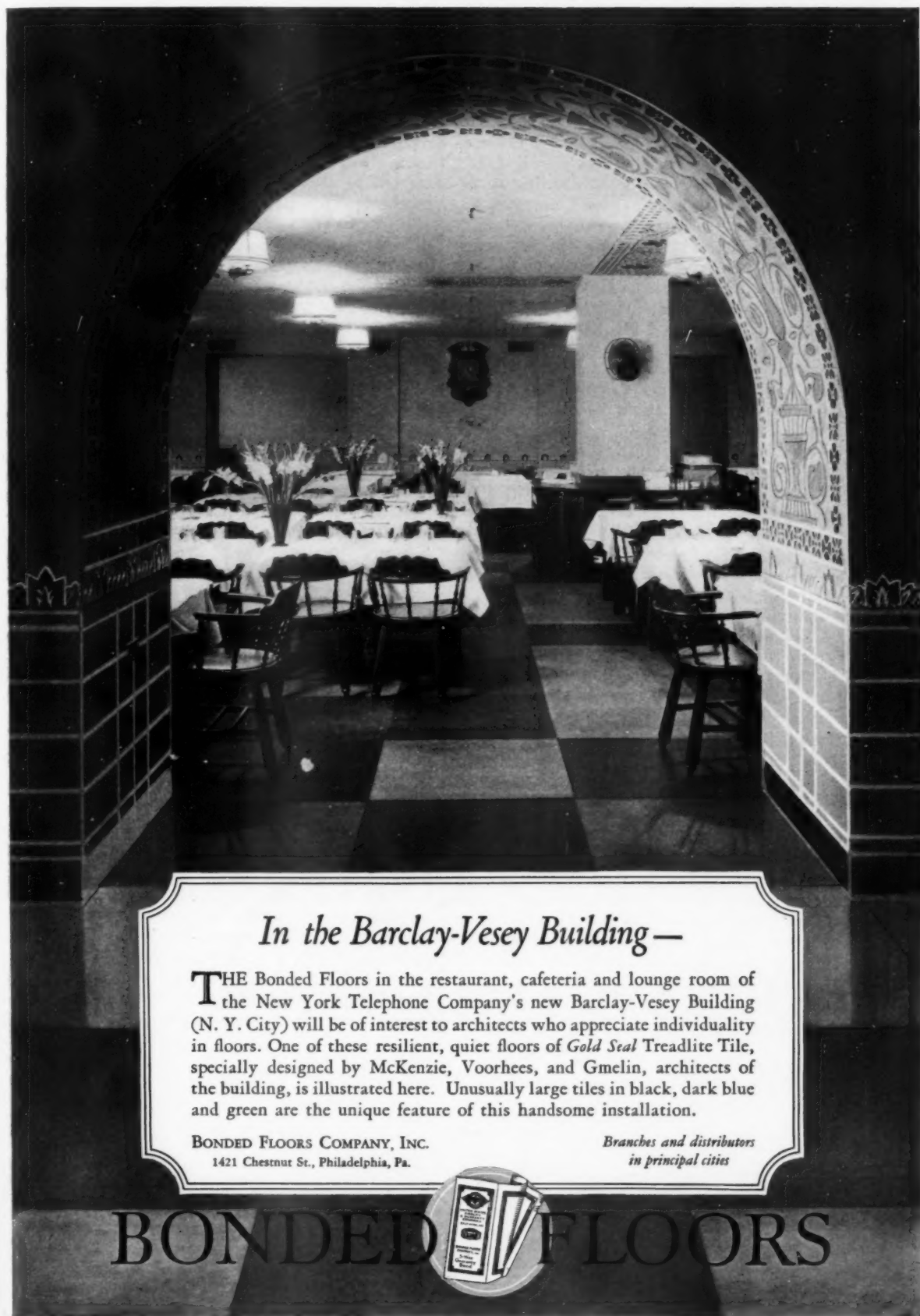


AN AIR SUPPLY FAN UNIT

drinking fountains within satisfactory limits. The tank in basement D prevents the transmission of pulsations from the circulation pumps.

SERVICE OF SECURITY

Fire protection devices may properly be assumed as a branch of the service of security, and may be classified as fire prevention and fire extinguishing measures.



In the Barclay-Vesey Building—

THE Bonded Floors in the restaurant, cafeteria and lounge room of the New York Telephone Company's new Barclay-Vesey Building (N. Y. City) will be of interest to architects who appreciate individuality in floors. One of these resilient, quiet floors of *Gold Seal Treadlite Tile*, specially designed by McKenzie, Voorhees, and Gmelin, architects of the building, is illustrated here. Unusually large tiles in black, dark blue and green are the unique feature of this handsome installation.

BONDED FLOORS COMPANY, INC.
1421 Chestnut St., Philadelphia, Pa.

*Branches and distributors
in principal cities*

BONDED FLOORS



Specifications of most products advertised in THE AMERICAN ARCHITECT appear in the Specification Manual

To eliminate from the building a possible fire hazard, a 3" main gas riser extending from the basement to the roof is located in an open air shaft. The possible fire hazard of the pipe shafts has been reduced to the minimum practicable by jacketing all combustible pipe covering with two 1/16" thick layers of asbestos board and covering all fittings with fireproof and waterproof cement.

Fire hazards both without and within the building were considered in designing the fire extinguishing equipment. Ferry ships and steamship docks on the opposite side of West Street, and buildings of great age not provided with modern fire protection devices, on the other three street fronts, create a potential fire hazard that required serious consideration. As a result, additional fire fighting equipment beyond that required by law was developed in conjunction with the municipal and underwriters' authorities.

The standpipe equipment, divided into four sections, fed from gravity tanks, are of sufficient capacity effectively to combat serious fires in any of the structures in the vicinity of the Telephone Building. Except in the topmost stories, the minimum tank pressure at the highest outlet of each section is twenty pounds and the maximum pressure does not exceed eighty pounds at any outlet.

Total tank capacity available for stand pipe use is 62,500 gallons distributed as follows: 32nd story, 22,000 gallons; 25th story, 3,500 gallons; 17th mezzanine story, 33,500 gallons and 8th story, 3,500 gallons. The arrangement of the piping makes the total tank capacity above any given section available for use in that section and sections below. The tanks are equipped with closed circuit electric high and low water alarms, and float switch controlled supply valves.

The system is so arranged that it is impossible to exhaust the fire line supply without draining the house water supply. Two electrically driven centrifugal fire pumps are directly connected to the stand pipe system. These pumps are normally supplied from two 10,000 gallon suction tanks in the pump room. These tanks are fed from three 6" street main connections. An auxiliary supply of from 50,000 gallons to 70,000 gallons is provided by two suction lines connected with the sump pit under the floor of basement E.

The pumps are designed to deliver 1,000 gallons per minute with 50 pounds flowing pressure at the nozzles of three 100 foot lengths of hose above the tower roof, with street main pressure at the pump suction. Should street supply fail and suction is taken from the sump, at least 750 gallons per minute can be discharged above the roof at the same pressure. Rheostat control and a manually operated by-pass from discharge to suction, make it possible to obtain any desired pressure from approximately one hundred pounds to maximum at any outlet from the first story to the roof.

Five house pumps, capable of delivering 1200 gallons per minute below the 17th floor mezzanine and 600 gallons per minute above this story, are also connected with the standpipe system.

Eight 3" x 3" x 6" Siamese connections for the use of the city Fire Department are directly connected with the system.

The interior fire alarm system is connected with city fire headquarters and the pump room. In the pump room the location of the fire alarm station operated is indicated on "ticker tape" as well as by an audible alarm.

Stand pipe risers are 8" in diameter with 2 1/2" hose outlets in each story. In the lower ten stories there are additional 1 1/2" hose outlets for fighting fires in telephone equipment.

The five basements are equipped with an automatic wet sprinkler system supplied from two 6" city main connections. Above grade the only sprinkler equipment is that in the blueprint department in a portion of the 14th story. This system is supplied from the 17th floor mezzanine house tank.

REFRIGERATING EQUIPMENT

The refrigeration system is used for cooling drinking water, kitchen refrigerators, and to make ice for the restaurant and medical department. Brine between zero and 5 degrees F. is pumped to the building from a nearby refrigerating plant and circulated to the various refrigerator units and returned to its original source. Equipment has been so arranged that a refrigerating plant can be installed within the building if required in the future. The ice-making plant has a capacity of 2000 pounds every twenty-four hours.

KNOWING WHEN TO SAY "NO"



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THE LAW AS TO ARCHITECTURE

By CLINTON H. BLAKE, JR., of the New York Bar

THE following letter presents a rather interesting situation:

"Several weeks ago a man who contemplated building a small factory building in a town about seventy-five miles from ——— came in and secured our rates for making drawings and for superintendence. We spent an entire afternoon with him showing him some of our finished work, and he decided that he wanted to get an estimate on the building he contemplated. We suggested to him that the only way to do this would be for us to make a set of sketches and have his contractor make a preliminary estimate. However, since the money for the building was to be raised by local subscriptions, he was extremely anxious that the preliminary estimate be made rather accurate. Consequently, it was necessary for us to make our sketches in considerable more detail than is our practice. Incidentally, we told him there would be a nominal charge for the sketches, and when the work proceeded, we would credit this charge against our total commission. The sketches were delivered to him a few days later, and the letter of transmittal cautioned him not to use them as working drawings inasmuch as they were only preliminary; also the sketches were stamped as being the property of the architects with the additional caution that they were not to be used as working drawings. We heard nothing from this man for several weeks, and we then wrote him. In reply he stated that the development of the project was rather indefinite, and if we would render him a statement for the agreed price of the sketches, he would pay it. We rendered him a statement again, setting forth that this amount of money would be credited to his account when the building was built. In the last day or two it has come to our attention that the work has been started and we have reason to believe that our sketches are being used in the erection of the building."

The rights of the architects against the client in the foregoing case must depend largely upon two factors—what action the client now takes with regard to the erection of the building and how definitely the architects may be able to prove their agreement with the client with respect to the use by him of the sketches which they gave him. If the architects can spell out from the conversations which they had with the client an agreement in substance that, in the event the building is proceeded with, the architects shall continue to act as such, they will be in a position to claim damages, if the client does not allow them to continue as architects. These damages should amount to the profit which the architects would have made on the job, had they been allowed to proceed with it.

On the facts given in the above letter, there would seem to be considerable basis for such a claim in this case. The understanding that, if the building were proceeded with, the nominal charge which was made would be applied merely as a credit against the architectural charges, indicates that it was contemplated by both parties that the architects who prepared the sketches should continue to act as architects for the building to completion, if it were erected. The standard contract of The American Institute of Architects contem-

plates, of course, the right of an owner to discontinue the services of the architect employed. In the present case, there was no such provision in the agreement under which the parties acted. In the absence of a specific agreement to this effect, the architect who was employed to prepare plans and to see the job through to completion is legally entitled, as damages, to the profit which he would have made, where he is not allowed to perform the services which he has undertaken to perform.

There is another consideration which strengthens the architect's claim. Entirely aside from a specific agreement that the architect shall perform the work, if an architect provides plans for a client and the client then proceeds with the work and has the building erected from those plans, the architect is entitled to be paid his proper fee for the use of the plans, since they have been thus adopted by the client and the client has received the benefit thereof. Even under the practice of the Institute and its recognition of the right of the client to terminate the architect's employment, the client cannot both terminate this employment and thereafter continue to make use of the architect's creations, without making proper compensation to him.

While the understanding in the case presented by the letter which I have quoted is necessarily somewhat vague and characteristic in this regard of the many cases where the architect fails to have a definite agreement with the client, it would appear reasonably clear that there was an agreement between the parties, that the sketches should not be used for any purpose other than the securing of the estimate and should not be translated into working drawings, without the architect's permission. This raises the interesting question of the rights of the architect where he has prepared full preliminary sketches under such conditions and the owner then undertakes to dispense with his services and to have working drawings prepared by others but based upon the sketches.

If the architect can show a definite agreement that the sketches shall not be used for other purposes, he should be entitled, I believe, to an injunction to prevent the client from proceeding to make improper use of them. An injunction will not ordinarily be granted where the damage can be measured in dollars and cents and relief secured by a money recovery. In a sense, this would be true in the present case, in that it might be urged that the architects could recover the value of their services, if the sketches were used by the client and the building erected from them. I think, however, that the courts would take into consideration the special character of professional services and the

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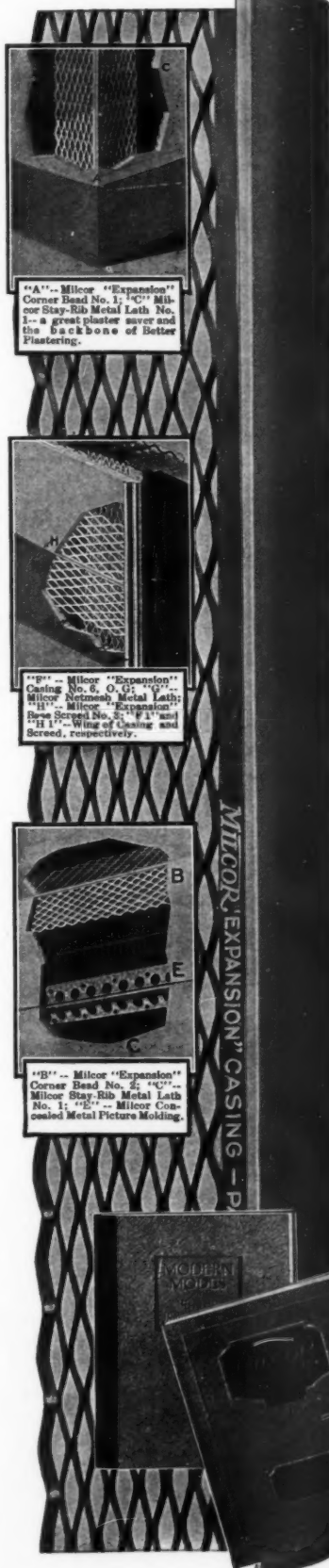
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fact that the architects might well be damaged in their reputation, if the building were erected by the client from their sketches, but without their supervision or control of the work. If they could establish the fact that this would be so, the court would be quite justified in granting them injunctive relief.

In the case in question, the wise policy for the architects to follow will, I think, be to notify the client that the latter cannot have working drawings prepared by others from the sketches, that if the building is erected in accordance with these sketches the architects originally employed must be the architects to completion, that they are prepared to proceed with the work as architects, and that, if they are not employed as such and the work is done under their plan, they will hold the client liable for damages.

If the work is proceeded with, but under an entirely different scheme and plan and new drawings not based upon the sketches prepared by these original architects, the architects would not be entitled to recover anything beyond the nominal charge which they agreed to make for the sketches. On the facts set forth in the quoted letter, I believe that the architects would have difficulty in proving an agreement that under all conditions they should be retained as architects, as distinguished from an agreement that, if the work is carried out in accordance with the sketches which they prepared, they should be so employed.

There is one more possible variation of the situation—if the architects fail to prove an understanding that they shall have the job if it is proceeded with under their scheme but the work is, as a matter of fact, carried out essentially on the basis of their sketches and they fail for any reason to recover the full amount of damages based on the profit which they would have made on the total job, they may nevertheless be able to secure for the sketches alone a fee equal to the customary one-fifth of six per cent on the cost, as distinguished from the nominal charge which they agreed to make for the sketches. This nominal charge was made on the assumption that, if the building were proceeded with, they would be paid their fee as architects and the nominal charge would be credited on account. If the court were to take this view of the matter, the nominal fee already paid would, of course, be credited to the client on account of the one-fifth of six per cent allowance awarded to the architect.

LEGAL DECISIONS

THE laws of Connecticut provide that:

"If any person shall have a claim x x x for materials furnished or services rendered in the construction, raising, removal or repairs of any building, x x x such claim shall be a lien on such land, building and appurtenances."

Plaintiffs, architects, were employed to prepare and did prepare plans and specifications for the defendants' building. After the building was about one-third completed, the work was stopped and the architects filed a lien for their services in preparing the plans and supervising the work. The amount which they claimed was the total commission due them on the estimated cost of the completed building. The defendants, in opposing the lien, claimed that it was invalid because, in the first place, it was for an amount substantially in excess of that due and because, in the second place, it included a sum claimed as damages for breach of contract. The court found that the amount due to the architects at the time the certificate was filed was less than the full amount claimed, but that the overstatement of the amount in the lien claim was not wilful and did not invalidate the lien. The court further held that the question of the application of the Connecticut lien law in such a case was a new one, but that under the wording of the law as quoted above the architects were entitled to file a lien for their services in the preparation of the plans and specifications.

Marchetti v. Sleeper, 100 Connecticut 339.

30

A BUILDING contract provided that the architect should have charge of the work and should give interpretations of the writings. The contractor failed to perform the work to the extent of about \$2,000. The owner occupied the building, but notified the contractor of the failure to perform and demanded performance. The architect disregarded this request of the owner and, without making an examination of the work, issued the final certificate, stating that the contract had been completed and that the contractors were entitled to the balance due as given in the contract. The contractor brought suit and contended that the certificate of the architect was final and constituted an acceptance of the work, that the owner accepted the work and cannot claim later that it was unsatisfactory, and that the failure to submit the case to arbitration is a waiver of any facts which could have been arbitrated.

The court held that the authority of the architect did not justify him in excusing the contractors from performing any part of their obligations; that the provision of the contract that the architect should have charge of the work and should interpret the writings did not give him the right to allow the contractor to vary the agreement; that the occupancy of the building by the owner did not constitute such an acceptance of the work as would waive the right of the owner to recover from the contractors for the latter's failure to complete the building; that the failure to arbitrate did not defeat the right of the owner to recover for the failure to complete the building, as the contract

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simply provided for arbitration in case of a dispute as to the price of alterations or in case of an interference with the work, resulting in a claim for damages. Finally the court held that the giving by the architect of a final certificate under the conditions which existed in this case purporting to excuse the contractor from complete performance constituted in effect a fraud upon the owner and was void, inasmuch as it appeared that all parties, including the architect, knew that the work provided for in the contract had not been completely and properly performed.

Hurley v. School District, 124 Washington 537.

BOOK NOTES

THE HOUSE THAT LOVE BUILT*

AN ITALIAN RENAISSANCE TEMPLE TO ARTS AND LETTERS
BY W. FRANCKLYN PARIS

UNDER this title a very sympathetic and enthusiastic book has been published describing in very careful detail Cass Gilbert's Detroit Public Library. Somehow it seems as if a better title might have been chosen in describing so worthy a building. It was not love that built this structure at all, but it was the result of thorough training, of great artistic ability combined with hard, practical common sense and care in planning. All those go to make up a great work of architecture, and in so utilitarian a structure as a public library, their presence is even more essential than in the ordinary run of commercial work. Mr. Gilbert created a monument. Mr. Paris has described it fittingly, and while it is not a reference book, it is inspiring throughout and contains a good deal of the kind of information that does not appear in the ordinary description of such structures. It is a good inspiration for an architect rather than a guide book, and the love so-called which entered into this structure is the love which every great architect feels for all his creations.

C. H. BLACKALL.

*The Haddon Press, New York.

MEMOIRS OF THE AMERICAN ACADEMY IN ROME

AMERICAN architecture today is a curious compound of the extremely idealistic and the remorselessly practical elements. We send our young men abroad to get the first quality instilled into them. They come back and before they do real work they have to acquire somehow the latter, and we in practice here find it very difficult to share in the methods by which the enthusiasm and love of art is instilled into the minds of our young men by the influences they meet abroad. The American Academy at Rome sprang into full fledged life in 1905 and has been going vigorously ever since. We wish

it were possible to know more of the real processes of this excellent educational institution. We cannot expect all of the work done in the Academy to be immediately productive, nor can we hope to trace all of the steps by which a young man acquires his education in Rome. We sometimes wonder whether the three years the architectural student is supposed to spend there is all too much—whether it does not mean that his first year will be usually given to getting ready and his third year to saying good-bye, and that all the work which he would really accomplish might be compressed into a year, or a year and a half. We do not know and we cannot ever know because each student is a new problem. We can only faintly judge of the real work of the School, and these reports, while painstaking and much in detail, absolutely fail to give us an insight into what the School really is as a live, vital, throbbing organization. We wish it were otherwise. In the practice of architecture we are too apt to forget the student, to leave him to himself and to think that somehow he will come out all right and we need not worry, but if all our very busy architects could get in closer contact with the School, I wonder if it would not be better for the architects, for the students and the schools, and whether in that case a measure of the reproach which has been made against the Academy would not be removed, the reproach, namely, that a student can easily cultivate the pink tea and social functions while in the Eternal City and that during his stay there he is very apt to lose touch with the real, vital architecture of his own country. It is no longer essential to architectural training that a student should go abroad. It is a good thing—a desirable thing. It enlarges his vision, enables him to measure past periods with our own, and enormously increases his architectural vocabulary, but, and there always is a but, we wish that somehow the Academy could be less academic, that the study of the past were interpreted a little more in terms of today, and that the accumulation even of vocabulary was made subordinate to the accumulation of architectural character. But perhaps we are asking too much. Certainly the American Academy has justified its existence. It has been a boon to many of our boys, and whatever it might be or have been, it is surely one of the great inspiring possibilities which are held out before our architectural students.

C. H. BLACKALL.

PERSONALS

John Hall Rankin and Thomas M. Kellogg, F.F.A.I.A., announce that John Strubing Schwacke, A.I.A., has been admitted to membership in the firm heretofore practicing architecture under the name of Rankin, Kellogg & Crane. Mr. Crane being no longer connected with the organi-



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zation, the practice will be continued as Rankin & Kellogg, the original name under which the partnership was established in 1891. The offices remain at 1805 Walnut Street, Philadelphia, Pa.

Franklin M. Small, architect, has moved his offices to 366 Broadway, New York City.

NATIONAL EXPOSITION OF POWER AND MECHANICAL ENGINEERING

THE fifth National Exposition of Power and Mechanical Engineering to be held in the Grand Central Palace, New York City, from December 6th to 11th, as indicated in an advance announcement, promises to be worthy of inspection. The exposition brings together leaders in engineering and the industries and also the general public. Many features of the exposition should prove of interest to members of the architectural profession.

Modern buildings are designed and built upon a high ideal of service to the owner and occupants. Power and mechanical equipment contributes to a very large degree to the ability of a structure to render its fullest service. Progress in the field of engineering advances rapidly and may be said to be in a constant state of evolution. It is difficult to keep abreast of the changes constantly taking place in the various branches of so large a field. An exposition of power and mechanical engineering by bringing numerous features together in one place, affords familiarity with the modern equipment available. Expositions have a large educational value and rightfully have an important function to perform in broadcasting information and providing for an exchange of ideas between diversified, and at the same time allied, interests.

THE ARCHITECTURAL LEAGUE OF NEW YORK

THERE appeared in a previous issue a preliminary announcement of the forthcoming exhibition of The Architectural League of New York. The program for the activities during this important exhibition is gradually taking form, and is already so attractive as to interest architects everywhere and to provide an opportunity for recreation and instruction.

We reprint below, in part, a communication received from Alexander B. Trowbridge, president of The Architectural League, setting forth certain details already decided on. Mr. Trowbridge writes:

The side of the life of The Architectural League of New York which the public sees will be shown effectively at the Grand Central Palace between February 14th and March 5th, 1927. In 1925, a similar exhibition was carried out at the "Palace." The exhibition of 1927, held in conjunction with an exhibition of allied arts, will not be so large as the one in 1925, as it was felt that the earlier effort was really too big to be seen satisfactorily in the limited

period available. These annual exhibitions always attract a large body of men and women interested in architecture and the allied arts, and a certain number come to New York at that time solely to see this exposition. In order to increase the educational value of the effort, thereby inducing a still larger number of architects, decorators and craftsmen to come to New York at that time, it is definitely arranged that there will be a series of conferences during the mornings of the first week.

On Tuesday, February 22nd, the first conference, the subject will be Architectural Polychromy in Ancient Practice. Leon Solon, as Chairman of this day's program, will read a paper on Polychromy in Ancient Greek Practice. Milton Medary will cover color in Gothic Architecture. A third, not yet chosen, will deal with Oriental practice in older times.

The next morning, February 23rd, the subject will be The Architecture of Stage Scenery in Theatres and in Movie Studios. Howard Greenley will act as Chairman of this program and will be assisted by one or two others.

On Thursday morning, the subject will be Architecture in Form and Color. The Chairman, H. Van Buren Magonigle, will be assisted by James Monroe Hewlett and one or two others. It may be assumed that they will point out how the lessons of the past suggest to the modern architect novel ways of combining color with the new forms which are being evolved as a result of modern legislation affecting building heights and setbacks.

On the morning of the 25th, the topic will be The Value of the Skyscraper in Modern Business. Harvey Wiley Corbett will act as Chairman of this program and will be assisted by one other.

This abbreviated list of the speakers connected with this series of conferences is the best that can be secured at this early date. The idea of holding such symposiums is new and frankly experimental. It is essentially a plan full of potential value. When could be found a better time and a better place for the gathering together of hundreds of architects, painters, sculptors, decorators and landscape architects than during the annual League show and in close proximity to the exhibits?

WATER COLOR EXHIBITIONS

THE sixtieth annual exhibition of the American Water Color Society and the thirty-seventh annual exhibition of the New York Water Color Club will be held jointly in the galleries of the Fine Arts Society, 215 West Fifty-seventh Street, New York, from Tuesday, January 4, 1927, to Sunday, January 16, 1927, both inclusive. Exhibits will be received at 210 West Fifty-eighth Street on December 22 only. Monochromes and miniatures will not be accepted.

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has eliminated much of the difficulty and detail of thoroughly cleaning the building. Vacuum cleaning outlets have also been provided for cleaning the delicate mechanisms of the telephone exchange equipment.

Three motor driven turbine exhausters, located in basement "C" furnish the suction that draws the dirt and dust through pipes. Hose connections are located in the walls of offices, corridors and other rooms of each story.

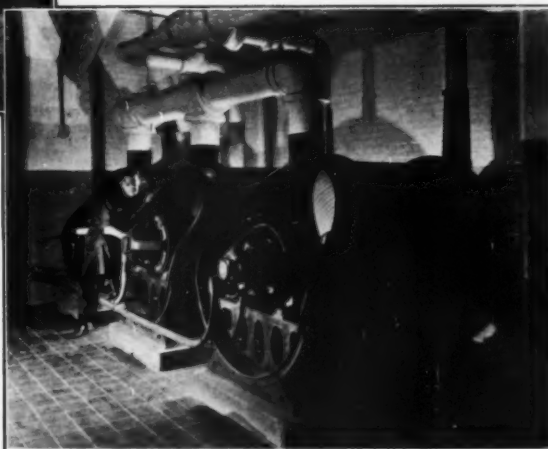
Notable results establishing a new standard of office building cleaning are being obtained in this building which is 100% vacuum cleaned. The cleaning work is done entirely by women and all floor surfaces are cleaned each night, including the terraza corridors.

A cleaner building retaining the newness of the floors and decorations and with a very definite saving in the estimated cleaning payroll of the building is being obtained.

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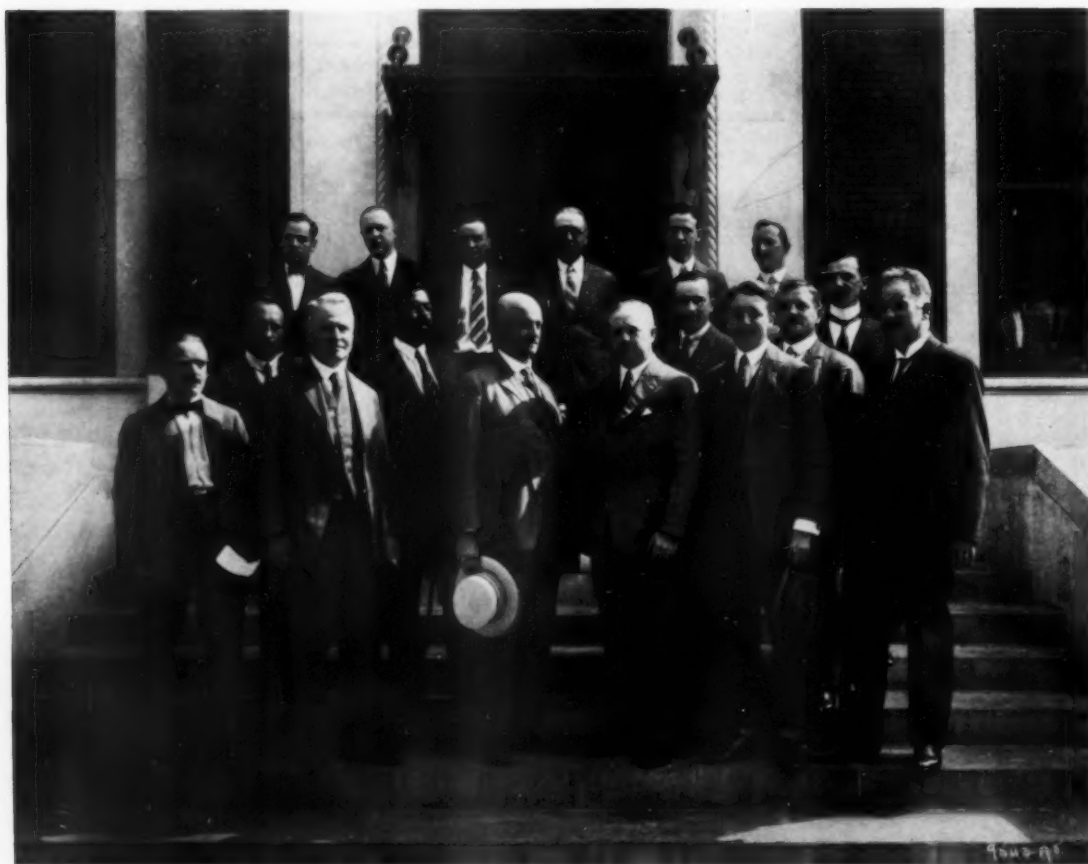
TRAFFIC REGULATION IN PRAGUE

FOR a new and democratic republic, it is the opinion of *The Builder* of London that Czecho-Slovakia has one or two surprising regulations in force. According to the Chief of Police, there is in Prague a special police force whose sole duty is to regulate the traffic, whom the public are forbidden to distract from their duties by asking questions. These traffic officers are empowered to inflict fines upon offenders of the traffic regulations without recourse to a magistrate, or any higher official. Whether they are able to vary the amount of the fine we are not told, but the report states that this arrangement, open to so many abuses, is working well and "saves the time of the administration as well as the individual." In Prague, also,

the authorities have their own ideas on the rights of the pedestrian, for in some recommendations for facilitating the passage of traffic the report states that "Foot passengers should not imagine that they own the road, but should remember that above all the road belongs to the vehicles."

USE OF WATER IN UNITED STATES

THE quantity of water consumed in American cities is far in excess of the European supplies. Although London has an extensive system of water supply, the average daily consumption of water per capita is only about thirty-six gallons. In contrast to this, New York consumes more than 125 gallons and Chicago some 200 gallons per capita daily.



GROUP OF PROMINENT GERMAN ARCHITECTS, MEMBERS OF THE BUND DEUTSCHER ARCHITECKTEN, TOURING THE UNITED STATES UNDER THE AUSPICES OF THE DEPARTMENT OF COMMERCE

GERMAN ARCHITECTS VISIT THE PLANT OF THE CADILLAC MOTOR CAR COMPANY. FRONT ROW (LEFT TO RIGHT): OTTO KOHTZ, ENGINEER, BERLIN; KARL MORITZ, ARCHITECT, DRESDEN; DR. KARL KIESEL, JURIST AND EDITOR, BERLIN; DR. LINUS BIRCHLER, ART HISTORIAN OF EINSIEDELN, SWITZERLAND; WALTER KRAUSS, ARCHITECT, AUGSBURG; LYNN McNAUGHTON, CADILLAC VICE-PRESIDENT; EUGEN VON SEIDLEIN, STUDENT, MUENCHEN; DR. EDWARD KNORR, CITY ARCHITECT, MUNICH; ADOLPH GLATT, PROFESSOR IN ENGINEERING SCHOOL, AUGSBURG; THEODORE BULLING, AND WILLIAM VOLZ, ARCHITECTS, STUTTGART. BACK ROW: CONDUCTOR OF TOUR, E. PIEPER, AND CARL O. AHRENDT, DETROIT; TALMAGE C. HUGHES, SECRETARY, AND WILLIAM C. WESTON OF THE MICHIGAN SOCIETY OF ARCHITECTS; RICHARD STEPHENSON, UNITED STATES DEPARTMENT OF COMMERCE; RICHARD MILDNER, JOINT CHAIRMAN MICHIGAN SOCIETY OF ARCHITECTS AND DETROIT CHAPTER, A. I. A. ENTERTAINMENT COMMITTEES

THE PUBLISHERS' PAGE

THERE has been a decidedly progressive movement in Germany during the past eight years, in architectural design and the freer use of materials. In order to appreciate this fact correctly, it will be necessary to set aside prejudices and largely to revise settled opinions. Arthur Woltersdorf, F. A. I. A., and Alfred C. Bossom, F. R. I. B. A., have both recently visited Germany and at the invitation of the editors of this journal, have set down their impressions in articles that will be important discussions of the new types of architecture and the new adaptations of materials as now practiced in Germany.

Mr. Woltersdorf's article will discuss North German Brick Architecture. There is undoubtedly a revival of brick architecture in this country, and in this revival the architectural designer has not only availed of the best precedent, but in co-operation with the brick manufacturer, has evolved some unusually good expression of brick as a building material. Mr. Woltersdorf, in an extended tour of Germany, has gathered a large number of photographs that show through successive stages the artistic use of brick. Around these illustrations he has written a story such as an architect would set forth when discussing an important phase of architectural design.

A series of three articles by Alfred C. Bossom will be important features during 1927. These articles, in the order of their appearance will treat on: (a) Verticality in design as expressed in modern European architecture; (b) Reclaimed material as used in modern buildings. With reference to this article, Mr. Bossom states that many buildings in Europe, crumbling to decay, or razed to permit the use of the sites for more modern structures, are now carefully surveyed before demolition, to determine to what extent the ornament or detail may be made available for the new buildings. By this means there have resulted buildings that are remarkable in a large degree for their architectural design and the retention of traditional motives that are of the highest artistic excellence. Mr. Bossom points out in his article just how, in this country, many fine examples of early American architecture may be perpetuated in newer buildings. The illustrations are unusual and will be presented mostly in full page size. The final article in this series will be appreciative of the work of Oberbaudirektor Professor Dr. Schumacher. This talented man is setting up a new method of architectural design, in mass and detail, that is so great a step forward that every architect, whether in sympathy with this movement or not, should be thoroughly informed as to what Dr. Schumacher is accomplishing. Like every innovation in every field of artistic movement, there will be strongly expressed opinions for and against. Mr.

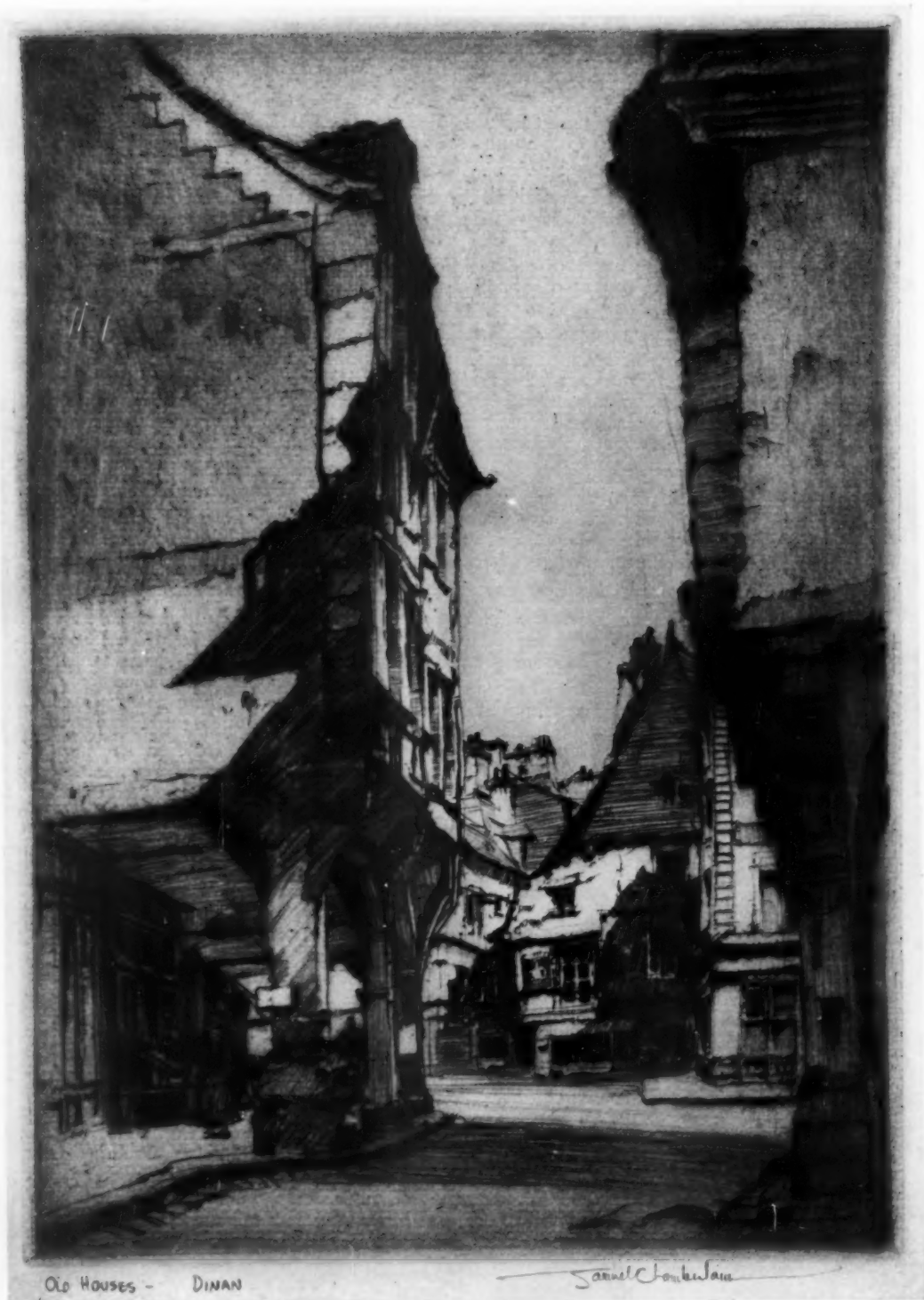
Bossom's review of Dr. Schumacher's work will be found an important contribution in a controversial field of architectural design, and one that the editors of this journal feel should be carefully considered by every architect in this country.

Special issues as relating to technical journals have been found to work injustice to a majority of subscribers. A journal publishing, say, twelve times a year, that devotes entire issues to apartment houses or perhaps hospitals, for example, does not interest but a certain small proportion of architectural offices. And, in those and similarly specialized buildings, there is seldom sufficient new work available to make an exhibition of current interest and it, therefore, becomes necessary to repeat examples that sometimes are from five to ten years old and are familiar to the architectural reader by reason of much previous illustration.

Our issue of November 20, in which was presented the Barclay-Vesey Telephone Building, McKenzie, Voorhees & Gmelin, architects, was in no sense a special issue along the lines of a repetition of work, in some instances new, but in most a collection of subjects dulled in novelty by age, or many repetitions. That issue was a presentation of a building that, to quote from the editorial by Harvey Wiley Corbett, "is worth the careful study of every modern architect and should receive the admiration of every layman."

It was early found that to show this building in all its phases of architecture, engineering and interior architecture, in its use and adaptation of the most modern methods of construction, the novel adaptation of accessories, it would require a complete issue for adequate presentation. It was, therefore, decided to exclude practically every other reference. It was not a special issue, but, if we are to believe the many letters we have received from subscribers all over the country, a complete and adequate presentation of what is generally acknowledged to be among the outstanding examples of good architecture on Manhattan Island. The contents of that issue are not limited in interest to the firms who create big work.

An enthusiastic subscriber writes us: "I want to congratulate you on the wonderful display you have made of that magnificent Barclay-Vesey Building. I think you made the most complete presentation of a fine building I have ever seen." We quote from this letter as it shows appreciation of completeness of presentation, as that was the thing it was hoped to attain. We have had from all over the country similar expressions of satisfaction, and they all tend to confirm us in the resolution to avoid "special issues," and concentrate all our efforts on *complete* issues.



Old Houses - DINAN

OLD HOUSES, DINAN

FROM THE ORIGINAL DRYPOINT BY SAMUEL CHAMBERLAIN

THE AMERICAN ARCHITECT