

THE AMERICAN ARCHITECT

FOUNDED 1876



THE OUTSKIRTS OF NORMANDY

CONCERNING VERNON AND OTHER IGNORED TOWNS SOUTH OF ROUEN

By SAMUEL CHAMBERLAIN

Illustrated with Sketches by the Author

IN a country which is being explored by hundreds of thousands of vacationists this Summer, one cannot hope to make any new and startling discoveries, even with the aid of a sputtering flivver. Hardly a remote French village remains which does not daily witness the apparition of a carful of begoggled visitors being jolted through its cobbled streets, intent upon buying postcards or finding a cooling glass of ice water, (heh, heh). A sketch of almost any building in France, from chateaux to cow sheds, will find its counterpart in somebody's photograph album back home. So it is not with a pioneer's gesture of triumph that these paragraphs and drawings are submitted. Nonetheless, the Anglo-Saxon population, floating and anchored, of the countryside around Vernon

is decidedly small, if the assurance of cafe keepers can be taken as reliable, and they ought to know.

Vernon has much to give it note besides its neighboring village of Giverny, where modernistic Americans gather in the Summer and tourists peer inquisitively into the idyllic garden of the cloistered but harassed Claude Monet. The Seine begins to assume its most paintable aspects near Vernon; the last unbecoming touches of suburban Paris have just disappeared and the first gratifying suspicion of Normandy begins to be felt. Distant cousins of the Breton bonnet appear on the sleek heads of the peasant women in the market place, cider and calvados assume their place in the family menu and remnants of timbered Norman houses dot the landscape.

(Copyright, 1926, The Architectural & Building Press, Inc.)

Vernon is most alluring from the banks of the Seine. How wise and how sympathetic are the French to preserve the natural beauty of their riverbanks. The recreation spot of numberless French towns is concentrated along the water fronts which we would ordinarily dedicate to wholesale meat houses or feed and grain warehouses. The



LOUVIERS

severe, formidable bulk of the cathedral forms the central motif of a graceful group of old houses which sprawl along the embankment, a composition with more possibilities than the accompanying sketch intimates. An irresistible little cottage, once an old mill, is propped up between the mossy piers of a ruined bridge which once led across the river. A network of wooden supports keeps it from sagging in the center and another series of sprouts makes possible an overhanging addition, shown in the page of small sketches. Behind it, lost in a misty maze of foliage, are the mute gray walls of a medieval dungeon, and below it is the swift, silent current of the Seine. On all sides are familiar vistas which have been painted by countless French landscapists. Small wonder that this cottage has been chosen as a Summer home by one of France's greatest composers.

Vernon's finest old house is being shorn of deceptive coats of plaster and paint and revealed in its true timbered glory. Formerly, a rustic cafe occupied the ground floor, but an antiquarian took hold of the place, fitted up the room that once rang with ribald laughter into a lovely and sedate antique shop, and had the workmen dig up the skeleton of the house and give it a radical re-

upholstering. The lithographic drawing here reproduced was made while the scaffolding still sprouted up from the sidewalk and an army of placid old ladies camped about, waiting to sell their strange assortments of green beans, ducks, cherries and jack rabbits. The house has an alarming pitch which, be it duly sworn, has not been exaggerated. Next to it is the rich Gothic facade of the cathedral, with a rather disconcerting rose window whose fragile grace forms a strange contrast to the bulky piers and heavy forms found elsewhere on the edifice.

A genial garage owner in Vernon turned out to be none other than the stepson of Claude Monet; he offers the information that the father of the impressionists, who is now past eighty-five, has be-



VERNON

come feeble during the last few months, spending very little time at painting. A year ago, however, he was as straight as a sapling, and prided himself on being able to kick as high as his shoulder. His library must be an interesting affair, for it contains almost every seed catalog in existence. His luxuriant gardens undergo constant transformations, but reflect the English influence very strongly.

Vernonites still talk about the visit of the venerable Harpignies, who painted along the riverside, stripped to the waist. They tell me that he had



THE ANTIQUE SHOP ON MARKET DAY - VERNON

REPRODUCED FROM THE ORIGINAL DRAWING BY SAMUEL CHAMBERLAIN

a rather careless habit of wiping his paint brushes on his hairy chest, which probably accounts for the lasting impression he made upon the natives.

Three easygoing American artists who paint at dawn and at sunset and spend the rest of the day in boisterous badinage on the cafe terraces, form the nucleus of the painters' colony in Vernon this Summer. They are anything but the dreamy type with black hats and goatees; in fact, they discuss



CONCHES

a picture much as a truckman discusses a grand piano, but their work is sophisticated and brilliant in the extreme. Their ring-leader, formerly a boxer of pink sheet popularity, will expose his Summer's work in New York in the Fall.

Vernon may have an unusually bad war monument and several dreary squares which are blinding in the sunlight and desolately dismal in the rain, but it is a most comforting place to stumble upon after the hectic bustle of Paris, and the people seem cordial in the extreme after the quite natural coldness of the tourist-weary Parisians.

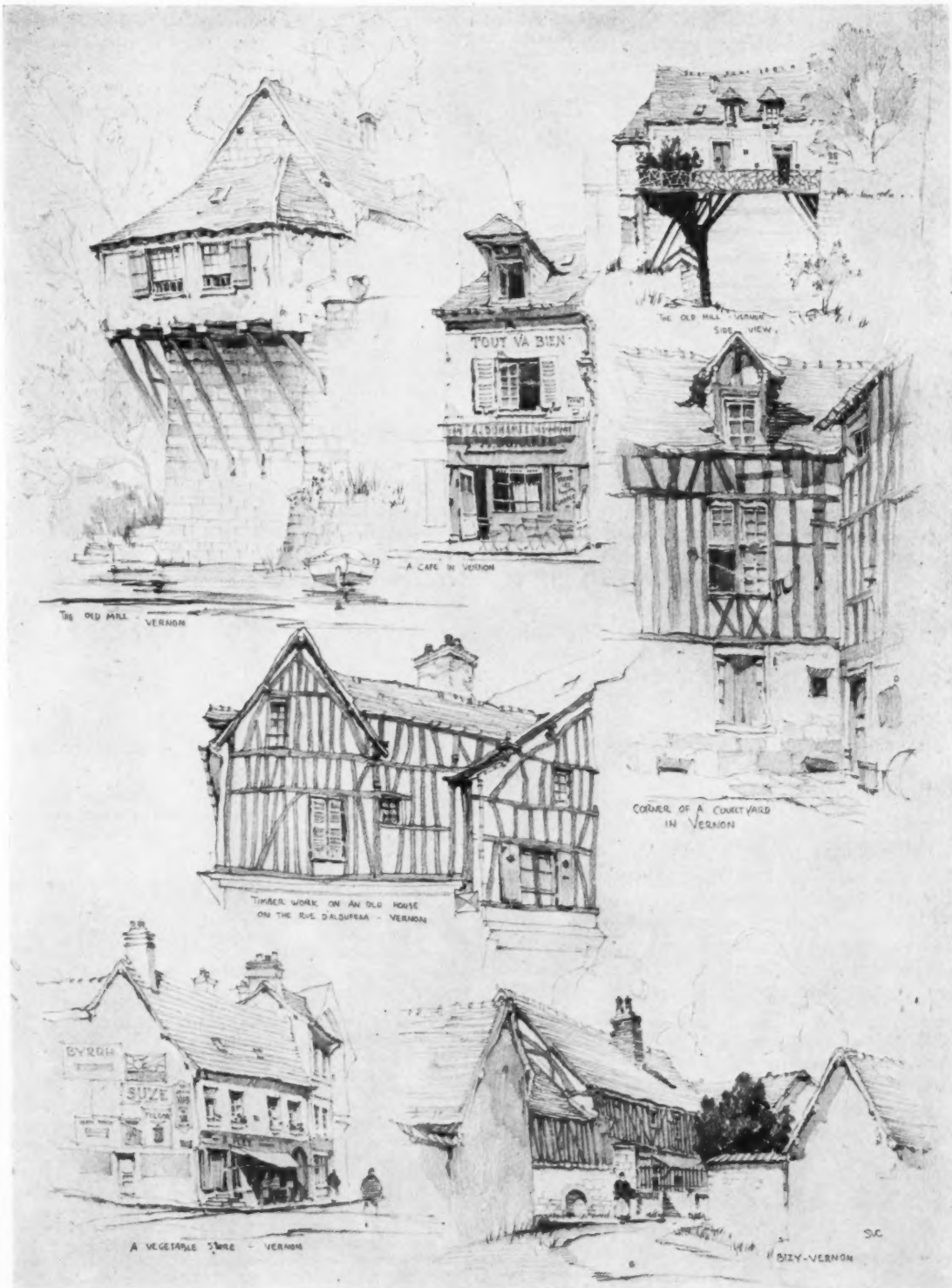
The countryside in this calm sector is spotted with innumerable quiet villages and sleepy chateaux. Squatty hamlets pop up at every intersection of the road. Every mill dam along the idyllic valley of the Eure calls for a scattering of colorful farmhouses, each with its garden heaped high with flowers, its thatched roof sprouting with moss and iris, its browsing cat and bellowing calf.

The farmyards are apt to have more than a mere utilitarian charm. Often a fine old rounded tower hoards the Winter's supply of hay, a colonnade of pseudo-Doric columns supports a wagon shelter or a wine press. A fragment of timber construction is almost always evident. Someone, however, should commit a case of justifiable homicide upon the agents of tin roofing, who are penetrating the countryside and selling their insidious wares to owners of tumbledown Normandy dwellings. The tin roof is becoming an accepted, and unacceptable, fact, replacing the thatch and the moss-covered tile and the lichen-laden slate. The churches are rarely more than quaint country kirks with steep, slate-covered spires, dunclike in profile. Once in a dozen villages a noble, well-proportioned country church appears, but this is rare. Save for the magnificent classic Chateau de Bizy, on the outskirts of Vernon, there are few chateaux to write rapturously about. While many of these smaller chateaux lack architectural grace, they seldom are without a magnificent setting, a stately forest and fine formal gardens.

Le Neubourg happens to be in the story merely because it boasts a restaurant recommended by that most discriminating of societies, the Club des Cent. There are but a handful of places outside of Paris which meet with the approval of this august assemblage of gouty gourmets, among them the matchless Hotel de la Couronne in Rouen and the rare little epicurean's haunt in Vannes. Le Neubourg's little hotel had the badge of its notoriety plastered all over its facade: the proud cook and owner met his guests at the door with his starched chef's cap perched at a jaunty angle and the culinary reception accorded the passing customer for the equivalent of seventy-five cents would flatter Pierre's head chef. The kitchen is left invitingly open so that the array of polished copper kettles, the shimmering soles and recumbent beefsteaks may be duly admired.

The food is not the greatest inspiration of a déjeuner in Le Neubourg, however, for an astonishingly noble old church looms up across the busy square, glittering gold and gray green. It has many pedigrees and periods, but its glorious facade, arising above a riot of tented vegetable vendors and bickering housewives, is like a calm mountain of stone above an angry sea. It is hoped that the wash drawing here shown will give a faint suspicion of its beauty. There is also a so-called chateau, more of a manor house, pierced with haphazard openings, and silhouetted against a fine old timbered mansion, which calls for almost as many superlatives.

Conches is a dozing old town, resting placidly on a shelf of rocky soil, and a most dramatic site when viewed from across a steep ravine. It has



A LEAF FROM A SKETCHBOOK OF VERNON
FROM THE ORIGINAL DRAWINGS BY SAMUEL CHAMBERLAIN

some of the most unique timbered houses in the region, usually with a first floor of stone, one large arched doorway off center and a faded sundial. The Hotel de Ville is a friendly and unostentatious old structure, with a gay vista through its arched passageway. Conches' spiny church sprouts up between shaggy old houses, very clean and rain-washed, a rich and none too coherent bit of Gothic architecture. The weather-beaten panels of the main doorway would make a Madison Avenue antique dealer rich if he could place them in his window for a day. Conches and Le Neubourg are "finds" of a mild sort, and are confidently guaranteed to intrigue the ambling architect.

A real discovery has been made by the appreciative owner of the now famous Hostellerie du Grand Cerf in Les Andelys, however. This medieval inn, a "monument historique" which was sold at auction for 10,000 francs, incidentally, is one of the noblest and richest timbered houses remaining in France. In restoring the walls of two spacious rooms on the second floor, the owner bethought himself of the method used in the fifteenth century, and after much inquiry found a rare and talented artist whose procedure is very similar. The method is simple, but it requires great agility and adroitness on the part of the artist. The room is first covered with a tough, cream-colored wall

paper. Then a thick coat of specially prepared paint, deep blue in this case, is put on, straight from the glue pot, a square yard at a time. Before it can dry, the artist scrapes off his design with a weird assortment of implements, a toothbrush, a few fragments of rubber tire, a palette knife, leaving the pattern in white against the blue. It takes an exceptionally gifted artist to work in such a dashing fashion, without notes, without sketches or any preliminary blocking. The whole vast room was finished in less than a day and a half, animated by the most amazing of unicorns, salamanders, griffons and porcupines. He had borrowed quaint details from the neighboring cathedral, crests from the neighboring chateaux, all drawn with incredible dexterity with the sole assistance of a flat slab of rubber tire! Hidden in the design are significant initials, dates, and a roguish and rotund cupid or two. The composition as a whole is splendid, yet it is free from premeditation, a gay, light-hearted tapestry of fantastic notions which crept into the artist's mind as he scamped over the surface of the wall. Such an artisan ought not to escape unnoticed. He is a Caucasian, Monsieur de Salzmann, and he can be reached through Monsieur Reece, Aux Editeurs de Pegase, 37 rue Boulard, Paris (XIV). This almost has the earmarks of a genuine find.

AN ARCHITECTURAL OPPORTUNITY

THE *Monthly Bulletin* of the Illinois Society of Architects prints in its issue for August, an editorial that appeared in the *Chicago Tribune*, with reference to the opening of an extension of an important Chicago thoroughfare.

The opportunity now presented in Chicago to create an attractive street where by combined effort, proper architectural restraint may be secured, is being similarly presented in cities all over the United States.

We believe every architect will give hearty approval to the sentiments set forth in this editorial, and by using it as the basis of an argument to secure a similarly good result, effect a much to be desired conservation of an architectural opportunity in his own community. The editorial is as follows:

"The opening of the stretch of Wacker Drive from Wells Street to Dearborn gives us the occasion to say what we have said before and what we shall say again: the new drive deserves distinguished architectural treatment.

Owners of property along the street, so far as the law goes, can do with their land pretty nearly what they please. Nobody can force them to take any thought of the appearance of the city. The zoning ordinance forbids use of the property for pants factories and cheese warehouses and the

city has the right to insist that the buildings be properly safeguarded against fire; but beyond such primary considerations of public welfare there is no authority which can say to owners of property what they may or may not do. They may, if they choose, erect packing boxes, ugly enough of themselves, but made more unsightly by lack of relationship to the neighboring structures.

America has prospered greatly by leaving a wide field for private initiative and we would not favor placing any further limitation upon it. In return for their liberty we are justified in expecting the property owners themselves to take some thought of their stewardship. The land along the drive is rapidly falling into strong hands. The present owners are likely also to be the builders. They ought at once to come to some kind of an understanding among themselves. They have an opportunity to enhance the beauty of their city, which is likely never to be duplicated in Chicago. All they need do is accept a few architectural limitations. If they agree on nothing more than uniform building heights and uniform heights of cornices they will have done a great deal. We can hope that in addition they will agree upon a unified architectural treatment, thereby earning the thanks of many generations.

Much of the responsibility must rest upon the architects who will design the buildings on the new drive. Not one of the architects but realizes the possibilities of the new street. Not one of them but appreciates the importance of a systematic development of these possibilities. They must convince their clients of the importance of considering Wacker Drive as an architectural unit. Chicago's architects have before them an opportunity which has been accorded few men in the long history of their profession to make their names and their generation memorable."



THE FORBIDDEN CITY OF ADALIA

CRUSADER CASTLES

By PAUL WORTHINGTON COPELAND, *Architect*

ENTHUSIASTIC devotees of Gothic architecture are prone to worship their goddess in the full bloom of her maturity, forgetting or ignoring the earlier forms and interesting transitions. It is as though they would have us center all attention on the full born beauty of Botticelli's Venus and disregard the attendants and hand-maiden, interesting and important though they are to the composition of the picture. As the details of a great picture build up and enhance the beauty and appreciation of the central subject, so with an architectural style the many lesser forms, transitions, and off-shoots give fuller judgment and appreciation of its beautiful maturity.

We, as members of an exact profession, are apt to forget the great social, political, economic and religious undercurrents that produce the high tides of artistic achievement. As school boys plodding through the history of the world, we welcomed the "Dark Ages" as a few glorious centuries when nothing happened and few names or dates had to be memorized. But the great forces of racial adjustment and national cohesion were slowly crystallizing, making ready for a greater day.

When Henry Adams searched back through the centuries for a vantage point of time and place from which to view that greater day, he chose the heart of France at the end of the eleventh century. Those were stirring days full of the rush and confusion of preparation for the First Crusade; the first great national adventure; the first great tour by western Europeans. Whether you regard the

Crusades as an expression of the Church Militant frenzied with religious fanaticism; as a gigantic expression of barbaric banditry on the part of greedy feudal lords too well supplied with restless soldiery; or as a phase of a larger European awakening, the fact of the Crusades remains and their history is written in stone.

It is to these Crusader stones, inarticulate small children in the Gothic family, that I would like to direct your attention. They lie scattered throughout Asia Minor, Syria and Palestine, neglected, forgotten and forlorn. You find them among the clustered houses of the cities, guarding forgotten ports and standing in brave silhouette on lonely barren hills. Built primarily as fortresses, they are of little use to the modern peasant and have degenerated to rookeries for bats and shelters for nomad bandits. Yet each one had some special interest and I ask for no greater fun than roaming the hills in search of them.

Your Arab will only shrug his shoulders and say *Franghie*, "Franks," just as he will when you pass the occasional atavistic yellow or red-haired native child, and never seems to know anything of local tradition about Crusader castles except, "It has always been there; Allah willed it." Not much information there. But you can get a lot of keen enjoyment just browsing around, as I did, studying the types and styles and dipping into the original manuscripts for the spirit animating them.

The first Crusader stronghold was built at Nicaea after the massacre of Peter the Hermit's

army, when, in the words of Anna, daughter of the Latin Emperor Alexius, "The dead bodies of the killed were brought together where they made a great mound or lookout place—so high that the Barbarians (Crusaders) later used the bones of the slain instead of stones in constructing a wall, thus making that fortress a sort of sepulchre for them." This fort was pointed out to travelers as late as the fifteenth century. Though of so sanguinary a character, this first fort exemplifies two of the outstanding characteristics of Crusader castles throughout the land; namely, their ever-ready ingenuity for using the materials at hand, and their sangfroid disregard of the sacred appropriate unity of materials. As evidenced by the illustrations, any material at hand became, under the exigencies of war, the popular building material, a catholicity of taste that was later to cause archaeologists to gnash their teeth in rage. A random pattern of field stones, shinbones and skulls could have no more startling effect than some of the existing examples of dressed stonework interspersed with pilfered Greek columns, Roman altar pieces and Egyptian mummy cases. Thus at Sidon we find a rather fine piece of stonework studded with marble columns gathered from the villas of long absent Roman gentry. Some of the columns can still be seen in the shallow bay where they settled when the coast line

sank but they are not as common as at Tyre where they sank so gently as to remain in position, a perfect capitol for Neptune and his court. Once when on a chubby French cruiser innocent of bath tubs, I dove into that enchanting city and greatly enjoyed exploring its labyrinths until an eel as big and long as a water main wriggled through a small arch with me. It seemed to take an hour for us to get through our chummy maneuvering after which I hastily swam to the surface and aboard the ship.

When Solomon built the great temple the cedars of Lebanon were shipped via Tyre from the lumber port of Jubail to the north. The famous forests had dwindled before the advent of the Crusaders, but a forest of columned Roman Temples, built to the glory of the primitive and popular cult of Adonis and Venus, provided a rich assortment of marbles to fill gaps in the stone walls of their fortifications; and large capitals, when partly buried, made excellent flagging and door steps. Even the Phoenician necropolis, exposed by a ravaging sea, gave up its marble mummy cases to a variety of utilitarian purposes. The Nahr Ibrahim River, sacred to the Astarte cult because the spring freshets of red mud represented the blood of the dying Adonis, meant but a fine moat to the Followers of the Cross. So they built a wall along



INNER PASSAGE, HUSU-EL-EKRAD



ARCHED WALL, HUSU-EL-EKRAD

its bank connecting the harbor fort with a land tower, and in so doing desecrating the sacred hill of Venus, still honeycombed with the vestal niches. Another wall connected the first tower with one at the far side of the city and it in turn was connected to the harbor, thus forming a triangular wall about the city and its castle. The castle has two fine halls with ceilings of slightly pointed barrel vaulting and a beautiful little vaulted chapel. Many of the megalithic stones of the wall are marked with the seal of Solomon, signs of the cross, and symbols of Masonry.

Strategic seaports such as Acre, Tyre, Sidon, Adalia, etc., were fortified by the Crusader on much the same plan. Large watch towers guarding approach by sea were sometimes augmented by a sea-castle built a short distance off shore, as at Sidon, and connected with the city by a causeway, the whole forming an inner harbor.

One of the most fascinating of these walled seaports is the Kemalist city of Adalia, seaport of the Turkish capitol Angora. It nestles in all its oriental colorfulness in a small "V" shaped draw rimmed with crenelated walls crowding it in on all sides and almost hiding it from the sea behind massive square towers, guardians of a tiny blue inner harbor. I ached to explore their fascinating shapes but the Turkish Nationalists were within

a few miles of Smyrna and no foreigners, other than the Italians busily lightening in arms and ammunition under the protecting guns of Italy's naval pride, could land in that mysterious port. So I had to content myself with a long shot at the city from the outer harbor through camera and field glasses.

The two famous ranges of the Lebanon and Anti-Lebanon marching southward along the coast from Cilicia to Palestine, offered an elevated highway from which to dominate the country so that Crusader castles and watch towers rear scarred heads along its entire crest. A typical and picturesque such ruin, selected at random, is Banias, here illustrated and showing the characteristics of most of the hill forts. Built by the Knights of St. John, it was formerly the border line between the Kingdoms of Jerusalem and Antioch. It is credited with being capable of housing 2,000 families and 1,000 horses. Certainly it is an ambitious pile built on trap rock and surrounded by a moat carved out of the virgin rock. The advantage of position and deep wells made it impregnable to all but those allies of siege, disease and famine.

It is surprising that such an immense amount of labor was expended on what were primarily transitory military stepping stones to conquest. Take the old Biblical town of Hamath. You ride



CASTLE AT SAFITA, NEAR TRIPOLI



SAFITA—CRUSADER CHAPELS USED AS SHRINES



SEA CASTLE, SIDON
NOTE MARBLE COLUMNS STUDDING WALL

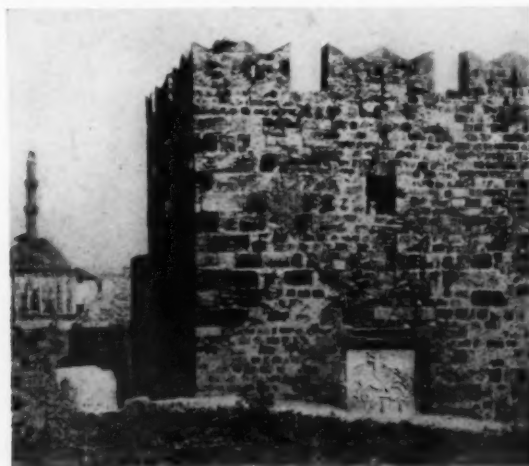
for hours over the barren basaltic plains north of the Arabian desert, come upon several acres of Moslem graves and suddenly the earth opens up at your feet and you look down into the beautiful valley of the Orontes with the town on its winding banks. It is a desert paradise of blooming apricot orchards, the famous "rose" of Damascus, watered by huge wooden water wheels eighty feet in diameter that whirl like dynamos on their wooden axles and fill the stone aqueducts. In the center of the valley between the Christian and Moslem quarters of the city, stands an artificial hill roughly a quarter of a mile long by half as wide and one hundred and thirty feet high. There is nothing on its level top, but if you don't mind poking in darkness and filth, you can drop through a little hole of loosened stones and trace a small cellar with pointed stone arches. That of itself only proved that the hill was artificially built by tremendous labor but fortune was with me and by great good luck I was admitted to the palace of



HAMATH—PALACE AND ORONTES RIVER WITH
WATER WHEEL

Mu'ayyad Bey, that worthy being away and his chief Eunuch being in financial difficulties. In the audience chamber were two exquisite wooden panels painted by some early Saracen artist. One depicted the rout of the Franks with much loss of red blood as the victorious True Believers gleefully threw limp Crusaders from the walls of a beautiful castle cresting the now barren hill under whose shadow the palace nestles.

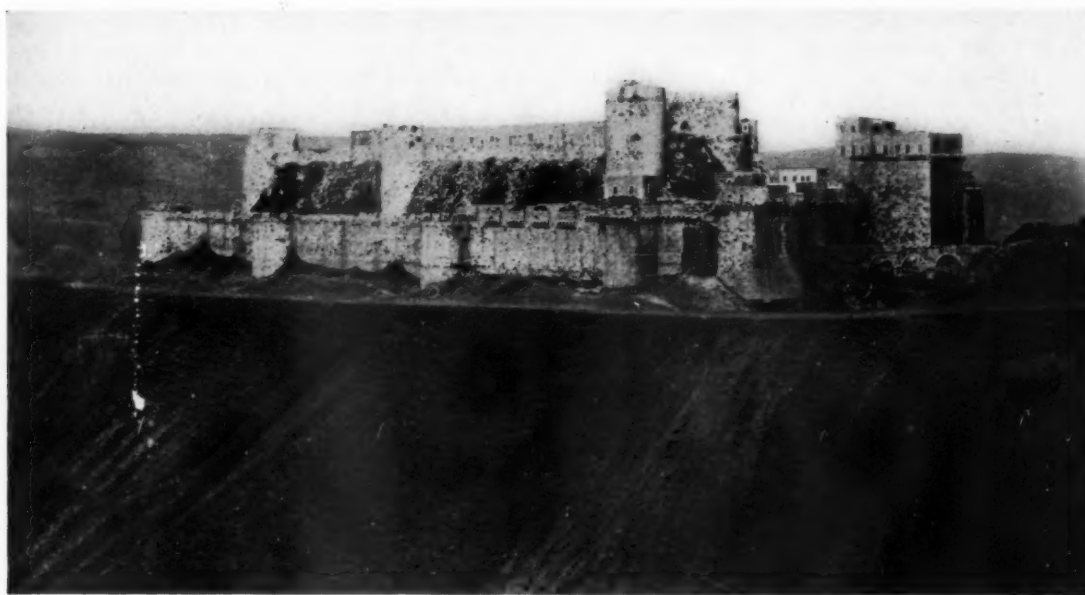
A similar artificial hill lies within the town of Homs at the edge of the North Arabian desert and the last station on the ninety mile trek over the desert to ancient Palmyra. The Crusaders evidently built a heavy substructure two and three stories high as a core for the citadel; then piled earth around this core in precipitous banks. A castle surmounted the core and a wall with towers rimmed the bank. The cellars were used as store rooms. I can't find in the contemporary manuscripts, any concerted plan for a chain of fortresses so am forced to advance the scarcity of wells as



WALL TOWER, RHODES



HILL FORTRESS OF BANIAS



HUSU-EL-EKRAD



HUSU-EL-EKRAD

THE LION AND ARABIC INSCRIPTION OF VICTORY ARE FAINTLY SHOWN IN THE ILLUSTRATION

their reason for building so elaborately on the low, unprotected river banks.

The finest example of this type I know of is Husu-el-Ekrad, built by the Hospitalers in 1180 to command the pass from Homs to Hamath. It has all the beauty and dignity of a Provençal castle. A broad moat spanned by a narrow causeway leads to the sole entrance, a small gateway and narrow passage, under the outer walls, lined with a fine piece of ashlar wall and some beautifully turned arches. The stonework throughout is of exceptionally fine workmanship, much of it chamfered. One section of the wall, here illustrated, appeared at first glance to be a hasty or temporary fill of random ashlar but a closer inspection of the three tiers of beautifully sprung trefoil arches fitting snugly into the regular ashlar, presents a puzzle I haven't been able to solve. The random wall seemed to be built in front of an older wall of undetermined height seen through the lowest arches. But if the wall was merely thickened and raised, why the three tiers so closely yet evenly spaced? Perhaps the Arab is right, "God will it. *Inshalah!*"

Each Crusader castle, no matter how scarred by time and battle, has its own peculiar interest and tempts the troubadour to sing its praises. They are a source of never-ending interest from Jerusalem to Rhodes where you find the beautiful palace of the Knight Templars, eastern militant Gothic in its fairest bloom. Suffice it to say, any architect whose blood tingles with the pride of Norman ancestry, can find no more romantic or exciting adventure than searching out these brave castles and finding for himself the life, color and thrill of those stirring days when Richard of England and Philip of France crossed lances with the mighty Mussulman, Salla-a-din.

While the actual work of the Crusaders in Asia Minor is not of great practical value to the modern architect, being purely militant in purpose and design, still these relics of a great transition period have a romantic appeal and a careful study of them wins your interest and enthusiasm for their ingenuity of design, resourceful use of materials and the sheer beauty of their rugged strength. For they did build well as the very presence of these castles, after centuries of war, earthquake and the many ravaging agents of time and neglect, so eloquently testifies. The towering walls and massive battlements still fling a brave, bold outline against the eternal skies that canopied their colorful birth and the romance of their tempestuous youth still hovers in the scars and creases of old age.

30

STA SOPHIA

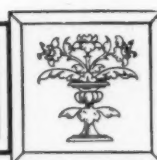
THE Angora Government, which seems to be showing a praiseworthy desire to preserve ancient and historic buildings, has undertaken the repair of Sta Sophia. A committee of experts reported that contrary to statements made on the subject no imminent danger need be anticipated. The infiltration of rain has weakened certain parts of the masonry, which is slipping in places. It has been decided to spend about £5,000 on the repair of the rain gutters of the dome, which is the weak point. It is not proposed to carry out any internal work of restoration, though it may be possible that the authorities will permit the interior to be restored to its original state by the removal of paint and whitewash, as under the new regime religious fanaticism has been discouraged. If so, it will be a great gain to the interests of art, for the interior is at present shorn of its greatest glory of color.



THE SEA CASTLE FROM INNER HARBOR, SIDON



EDITORIAL COMMENT



THE ARCHITECT AND BUILDING NEWS of London, in a recent editorial, very aptly compares the architect practicing in the small town with the average country doctor in his community. The architect's danger is, states the editorial, that the plums of practice which he covets may fall to the specialist and, like the general practitioner in medicine, he has to be well armed in many points.

As regards versatility, the small town man has to exercise comparatively more initiative and to meet and overcome more varied obstacles than his city brother. These insistencies are not self-assumed, but the result of the feeling in the community that he should be qualified to assume every burden of responsibility, show every measure of competence in all of the branches of his profession.

The architect whose mainstay is mostly small domestic work, says *The Architect and Building News*, has an arduous and often harassing life. It can also be equally truthfully stated that he may not with safety to his personal interests, assume the autocratic aspect that the man in larger practice gets away with, but he will have to defer to and compromise with insistent clients, amend his design to meet the incompetency of local builders or be hampered by his inability to command, at low prices, materials that are most desired.

Yet in spite of all these difficulties and heart-breaking experiences, the architecture of small towns is today better than it ever has been. It will take many years to transform the vast area of this American countryside of ours to a point of attractiveness equal to that to be found in Europe. But we are getting nearer each year to such high conditions of architectural beauty. What we have thus far achieved is to the lasting credit of small town men. Their patient and but indifferently required labors are bringing results and when we loudly proclaim our superiority in architecture over all the world, let us not forget that patient, self-effacing man who, in spite of discouragement and the self-denial imposed by small incomes, is giving to his work the best he has, and in his limited field contributing as fully to the general result as his aristocratic, and often autocratic, brother in the larger cities.

30
AMONG organizations of the architectural profession, The Architectural League of New York was the first to cast aside old methods and to present in the most attractive manner and in a way

divested of ultra technical presentation, a complete record of current work. Architecture was shown, not in the cold formalities of plans and sections, elevations and studied perspectives, but calling on the better class of photographers and enlisting the aid of easel painters and decorators, exhibitions took on color, and with color an attractiveness that readily drew a large number of visitors from among the general public. Alliances with the arts allied to architecture, sculpture, mural painting and master craftsmanship, made each succeeding exhibition of the League better than its predecessors. This fine result culminated in a sense when the joint architectural exhibition was held in New York, now more than two years ago. Nothing in the way of exhibitions was ever more dignified, nothing made a wider appeal to the general public.

As announced in a recent issue, The Architectural League of New York is planning an exhibition to be held in the spacious galleries of the Grand Central Palace building next February. The League proceeds in these things in the most thoroughly practical way and always achieves a most completely artistic result. It has announced its intention to continue its former very wise policy of encouragement to craftsmanship and if the response is as full as it should be, we shall have the usual attractive display and the usual large educational value. Nor will this exhibition be confined to American architecture, as the work of the Committee on Foreign Relations of the Institute has broken down the barriers that isolated the architect in America from his brethren in foreign countries. We already have the assurance that the foreign architects have even thus early signified their intention to exhibit.

Just here a suggestion may be permitted. Three years ago, the National Sculpture Society held an exhibition, largely out-of-doors, on the terraces of the Hispanic Society's group at Audubon Park in this city. The high character of American sculpture was as insistently shown then, as the equally commanding merit of American architecture is shown at these large exhibitions. Sculpture, unfortunately, has never been thoroughly appreciated nor even understood by the general public. It is claimed by good authority that the true mission of sculpture, and the road it may travel to its best appreciation, is as embellishment to architecture. It, therefore, seems as if a high educational purpose would be served, if the sculptors jointly with the architects and the arts and crafts, combined in the

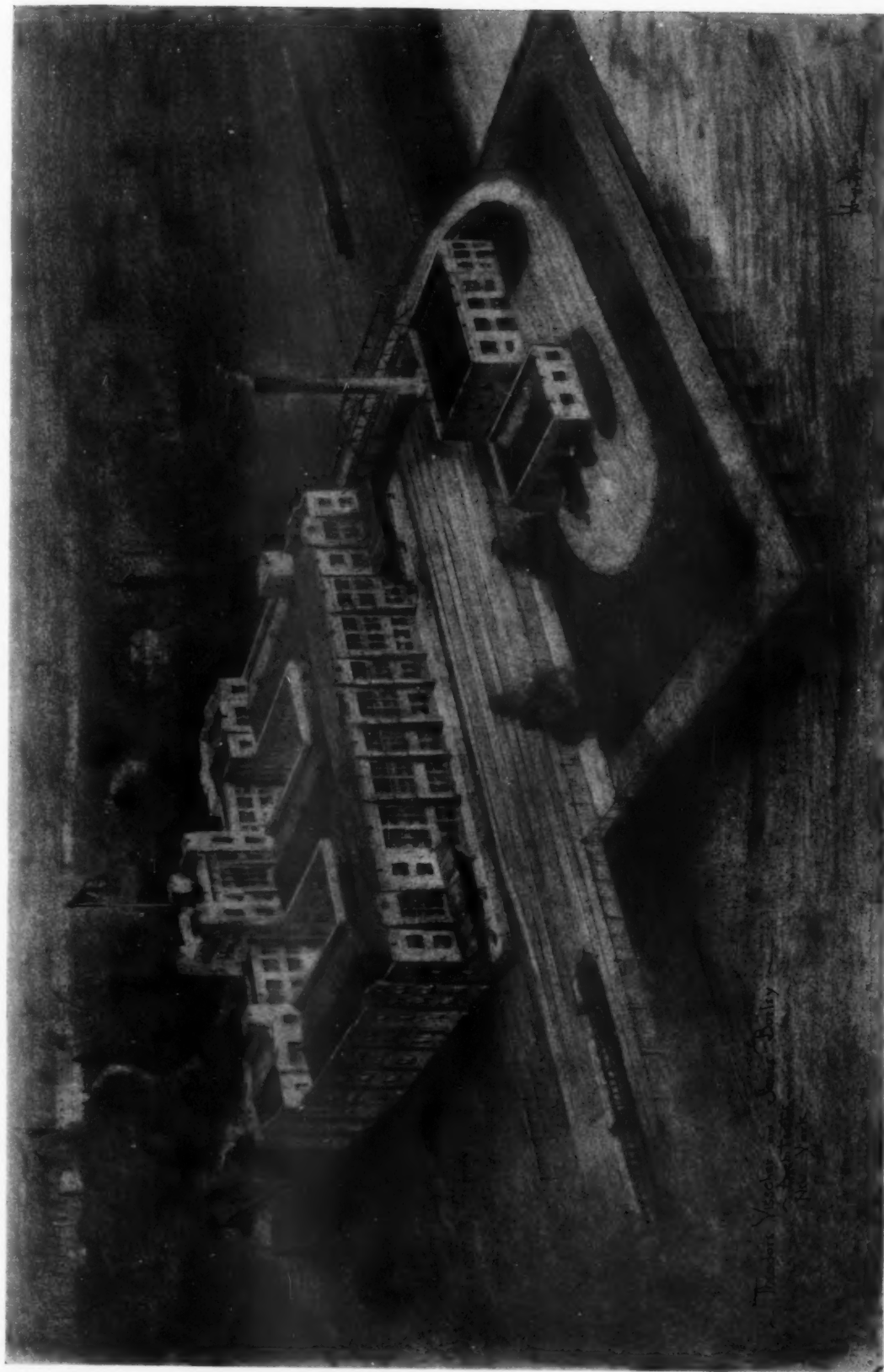
forthcoming exhibitions. And if such a combination is assured, it is further believed that the best result would be reached by confining the sculptural exhibits strictly to the use of plastic forms as a decorative adjunct to architecture.

It is, of course, too early to state with any ac-

curacy, just what will be the final program of this exhibition, but it is safe to assume that it will be worth while and will provide opportunities for the best interpretation of the art of building from the most practical stage through all its many and complex ramifications.



SIMULATION OF AN OLD MAP, DESIGNED TO SHOW LOCATION OF AN OWNER'S PROPERTY AND TO SERVE AS AN OVERMANTEL DECORATION
FROM THE ORIGINAL, EXECUTED IN COLOR BY A. C. FRANK



PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.

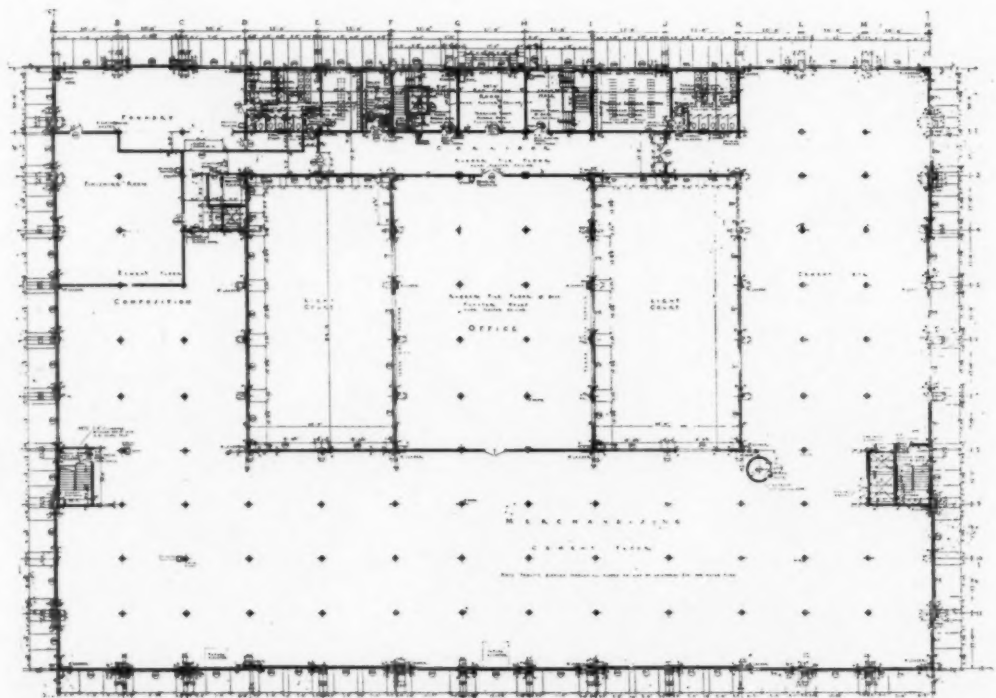
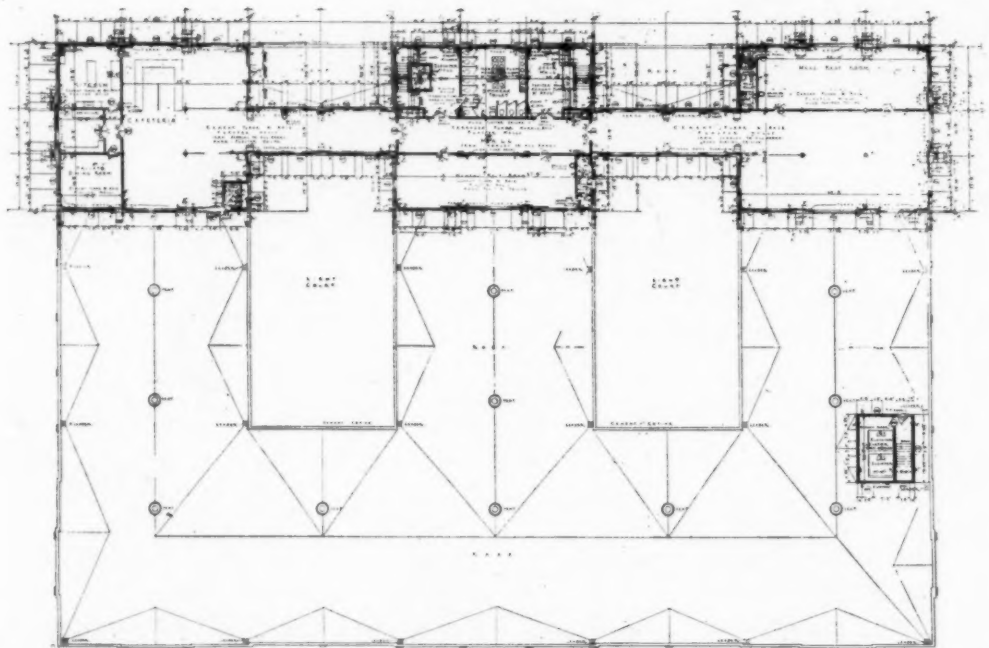
THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS

(Plans on back)

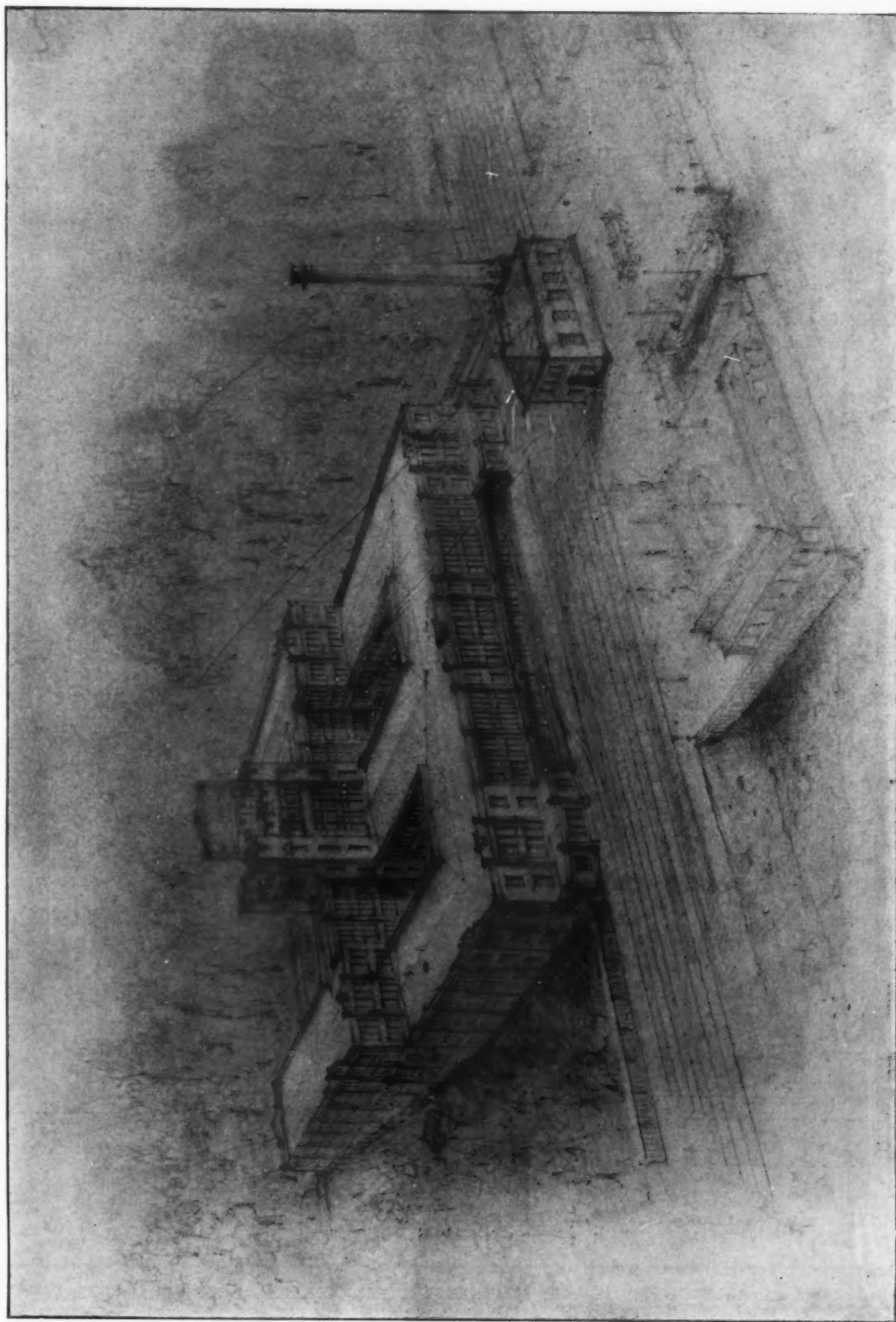
THE AMERICAN ARCHITECT

September 20, 1926 PLATE 221

*Theodore Vischer - James Burley
Architects
New York*

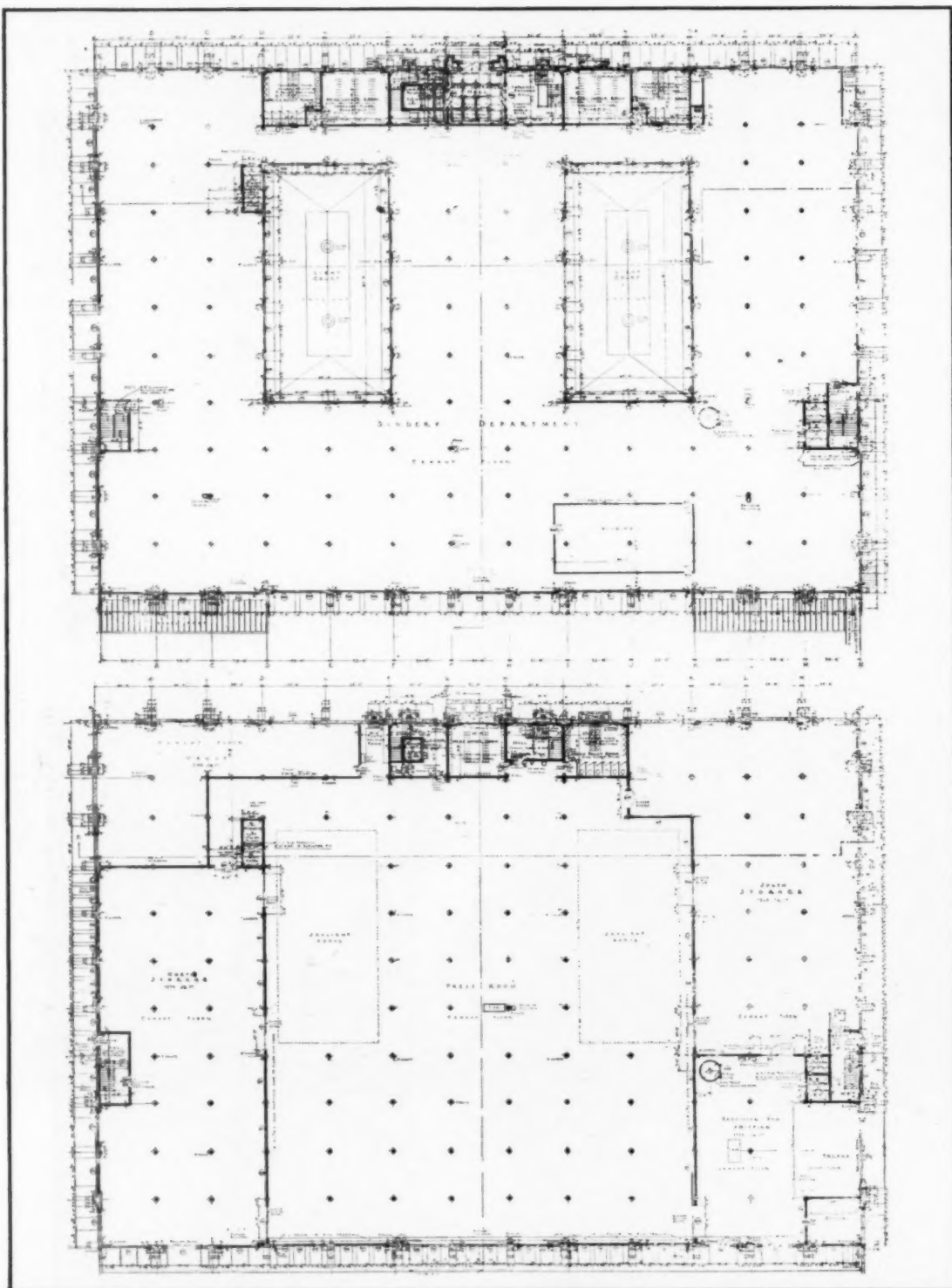


PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.
THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS



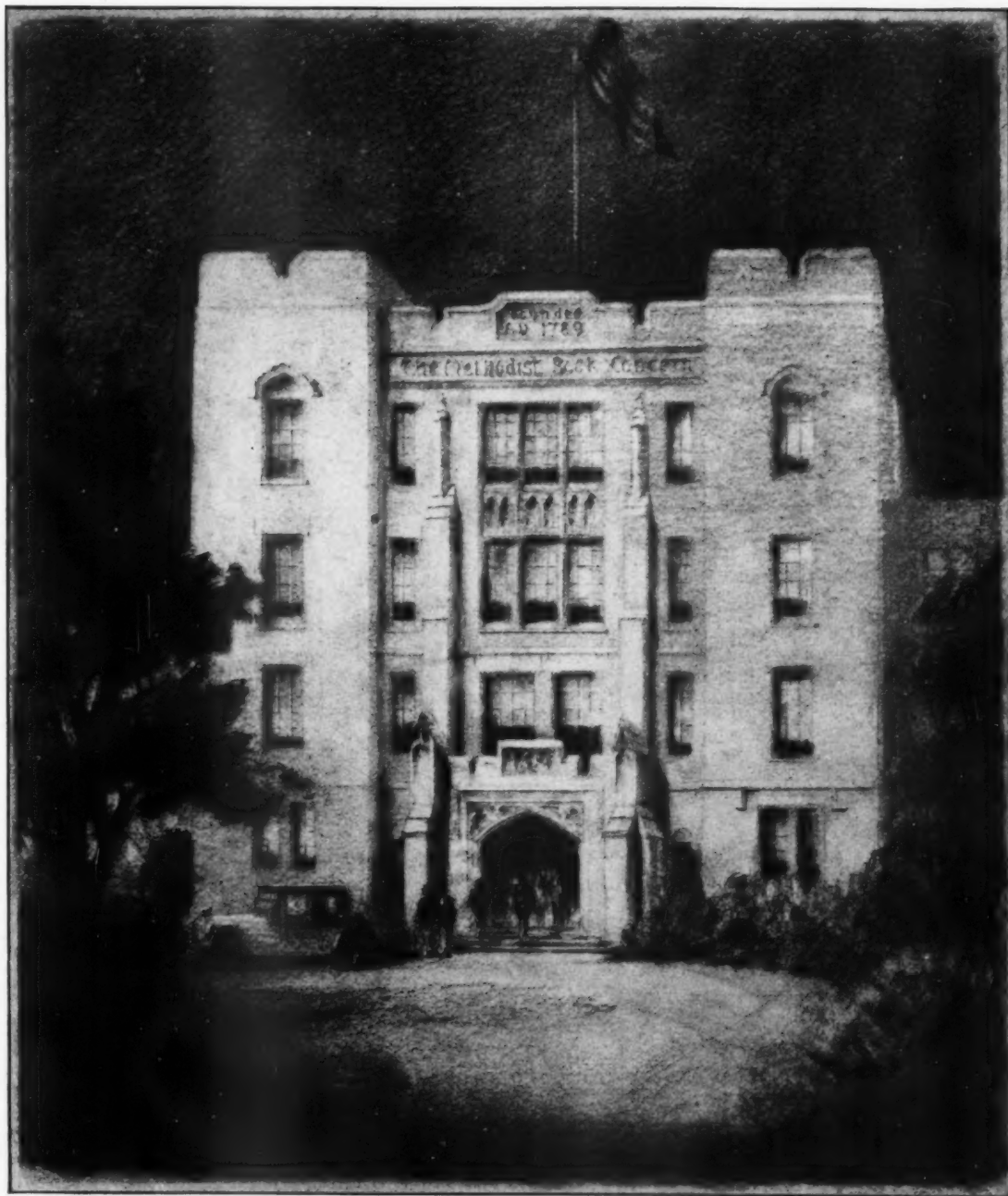
SKETCH SHOWING METHOD OF FUTURE EXTENSION
PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.
THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS
(Plans on back)

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 222



PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.

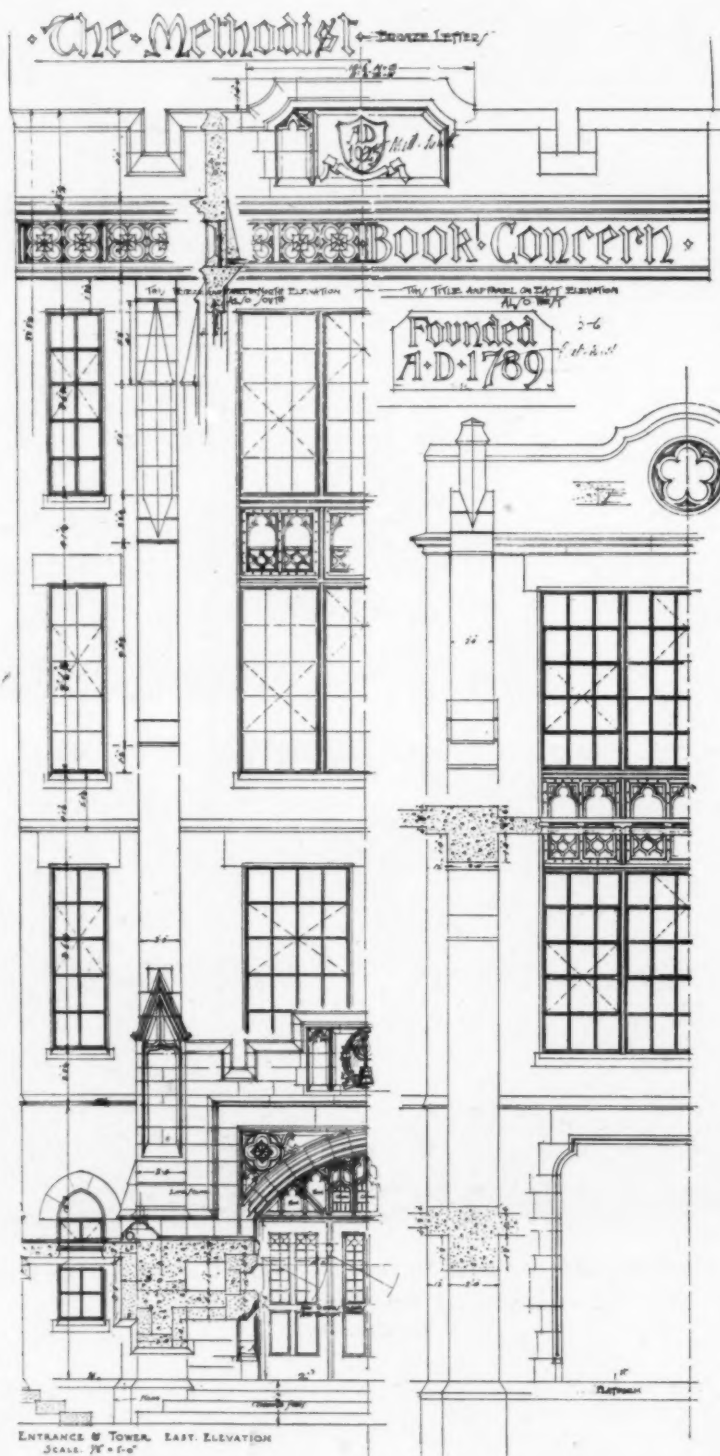
THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS



PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.

THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS

(Details on back)



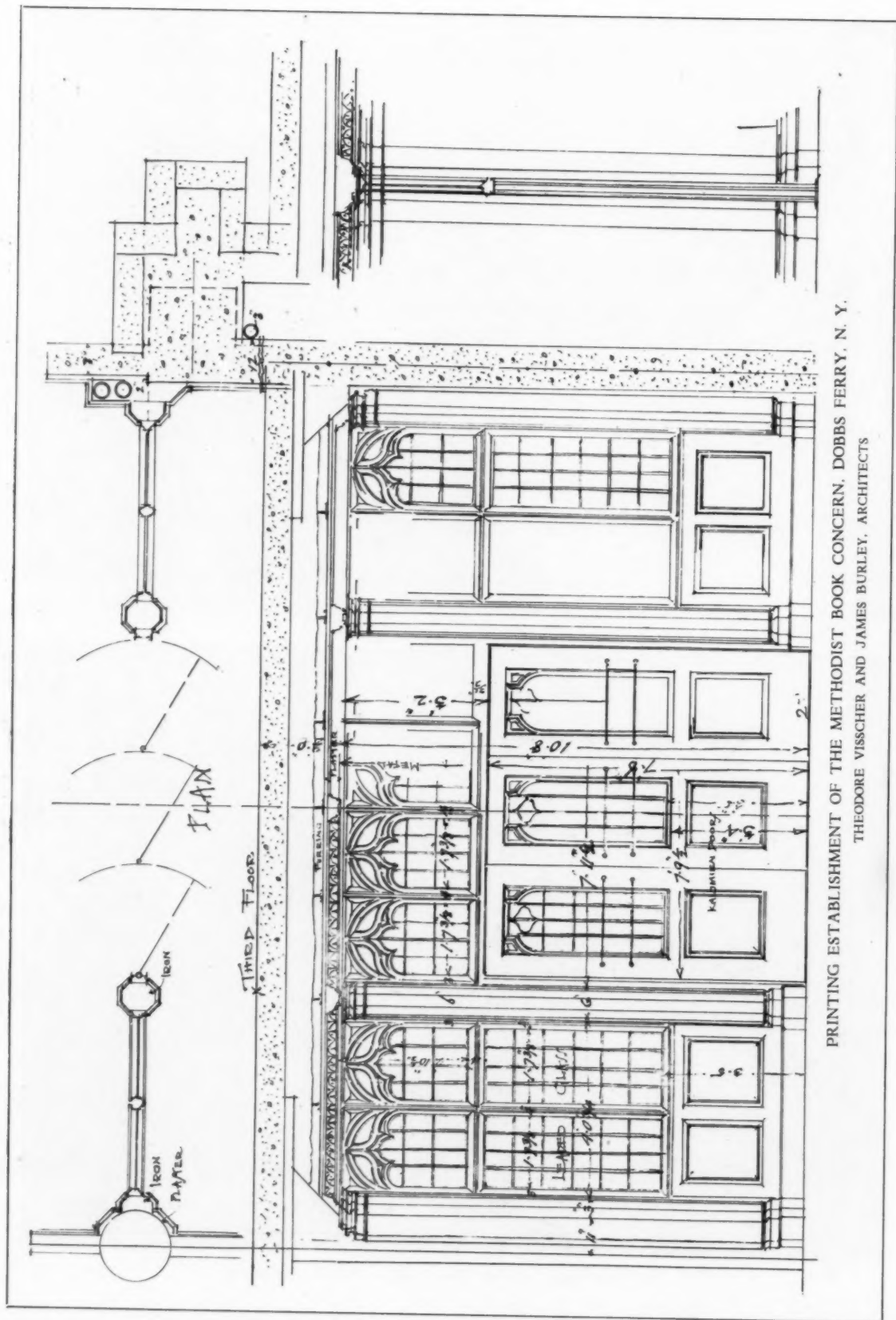
PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.
THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS



PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.
THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS
(Details on back)

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 224

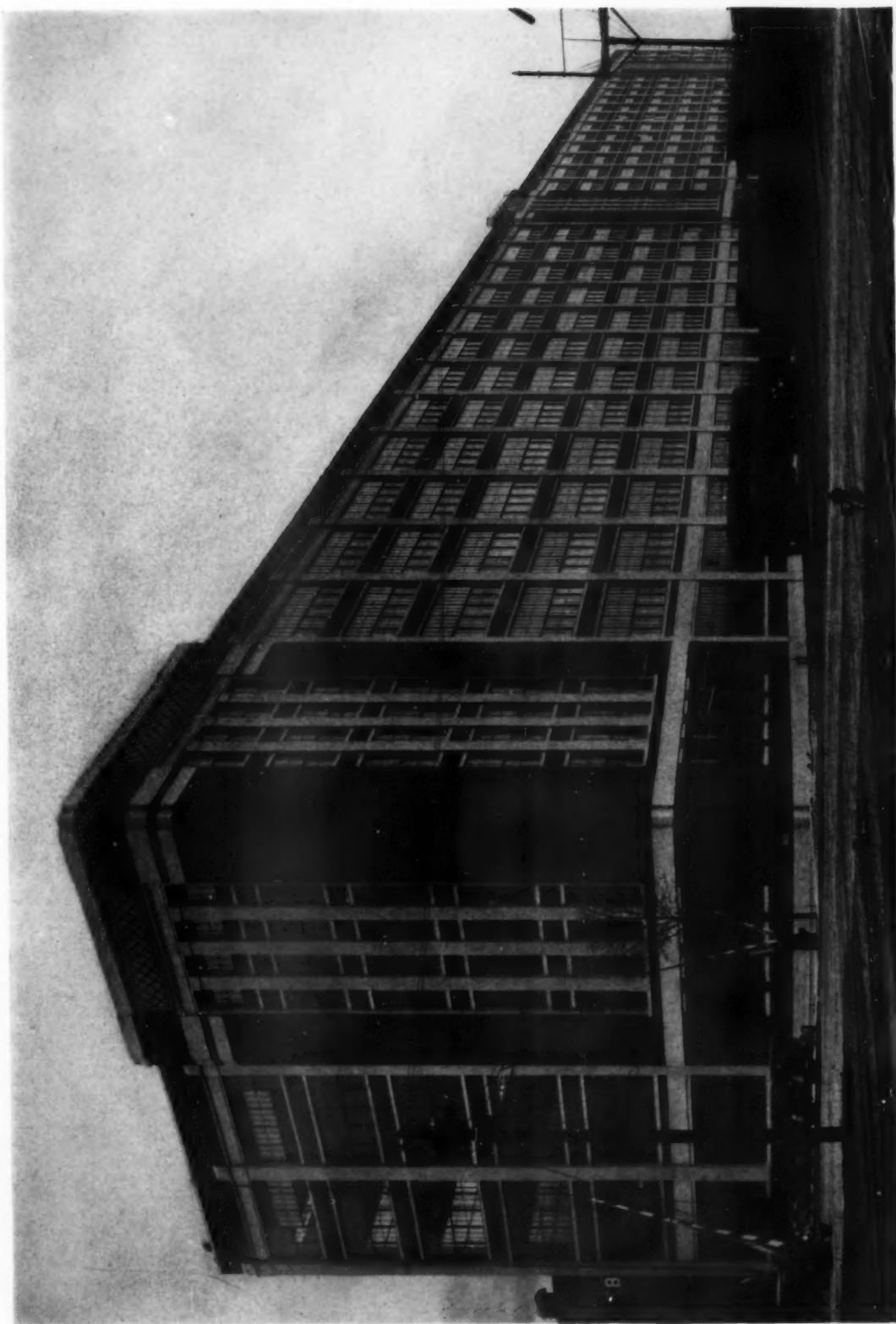




PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.
THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS



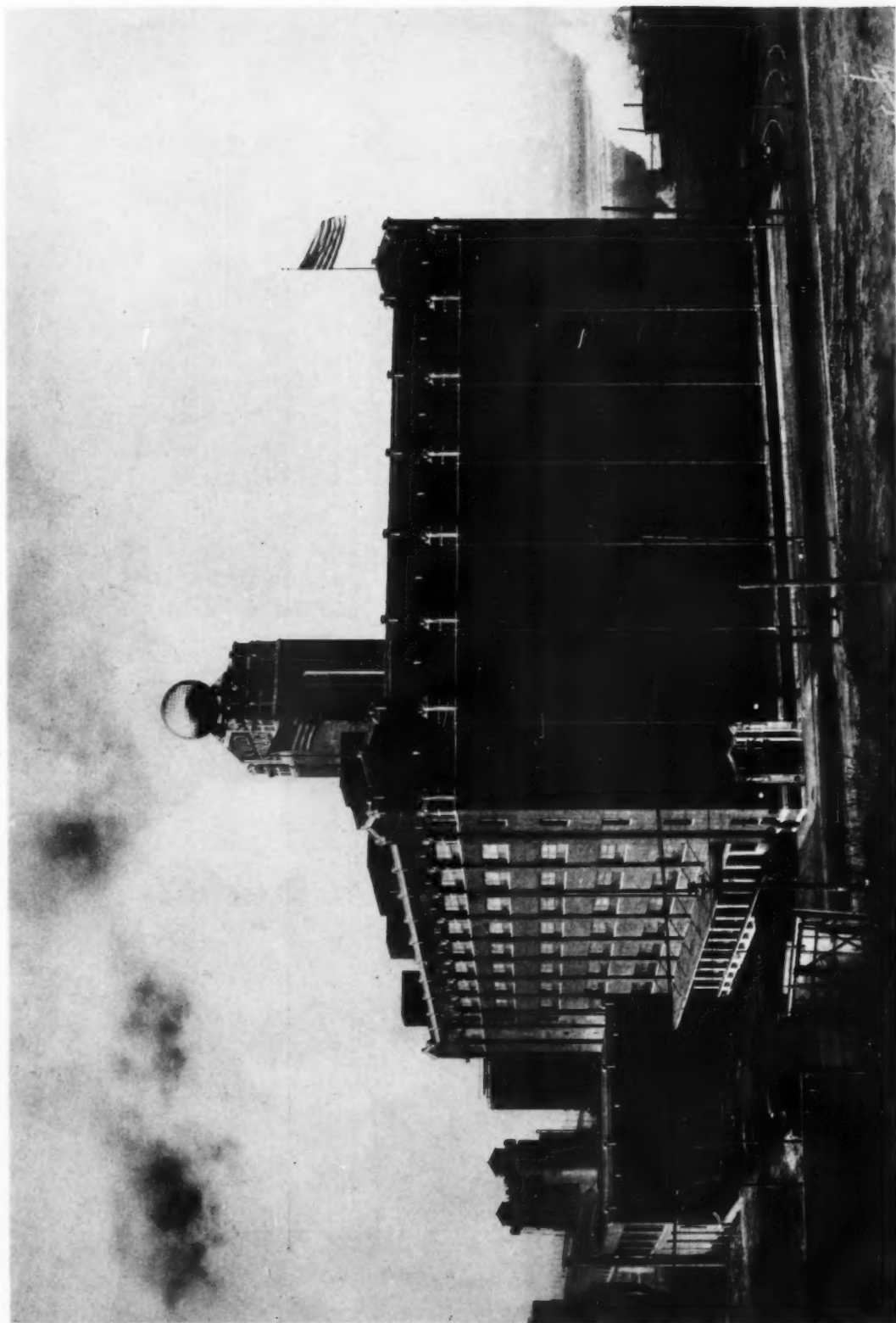
PRINTING ESTABLISHMENT OF THE METHODIST BOOK CONCERN, DOBBS FERRY, N. Y.
THEODORE VISSCHER AND JAMES BURLEY, ARCHITECTS



BUILDING FOR STUDEBAKER CORPORATION, SOUTH BEND, IND.
ALBERT KAHN, ARCHITECT

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 226

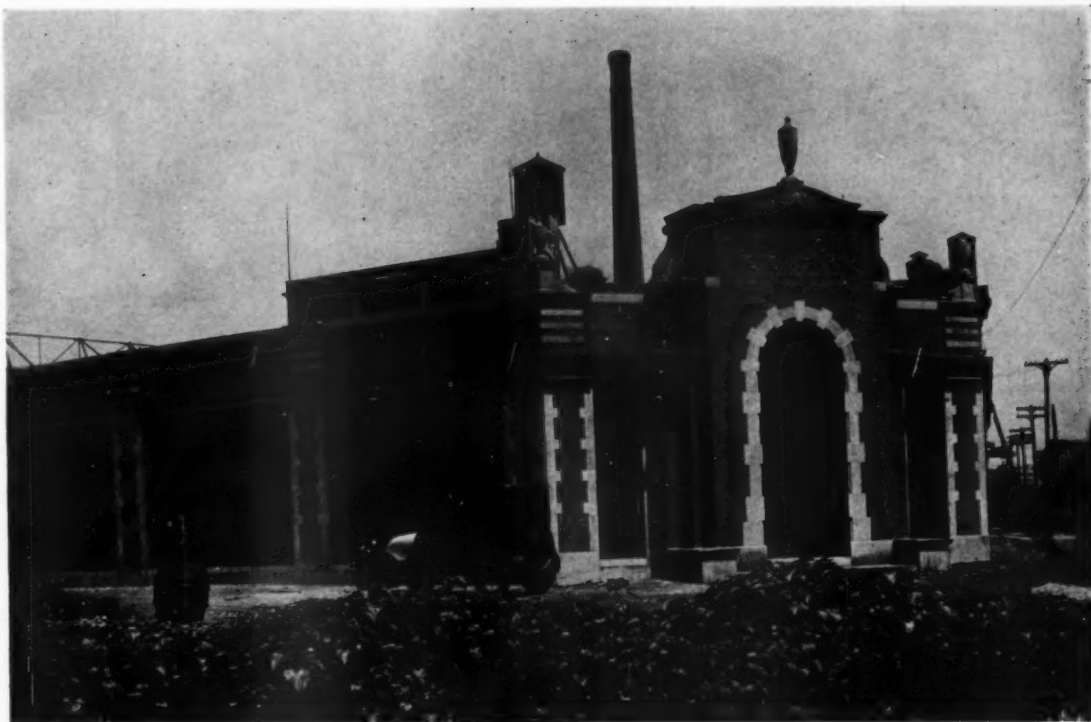
200
100
50
25
10
5
2
1



BUILDING FOR KANSAS CITY, MO., COLD STORAGE AND WAREHOUSE COMPANY

S. SCOTT JOY, ARCHITECT

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 227



INTERNATIONAL MOTOR TRUCK REPAIR COMPANY'S BUILDING, LONG ISLAND CITY, N. Y.



BUILDING OF DUBILIER MANUFACTURING COMPANY, BRONX BOULEVARD, N. Y.

TIMMIS & CHAPMAN, ARCHITECTS AND ENGINEERS



INTERIOR ARCHITECTURE



CEILINGS ARCHITECTURALLY EXPRESSED

THE three fundamental factors in interior architecture, on which the design of a complete room or interior is based, are (1) the walls, including penetrating doors and windows, trim, wainscot, mantel and other structural features; (2) the floor, and (3) the ceiling. The walls are, perhaps, of first importance. The design of the walls is the first step in interior architecture. The character of the complete design is determined, to a very great extent, by the treatment of the walls. The

design of the floor and ceiling develops from the treatment of the walls, so that in the complete room there is discernible a unity by which walls, floor and ceiling are considered only as factors in the room or interior, the design of each one being dependent on the treatment of the other two. All the various elements which enter into the complete scheme of interior architecture are directly related and responsible to the design of one of these fundamental factors. And yet they all overlap.



OFFICE OF JOHN W. CAMPBELL, GRAND CENTRAL TERMINAL, NEW YORK CITY

AUGUSTUS N. ALLEN, ARCHITECT

BEAMS AND INTERVENING PANELS OF THE CEILING ARE ACCENTUATED BY BRILLIANTLY COLORED PAINTED DECORATION

The bracket which supports the ceiling beam bears a very definite relation to the wall; the baseboard bears a similar relation to the floor. Unity in the complete scheme is more readily attained for the very reason that the treatments of the walls, floor and ceiling are so dependent on one another.

The part that the design of the ceiling plays in a scheme of interior architecture is a silent or even an unconscious one. Never should its design or its decoration with relation to the rest of the scheme be such that the ceiling becomes the focal point of the room. In order to essay such a role, its design must be studied with the greatest care so as not to be overdone. Thus, it would appear that a richly ornamental ceiling may be more successfully combined with an elaborate wall treatment, the ornate wall remaining as the focal point in the scheme in spite of the elaborate overhead decoration. This idea is capably illustrated in the designs of the English renaissance period. Elaborately ornamented and decorated ceilings featured many of the designs of that period and yet

they never appeared overdone or out of place, owing to the richly carved woodwork of the wall treatment. With such ornate walls, wainscoted high with wood panelling, with richly carved door surrounds and chimneypiece, the ceiling must of necessity be elaborate to give proper balance to the scheme. The rooms of the Elizabethan period of England serve best to illustrate this idea.

However, it must not be understood that elaborate ceilings are confined necessarily to rooms in which the walls are lavishly ornate. The simple rough plaster walls of the early Italian and Spanish interiors were invariably surmounted by ceilings full of color and ornamentation. The distinction between these ceiling treatments and those of the renaissance period of England, however, lies in the manner of the application of the ornament. The ornamentation of the English ceilings seems to be more in the nature of applied decoration. Although the ornament accentuates the architecture by following structural lines, it is pre-eminently decoration. This is especially true



PRIVATE OFFICES OF C. W. BARRON OF THE WALL STREET JOURNAL, NEW YORK CITY

AUGUSTUS N. ALLEN, ARCHITECT

AN ORNAMENTAL PLASTER CEILING, THE DESIGN OF WHICH IS AN ADAPTATION OF IDEAS IN DECORATION ORIGINATED BY THE ADAM BROTHERS



THE ELABORATE TRUSS CEILING IN THE GREAT HALL, BRISTOL UNIVERSITY, ENGLAND

OATLEY & LAWRENCE, DESIGNERS

(From *The Architectural Review*, London)

THE PENDENTIVES SERVE TO ACCENTUATE THE VERTICAL MOVEMENT OF THE DESIGN

of the designs of the Adam period, in which the architect seems much more concerned with the design of the ornament than with its application, or its structural significance. On the other hand, visible construction and the application of ornament to emphasize construction and structural lines are responsible for the interest that is given to the design of the ceilings of the early Italian and Spanish styles. The ornament in every case has a very decided structural significance. It is decoration in its true sense, in that ornament is used to accent structure. Proper balance is retained in the scheme, not by an elaborate wall treatment, but by the use of brilliantly colored tiles in the treatment of the floor. The ornament of the ceiling and of the floor seems to be reflected in the rough texture of the walls.

The problem in the design of the ceiling is to give it decorative interest without attracting the eye upward above the normal line of vision. In a scheme in which the design of the other factors—walls and floor—are rich in ornamentation, a too severe ceiling will be just as conspicuous and out of place as one too ornate. The lack of ornament will tend to draw the eye upward to the ceiling, for a lack of proper balance in the design

of the several factors disrupts the unity of the whole and causes the eye to wander out of its true and natural course.

The truss ceiling of the Great Hall of Bristol University, illustrated on another page, is interesting in that its design is based strictly on structure. Whatever ornament is introduced is added primarily to accentuate structural lines. In the treatment of the ceiling in the entrance hall in the same building, also illustrated herewith, there is evident more of an effort to decorate the ceiling, although structural lines are adhered to in the application and movement of the ornament. Yet the two treatments should not be compared, for visible construction is featured in one, while construction only enters into the other by the form which develops from it. Lacking in visible construction, the flat plaster ceiling offers the most difficult problem in design. There are two logical methods of treatment: first, accentuating its outline, with an ornamental border, perhaps, and, second, marking its center axis, and radiating a design from this point. The idea is well illustrated in the design of the ceiling of a private office by Augustus N. Allen, shown as one of the illustrations.



LIVING ROOM IN THE HOUSE OF L. J. SHERMAN, LAKEVILLE, L. I., N. Y.

JAMES W. O'CONNOR, ARCHITECT

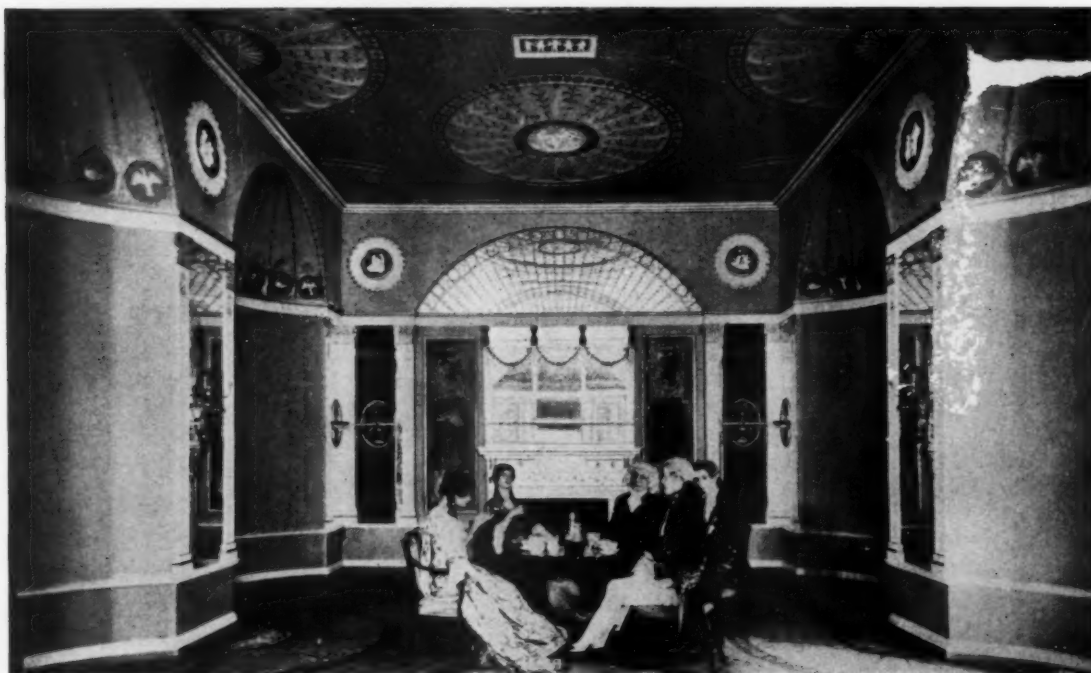
A GEOMETRIC PATTERN IN RELIEF, WITH ORNAMENT OF APPROPRIATE CHARACTER, SERVES TO ACCENTUATE THE OUTLINE OF THE CEILING AND HAS A REAL DECORATIVE VALUE



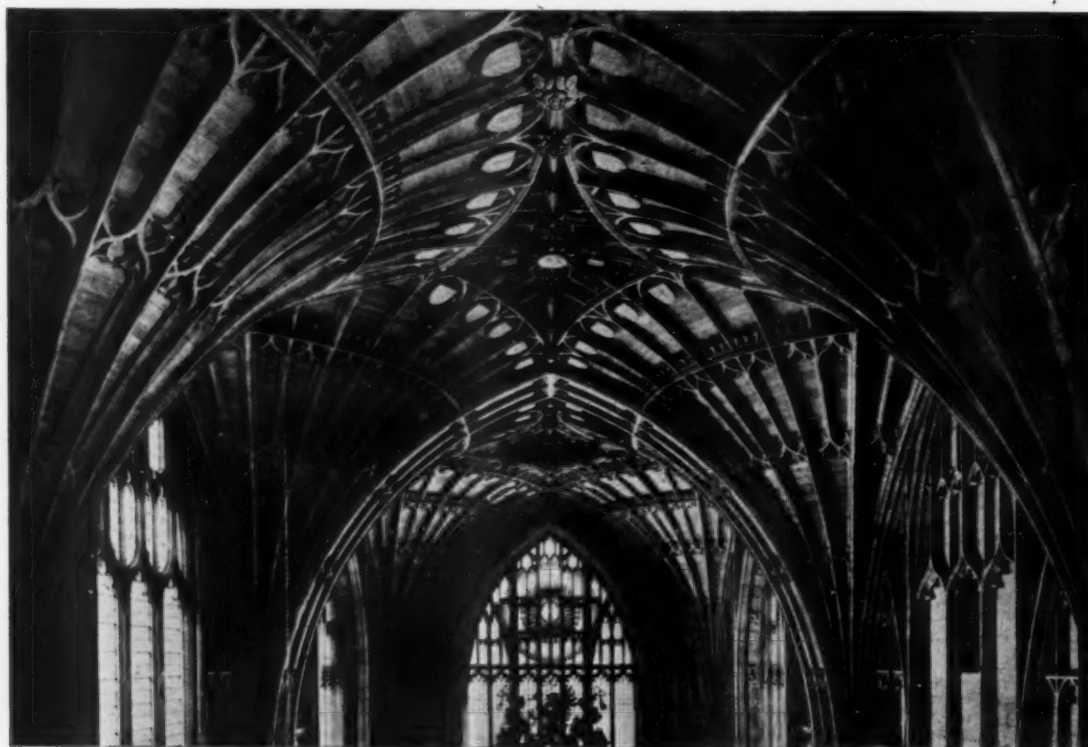
OFFICE OF JOHN W. CAMPBELL, GRAND CENTRAL TERMINAL, NEW YORK CITY

AUGUSTUS N. ALLEN, ARCHITECT

THE WALL AND FLOOR TREATMENT IS OF SUFFICIENT INTEREST PROPERLY TO BALANCE THE ELABORATE DECORATION OF THE CEILING

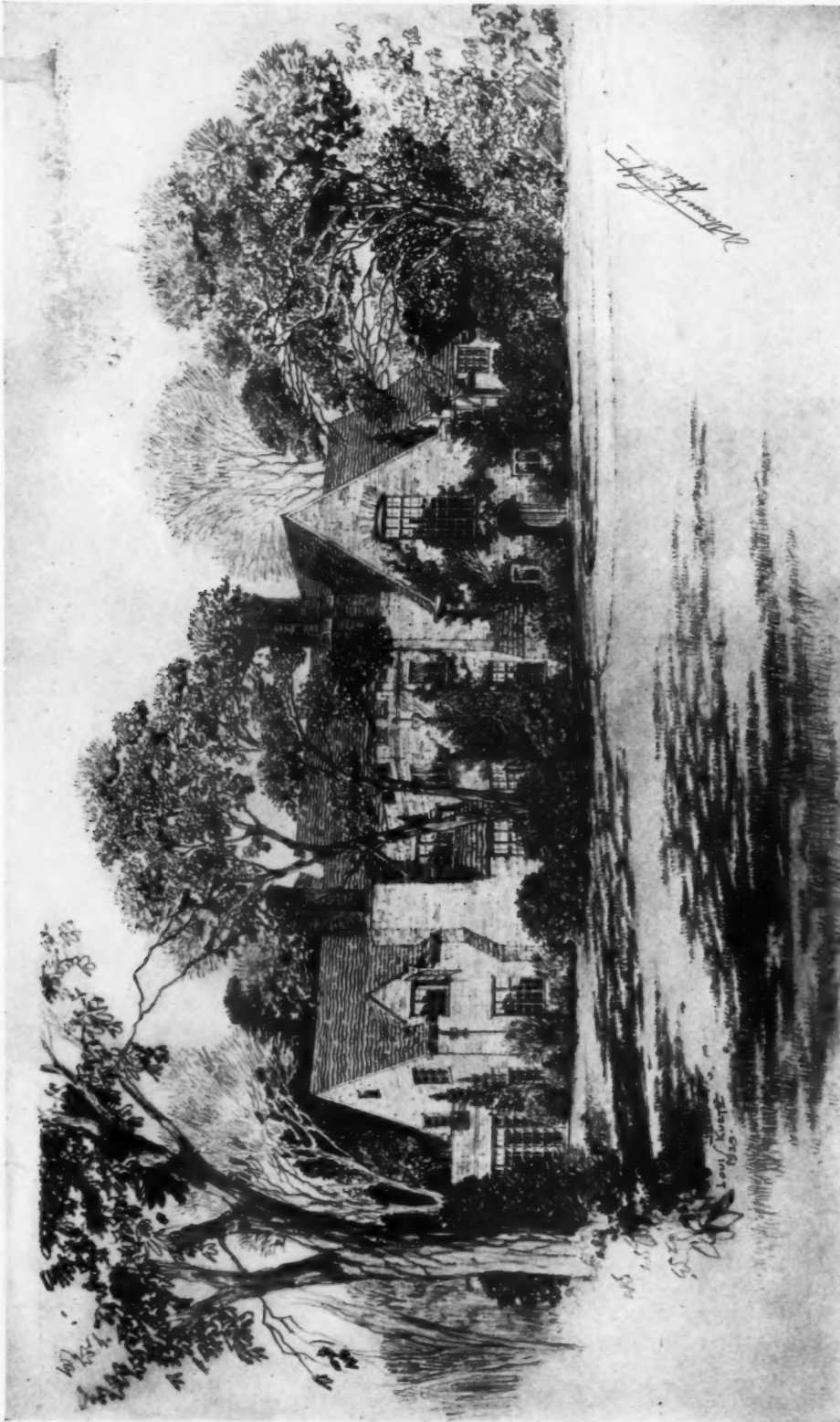


THE ADAM ROOM AT WEMBLEY, ENGLAND—ARTHUR T. BOLTON, ARCHITECT

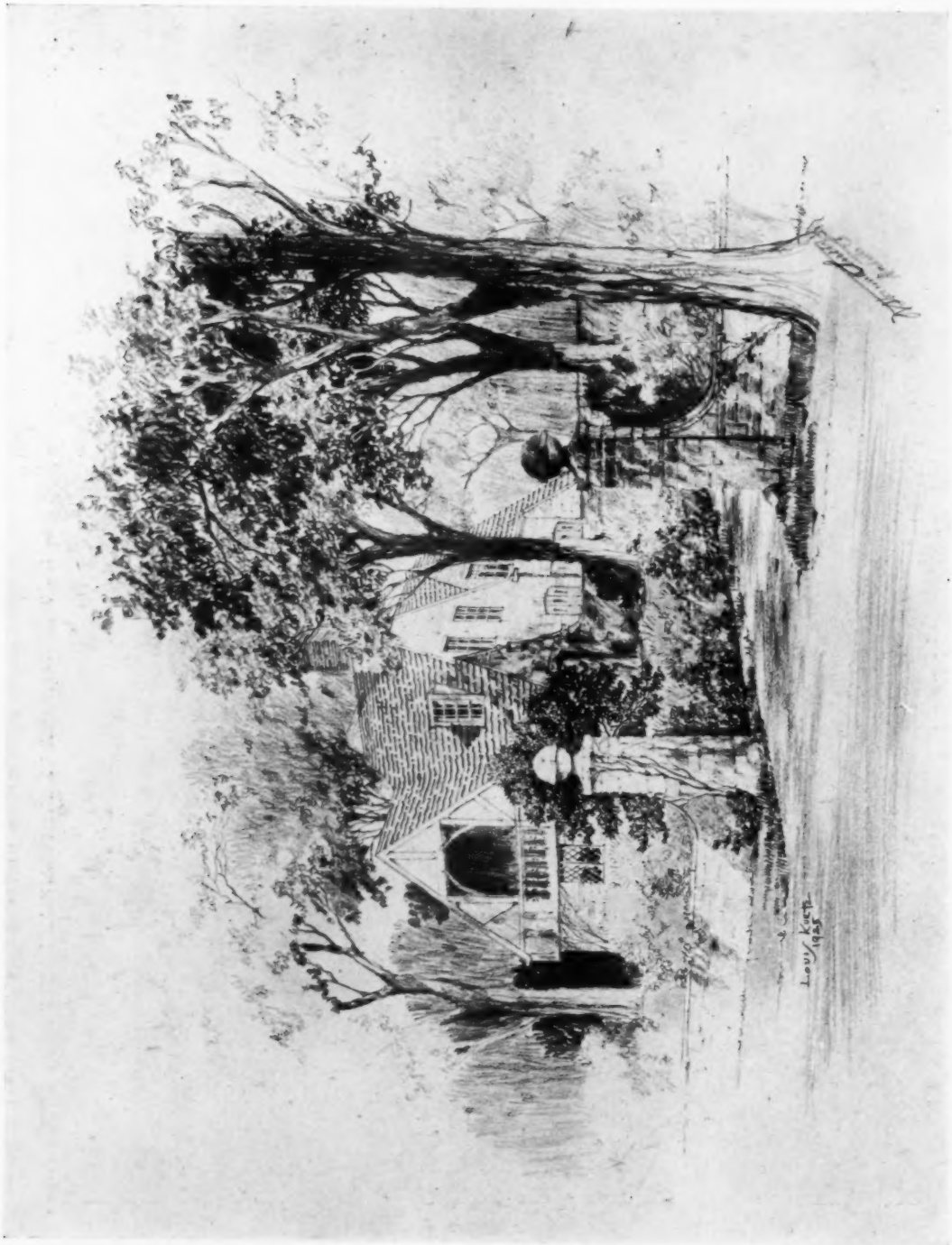


THE ROOF OF THE ENTRANCE HALL IN BRISTOL UNIVERSITY, ENGLAND

OATLEY & LAWRENCE, DESIGNERS
(From *The Architectural Review*, London)



HOUSE AT RIVERDALE, N. Y.—W. STANWOOD PHILLIPS, ARCHITECT
FROM THE ORIGINAL DRAWING BY LOUIS KURTZ

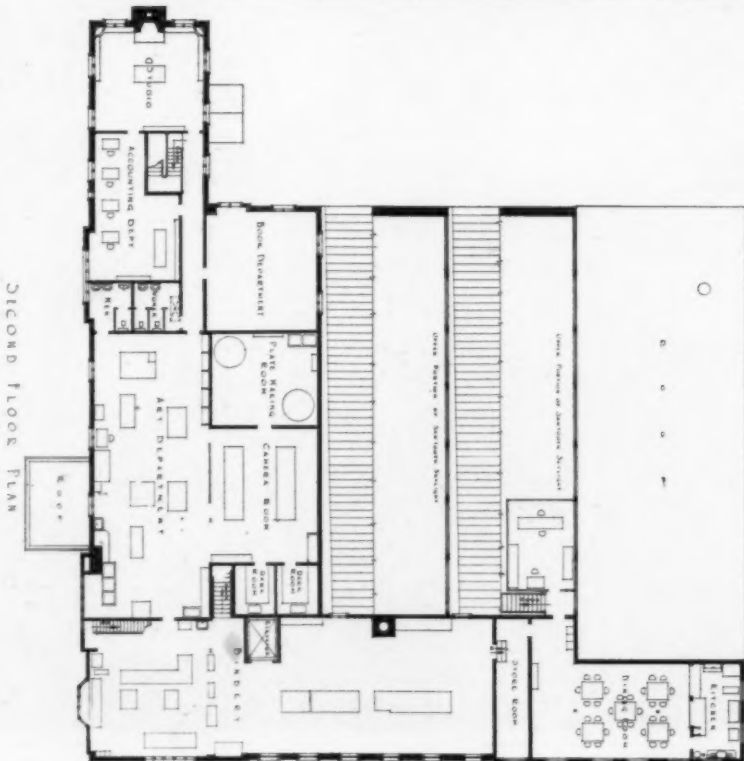
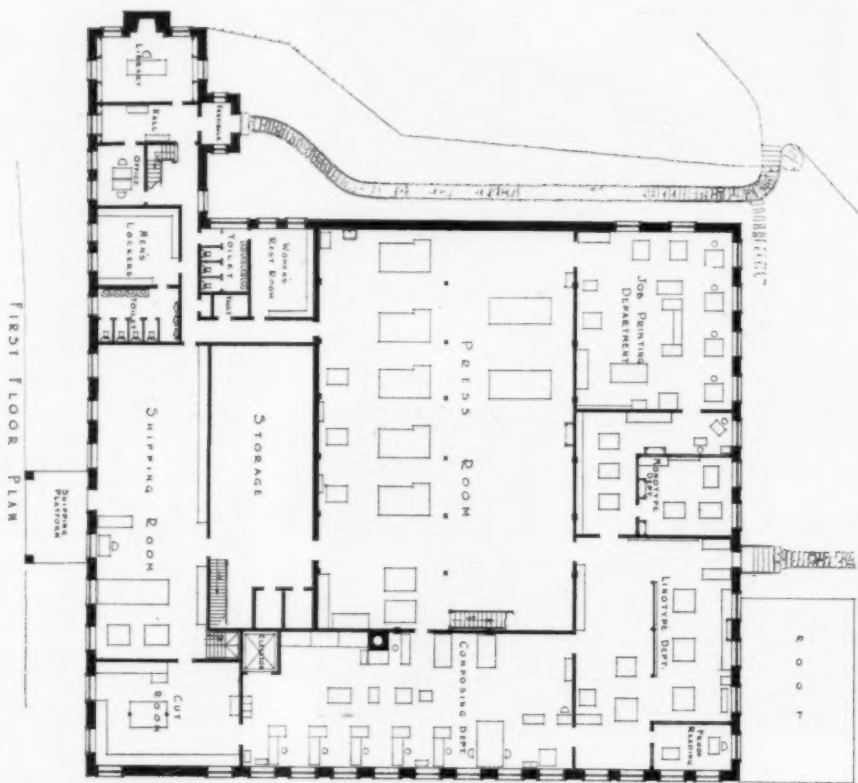


LODGE AND GARAGE AT RIVERDALE, N. Y.—W. STANWOOD PHILLIPS, ARCHITECT
FROM THE ORIGINAL DRAWING BY LOUIS KURTZ



THE PRINTING HOUSE OF WILLIAM EDWIN RUDGE, MOUNT VERNON, N. Y.
GEORGE M. BARTLETT, ARCHITECT
(Plans on back)

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 229



FIRST FLOOR PLAN

THE PRINTING HOUSE OF WILLIAM EDWIN RUDGE, MOUNT VERNON, N. Y.

GEORGE M. BARTLETT, ARCHITECT

SECOND FLOOR PLAN



30

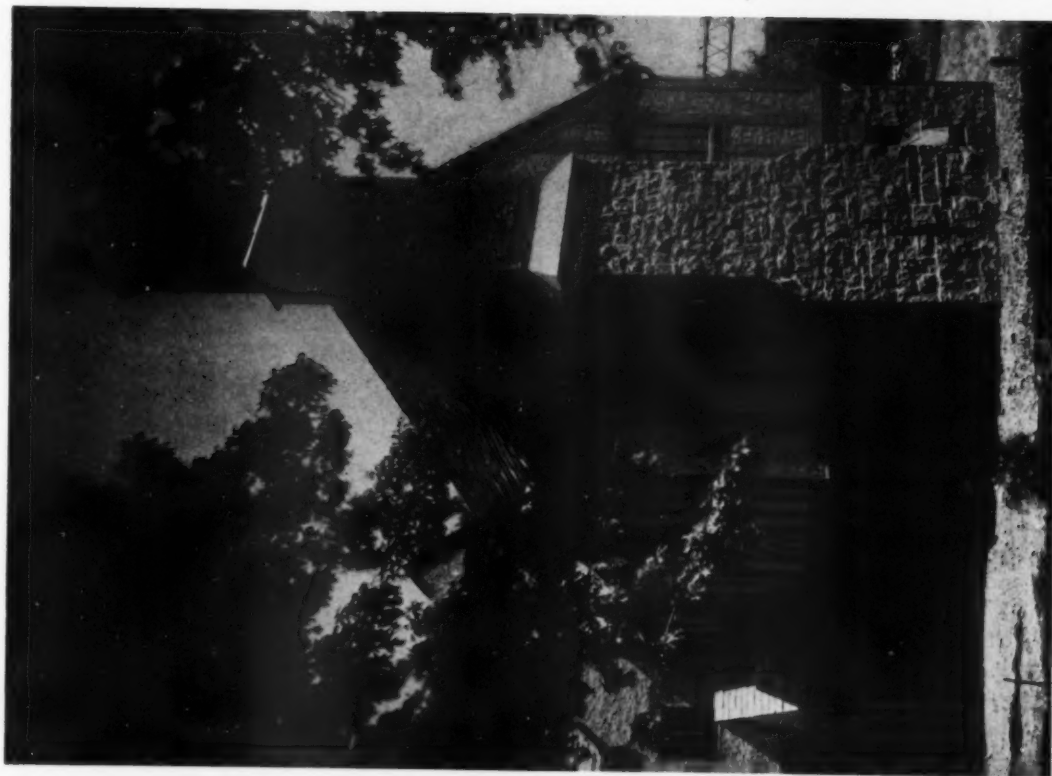
THE PRINTING HOUSE OF
WILLIAM EDWIN RUDGE, MOUNT VERNON, N. Y.

GEORGE M. BARTLETT, ARCHITECT

30



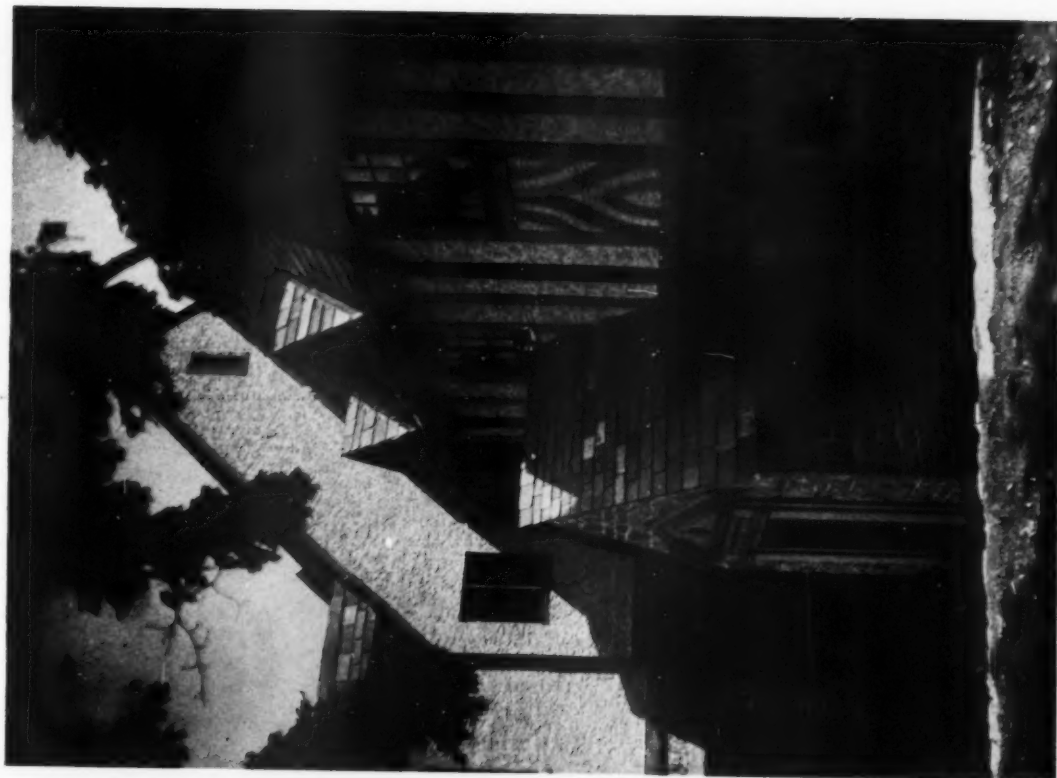
THE AMERICAN ARCHITECT
September 20, 1926 PLATE 230

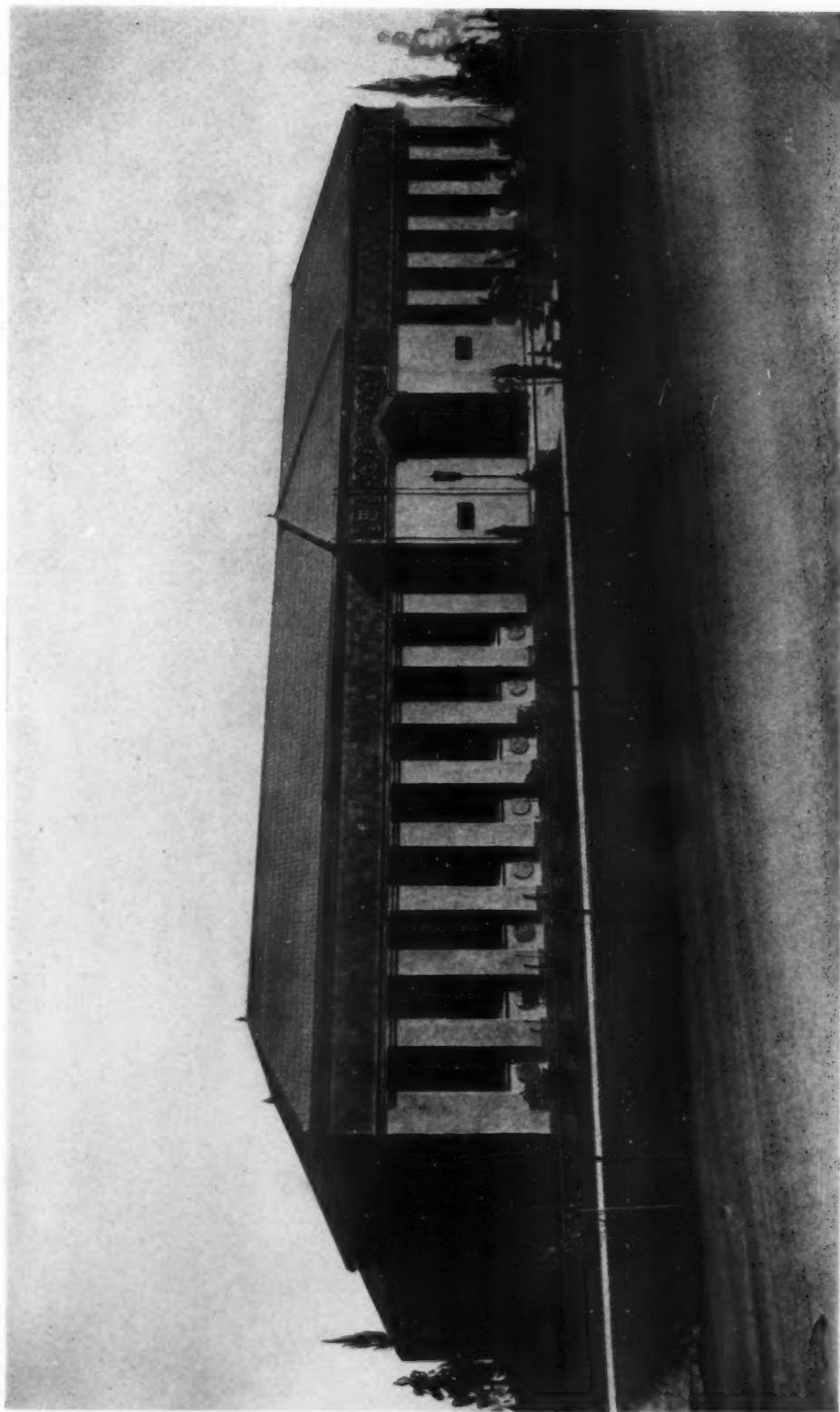


THE PRINTING HOUSE OF WILLIAM EDWIN RUDGE, MOUNT VERNON, N. Y.

GEORGE M. BARTLETT, ARCHITECT

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 231





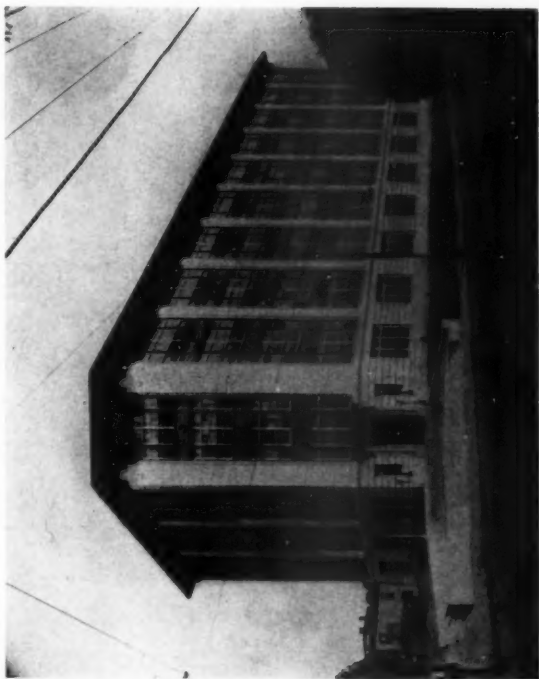
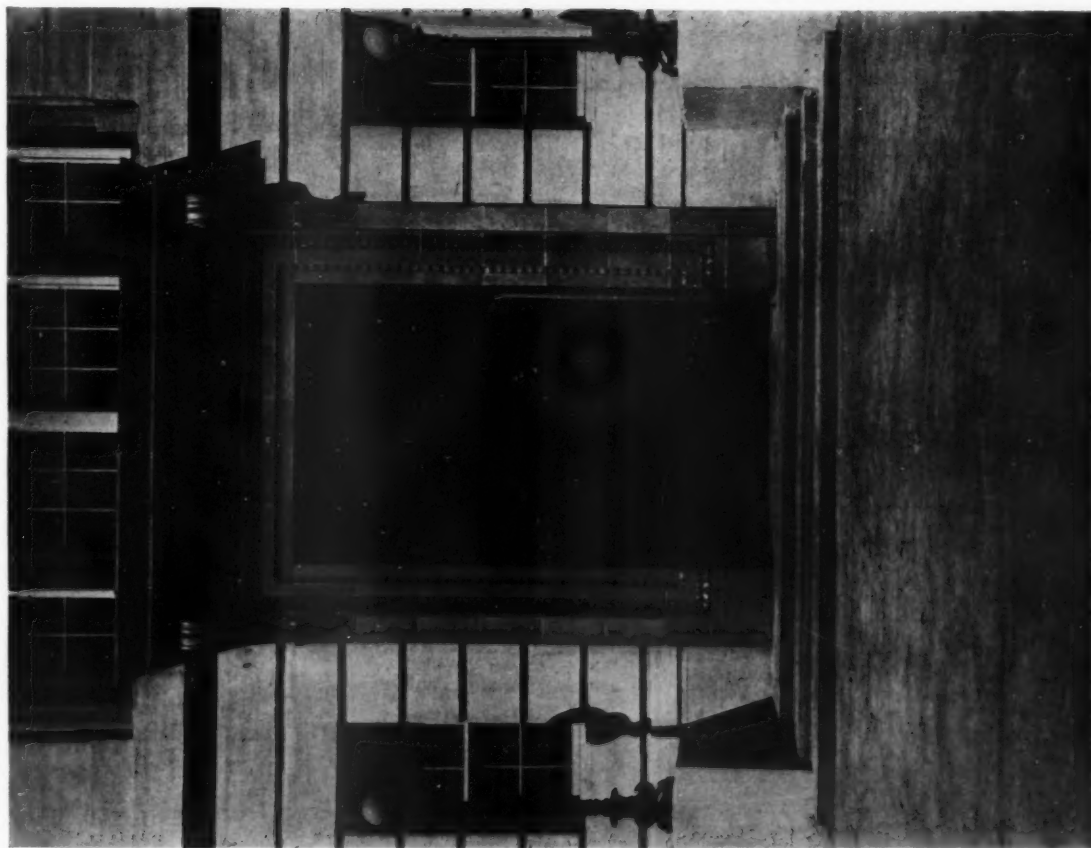
OFFICE OF PIONEER PAPER COMPANY, LOS ANGELES, CALIFORNIA
MORGAN, WALLS & CLEMENTS, ARCHITECTS

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 232



OFFICE OF PIONEER PAPER COMPANY, LOS ANGELES, CALIFORNIA
MORGAN, WALLS & CLEMENTS, ARCHITECTS

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 233



35

BUILDING OF MINT PRODUCTS COMPANY, PORT CHESTER, N. Y.

LOCKWOOD, GREENE & COMPANY, ARCHITECTS AND ENGINEERS

36

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 234



EMPLOYEES' COTTAGES, SOLANO COUNTY, CALIFORNIA



CLUB HOUSE FOR EMPLOYEES, SHASTA COUNTY, CALIFORNIA

DESIGNED AND BUILT BY ENGINEERING DEPARTMENT, PACIFIC GAS & ELECTRIC COMPANY



30

HYDRO-ELECTRIC POWER HOUSES, SHASTA COUNTY, CALIFORNIA

DESIGNED AND BUILT BY ENGINEERING DEPARTMENT,
PACIFIC GAS & ELECTRIC COMPANY

30

THE AMERICAN ARCHITECT
September 20, 1926 PLATE 236

11

11



ENGINEERING AND CONSTRUCTION



ILLUMINATION IN EDUCATIONAL INSTITUTIONS

By A. D. BELL

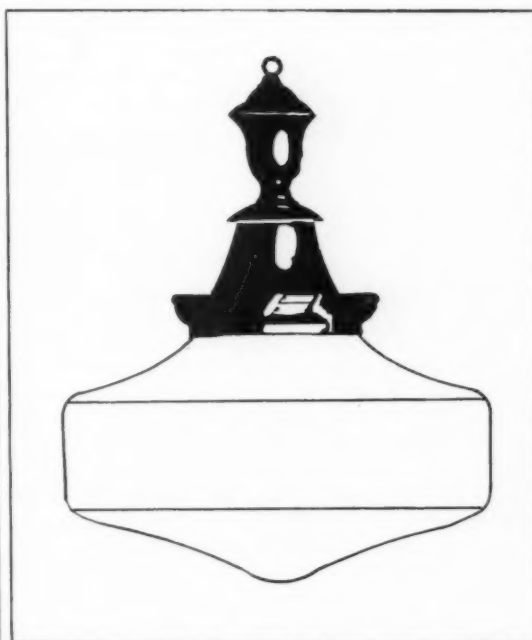
THE important part that light plays in our daily lives is recognized more or less in a general way, but observation and discussion disclose that few fully appreciate its influence. The industrial plant manager, through a continual campaign of education, now realizes that light will increase his production, promote safety, and conserve the eyesight of his employees. Unfortunately, school authorities do not always appreciate as they should the vital necessity of providing for school children or students light that will have this same effect.

Illumination which will protect the eyesight of growing children and will enable them to accomplish their tasks with less physical and mental effort is of vital importance. We still see in schools and colleges, lighting conditions which would not be tolerated in well managed factories where those using the light are adults, and whose eyes at least have passed through the critical formative period.

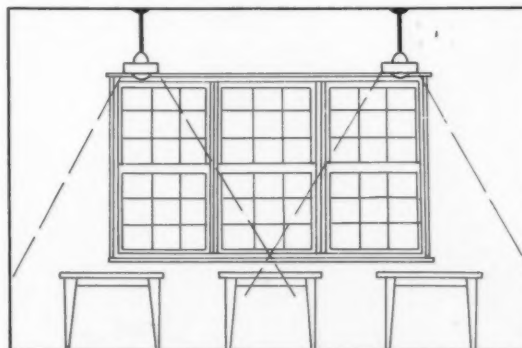
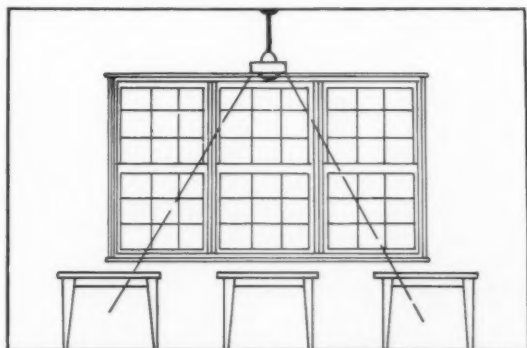
In the Spring of 1925 an interesting test as to the effect of illumination on class room work was made. Children from a public school carried on with their usual work in a room equipped to give various intensities of light. The intensities ranged through four stages, viz., approximately 4 foot-candles, 9 foot-candles, 15 foot-candles and 20 foot-candles. A careful check on their work was kept under each intensity. When the results were analyzed it was found that through the 15 foot-candle stage, there was a steady improvement in the work performed.

This was but a single test and indicated that the

higher intensities of illumination were desirable and that the present used level of 10 foot-candles for class room work, as now recommended, was by no means final and may require future revision.



TYPICAL SQUAT TYPE OPALESCENT GLASS ENCLOSING GLOBE



AT LEFT: POOR LIGHT DISTRIBUTION WITH ONE LIGHTING UNIT FOR SAME AREA AS AT RIGHT WHERE EVEN LIGHT DISTRIBUTION IS OBTAINED BY USING ENCLOSING GLOBES PROPERLY SPACED AND HUNG

Various codes and regulations as to the lighting in educational institutions are now available, and the one recognized as the best is the one on school lighting, put out under the joint auspices of the Illuminating Engineering Society and The American Institute of Architects. While the practice outlined in this code is primarily for grade and high schools, the same general principles will apply in the larger buildings of the college or university, for the lighting requirements in recitation rooms, laboratories and libraries are the same, whatever the size of the building may be.

Various places need different intensities of illumination. The accompanying table is taken from the code prepared by the Illuminating Engineering Society and The American Institute of Architects.

There are several satisfactory types of reflecting equipment. Their usage will depend upon the particular place in which they are employed. For lecture rooms and recitation rooms glass enclosing globes are efficient, generally good in appearance and relatively low in cost. In addition, illumination

RECOMMENDED FOOT-CANDLE INTENSITIES

*On the space

Storage spaces, passages, not used by the public	2
Boiler rooms, power plants, and similar auxiliary spaces	3
Stairways, landings, corridors, aisles, exits, elevator cars, wash rooms, toilets, locker spaces, dressing rooms	3
Gymnasiums, swimming pools	7

*On the work

Auditoriums, lecture rooms, etc., used for class or study purposes	10
Class rooms (desk tops)	10
Class rooms (charts, blackboards)	6
Libraries (reading tables, catalogs)	10
Libraries (bookshelves, vertical plane) ..	6
Workshops	10
Drafting Rooms	15

**Where the space or work is not clearly evident, as for instance in an auditorium, the illumination may be measured on a horizontal plane 30 inches above the floor. However, where the space or work is clearly evident, such as stair steps and desk tops, the illumination shall be measured on the plane of the steps and desk tops respectively.*

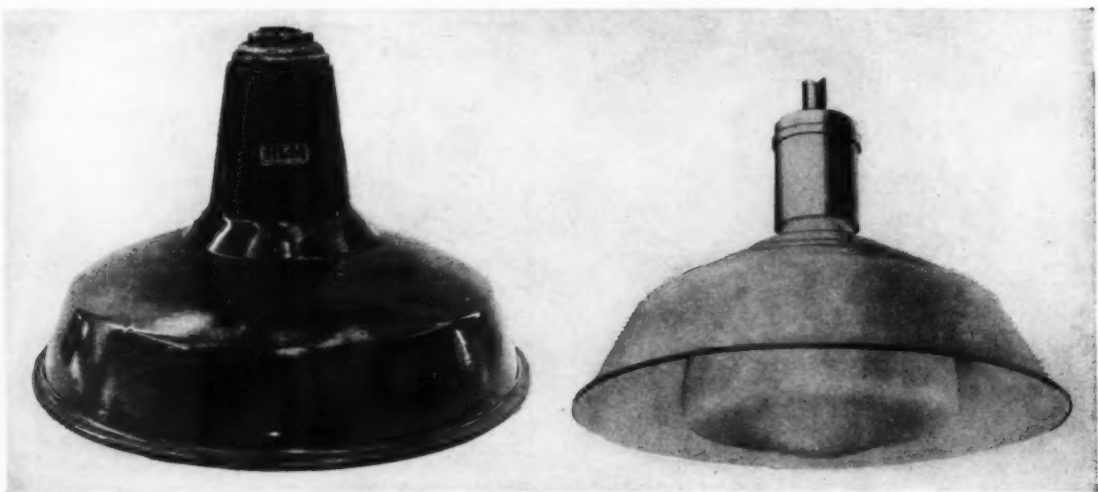
is not rapidly decreased by dust accumulation. Semi-indirect and totally indirect equipment will give a better quality of illumination, but the efficiency will be much lower and more frequent cleanings will be necessary, as any sort of reflectors of the inverted bowl type are natural dust collectors. It has also been found that the lighting equipment in educational buildings does not receive sufficiently frequent cleanings. Such being the condition, indirect equipment is used much less often than enclosing globes.

Laboratories may also be lighted by enclosing globes, but

the R.L.M. standard dome type of reflector or the diffuser, made of porcelain enameled steel, will withstand the attack of acid fumes, and is usually better suited to this sort of work.

These same reflectors, used by many industrial plants, are likewise recommended for the various shops, as they will withstand hard usage. They may be likewise used for boiler rooms and similar auxiliary places.

Drafting rooms require excellent diffusion, and



AT LEFT: R.L.M. STANDARD DOME REFLECTOR. AT RIGHT: A GLASTEEL DIFFUSER

FILMING BUILDING CONSTRUCTION

MOTION pictures of building construction while not a new idea, have seldom met with any degree of success due to the many difficulties encountered.

The trouble has usually been that when taking a scene every day of the same object, the camera would be moved to slightly different positions. When a camera is moved a fraction of an inch at a distance of 300 or 400 feet from a building, the result is so magnified on the screen that it makes a difference of several feet. Therefore, the camera must be absolutely stationary during the time it takes for constructing the building.

Another difficulty is the matter of locating the camera to avoid obstructions interfering with the view, far enough distant to show the complete rise of a building, say, 475 feet in height.

In filming the Straus building in Chicago, an unobstructed location was selected as far from the building as possible. It was then found that the

standard motion picture lens would not cover the perspective. This was overcome by using a special wide angle lens.

A mound was thrown up on the camera location and posts about 25 feet high were driven into it. A small house was built on the posts so that the camera and tripod could be protected and kept stationary during the construction period of ten months. The camera was approximately three hundred and twenty-five feet from the Straus building site. The tripod was made fast to the floor, and the camera clamped to the tripod so that it could not move a fraction of an inch. About twenty feet of film were exposed each day.

The problem of photographing in all kinds of weather was largely overcome by photographing the building about noon every day. The building faces the east; so when the sun was in the south or at right angles, the front of the building was no more brilliant than any day when there was no sun. Haze was eliminated by using a ray filter.



THE THIRTY-TWO STORY STRAUS BUILDING AT MICHIGAN AVENUE AND JACKSON BOULEVARD, CHICAGO, TOWERS HIGH ABOVE THE NEIGHBORING BUILDINGS. THE TOWER IS CAPPED BY A BEE-HIVE OF BRONZE AND GLASS



CAMERA SHACK LOCATED ABOUT 25 FEET ABOVE THE GROUND AND 325 FEET FROM THE STRAUS BUILDING



CLOSE-UP OF "SAND HOG" LEAVING A CAISSON USED FOR BUILDING THE FOUNDATIONS OF THE STRAUS BUILDING



ERECTING THE STEEL FRAME OF THE OFFICE BUILDING. CLOSE-UP OF STEEL WORKERS AT THE EIGHTEENTH FLOOR



GENERAL "SHOT" SHOWING SETTING OF STEEL GIRDER OVER MAIN ENTRANCE TO THE BANK IN THE STRAUS BUILDING



CLOSE-UP OF CONTRACTOR'S BRIDGE. THE STREET ARCADE WAS A MUCH COMMENTED FEATURE DURING CONSTRUCTION



CLOSE-UP SHOWING SETTING OF INDIANA LIMESTONE KEYSTONE OF LOWER WINDOW ON PRINCIPAL FACADE

SCENES FROM THE STRAUS BUILDING FILM, "BUILDING A SKYSCRAPER"



S. W. STRAUS & COMPANY BUILDING, CHICAGO, ILL.
GRAHAM, ANDERSON, PROBST AND WHITE, ARCHITECTS

A PROBLEM IN ACOUSTICS

By MAURICE C. ROSENBLATT, M.E.

MANY architects, possibly for approximate purposes only, make computations from their plans of certain acoustic characteristics. Principal among these is that of reverberation or, as it is often called, duration of audibility.

Since frequently the seemingly simple problem of reverberation becomes a complex one because of the entrance into the computations of indeterminate factors that have not been reckoned with, figures are set awry so that a word or two on one of the phases of this problem may not be amiss.

Much depends, in a problem of reverberation, upon the coefficient of absorption for sound assigned to materials of which the room in question is constructed and finished. When we examine the curves, for instance, of sound absorbing material that has been subjected to laboratory examination, we find that these curves compare the absorbing value of the material based upon the open window equivalent with the pitch of sound. The absorption index ranges between the limits of zero efficiency and unit efficiency which is the complete absorption range, but the pitch range is not complete, being usually limited in the low frequencies at pitch C_1 or C_2 and for the high frequencies at pitch C_7 . So far as pitch is a

factor, the range between C_2 — C_7 is extensive enough for all practical purposes, but on the other hand the extension of the range to lower and to higher pitches is likely to alter the entire curve sufficiently to have some effect upon the coefficient of absorption at any point on the curve. Unless the complete pitch range is studied the coefficients of absorption taken from the curve cannot be true values, but approximations only and nothing more than a theoretical study of the curves may produce some modifications of the existing values of absorption.

The pitch corresponding to C_1 has a frequency of 64 vibrations per second; that of C_2 a frequency of 128 vibrations per second, and that of C_7 a frequency of 4,096 vibrations per second. While we know that sound waves of very low and very high frequencies are not assimilated by the human ear, it is yet a fact that the normal hearing is subject to a pitch range considerably greater than that employed in determining the absorbing value of materials. Any material, there is no doubt, has some absorbing value for any sound, no matter what the pitch or intensity, but since we define physiological sound as that with a range of pitch which lies within the boundaries of susceptibility of the ear, it is interesting to study

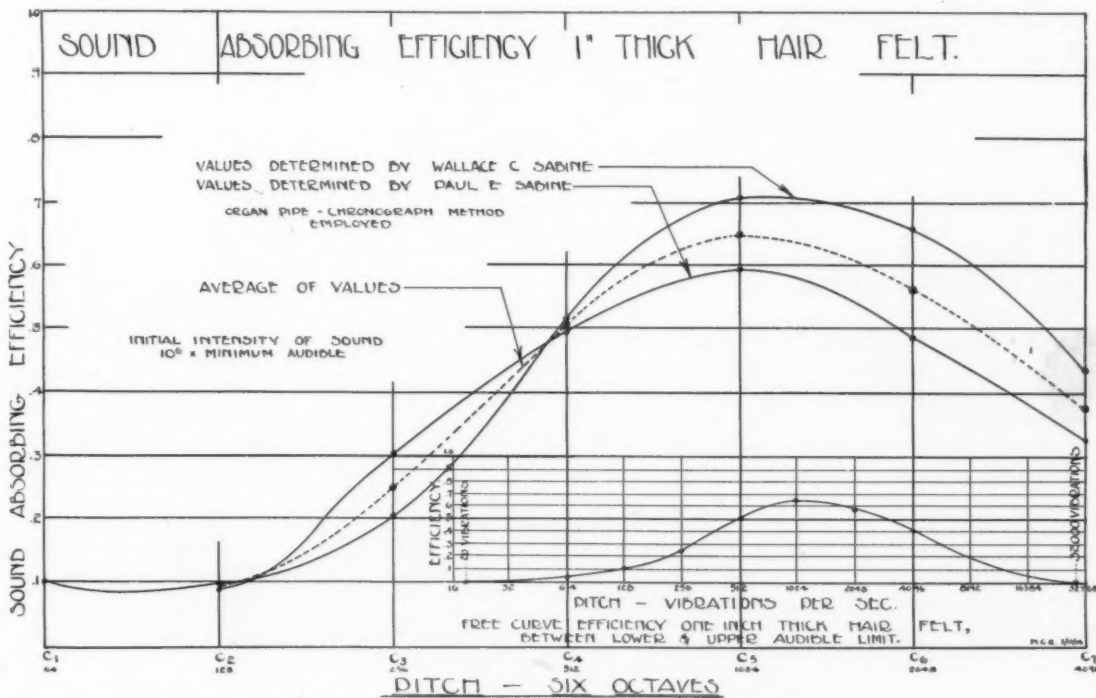


CHART INDICATING THE SOUND ABSORBING VALUE OF ONE INCH THICK HAIR FELT

the effect upon the absorption curves over the complete range.

The threshold of audibility of the ear seems to be crossed for pitches in the lower register which have frequencies approximately equivalent to twenty vibrations per second, and in the higher register for pitches of 32,000 vibrations per second. Both at this lower and higher point the absorption value must be zero since, if it is agreed, that at approximately 20 vibrations per second and again at approximately 32,000 vibrations per second there is no physiological sound this hypothesis must be correct; i. e., that absorption equals zero for pitch 20 vibrations or pitch 32,000 vibrations. This is elucidated when we remember that laboratory experiments to measure the absorption of materials is usually affected by what is known as the organ pipe-chronograph method, in which the ear plays a prominent part in determining duration of audibility.

Two points have now been established on the absorption curve, one at zero absorption for pitch corresponding to 20 vibrations per second and one—absorption equals zero when pitch equals 32,000 vibrations per second.

If we study existing curves of sound absorption such as those determined by Professor Wallace Clement Sabine and those by Doctor Paul E. Sabine we find that the range covered is between C_1 or C_2 and C_7 . It will be seen that the curve determined by W. C. Sabine for the absorption of 1-inch thick hair felt differs somewhat from the curve determined by P. E. Sabine for 1-inch thick hair felt. In both experiments similar methods were employed and the initial intensity of sound taken at 10^6 times minimum audible intensity. The dimensions of the experimental samples may have varied in the two experiments, and since a considerable lapse of time ensued between them the felts tested may have been of different consistencies. Regardless of what effect this might have, there is a difference in absorption in these curves at certain points. Evidently both experimenters ceased to carry their work beyond a pitch of C_7 —4,096 vibrations. At this point both curves are comparatively high in the absorption field, one reading approximately .33 compared with the open window and the other approximately .43. The slope of these curves at this point is very nearly the same in both cases. Now according to the premise above cited, that at approximately 32,000 vibrations these curves should pass through zero, and since a pitch of 32,000 vibrations is but three octaves above that of C_7 , the slope of these curves is such as to readily expect zero absorption at a pitch of something near 32,000 vibrations.

The same statement is true but with a slight modification for the origin end of the curves. In

this case both curves practically coincide for pitch C_2 —128 vibrations, having at this pitch an absorption of approximately .09. The curve of P. E. Sabine stops at C_2 , while that of W. C. Sabine stops at C_1 —64 vibrations per second. The slope of both curves at C_2 is such as to anticipate, if projected, their passage through the origin for a pitch of about 20 vibrations. In W. C. Sabine's curve, however, we find a peculiar condition between pitch of C_2 and C_1 . The curve finds its minimum between these two pitches and then begins to rise, consequently having a higher coefficient of absorption at C_1 than it has at C_2 . At C_1 it has an efficiency of approximately .1 as compared with .09 at C_2 .

Since minimum audible pitch is not much more than one octave below that of C_1 , the behavior of the curve between C_1 and C_2 cannot be reconciled with the above theory unless certain extraneous conditions entered that are not accounted for.

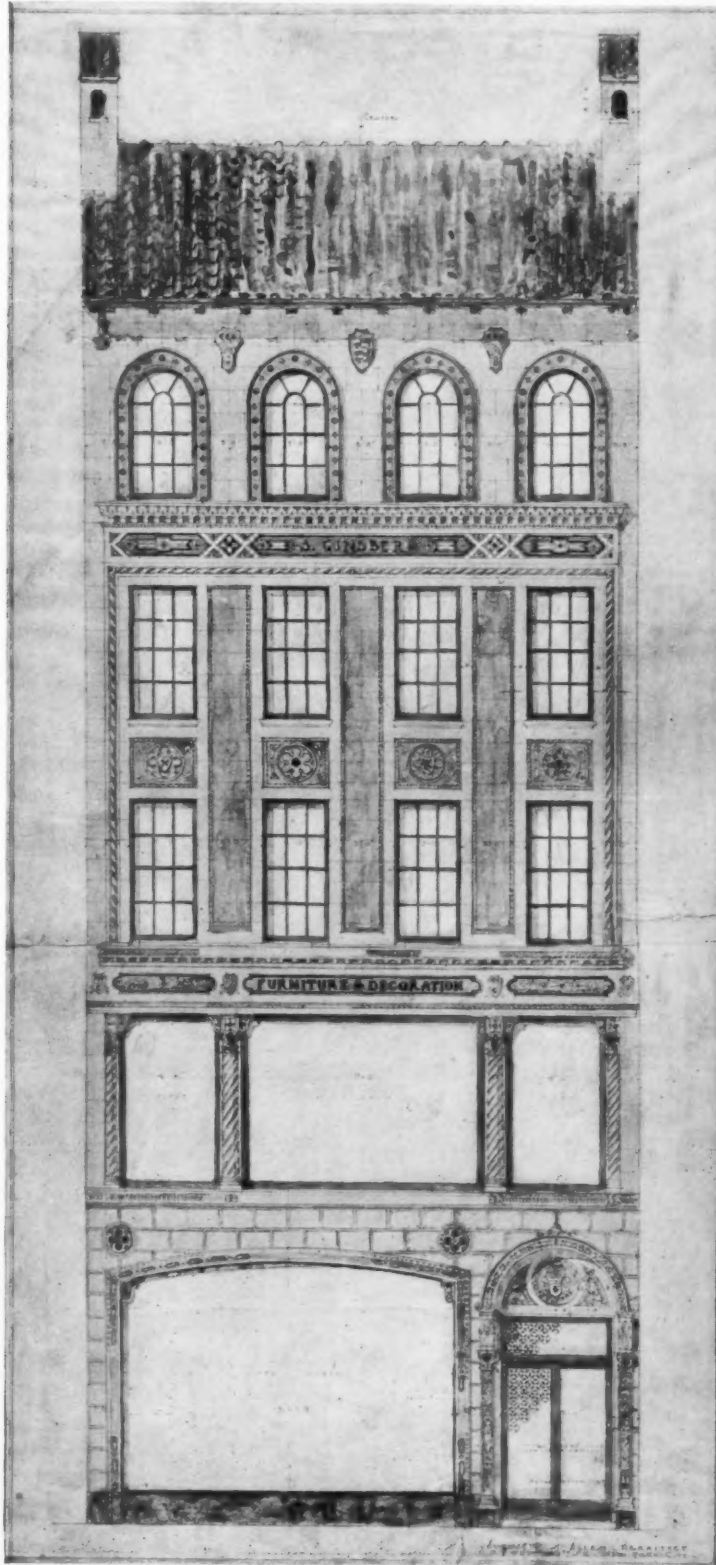
For the sake of this discussion, we may ignore the curve between pitches C_1 and C_2 and draw an average curve which may balance the differences in the experimental values by which each curve is determined. If we then take this average curve and the points already derived on the assumption that absorption equals zero for pitch of 20 vibrations and 32,000 vibrations and plot a free curve accordingly, we will have provided a curve for the absorbing value of 1-inch thick hair felt between the limits of minimum and maximum audible pitch. This curve because of its extension beyond the experimental field may serve as a fair guide for the absorption value of 1-inch thick hair felt over the entire audible range.

SHOWER AND BATH FIXTURE LOOSE LEAF CATALOG

THE American Pin Company of Waterbury, Conn., has recently issued a loose leaf catalog of shower and bath fixtures which should prove of interest and worth filing for future reference by members of the architectural profession. This catalog, containing 56 pages, is identified with the A. I. A. filing system number and conforms in size to the recommendation of the A. I. A. Scientific Research Department. General illustrations and dimensioned roughing in drawings are shown side by side. Specification writers will find the catalog conveniently arranged for their use.

CATALOG OF SLIDING VENTILATOR WINDOWS

A 16 PAGE catalog numbered G-26 has recently been issued by Bogert & Carlough Company of Paterson, N. J. This catalog, entitled "Boca Top and Bottom Sliding Ventilator Windows with Bronze Guides," describes in detail architectural and industrial types of projected windows.

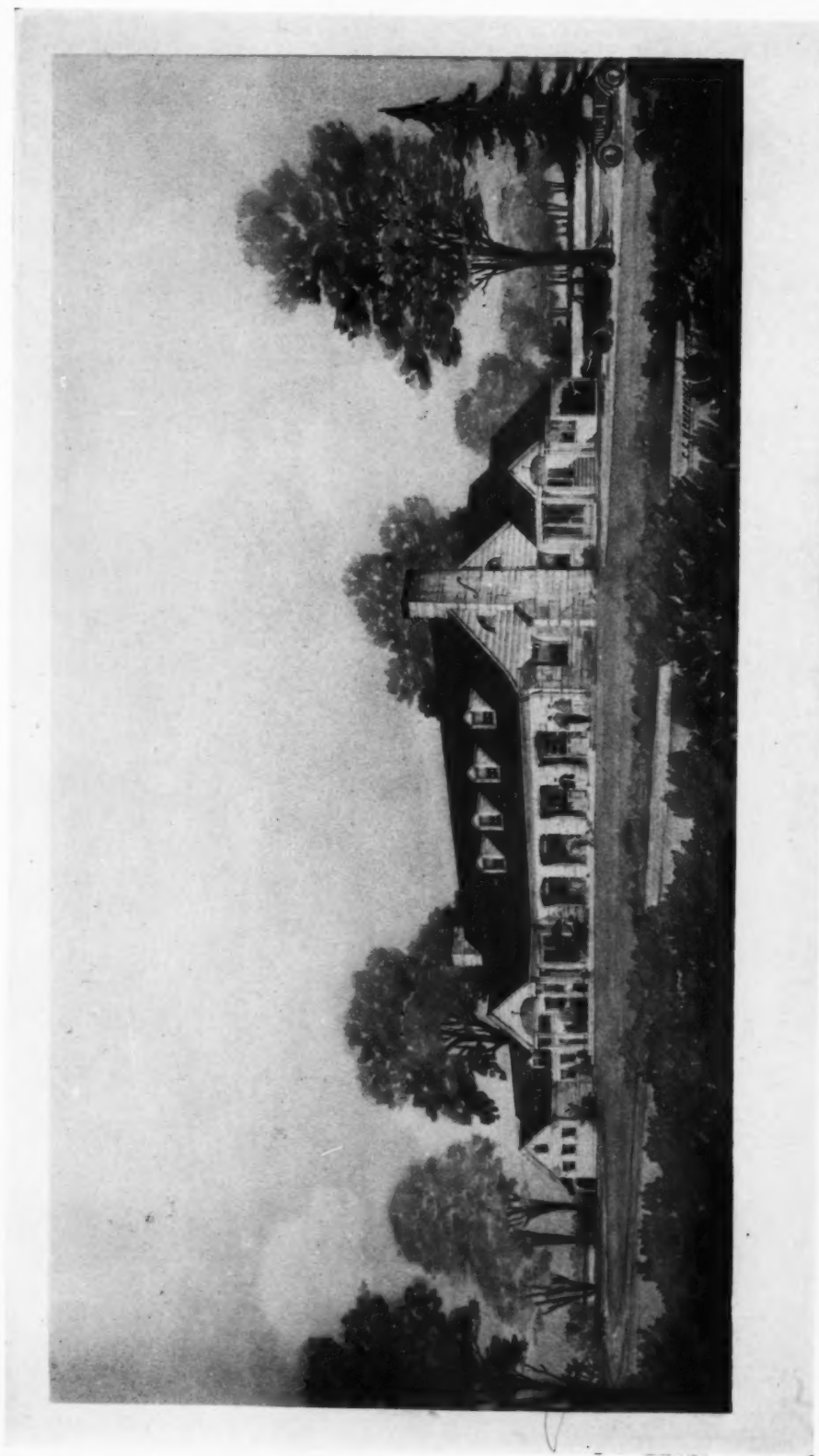


STORE AT No. 1082 PARK AVENUE, NEW YORK

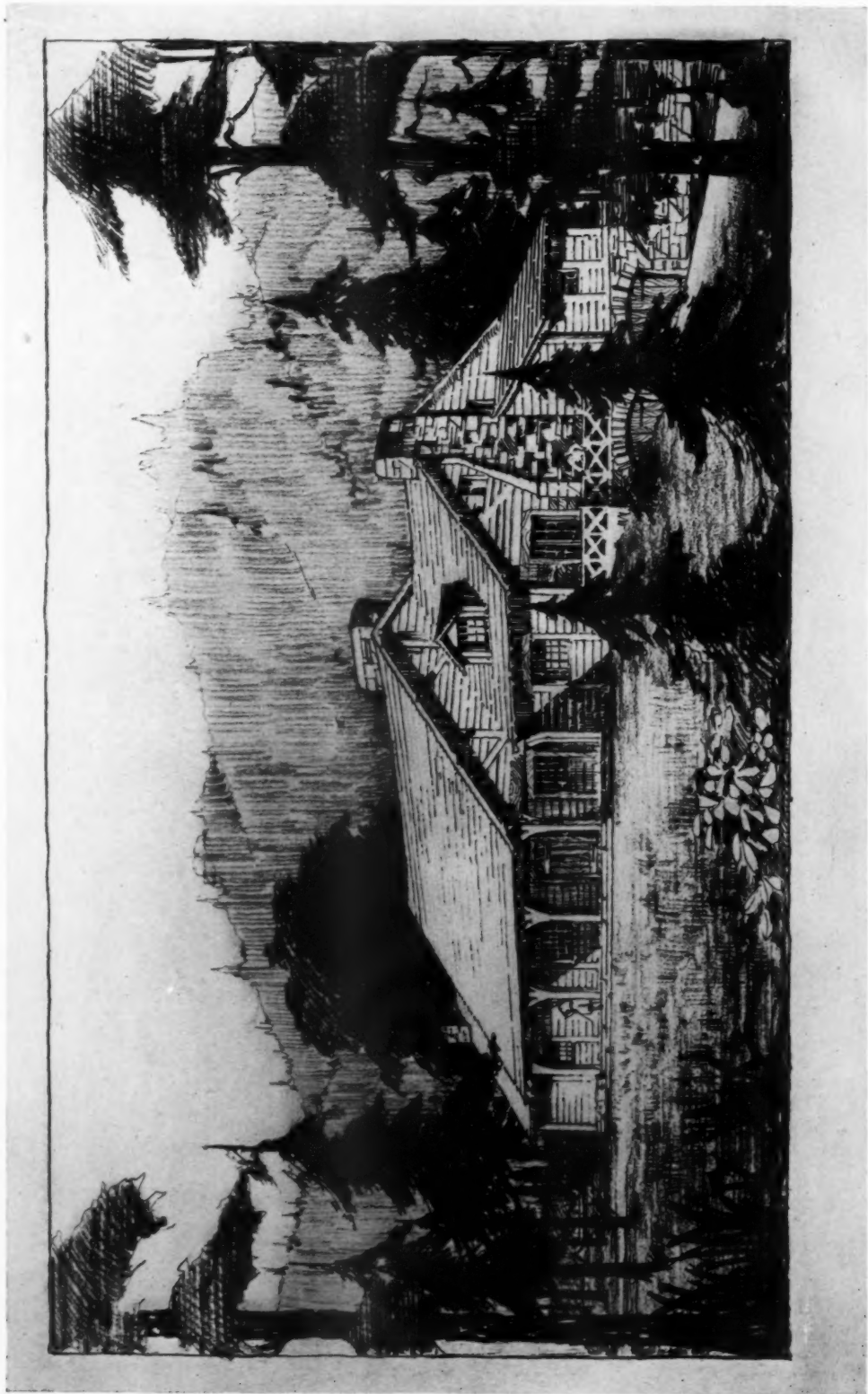
AUGUSTUS N. ALLEN, ARCHITECT



STORE AT No. 1082 PARK AVENUE, NEW YORK
AUGUSTUS N. ALLEN, ARCHITECT



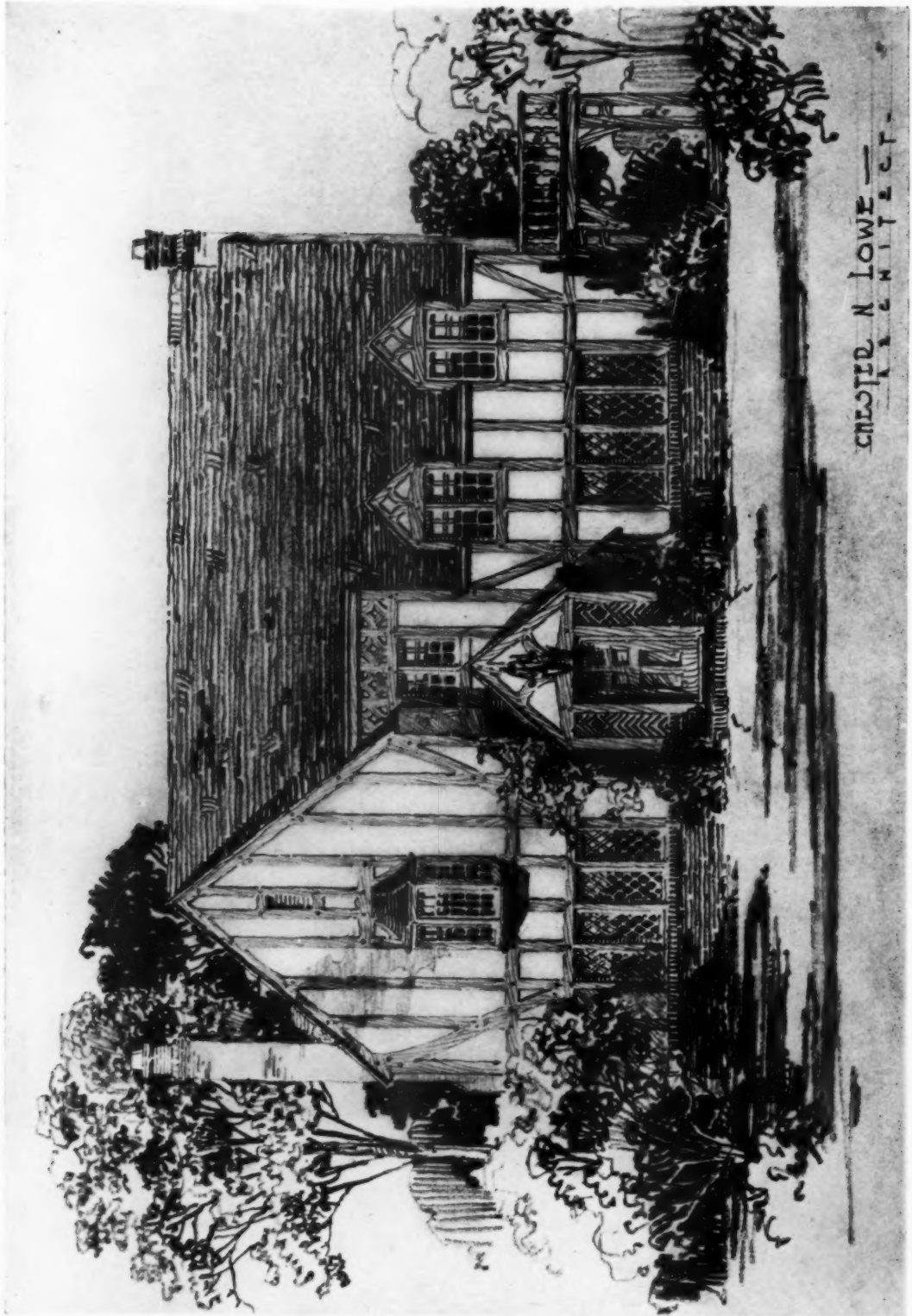
ROCK SPRING COUNTRY CLUB, WEST ORANGE, N. J.
FROM THE ORIGINAL SKETCH BY C. C. WENDEHACK, ARCHITECT



TITICUS HUNT CLUB BUILDING, PURDY, N. Y., FOR MAJOR GENERAL JOHN F. O'RYAN
FROM THE ORIGINAL SKETCH BY C. C. WENDEHACK, ARCHITECT



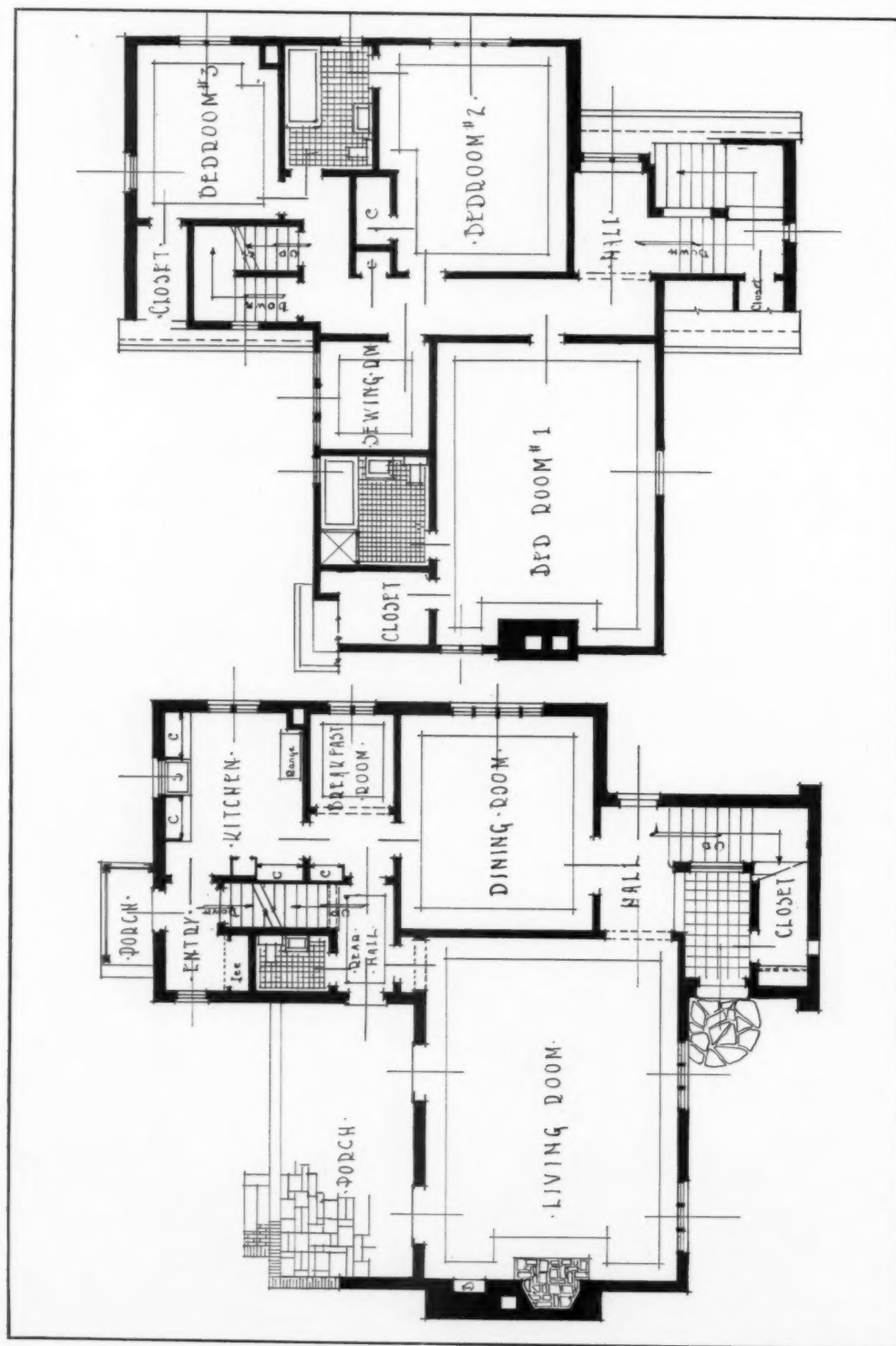
PHELPS MANOR COUNTRY CLUB, ENGLEWOOD-TEANECK, N. J.
FROM THE ORIGINAL SKETCH BY C. C. WENDEHACK, ARCHITECT



HOUSE AT SHAKER HEIGHTS, OHIO—CHESTER N. LOWE, ARCHITECT
FROM THE ORIGINAL SKETCH BY WAYNE F. KOPPES



HOUSE AT CLEVELAND, OHIO—LOWE & SCHOFIELD, ASSOCIATED ARCHITECTS



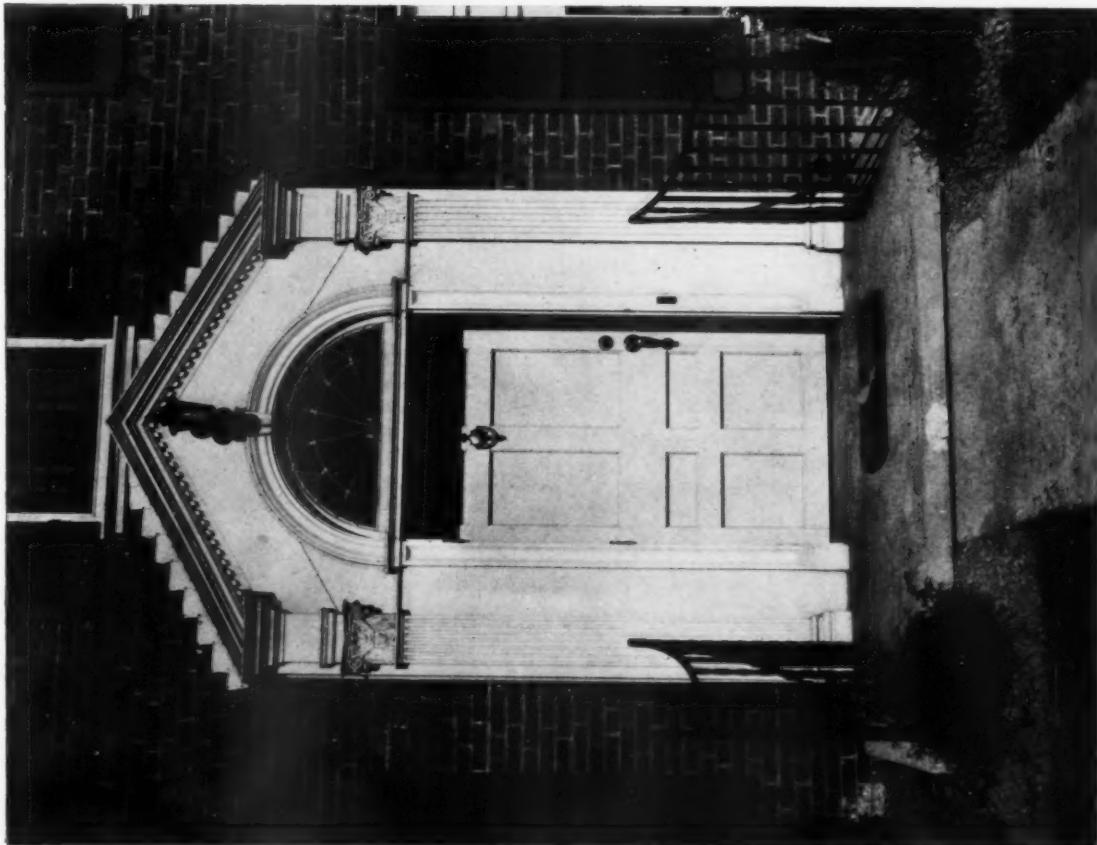
HOUSE AT CLEVELAND, OHIO—LOWE & SCHOFIELD, ASSOCIATED ARCHITECTS

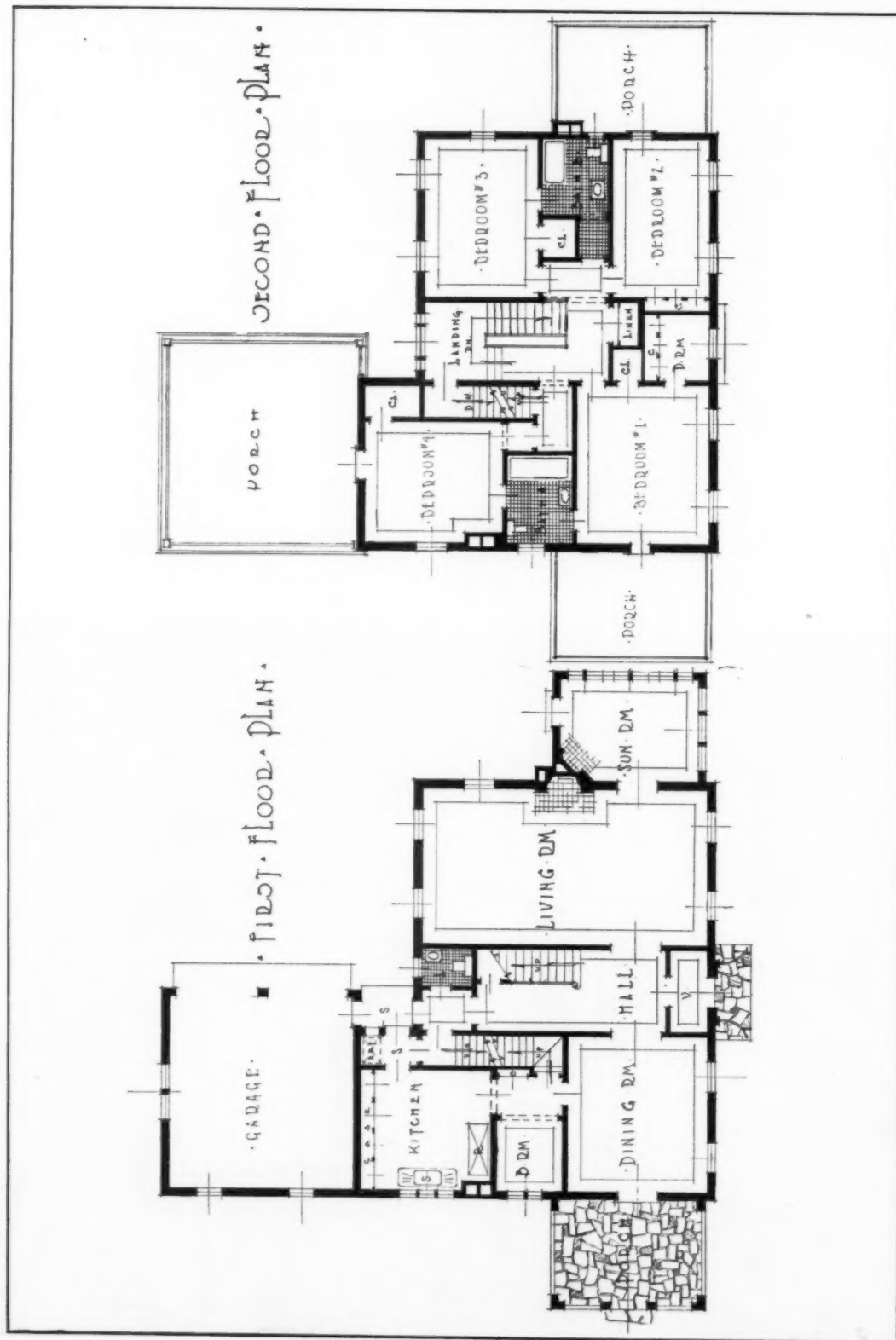


HOUSE AT CLEVELAND, OHIO

CHESTER N. LOWE, ARCHITECT

A HOUSE of brick that follows the Georgian style of design. The wood entrance door is a feature. The broken pediment, supported by composite pilasters, is peculiarly characteristic of the period, while the door itself is panelled in true Georgian manner. In plan, the house follows closely the lines of the Colonial, with a central hall and living and dining rooms on opposite sides. An interesting detail of the plan is the direct passage which leads to the garage. The location of the maid's bedroom, between the dining room and the kitchen, is also unusual and worth noting. There are four bedrooms on the second floor and two baths, with unusual closet space.





HOUSE AT CLEVELAND, OHIO—CHESTER N. LOWE, ARCHITECT

THE LAW AS TO ARCHITECTURE

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

ONE of the most helpful educational processes which architects can help along in the interests of the profession is that directed to the enlightenment of the layman with respect to the obligations of the architect for defective work or materials.

In repeated cases, where materials are defective or where the work in some particular does not prove as sound as was anticipated, clients have immediately assumed that the architect must make good the defect and any extra expense incident thereto. A typical case, which varies somewhat the ordinary situation, has just been brought to my attention.

In this case the architects specified a certain roofing material—a material well known in the trade, manufactured and sold by a reputable manufacturer and one which had been used by the architects theretofore with satisfaction and with good results. After the work had been proceeded with and the material applied, it developed that the building leaked. Apparently this was due in part to unusual weather conditions and winds of extraordinary velocity which characterized the location where the building was erected. The architects had no notice of these unusual conditions, and apparently nothing had occurred to bring them to their attention prior to the completion of the work complained of. Following the development of the leaks, conferences were held between the architects and their client and other experts, with the result that it was decided that it would be necessary, in order to meet these unusual conditions, to do over the roofing work and to apply a different roofing material and treatment. The owner authorized the architects to have this work proceeded with, and the work was done accordingly.

The owner claimed, however, that the architects were in part, at least, responsible for the additional expense. This claim was based, apparently, on the theory that they were negligent in specifying the material first used, and that the material which was finally adopted should have been specified in the first instance.

As I have had occasion to point out in other discussions, the architect is not a guarantor of the work, and is called upon only to use the ordinary diligence and the ordinary skill which one skilled in the architectural profession is presumed to possess. If the architects had specified an untried product, the situation would have been different. Under these conditions, they might well have been charged with negligence, as they would have, in effect, been more or less experimenting at the expense of their client. Here, however, we find them

specifying a material of sound reputation and of which they themselves had experience.

It is possible that, if a knowledge of the extraordinary wind velocities in the locality could be brought home to the architects, it might be held that they should have made a special study of the roofing material best suited to withstand these conditions. Even on this point, however, there is nothing in the case to indicate that they had any reason to suppose that the material which they first specified was not satisfactory in conditions involving violent storms, as well as under ordinary conditions. Added to this, it appeared that the owner had requested them to keep the cost of the work at a minimum and to use as inexpensive materials as possible.

Under these conditions, the architects should not be held responsible for any part of the loss in question. They exercised proper care and proper diligence. They did not know of the climatic conditions, and, had they known of them, it does not follow that they would have seen any reason to change the terms of their specifications.

The pity of a case of this kind is that the owner usually is acting in entire good faith and in the firm conviction that he is correct in his contention and is entitled to demand a perfect job at the hands of the architect. Like so many of the other phases of the architect's responsibilities to his client, this is a situation which can best be handled by making clear to the client in advance, so far as possible, the obligations which the architect assumes and those which he does not assume. Gradually, laymen are realizing more clearly the custom and practice of the profession. If every practicing architect would make it a point to spread the gospel on questions of this kind, the right of the architect to compensation for unused sketches or plans and similar points, of which the ordinary client has a misconception, there would be a marked decrease in misunderstandings and in the number of disgruntled owners.

The courts have definitely passed upon the obligations which an architect assumes, but it does not always suffice to state to a dissatisfied client that legally the architect's obligation is limited to reasonable care and diligence. Too often the client will take the attitude that the legal obligation is one thing and the moral obligation of the architect is another, and fail to appreciate the fact that it would be unjust in the extreme to endeavor to hold an architect as the guarantor of the soundness of the work done and the materials furnished.

In the last analysis, it comes down to the educa-

tion of the public on the meaning of the word "supervision," the distinction between the supervision of an architect and the supervision of a resident superintendent or clerk of the works, and bringing home to the client the realization that the architect and the clerk of the works, for that matter, are, after all, human beings not charged with omnipotent wisdom and obligated only to do their best with reasonable skill and foresight under the conditions presented to them.

LEGAL DECISIONS

A FIRM of architects prepared plans for a United States Government building, and supervised its construction. It was agreed that they should be paid a fee of 5% upon "the actual cost of the work executed from the drawings and specifications, and under their supervision, as shown upon the books of the Supervising Architect's Office, by the net amounts of contracts awarded and proposals accepted for additions or deductions." The contract further provided that monthly payments were to be made on the proposed cost as estimated by the Government from time to time, and that, upon the completion of the building, the entire fee should be computed on the actual cost of construction. The San Francisco earthquake and fire delayed the work for three years, and there was a decided increase in the cost of labor and materials. By authorization of Congress, the contractor was reimbursed the amount of loss occasioned him by the delay and the increase in prices, in an amount which represented a payment to him for the actual cost to him of the work, but not including any profit. The architects claimed that they were entitled to compute their fee of 5% on the total cost, including the extra amount so paid to the contractor. It appeared that during the three years' delay, the architects under their contract had been forced to keep a superintendent of construction on the job, at a cost of several thousand dollars, and that their office and other necessary expenses in connection with the job at San Francisco were maintained during the period of the delay.

In a suit to recover the amount claimed by the architects, the Government contended that the amount awarded to the contractor was a gratuity only, and that it could not be treated properly as part of the cost of construction; that the architects could not, therefore, charge their commission on the extra amount paid to the contractor and that they were not entitled to recover this extra payment. The court, referring to the argument set up by the Government, stated as follows:

"We cannot agree to this view. It seems to us that this was an alteration of the contract in response to equitable considerations. It was a change from unit prices to a cost plus nothing contract. It was not a mere lump sum gift. It was the result of inspection and examination as directed by Con-

gress, and an award by actual estimates. It was the result of a change in the contract terms made by the principal in whose name and for whose benefit the contract was entered into, and acquiesced in by the contractor. It added to 'the actual cost of the work executed from the drawings and specifications and under (the architects') supervision, as shown upon the books of the Supervising Architect's Office, by the net amounts of contracts awarded and proposals accepted for additions or deductions.' The additional sum was part of the net amount of the contracts awarded, as they were legally modified by the agreement of the parties embodied in the clause of the congressional act. The architects' subsidiary contract for compensation contemplated changes in the amount of actual cost by additions and deductions, i.e., by changes in the main contract, and a postponement of final calculation until the full actual cost had been ascertained. The change by legislation was, of course, not within the minds of the parties when the work was entered upon, because the earthquake and fire and change of situation were not anticipated. This, however, is not enough to exclude it from the operation of the architects' contract if the change can be brought fairly within the terms.

"It is not helpful to point out that the United States need not have varied the terms of the main contract, or that no consideration moved to it in the change, or that the contractor could not have recovered anything additional in a suit without the legislation. There was the moral consideration which properly induced the recognition of an honorable obligation and turned an unenforceable equity into a binding and effective provision. * * *

"The architects had just as great an equity in this matter as the contractor. The delays and rise in the prices affected their expenses proportionately. When, therefore, the contractor has received a percentage on what has thus been recognized by the Government as a 'debt' to the contractor for his work, and the words of the contract are inclusive enough to permit this to be done."

It should be noted that in the above case the extra payment due the contractor was shown on the books of the Supervising Architect. This is important, in view of the contract provision that the architects' fee should be based upon the actual cost of the work "as shown upon the books of the Supervising Architect's Office."

United States v. Cook, 257 U. S. 523.

THE plaintiff claimed \$1,000.00 for materials furnished. The general contractor, after having been paid \$9,400.00, abandoned the contract. The cost of the completion of the work to the owner exceeded the balance of the contract price. The payment made to the general contractor was in part by notes, which were paid after the plaintiff had filed its lien. The plaintiff claimed that under these conditions the amount of the notes should be deducted from the amount paid the general contractor, and considered as still in the hands of the owner. The court held that the notes had been given in good faith; that even if given as an advance for work to be done, they would not be considered a fraudulent payment, after the filing of the lien; that the lien could not attach to the amount of the notes, as if they had not been paid, and that the defendant was entitled to judgment.

Sealy Co. v. Ards Building Corporation, New York Appellate Division, First Department, May 26, 1926.



Bringing Rust into the House

THIS illustration is used in one of a series of advertisements appearing in magazines of national circulation to impress upon home builders the waste entailed through the use of corrodible metal where Copper, Brass and Bronze serve more economically.

The reader is reminded that if iron and steel are used, rust is, in effect, being brought into his new house; but that if

pure Copper, Brass, and Bronze are used, the house will be rust-proof inside and out, and periodic painting, repairs, and replacements will be entirely unnecessary.

A collateral purpose of this advertising is to help bring into the small house field the appreciation of sound, permanent building materials which the architectural profession has established so generally for more pretentious buildings.

THE AMERICAN BRASS COMPANY

GENERAL OFFICES: WATERBURY, CONNECTICUT

Offices and Agencies in Principal Cities

Canadian Mill: ANACONDA AMERICAN BRASS LIMITED, New Toronto, Ontario

ANACONDA COPPER

BRASS BRONZE

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

BOOK NOTE

SHIP MODEL MAKING

A BOOK FOR THE ARCHITECT'S RECREATIVE MOMENTS

THE decorative value of a well made ship model is unquestioned. During recent years there have been interesting exhibitions in New York, where ship models, made by members of the Society of Ship Model Makers, have been exhibited. These exhibitions have attracted many visitors and have stimulated interest in a fascinating occupation. The passing of the sailing ship of commerce is now almost complete. We have but few left of the "fore and afters" that sailed on coastwise trade. The



MODEL OF A SPANISH GALLEON, SHOWN AT A RECENT EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK

main skysail clipper, with towering masts and wide spreading sails, once the glory of the seas, has disappeared. There are few men today that have intimate knowledge of these fast sailing ships. The knowledge of the lines of their hulls, their rigging and general construction, is becoming a lost art.

Ventures in ship model making are of little purpose unless every detail is correctly set forth. Hulls must be modelled along some well known example, spars must be equally exact and rigging must "lead" just as it did in the days when deep water sailors, tumbling out on deck on an inky black night, could find the "main skysail clewline" as readily as they could their own nose. A model constructed accurately in all its details is not only a

thing of beauty, but also serves truthfully to set forth a record of things now almost unknown.

"Absence of occupation is not rest, a mind quite vacant is a mind distressed." To find rest from a daily toil of mental effort, the man, "handy with his hands," has a delightful recreative opportunity in ship model making. But owing to the difficulty of finding reliable data, and a well written description as to just how to go about it, many who would like to undertake this fascinating employment have been debarred.

A book recently issued, entitled *Ship Model Making, How to Make Worth While Models of Decorative Ships*, has been written by E. Armitage McCann, a master mariner and marine consultant. It will be welcomed by every man who has at one time or another tried his hand at ship model making, and will be found a reliable guide to those who have hitherto been debarred from this work by lack of good instruction. The work is carefully written, in a simple and direct style. Two classes of decorative ships are described in every detail from start to finish. A Barbary Pirate Felucca and a Spanish Galleon, very decorative and picturesque, are described. The tools and materials are carefully set forth, as are the rigging plan, the painting and decorating, with many valuable hints for making blocks, deck finishing, the masts and yards, and all the standing rigging and running gear.

Architects who want some recreative work during long Winter evenings could take up ship model making and undoubtedly carry it to a successful conclusion. Undoubtedly Captain McCann's book is the one thing needed to start them successfully on a delightful occupation.

Ship Model Making. By E. Armitage McCann, Master Mariner. Eighty-three illustrations and two large plans. Full cloth; 130 pages, size 6 x 9 inches. Price \$2.50. New York, Norman W. Henley Company.

OF

EARTH'S TELEPHONES

THE United States has more telephones per population than any other country in the world, it is reported. The order of the countries which follow in relation to the use of the telephone comes as a surprise. Canada holds the second place and Denmark the third, while New Zealand comes next. It is interesting to find that Sweden, Norway, Australia and Switzerland come next in the order named, while Germany, which is supposed to be well equipped in this respect, ranks ninth. Great Britain is the eleventh country. France is sixteenth and Japan the nineteenth. Russia stands almost at the end of the list, or twenty-seventh.

"LOANS OF \$250,000 UPWARD"



IF you have hesitated to bring your financing problem to us, thinking we prefer to underwrite only issues in the millions, read again our statement — "We are always interested in making loans of \$250,000 upward, either on completed buildings or structures to be built."

Considerably more than half the issues underwritten thus far in 1926 are for loans of less than \$1,000,000 each; more than a third are for \$500,000 or less, and that part of our business represented by loans of \$250,000 or less is by no means an inconsiderable factor.

The size of the underwriting does not enter into our calculations — our aim is the financing of the better types of building projects, wherever they may be in the United States and Canada, *provided* that the undertaking is soundly conceived and embodies those factors which we all commonly recognize as making for success. Whether the amount of the financing needed be \$250,000 or \$25,000,000, the requirements of the Straus Plan alone govern.

You will be interested in our newest publication — The Straus Plan of Financing — in which are shown the photographs of typical Straus underwritings, from the \$175,000 Builders Exchange in Los Angeles to the \$10,000,000 Graybar Building in New York. Write for your copy today.

« We are always interested in making loans
of \$250,000 upward, either on completed
buildings or structures to be built. »

S.W. STRAUS & CO.

Established 1882

Investment Bonds

Incorporated

STRAUS BUILDING
565 Fifth Ave. at 46th St.
NEW YORK

STRAUS BUILDING
Michigan Ave. at Jackson Blvd.
CHICAGO

STRAUS BUILDING
79 Post Street, SAN FRANCISCO

44 YEARS WITHOUT LOSS TO ANY INVESTOR

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



THE LAND CASTLE, SIDON (SEE ARTICLE, CRUSADER CASTLES)

PROTECTING THE CITY PLAN

ONE of the reasons why city planning has not made greater progress in the United States, as distinguished from the progress made in England, has been the difficulty of finding a legal means by which, when a city plan has once been adopted, it can be protected, and compliance with it enforced.

This is an old question to city planners and one that has been very often discussed and debated at the meetings of the American City Planning Institute. Apparently two broad methods are now under consideration. One of these may be described as the New York Method—a plan advocated by Edward M. Bassett, Frank B. Williams and Robert Whitten, which provides in effect that where a building is located in the bed of a mapped street, there shall be a certain degree of discretionary power vested in the Board of Appeals or Board of Adjustment that has to enforce the zoning laws in a given community, by which a permit can be issued for the temporary use of the mapped street by such building, until such time as the actual street is cut through, under reasonable safeguards and protection to the plan.

This plan has not as yet been tried in practice though it has been included in legislation recommended for New York City (in a general Charter Amendment which failed of enactment) and in the new Charter for Nassau County.

The other plan is what is known as the Massachusetts Plan and has been evolved by Philip Nichols, a Boston attorney and a leading authority of condemnation proceedings in Massachusetts.

Mr. Nichols' plan in essence is this: When a city plan is adopted, every property owner who has reason to believe that he has been damaged by the adoption of such a plan is given his day in court and is given an opportunity to file a claim for such damage within a reasonable time; but failing to file such claims within that time, he is thereafter estopped from any further claim.

The theory upon which this plan is constructed is the assumption that it will be difficult to show any material amount of damage in the ordinary case, and that where there is any real amount of injury or damage to property values, the owner very properly should be compensated for such injury. The Massachusetts plan commends itself most strongly; it is believed that Mr. Nichols has evolved a scheme by which it will be possible in most States throughout the country to protect a city plan when once adopted.

Mr. Nichols' plan has been presented in a very interesting paper issued by the Massachusetts Federation of Planning Boards, entitled "Protecting the City Plan—The Next Steps," known as Bulletin No. 16. In this pamphlet Mr. Nichols not only sets forth with great clarity the essence of his scheme but also discusses from the point of a lawyer, extremely expert in such questions, the legal principles involved and cites the leading cases on this subject. Every student of city planning will find it highly advantageous to obtain a copy of this most interesting document. He sums up the essence of his scheme in the following statement:

"In short, then, I should recommend the enact-



Settle the Mortar Question forever!

IF you ever had occasion to witness the tearing out of a Carney laid wall, you would know the full significance of "forever" as applied to Carney Mortar. You would find it easier to cut the bricks than to loosen the Carney bonds.

Carney reacts, instantly, to improper mixing and adulteration at the mortar box. If too much sand is used, the natural plasticity of the

mortar is reduced and the masons detect it immediately.

Besides, the mixing operation of Carney is very simple. Carney needs no soaking or slaking, and requires no lime. It's just a case of mixing sand, water and Carney—an ideal product for the man who wants really good mortar and relief from the close supervision of mixing.

*Architect—ALBERT KAHN,
Detroit, Mich.
*Contractors—SELDEN-BRECK
CONSTR. CO.,
St. Louis, Mo.

THE CARNEY COMPANY

Cement Makers Since 1883

DISTRICT SALES OFFICES:
CLEVELAND, CHICAGO, ST. LOUIS, DETROIT, MINNEAPOLIS

Specifications: 1 part Carney to 4 parts sand.

CARNEY

for Brick and Tile Mortar

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

ment of a statute providing that in the adoption of a city plan, no structures should be erected in the locations of the proposed streets without the consent of the board which established the plan, that any person damaged in his property by the imposition of this restriction upon his land might petition for damages under the general eminent domain act within one year after the filing of the plan, being thereafter barred; and that at any time not later than three months, we will say, after the rendering of a verdict on such petition, the board might abandon the proposed street or modify its course so that it would not pass through the petitioner's land, and pay the petitioner his costs of suit, after which the proceedings for damages would be dismissed."

A bill to carry out these recommendations, it is reported, was introduced at the 1925 session of the Massachusetts legislature, and was put over till this year, with the advantage of a favorable report as to its constitutionality by the Attorney-General of that State.—*Housing Betterment*.

PROFESSOR THOMAS NOLAN DEAD

THOMAS NOLAN, Professor Emeritus of Architectural Construction at the University of Pennsylvania, died at his home in Moylan, Pa., on September 6th. He was 69 years old. After teaching for several years at the University, Mr. Nolan was made an assistant professor in 1894, and was advanced to a full professorship in 1911. He was graduated from the University of Rochester in 1879, and afterward studied at Columbia and at the Ecole des Beaux-Arts in Paris. Returning to this country, he designed the Rochester Chamber of Commerce Building, the first steel skeleton structure in Western New York. He had been President of the Society of Sigma Chi, and was a member of Phi Beta Kappa, Delta Psi and many professional societies.

FRANCIS WARD CHANDLER DEAD

PROFESSOR FRANCIS WARD CHANDLER died on September 8th at his home in North Haven, Me. He was eighty-two years old. Born in Boston September 30, 1844, and studying at the Lancaster Academy, he received his architectural training in Boston and in 1864 became associated with Ware & Van Brunt. From 1867 to 1869 he studied in Paris and on his return became associated with the Massachusetts Institute of Technology.

Without leaving the institute, he was for three years assistant architect for the Treasury Department, and also formed a partnership with E. C. Cabot. In 1888 he was made professor of architecture, serving until 1911, when he became professor emeritus.

THE HUMAN TOUCH IN BUILDING

THERE is no occasion to dispute the very real improvements in architecture today in suggesting that it still so much lacks that contribution of personal craftsmanship characteristic of old times, states *The Builder*, London. Rather we think that with so much general improvement we ought not to miss so often that more human and personal touch; the unexpected quality which reveals to us the closer relationship of craftsmanship to architecture. We appreciate taste and restraint, but with these, not always more than negative qualities, we lack the creative addition, and it would appear that the architect's approach may lack the inclusion of the freshness which more corporate thinking would give to it. It is only "a little more, but how much it is!" In so much good building we feel that taste and restraint rule out invention, and often announce itself in too rigid a convention and formality. The loss of freedom which this entails is perhaps only a stage before new vision in these ways. To be an autocrat is not the best attitude for the artists, and the architect is an artist—and should believe that the personal vision of the craftsman may be necessary for his own completion. It is not to weaken his prerogative when, in the more personal and creative sense, the strength of craftsmanship is joined to architecture.

PRIZE WINNING AWARDS IN MCCALL'S COMPETITION FOR A SIX-ROOM HOUSE

THE jury in the competition conducted by McCall's Magazine for a design and plan for a six-room house has announced its awards as follows:

First Prize, \$1,000

JOHN FLOYD YEWELL, *New York City*

Other awards, each competitor receiving a prize of \$500, were:

Second Prize

WILLIAM J. HENNESSEY, JR., *New York City*

First Mention

JOHN FLOYD YEWELL, *New York City*

Second Mention

ALEXANDER BERESNIAKOFF and WILLIAM J.

KOELLMER, *Bronx, New York*

Third Mention

J. W. MINICK, *Harrisburg, Pa.*

Fourth Mention

ALFONSO CAMPANELLI, *Union City, N. J., associated with* BASIL S. GEORGES, *Astoria, L. I.*

Fifth Mention

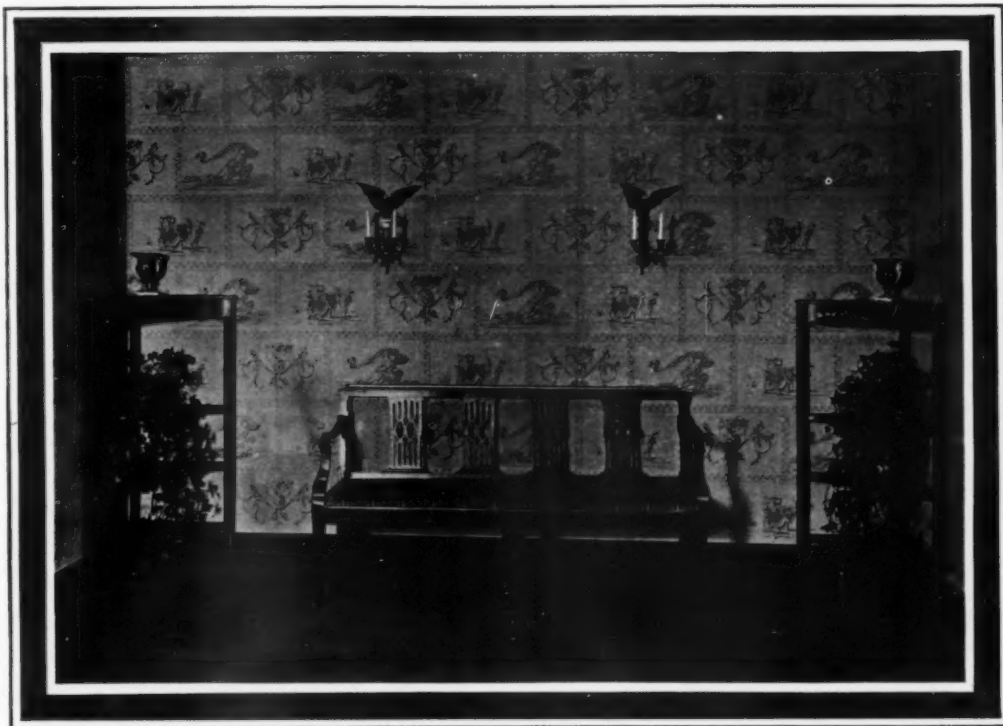
R. ALEX. WILLSON, *Mt. Lebanon, Pa.*

Sixth Mention

WAKEFIELD WORCESTER, *New York City*

The Jury of Award was as follows: Alexander B. Trowbridge, John Russell Pope and Henry C. Hahn. Marcia Mead was the professional advisor.

TO SIMPLIFY THE DECORATION OF YOUR HOME



A Guide to Beautifying Your Home

FROM the colors and the design of beautifully made wall papers, you can get the key to the decoration of your entire home—a correct notion of where to place the larger background colors in your upholstery and curtains, and where to place the smaller spots of bright colors that give life and interest to the room.

Fine wall papers can also give the small room a sense of space, or make the large, barn-like room seem liveable and homelike. They can brighten the dark room and subdue the glare in an over-bright room.

"The Simple Art of Wall Decoration" by the well-known writer on decoration, Miss Lucy Taylor, is a book that will give you a hundred and one hints on this new use of wall paper and home decoration.

It is profusely illustrated both in color and half-tone, and has actual samples of many of the finest modern Muralia papers, with detailed discussions of each. Although the price of this book is twenty-five cents, we will gladly mail it to readers of this magazine *without charge*. Just send us the coupon below and ten cents to cover postage.

BAECK WALL PAPER COMPANY
233-271 Thirty-Seventh Street, Brooklyn, N. Y.

If your dealer does not have Muralia papers, we will be glad to give the name of one who does have them

Rug used in above picture by Fay-Durbrow Carpet Co.

Muralia
WALL PAPERS

Baack Wall Paper Company
233-271 Thirty-Seventh Street, Brooklyn, New York

Please send me without charge—other than the ten cents enclosed for postage costs—Miss Taylor's book on "The Simple Art of Wall Decoration".

Name _____

Address _____

City _____

State _____

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

AN INDIANA LIMESTONE ARCHITECTS' SERVICE BUREAU

THE new corporation in the Indiana limestone field, which recently acquired the property and plants of twenty-four of the operating companies in the Bedford-Bloomington district embracing nearly all of the large and old-established producing quarries, appreciating the valuable contribution to the successful marketing of Indiana limestone and extending of the industry's markets into new fields that the Indiana Limestone Quarrymen's Association had afforded the industry, have now taken over this association and are re-establishing it as the Architects' Service Bureau of the new corporation.

While a subsidiary to the new company, it is the intention to maintain this bureau as a separate organization that can serve the architectural and building professions as in the past and carry on the work of the former association in an even larger and more individual way than had been possible in the past.

Mr. H. S. Brightly, who for more than six years past, has directed the work of the Indiana Limestone Quarrymen's Association, has been appointed director of the new Architects' Service Bureau in complete charge of these activities.

WHO "BUILT" THE BUILDING?

WE were sitting in our office the other day, states a contributor to the *Monthly Bulletin*, of the Illinois Society of Architects, when an old employee, a building superintendent, whom we hadn't seen for years, came in for a chat. He showed us a portfolio of photographs of buildings he had worked on during the past few years. In telling us about them he continually used the words "I built this in 1917" or "I built this in Chicago"—always "I built."

In talking to contractors, especially those doing masonry or carpentry, we always hear "I built a factory for—" or "I built a three flat," etc.

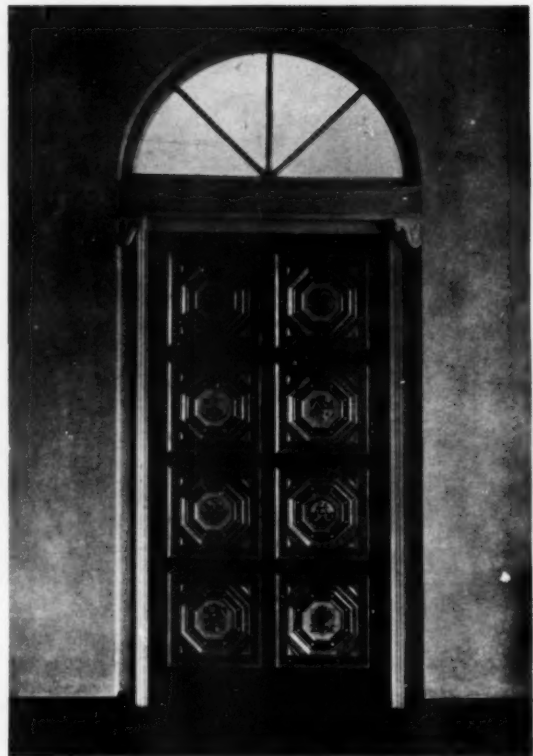
The same is true of owners, who in a measure have more claim to the distinction. Still, isn't it true that an owner only pays for the building? He doesn't build it.

And the real estate operators, those who promote and finance—and the structural engineer—they claim the distinction.

Lastly, what about the architect, who conceived the idea, who put it on paper, who awarded the contracts, who selected the materials and who saw that they were correctly used? Did he "build" the building? If not, who did? And, if so, why do the others claim, and get, the glory?

WINDOW SHADE SPECIFICATIONS

WHEN it comes to specifications, it's really the big things that give the least trouble, and comparatively small items prove vexatious through lack of technical knowledge. Window shades, for example: what sort will you specify, how shall they



DECORATED DOORS, HOUSE OF JAMES A. TROWBRIDGE, NOROTON, CONN.

ELECTUS D. LITCHFIELD & ROGERS, ARCHITECTS

DESIGNED AND EXECUTED BY D. P. BRINLEY AND ROBERT SCHMITT

be selected? And, what color? Shall they supplement the color scheme inside and out or will they, through poor selection, very greatly detract from the general effect?

Window Shade Specifications, a standard sized pamphlet, ready for filing, has been issued by Stewart Hartshorn Company, 250 Fifth Avenue, New York. It is a very complete set, with sample fabrics attached and will form a handy and dependable guide to window shade specifications in the architect's filing cabinet. These specifications may be had for the asking.

SOMEONE, we have forgotten whom, very truthfully stated a long time ago, that the fault of our American architecture was in its straight lines, a too rigid use of the T-square and triangle.

The value of sketching out-of-doors, has been many times stressed in the pages of this journal. It gives a certain freedom of line that can be secured in no other way. From time to time we have presented sketches by well known designers. These have a very large artistic suggestion and are, we believe, valuable as incentives to free hand drawing. Mr. Chamberlain's work will need no comment. Its presentation in many past issues and its appearance in this journal every month will serve to show the different media that may be successfully employed in out-of-doors work. His contribution in our issue of October 20 will be one of the fullest artistic value. In his wandering about France in search of material for this journal, Mr. Chamberlain has discovered in Pont-Audemer the "Auberge du Vieux Puits," a restoration that is one of finest effort to restore in every aspect an early French inn. The article describes in much detail just how this rehabilitation was carried forward, while in the accompanying sketches Mr. Chamberlain has effected a result that is very remarkable. In fact, this presentation will be one of such pronounced importance and so replete with suggestion and information that it will be outstanding among the many things that this artist has produced. Supplementing the work of Mr. Chamberlain, there will appear some unusual sketches by Hubert G. Ripley, of Boston, and A. C. Frank, of New York.

The old maps sketched and painted by Mr. Frank, one of which appeared in our issue of September 20, cannot be faithfully reproduced. In the originals they present visually every evidence of being one of the many old maps, wrinkled and yellowed with age, that often hung in the darkened halls of country houses. As used today, they become greatly prized by clients, who hang them as an overmantel decoration in living rooms.

The time has now come when the question of continuing building construction in northern latitudes right through the Winter months is important. Seasonal employment, the steady occupation of labor on buildings, irrespective of the weather, is no longer an experimental phase of building operation. Large operations, particularly on concrete buildings, where it would seem the greatest difficulty would be experienced, have braved the frost and snows of Winter and emerged in Spring complete and well constructed buildings. The Department of Engineering and Construction in this issue contains a special article on Winter

building. It presents examples of actual operations by photographs which give ocular evidence that when the proper procedure has been learned, building can be carried forward at any season of the year and under conditions of low temperature as successfully and sometimes more economically, all factors considered, than during Summer months. At least it is more economical to build in Winter than to wait for Summer with the attendant overhead of waiting.

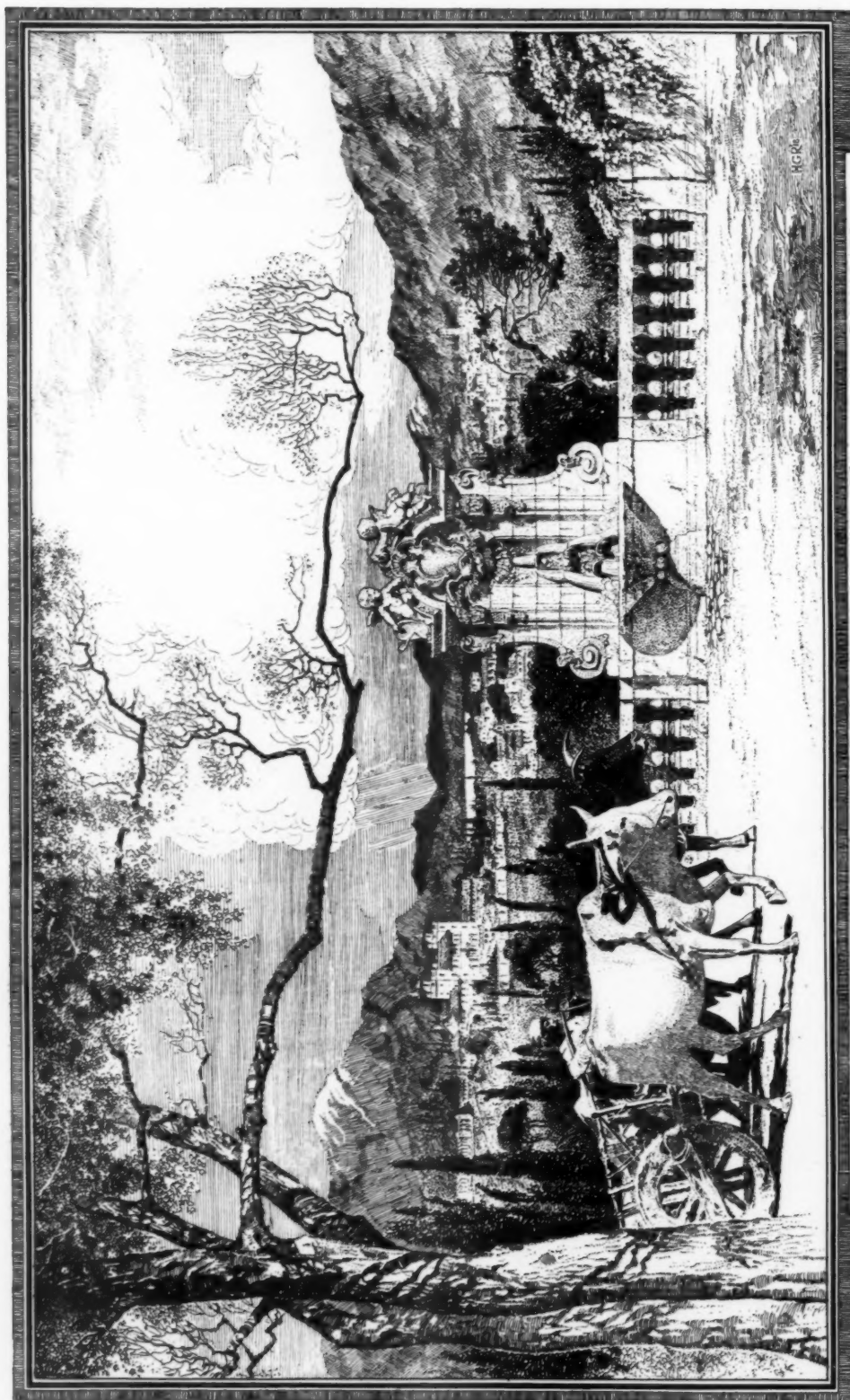
There is an interesting question of economics involved in this entire matter of seasonal employment. When the whole subject is better understood, and the period of labor inactivity due to weather conditions has been greatly shortened, there will be secured an adjustment of wages that will result in economies not only to the employing building industry, but to every one of the many branches of labor it comprises.

Just what is interior architecture? What is meant? We have tried during many issues to demonstrate to what extent the architecture of interiors should supplement the exterior design, and, further, that architectural service is not solely one of exterior design and interior arrangement. As a matter of fact, an architect will find as great, and in some instances greater, opportunity in deciding elements of interior architecture than he will in the exterior treatment of the building.

It's trite to say that it is the little things that count, but repetition, we are told, is often emphasis. So we will venture the belief that if the architect trains himself in all the subtleties of interior architecture, he may gain a reputation that will be as valuable as that which he may secure from what he perhaps considers the all important features of the exterior. This matter is fully and interestingly discussed in this issue in our Department of Interior Architecture.

No one will question the value of some measured drawings. When subjects are carefully and wisely chosen and the drawings properly done, they are reliable and helpful roads to design. But there are measured drawings and measured drawings. Undoubtedly, they should be something more than an exhibition of good draftsmanship, and the verities of the subject should be set down accurately and insistently. A simple scale may serve to check major design, but the main thing should be the clearly indicated dimensions. The measured drawings that have appeared in recent issues of this journal and that will be features of future ones, will endeavor to present every detail in such a way that actual dimensions and contours will be apparent.

DETROIT MICH.
PUBLIC LIBRARY



Anno Domini MCMXVIII. View of The Fontana degli Amori della Contessa, Via Scammiferi, Villa Flaccus. H. G. Ripley D.D.

FROM THE ORIGINAL PEN DRAWING BY HUBERT G. RIPLEY, F. A. I. A.

THE AMERICAN ARCHITECT