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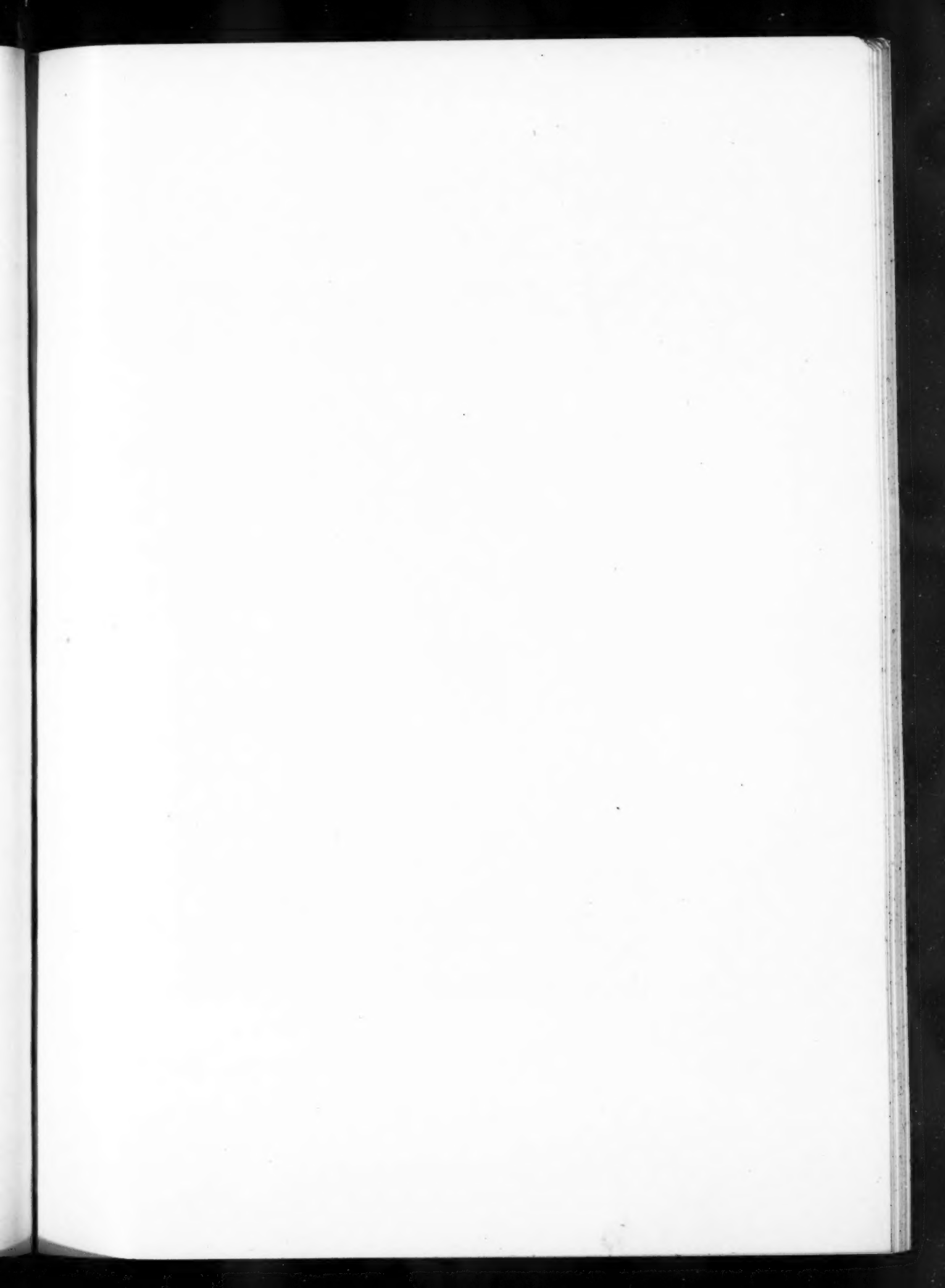
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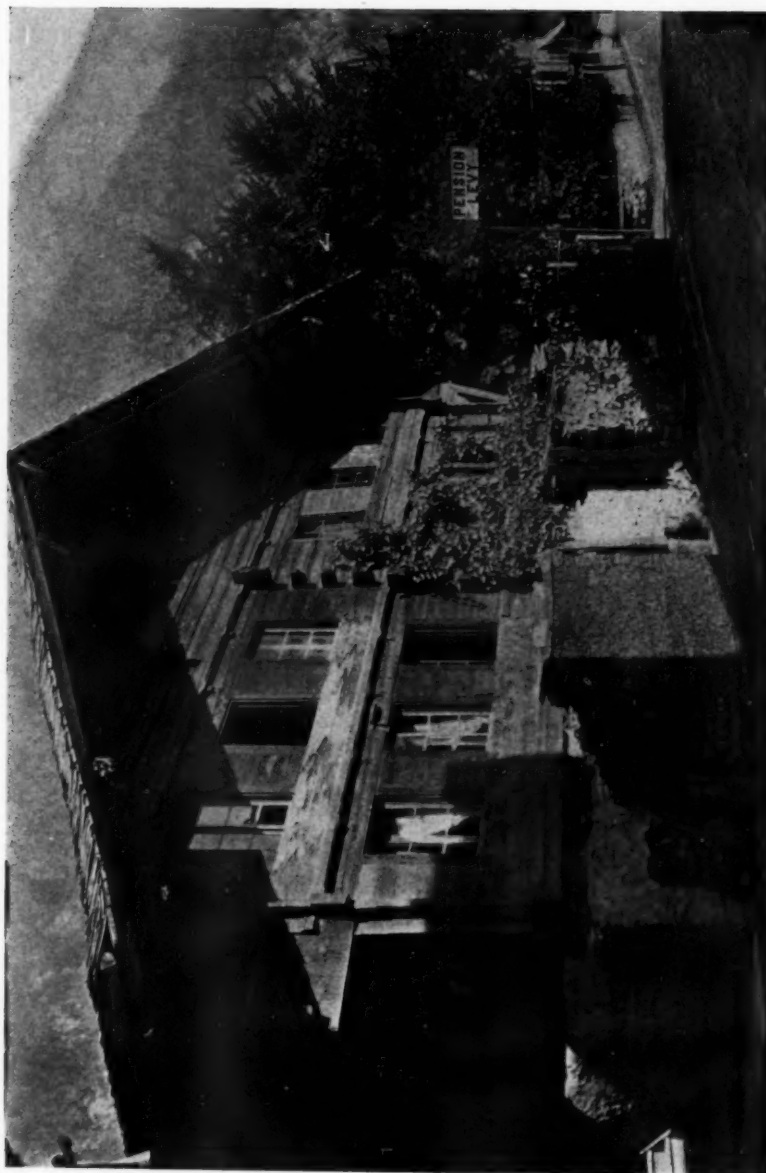
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CHALET, INTERLAKEN

THE AMERICAN ARCHITECT

THE AMERICAN ARCHITECT

VOL. CXIV

WEDNESDAY, NOVEMBER 20, 1918

NUMBER 2239



GASTHAUS, CANTON OF URI, SWITZERLAND

The Colonial Houses of Switzerland

By JOY WHEELER DOW

Illustrated by photographs by the author

THE Swiss chalets are divided, in respect to chronology, into two classes—ancient and modern, *i. e.*, of modern design. The latter are not chalets architecturally, but hybridized, modern dwellings, and need not be considered further in this writing, except, possibly, to remark that they are very good houses, indeed, like American houses in the same category, considering there is nothing *right* about them. They do not express; they garble the folk-lore traditions of Switzerland. It is not execution—it is murder.

The ancient chalets, however, are Switzerland's greatest asset overlooked as some six per cent,

guaranteed bonds, hidden in a safe-deposit box, under a lot of miscellaneous, speculative securities, have been overlooked. To be sure, the scenery of Switzerland is superb. Note the fascinating glimpses of the Bernese oberland we have as background for the accompanying illustrations. The lakes like Thun and Brienz are gems, while the Swiss sunshine is nearly as crisp and as genial as our own in America. Note the effect of this sunshine upon the chalet at Interlaken. It is a study in chiaroscuro. The atmosphere, too, here is nearly as vitalizing as it is in New England, and no wonder, when even in midsummer, far up in the sky above

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Interlaken, shimmering like an iceberg in the sun, we are awed by the presence of the famous Jungfrau covered with snow. We have nothing like that in America, at least, not quite at one's door.

If you want to climb mountains, and, incidentally, overtax the muscles of your heart, why, your Baedeker will tell you how. If you want well-managed hotels (excepting for the short-change evil), Switzerland has them. Whichever you prefer—a French *Auberge*, a German *Gasthaus* or an Italian *Albergo*, you will find that Switzerland is a composite France, Germany and Italy, with cantons to accommodate each nationality and three

of wood construction demonstrated by the log cabin, have not been for centuries worked out intelligently, academically and excellently; but no other country has such an enriched wood grammar as Switzerland, and no other wood Gothic is quite so picturesque and romantic as are the Swiss chalets. I have called them "the Colonial houses of Switzerland" not because the ancient chalets are in any sense provincial. They are not. But because they are mostly the contemporaries of our own eighteenth century Colonial dwellings, and like them, the most characteristic of their respective types, while they embody all those spiritual con-



WILDERSWYL, BERNERHAUS

kinds of money engraved in as many languages. Winter sports and summer itineraries have all been carefully indexed in the guide-books which, occasionally, have something to say about a Swiss church edifice, although it is apt to be the poorest kind of ecclesiastical architecture—but not one word will you hear or see printed; no, not even on the picture post-cards that greet you everywhere, about the most glorious inheritance of all—the legitimate use of wood for Gothic design in the highest development the art has attained—the Colonial houses of Switzerland.

Not that in other lands which have a civilized antiquity behind them, the same and first principles

siderations I endeavored to explain in an earlier essay concerning the "Dramatic Note."—See *THE AMERICAN ARCHITECT* for October 9.

Take, for example, the chalet at Interlaken, and the one at Wolfenschiessen. In these you get the "breakfast feeling" turned on full force. Here you have the love that no work can cure in the attitude of supplication. Here you have the ground-hard case of making your husband chop the wood, with a vengeance; but can you picture the prosaic exercise of chopping wood under more delightful surroundings? I would not except Mr. Gladstone chopping wood for amusement at Hawarden amid all the charm thrown around life by a Tudor castle.

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I have seen clothes drying on a line before; but these clothes in the illustration of the chalet at Wolfenschiessen are somehow different. They are a dramatic incident in the tragedy of peace, which goes to the heart, as also does the struggling anthology in the kitchen window. Here we have the innate love of what is beautiful and what is clean, rising superior to the inscrutable handicap with which this world is burdened, and sounding the note of hope that a better destiny rewards fidelity than—just dying dead. Yes, you may read it between the lines in this romantic bit of Unterwalden

models and toy houses we have seen in great number all have the low roof with projecting eaves. The chalet at Stanz, also the older part of the Hotel de l'Ange—thorough-going Swiss architecture—both have high roofs with canted gables and two pitches, the *Gasthaus* belonging to still another class of chalets, in that it has concrete walls instead of wooden ones—a class in which the chalet at Wolfenschiessen should be included. Though less characteristic when constructed of wood and concrete in combination, yet the same Gothic feeling of the all-wood chalet prevails.



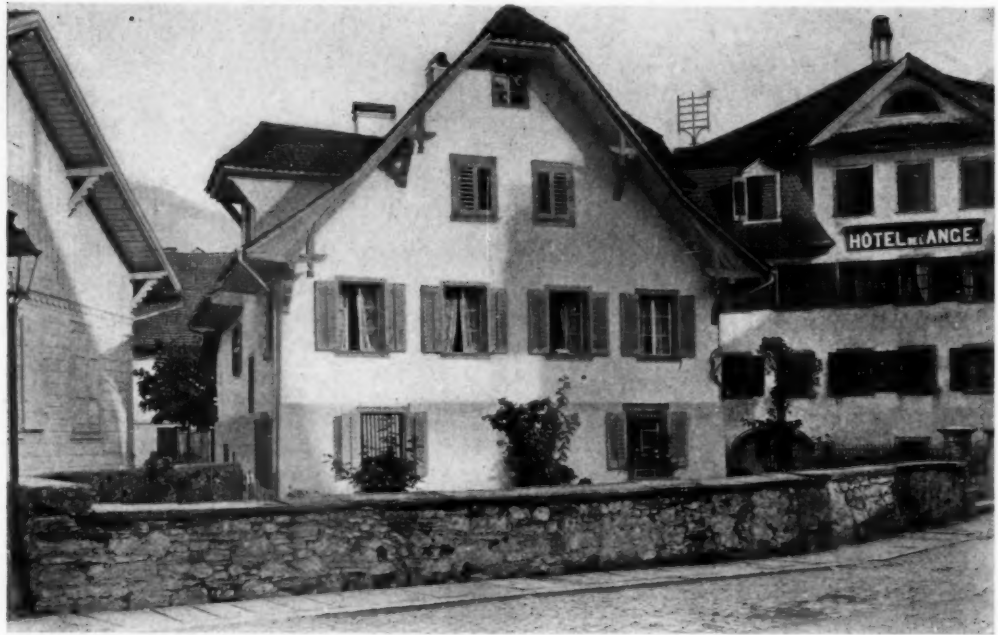
AN IDEAL ANCIENT CHALET, NEAR INTERLAKEN

with its interesting party construction, its canted gable point and its rude shutters.

Again, we have two classes of Swiss chalets, in respect to their roofs—the high-roof chalet of the plain, properly belonging to cantons such as Freiburg and Zürich—where it oftener rains than snows, and where a steep roof is desirable—and the low-roof chalets hailing from the fastnesses of the oberland. The low-pitch roofs were intended to hold the snow, and so save fuel, preventing the warm air of the interior escaping that way, and assisting the inmates of the chalet to be snug and warm during the Swiss winters. The chalets with the high roofs are less familiar to us, as the Swiss

On a street in Unterseen there is a triple chalet supplying a charming arrangement of a row of shops in a concrete basement under an heroic overhang which is really supported by projecting timbers, the ends worked into architectural brackets; but it would be impossible to attempt any adequate description of the ingenuity of chalet framing in an article like this, for although not as intricate nor as curious as Chinese jointing, it would require diagrams such as may easily be consulted in many excellent works there are on chalet construction, with German text. There is also a new publication in English—"The Swiss Chalet Book," by William S. B. Dana.

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GASTHAUS, STANZ, SWITZERLAND

In America the sash and blind factories have neither knives nor machinery for turning out Swiss window blinds with extra wide, adjustable louvres such as are shown in the Unterseen chalets, beautiful as they are, but will manufacture Swiss blinds with the fixed louvres for you, such as appear on the chalet near Interlaken. And what an enchantment this chalet is, what a dramatic story could be written about it, and what a *tour de force* is its ample stack of wood for the winter, neatly piled with the economical instinct of the older civilization!

Its chimney, though admirable in conception, looks diminutive for the building. The chimneys of all Swiss chalets seem to be entirely inadequate. They are disproportionate, not to say insignificant, to us devoted as we are to our soul-warming fireplaces and hearths. In lieu of a becoming chimney, the Swiss have a wonderfully ornamental porcelain stove which they ensconce in the corner of the room, the least effective position for it unless necessary to complete the *coup d'oeil* for a Tyrolean interior. It is true when I say—"our soul-warming fireplaces and hearths" I am not speaking for every compatriot; for I do know Americans who, when not posing as fashionable folk feeling obliged to like fireplaces whether they do or no, will confide to you that the long, deep shadows cast by the wood embers, are gloomy—give them the blues, and that they much prefer, personally, the diffused electric

light of sixteen candle power bulbs for all their rooms. They are the same temperaments which are similarly affected by what they call "post-card" days, or whenever the colors in nature are very brilliant, and they affect to long for grey if not rainy weather. Perhaps there is someone, right in your own household, like that, who cannot understand why you should prefer to sit and look into a wood fire upon the hearth, of an evening, to going out to the movies, nor why you should be such a goose as to save up for a hundred-dollar French traveling clock with a cathedral chime, to stand on the table beside your bed, when a nickel-plated alarm clock costing \$2.25, dolled up in chintz, will answer the same purpose—but don't try to explain, for it will do no good, and may only serve to make your relative angry.

The timbers in the façades of the low-roof chalet are, usually, beautifully worked. There are all conceivable kinds of notches and chamfers, with courses of alternate indentations and projections. Note the ornamentation to the walls of the chalet with the shops, at Unterseen. One needs a magnifying glass to examine these pictures as much as for a diminutive canvas by Bargue. There are also some wonderful low-roof chalets illustrated in technical works like Gladbach's "*Der Schweizer Holzstyl*," where the wall surfaces are richly embroidered with flat carving heightened in effect, by

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intaglio legends in missal text, interspersed. In fact, you can have lots of fun—lots of play keep-house and make-believe, to keep you young, if you have the opportunity of building a truly Swiss chalet of the seventeenth or eighteenth century, with all its frocks and frills, in its case, entirely legitimate, historic and appropriate thereto; and after it is finished, you have something more than the plans and specifications called for—something more than either the owner or the architect anticipated—you have the scenario for an opera.

The *Gasthaus Adler* at Bürglen in the canton of Uri, is, probably, the most ancient chalet in this collection, and although incrustated with a venerable patina, some remarkable mural painting and illumination has been restored. Its coffee-room I shall never forget, with its uncommonly low, ribbed ceiling, low even for a Swiss chalet, its elaborate scheme of paneling lighted by the characteristic sequence of tiny casements—its Tyrolean furniture—the chairs with backs that resemble some musical instrument, the long benches before the tables with sprawling legs and foot bars, all irresistibly remindful of the cabin of a transatlantic steamship of the olden time, and all awfully snug and nice. Just before the *Gasthaus* is halted the daily diligence from Altdorf, one groom busy with

the parcel-post packages for the inn, another at the pole-chains. Here was a remote spot, indeed, from the cosmopolitan centers of Europe, where English is spoken to the right of us, to the left of us, and behind us, until we wonder if all this talk about foreign languages is not a blooming hoax, and that every foreign language is not a quasi dead-language in its original habitat. Here was a place, at last, where our Ollendorff French or German would be some use to us—where we might ask the first strangers we met, with a reasonable degree of assurance, if "they had seen the red coat of the baker?"

Around the corner, behind the *Gasthaus Adler*, were two indifferent-looking men engaged in excavating a cesspool. Imagine our stupefaction when one of these individuals, who appeared to be the contractor for the job, without waiting to be addressed regarding the possibility that the "butcher's wife had the red coat of the baker," began to apologize in a charmingly modulated voice and perfect English for the plight in which he was discovered, and that the cesspool might seem to us to be located almost under the mediæval coffee-room which had so impressed us.

Such exquisite and unexpected urbanity succeeded in diverting our attention under circumstances a bit disconcerting, so that, in a minute, we



ANCIENT CHALETs, UNTERSEEN, LAKE OF THUN

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were all at our ease, and I felt free to make some general inquiries, one especially, how to find some place where they not only did not speak English, but where they couldn't. The Beau Brummel nonchalantly leaning upon the long handle of an excavating spade, who turned out to be the proprietor of the inn, debonair in spite of all, smiled obligingly, but with his mind upon the main chance of detaining us. "That would be somewhat difficult," he replied, "because, you see, a hotel could hardly exist in Switzerland unless English is spoken, so as to make our English and our Amer-

rent European proverb—"Pas d'argent, pas de Suisse"—which I cannot do better than translate freely into the German vernacular—"Geschäft über Alles"—which the striking of the Lusitania medals has rendered more significant to us than our own equivalent. And the prejudice is not easily dismissed, when, upon taking our seats in the Swiss railway carriage, we discover that the ticket-agent has failed to return us the correct change, even, though, upon a second counting, we find the actual deficit amounts to not more than a few poor sous.

The Swiss go on the principle, no doubt, that it



ANCIENT CHALET, UNTERSEEN, LAKE OF THUN

ican friends, upon whom we largely depend, feel perfectly at home, you know."

It was, we found, as he said. If Dr. Johnson, who said he loved a good inn better than any other contrivance of man, could return to life now, I believe he would spend much of his time in Switzerland; for, although the *Gasthaus Adler* has a cess-pool almost too close at hand to be sanitary, still, had we happened to come at a less inopportune moment, we would have been none the wiser, and, I am sure, would have had nothing to complain of in the hospitality afforded.

The fair reputation of Switzerland, it seems a pity, has been a little tarnished, of late, by a cur-

is better to swallow a gnat than a camel. The robbing of orchards, and the sniping of fruits that grow by the wayside—a common practice which is winked at by the American conscience dulled by long familiarity with the spectacle of what we call "smart and adroit profiteering"—in Switzerland, is considered a crime equal to that of highway robbery; and has a commensurate penalty attached. I have walked along streets in Swiss villages, where luscious pears, apricots and grapes fairly grazed the crown of my straw hat, while flocks of gamins played their games under them, every day, yet every perfect specimen of fruit ripened serenely in the sun, as safely and better, perhaps, than if stored

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in our customary dark-closet, under lock and key; and in this particular I should say that the Swiss constitution was a great success. The short-change evil seems a bit inconsistent, however, with a coat-of-arms charged with the emblem of the Red Cross, proud of its honor bright, and when, to impress us

economy, you would do well to leave both alone. Look at Germany as an example of misapplied patriotism! And, for an example of false economy, let me recall Richard Harding Davis's star performer—Van Bibber, who had to pay two dollars or more for a dinner at Delmonico's after trying, in



CHALET AT BURGLEN, NEAR ALTDÖRF



AN EIGHTEENTH CENTURY BARN, INTERLAKEN

with the intense patriotism of Switzerland, we are told that neither in 1914 nor at any time since, has the German army dared to cross its territory. I have heard that every man, woman and child in Switzerland, theoretically, belongs to the army, and even though all but the infants should be shot down in battle, the infants would show fight, the same as a votary of the cocking main, claims for the heads of his duck-wing "games" after the poor fowls are decapitated.

Between ourselves, I really believe that the difficulty of transporting troops over funicular railways, was what deterred the Kaiser from choosing Switzerland as a route to France, rather than any preternatural patriotism upon the part of the Swiss. Not to their army, then, but to their snow-capped mountains like the *Jungfrau*, are the Swiss people indebted for having discouraged the Hun. Anyway, there are two distinct kinds of patriotism, the love of one's country, upon the one hand, and the apotheosis of its political machinery upon the other. Unless you understand patriotism, like

vain, to eat one for twenty-five cents at a cheap restaurant. The science of government is still in its experimental stage. At every election this is demonstrated, and the best one may say of any particular form is what people say in praise of their automobile tires. They have chosen what they consider—"the least bad."

The Spartan theory of fighting until even the children are killed trying to defend the parent land is asinine. When its trained soldiers are no more, why, a sensible nation capitulates upon the best terms obtainable. You would not dream of erecting cathedrals without architects, would you? "If a highwayman is threatening your life," as J. H. Shorthouse instances in his masterful story—"The Mar-



A CHALET AT STANZ

quis Jeanne Hyacinthe de St. Palaye"—"it may not be much consolation that he offers to return you a franc piece," but mind what I am telling you; the franc piece should be seized with promptitude and alacrity.

If, however, you see the highwayman first, and you make up your mind, correctly, that the ren-

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devious need not terminate in his favor, then it is no time to be a sniveling pacifist—no time to cast your pearls before swine. It is the quick eye, and the sure aim that turns your advantage into—*un fait accompli*, the very same factors that, recently, decided the fate of the world at Château Thierry.

In that dramatic episode in the life of Christ, where He drove the money-changers out of the Temple, onto the sidewalk (He ought to have broken their [deleted] necks), He must have been morally certain of success, or He never would have attempted it. It makes no difference how much right you may conceive to be on your side, such emergencies call for the exercise of the heroism there is in good, common, horse sense, which, I regret to say, an astonishing number of otherwise estimable beings appear utterly to lack.

I once met a well-informed Frenchwoman to whom I ventured a question long troubling an adjustment of the thing in my mind, what the French

people really thought of those distressing days in their own revolution when the mob carried the head of the Princesse de Lamballe about on a pike? "Ah," she answered me, naively—"Zat depend entirely upon you politics. Eef you are a royaleest, of course, you say it was very bad; but eef you are a re-pub-lic-an, why, zen, you say it was all right."

One more question for someone who is versed in occult things to answer. How may I discover for you the secret of the charm of the Colonial houses of Switzerland or the Colonial houses of America, which gets below our necks, and talks to the innerman, when that secret reposes deep down in the well of human kindness—doing unto others not so much as we would have others do unto us, but as others would have us do unto them (it makes all the difference in the world) if my arch interlocutrice was right, and everything depends upon—"you politics?"



CHALET AT WOLFENSCHIESSEN, CANTON OF UNTERWALDEN, SWITZERLAND



KING ARTHUR

DECORATION BY HARRY W. RUBINS

The Library Decorations in Blake School Minneapolis, Minn.

By CHARLES J. CONNICK

BLAKE SCHOOL is beautifully located on a hill surrounded by an oak grove in the rolling country on the outskirts of Minneapolis. The distinctive good taste and good sense evident in the location chosen for this building are apparent also throughout the structure, especially when its object is recalled. It is a day preparatory school for the boys of Minneapolis. It has large sunny rooms, with windows opening upon great expanse of sky, rolling fields and wooded hills.

With all these natural charms to inspire sensitive young minds, certainly architect and artist might well consider the decoration of the library both a rare opportunity and a most exacting problem.

This room is on the first floor. It is well provided with wall spaces for book shelves, and is flooded with light. It now serves as a school chapel; therefore the present illustration is useful principally as a suggestion of scale in relation to the decorations which were designed and painted to crown a collection of books in various bindings, with all the rich play of light and shade which they provide.

Hewitt & Brown, of Minneapolis, are the architects, and Harry W. Rubins, of the same city, designed and painted the decorations.

It is well to recall, in consideration of this work of Mr. Rubins, the usual type of decoration to be found throughout the most of our school houses of whatever grade. Generally the problem is left in the hands of professors and teachers, whose ideas of art are apt to be quite academic, if indeed they are not colored largely by personal whim and idio-



LIBRARY IN BLAKE SCHOOL, NOW USED AS THE CHAPEL
HEWITT & BROWN, ARCHITECTS

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syncrasy. Imagine, then, the thrill of pleasure one feels when his attention is arrested by decorations in a school room library which are, first of all, things of real beauty. They look as though they had grown in the spaces provided for them, so truly do they take their places upon the wall. They are quietly commanding, and assert their power when they are searched out and called upon for their messages. They are so nearly equal in value that the impression is one of a continuous frieze surmounting the entire room. Broken spaces have been admirably avoided.

Considering the almost overwhelming wealth of suggestion which goes into the subject, "Historic Boys," we can appreciate the thoughtful idealism which has been expressed quietly and reservedly

cant influence here. These decorations form a most excellent text for a preachment on the advantage of close co-operation between architect and artist.

It is to be regretted that this school library is not within more easy reach of all of us, for this work, in its quiet unobtrusive beauty and strength would do more to correct some very wrong notions than would scores of magazine articles, with hundreds of black and white illustrations.

It is difficult to speak restrainedly and in academic phrases of the low toned glory of color throughout these panels. They glow softly in a way to suggest a subdued illumination. The technical explanation would doubtless take into account the fact that the color employed is pure color, applied transparently on a ground resembling a white wall, and a close ex-



DAVID

DECORATION BY HARRY W. RUBINS

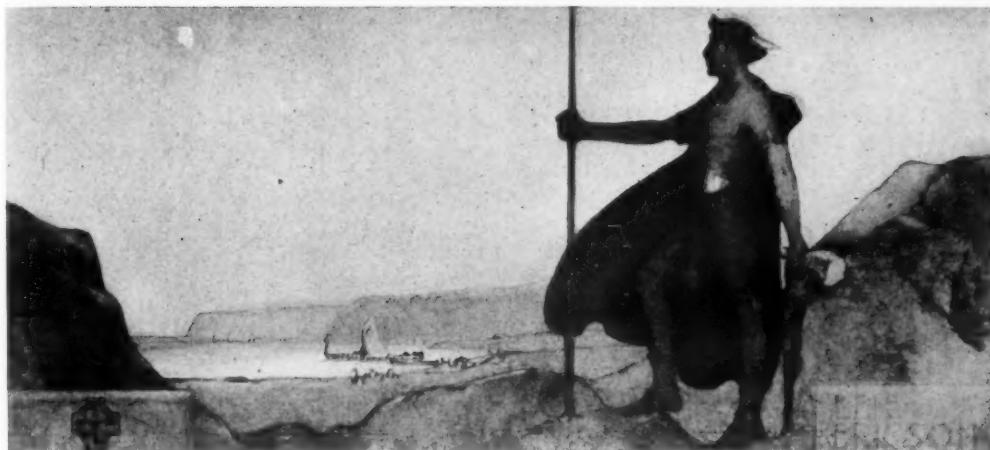
throughout the series. The subjects are Leif Ericsson, David, Arthur, Michaelangelo, and Alfred.

Instead of attempting an elaborate pictorial presentation of incidents in the lives of these heroes, Mr. Rubins has realized to the utmost the value of suggestion, and in his arrangement of color and lines of composition, he has never once exceeded the limitations of his craft. He is in this work revealed as a thoughtful, imaginative artist imbued with the decorative spirit. It is a great pleasure to announce this in no uncertain terms, for the present writer is among those who strongly believe in the very close relationship between decoration and architecture. He resents the intrusion of the sort of pictorial composition which frankly leaves a hole in the wall, and destroys the continuity of its surface. Doubtless the fact that Mr. Rubins and Mr. Hewitt are close friends and fellow workers has left a very signifi-

cant influence here. These decorations form a most excellent text for a preachment on the advantage of close co-operation between architect and artist. It is to be regretted that this school library is not within more easy reach of all of us, for this work, in its quiet unobtrusive beauty and strength would do more to correct some very wrong notions than would scores of magazine articles, with hundreds of black and white illustrations. It is difficult to speak restrainedly and in academic phrases of the low toned glory of color throughout these panels. They glow softly in a way to suggest a subdued illumination. The technical explanation would doubtless take into account the fact that the color employed is pure color, applied transparently on a ground resembling a white wall, and a close examination discloses flecks and minute spots of pure color so juxtaposed as to give, at a little distance, a luminous tone approaching a warm neutral. When a frank color is evident it is therefore closely related to all the painted surface. Thus the satisfying flatness is obtained in much the same manner as that achieved by the old masters in tapestry. The individual canvases reveal also the reason why one at once associates these simple effective figures with the work of the great primitives. He would see the great idea struggling for frank and direct expression through this medium, but never being lost in a whirl of technical skill and exuberant facility.

The Leif Ericsson panel is representative. Any one, young or old, is sure to recognize in this boyish figure the youthful adventurer, buoyant and courageous, with a great dream in his heart as he sees the far horizon beckoning him. The entire panel swims

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LEIF ERICSON

DECORATION BY HARRY W. RUBINS

in a soft golden light, and the figure is clothed in a warm tan, with a mantle of vibrant orange red, which is sensitively countered by a touch of brilliant green in the feather on his hat. A stretch of harbor and gently revealed vessels and figures at the shore's edge complete the simple arrangement that holds, with its sympathetic color, an emotional appeal to all who love high adventure and the age-old call of the sea.

David, contemplative and thoughtful, follows the more vigorous Leif. Here the color reveals the mood with equal success. Royalty is there, and purity, music and poetry, and a sense of brooding power. These lines from Browning's "Saul" were in the mind of the artist as he painted.

"Then fancies grew rife—

Which had come long ago in the pasture, when
round me the sheep
Fed in silence—above, and one eagle wheeled slow
as in sleep;

And I lay in my hollow and mused on the world that
might lie

'Neath his ken, though I saw but the strip 'twixt the
hill and the sky.

The boy, Arthur, is a slim, powerful figure in armor, with sword and shield. He typifies the friendly knight surrounded by a mysterious world of good and evil ("Anything might happen in those hills") but walking serenely forward, erect and unafraid. Here is announced clearly and with rare charm a conception dear to the heart of every growing boy.

Not less significant is the youthful Michaelangelo,



MICHAELANGELO

DECORATION BY HARRY W. RUBINS

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on heights above the city of Florence, where his aspirations have led him, eagerly struggling for the self-expression which glorified his later years. Here, too, is a universal appeal, simple and direct.

Young Alfred of England offered Mr. Rubins a concrete incident, but he has treated it with the reserved decorative feeling which so distinguishes the other panels, and this composition stands with them as representing a type of noble boyhood, whether the identical bit of history be recognized or not. Here is the active young warrior facing an actual crisis. Opposing armies are partially revealed in hollows of abruptly rolling hills, and the young Prince must decide whether to give battle, or retreat. "Bagsac and the two Sidrocs, at the top of the down, with double my numbers, already overlapping my flanks—Ethelred still at mass—dare I go up to them? In the name of God and St. Cuthbert, yes."*

*"Life of Alfred the Great," by Thomas Hughes.

Two new panels are to be installed soon. The subjects are Benjamin Franklin and Abraham Lincoln, the former as the interested young traveler, seeking his fortunes, and the latter as the rugged toiler, with his heavy axe in his hand, resting for the moment, absorbed in thought.

Visualizing this boys' library, completed as it has been planned, with these deeply significant decorations of Mr. Rubins crowning great shelves of books, one realizes at once their relation to these times. The day of flowered phrases, and of meaningless prettiness has passed, and we recognize that the function of the decorator is closely akin to that of the worthy builder and craftsman. His decorations are wrought out with the same sincere use of a medium, the same reverence for honest structure, the same high ambition to construct things with real character at the heart of them, so that they may endure to noble purpose.



KING ALFRED

DECORATION BY HARRY W. RUBINS

THE AMERICAN ARCHITECT

THE AMERICAN ARCHITECT

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The Architect's Opportunity in Reconstruction

IT is announced that President Wilson has under consideration the appointment of a reconstruction commission to develop a comprehensive program for the nation's conversion from a war to a peace basis.

A commission entrusted with this great purpose would necessarily call to its membership a group of men of demonstrated astuteness, selected from various industries irrespective of party affiliation. A working body thus composed would naturally require subdivisions of special fields, and with one of these subdivisions the profession of architecture might very properly become associated.

Just at this time there is needed more than ever before the most energetic action to make certain that architects shall be included on such a commission. And architecture is entitled to this recognition for the reason that no other profession is more nearly a business or more closely allied to the economic development of the country.

Here, then, if this commission becomes a certainty, will be the opportunity for the profession to begin laying the foundation for its future welfare and uplift. Meanwhile, pending this organization of a Government commission, the profession might

at once proceed with its own work of reconstruction, now so long delayed. To limit this effort simply to a committee of the Institute would be to fail to represent the entire profession or to avail of the valuable work that has been accomplished by the various state societies.

State societies of architects have demonstrated in the most forceful way their usefulness in the profession. These organizations are now limited to comparatively few states. Why not a national organization such as outlined in these columns in December, 1917? Why not a state society in every state. Why not a federation of all these societies? With such work as might be performed in great emergencies, like the present, by such a federated body supplemented by the work in its field that we are told the Institute proposes, the entire profession would be represented. A certain spirit of rivalry between these two bodies in their efforts to get results would undoubtedly secure for the profession of architecture all the rights and dignities that now languish.

Barriers Swept Aside

SO closely has this war knit together the United States and its Allies that we shall, when referring to our friends in France, England and Italy, be compelled to strike the word "foreign" from our vocabulary. Frontiers or international boundaries such as marked these countries in the past have been obliterated, and in the destiny in store for us we shall undoubtedly go forward, united by ties which have grown since the war began. No more will there be a "splendid isolation," an aloofness and all the selfishness of purpose that such an attitude implies. In all our policies we shall have to give due regard to those of other countries. The brotherhood of nations is bound to become a great demonstrable fact.

It is safe to assume that the type of men who will dominate these movements toward the reconstruction and future development of nations, will think in the larger terms, act with a policy developed by the broadest vision.

The man with a mental horizon so circumscribed that his vision cannot comprehend the entire area of this world's work will find no secure place. Certain unmistakable indications point to the fact that in this great melting pot, this crucible from which will emerge the great nations, the United States will go steadily forward to her manifest destiny as a world leader. In fact, so strongly has this country impressed the forcefulness of her methods on the countries in Europe that the Americanization of these sections has already begun, and will un-

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doubtedly have a steady forward progress. Every previously conceived opinion held by the peoples of Europe, with reference to the United States, as to its relative position among the nations of the earth, has, since the war began, been revised to our advantage.

EFFICIENCY in organization, speed in accomplishment, and strength in fighting qualities of well-trained soldiers are now synonymous with America in the minds of the people in Europe. And, having by our demonstration of these great attributes as a nation achieved a certain high place, we shall have to maintain it. The task will not be an easy one.

It is not conceivable that in the years following this war American products will be restricted to only the fields which they knew before it. Our argosies will travel the "seven seas," and our goods will be procurable everywhere. Following in the wake of this peaceful invasion will be great numbers of men who will seek in many countries to carry the propaganda of our progress. It is then that the so-called professions will find their great opportunities. We shall not only place our merchandise, our products, before all the world, but we shall also realize that Americans, technically well trained and with the high purpose to succeed, are found everywhere.

This contribution to the world's progress in the future will be as great and its influence even more widely extended than it has in the past. All of this is no idle dream, but a fact as certain as it is that men must become impressed with the necessity for the cultivation of every manly attribute. With these, any nation may succeed; without them, it may scarcely hope to survive.

Let it not be inferred that it is contended that only our own methods are sound or that it is proposed to force them by sheer energy on every country. But let it be understood that with the casting aside of prejudice, the creation of a better and more intimate relation with the world, our task has become measurably easy. While in the past much of our effort has been spent in an endeavor to demonstrate our ability to do things, we shall save all this preliminary work, and as Americans we shall receive the cordial support, the ready co-operation in all the big things we attempt.

Our immense resources, our unlimited supply of

raw material and our ability to convert it to a manufactured product have been great factors in this war, and enabled us to contribute largely to its successful termination.

EVERY architect in this country must learn these things. He must, to conform to this world-wide progress, revise his former conception of his attitude toward his profession. Precedent will not serve as an argument to cover unprogressiveness. Last year's methods are to-day so obsolete as to be useless. Speed in operation, elimination of non-essentials, standardization of processes, and every labor and time saving device must be used. The race will be only by the strong and fleet. "Slow and sure" will be no longer a maxim; "swift and certain" will take its place. The purely professional attitude will not serve, if by professional it is meant to imply the purely aesthetic.

Architects will have to become to a greater degree than ever before business men, with all the acumen the word implies. They will need to combine so many essential things in their service to clients that it may safely be said no other profession will demand so much of its practitioners.

To accomplish this great result their training will need to be not alone in the high scholastic field of education, but also in that broad practical school of life, the only Alma Mater which really successfully trains men.

Improving the Farmer's Surroundings

JUDGED by the correspondence that has been received with reference to the improvement of farm buildings referred to in *THE AMERICAN ARCHITECT*, issue of November 6, there is a widespread interest in the movement. This important matter has its present impetus through articles by George W. Maher, president of the Illinois Chapter A. I. A. It has received the strong endorsement of that body, and also of the Illinois Society of Architects. There appears to be concurrence of opinion that the various States should at once set afoot the necessary measures to insure tangible results. Mr. Maher's efforts have been the means of awakening every State, particularly those in which agriculture is the dominating industry, to a realization of the importance of improving the housing conditions of the farmer.



PLATE 153

UNIVERSITY CLUB, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS

(For preliminary presentation and floor plans see issue of May 29, 1918)

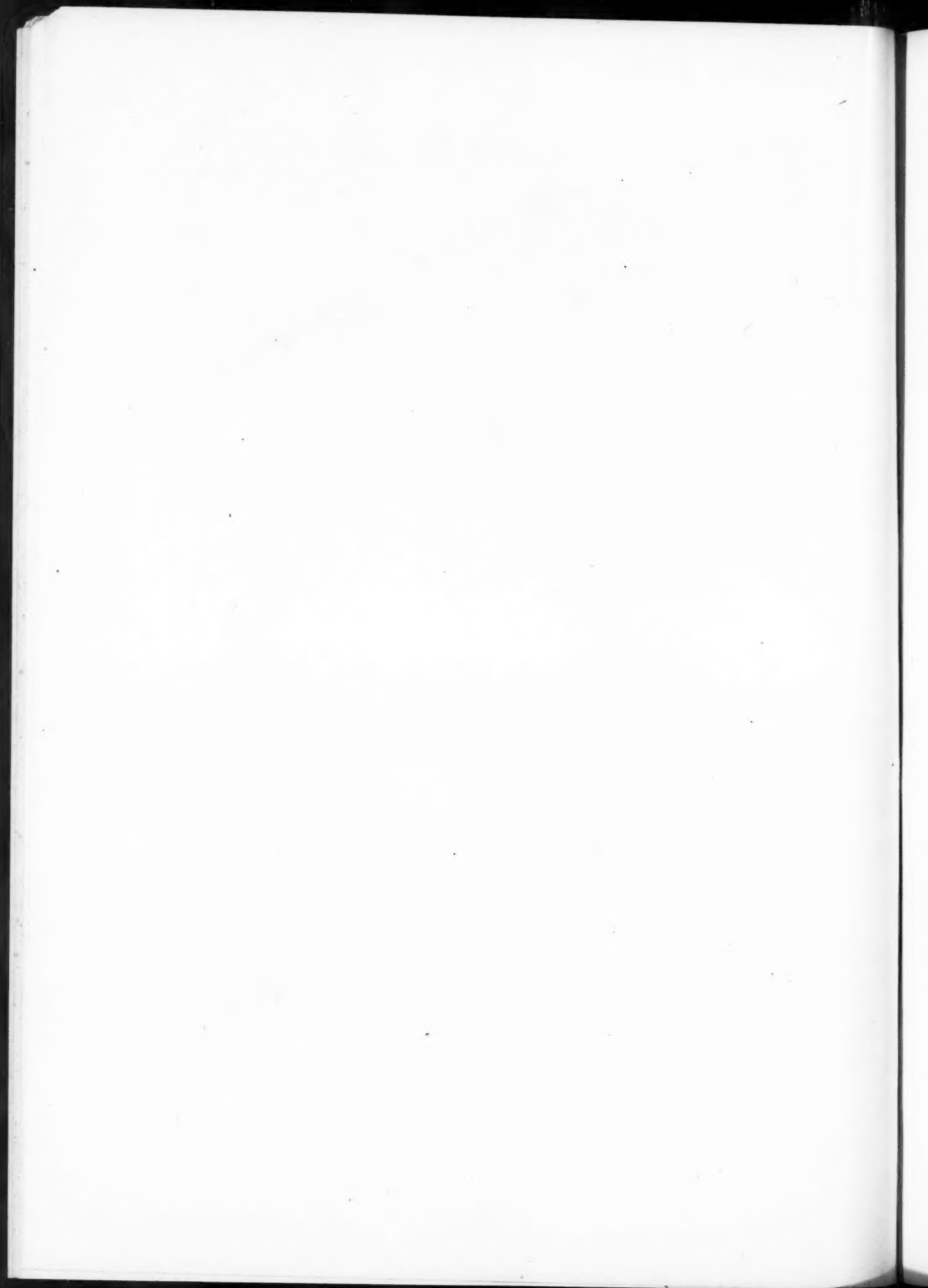
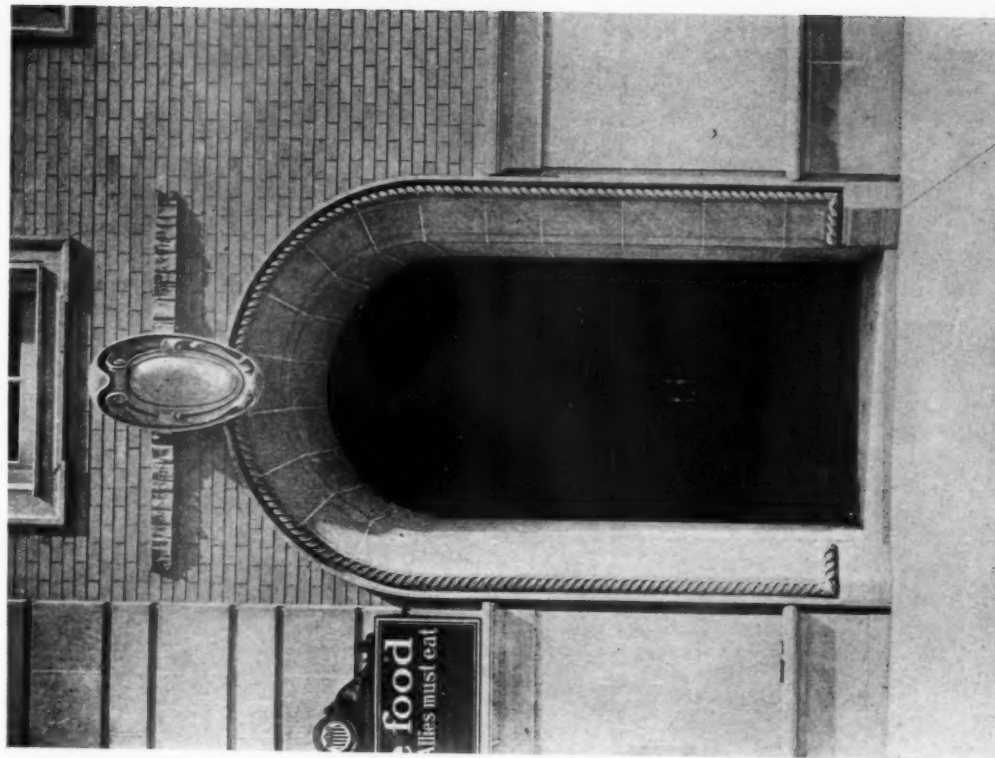




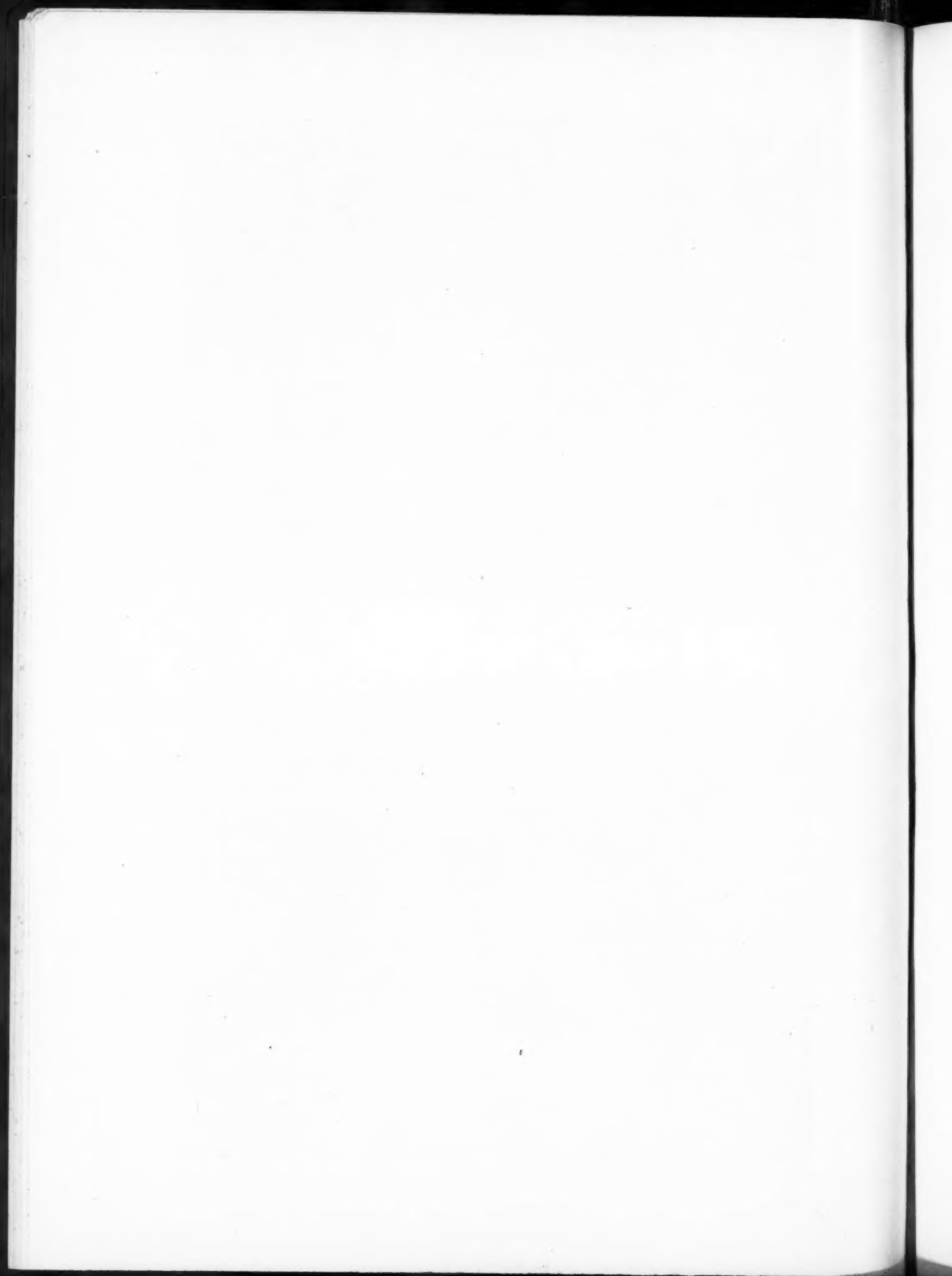
PLATE 154

ENTRANCE TO OFFICES



CLUB ENTRANCE

UNIVERSITY CLUB, ST. LOUIS, MO.
EAMES & YOUNG, ARCHITECTS



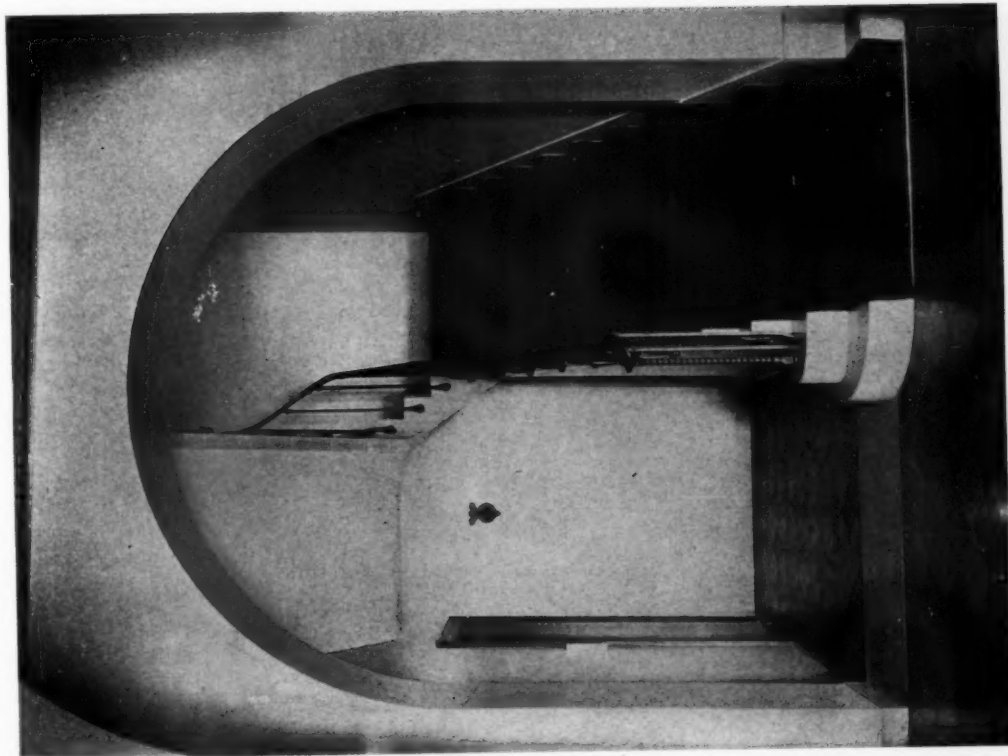
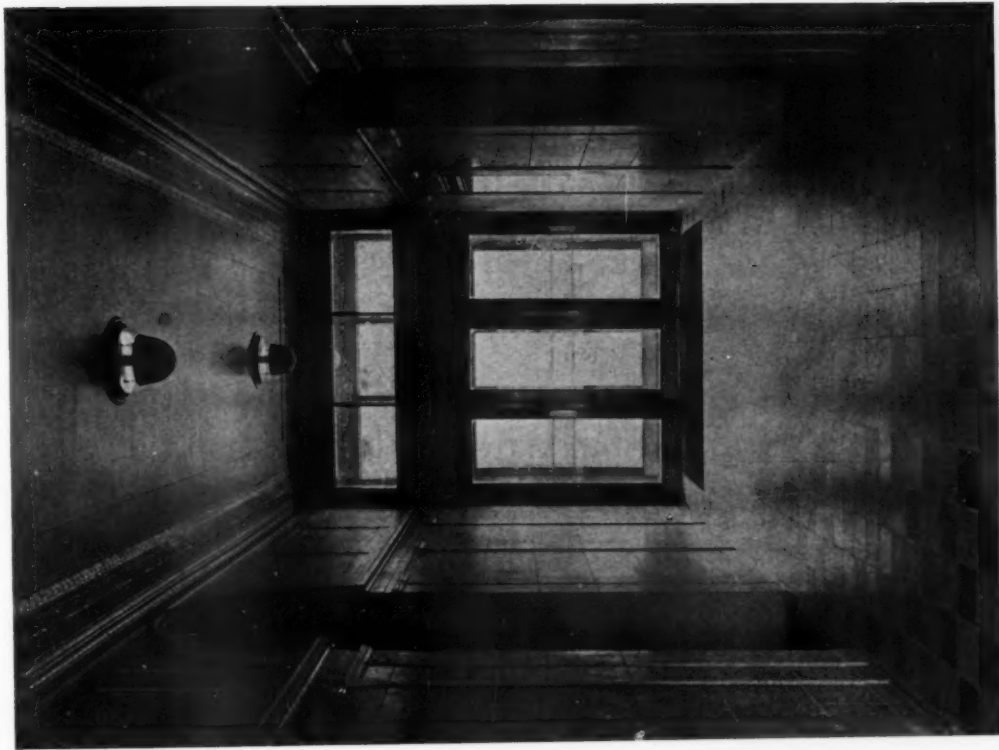


PLATE 155

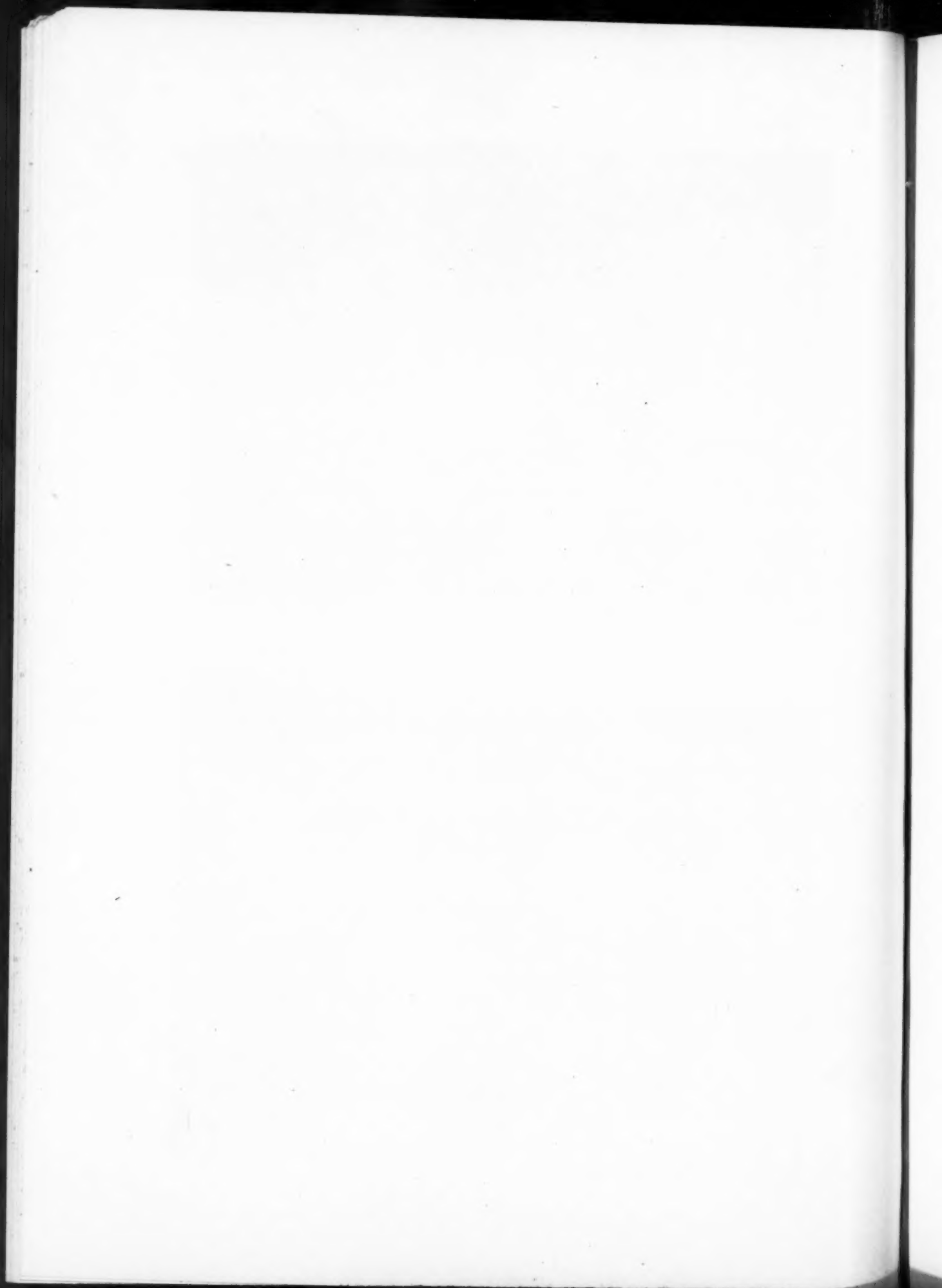
MAIN CLUB STAIRWAY, ELEVENTH FLOOR



ENTRANCE LOBBY

UNIVERSITY CLUB, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS





LADIES' RECEPTION ROOM

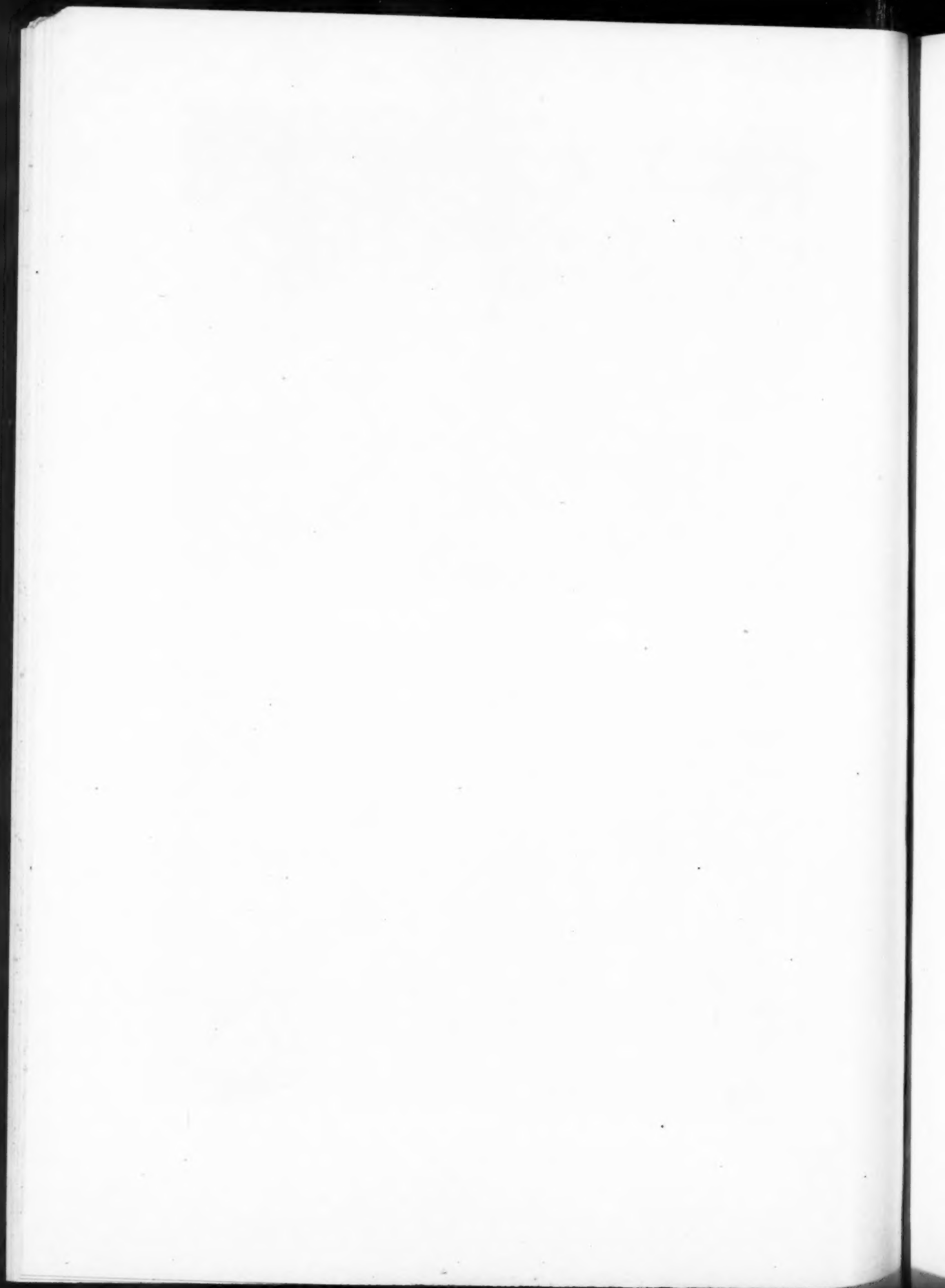


PLATE 156

MAIN CLUB LOBBY

UNIVERSITY CLUB, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS





CLUB LOUNGE

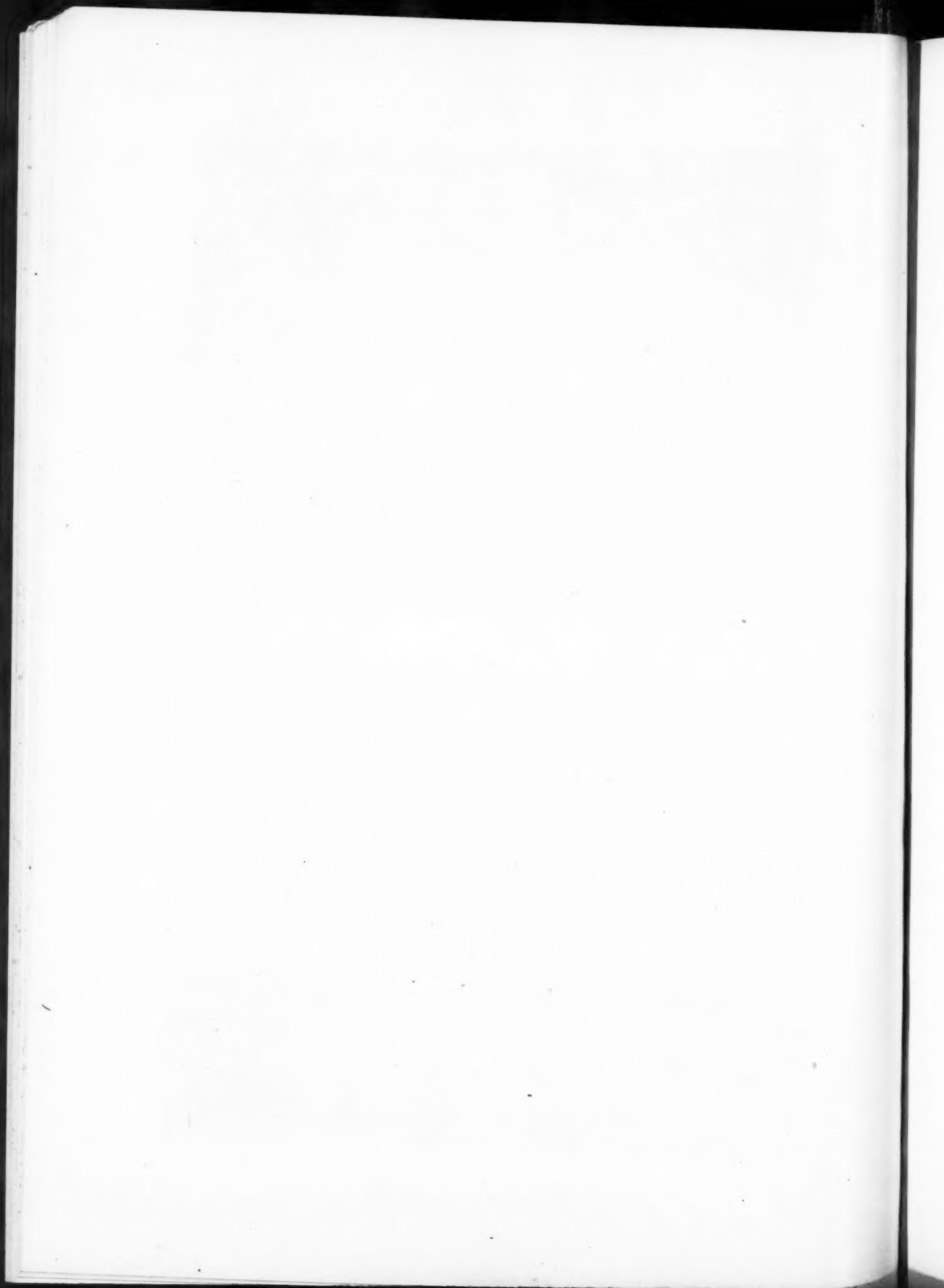


PLATE 157

LIBRARY

UNIVERSITY CLUB, ST. LOUIS, MO.

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TAP ROOM

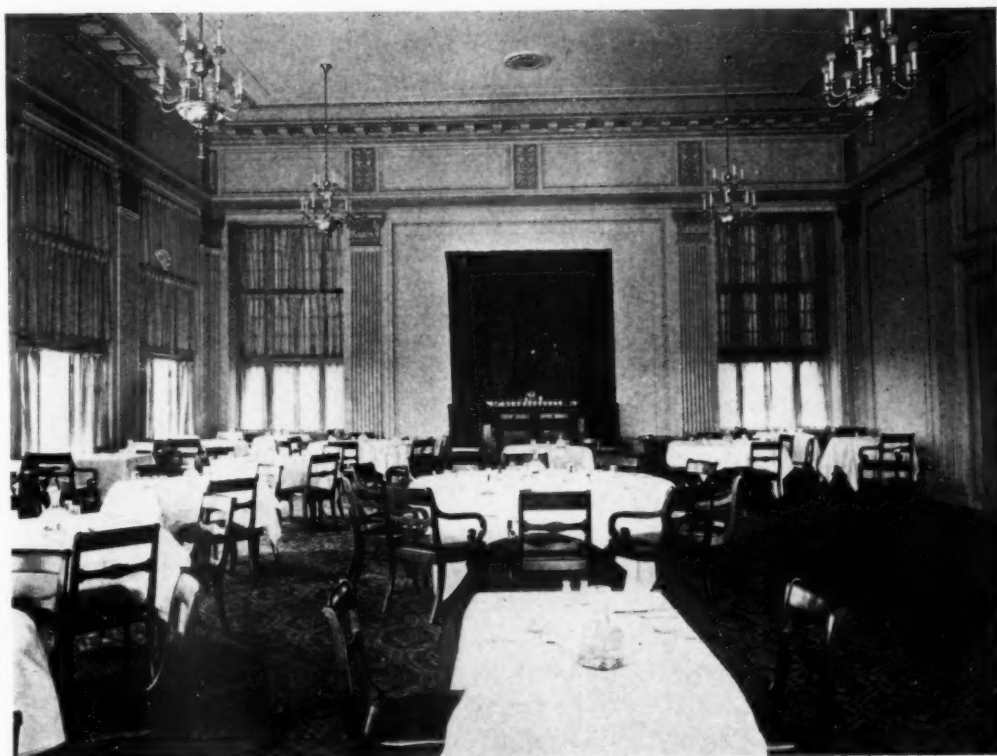
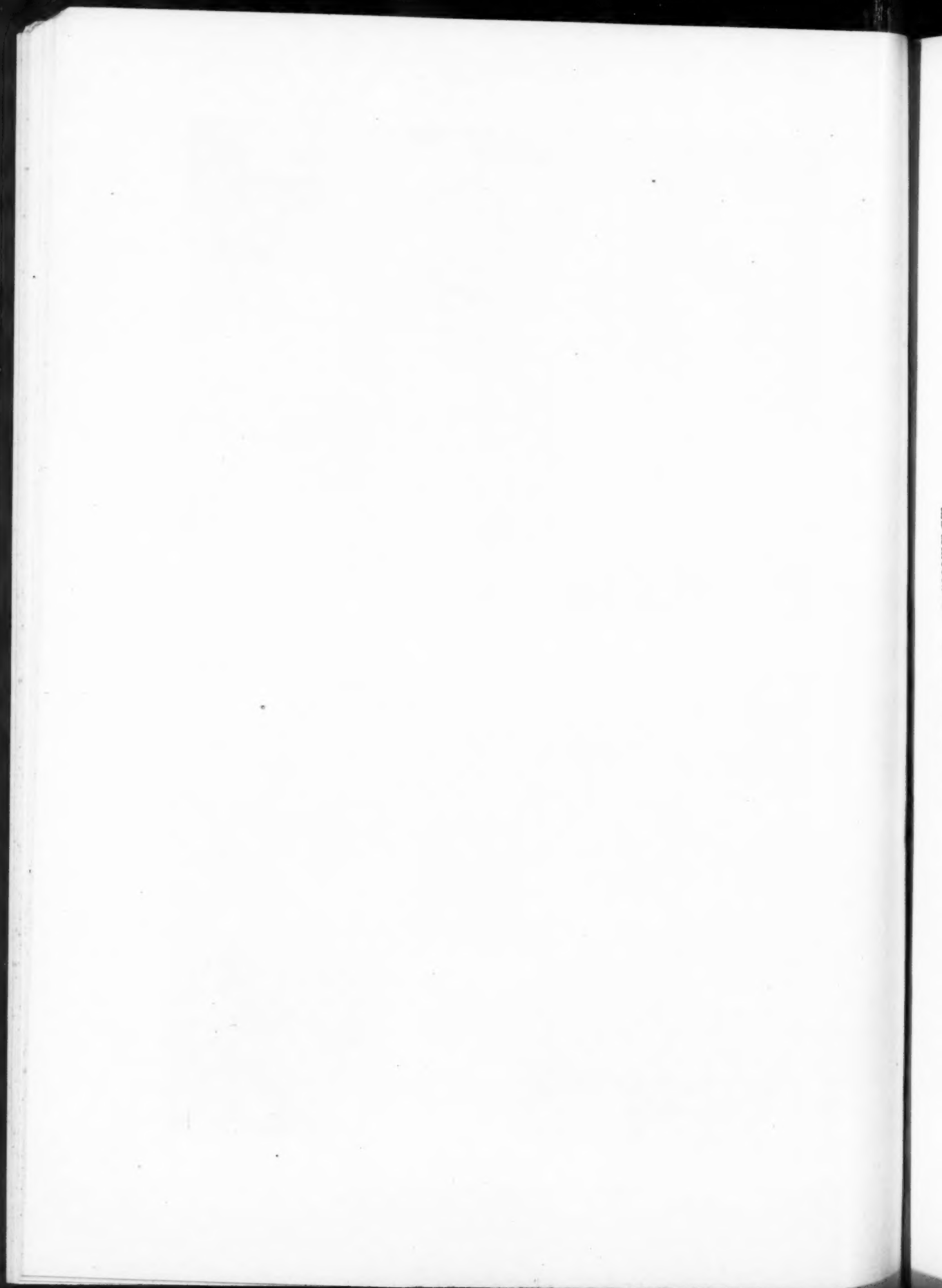


PLATE 158

MAIN DINING ROOM

UNIVERSITY CLUB, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS



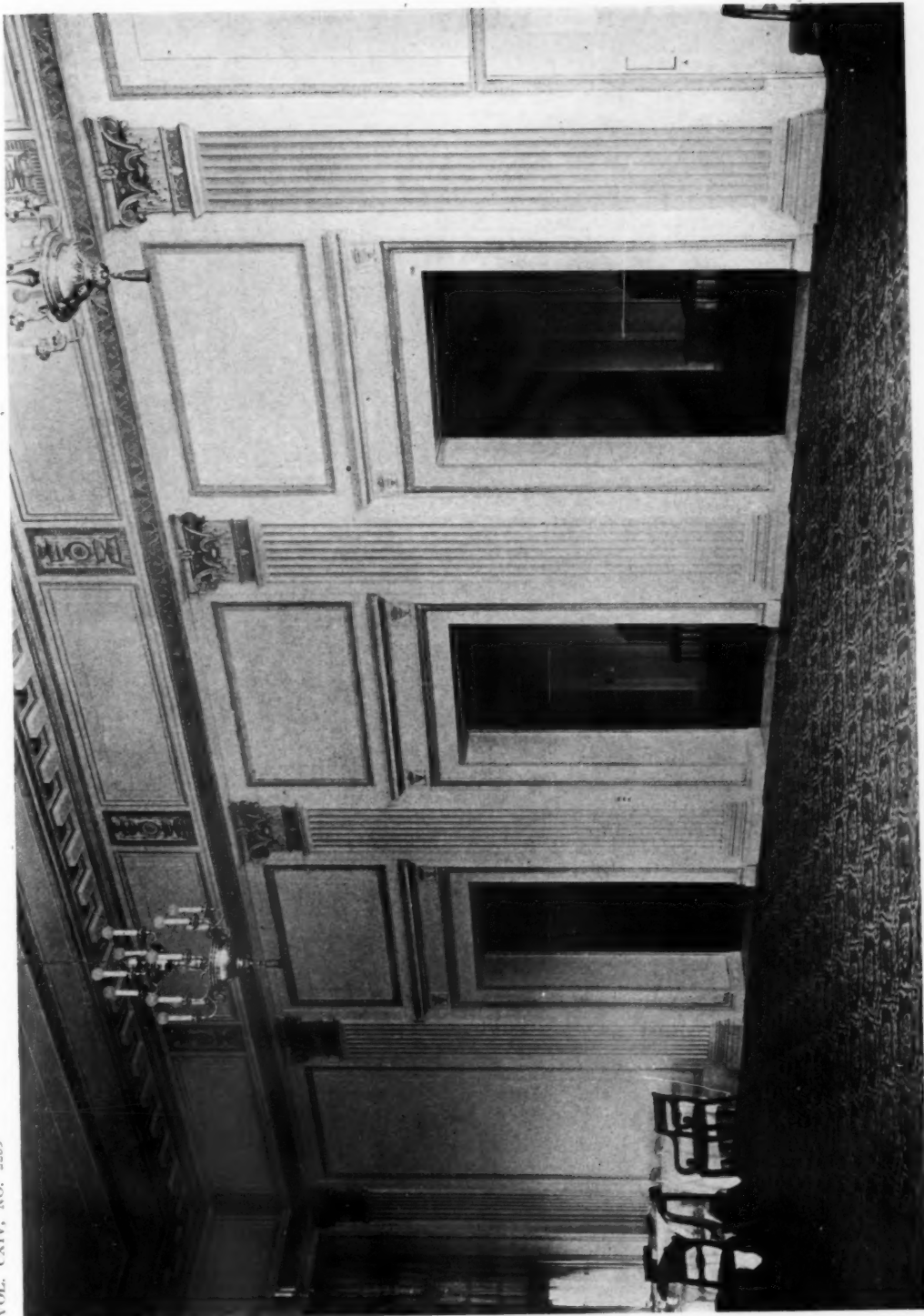


PLATE 159

DETAIL OF MAIN DINING ROOM, THIRTEENTH FLOOR

UNIVERSITY CLUB, ST. LOUIS, MO.

EAMES & YOUNG, ARCHITECTS

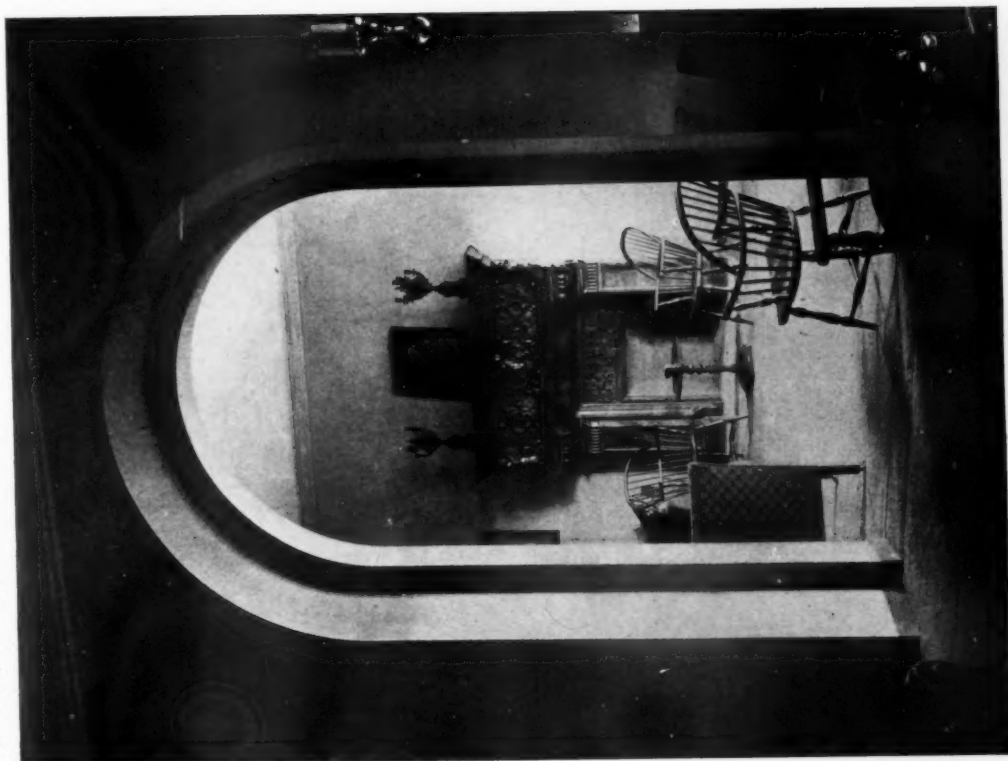
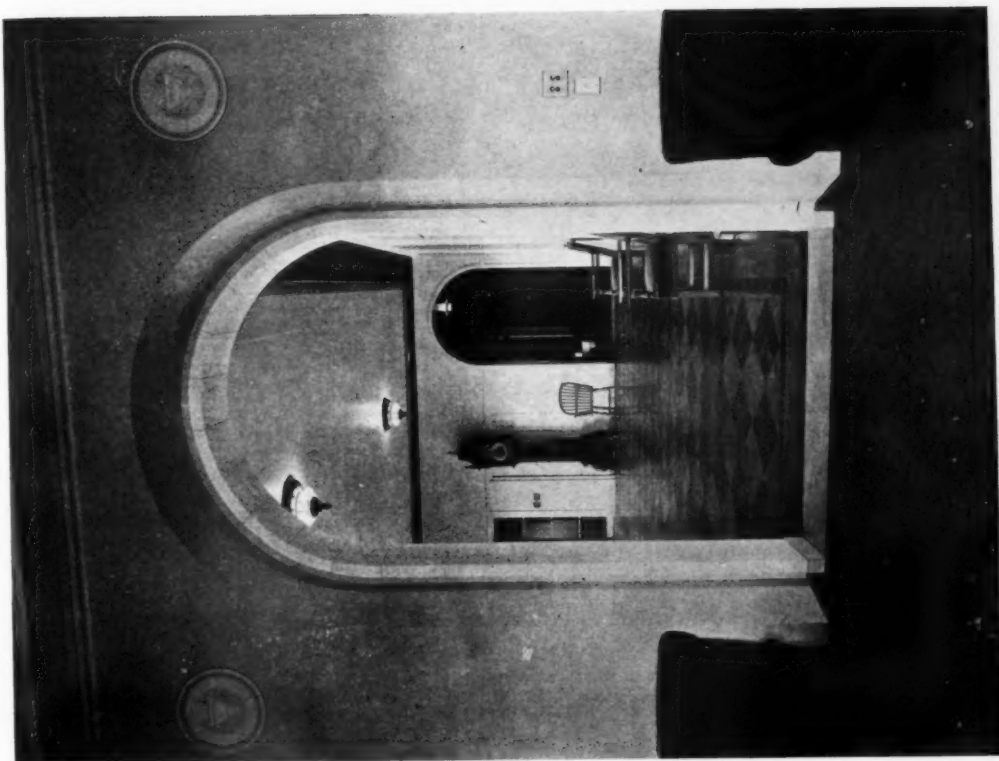


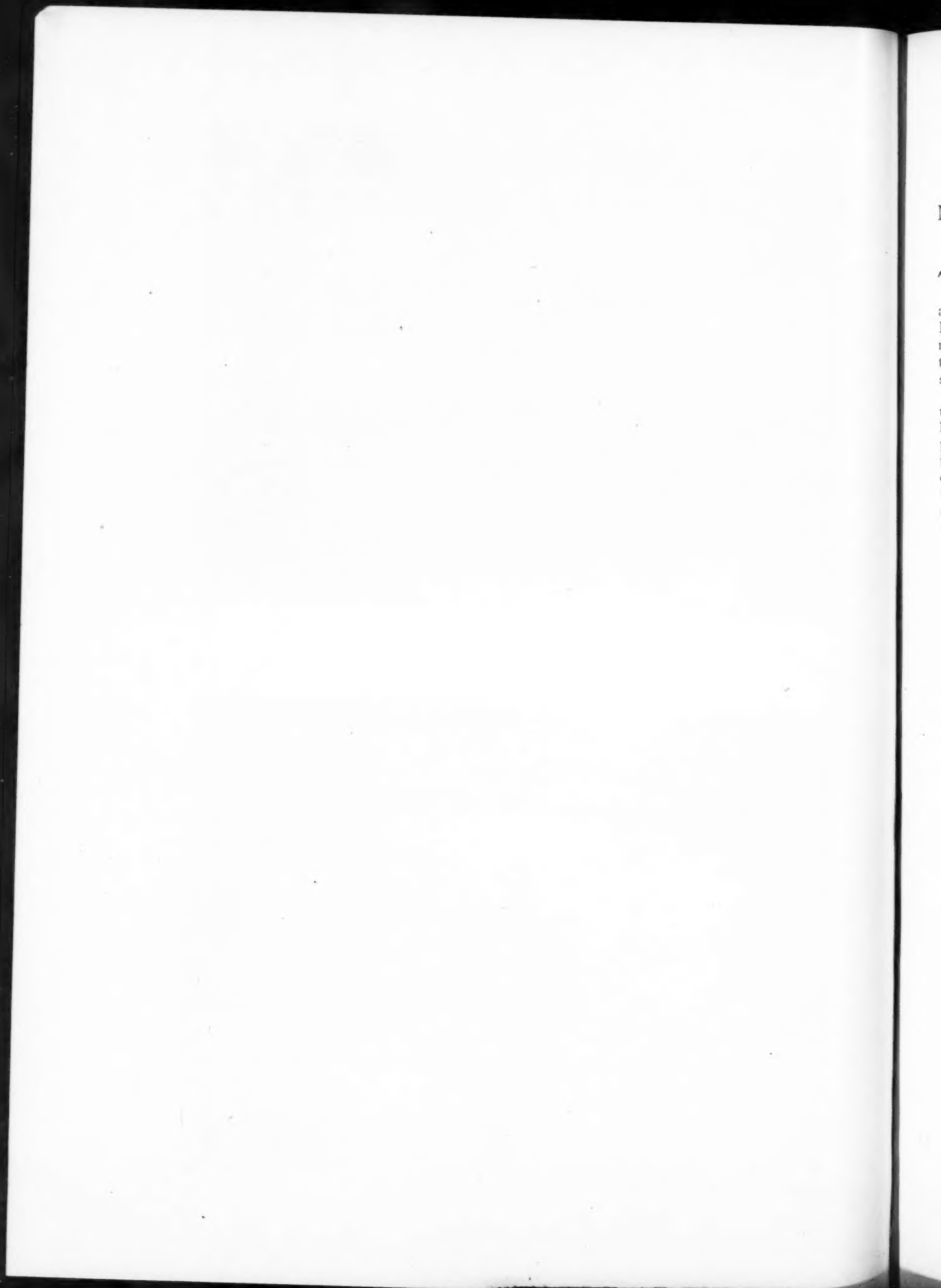
PLATE 160 VIEW FROM LOUNGE LOOKING TOWARDS MAGAZINE ROOM



VIEW FROM LOUNGE LOOKING INTO MAIN CLUB LOBBY

UNIVERSITY CLUB, ST. LOUIS, MO.

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Readjusting Industry

Notes on the Future of the Building and Allied Industries and the Factors That Will Affect Them

THE first important step of the many that will have to be taken by the Government was the action of November 12 of the War Industries Board. This will result in the rehabilitation of many sections of the building industry, which, owing to restrictions during the war, have practically served to paralyze these elements.

The orders which have been issued will remove the restrictions on many of the more important public improvements, together with many public and private activities. In a list of forty-two specific industries not immediately connected with building operations, but all of which consume large quantities of material, the lifting of the ban, while not complete, will nevertheless result in an increased production of at least fifty per cent. The whole situation now restores confidence in the revival of building, and the industry will probably now go forward in a sane and logical manner. It is reassuring to the entire country to find that the Government at the outset is approaching the many and complex problems of reconstruction in this very cautious manner, and it lends color to the hope that we shall avoid those sharp rises and depressions of the line that will mark our progress toward stable and normal conditions.

While building operations have not yet been freed on a large scale from wartime restrictions, there can be no doubt that as fast as conditions become stable in the various fields of building for which material is now released, this condition will logically lead to the expansion of the entire building field. These methods seem right and proper, and if continued in the future, based on the same clear-headed action that marks the present program, the building interests may regard the future with equanimity.

All limitations on the production of building material have been removed, so that any project not affected by the few remaining restrictions can at once be taken up and without interruption carried to completion. All of which means that there will be no scarcity of materials. Manufacturers will at once start activities and stocks will be early replenished.

MEANTIME, there are enormous quantities of material, particularly steel, that form a part of the Government's surplus accumulation of war materials. The bulk of this material controlled by the Government was automatically released with

the signing of the armistice. It becomes at once available for public and private use. This state of preparedness is one in which every man engaged in the building industry may feel a sense of security. The country may get back to its normal activities as far as material production and supply are concerned, with a minimum loss of time. The outlook for our future prosperity, our steady progress, is gratifying.

Judge Elbert H. Gary, president of the United States Steel Corporation, in a recent interview, stated:

"Upon a careful survey of the situation it will be found there are many reasons for believing prosperity in this country should continue.

"The United States is the richest of all countries. It possesses one-third or more of the total wealth of the world. It has become the leader of finance, and in this respect may properly exercise a commanding influence. Its natural resources are immense and are susceptible of increasing development. If industry is protected and fostered in accordance with its merit the war burdens surely, even though gradually, will be lifted. We shall be a creditor nation with a large interest income, more virile, more progressive, more successful, wiser, and better than ever before.

"And judging the future by the experience of the last few years, there will be a disposition on the part of those in authority to assist rather than to attack business effort. There will be study, reflection, friendly concern shown in relation to the needs and requests of enterprise and investment. Legislation and administration will be founded on ascertained conditions, deficiencies, and requirements. Both capital and labor will be protected and rewarded. Employers will lead in the effort to promote the welfare of their workmen.

"Co-operation will be seen on every hand. Capital and labor will continue to co-operate with governmental administration, and the latter will reciprocate in every practical and proper manner. This spirit has been exhibited in a marked degree in this country and other countries during the last four years, and its benefits have been demonstrated so clearly that they will not permit a return to the methods of destructive competition.

"As to the volume of business to be offered during the next few months or years no one can accurately predict, but there are reasons to suppose it will be large.

"The Government will continue to be a large purchaser at reasonable prices for the finishing of incomplete projects and others contemplated for changes which will be incidental to a peace basis. In this connection it will be observed that the War Industries Board and other governmental departments are already considering methods for assisting in the readjustment of business without serious disturbances or injury to general conditions.

"Besides, there has been in all lines of trade with which the Government has not been specially interested, an accumulation of orders, which to a large degree at least, will be placed as soon as the supply may justify. And in order to refill empty warehouses throughout the country large quantities of finished materials will be required.

"Moreover, in nonproducing countries it has been impossible to supply their necessities on account of the war requirements, and these will commence to buy as soon as it

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is practicable, so that a large increase in exportations may be expected.

"Extensions and new construction which have been necessarily postponed for lack of material will be taken up.

"And with all this is connected the thought that as a net result of the war the volume of cash and cash resources has been increased in a marked degree and will be expended for purposes of expansion and development in this rich and growing country. The circulation of money is considerably larger than it was at the beginning of the war.

"As a general proposition it is still true that the optimist who keeps within the limits of cash or stable cash resources will succeed. For the long future we have reason to believe that the country will be more progressive and more prosperous than ever before.

"It remains for all who have been permitted to survive the horrors of war to enter upon the new era with a united and fraternal spirit, and a fixed purpose to profit by the experiences of the past and to aid in the establishment of a permanent basis of peace and prosperity."

The advice that we should enter into this new era with a fixed purpose is sound, and it should be the part of every one who can participate in this important program so to act that his efforts will result in the largest measure of success.

WITH the release of all these large quantities of building materials by the Government, the question of labor will be limited merely to its handling and transportation. But in every industrial plant in the country whose wheels have for so long a time either been idle or solely engaged in turning out war work will now be driving machinery to the limit in the replenishing of depleted stocks, the item of labor is one of very great importance. It is, therefore, with satisfaction that we note the action of the Government with relation to labor is one of very careful supervision.

The demobilization of the large armies in this country and in France would, if not carefully considered, create a condition of confusion resulting in a very great disorganization of every field of industrial activity. The announced policy of the Government that there will be demobilization only on the basis of the ability of trades and occupations to absorb the men so released is a wise one. In addition to the release of millions of men from service in our army and navy, there will also be a very great release from that equally patriotic army who have toiled in our shipyards, munition plants and the many other industries associated exclusively with our war work. This class of released labor will probably be more easily assimilated than the enlisted men, for, being here and near their future

work, it is to be supposed that they have with average foresight made certain provision for the peace ahead. It is in the labor made available by the release of enlisted men that the paternal attitude of the Government will be more forcibly shown, as will also its fostering care toward industry that must be protected and its needs of adequate labor cared for.

All in all, while we shall have many and complex problems to solve, the logical common-sense way in which they are being approached will do much to allay the uneasiness and will bring measurably nearer the period when we shall have reached normal conditions.

As to transportation, we are here confronted with a problem not so easy of solution, and one that cannot be regarded with the same calmness as those of materials and labor. The possibility that Government control of transportation lines may continue for a long and indefinite period will undoubtedly, unless very wisely administered, tend to create unsatisfactory conditions and prevent the freest and most equitable distribution of materials.

THE Government's absorption of every facility during the war was a dominating factor in the restriction as to the use of materials. While this practical monopoly has now ceased, the many claims on transportation by the Government in its progress toward demobilization of men and materials will undoubtedly result in more or less retardance in the eventual free methods of transportation. So much is being done, and so generally wise and prudent a spirit shown that it will be well calmly and patiently to await the outcome from day to day. This country has become so great, so powerful, that its very forward inertia will take it surely to its ultimate destiny.

In this progress it will carry all of its people. Some will labor lovingly and arduously toward the common end, and there will be laggards who will selfishly drift along on the tide of prosperity. A fixed policy, the result of thoughtful preparation, will accomplish everything we shall desire. Its purpose should dominate every rank of society, every field of effort. In this wonderful progression the part the architect will play in his new field as a business man and great executive will, or should be, so marked as to cause not only a sense of elation, but, more important, a strong sense of responsibility.

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Evolution of Wall Paper

Among many other useful and beautiful things for which we are indebted to the Chinese, wall paper is not the least, states an article in the *Pittsburgh Despatch*. This decorative paper for walls seems to have first appeared in Europe toward the end of the seventeenth century. It was brought to France by overseas traders, and the French immediately perceived the possibilities thus offered.

The paper did not come in rolls as we have it to-day, but in sheets about $3\frac{1}{2}$ ft. wide by 10 ft. in length. Some of the finest grades were printed by hand and the cheaper grades from wooden blocks. The patterns represented animals, temples, warriors, and all the other familiar figures of Chinese art.

The French called these new wall coverings "pagoda papers," and it soon became the fashion to have at least one or two rooms in every home of any pretensions finished with them.

Throughout the eighteenth century the custom gradually spread. Both in France and England

there were adaptations of the Chinese idea. There is a record of wall paper in England as far back as the time of Henry VIII, when the inventory of a monastery included "chamber hangings of painted papers." There are now in existence examples of English wall paper from the reign of Charles II.

Some of the early attempts in the manufacture of wall paper are highly interesting. Tapestries were the elegant wall coverings through the Renaissance, as they had been during the Middle Ages; but tapestries were expensive, and beyond the reach of ordinary persons. So a good citizen of Rouen, named Le Francois, hit upon the idea of imitating tapestries.

He had fanciful drawings made in the tapestry style on large pieces of paper pasted together in about the size of a tapestry. Upon these drawings Le Francois spread a kind of mucilage, and then sprinkled the mucilage with powdered wool in different colors. "Papier volute," as it was called, came into general usage.

Many noted artists furnished designs for the finer



LOBBY TO MAIN DINING ROOM
UNIVERSITY CLUB, ST. LOUIS, MO.
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class of papers, among whom was the great Watteau. The French came to have almost a monopoly upon the manufacture of fine wall papers. They continued to follow the Chinese method of making their product in sheets. Revillon, a Paris manufacturer of the revolutionary period, is said to have first succeeded in developing a method for turning out the paper in rolls.

Independence Hall Roof Is Completed

HISTORIC STRUCTURE NOW PROTECTED BY SPECIAL FIREPROOF COVERING

The work of placing a new roof of precisely the same character as that which originally ornamented Independence Hall has now been accomplished. The fireproofing on this historic structure was provided for in the plans prepared by the Philadelphia Chapter, American Institute of Architecture, by first constructing a roof of asbestos, over which shingles were laid. These shingles are of a special clear-

heart cypress. The rafters, beams, sheathing, and other lumber used, was selected dry hemlock.

In order to follow the exact lines of the original construction of the roof it was necessary to transfer two skylights which had been on the north slope to the south slope, and also make other changes.

According to Chief Arthur of the Bureau of City Property, under whose supervision the work was done, it had apparently been the custom heretofore to replace other roofs of the building by simply constructing a new roof over the old material. The result was there was a continuous bad condition of the roof, and an added weight to the building, which did the structure no good.

In constructing the new roof the top of the building was laid bare, just as it had been when the original roof was constructed. It was over this that the asbestos roof was first constructed and the asbestos later covered by shingles.

The fireproofing of the roof is especially looked upon with much satisfaction by those who are taking an active interest in the preservation and protection of the sacred edifice.



TYPICAL CORRIDOR, OFFICE BUILDING
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Book Review

RECENT ENGLISH ECCLESIASTICAL ARCHITECTURE.

A series of illustrations of notable modern work.

Full cloth, 240 pages, size 9 x 13. London, Technical Journals, Limited.

This book is worth while in every way to architects, more especially to those who specialize in ecclesiastical architecture. It marks the splendid development of church architecture in England, and groups between its covers a wealth of illustrations and description of the highest importance and greatest value.

In order to establish some sort of connection between the church architecture of to-day and that of the period from which it derives much of its inspiration, there are included two characteristic churches by John Sedding.—St. Clement's, Bournemouth, and Holy Trinity, Chelsea. This places the earliest date of the various examples illustrated at a period about a quarter century past.

The work represents some sixty different architects, and the Established, Non Conformist and Roman Catholic denominations.

The text, in addition to brief descriptive notes of the various churches, contains an article on The Design and Arrangement of Churches, by Sir Charles Nicholson, Bart., and a treatise on Modern Churches, by Charles Spooner, F. R. I. B. A. It is an invaluable reference work.

Seattle Solves the Housing Problem

Confronting an acute housing problem, due to its pre-eminence in shipbuilding and other war work and the consequent influx of thousands of workmen, mostly married men with families, Seattle this summer again proved its efficiency in organizing by solving its housing problem without Government aid.

First, a survey was made, showing that all available houses and apartments were occupied and that thousands more houses could be rented or sold to advantage as soon as built. Next, a building campaign was launched by the Seattle Chamber of Commerce and Commercial Club. A corporation was formed to take second mortgages, to provide free plans and expert advice on all building problems, and pressure was brought to bear through committees and publicity to induce the owners of vacant lots to build houses upon them and thus convert tax-eating liabilities into income-producing assets. Thirty-one teams of solicitors, each composed of three business men, canvassed for pledges to build. These teams returned daily from ten to sixty pledges, and in a few days 5000 pledges were

on file. The building operations started with characteristic vim. The campaign mark of 5000 new houses before Christmas was assured of realization, and from that point the building will go on of its own impetus. Many corporations started house-building companies composed of their own officers and employees, co-operating with the More Homes Bureau of the Chamber of Commerce. The 1919 building program will call for at least 10,000 new dwelling houses.

Experiments With Wood in Concrete

A correspondent of the *Carpenter and Builder* of London writes as follows: "Unless special attention is exercised, any such proposition as the insertion of wood in wet concrete for the purpose of fixing-blocks, etc., for securing fittings, and various other requirements seems doomed to failure. Such a method is outside the bounds of practicality on account of the expansion due to moisture absorbed by the woodwork from the wet concrete, the effect of which is invariably to cause serious fractures to occur in the concrete. The writer has in mind an important public work where it was necessary to make holes in the top of a concrete wall to receive later some cast-iron standards. Upon inspection he found that square wood box-moulds made of one-inch board had been inserted in the wet concrete for the purpose of forming the necessary standard holes. In every case the moulds had expanded to such an extent as to have considerably damaged the stability of the concrete by fracture where strength was most essential.

"This led the writer to make investigation and experiments, which led to rather interesting results.

"Two wooden fixing blocks were made; one was painted with two heavy coats of paint with a view to making it impervious to moisture; the other was thoroughly soaked with and in water with the idea of causing the expansion to be complete before placing it in the concrete. Each block was then placed in two equal sized blocks of concrete in moulds and allowed to set and dry. Very soon, however, results were apparent. The painted wood block had, in spite of the paint, swollen and caused very bad cracks to appear in the concrete, while the other wood block that has been impregnated with the water before going into the wet concrete showed no signs of fracture whatever to the concrete. The shrinkage when dry was immaterial, and made no detriment to the holding propensity of the block, which, by the way, was dovetailed in form."

From the foregoing it appears obvious that quite safe and useful employment of timber in con-

crete may be made if these simple principles are followed out and adhered to. The aim, therefore, is to expand the timber, before surrounding it with the wet concrete, to such an extent that the moisture from the concrete has been forestalled, so to speak, in this process of immersion in water. The wood can never again be subjected to more moisture when the concrete has set.

Care must of course be taken that the wood is brought direct from the water and not allowed to half dry before imbedding.

Price Readjustment Depends on Wages

G. H. Jones, vice-president and general manager of sales, Inland Steel Co., says in *The Iron Age*: "It is undoubtedly recognized by all that prices cannot come down unless wages come down. If prices are maintained by high labor cost it may be expected that the domestic consumption of steel will be limited in many directions. Much depends on the extent to which the Government will proceed with railroad rehabilitation, construction work, etc., and to my mind it is a question how far the Government will be inclined to go with prices at their present level. If it says it will not go on with these things, then we face a deadlock until wages are readjusted, and this readjustment means that the cost of living must be reduced and commodity prices revised until the farmer is reached. All this probably means two or three months of disorganized business."

The Hospitals of the Future

In the Cavendish lectures by Sir Bertrand Dawson, which have been published under the title "The Nation's Welfare," a scheme of health administration for the future is expounded in detail. There are to be many more hospitals, but instead of the great buildings we know, they will be built on the hut system, with ample provision for open-air treatment. The health accommodation in a small town served by six doctors is thus sketched by Sir Bertrand: "It would comprise consulting rooms, examining rooms, minor operating room, x-ray equipment, a laboratory, provision for nurses, a room for notes and records, and adjacent to it a common room for the medical officers. In the proximity would be the hospital, baths and other remedial equipments, and the centres for maternity care, infant welfare, and school hygiene, etc. Rather more remote would be the covered and open grounds for physical culture, and adjacent to these the playing grounds."

Housing Shortage in German Cities

Shortage of new houses, due to lack of labor and materials, and apparently limitless rapacity on the part of the landlords, has brought about a condition of acute distress in Berlin and many other German cities, according to reports in German newspapers. In the German capital the landlords and tenants have organized opposing leagues, and are busily engaged in holding meetings denouncing each other and appealing for the aid of the authorities. The mediations offices supposed to look after the interests of the families of the soldiers are accused of caring more for the interests of the landlords and allowing increases of as much as 33 per cent in rent. Many soldiers' wives are wandering through the streets vainly seeking shelter for themselves and their little ones. The Reichstag appropriation of \$119,000,000 last May toward helping building houses and the creation of a special department for housing in the Prussian Cabinet does not, as yet, seem to have produced any material effects.

Community Labor Boards

Up to the present time the United States Employment Service has organized almost 1200 community labor boards to supervise the recruiting and distribution of labor in their various communities. Out of a total of 50 States, counting Alaska and the District of Columbia, 30 are on record as having completed their full number of boards. Approximately 1500 boards will be the final total, and from the speed with which the work is progressing it is expected the goal will be reached within the next three or four weeks.

A Course in Marine Camouflage at Columbia University

By arrangement with Mr. William Andrew MacKay, district camoufleur of the Emergency Fleet Corporation, and under the administration of the Department of Extension Teaching, Columbia University offers a course of instruction in marine camouflage, covering a period of twelve weeks, or until Feb. 10, 1919, regardless of academic holidays.

This course will be open to men and women.

While the Government, under existing regulations, is not able to recognize officially any course of this kind, it is true, nevertheless, that persons prepared by the instruction given will be qualified for more rapid advancement in the service in proportion to their knowledge of a special branch of

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marine science. Above all, they will have the assurance of rendering the maximum service of which their own technical training renders them capable.

It is a fact that both men and women are greatly needed in this branch of war service.

Artists and mature students in various branches, painters, architects, photographers, advanced art students, poster and advertisement artists, students of shipping and ship design, and others of allied qualifications, will be eligible for admission.

National Housing Conference

The Seventh National Conference on Housing will be held at the Copley-Plaza Hotel in Boston, Mass., November 25, 26 and 27. An interesting program has been arranged. Copies may be had by addressing Lawrence Veiller, Secretary, 105 E. 22d Street, New York.

Conference on Reconstruction

The National Municipal League will meet at Rochester, N. Y., Nov. 20 to 22, to discuss American reconstruction problems. The Chamber of Commerce and the Bureau of Municipal Research of Rochester will act as hosts. The conference will open with addresses by representatives of Great Britain, France and Belgium, who will describe what those countries are doing to solve reconstruction problems. Professor Van den Ven, formerly of Louvain University, will speak for Belgium; Thomas Adams of Ottawa and London, for Great Britain; and Lieut. Maurice Boyer for France.

The Soldier in Industry

Discussing problems of reconstruction in Europe and the United States, Sterling H. Bunnell, engineer, states in an article in a recent issue of *The Iron Age*:

"The immediate result of the return of the soldiers is, perhaps, the most indeterminate quantity of all. Some men believe that the soldier will gladly return to his old job, and others think that the life in the open, in presence of great events, will make it impossible for the soldier to go back in contentment to work bench or desk, and will drive him as a rover to new scenes. Probably a good proportion of soldiers will have gained much in initiative and self-reliance, and will gladly undertake work in new fields, developing industries in foreign countries. For work in connection with export trade, men with army training must have great superi-

ority over all others not actually experienced and trained in export business. The return of the soldiers should provide a supply of men ideally fitted by their experience to display the necessary tact, adaptability, initiative and force of character to make friends in foreign countries and develop a market for American manufacturers."

Public Road Mileage in United States

Notwithstanding the active movement in good roads building in recent years, construction has been of slow growth. As shown by Bulletin No. 390, issued by the Department of Agriculture, the total public road mileage of the United States on July 1, 1915, was 2,445,760. In 1909 there were 2,199,115 miles, average increase being 50,000 per annum. A road building statistician says that taking the increase as uniform, which is not probable, the total mileage by July 1, 1919, would be 2,645,760, or more likely 2¾ million miles. Roads surfaced at the end of 1909 totaled 190,476 miles, and at the end of 1914 about 257,290 miles—approximately 67,000 miles in five years and about one-tenth of the total. This shows that new roads are being opened each year the mileage of which is three times greater than the mileage surfaced, and without making provision for the 2½ million miles of highway heretofore opened and yet to be improved

Federal Development of Power Plants

An important measure now before Congress is the Emergency Power Bill. This bill seeks to promote development by the Federal Government of electrical and mechanical power. It authorizes the acquirement or construction at any place within the boundaries of the United States of any power plant that may be considered necessary to facilitate the production of anything essential to the efficient conduct of the war.

The bill carries an appropriation of \$175,000,000

Personal

It has been announced by Folger Johnson, architect, that he has temporarily discontinued his practice in the firm of Monks & Johnson, Alameda, Cal., in order to assist in Government war work.

The architectural firm of Woodroffe, Griffin & Hill, Tacoma, Wash., has been reorganized, A. Woodroffe retiring. The firm name is now Hill,

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Mock & Griffin. Ernest T. Mock is the new member. He was for twelve years associated with Messrs. Bullard & Hill of Tacoma. Mr. Woodroffe, the retiring member, will devote his entire time to business affairs in Spokane. Mr. Griffin, the other member, is attending the officers' training school at Camp Lewis.

The firm of Unkelbach & Perry, architects, New Britain, Conn., has been dissolved. The practice will be continued by Max J. Unkelbach at 162 Main Street.

Long Desert Railroad

The longest tangent in the world, 330 miles without the slightest variation from a straight line, occurs on the railway linking Western Australia to the eastern States, which was formally opened on Nov. 12. In the 1052 miles of line between Port Augusta and Kalgoorlie there is not a single tunnel and very few cuts, while at only a few places on the eastern section is the ruling grade of one in eighty approached. The 330-mile straight occurs in the great limestone region of the Mullabor Plain, which the line traverses for over 500 miles.

This is a desolate waste in which there are no hills, no valleys, no rivers, no trees, and no water. When the line was begun, in 1912, the country along four-fifths of the route had not a single inhabitant except a few wandering aboriginals, and absolutely no permanent surface water. Indeed, water has been the one great difficulty of the line. At a few points reservoirs have proved successful, but for the most part the only supply available has been drawn from wells and bores.

This water contains such a high proportion of solid matter and acids that it is very unsuitable for locomotive use, rendering special devices necessary, while in places it is salt, and condensers have had to be erected. At one period during construction water for all purposes had to be carried over 300 miles by train on the western section.

The line gives the first communication by land between the two halves of Australia, and opens up a quarter of a million square miles now unoccupied. In spite of the scanty rainfall, averaging well under 10 inches a year, much of this country is well grassed, and grows salt bush and other edible plants

which would carry large numbers of sheep and cattle if water can be provided. The cost of the line has been about \$40,000,000.—*Scientific American*.

Analysis of City Buildings

A study of building operations in the larger cities of the country for 1917 was undertaken by the United States Geological Survey as a part of the chapter on clay-working industries in the report of the mineral resources of the United States. The study was restricted to cities that had at the last Federal census a population of 35,000 or more. Efforts were made to obtain detailed information from 150 cities. From five cities no satisfactory data were obtained. From sixteen cities only totals for building permits could be obtained. But from 129 cities sufficient detail was received from which to prepare a table showing the classes of buildings erected.

The grand total shows that in the 129 cities 240,936 building permits were issued in 1917, at a total cost of \$632,694,952. Of these, 166,909 buildings, costing \$168,290,958, or 26.59 per cent, were wooden buildings. Of these wooden buildings, 69,881 permits, with cost of \$13,915,630, or 20.85 per cent of the grand total, were for new buildings. There were 67,534 permits with cost of \$25,961,725, or 4.10 per cent, representing additions, alterations and repairs. Miscellaneous wooden buildings included 28,690 permits, with cost of \$8,487,593, or 1.34 per cent.

Fire-resisting buildings were divided as follows: Brick or hollow tile, new, 28,219 permits, costing \$271,683,008, or 42.94 per cent; brick or hollow tile additions, alterations and repairs, 26,294 permits, with cost of \$50,464,669, or 7.98 per cent.

Stone buildings included the following: New, 119 permits, cost \$2,718,391, or 0.43 per cent; additions, alterations and repairs, 279 permits, cost \$1,870,777, or 0.30 per cent.

Concrete buildings, new, 2685, cost \$61,218,165, or 9.67 per cent; additions, alterations and repairs, 2736 permits, cost \$5,293,135, or 0.84 per cent.

Steel skeleton, new, 552 permits, cost \$51,246,332, or 8.10 per cent; additions, alterations and repairs, 791 permits, cost \$7,194,029, or 1.14 per cent.

Miscellaneous fire-resisting buildings, 12,352 permits, cost \$12,715,488, or 2.01 per cent.

The fire-resisting buildings total 74,027 permits, with cost of \$464,403,994, or 73.41 per cent.

Department of Architectural Engineering



THE STANDARDIZED ELEMENTARY OR INTERMEDIATE SCHOOL BUILDING, NEW YORK

C. B. J. Snyder, *Architect and Superintendent of School Buildings.*

C. E. Dobbin, *Deputy Superintendent of School Buildings in charge of Drafting Division.*

Standardized School House Design*

Part III

EXCEPTING the strictly rural towns and villages, the American urban communities rapidly increase in population and commercial activity and these changes necessarily alter the character and occupation of those living in many of their districts or neighborhoods. As these changes take place, the service to be rendered by the permanent buildings changes. This is well illustrated by the first-class dwelling becoming a tenement for the more poor and to whose satisfactory use it cannot be adapted. The large, high rooms, entail an unwarranted heating and lighting expense and an unsanitary overcrowding of the rooms. Such buildings were very

properly erected to satisfy the needs and desires of the original occupant with no thought of a future changed character of occupancy. Store and commercial buildings are occupied by a better or worse class of business or become living quarters. Hotels are transformed into office buildings and office buildings and even wholesale warehouses, transformed into hotels. Such changes are seldom satisfactory and are resorted to as a revenue expedient.

The construction of a public building, such as a school house, presents a different aspect. The taxpayers have a right to expect that such enterprises will be undertaken with not only the idea of a satisfying of present needs but with a due regard for probable future requirements. In all American

(*Continued from our issues of November 9, 1918, page 559, and of November 13, 1918, page 591.).

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cities there are to be found old school buildings that are well constructed, substantial and in good condition but are built in such a manner that they are inadequate to the demands of the present time. To illustrate, a building might satisfy all the demands for a purely academic training but by a change in the nationality or social status of its pupils be required to furnish the facilities for several forms of industrial and commercial training and the building, having been designed for one specific line of educative work, is physically incapable of being altered for some other phases of such work.

It is, then, necessary that school buildings be designed in such a manner that they can be altered, with economy and to perfect serviceableness, to meet every reasonable demand of educative work, limited only by the housing capacity of the building.

As the first step in satisfying the above requirement, the needs of the different kinds of educative units have been standardized by the Board of Education of the City of New York as previously described. With these standard units, a school house serving the purposes of standardized educative processes is simply a rational assembling of these units. The assembling of these units involves the designing of the building.

"According to reputable authorities we have been the world's spendthrift, and we must now try to learn where waste may be curtailed in every possible way, not only in the use of food, but in the use of materials, and under the latter heading in the use of building material. I do not mean that we must stop using building materials, but I do mean that we must be sure that the materials are being put to the best use in the most economical way. In the development of our present complicated building with laboratories, gymnasiums, libraries, executive departments, etc., there has crept in an element of waste space and inefficient layout which almost always results in a waste of public money, and it is this waste which we hope in some way to abolish."*

The plan of a public school building is necessarily based on the number of pupils to be accommodated. Given the total number of pupils and the average number of pupils allotted to a classroom, the number of classrooms is easily determined. To this space must be added that required for the teaching of special subjects. These special rooms are disposed of in multiples of the standard classroom unit and a summation is made resulting in the total number of units required. This total, with the space required for the auditorium and gymnasium represents the floor area required for purposes of

instruction. The other areas are devoted to administration, accessories, stairs and corridors, flues and construction.*

To illustrate the assembling of these divisions in a complete building, the standard preliminary floor plans of a Type "A" elementary or intermediate school, prepared by C. B. J. Snyder, Architect and Superintendent of School Buildings, and C. E. Dobbin, Deputy Superintendent of School Buildings in charge of Drafting Division, Building Bureau of the Board of Education of the City of New York, are given in Figures 11 to 15, inclusive. These plans are summarized as follows:

Five-story Building

Classroom units, 49.

Cubic contents, 1,436,600 cu. ft.

Indoor play space, 10,636 sq. ft.

Roof play space, 13,000 sq. ft.

Auditorium sittings, 565.

Four-story Building

Classroom units, 36.

Cubic contents, 1,226,500 cu. ft.

Indoor play space, 10,636 sq. ft.

Roof play space, 13,000 sq. ft.

Auditorium sittings, 565.

On this basic plan the space is allotted to the various uses as the local conditions demand. In the cellar, plan not given, space should be provided for a boiler room, coal storage for a year's supply or more, blower and engine rooms, furniture store rooms, janitor's supply room, room with toilet and shower for the use of male help.

The first floor plan, Fig. 11, provides for one front, two side and four rear entrances. The janitor's office and sleeping room are located on each side of the main entrance. The greater portion of this floor is devoted to play room purposes, with two smaller playrooms that can be used for instruction purposes. The girls' and boys' toilet rooms are widely separated by being located at the opposite ends of the building. At the rear of the larger playroom is indicated a kitchen which can be used if lunches are provided, as they are in the public schools of many cities. Adjoining the kitchen is a matron's room. The fresh air intakes to the blower rooms in the cellar are located at the sides of the two rear wings.

The second floor plan, Fig. 12, contains ten classroom units, principal's offices, teachers' room, shower bath and toilet room. It sometimes occurs that a pupil needs a bath, and the showers are provided for this purpose. The auditorium is located on this floor and, aside from the stage, has two

*Frank Irving Cooper, Architect and Chairman of the Committee on Standardization of School-house Planning and Construction, National Education Association, in *THE AMERICAN ARCHITECT*, August 21, 1918, page 241.

*The explanation of and percentages of area allotted to these divisions by the National Education Association are explained in *THE AMERICAN ARCHITECT* of August 21, 1918, page 241.

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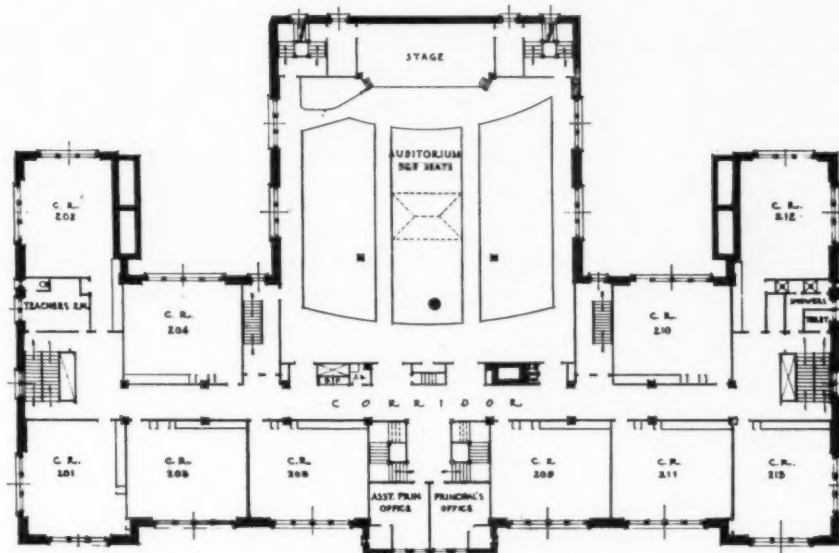


FIG. 12. SECOND FLOOR PLAN. TYPE "A" ELEMENTARY OR INTERMEDIATE SCHOOL

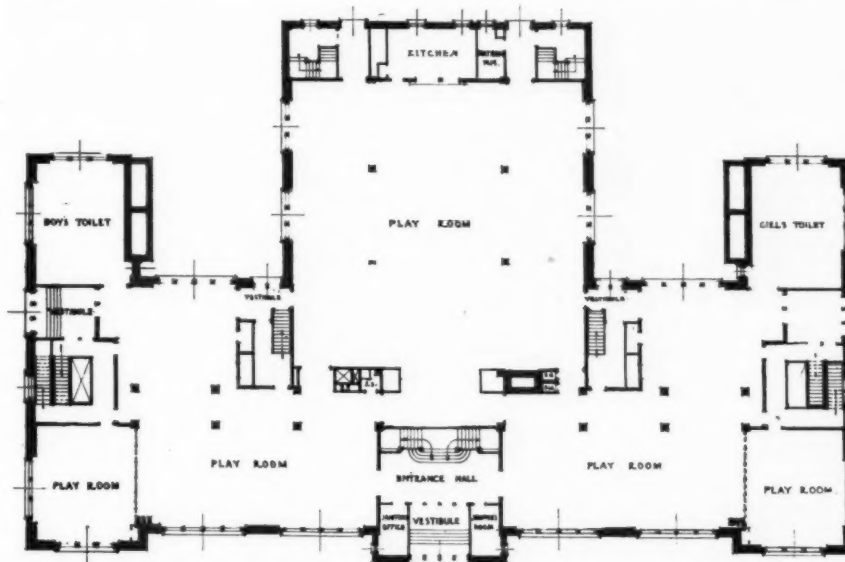


FIG. 11. FIRST FLOOR PLAN. TYPE "A" ELEMENTARY OR INTERMEDIATE SCHOOL

preparation or retiring rooms and a platform adjoining the stage for the piano. The stairways at each end are so arranged as to be the equivalent of four stairways, and this floor is served with the equivalent of ten stairways, the auditorium being adjacent to six stairways with ample exits leading thereto. The two main warm air ducts are placed in the vertical shafts adjacent to the stairways at each end of the building. From these warm air shafts

horizontal ducts are taken at the ceiling of each story and carried over the corridors, supplying each classroom unit through two registers. These horizontal ducts are located between the suspended ceiling of the corridors and the floor construction, as shown in Fig. 16. The ventilating ducts are also located in this space and withdraw the air through the wardrobes, as indicated in Fig. 1 (shown in our issue of Nov. 6, 1918) and Fig. 16. These vent

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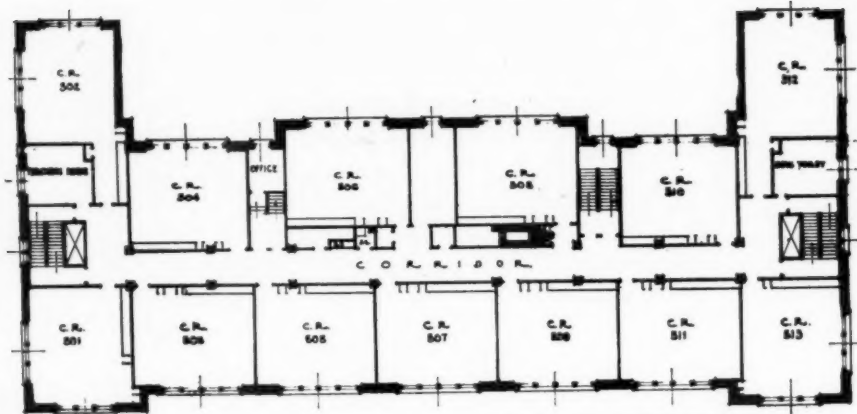


FIG. 15. FIFTH FLOOR PLAN. TYPE "A" ELEMENTARY OR INTERMEDIATE SCHOOL

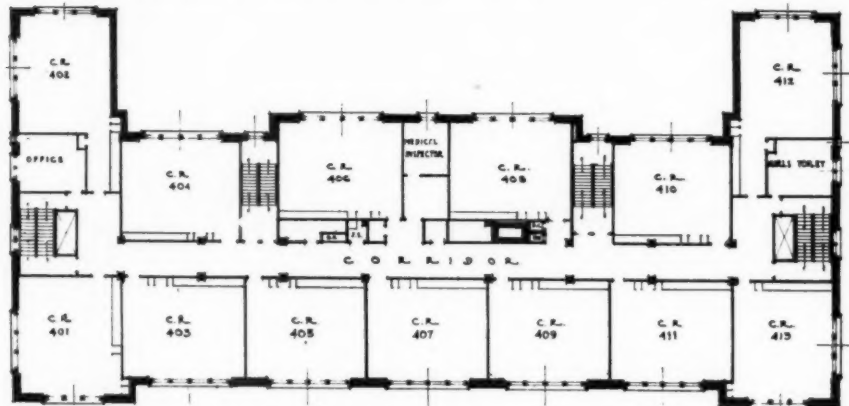


FIG. 14. FOURTH FLOOR PLAN. TYPE "A" ELEMENTARY OR INTERMEDIATE SCHOOL

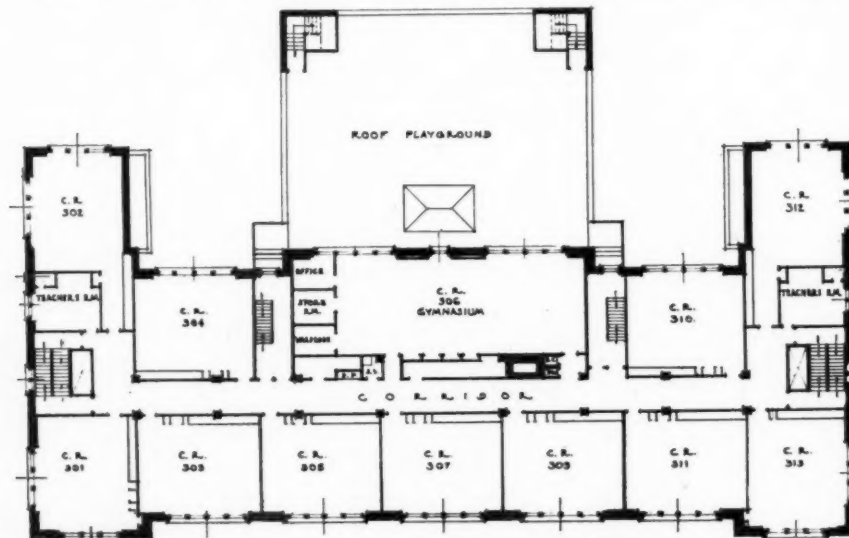


FIG. 13. THIRD FLOOR PLAN. TYPE "A" ELEMENTARY OR INTERMEDIATE SCHOOL

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ducts exhaust to the atmosphere through vertical ducts located near the center of the building adjacent to the smoke flue.

This method of ventilation by means of horizontal ducts above the corridor ceilings and the two vertical ducts before mentioned permits of the location of dividing partitions at will and their removal and reconstruction in other places without interfering with the ventilating apparatus in any manner. The only immovable partitions are those about the corridors, stairs and utility shafts. It is the elimination of the usual ventilating flues between the rooms that makes this type of construction elastic and flexible as to the disposing of the spaces devoted to instruction. It is readily seen that dividing partitions can be located for enclosing classroom units and parts thereof as may be desired. Fig. 17 represents the plan of a school building, erected in a small city, in which the vertical ventilating flues are located between the rooms. With this arrangement it is utterly impossible to alter the rooms in size without readjusting the ventilating apparatus to an extent that would be prohibitive in cost. For this reason a building constructed in this way is inelastic and incapable of modification as to plan. By referring to the standard special purpose rooms, heretofore described and consisting of one and one-half and two standard classroom units, the desirability of eliminating the vertical vent flues is apparent, and also the value of such basic plans as shown in Figs. 11 to 15 inclusive is readily appreciated.

Attention is called to the auditorium shown in Fig. 17. This room has three exits, of which two open directly into the auditorium and one into the stage. The three exits from the auditorium are both located at one side of the room, and to reach them the audience has to change its line of travel. This fact, in connection with the short flight of steps at each exit, makes the arrangement absolutely unsafe. Fire prevention and public safety officials in any city would not permit such a plan to be executed.

In the auditorium shown in Fig. 12 the line of travel leads directly to the exits, the stage having two exits and the auditorium eight exits. There are no intermediate short flights of steps at these exits, and the whole layout evidences an appreciation of the needs of safe means of egress.

In these plans *D F* indicates the drinking fountain, *J S* the janitor's closet and sink, *D C* the dust chute and *D W* the dumbwaiter.

On the third floor, Fig. 13, is located a gymnasium such as is shown in detail in Fig. 5. On the roof of the auditorium is located the roof playground for the kindergarten and primary grade pupils. There are four means of egress provided from this space.

There are eleven standard classroom units on this floor. The fourth and fifth floors, Figs. 14 and 15, are practically alike, each having thirteen standard classroom units.

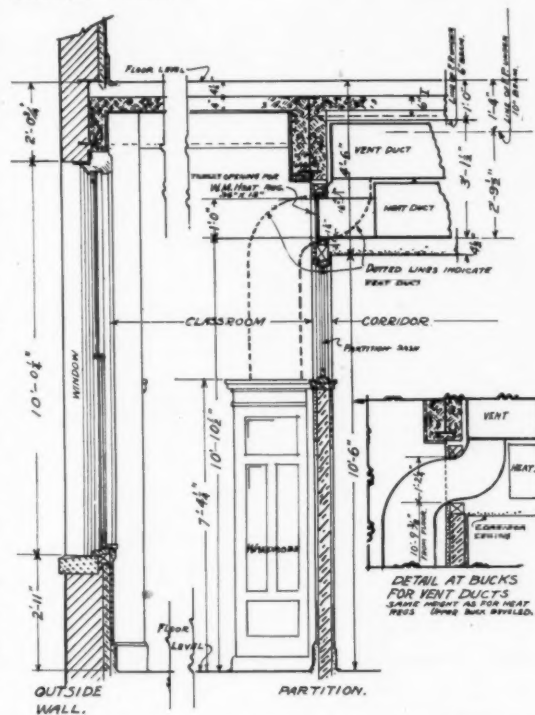


FIG. 16. HEIGHTS PERTAINING TO CLASS ROOMS IN ELEMENTARY SCHOOLS

Showing relation of ducts, partition sash, wardrobes, heat register openings, vent outlet, etc.

In adapting this plan to Public School 29, Brooklyn, the following distribution was made:

First floor

Two playrooms, aggregating..... 5000 sq. ft.
Two auxiliary classrooms, aggregating 1250 sq. ft.
Gymnasium No. 1..... 4400 sq. ft.

Total10,650 sq. ft.

Lunch kitchen.

Janitor's office.

Janitor's sleeping room.

Girls' toilet.

Boys' toilet.

Room and toilet for female help.

Second floor

8 classrooms, at 45.....360
1 library 40
1 kindergarten 45 445

Auditorium, 563 seats.

Offices for principal.

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Offices for assistant principal.
Teachers' room.
Two shower baths.
Kindergarten toilets.

Third floor

11 classrooms, at 45.....	495	
1 gymnasium	45	540
2 teachers' rooms.		
Roof playground, 2500 sq. ft.		

This total of 1986 pupil accommodations is on the basis of a single session school, and could be largely increased through the putting into operation of a program which would bring into use for purposes of instruction the large gymnasium and the two auxiliary instruction rooms on the first, as well as the auditorium on the second floor. The main roof could be used for play space by laying the paving tile and erecting the necessary steel work to support the protective guards of wire netting.

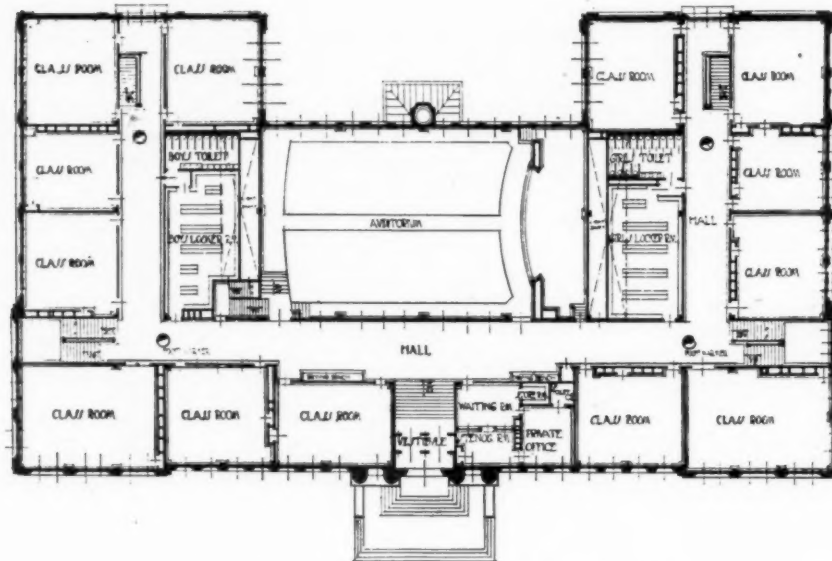


FIG. 17. THE FIRST FLOOR PLAN OF A SCHOOL HOUSE

This is a plan of a school house as often built with vertical vent ducts between the classrooms and on corridor partitions. An unsafe auditorium owing to inadequate and improperly located exits.

Fourth floor

8 classrooms, at 45.....	360	
1 commercial room.....	48	
1 sewing room.....	40	
1 domestic science	40	488

Medical Inspector's office.
One office.
Girls' toilet.

Fifth floor

9 classrooms, at 45.....	405	
1 science room	40	
1 drawing room	44	
1 woodworking shop	24	513

1 teachers' room.
1 office.
Boys' toilet.

1 dentist office		
Total	1986	

Economy in construction, while not so important in private buildings, is of the greatest consequence in public buildings, especially those of a productive and non-monumental kind like school houses. The economies practised in the development of this typical plan were directed along five distinct lines:

(1) Economy in plan, with the aim to reduce each feature to the minimum of size and so dispose the various parts as to eliminate all unnecessary or unused spaces.

In other words, to reduce the building to the smallest dimensions that will serve the purpose.

(2) Design of exterior so as to obtain a dignified and pleasing appearance, with a minimum of elaboration and ornament.

(3) Economy of materials and forms of construction, which make use of the least expensive and most easily obtained materials that will answer the requirements, having due regard for permanency and economy of upkeep.

(4) By permitting the contractor the greatest possible latitude in the selection of materials, methods and forms of construction, so as to enable him to take advantage of market conditions and to use those materials and types with which he happens to be most familiar.

(5) By making the drawings and specifications that are given out for bidding so explicit that no allowances need be made in the estimates for uncertainty as to their meaning or intent.

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In the effort to apply the principle of economy to the plans, it became evident that it must be directed along new lines, since there were rigid requirements as to the number and size of classrooms, together with their equipment of wardrobes and closets; the width of hallways; the width and number of stairways, as well as other items, each of which had to be provided for.

A careful checking over of the minimum space to be assigned to each item led to the discovery that the lines of vertical vent flues, which have heretofore been provided between nearly all the classrooms in school buildings, could be eliminated, and the vents from the various rooms could be carried above the corridor ceilings and taken up to the roof through trunk lines located in out-of-the-way corners. This expedient, which has never before been adopted so far as is known, has resulted in reducing the length of the building 5 ft. 6 in. and the length of the two wings 2 ft. over previous buildings of this type, thus saving a very large amount of floor space and cubature.

It was also found that by providing recesses for steam risers at the side of windows, instead of placing the risers on the face of the wall, the width of the classrooms and of the building was reduced

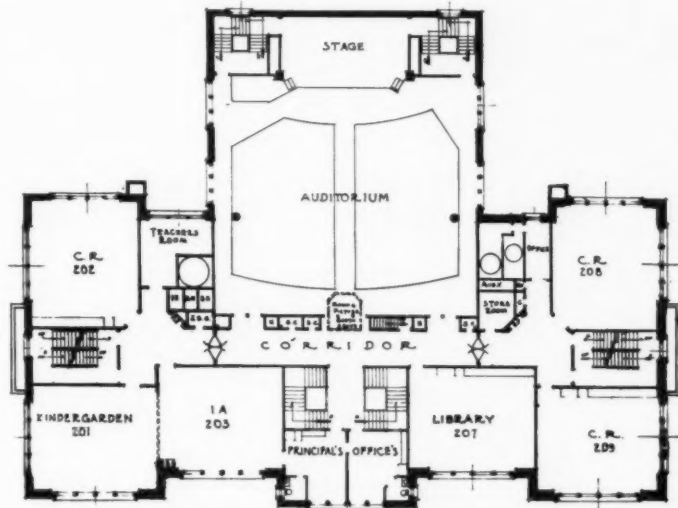


FIG. 19. SECOND FLOOR PLAN. TYPE "C" ELEMENTARY SCHOOL

without decreasing the seating or aisle space in the rooms. This is shown in Fig. 1.

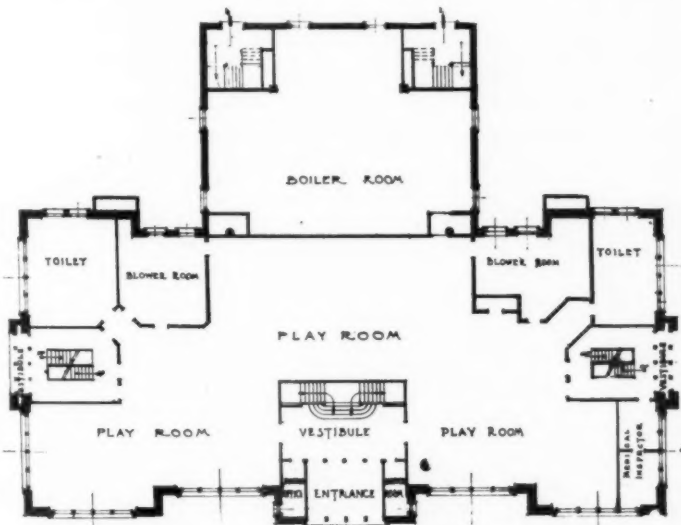


FIG. 18. FIRST FLOOR PLAN. TYPE "C" ELEMENTARY SCHOOL

The omission of the ducts between classrooms also made it possible to eliminate an attic space of 4 ft. 6 in. in height, which was required for the collection of the vents.

ing contains 203,450 cubic feet less than a similar building without these changes and with the same service for pupils.

This very large saving in cubature is only one

A further reduction in the height of the building was obtained by changes in stair construction. For many years the floor to floor story height of New York schools was fixed at 15 ft. 7½ in., which seemed to be the minimum height that could be used in connection with the type of double-run stairways which have been found so economical of space. On study it was found that by a change in the construction of the stairs enough headroom could be saved to permit of reducing the story height to 15 ft. In a five-story building this makes a saving of more than 3 ft. in the height of the building and permits of a reduction of 4 in. in the thickness of the outside walls as required by the New York Building Code.

As a result of these changes in the flues and stairways, this build-

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item of reduction in cost. The elimination of the vertical ducts between the rooms reduces the amount of partition work, there being single instead of double partitions between classrooms. The contractor is enabled to finish his partition work without waiting for the installation of the sheet metal heating and ventilating ducts, which may cause weeks of delay.

The elimination of the many openings in the floors necessitated by the old system of vertical ducts makes the floor construction better, more simple and less expensive to build. The ease and small cost of changing the room sizes under this plan has been mentioned before.

The Committee on Standardization of Schoolhouse Planning and Construction, National Education Association, has offered a percentage distribution of floor area for the various elements of schoolhouses. Comparing the building just described, we have:

The space on the various floors above the cellar chargeable to administration is 6.58 per cent. With the total at 12 per cent, this leaves 5.42 per cent for the space to be devoted to heating and venti-

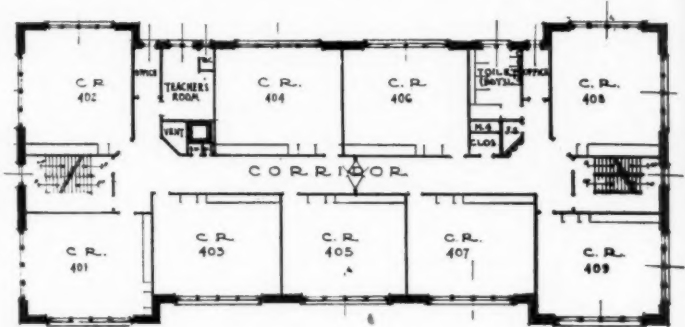


FIG. 21. FOURTH FLOOR PLAN. TYPE "C" ELEMENTARY SCHOOL

lating apparatus and coal storage, amounting to 4562 sq. ft., which would be amply sufficient for all needs.

Economies in the use of materials have been effected in the exterior by the use of hard, common brick and by bringing limestone in competition with architectural terra cotta.

Owing to the use of the playroom for basketball, indoor baseball and other such activities, it has been found advisable to face the walls their entire height with hard brick, cleaned, rubbed smooth with carborundum and painted. The soffits of the concrete floor arches are smoothed and painted. By eliminating the plastering formerly used, its destruction through these games and the large attendant cost of upkeep is avoided.

The use of enameled brick has been omitted from the walls of heating chambers and fresh air intakes, they being finished with a coat of cement mortar, smoothed and painted.

Sheet metal has been omitted from the vertical flues, terra cotta or plaster blocks being substituted. This accomplished a saving in cost as well as a saving in time required for construction.

Cement finished floors are installed in the auditorium, offices, toilets and closets containing the janitor's sinks.

The floor of the gymnasium is finished in cork carpet, which has been found satisfactory when properly cemented in place. At this time it is con-

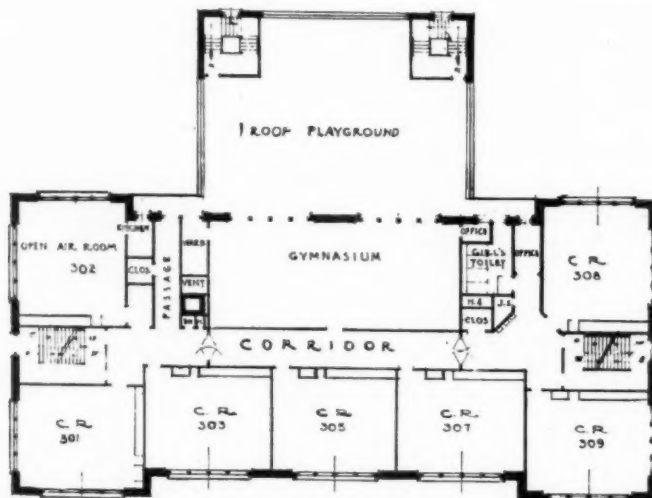


FIG. 20. THIRD FLOOR PLAN. TYPE "C" ELEMENTARY SCHOOL

	Standard of N. E. A.	New York
1. Walls and partitions	Not over 10%	10.62%
2. Flues	Not over 5%	3.51%
3. Stairs and corridors	Not over 20%	16.17%
4. Accessories	Not over 3%	0.29%
5. Instruction	Not less than 50%	57.41%
6. Administration	Not over 12%	*12.00%

*The proportion of 12 per cent for this building is arbitrary.

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siderably less costly than cork tile. The rubber tile formerly used proved unsatisfactory because of its large content of inert material and consequent lack of resiliency.

Copper gutters and down-spouts have been omitted from all skylights as not being actually necessary.

These citations will indicate the results of accomplishing a saving in material costs, and they are, of course, largely the result of the present conditions. It indicates the necessity of constant care on the part of the architect to accommodate the building to the market conditions and at the same time preserve the durability and desirable features of the building.

The plans shown in Figs. 18 to 21 inclusive are of the Type "C" elementary school. A three-story building contains fifteen standard units and the four-story building has twenty-four units. As in the Type "A" building, these units can be adjusted for the various uses as needed.

It has become evident that the standardization of school house planning and equipment has aroused considerable interest, if not curiosity, among the school boards of various cities. It is but fair to state that at no time during the development of these standards was there anything to indicate limitations arising from the usual interpretation of

the word "standardization," that is, something which is fixed, uninteresting and monotonous.

Rather it was regarded in a broader sense—the utilization of its principles not only as a means to effect economies of construction, which at all times is of the greatest importance, but also to aid in the preparation of a plan which, while sufficiently flexible to permit of such modification as might be necessary to suit local conditions, yet would indicate certain fixed principles which would be automatically applied to each problem as it arose. This results in conserving the time of all persons interested and operates to lessen the time required in the preparation of contract drawings and specifications.

Details of construction and equipment will be published in a future article. They are the result of the definite solution of problems as they arose, and will indicate what can be accomplished when the desire to do aids the necessity for doing.

Acknowledgment is made to C. B. J. Snyder, Architect and Superintendent, and C. E. Dobbin, Deputy Superintendent of Buildings, of the New York City Board of Education, for the illustrations and data furnished and an appreciation of their enthusiastic efforts to accomplish a rational standardization of school house planning is rendered.

Industrial Information

In this Department there is published each week information as to the development of materials and methods, derived from reliable sources.

Von Duprin Fire Exit Latches

Fire is at all times a haunting dread where the ordinary precautions have been ignored. All fires begin as little things, and in most cases, in these days of safeguarding, should do but little damage. In a building well constructed as to safety from fire an added element in the improvement of exit facilities should not be overlooked. In buildings less immune to fire hazard the necessity for easy and rapid egress is vital.

For all buildings, therefore, self-releasing fire exit latches are a factor in safety which no architect can afford to neglect. The Vonnegut Hardware Co., with headquarters in Indianapolis, Ind., and branch offices throughout the country, are distributors of "Von Duprin" self-releasing fire exit latches for school, theater, church, or any public building as a guard against panic disasters.

These latches are made strong and heavy enough

to withstand severe handling. Operative members are machined and milled, leaving no exposed parts to mangle the fingers or tear the clothes. No instruction is required to work doors bearing this equipment. The slightest touch is sufficient.

The essential features of the Von Duprin device are these:

It combines in a unit the usual locking devices, the door lock and the top and bottom latches. The usual hardware trim is applied on the outside of the door. On the inside, about waist high, a solid bar stretches across the door. This bar stands away from the wood and connects directly with the mechanism of the latch. Any pressure applied to any part of the bar is said instantly and positively to release the lock and latches simultaneously, and permit the doors to open.

The operation under conditions of panic is evident. People rush to the exit doors, the leaders are forced against the bar across the doors, the latches

operate automatically, and the doors are thrown open to safety.

A Glass Boat House

What is believed the world's first glass boat house is being built for Mr. Lee M. Rumsey, of New York City, at Mr. Rumsey's winter home at Alton Beach, Miami, Florida, adding another item of interest to the many yachting novelties of this sub-tropical region.

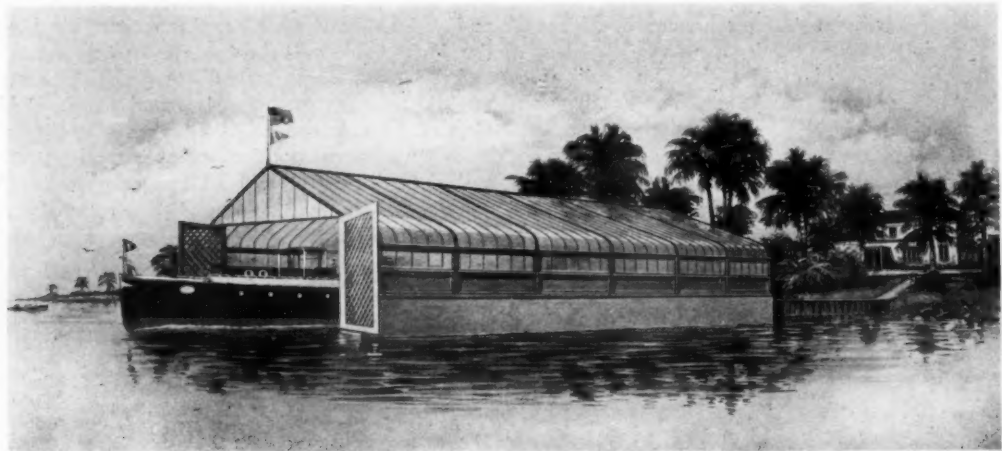
Glass has been widely used in the construction of conservatories and swimming pools; but its application to boat houses comes as a distinct novelty, although it has several advantages for this purpose.

The structure is of pleasing lines, with curved

Economy Drawing Tables

Architects are described as caring for the efficient and practical as well as the aesthetic details of a building. It would therefore seem logical to suppose that their own offices should typify the things they represent.

A catalog describing accessories which are, however, not only for architects' offices, but which are also very available for installation in colleges, universities, business offices, etc., has been published by the Economy Drawing Table Co., Adrian, Mich. This firm manufactures drawing tables, filing cases, tool cabinets and other furniture for banks, schools, offices and public buildings. The wide variety of these things is indicated by com-



A GLASS BOAT HOUSE

eaves, and the use of glass on the roof and sides precludes the probability of mildew. It can be washed down with a hose from top to bottom. There is not a dark spot in the whole structure.

The foundation is of concrete. The supporting framework is of cast iron and steel, heavily galvanized. The glass used in glazing is ground, which softens the direct rays of the sun, while giving the maximum amount of light. The double doors are of wood, with an open lattice pattern that insures good air circulation.

In constructing the structure, the designers, Lord & Burnham, of New York City, aimed to secure conditions approaching a boat at anchor, with a suitable covering to shield it from the weather. The accompanying photograph shows the relation of the boat house to Mr. Rumsey's home itself.

plete illustration and description in the above mentioned catalog.

Certain distinct advantages are possessed, for instance, by the drawing tables. They make for comfort by the possession of a foot rest. They are claimed to be stable and not easily jarred or shaken. Place is provided for implements, scales, pencils, etc. The time wasted each day ordinarily looking for these things is saved and the comfort and convenience possible should be remembered when such installations are contemplated.

These tables are simple in construction, easy to keep clean, and, it would seem, economical. They are well made, in special designs adaptable for architect, engineer, artist and student. Catalog M, referred to above, indicates that they have much to commend them.