

Post-War Heating, Ventilating, Cooling

By Samuel R. Lewis, Consulting Mechanical Engineer

Most engineers have been so very busy on design of offense plants and the housing facilities for the employees of such plants that there has been little time to consider what changes there will be in heating after the war ends. One does experience a primary impression that changes may be due more particularly to use of new construction materials, such as plastics, developed under stress of substitution for critical metals.

It will be a distinct relief to engineers when a reasonable factor of safety, now prohibited by Washington authorities, again may be applied; particularly as to pipe sizes, boiler output capacity, electric motor horsepower, etc.

The restriction on Freon, the refrigerant used in most medium size air cooling plants, has terminated the construction of refrigerated or ventilating systems except for ultra special precision manufacturing plants.

All competent designers of such systems will be kept exceedingly busy serving the dammed-up needs of offices and homes, theatres and public buildings with year around air conditioning for several years after the war.

There seem to have been no radical new discoveries in air conditioning for comfort except perhaps in condensing unit details. The tendency in design is toward provision of better control and toward maintenance of a reduced dry bulb temperature differential. That is, to have the indoor air delivered at a higher temperature but less damp than was the tendency before the war.

Thousands of small residences have been built for war workers. Many of these designs show the effect of intensive architectural study. The tendency during the war is to heat these homes with mechanically circulated warm air. The furnace, really a good sized, jacketed stove with an electric fan to force the air around it, usually placed in a small room on the ground story, with a coal bunker adjoining. Air supply ducts usually have been run overhead, concealed within a furred-down ceiling. This construction has caused plenty of fire department trouble. Domestic hot water preferably is heated by gas or electricity. The walls and ceilings of the houses are well insulated.

I have fought to get at least the furnace room of fireproof construction, with a cement floor and masonry walls and ceilings. The furnace rooms in the charming small houses I have inspected, after being occupied for a short time, become the repository for brooms, old newspapers, mops, empty cardboard boxes, extra groceries and a thousand articles which are demanded by modern living, but space for which is very short in these little compact houses. The door between the kitchen and the utility room usually is of wood. One hates to see hot clinker and ash pulled from the furnace firebox in a room full of combustible debris.

Even when gas or oil is burned in the furnace, the fire hazard in these utility rooms is serious. I suggest that the heating apparatus always should be below the first story, with enough room to handle the fuel; leaving the first story utility room for its inevitable function of store room and catch-all.

In many of the small homes I have observed, where oil is the fuel, the oil tank is exposed above ground out of doors near the outside door of the utility room. There wasn't enough space within the house for the oil tank, and there wasn't enough money, or not enough something else, to bury and protect it.

In many cases the promoter has attempted to foist on the purchaser a gravity oil burner, in which the oil is supposed to trickle down a hot plate and somehow keep from clogging with carbon.

Therefore I hope that the small house of the future may have its heating plant in the basement. When the war is over the present restrictions attempting to limit the heating of such buildings to hot air will be lifted. Then the more efficient and more easily controlled heat transmission via a liquid, such as water, largely will supersede hot air.

The common, free standing, cast iron radiator probably will not return to universal acceptance. Installations employing radiant heating by means of piping imbedded in the floor or ceiling construction and carrying water at relatively low temperature, undoubtedly will increase. This method has been used extensively in buildings of various types, with entire satisfaction.

Our clients like a room which is delightfully comfortable at 65 degrees while the outside temperature is -10 degrees, with the baby crawling anywhere without being subjected to a draft, and without any dirty and unsightly radiator or convector or warm air register. Tests in such rooms indicate a knee-high temperature warmer than that around the feet or head, an interesting phenomenon, but one which attends radiant heating.

The fact that radiant heat acts in a manner similar to the heat which accompanies bright sunlight has led to consideration of utilization of solar energy to warm houses. There is no question but that the air in a room or a greenhouse receiving brilliant sunlight on even a very cold day will get warmer than the outside air even if no heat is delivered by the installed heating plant. Houses have been designed with large glass areas capable of receiving solar energy in winter and careful observations have been made of the very considerable heat thus obtained. The weakness of the scheme is that the sun shines only during daylight hours, that its intensity varies with the angle of light impact and with clouds and dust and fog, and that the angle of reception changes continually.

Thus the room receiving solar heat often will become too warm and the storage of heat in the walls, floor, contents, etc., may be so great as to continue the excess temperature long after the rate of reception has been reduced. Again the room may be too cool, and the sunlight in its constant traverse may not linger for a time long enough to increase the temperature. Since the solar reception is not present at all hours there must in any event be an auxiliary adequate heating plant, so that the only good that seems to be available about solar heating through windows is a possible reduction in seasonal fuel cost.

It is evident that any room having windows except those facing north always has received heat in winter from the sun and the fuel saving due to this reception always has been realized if automatic devices or careful humans throttled the fire and thus prevented overheating.

There has always been some difficulty in heating and cooling rooms, as to control of the temperature. The building keeps turning a different face to the sun and to the wind, so that constant readjustment of the heat input or removal is necessary for the rooms on each orientation. The basic answer to this situation is to provide a heating and cooling plant capable of varying the rate of heat supplied to or removed from any room independently of the rate of

heat at the same time for any other room. Then if every room has a thermostat to do the controlling, reasonably satisfactory results can be attained.

However it is not commercially feasible, especially in residence heating and cooling, to have a separate thermostat in every room. The tendency is to install apparatus for these smaller plants which can deliver air or can transfer heat only at one temperature for the whole house. Then comes the fun of deciding where, in a house, to locate the all-important thermostat that controls the boiler or furnace or refrigerating system. Sometimes there is a central hall, never exposed to direct sunlight, in which a reasonably successful thermostat can function. Frequently, however, the condition of heat input which suits the hall causes one or more of the other rooms to be too warm in the forenoon and too cool in the afternoon.

The best answer to this difficulty, and one which is receiving increasingly favorable attention, is to control the heating plant by a thermostat placed in the shade, out of doors, perhaps hitched up electrically with another thermostat against a radiator or in a warm air duct. Then if the distribution of heat to the various rooms is reasonably well balanced, there will be little overheating in any room.

Steam at about atmospheric pressure has been a very popular heat transportation agent from the fire to the transmitter in the room. Steam has its objectionable features; namely that air constantly enters the piping, that condensate is likely to have excess oxygen and thus corrode the return piping, and that it is difficult to modulate the heat transmitter temperature below 212 degrees and thus prevent overheating after a room reaches the desired temperature. The remarkable savings in fuel which have been demonstrated by the vacuum specialty manufacturers when steam temperatures cooler than 212 degrees are maintained prove amply the advantages of such modulation.

Part of the fuel saving thus proved to have been made is due to an increased difference between the fire temperature and that of the water in the boiler, but the important saving comes from prevention of overheating due to reduction in the steam temperature. Therefore if such savings follow the controlled employment of a heat transporter at a cooler temperature, why not use the more widely flexible warm water instead of steam to carry the heat?

With water the pumping cost to move the maximum heat is no greater and may be less than that required for maintaining by a vacuum pump the very low absolute pressure (far below atmospheric) necessary for steam circulation at say 160 degrees temperature. With water the centrifugal circulating pump is much simpler and less costly than is a vacuum pump. With water there are required no thermostatic traps at each transmitter to separate the condensate and air from the steam, and the boiler heat absorbing surfaces do not become incrustated with precipitated salts.

Prior to the war there was some pioneering, as at the Campana Sales Company plant at Batavia, Illinois, with water employed to transport heat to the various departments in winter and to transport heat away from them in summer, using the same pumps, pipes, convectors, and fans the year around. During the war opportunity was given further to apply this very attractive scheme in extremely large black-out manufacturing plants. In the Allis-Chalmers turbo supercharger plant in Milwaukee, for example, over 5,000 tons of refrigeration cool the circulating water which removes surplus heat in summer, while in winter the same water brings in the heat.

Full use is made of the heat from the sun on the roof, of the heat in the electrical power input and of the heat of the thousands of operatives, so that surprisingly little fuel is required to maintain comfort in winter.

Contemporary black-out aircraft plants in the Southwest have met the same experience. It is startlingly true that with well insulated manufacturing structures the greater cost of summer cooling partially is counterbalanced by the reduced cost of winter heating.

No man should ever be unalterably convinced of anything, since

this world is full of unexpected eventualities. One may, however, have a conservative opinion, and mine is that intelligent conservation of natural resources points to cessation of burning fuel oil in ordinary heating. Petroleum definitely is expendable. It so far surpasses coal for transportation power, as in railway locomotives, shipboard, and in aircraft, that it should be reserved for such service and not burned wastefully, in small furnaces and stoves, heat houses.

Oil burners for space heating of course save labor and trouble but I think that the pressure by the Petroleum Administration for War to convert existing plants back to coal was a wise move, and I will find it difficult to advise my clients in the future to install oil burning heating equipment. After all when an oil burner in a steam heating boiler, especially, cuts out, the steam pressure must drop quickly and there is no such thing as a banked fire. With coal, on the contrary, when a good deep fuel bed has been established the steam pressure holds for a long time and the boiler loads along with little wear and tear.

In the general heating of buildings there will be, I hope, an end to the built-in convectors made of finned or gilled sheet metal circulating air within the room and depositing the dust on the walls above the warm air outlets. These unfortunate devices lack the virtues of the old sectional cast-iron exposed radiators in that the latter give off beneficial radiant heat and continue to do so even when the surface temperature approaches that of the air in the room. The dirty convector, however, commences to lie down on the job as soon as the temperature of the tubes and gills falls below 212 degrees and this type of heat transmitter might as well not be present with water at 150 degrees. This is because there remains not enough temperature difference to bring about an adequate thermally induced air circulation in the room.

There will doubtless be increased employment of mechanical air circulation as exemplified in convectors combined with electric fans, popularly spoken of as unit heaters. In most commercial applications these devices, especially of the down-blowing or projection type, probably will supersede the thermally circulating heat transmitters which used to be placed along the outer walls below the windows. The facility with which unit heaters can be controlled with relatively inexpensive electric thermostats and the high rate of transmission inherent to their design militate strongly in their favor.

The city of Madison, in Wisconsin, is not the only beautiful place by that name in the Middle West according to Indiana newspapers. Madison, Indiana, nestling beneath the hills on the north bank of the Ohio River in southeastern Indiana, is beautiful in its nature and its architecture. It is a place of perhaps 10,000 people. Early in the state's history, there came to Madison one Francis Costigan, architect, who built houses and public buildings in the Baltimore manner. These buildings were distinguished and they are the pride of the town today. The Lanier House is one of these, now a state shrine. Other notable homes dot the hills. West of the town is Hanover College, overlooking the river as it sweeps southward. Clifty Falls, a state park, adjoins the town and Cragmont, a state hospital on a hill, overlooks both town and river.

"CHURCH ARCHITECTURE—The Advent of Church Architecture According to Bible History" by Henry Worthman, architect of Chicago and long-time member of the Illinois Society of Architects, is a newly published booklet presenting his lecture on this subject delivered before audiences in many Lutheran schools.

Mr. Worthman holds there are three and only three styles for Christian churches—Byzantine, Romanesque, Gothic—and "the Gothic style is the style of church architecture." The use of Classic and its derivatives, Renaissance, Baroque, Rococo—derivatives from a pagan world—he believes ill-suited for Christian churches.

The firm of architects, Chatten & Jacobson, 160 N. La Salle Street, Chicago, was dissolved August 31, 1943.

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Editor Monthly Bulletin

ARTHUR WOLTERS DORF, 520 NORTH MICHIGAN AVE., CHICAGO

A court decision by Judge Hemphill to dispose of the pending suit heard in the Superior Court of Sangamon County on October 9, 1943, and pertaining to the Professional Engineers Act has been awaited for the past several days, but up to the moment of sending the Bulletin to press, no official word has been heard. It is quite likely that the next issue of the Bulletin will have a full digest covering the details of such decision. We know that our readers will welcome any official interpretation as to the validity of this Act and it is hoped that if such information will be made available by the Court that our next Bulletin will contain the full details.

Tentatively, no applications for registration under this Act are being received by the Department of Registration and Education pending the settlement of the suit.

The Indianapolis Star in a November 5 editorial says Indianapolis wants no and has wanted no federal housing nor federal financial housing aid since its introduction by the New Deal. "The city has one important undertaking in Lockfield Gardens, which was federally financed under the guise of being a slum clearance improvement."

The city's builders and realtors say private capital is adequate to satisfy all housing requirements. Competition from federally financed housing is resented. All they ask from government is permission to build and the necessary priority grants for building materials. The National Housing Agency has recently allocated to Indianapolis 500 family dwelling units and is about to allocate 500 more, all built by and with private capital.

An exhibit of photographs and measured drawings of octagonal houses and barns in Wisconsin was shown in Blackstone Hall, at Chicago Art Institute, through November 28, 1943. Mr. Anthony Wuchterl, Chairman, History Committee, Wisconsin Chapter, A.I.A. has made "Octagonda" in Wisconsin his special study with travel and research. The exhibit in Chicago was sponsored by the Burnham Library of Architecture.

The Illinois Capitol Its Design, Erection and Architecture

The dictators of the past had no difficulty in getting their colosseums, aqueducts and triumphal arches built. They simply ordered their architects to proceed. It was not necessary to consult the populace. The process is more complicated when a democracy builds and must follow a prescribed pattern, so all may know what is going on. This was especially so in 1867 when the State of Illinois, without a Department of Public Works and a State Architect, proposed to erect a new capitol. The people, through their legislature, demanded that it be the finest state-house in the Union, and that it be beautiful, practical, well planned and that its cost must not exceed three million dollars. The execution of this mandate provides an interesting example of how beauty, good construction, and keeping-within-the-budget was attained by democratic methods.

In 1867 Illinois was growing rapidly. Jealousy existed between cities, and all motives, sincere or otherwise, were suspicioned and challenged. Three millions was a large sum and the thought in everyone's mind was: what a temptation for graft and political deals! This background of distrust had a profound effect upon the final design and construction of the structure and prevented its completion for twenty-one years.

First, \$450,000 was appropriated to get the work under way and a commission was appointed. After the usual trips to other cities, a \$3,000 prize competition was announced to select an architect. Announcements appeared in eastern and near-southern newspapers and in July, 1867, thirty-one sets of drawings were received. Architects from Chicago submitting designs were: Merium & Moquet, L. B. Dixon, John C. Cochrane, Cleveland & Van Osdel, G. P. Randall, and Tully & Armstrong. The competing architects were invited to explain their designs, and the vote of the nonprofessional jury was: twelve for the design of John C. Cochrane, two for Cleveland & Van Osdel of Chicago, and one for W. L. Avery of Baltimore, Md. In January, 1868, six months later, Cochrane was given a contract at 2½ per cent, and ordered to get busy on the contract drawings.

The site for the new state-house was the Mather Block on a gently sloping plot, at the foot of Market Street (now Capitol Avenue) on the western fringe of Springfield. Abraham Lincoln would have been buried there and it would now be the site of the Lincoln Tomb if Mrs. Lincoln had not wired from Washington, D.C., just one hour before the funeral, that she preferred Oak Ridge Cemetery as his place of burial.

John C. Cochrane first came to Chicago in 1854, and was a young man of twenty-two years. He worked here for nine months, then left for Davenport, Iowa, St. Louis, Boston, and Manchester, N. H., to do architectural work. Ten years later, at the close of the Civil War, he returned to Chicago and opened an architect's office on Monroe Street. He married in 1866, and the following year won the Illinois Capitol Competition. Just prior to the competition, he formed a partnership with twenty-four year old George O. Garnsey. Garnsey actually prepared the prize drawings. The partnership was suddenly dissolved just after the announcement of the prize. In 1871, four years later, Garnsey testified under oath, concerning this partnership and claimed that Cochrane "had swindled him a little." Also that Cochrane had used \$2,700 of the \$3,000 prize money to influence the decision of the jury. Severe cross-examination failed to shake his story.

Sometime during the six-month period between the award of the prize and the signing of the contract, Cochrane met and formed a partnership with Alfred H. Piquenard. Piquenard was a native of France, studied civil engineering and architecture and worked for his father, a builder. He remarked later, that his work in France involved more engineering than architecture. He came to America in 1849, landing at New Orleans with a group seeking to establish a communistic settlement in Texas. Plans were altered and, leaving them, he went to St. Louis where he joined an expedition of the American Fur Company as a physician. His lack of experience did not deter him from accepting this post, and their travels took them to the upper Missouri River Valley. Later he rejoined his group and edited a newspaper at Nauvoo, Illinois, on the Mississippi, city of

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Illinois Society October and November Meetings

The October meeting of the Illinois Society of Architects was held in the quarters of the Chicago Bar Association on October 26, beginning with a 6:30 P.M. dinner. There were 26 in attendance. Immediately following the dinner, the president, in calling the meeting to order, announced Secretary Fuhrer's absence from the city and asked Ralph C. Llewellyn to function in his place. The business meeting was deferred until after the guest speakers had delivered themselves of what they wanted to say. At the speakers' table with the president were Messrs. Waldemar Weichbrodt and William D. Sorgatz, both from the Federal Housing Authority, and Vice President Gilbert A. Johnson of the I.S.A.

Mr. Sorgatz was first called upon. He introduced his remarks by saying that the FHA, with its years of experience, had made changes from time to time—changes meant to redound to better planning of small homes and their appearance architecturally. He said it looked as if FHA were here to stay and after years of examining plans and specifications and making suggestions, they had come to the conclusion that for better planning and site planning and superintendence they must encourage more and better architectural work than they had had in the past.

He said there were four things architects must supply and he went on to enumerate in detail not only careful general plans and elevations but details; a plan of the heating piping, the plumbing, many other details, and last but not least, the superintendence. Much of what he said in regard to detail seemed to older practitioners who had or had had an established clientele, elemental and that the architect did these things as a part of his complete service. Apparently, however, FHA group houses, often running into the hundreds of units, are built by speculative contractors who, having secured the land, tried in the past to get along with the least of architect's services. These builders are in the majority of FHA's clients.

There were some questions from the floor when President Ryan followed with the introduction of Mr. Weichbrodt, Chief Underwriter of the FHA in this territory. Mr. Weichbrodt claimed no architectural training. He had been a real estate man operating in Chicago in the 1920's and as he looked back at the houses he had had erected, he confessed they would be much different had he to do them today. The FHA wanted and wanted badly better and more complete architectural service than has been obtained up to now, and he assured his hearers that his staff would certify to fair compensation for the architect on such work. Of course, the builder described would, under FHA, have to merge the architect's fee in the total cost. Mortgage brokers bought the FHA loans which carried federal insurance.

The guest speakers, well applauded, then withdrew from the meeting after President Ryan had summarized their remarks and thanked them for having come. From here on it was a business meeting. Mr. Llewellyn read Secretary Fuhrer's minutes of the joint meeting of September 28. Mr. Ryan read a letter from Professor Province, now regional director for Illinois-Wisconsin of the A.I.A., notifying the Society of a directors' meeting to be held shortly in Memphis and if the Society had any matters it wished laid before the board, to please communicate them without delay to the Professor. There were no such requests. It was decided that during this society year, there would be no state-wide meeting—meaning no meeting beyond Chicago.

Mr. Ryan reported that Secretary Fuhrer had attended, early in October, a court hearing in Springfield of the Professional Engineering Act whose constitutionality is being tested. Then came a general discussion of architects' fees for FHA houses. These fees were considered much too meager, but while the guest speakers' promises seemed encouraging, the circumstances surrounding the building of these houses were a deterrent to profitable fees. Among the men speaking on this subject were Karl Vitzthum, Bertram Weber, James Ticknor, and a number of others.

The meeting ended with a statement by Arthur Woltersdorf on a fitting personality to clothe the position of chairman of the Chicago Plan Commission. George Horton, the last incumbent, resigned during the summer. It devolves upon Mayor Kelly to appoint a new chairman. The Plan Commission has functioned since the early years of the century. One commission chairman and only one is remembered as having achieved greatly. That man is Charles H.

Wacker. The position calls for a citizen who is a man of affairs willing to give lavishly of his time for the benefit of the community which is his home.

In spite of the ravages to the architects caused by World War and the attendant local difficulties in transportation, food, service and dearth of professional work, the architects of this society still gather in force. On the evening of November 23, in the dining rooms of the Chicago Bar Association headquarters, 29 members and guests were present for an eventful and colorful evening.

President Ryan introduced Jerrold I. Loeb and L. Morgan Yos both of the Chicago chapter, A.I.A.; Miss Christine Fahringer, architect in the state of Pennsylvania; Mrs. R. J. McLaring and Mrs. Katherine Kasch, all three of whom added the desired feminine charm to the occasion. To expedite the meeting, President Ryan proceeded with a short business session immediately after the excellent turkey dinner. Minutes of the previous meeting were approved as read by the secretary. Secretary Fuhrer then reported on the present status of the Professional Engineering Act noting that to date no Court decision had been reached. Bertram Weber reported on the excellent job of collaboration his committee had developed with the FHA officials.

President Ryan commented upon the Art Institute's exhibit of historic octagonal buildings of Wisconsin now being shown in Blackstone Hall. This exhibit contains a large photographic collection of octagonal houses and barns. It also includes measured drawings of the Elkhorn, Wisconsin, house made under the direction of the Historic American Buildings Survey. The first concrete house in Wisconsin, located at Milton, is said to be a forerunner of all octagonal houses in this country. It served as an underground railway station during Civil War days.

In a communication from A.I.A. Director Province, a request was made for the Society's cooperation in creating a movement endorsing the reduction of governmental bureaucracies in order that the country as a whole may avoid the possible evils of such bureaucracies. President Ryan next brought up the subject of arranging for joint meetings with the Chicago chapter A.I.A. for coming meetings. Paul Gerhardt's motion that such joint meetings be encouraged was passed unanimously. An additional motion that the directors be instructed to canvass members on the type of meeting to be arranged was also passed.

President Ryan then asked Mr. Loeb to give his comments on the activities of the chapter's postwar planning committee. Loeb gave an able summary in which were outlined the following actions which the chapter will endeavor to carry forward:

1. The re-education of the architect for postwar planning activities through a seminar that would be conducted by Professor Mies Van der Rohe, head of the architectural department of Illinois Institute of Technology, Professor Hilbersheimer, and Messrs. Flint and Dornbush.

2. Investigation of the Illinois regulatory laws concerning insurance companies which now restrain their activity in building development companies of this state. Thereafter the creation of sufficient interest on the part of both insurance companies and the state insurance department with the view of changing legislation to allow insurance companies to pursue such activity in building development companies as will be necessary.

3. Selection and endorsement of the proper type of man to head our Chicago plan commission.

4. The creation of a special committee to contact both government departments and private companies who are now in need of postwar planning.

Loeb mentioned that the State Postwar Planning committee is now arranging for sub-committees to work under this committee. They have written to the Governor, endorsing John Holabird, Hubert Burnham, and William J. Ryan as members of such committee. Fuhrer moved that the Society endorse the above three men as members of such committee. This motion carried unanimously.

The business portion of the meeting was now adjourned. Leon F. Urbain was introduced as speaker of the evening and brother architect, who presented his lecture, "Chicagoland in Color." Eighteen years ago he spoke to the Society on "Architecture in Europe," and nine years ago gave us a "chalk talk" lecture. His present subject covered his research into nature subjects in and about Chicago. Highlights were his pictures on the wild orchids growing in this region, studies of cacti in this vicinity, snow scenes of Lincoln Park, thunderstorms, sunsets, wild ferns, unusual mushrooms, and weeds that had unusual color. His photographs evidenced marvelous camera technique. Flowers through telephoto lenses gave closeups that were remarkable in detail. Many of his colored photos were Blue Ribbon winners. A colored movie film followed, as remarkable as the colored slides. An appreciation for nature in Chicagoland penetrated the minds of his audience and our concepts in the fields of botany and photography were broadened.—E.F.



THE FUGGEREI, AUGSBURG



THE FUGGEREI, HOUSING MORE THAN 100 MEAGER-INCOME FAMILIES. GIFT OF JACOB FUGGER, II TO THE CITY OF AUGSBURG, GERMANY, IN 1518. THE FUGGEREI FUNCTIONS TODAY AND HAS FOR 425 YEARS. IT IS NOT INJURIOUS TO THE CITYSCAPE, AS ARE SOME U. S. A. PROJECTS.

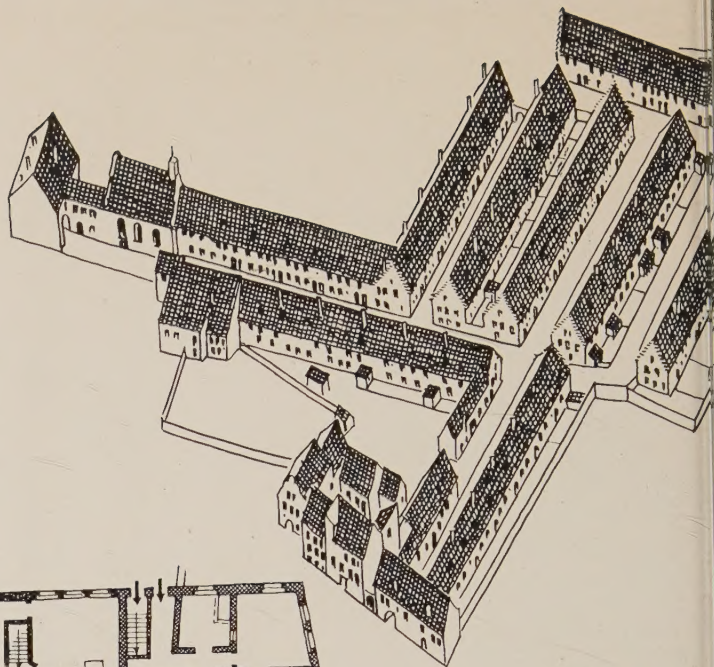
THE FUGGEREI, AUGSBURG

A LOW-INCOME TENANT-HOUSING

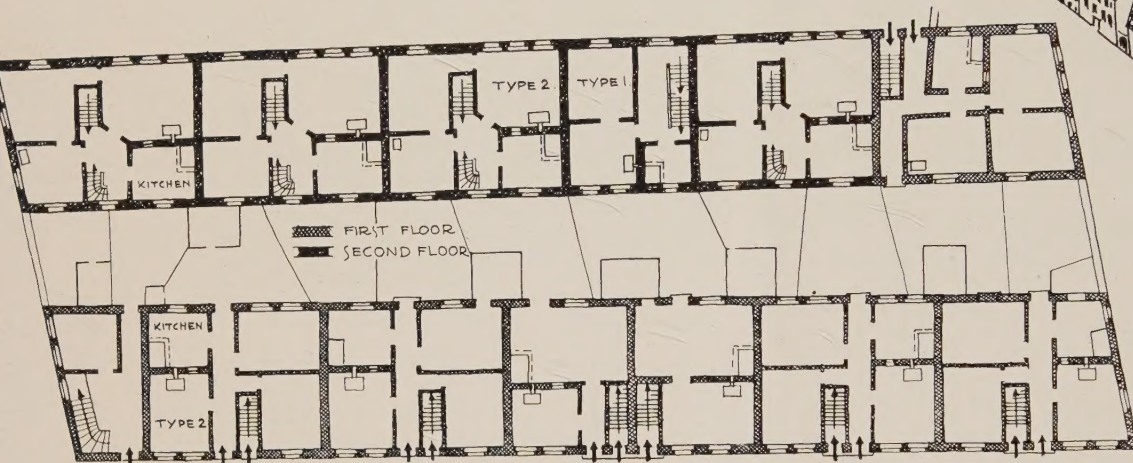
SETTLEMENT

ANNO 1518

DRAWINGS BY KONRAD F. WITTMANN, ARCHITECT



A BIRD'S-EYE



TYPICAL BLOCK PLAN



THE SITE PLAN

Chicago Chapter October and November Meetings

The Chicago Chapter, A.I.A., held its monthly meeting on October 19 in the Art Center, Chicago. It was a meeting devoted strictly to Chapter business, without guest speakers and without dinner. Members met at 5:00 P.M. and adjourned at 6:15 P.M., twenty attending.

President Shaw presided. Secretary Furst read the minutes of the September meeting and then the president called on Jerrold Loebl for his report of the Postwar Planning Committee. Mr. Loebl told of the organization of his committee and its subcommittees, adding that there would be a seminar conducted by the said committee on city planning and that prominent faculty members from the architectural school of The Illinois Institute of Technology such as Messrs. van der Rohe and Hilberseimer would be participants or leaders.

Mr. Loebl reminded the Chapter that George Horton had resigned as president of the Chicago Plan Commission and that Mayor Kelly had not yet appointed his successor. The Loebl committee proposed that a name or names for this office be suggested to the Mayor for consideration. Discussion followed and the name of the late Charles H. Wacker, the Commission's first president, was mentioned as the one outstanding president the Commission had ever had. Wacker devoted all his working hours to explaining and popularizing to the citizens the plan of Chicago. He was a man of affairs, an idealist, and unselfish to the extent of serving without pecuniary reward in any direction. It is this type of man that the speaker thought should be sought for the position. Mr. Loebl was asked whether the committee had any names in mind. He mentioned two. Discussion continued when finally President Shaw recommended that every Chapter member having an ideal candidate in mind send the name or names to John Holabird of the committee in writing.

The president announced receipt of a letter from William Stanley Parker of Boston on the old, yet ever new, subject of architects' fees. Samuel Marx rose to give his views on architects' organizations recommending minimum fees. Mr. Marx was opposed to any established minimum fee. On this question, Richard E. Schmidt and B. Leo Steif spoke.

The joint committee of Chapter and Society bearing on architects' postwar jobs and their relation to government was to be continued.

Pierre Blouke of the A.I.A. committee on membership announced that the committee chairman, C. Julian Oberwarth, who was an untiring worker in the cause of increased membership in the A.I.A., would be in Chicago on December 2 to talk to architects.

President Shaw raised the question of character, time, and place of future Chapter meetings considering the difficulties in these war days affecting cost of dinners, guest speakers, and the like. The discussion ended with the president announcing that questionnaires would be mailed to all members asking their views on these questions. He had distributed copies of The Architectural Forum's booklet "Planning With You" stating that the Chapter had purchased 300 of these for distribution by its members among prospective clients.

The regular monthly Chapter meeting on November 9 was held at Normandy House beginning with a 6:30 dinner followed by a business meeting. Sixteen members attended the dinner which number grew to twenty for the business meeting.

President Shaw had Secretary Furst read the minutes of the October meeting which, with one correction, were approved. The president then referred to the coming meeting on December 2 where C. Julian Oberwarth, Chairman of the national A.I.A. Committee on Membership, will address the meeting in the interest of a largely increased membership. Mr. Shaw reported his writing to William Stanley Parker of Boston apropos the Institute's fixing of minimum fees for architects' services, a subject discussed at the October meeting. Mr. Parker's reply was at hand wherein he stated that it was not feasible for the national body to fix such fees since practice varied in different sections of the country. Mr. Parker urged the Chicago Chapter to study the subject and make recommendations.

Norman J. Schlossman spoke on this question of proper fees. He was followed by Mr. Kalischer who felt that the architect was becoming a much-neglected member of society and urged better publicity to restore his higher standing in the community. Jerrold

Loebl said that since the Chapter will be 75 years old when the Institute holds its next annual meeting, it would be fitting to have that meeting held in Chicago with the Chicago Chapter as host. Discussion followed and the sentiment seemed to be that due to the war, local conditions make it advisable to defer the invitation for a year. Eugene Fuhrer, who had attended the court hearing in Springfield late in October where the constitutionality of the Professional Engineering License Act was being tested, made a verbal report.

The discussion reverted to the architect and his position before the public when Mr. Loebl read a letter written by the Austin Company of Cleveland to a prospective client. The letter was thought in excellent taste and very cleverly framed. Mr. Faulkner talked further on the nonaggressiveness of architectural bodies and felt that architects were discriminated against while engineers were preferred where architects could function better. Carl A. Erikson took exception to Mr. Faulkner's view and instanced the Navy as a regular employer of architects.

There was much discussion on publicizing the architect by Messrs. Kalischer and York. The last talk was by Mr. Loebl who moved that the A.I.A. journal "The Octagon" be metamorphosed from a strictly architects' journal to a magazine of architecture to interest the general public.

A Correction

The Editor: The report in the October-November Monthly Bulletin of the I.S.A. regarding the arrangements for joint meeting of the Chicago Chapter, I.S.A. and Producers Council Club on September 28, 1943, was misleading and inaccurate. The facts are as follows:

On August 30th the Chapter arranged for its regular monthly meeting to be held on September 14, with Dr. Merriam as principal speaker. Shortly thereafter, the Chapter was advised that Mr. Leo Weissenborn, Chairman of the Program Committee, I.S.A. had recommended in a letter dated August 13th to the I.S.A. that the two groups hold joint meetings. Mr. Weissenborn was immediately informed of our plans and the I.S.A., through him, invited to participate. He concurred in the idea, and September 28th was agreed upon as a mutually satisfactory and more advisable date. All plans were held in abeyance pending approval by the Board of Directors of the I.S.A., which approval was given by the Board at a meeting held September 7th.

Mr. Weissenborn was made a member of the Program Committee of the Chapter on September 9th, to facilitate closer cooperation. The Producers Council was also invited to participate and accepted with enthusiasm.

There was no strategy or sinister motives that the report implied and all arrangements were made by the agreement and common consent of the participating organizations.

—Chas. H. Dornbusch, Chairman
Program Committee, Chicago Chapter, A.I.A.

The Editor: I feel called upon to supplement Mr. Dornbusch's correction of the Bulletin's report of the Joint A.I.A. and I.S.A. Meeting of September 28th.

I have felt disconcerted because recommendations of mine, as in the annual report of the Program Committee for the 1942-43 season, were not read (to my knowledge) to the directors or membership, but buried in briefs, omitting what I considered the essence of the report.

As Paul Gerhardt at the time was both a director of the Society and Chairman of the Program Committee of the Chapter, I sent him a copy, which he in turn, after September 1st, turned over to Mr. Dornbusch, the new A.I.A. Program Chairman, who promptly acted on my suggestions. Hence, when he apprized me of the proposed September program consisting of a lecture by Prof. Merriam, a picture and an exhibition of his Langley Fellowship Study of Pennsylvania Barns, I, not considering myself still the Program Chairman which office I hoped to relinquish, transmitted the proposition in longhand to President Ryan to take up with the I.S.A. directors who approved same at the September 7th meeting.

When President Ryan informed me of their action, he implored me to again take the chairmanship and at the same time I was placed on the Program Committee of the Chapter to best facilitate a better cooperation between the two bodies for strengthening their common purposes.

Full arrangements for the meeting were only made after the Society's approval of a joint meeting, and Prof. Merriam then secured for February 28th.

—Leo J. Weissenborn, I.S.A. Program Committee Chairman

The Fuggerei, Augsburg's 425 Year Old Housing

By Konrad F. Wittmann, A. I. A., New York

The October-November issue of the Bulletin mentioned the Fuggerei in Augsburg as an early example of public housing. We have asked Mr. Wittmann to write us, as a native of Augsburg, Germany, an article on the Fuggerei. Mr. Wittmann is Assistant Professor at Pratt Institute, Brooklyn, N.Y., teaching architecture, interior design and city planning.—EDITOR.

The prediction that the time of economic reconstruction after the war must be predominantly a time of construction of houses needs no further support. The question, however, what kind of houses we are going to build is still wide open to discussion. The prevailing tendency seems to be to make the postwar house a real "machine for living." There is some tendency to strip down the housing unit to bare essentials, as far as space is concerned, adding a few modernistic appliances for higher sales value. Purely commercial methods and slide-rule efficiency may prove insufficient where we try to create human attachments. Our real problem is not the addition of a few more mechanical gadgets but the addition through economic adjustments of a few more much needed square feet to the size of the rooms, or one more room to our minimum requirements for decent living.

Sincere attachments to his native town, certainly, were in the mind of Jacob Fugger, who, in 1511, laid aside 15,000 gold guilders for the first public enterprise in housing, the Fuggerei. He established his foundation, enriched by later contributions "for eternal times."

The town of Augsburg, an Imperial city of the Middle Ages, had during the first quarter of the 16th century, what we would call an industrial boom. The world wide connections of industrial merchant families, most prominent among them Fugger and Welser, brought unheard of riches and splendor to the town. International trade was shifting after the discovery of the Americas and through the exploitation of the West Indies, its trade routes and exchange centers made Augsburg one of the focal points for the exchange of goods from Portugal and Spain to Krakau and from Venice to Antwerp. New commercial practices and banking institutions developed. The citizens of Augsburg grew interested in overseas expeditions and in mining exploits. We heard of monopolies in copper, silver and mercury. Linen and fustian weaving became real industries. Craftsmen and workers flocked to the town. From 1497 to 1520 the population rose rapidly from 18,000 to 52,000 inhabitants. Charity and public welfare organizations, although established for almost 200 years, were facing problems very similar to those which worry our industrial boom towns. Housing shortage was the most acute problem.

Here Jacob Fugger II, called the Rich, enters the picture as the founder of the Fuggerei, a settlement of 53 houses with 103 dwelling units, which he had built for workmen and burghers of the lower income group. This generous endowment brought him more fame and memory among the common people than all his commercial and financial enterprises. Although the Fuggerei was to take care of a scant 1 per cent of the population, it was an experiment of wide consequences. The attention which it got from contemporary economists and city builders is evidenced in maps and travelogs of the time. It was considered an example of the munificence of its donor, but even more of prudent foresight in building up industries. The industrial captain took the responsibility for the welfare of his workers. The Modern Period succeeds the Middle Ages: out of medieval irregular growth emerges the idea of controlled planning.

The Fuggerei was the first example of low cost housing. It was not a pious legacy as houses for the poor or the aged, built under religious auspices. It was built for families with children. The rent, however, was very low, one guilder per year. In 1731 a second guilder was added to support the church. The rent was kept the same through all the ups and downs of four centuries. It is certainly a unique feature that a family can have a good sized apartment for a rent of approximately two dollars a year.

The Fuggerei is not only the first commercial housing project but the first suburban "garden city" of exclusively residential character. The triangular piece of land which was bought for the colony, approximately 500 feet long, 400 feet wide, was in one

of the suburbs of the town, surrounded by gardens. The 106,672 square feet of the colony are opened by six straight streets with straight rows of houses, each 150 to 180 feet long. With 370 persons living in these houses we have a density of 151 persons per acre. The original foundation was comprised of 53 houses with 100 dwelling units. Later on a few more houses, a church, a school, hospital and buildings for the administration were added. We know that in 1624 there were 93 families with 173 children; in 1917, 122 families with 185 children. That amounts to 1.8 children per family in 1624, and 1.4 children in 1917—3.5 persons per unit is the median occupancy (which may be compared with the median size of the residential household in Chicago: 3.7 persons).

The streets, most of them 26.5 feet wide, and paved in full width are strictly residential streets. No traffic crosses the settlement. Four arched gates, always open, connect the colony with busy city streets. It is certainly one of the earliest examples demonstrating the benefits of a residential street. These streets easily take care of the little pedestrian traffic which branches off from the main artery. They are the ideal outdoor spaces for children who still prefer roaming the street to the studied orderliness of the playground.

It may be of interest to compare a few more figures with our present-day standards. First about ground coverage: 28,800 square feet or 27 per cent is used for streets. Buildings, mostly two story houses, cover 47 per cent, and 26 per cent goes for courtyards and gardens. That seems a rather high ground coverage which is justified, however, if we consider the residential character of the streets. There is no waste of space for front gardens, walks or alleyways between houses, and the houses are generally low.

The depth of all buildings is almost uniformly 26 feet. Very modern appears the idea that the houses were built in three types with only such variations in these types as necessary for corner houses. This is one of the earliest examples of typification. The ratio of used to total floor area is, in the average, 67 per cent.

The house types are:

Type 1. Two rooms and kitchen, approximately 590 square feet total area.

Type 2. Three rooms and kitchen, approximately 760 square feet total area.

Type 3. Three large rooms, kitchen and a workroom or chamber, over 100 square feet total area.

The room sizes are interesting: They are in square feet 143 and 116 for type 1; 140, 129 and 129 for type 2; and 215, 200 and 150 for type 3, including the workroom of 172 square feet for this type.

The sizes of the kitchen are 77 square feet for type 1, 92 square feet for type 2, and 81 for type 3. These are convenient room sizes as compared with the U.S.H.A. standards of 1938 which require living room 150, first bedroom 120, second bedroom 100, kitchen 60-70 square feet, or compared with the most modern apartment house development in New York, Parkchester, where we find the following room sizes: living room 200 square feet; master bedroom 182 square feet; second bedroom 181 square feet; kitchen 64 square feet.

Windows are small, but the rooms are well lighted, even for our standards. The ratio of window area to floor area is very often 1/7, mostly 1/8 to 1/10. The rooms are 7 feet 1 inch to 8 feet 1 inch high, which would satisfy even people in our country. This may be compared with the houses which Frederick the Great built 250 years later for his new housing settlements with rooms only 5 feet 11 inches high.

No wonder that these 425 year old houses of the Fuggerei are still very much in demand. One feature is well worth mentioning. All the houses are two stories high, but the apartment on the upper floor has an enclosed staircase and a direct entrance from the street. The builders of this first housing project must have had a deep insight into human nature that they tried to exclude all friction which comes when several parties share the same space.

The size of the houses, the independence and privacy of the occupants, the width of streets, the central location of the fountain, the solid character of all the houses show an eminent sense for democratic equality within a community. A chapel was added to

foundation, but this chapel, too, fits into the friendly scheme of worldly houses and gables, without any dominance.

Watersupply and canalization were primitive, to be sure, in beginning. It was already an accomplishment that the central fountain was connected to the public water main, which was built a hundred years earlier. Later on proper plumbing and kitchen equipment were built in to bring the houses up to date.

The Fuggerei is with all its simplicity of small houses a real object lesson in city planning. For centuries now, hosts of visitors and sightseers have walked through the quiet streets. Even in the 19th century, as town maps and *chronicles* show, the Fuggerei was considered one of the sights of the town, very humble as compared to the splendor of magnificent public buildings, but not less significant as a unique experiment in planning and caring for the "little old."

It is not the picturesqueness or any outstanding architectural measures which attracted so many visitors, but rather the free order, the variety in uniformity, the spacial sequence, the civic firmness which distinguishes this group of houses. A sculptured "Madonna" in a corner, the fountain as the vista of intersecting main streets (functional and very pretty at the same time), an occasional mural painting, the tablet in commemoration of the donor, the gracious turret of the chapel, the stepped gables, the weathervanes, ivy on walls and flowers on window sills, the solidity in structure and appearance—all that adds up to an eminently human aspect. There is nothing showy, and fortunately, not the banal dryness of untelligent repetition. There must have been much honest construction solidity in buildings which, after 400 years, are still in such good condition.

The ascent of humanism and the new freedom of thought which came with the Reformation, both closely linked to Augsburg's rising commercial power, found adequate expression in such city planning enterprise.

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The Mormons who had left in 1846 on their western trek to Utah. Piquenard was a man of strong convictions and a believer in the communal scheme of solving political and social problems, and when he returned to France in 1852, he was arrested and thrown to prison for statements he made against Napoleon III, who had recently ascended to the throne of France. He was released on bail, furnished by his father, which was forfeited when he escaped to America in 1853. He settled in St. Louis, served in the Union Army during the Civil War, resumed his practice in St. Louis after the war, and in 1868 we find him forming a partnership in Chicago with Cochrane.

Cochrane and Piquenard got busy on the foundation drawings, and during May of 1868, ground was broken. In July, the first stone was set and in October the corner stone was laid. During the following year, 1869, the foundations, designed and engineered by Piquenard, were completed. The same year Piquenard moved to Springfield to take active charge of the work and to prepare the drawings for the superstructure. The legislature of this year appropriated another \$450,000 and raised the cost limit of the building to \$3,500,000. The massive foundations, portions of which extended to bed rock, were the subject of much controversy. Claims were made that the materials and mixes were faulty and that the building would eventually settle unevenly.

More committees were formed to discuss the situation. As a result, the architects in March, 1869, were ordered to complete the superstructure plans in two months so they could be checked by other architects for completeness, character, permanence, and final details. Piquenard hired fourteen additional men from Chicago and after working day and night, presented them to the Commission for checking, along with a bill for \$10,000. He was paid just half this amount. Later he testified that he considered this bill fair, and valued his time worth \$1,000 per month when working day and night.

The Legislature next retained Augustus Bauer and Asher Carter, architects, and W. C. Deakman, master builder, to check the plans and report back. This group went east, checked costs and other structures, prepared a report and submitted a bill for \$13,000, which was paid in full. Their report in August, 1869, substantiated the architects' plans as being complete and in accordance with the legislature's standards and requirements of beauty and construction.

They agreed that the building could be built for \$3,500,000, including changes they suggested to make the building more fireproof. These changes were adopted by the Commission, and this, of course, added to the cost of the original conception by Cochrane & Piquenard. Work was resumed and more money appropriated.

As the plans proceeded, the Commission constantly ordered changes. A separate power house was added, the dome was enlarged and changed from sheet metal to stone, and the corridors were to be lined with marble. All stone was ordered to be cut and carved by prison labor, using Joliet stone. Costs went up. Word spread that the building would exceed the limit. Chicago and Peoria made a bid to abandon the project in Springfield and build a new "suitable" structure in their respective cities.

The great fire of 1871 turned Chicago to other problems, Peoria abandoned her plea, and the work in Springfield was resumed. But rumors of graft, corruption and faulty construction were afloat, so the Legislature decided to investigate. Witnesses were called and testimony was recorded under oath. Experts were retained pro and con. The following architects testified (some of the names are familiar): John M. Van Osdel, Chicago; Thomas Brady, St. Louis; Otis L. Wheelock, Chicago; and W. W. Boyington, Chicago. Boyington, who later in 1885 was retained to complete the structure, testified against Cochrane & Piquenard, and his testimony brought out the fact that, although he had received the first prize premium for the design of the Iowa State House, the Governor of Iowa gave the contract for the plans to Cochrane & Piquenard. Piquenard was called to the stand and gave a splendid account of himself. His testimony was reserved and he was questioned by both sides with great respect. He explained that he was also busy working on plans for the Iowa Capitol and the County Court Houses at Pontiac and Joliet.

To illustrate that architecture required skill, time and patience, he invited his questioners to his office in Springfield where they could see how five drawings were being made for each stone of their new Capitol. He said that his office employed from four to twelve men. From this testimony we infer he was in full charge of the design and construction of the Capitol. Cochrane during this period and in subsequent years was busy in Chicago getting new work and preparing plans for many buildings, among which were the first Cook County and Michael Reese Hospitals in Chicago.

Evidently the people were satisfied that there was no graft and corruption and that the architects knew what they were doing. The work was resumed and more funds were appropriated. The Commission believed the exterior to be too plain and ordered that some of the windows be changed to have ornamental heads and jambs, and others to be grouped with engaged columns and circular architraves. Of course this added to the cost. Piquenard persuaded the Commission that the top of the dome should be changed back to sheet metal to lighten the loads and reduce cost. In 1873 another million dollars was appropriated and in 1875, \$800,000 was added, bringing the funds up to the limit of \$3,500,000 and still the building was unfinished. In 1876 some of the departments began to move in. Piquenard died after a brief but severe illness, on November 19, 1876, never to see his great work completed and occupied.

To procure more funds beyond the constitutional limit, it was now necessary to appeal direct to the people by a referendum vote. In 1877, the vote failed, so the Commission, having no funds to work with, dissolved. Cochrane took active charge after his partner's death and made several fine reports to explain why the cost exceeded the estimates, but gradually his name fades from the records. In 1881 the funds were again defeated, but in 1885 they were finally passed. W. W. Boyington was appointed the architect. Under his direction many of the interiors were completed and the northern and eastern columned porticos were added. Piquenard's flight of steps to the second floor on the east was removed in favor of the new eastern portico. John C. Cochrane died in 1887. One year later in 1888 the structure was completed at a total cost of about \$4,500,000.

Thus did Illinois build its Capitol. How was the mandate carried out? It certainly is well built, and there are no settlement cracks. Whether it was well planned and is beautiful, is a matter of taste. Judged by their "Victorian" standards, they achieved what they had set out to do. By our standard, it is not a masterpiece, nor is it bad. (Though the corridor marbles come close.)

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Postwar Building without Government Aid

The Editor: One cannot help but feel as one reads Miles Colean's article in the October-November '43 Bulletin, that some underlying facts are missing. Clarification is necessary before the resumption of anything like normal building activity can occur, especially with the use of private capital. True, he touched on some salient facts incident to sources of supply for postwar business for architects, but it seems to me that some important change of tendencies within our economy would first have to happen. As we well know, things don't just happen, but on the contrary, events are generally brought about.

I consider that we never completely recovered buildingwise from the last economic depression. We seem to have fallen into a slough wherein a vast volume of building activity is dependent upon governmental agencies or bureaus for initiating, planning, and financing building construction. Frankly, any of us who have ever run the gamut of bureaus seeking aid for a project, can testify to the deterrent barriers one had to hurdle before a hearing was achieved. If, as Mr. Colean states, capital can now be had in abundance from institutional sources and investors, we can get along without governmental subsidy and government can then divest itself of many expensively operated and cumbersome bureaus, at the same time passing the savings on to the taxpayer.

We, as citizens, not merely as architects, who believe that private capital can do a more efficient job of planning, building, and operating, ought to "get busy" with another kind of planning—that is, help to plan our economy. Can it be that our many state and national architectural bodies are unable to make "big plans" to sell to the lawmakers and executives?

Experimental social planning as we have seen it in the passing decade has done little to raise the standard of living in this country. Our city planning commissions should have complete power to act without political interference, should be given legislative assistance where necessary, and finally should be sponsored by men of unquestioned architectural ability and ideals. They can then show the way to fine social and economic planning of cities and structures contained therein. These are objectives worth fighting for!

Some day in the not too distant future some sophisticated writer will tell the saga of modern history and will relate the dramatic events of these times. Unless our idealistic visionaries come down to earth and become practical we will not be included in the chronological story of these events, nor will we participate in the building of a better world.

Let us therefore be realistic and clear the economic pathways for ourselves; then can we demonstrate our right to a proper place in the New World.

—B. Leo Steif, I.S.A.—A.I.A.

Federal Housing

During the last several months, government financed housing for war workers has been completed at an average rate of 1,000 units a day, according to the Federal Public Housing Authority.

A total of 236,697 units were completed in the first seven months of this year, twice the number completed in the last seven months of 1942, according to Hérbert Emmerich, FPHA Commissioner. A total of 174,306 dwelling units were under construction at the end of July, and contracts were yet to be let for 60,747 more under the present program.

Since July 1, 1940, a total of 470,924 units have been completed, of which 321,380 were family units, 122,137 dormitory units and 27,407 trailer units.

These production records do not include the dwelling units to be made available through government conversion of existing homes and other structures under the National Housing Agency's home use program. As of the end of August, 26,109 such units were under lease to the government for conversion, some 15,531 of which are completed or under construction.

—Engineering News-Record

Chicago's largest federally financed and operated war-housing development, estimated to cost \$9,000,000 and occupying the tract bounded by 130th Street, Champlain and Langley Avenues, and 133rd Street and by Beaubien forest preserve and the Michigan Central right-of-way, will accommodate 1,500 families. August, 1944, is the time set for completion. Shaw, Naess and Murphy of Chicago are the architects. The buildings will be of two-story brick row-house groups of 6 to 8 units each.

Court Upholds City in Hiring Consultants

The right of New York City to hire outside firms to do engineering and architectural work in connection with the city planning for postwar construction was upheld by the Supreme Court of the State of New York in a decision rendered on October 11. The decision was in a suit brought by the Civil Service Technical Guild to have the court nullify existing contracts for such work and restrain the city from letting other contracts. The guild claimed that engagement of outside firms for this work was in contravention of the civil service sections of the state constitution.

In his decision Justice Pecora of the Supreme Court said: "I conclude that nothing contained in the Constitution of the State of New York or in the provisions of the Civil Service Law prohibits the City of New York from awarding contracts for architectural and engineering services to private concerns in connection with the postwar planning program. This court further holds that the action of the city attacked herein is in line with sound public policy and represents a wise exercise of discretion. The application, therefore, is in all respects denied, and the petition dismissed."

—Engineering News-Record

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It has good scale, color and charm, ingredients of good buildings. Its composition is complicated and there are no blank surfaces. Boyington's two porticos add strength and unity to the design and tend to overcome the lack of plain surfaces. Not being familiar with Piquenard's design, it is difficult to say whether the Commission's changes and orders were on the good or bad side. But it can be said that they were sincere and the completed structure represents an honest effort to erect a capitol of which the people of Illinois could be proud for generations to come. It is not what we might do today, but it is a fine structure just the same, representing a colorful era in the history of our state.

—Joseph F. Booton, Chief of Design

Division of Architecture and Engineering, State of Illinois

Hubert Burnham, architect, director I.S.A., F.A.I.A., has been installed president of the Chicago Building Congress succeeding Oscar W. Rosenthal, deceased.

ROBERT SKILLETER SMITH, architect in Chicago for nearly 60 years, died in his home in Skokie, October 7, age 82. Mr. Smith was born in England. Among his works are Byrne Block, Amanda Apt. Hotel, Beverly Country Club.

SAMUEL SOLON OMAN, Chicago architect, died in his home in Winnetka, November 4, age 46. Mr. Oman was born in Chicago, graduated from Crane Technical High School, and attended the University of Illinois where he graduated with a B.S. in architecture in 1920. Between 1916—22, he served in the offices of architect S. N. Crowen, in that of Root & Vandervoort Engineering Company, and with architect B. Leo Steif. In 1922 he set up his own practice and in 1923 created the firm of Oman and Lilienthal, architects and engineers, which firm continued to his death. Mr. Oman's firm were architects and engineers for St. Clair Hotel and Hotel Eastlake, Chicago. Marine Drive Apartments, a large project on Marine Drive, south of Foster Avenue in Chicago, was their work, finished about 1941. Mr. Oman was a member of the Chicago Chapter A.I.A. since 1928, and of the Illinois Society of Architects since 1935.

FRANK M. CARROLL, architect, engineer, builder of Chicago, died in St. Francis Hospital, Evanston, October 17, age 67. Mr. Carroll's early service was in the Bridge and Building Department of the Chicago, Milwaukee & St. Paul Railroad. In 1904, he joined Holabird & Roche as building superintendent, ending his connection in 1931 as general superintendent in charge of construction for that firm whose name had changed to Holabird & Root. Then he organized the Carroll Construction Company and was a building contractor to the end.

OSCAR W. ROSENTHAL, prominent Chicago builder of the contracting firm of Rosenthal, Cornell & Company, died October 1, age 67. For the last ten years, Mr. Rosenthal had devoted uncounted time to the cause of harmony and fair dealing between employer and employee in the building trades. In this field he became a national figure. He was chairman of the Illinois State Housing Board and president of the Chicago Building Congress. He was a talented speaker, one might say orator.