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One can scarcely look at an architectural magazine nowadays without a realization of the controversy between traditional and modern style in architecture. Altho this argument is apparently one of the relative artistic merits, there are enough elements with an engineering background to permit a few comments by an engineer. Probably I am sticking my neck out as usual, but after all, isn't the main argument of the modernists that theirs is functional architecture, and what is more functional than a simple engineering structure?

Let us trace the history of the growth of this modern architecture out of the mess that posed as architecture in the middle of the 19th Century. Here again perhaps I shall be safe, because these facts which I shall point out refer to artistic development as influenced by engineering factors. The architecture of the Civil War days was a six story architecture, because it was a "walk-up architecture. Altho the recent elevator strike in New York proved that the human body can take it up to 18 or more stories, I believe we are agreed that we would prefer to have our walk-up offices not over six stories up.

Then came an invention by Elisha Otis of the elevator and the height rose to ten stories. Here the wall thickness became a problem because in the lower stories where light was most needed, the windows became mere slots. Altho the Monadnock Building was built in Chicago to a height of 16 stories, it had walls fifteen feet thick at the bottom. To eliminate this objection, cast iron fronts were used, first for the lower, later for the entire front as in the Wanamaker Store in New York. The natural outgrowth of the cast iron front was skeleton structure in which the walls, instead of carrying, were carried, and height limits reached out for new ceilings. But the building might still be a wall bearing structure so far as its external appearance told the tale. Then Louis Sullivan, the teacher of Frank Lloyd Wright, designed the Prudential Building in Buffalo and emphasized the fact that the exterior of the building merely clothed the skeleton behind it. It was still an architecture depending on cornices and other traditional details for decoration, altho Sullivan had brought in also the element of surface texture. And then with his design for the Chicago Tribune Tower, Saarinen suggested to us the architecture of mass composition.

Today's architecture covers the whole range from a slavish reproduction of traditional styles to a complete abandonment of any feature which has even been used before. May a humble engineer call attention to the fact that the Monadnock Building, the Wanamaker Store and the Prudential Building — each in its day was functional architecture. And so today, with the setback laws, the square blocks of our modern skyscrapers are functional. But, which is just as much to the point also, is it functional to design houses, stores, churches, in a manner in which they have never been built before just for the sake of being different?

I am often reminded of the admonition of a much beloved professor of architecture at whose feet I once sat, "The successful architect is the one who knows what to crib and when to create".
For many years too many of our cities just grew—spread—and today are meandering or dying. The gigantic expansion of business and manufacturing in the early days required the speedy construction of houses to accommodate an enlarging population. All too little thought was given to the effect planless building would have on our communities in the future. Though the hurry may have been justified at the time, today we are faced with undoing the results.

Far too many of our cities and communities today are overcrowded and slums as well as in difficulty in getting to places of worship, employment, schools and shopping and recreation centers. Lack of planning has also made possible the unhindered influx of deteriorating influences into adjoining good neighborhoods. Consequently, if we are to have healthful, convenient and civilized living, great areas in many of our cities must be replanned and redeveloped.

Slums and blighted areas must be replaced with buildings and facilities suitable to their location. More country living must be brought into our cities. The neighborly virtues and advantages of village life must be restored to our larger communities by creation of neighborhoods in which people can live and feel at home. All this must be done according to plan, according to regulated land uses both public and private. Accomplishment of this objective is the responsibility of local municipalities, private enterprise and the State.

Never before have we had such an opportunity to achieve this purpose. Governmental agencies estimate that total new construction in 1946 throughout the country will reach $7,300,000,000, which is 60 per cent more than was spent in 1945. Of this amount, roughly $2,000,000,000 will be spent to build approximately 475,000 new homes in the next 12 months, while privately financed industrial construction will total $1,200,000,000, an all-time high. The greatest advance since 1929 is expected in other non-residential buildings such as hotels, stores, warehouses and theaters and the like. About $800,000,000 will be spent by public utilities companies for new construction and about $400,000,000 will be invested in new farm buildings.

Now, this great reservoir of building funds can do much to help create the well-balanced neighborhoods and communities we all seek. If we rush madly into a fury of building without an organized plan, as we have done in the past, the result will be to create a situation worse than now exists. We need action, yes! But in this action, real estate interests, private builders, financial institutions, local officials and the State must cooperate for the common good.

The Division of Housing's Community Development Service is specifically designed to aid in this cooperative action. At the present time this service is helping approximately half a hundred communities in our State, large and small, and is ready to serve any others in the State upon request. It has a staff of architects and engineers, home and community planners, research and technical experts in planned urban rehabilitation or expansion to guide municipalities towards solutions of their community development problems. In every instance, officials of the municipality are urged to retain professional planners or engineers and architects. Leonard F. Hubbard, Supervisor of the Community Development Service, emphasizes at each meeting with city and town officials that whatever plans are developed for their rehabilitation should be formulated by consultants employed by the municipality, and that the CD Service is essentially a body of experts to work with such professional counsel and local officials in an advisory capacity.

In addition, the Community Development Service is actively engaged in promoting cooperative efforts between private builders, lending institutions, home owners, and local officials in helping to coordinate public and private community improvement and redevelopment.

Those farsighted communities that recognize the advantages of constant planning to avert the danger of blight in their communities and that avail themselves of this service will undoubtedly assure themselves a well-balanced relationship between homes and shopping, transportation, employment areas, educational, recreational facilities and other community elements which make for better living.


Today each community in our State has an unprecedented opportunity to examine itself and to decide the course of its future development. Cessation of all except war construction activity during the last five years has spotlighted their actual living conditions for citizens of our communities. Now we are to have action again. Each community has a great opportunity to plan sensibly for the future.
REINFORCED CONCRETE FRAME

for Multi-story Apartments

The reinforced concrete frame shown is one of four units designed for Clinton Hill Apartments, built in Brooklyn in 1945.

The concrete flat slab floors without drop panels and the columns without caps, were designed as continuous frames. The absence of interior beams permitted the architect greater freedom and flexibility in layout of rooms to which a non-symmetrical location of columns was readily adapted. Uniform thickness of slab made possible the location of partitions where most desirable.

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MARBLE MEN AND ARCHITECTS

(HARD GUYS AND SOFTIES)

Excerpts from an address by Mr. James R. Edmunds, Jr., president of the American Institute of Architects, at the Annual Dinner of the National Association of Marble Producers in Knoxville, Tennessee, October 24, 1945.

Strangely enough these two are really kinsmen, having a common ancestor. The master mason, who flourished 4,000 B.C. in Egypt until (comparatively speaking) yesterday and who furnished all the design quality as well as construction ability required for the "permanent" structures of his time, is the progenitor of us both.

In Greece, the master mason and architect were trained primarily as sculptors; marble was their medium of expression. With it they produced an architecture which has never been excelled before or since. It was subjected to a refinement far too subtle to be taken into account by the early artisans of Egypt or by the present day modernists to whom "time is of the essence."

It may shock some of you to know that these past masters used rarely a level line, a vertical line or a straight line. They introduced subtle corrections to the imperfections of human vision. What will probably shock you more as marble men it to learn that after the marble was in place with all its carefully designed surfaces polished, the natural texture of their marble was in all case completely covered by something you would scorn to use—paint, in gaudy but harmonious polychrome color. Even though they had no intention of permitting the inherent beauty of the material to express itself, they selected it for its fine grain and permanence.

In Rome, the master mason or architect had many more diverse problems to solve and a more flexible method of "spanning the void" than the simple post and lintel, the only principle understood and used by their predecessors. The Roman mason developed the arch and the vault. Incidentally he produced concrete and many other things which in his time were ultra refinements to the art of comfortable living including steam heat, plumbing and running hot water. Some of his buildings were as highly organized in performing their function as many of ours today. In them the art and skill of the accomplished marble and stone workers are still in evidence. However, buildings were still masonry construction in which the wall or the pier were the supporting members.

After the fall of Rome, progress in building and architecture took many centuries to become again progressive. Its first faltering steps in the early Christian era are exemplified by the re-use of material taken from buildings fallen into decay. From these weak beginnings there developed a most glorious style and one which exemplifies the age-old and fundamental conception that the building should express its use and structural quality. The cathedrals of Europe, particularly in their later development, took but little from precedent except the principle of the vault.

The emergence of Gothic architecture from the chaos following Rome's fall presents one of the most amazing pictures in our world history. Full credit for this must be placed with the master mason whose was the responsibility, not only for the design, but for the construction. This was his life work. When elevated to this position after a long period of apprenticeship and training, he assumed complete responsibility and held it until his death. He was little troubled by anything save successful expression, in terms of stone, of his devotion to his craft and to his God.

The beautiful lace-like form of Gothic vaulting and tracery stem from honest efforts to express the functional value and fabrication of the medium employed. In its time therefore, Gothic architecture was the conscious effort to attain the same objective presently professed by the modernists of our own time; and a highly successful one. Examples of it will far outlive our later and sometimes far less honest effort to be truly "functional."

The Renaissance (a return to classic form) adopted motives and structural principles from all of its predecessors. Walls constructed of masonry still supported the load. The master mason, however, had been relegated to a secondary position by the better publicity and political "pull" of painters and sculptors. They were, however, the ones who translated the designs of the former, some times very sketchily made, into three-dimensional reality. The palaces of Rome and Florence bear mute but convincing testimony to their skill.

Later, in our times, the masonry wall lost its position as a necessary structural member which supports the load. The steel or concrete frame has become the skeleton of most of our buildings and the masonry is but a skin stretched upon it.

As such it has lost much of its sturdy quality but has gained at the same time the opportunity to become more conscious of its texture, tone and color in infinite variety. The beauty inherent in natural marble and stone has now become a medium in common use on the exterior, whereas, in classic times it was largely confined to the more richly decorated interiors.

One hears much talk of new wall surface materials which, God knows why, are supposed to have grown out of the war. There may be such and they may find a useful place in our construction, but stone and marble, our old original stand-bys, we shall always find use for.

The difference in technique presented by the steel or concrete frame has required many changes in masonry methods and has posed new problems. Some of these have been adequately solved. There are many that still require solution. The architect, the mason and the producer of material of today are engaged in a joint effort to improve both methods and materials available and to learn better how to use them successfully in combination.

To this end, the Producers' Council and the American Institute of Architects have initiated a program of cooperation. Such endeavors, if supported and utilized by our profession should prove of great value to it, to the producer of material, and though indirectly, what is more important, to the building public.

The days of the "long-haired" architect are gone. We must frankly admit that much of the public disrespect he enjoyed in the recent past was honestly earned.

Too often he considered himself as one who should not be too deeply concerned with many of the phases of the construction industry. This included, at times, the economic soundness of the project in hand, its social value, even its approximate cost and in fact almost anything which presented a problem, the answer to which could not be found in "Vignola" or "Concours d'Architecture". These days, thank God, are past.

(Continued on page 17)
AMONG THE CONSTITUENTS

BROOKLYN CHAPTER

The membership was shocked by the recent death of two of its prominent members, Alexander Mackintosh and William A. Sanders. The following biographies of Mr. Mackintosh was written by E. James Gambaro, vice-president of the chapter. A biography of Mr. Sanders will follow in a later issue.

ALEXANDER MACKINTOSH, F.A.I.A.
1861-1945

Born in London, England, Mr. Mackintosh lived in Inverness, Scotland, from the time of early youth until he came to this country in 1893. After serving his apprenticeship in an architects office in Inverness, and later gaining further experience with architects in Edin­
burgh and Glasgow, Scotland, he then went to London and served in the office of Sir Aston Webb and other English archi­
tects. While in London he was admitted to the Royal Academy Architectural School, where during the two-year term he won the first prize for both lower and upper schools. He also won at this time two prizes awarded by the Royal Institute of British Architects, open to students of the entire British Empire.

After coming to the United States, he immediately became associated with Francis E. Kimball, a leading New York architect on high building construction. Among other early projects Mr. Mackintosh designed the Empire Building, 71 Broadway (corner of Rector St.) New York City, a struc­
ture which still remains today and in its design stands up with both the old and new structures in that section.

Starting work in 1901 in New York his practice grew rapidly throughout the Eastern States, including residences, commercial buildings, banks and club houses. Among the buildings he designed in New Jersey, where he made his home in later years, are the Colt Office Building, the Major L’Enfant Office Building in Patterson and numerous resi­
dences throughout the State.

Recently, he was architect for the Postmaster of Long Branch and the late Senator Hamilton Kean. He was also Chief Architect and Designer of the Garfield Court Housing Project at Long Branch.

Mr. Mackintosh served the Brooklyn Chapter, A.I.A., as Secretary in 1903-1905 and as President, 1910-1912. He also served actively on all Chapter Committees and many Insti­tute Committees, and as Delegate to the Institute’s Conven­tions. For his outstanding contributions to the profession he was elected a Fellow in the American Institute of Architects in 1923; the following year he was elected to Fellowship in the Royal Institute of British Architects.

Surviving him is his son Master Sergeant Alexander Day Mackintosh, also an architect, now serving with the Engineer Corps of the Army, stationed at Oak Ridge, Tenn.

BUFFALO-WESTERN NEW YORK CHAPTER

Action on Public Works Questionnaire

At a recent meeting the Buffalo and Western N. Y. Chapter passed the following resolution regarding selection of architects for public works projects:

In the event that the Buffalo-Western New York Chap­
ter and other chapters of the New York State Society are invited to submit a list of qualified Architects for Federal

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Public works — That the Chapter shall not endorse any committee or panel of Institute members, but shall send to all members a questionnaire which purpose shall be to ascer­tain the individual Architects qualified, with the under­standing that all of the responses received shall be sent without additional comment to the Federal Agency request­ing same.

Architectural Fees

Following a year of careful study, the chapter has recently published a new fee schedule for Western New York. Revised and approved by the membership at the fall meeting it becomes binding on the membership after signature by 100% of the active members.

NEW YORK CHAPTER

Declaring that city planning is of critical importance to the welfare of New York City, the Executive Committee of the New York Chapter, The American Institute of Archi­
tects, acting upon the recommendation of its Committee on Civic Design and Development, wrote to Mayoralty candi­
dates in the recent election campaign urging them to clarify their position with regard to the functions and composition of the City Planning Commission and to the major problems of zoning and planning, now confronting the City.

Making it clear that as an organization the Chapter was not sponsoring any candidate but was actuated by a sense of responsibility in the field of sound physical planning, the Committee pointed out that, to date, the City Planning Commission had failed to produce the unified comprehen­sive Master Plan mandated by the Charter and was continua­tion in issue piece-meal portions on a so-called Master Plan, which bear no noticeable relationship to each other, much less to an over-all scheme. Conceding that interim provi­sions must be made to meet urgent current needs, the Com­mittee recommends that such interim provisions be publicly designated as such, pending adoption of the Master Plan.

The Committee also strongly recommends that new mem­bers of the City Planning Commission be technically qualified and independent of other Municipal bureaus. It urges adoption of an amendment to the Charter which will make it impossible for members, other than the Chief Engineer of the Board of Estimates, to hold, at the same time, other elective or appointive offices in the City Government. The Chapter believes that the independence of the Commission appears to be impaired by the present policy whereby the Mayor may designate heads of other City departments to serve as members of the Planning Commission. This has the unfortunate effect of tending to give the Mayor control of the Planning Com­mission, as well as enabling a department head to vote for his own proposals when they come before the Planning Com­mission for consideration.

The Architect’s group also advocates the creation of a City-wide Citizens Advisory Planning Board to the City Planning Commission, which should be consulted on all mat­ters of City-wide planning, similar to the representative advisory boards which have been set up in other Cities.

Other matters of prime importance called to the attention of Mayoralty candidates were the need for overall revision of zoning ordinances in the form of the drafting of an en­tirely new law; the scientific revision of zoning districts throughout the City and detailed neighborhood planning of the City based on the principle of encouraging the develop­ment of communities within the City.

The Committee takes the position that community plan­ning within the framework of the Master Plan and as an im­plementation of that plan should be encouraged.

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BUFFALO ARCHITECTS HOLD FORUM IN DESIGN

Albright Art Gallery Sponsors Discussion

Lively public interest in design was expressed by unexpectedly large attendance November 14th at a round table forum at Buffalo’s Albright Art Gallery, on the subject of “Architecture — Traditional Versus Modern”. James William Kidney acted as moderator, with Harvey S. Horton, David B. Crane and John Y. Sloan leading the discussion. Excerpts from their talks are reprinted by E. S. A. with the thought that architects generally think of design as their major interest. (Letters in support and dental are invited—the more violent the better. Ed.)

A Traditionalist Speaks

Supporting the traditionalist point of view, Harvey S. Horton reviewed the great styles of the past and expressed himself as believing that they should not be discarded in favor of modern.

“Architecture,” said Mr. Horton, “is generally considered the greatest of the Arts. Certainly it is the oldest and the most complex. It is the expression of man’s ability to create a structure that will most adequately meet certain needs for a definite purpose. Furthermore it must possess beauty in order that it may give pleasure, not only to those for whom it is created, but to all who see it. To achieve this beauty it is essential that the composition of its mass be pleasing from all points of view; that its lines are good and its various parts properly proportioned, and that its detail is appropriate and in proper scale, as well as that its color and texture be pleasing. In addition it must be suited to the location and in harmony with both its surroundings and its function. It must be constructed according to the best structural methods available and be equipped with every modern facility required for its use.

“Altho the architect today has an increased field of materials with which he may work and many new considerations of the many new developments for comfort, convenience, and efficiency which must all be incorporated into his building, his basic problem is fundamentally the same as that of the architect of the past. Everyone will acknowledge that there have been great architects all thru the centuries who have successfully solved the problems that confronted them. I believe we all agree that they did solve their problems successfully, because their achievements have a life of everlasting beauty which has been a continued source of admiration to travellers, scholars, and students. The works of these great men of the past constitute our traditional architecture.

“All the varied styles have given us the advantage of an infinite scope of precedent and a wealth of beauty for inspiration. To know and understand these styles the architect must understand their history and development and he must study and analyse the various types before he knows how they can help him to express similar beauty in his own work.

“Today, the architect rarely picks out any particular traditional building to use for his job in hand. Instead, he first analyzes his program of requirements and then develops floor plans that meet the demands of his project in the simplest and most direct manner. He must do this according to traditional laws of composition, keeping in mind the outline of his building with regard to site conditions as well as conditions for light and air. With plans properly developed for efficiency and economy he must clothe his building with facades that will afford the type of openings required for its purpose. Only now, after a thorough study of the functional requirements does he consider a style that will most sincerely express the purpose of the building in the most pleasing way. Now comes the test of the true artist in his effort to make his exterior beautiful and dignified and with definite character.

For he knows it must not be commonplace, and certainly he possesses sufficient sanity to know it must not be bizarre. His knowledge of those buildings of the past which possess the character he hopes to achieve induces him to turn to them for suggestion and inspiration. He adopts those features which he believes give the charm and character he seeks and it is up to him to use these characteristic details with originality and discretion and in proper scale so that his building may have distinction and virility with no loss of beauty.

“I do not wish to leave the impression that a style is never selected until plans have been developed, because naturally certain projects do suggest a definite style which necessarily reflects in the plan study.

“You may ask — Why does he turn to the past. We are not living in the past but in the very dizzy present. My answer is that man is basically the same today as he always has been with the same hopes and aspirations as well as the same faults and frailties, and I hope with the same love for art and beauty that has ever found expression in man’s noblest works. To be sure we have now vastly more comforts and conveniences than were known to our predecessors. And we have automobiles and aeroplanes but these do not constitute life — they are but pleasant accessories to living. We do not advocate dressing up these modern accomplishments with columns, pilasters, and cornices for they are new developments foreign to all precedent. To be sure their designers strive to give them eye appeal but they are fletching styles that change with every year whereas the lives of our buildings have greater permanency and must survive during changing modes of life. Our homes, our art galleries and museums, our public buildings, clubs and banks are needs of all times and time itself has accustomed us to expect of them a definite character.

“For men today to say that this character which has been respected and admired for centuries is outmoded by our present way of life seems to me presumptuously egotistical.

“To create a building that is so strange that one must custom himself to it in order to try to admire it, seems, to your speaker, unreasonable. For is not the trite statement still true — ‘A thing of beauty is a joy forever’?

“Our modernists cry that the traditional styles do not permit light or sunshine. To me that indicates a lack of ingenuity or understanding. Do they forget those Gothic cathedrals with walls of glass and roofs of stone, their pavements flooded with sunshine thru jewel like stained glass? And those roomwise, ceiling-high banks of casements in English buildings; the glassed in arcades and loggias of Italian palaces and villas; the great gallery of glass at Versailles? Certainly the Italians, the English, the French in their traditional architecture never suffered from lack of glass in those areas where they wished them, nor did they suffer the lives of goldfish with glass walls where they were undesirable.

“Many of us like best the music of the past; paintings, sculpture, tapestries, furniture — all art treasures of previous generations — so why should not we enjoy these things in buildings in character with them and in which they are in complete harmony.

“If we arc to discard in our modern life the beauty of the past and create something new to harmonize with the automobile and the aeroplane and the factories that manufacture them, must we not be consistent and also discard the beauty of the culture of the past? This is the question that makes this matter of style so serious a subject to me. In contrast to the stark austerity of the modern flat facade that starts and stops with no apparent reason, perhaps with corners of glass that can stand only thru the grace of man’s invention of the
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had when they themselves lived and worshipped far differently - - they would not have built fine architecture at all. What we build in one era is not gotxl design in a succeeding period is as subject to death as the human organism, that it rises and falls together with the civilization of which it is always a representative and reflection, that it has its decline as well as its rise, and that once it is dead it cannot ever be reborn. The form and ornamentation of an architecture can never be copied from the past if it is to live as real architecture. The only architecture of any merit - I should say the only architecture — is that which is developed in the same time and place in which it is built, arising out of the particular characteristics of that time and place.

On the other hand, speaking for the conservative's viewpoint, I do not believe that mere construction is always architecture. Architecture must first of all have order. Mere truth alone, and functionalism, are not in my opinion enough. Not if you consider that appearance and impression have something to do with function. And when you believe that they have, then many other qualities become essential. Qualities such as unity, simplicity, rhythm, color, scale, proportion and harmony. The true extreme modernist will deny much of this. He will insist that once you have answered a problem in the most economical way you have done all you can do and that if you do more it becomes decadent design. Perhaps so. But when a civilization passes the stage of pure economic necessity and finds itself with time on its hands and a high standard of living, I consider that it would be building architecture out of harmony with itself if it restricts its designing to pure economics. I don't see why a client can't have all the frills he wants, if he is prepared to pay for them, and provided we don't copy them. The late gothic building architecture out of harmony with itself if it restricts its designing to pure economics. I don't see why a client can't have all the frills he wants, if he is prepared to pay for them, and provided we don't copy them. The late gothic was just as fine architecture as the early. Admittedly, it's not as strong. But if they had continued to build in the early Gothic style in the year 1500, just because their predecessors had — when they themselves lived and worshipped far differently — they would not have built fine architecture at all. What we build in one era is not good design in a succeeding one even if the earlier civilization is the stronger of the two.

If in any period a people in the main reject the thesis of truth in favor either of superficial beauty copied from the past, or of something else copied from what they think is the future, I think their buildings will simply be worthless as far as architecture is concerned. Styles cannot be put on or taken off like a pair of pants, — not and have them stay! Architecture must be in step with its own time.

It is natural, of course, that architects should be the leaders. But if they do their utmost to sell the public on sound modern architecture, and if — either thru their ineptitude in good design or oratory or thru the public's conservatism — they fail to do so, and people still think they prefer Colonial — then the public will get no better architecture than it wants.

"Where you run into trouble, of course, is when a civilization is not in its conception of values as satisfied with the outward form and decoration of their own architecture, whether because of outright conservativism or of artistic inability on the part of their architects and artists to compete satisfactorily with the past or just because there isn't enough time for real study of the problem, as they are with some past style. When you reach the point, however, that the civilization accepts the thesis of truth, then artists or not you have great architecture — architecture more beautiful from its truth than it could ever be thru superficially imposed form and decoration.

"This is a challenge, however, to architects. Lack of artistic creativeness throws us open to the public's demand for the artistic excellence of the past. If we are to succeed in preventing copyism there must in the first place be a creative urge. Something has to be felt. And in the second place there must be the ability to express the feeling. Architecture must be inspired if it is to be successful.

"There must be, however, no conscious effort toward a style. You cannot pick what you think is the best of everything done to date, and make that your style. Styles are born and not made. I suggest that there be less talk about style. Let's forget it. At least let's not talk about it when we are planning architecture to be built today. Let's try to use the word only when we are talking about a certain period in the past.

"I suggest that anyone contemplating a building of any kind should forget all about the perennial question — "shall we build it in a conservative style or shall we be modern?" There should be no attempt either to be this or that. Let each such person decide, what the problems are, what is the best way of solving them, what particular materials he wishes to use, what is the best way of utilizing them, what character he wishes to present, and so on. In short, let's not try to be either conservative or modern — let's build architecture — an architecture, I would like to call it, of complete freedom.

"To summarize then, remember that even the great periods of architecture come to an end. But any architecture which is built on truth will always be great architecture, whether or not admired by the immediately succeeding generations. True, the measure of greatness in terms of artistic excellence will be different in different periods. But a period of civilization which is lacking in artistic ability cannot enhance the greatness of a truthful architecture by borrowing decoration and ornament. It will have a better architecture by not doing so.

We must remember that other civilizations had and will have other yardsticks with which to measure excellence. And the best permanent yardstick of real art is its conformity with its own period.

"I personally am tremendously excited over the opportunities before the architect today. If we fully utilize the

(Continued on page 16)
THE PRODUCERS’ COUNCIL

The Buffalo, New York Chapter of The Producers’ Council, Inc. in receiving its Charter at a Presentation Ceremony and Banquet on November 6th has become the twenty-fourth Chapter to join the National Organization. This meeting also constituted the inauguration of the newly elected officers: G. E. Anderson, Manager of the Buffalo Branch of the Crane Co., Chicago, President; A. O. Stilwell of Peelle Co., Vice-President; H. L. Wilhelm of Fiat Metal Manufacturing Co., Secretary and A. L. Kimball of Otis Elevator, Treasurer.

In his presentation of the Charter to President-Elect Anderson, Mr. D. S. Miller, Chairman of the National Chapter Committee, admonished all officers and members of the new chapter to work together in unison in propounding the ideals of the Producers’ Council and through cooperation with local construction organizations may do their part in future building in the Niagara Frontier.

Managing Director J. W. Follin of the Producers’ Council used as his theme “Cooperation in the Buffalo Construction Industry to Provide Sound and Continuing Construction Activity”. He described the National Council activity with the various departments of the Government in Washington during the war years thereby contributing the efforts of the Producers’ Council in many ways to the home front building industry. He stressed the point that it is to be the aim of the Buffalo Chapter to work with the local construction industry much the same as the National Council works with the National Construction Organizations.

Mr. L. C. Hart, Vice-President of Johns-Manville and President of the Producers’ Council spoke on “America’s Challenge to the Construction Industry”, “America has gone thru four years of Challenge”, Mr. Hart said, “and today she faces opportunities and challenges of building the Peace. Our Council Chapter is pledged to cooperation with other branches of the construction industry. Working together these local groups can help to eliminate the violent ups- and-downs in construction volume which have plagued the industry in the past by advising public officials on the proper timing of public works, by arranging for housing inventories which will determine the real need for new dwellings and by helping to collect factual data about current needs for other types of buildings. By helping to stabilize the volume of building, business activity locally can be kept on a more even keel and workers in the building trades will enjoy steadier employment throughout the year and from one year to another. One of the most effective ways to accomplish these objectives is to hold back deferrable public projects until the demand for private construction does not require substantially all construction manpower and materials. These postponeable projects should be fully planned in advance, but should not be started until the need arises.”

Representing the American Institute of Architects, with whom the Producers’ Council is affiliated were Mr. James S. Whitman, Technical representative and Mr. Alfred G. Baschnagel. Mr. Whitman on behalf of the Local A.I.A. welcomed the formation of the Buffalo Chapter and pledged fullest cooperation of his organization. Representing the Empire State Architect was Mr. J. L. Kahle.

Representing the Buffalo Chamber of Commerce were Mr. D. W. Streeter, President and Mr. Jack Travers. Speaking for the Chamber Mr. Streeter expressed his congratulations to the Chapter and offered full cooperation of the Chamber in whatever way it could serve.

Other guests prominent in the construction Industry, included Daniel B. Niederlander, R. C. O’Keefe and I. Waugh of the Associated General Contractors; J. Harold Genrich and George F. Prong of the Niagara Frontier Builders Association; J. P. Donlay, John Lockie and Lester Hudson of the Builders Exchange. All representatives of these organizations offered congratulations and cooperation from their local bodies. Also present were: John Best, Vice-President National Gypsum Co.; C. A. Snyder, Chapter Committee Member Producers Council, N. Y. C.; A. Naughton Lane, St. Louis Chapter; F. A. Samson, Detroit Chapter; Geo. Ellis, President, N. Y. C. Council; Russell Jameson, Field Representative Producers Council; Paul Saurer, N. Y. C. Chapter; K. B. Gerrish, N. Y. C. Chapter.

President-Elect Anderson accepted with thanks the many offers of cooperation and on behalf of the Buffalo Chapter pledged in return the cooperation of the Chapter in its work with the local organizations of the Construction Industry.


Many Current Problems Discussed; Record Building Forecasts Made

Plans for speeding up the revival of private building and insuring a large volume of construction activity which will provide maximum employment for returning veterans and others were discussed at a three-day meeting of the Producers’ Council, national organization of building product manufacturers, held Nov. 7-9 in Cleveland.

The conference touched on many current problems before the architectural professions and building trades today, and a number of forecasts, covering all fields of construction, stimulated interest.

Housing Outlook

More than 5,000,000 new dwelling units will be built during the next six years, if national income comes up to expectations, and the majority will fall into the low-cost bracket, in the opinion of Irving W. Clark, Manager, Better Homes Department of the Westinghouse Electric Corporation.

“In all likelihood, the average house to be built in the next few years will cost less than $6,000, and the average may be as low as $5,700,” Clark said. “On that basis more than 60 per cent of the new housing would either sell for less than $6,000 or rent for less than $57.00 a month.”

EMPIRE STATE ARCHITECT

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'The-million homes-a-year goal will not be realized before 1949, but the volume of private residential construction will rise steadily in the meanwhile, starting with about 425,000 units next year, followed by 620,000 in 1947, and about 870,000 in 1948. The Council's Market Analysis Committee believes that the number of new private housing units constructed in the following three years, 1949-51 will average slightly over one million annually.

Materials
James W. Follin, managing director of the Producers' Council, stated that "barring unexpected developments, most of the current shortages in materials and equipment will be overcome by or before April 1, 1946, when building is expected to get under way on a large scale. Inasmuch as relatively little new construction may be started during the next five months, supplies of building products will gradually increase during that period. In fact, by the first of the year the production of many items will be greater than the amount currently being used at that time.

"The products which probably will not be in production at the 1940 rate within six months are stock millwork, major electrical appliances, enameledware plumbing fixtures, and boilers and radiators.

Construction Volume
Charles E. Young, Economist of the Westinghouse Electric Corporation, and member of the Market Analysis Committee of the Producers' Council, asserted that the volume of new construction next year is estimated at about $7.4 billion, an increase of 60 per cent over total expenditures in 1943.

"Private building is expected to reach $5.2 billion, or 70 per cent of the total, with public works and other publicly financed construction amounting to about $2.2 billion," Young said.

"Although there is a great pent-up need for new construction as a result of the curtailment of many types of civilian building during the war, the peak in building activity probably will not be reached until 1949, or perhaps a little later. Builders and contractors will require many months to rebuild their organizations sufficiently to meet peak demands, and a large proportion of future construction, both private and public, has not yet reached the planning stage.

"Our committee has forecast a record-breaking volume of building during the three-year period 1949-51, if price levels do not rise unduly and if general economic conditions follow the anticipated pattern, expenditures for new construction of all kinds should average $15 billion per year.

"This estimate is more than double the average for the twentieth-td-year period preceding the war. However, since construction costs in the 1949-51 period probably will be about 35 percent above the 1940 level, the physical amount of construction performed in terms of dwelling units, factories, roads, and so on may be no greater than in 1926.

"The forecast indicates a construction volume of $10.3 billion in 1947 and $13.8 billion in 1948, showing a steady increase each year."

Farm Construction
According to Chris L. Christensen, Vice-President of the Celotex Corp. and Chairman of the Farm Buildings Committee of the Producers' Council, the nation's farmers are expected to spend nearly $2.5 billion for new buildings and other construction during the next six years, with the result that farm living standards will be raised appreciably and farm productive capacity will be increased.

"Approximately $200 million are being spent by farmers for new dwellings and other construction this year, Chris- tensen said. "If construction materials are made available soon, farmers will double this in 1946 and in 1947, eventually doing as much as $500 million worth of new farm building work annually, on the average, in the three years 1949-51.

"Almost one-fourth of our population lives on the farm. By urban standards, they live in dwellings which fail to provide facilities for complete enjoyment of what we commonly call the American standard of living.

"The 1940 census of agriculture revealed that fewer than 20% of rural farm homes had running water, while more than 88% lacked private bathroom and toilet facilities, and had electric lighting."

Industrial, Commercial and Public Construction Outlook
"The country is in the first stages of a great new era of industrial and commercial construction, with expenditures likely to total nearly $1.5 billion next year," stated S. W. Corbin, Manager, Industrial Resale Division, Apparatus Department of General Electric and Chairman of the Industrial and Commercial Committee of the Producers' Council.

"This year, in spite of the fact we were still at war until Aug ust, privately financed industrial construction alone will come to a total of slightly more than $640 million," Corbin said.

"This is only $34 million less than in 1941 and almost six times as much as we did in 1943. Next year and again in 1947, it is expected that $1 billion of new industrial construction will be accomplished. During the five-year period from 1947 through 1951, estimates of the Council's Market Analysis Committee shows an average of $665 million annually which exceeds the annual total of privately sponsored industrial construction in all but 5 of the past 31 years.

"In addition, construction of automobile service stations, beauty parlors, office buildings, theaters and other commercial buildings must keep pace with the growth of the localities they serve. The total volume of such work may amount to $475 million in 1946 and will rise steadily thereafter, averaging well over a billion dollars annually in the five-year period, 1947-51."

Building Prices
If the construction industry is to attain real success in its campaign to hold the line on building prices, remove bottlenecks in the way of all-out private building, and insure a maximum volume of building in the future, industry members in every major community must coordinate their efforts more effectively than they ever have in the past, stated L. C. Hart, president of The Producers' Council.

"Top administration leaders in Washington recognize that it is not practical to try to hold the line by means of ceiling prices on new buildings," Hart said. "The responsibility for avoiding inflation is up to the industry and the public. We must organize everywhere to demonstrate that private enterprise can accept its share of the responsibility."

"Voluntary industry regulation is urgently needed at the present time to help hold the line on prices of new homes and other construction during the period when the demand greatly exceeds the supply," according to Douglas Whitlock, Chairman of the Advisory Board of The Producers' Council.

"In view of the great market for construction," Whitlock stated, "labor must also do its part to eliminate restraints which tend to reduce the volume of building. Labor should realize that it stands to gain, not lose, by stepping up its work output, by reducing manpower requirements on the job, by not resisting technical advancement, and by not interrupting the progress of construction."
Letters

London, Oct. 17

Dear Editor:

This will let you know that two architects are making a gradual transition into the old harness.

Milton G. Van Dusen of Syracuse, an engineer T/4 and myself from Massena, are fortunate enough to be part of a group of 28 architects from the U.S. Army on duty with the Training Within Civilian Agencies Branch of the Education Dept. of the I & E Service of the Army. We two are working with the firm of Minoprio & Spencely, FFRIBA, (the double F because they’re both fellows), the others are scattered about London. The program was set up thru the cooperation with the RIBA.

It certainly is a pleasure to be back on a tall stool again pushing a pencil. At the present the office is busy on a development plan for Worcester. There are a number of war damage jobs cooking, but the shortage of men and materials plus the difficulty of getting a building license slows things down.

Congratulations on the recent improvements of the Empire State Architect. I’ve enjoyed the news from the profession immensely.

Sincerely,

ELMER J. MANSON
1st Lt. FA
RIBA TWCA
Field Center 1
APO 413
C/o PM, N.Y.

August 9, 1945

To: All Constituent Organizations in New York State:

About June 1st, 1945, we were advised by two of our Constituent Organizations that the New York State Liquor Authority had ruled that architects were not qualified to file drawings and data, as required by the Authority, for retail liquor licenses.

A request for re-consideration was made to the State of New York Liquor Authority by the Joint Committee of Architectural Societies of the Metropolitan Area in New York, and by the New York State Association of Architects. It was necessary to apply to the State Education Department for a ruling. We are happy to state that under date of August 8, 1945, Mr. James O. Hoyle, Investigator for the Professions, has communicated with the President of the New York State Association of Architects, as follows:

"I have been advised by Mr. Harry Karst, Assistant Counsel of the State Liquor Authority, that the rules of the Liquor Authority have now been amended to include architects, as well as professional engineers, in their practice before the New York State Liquor Authority and local A.B.C. boards."

For the successful conclusion, we desire to compliment Mr. Leo V. Berger, Secretary of the Joint Committee of Architectural Societies of the Metropolitan Area, for his able presentation of the case for the architects, and Mr. James C. Hoyle for his assistance to our profession in this matter.

Yours for the Profession,

M. W. DEL GAUDIO

EMPIRE STATE ARCHITECT
Dear Mr. Del Gaudio:

November 10, 1945

It has come to our attention that some of the Chapters and State Associations, apparently not realizing the extent of the machinery set up by the Institute, are going to unnecessary trouble and expense with reference to the Registry of Architects. Therefore, we would like to briefly review for you the work that is being carried on and the facilities available at the Octagon. We refer you to the letter and enclosures sent to you under date of August 15th by Roy F. Larson, Chairman of the Committee on the Architect and Governmental Relations.

1. A card index file of all legally practicing architects in the United States and its possessions is being compiled at the Octagon. This card index file is now almost complete. We therefore have a list of all the legally practicing architects in your Chapter or State Association area. This list is being kept up to date.

2. The Institute's Committee on the Architect and Governmental Relations is drafting a questionnaire. This questionnaire, in printed form, will be sent in triplicate to each architect on record in those areas where the Chapters and State Associations have indicated to us that the Chapters and State Associations have approved the program as set forth in Mr. Larson's letter to you of August 15th. These questionnaires will be accompanied by a ballot on which the individual architect votes for the jury or panel of selection as described in the aforementioned letter. The questionnaire and ballot will be accompanied by a letter of transmittal in printed form, sent out by the Octagon, which will explain in detail the program to the individual architect. When the architect has executed the questionnaire he is to retain one copy and return the other two to the Octagon. The Octagon then retains one copy for reference and sends one copy to the local Committee or panel on Qualification, which will have been determined by ballot. It is possible that some of the Chapters and State Associations would prefer to have the executed questionnaires routed through the Chapter and State Association offices. If any Chapter or State Association desires to follow this procedure we request that we be immediately notified. In any event, one copy of the executed questionnaire must be returned to the Octagon. It should be pointed out, however, that in many cases the non-members will not know where to send their ballots and questionnaires. Therefore in the interests of expediency we think it would be advisable to have all ballots and questionnaires cleared through the Octagon.

We are making every effort to relieve the Chapter and State Association of trouble and expense in connection with this effort. The Octagon has set up a separate office to handle the program and is prepared to assist the Chapter and State Association member. Please feel free to call upon us at any time.

Very truly yours,

EDMUND R. PURVES,
Washington Representative, A.I.A.

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For Beauty and Hard Use...


Schools top the list of places where building material must be strong, sanitary and economical in up-keep. Modern schools not only demand utility but an intrinsic beauty to influence the young scholars.

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VERMONT MARBLE COMPANY, PROCTOR, VERMONT
RUSSIA LOOKS TO AMERICAN DESIGN


The presentation was made at a reception attended by 200 architects and representatives of American firms who contributed material to the exhibition. From the Consulate, it is being shipped directly to the Soviet Union, since government regulations provide that it may be exhibited only in Soviet territory.

The exhibit, which was presented as a gesture of friendship and cooperation between the two countries, will be shown throughout the Soviet Union after an opening in Moscow and will serve as source material to Soviet architects and planners for reconstruction purposes.

It consists of an introduction and a series of nine sections covering the following phases of American building: transportation, homes, industry, commerce, social (hospitals, schools, recreation, community centers), administration, farms, cities and regional planning. Included are 40 panels, 4x6 feet each, with Russian captions.

In making the presentation, Harvey Wiley Corbett, Chairman of the Architects Committee, called the event "a pioneering venture in inter-cultural relations between Americans and Russians, as the first time that Americans had worked up an extensive project that would tell their story directly to the people of Russia."

"No other exhibit in my experience has been destined for such a thrilling assignment," said Mr. Corbett. "Within a few days these scenes so familiar to us despite the strange looking captions will be on their way on a journey of thousands of miles to a great country and a great people intensely curious about that far-off America of ours."

The exhibit's introduction, which gives a background of the influences that the many and varied national cultures have had on American architecture, points out that the same problems exist in the Soviet Union. It points out, for example, that in geographic immensity and wide extremities of climatic conditions the two countries are similar and must face the same problems of building materials.

"The development of the two countries has many points in common," the introduction states. "In both," vast areas of little-settled and undeveloped land have had to be colonized, settled, civilized and made productive. Many peoples have combined to make up the present United States; many peoples form the present Russia. And in both countries the relation of local habits and regional and racial cultures to some underlying factor, which one may call national, has been a major cultural problem. It is with this background of influences so similar that one should approach this exhibition of American architecture."

William Chapman White, Regional Director, Overseas Bureau of Interim Information Services, in charge of Russian operations for the O.W.I., declared that previous exhibits in the Soviet Union on the American theater, American women and on the Pacific War had been seen by thousands of visitors.

"It is only by the exchange of information between the people that the world can be made as small in the human sense as it has become in the geographical sense," said Mr. White. "It is only by that exchange that the lesson we have all learned in the past few months can be made real—that if we are to live on this planet at all, we must all live together."
Accepting the exhibition on behalf of Soviet architects, Mr. Mikhailov hailed the importance of sending a record of American building to the Soviet Union at a time when the rebuilding of devastated areas is under way.

He declared that the Soviet people plan to restore the country not only to pre-war conditions but to build finer, more beautiful and more livable cities than those before the war.

Stressing the admiration of the Soviet peoples for American technical and industrial achievements, Mr. Mikhailov concluded, "I know that it must be a source of great satisfaction to the architects, to the firms and to the individuals and the others who have participated in the preparation of the exhibit to know that they will have made a direct contribution to the rebuilding of the Soviet Union. I see in this fine project a symbol of the cooperation which resulted in our joint victory on the field of battle extended into the peacetime needs of reconversion and reconstruction of our countries."

Douglas Haskell, Associate Editor of the Architectural Record, is picture and text editor; lay-out and construction designer is Frederick J. Kiesler. The Advisory Committee included Dean Joseph Hudnut, Dean of the School of Architecture and Design, Harvard University; Prof. Talbot Hamlin of Columbia University, well-known architectural historian; Mary Goldwater; Ethel Holm; Vernon DeMars and Herman H. Field.

Among the architects whose works appear are: Fellheimer & Wagner, Holabird & Root, Royal Barry Wills, George F. Keck, Frank Lloyd Wright, Harwell Hamilton Harris, William Wilson Wurster, Albert Kahn, Inc., Reinhard, Hofmeister, Corbett, Harrison, MacMurray, Hood and Fouilhoux.
FORUM IN DESIGN
(Continued from page 9)

materials and methods of workmanship which are available to us and if we have the courage, artistic ability and independence to put them together with resourcefulness and ingenuity, inspired by all the great architecture of the past but still without copying from the past, if we can give our architecture a freshness of its own — born only from the actual requirements and needs for which it is built, and decorated however we may wish with our own creative designs — then we will have a great architecture and it will of a consequence represent that strength and independence which will be ours. Whether or not it is as beautiful as the great styles of the past is beside the point — that is if we think of beauty in the commonly accepted meaning of the word. We should not however we may wish with our own creative designs — then build architecture for beauty's sake. On the other hand if we build it truthfully we will in the wider sense of the word have beauty since truth is its very essence.

The Modernist's Approach

In wholehearted agreement with the modernist's approach to the problem of design John Y. Sloan explained that "modern architecture is not peculiar to this age. It has always been the final and most advanced of the science of building of the era in which it appeared. The buildings of the past tell of the experience and abilities of men in coping with the geographical, geological, climatic, religious and social influences of their times.

"One of the ancient philosophies," said Mr. Sloan, "had as its premise the thesis that 'all things change'. Architecture, no exception to this, must change in order to live.

"Change in architecture follows a curve. When it develops with thought and practice, the change is imperceptible. After a long period of perpetuating the past, however, through blind acceptance of its principles, a change becomes momentous — quite often painful to those who have lived in this past.

"Some styles of the past are roughly cast aside in our present civilization: The Prehistoric because they show little constructive development or sequence, the non-historical styles perhaps because they are a little too old or because they complicate our history.

"The historical styles, however, including the works of man from approximately 50 centuries B.C. to the Renaissance styles, 18 centuries A.D., constitute the scope of the "traditionalists". This bone yard forms quite a library and for almost any success or failure a precedent may be found therein.

"By those who straddle the fence and look back to the historical styles or forward to the modern, I am reminded of the Greek god with the two faces — who probably could close two eyes to either direction; who, however, was probably credited with the ability that we humans do not have — of seeing the entire past and the entire future — and of being able to discern the best of all that was or will be. Neither fish nor good red herring, these men perhaps live best by their chameleon tactics and are willing to build in any style requested.

"The modernist, in all eras as well as today, has always borne the load of leadership as well as the brunt of criticism. To understand these moderns, whom only history will catalogue as to their greatness, let us analyze their philosophy:

1. "Reverence of the past only in the light of functionalism — the proper employment of faculties or powers, shown to a greater or lesser degree in any era;
2. "Pursuance of functionalism to one's fullest ability through the use of all of the scientific knowledge of the day;
3. "Strivance to carry their profession on step by step in the belief that there is no finality — that the only permanency in this universe is change.
GEORGE S. BARTLETT

George S. Bartlett, widely known from coast-to-coast as the greatest single influence in the use of concrete roads, died at his home, 2600 Lakeview Avenue, Chicago, on October 21. Assistant to the chairman of the Board of Directors of the Portland Cement Association since 1931, Mr. Bartlett through his many lifelong activities gained national recognition as "The Apostle of Concrete." His effectiveness was such that "Nation's Business," in 1936, asserted that he had probably sold more concrete than any living man.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933 — Of Empire State Architect, published 6 times a year, at Buffalo, N. Y., for October, 1945, State of New York, County of Erie, ss: Before me, a Notary Public in and for the State and county aforesaid, personally appeared Julian L. Kohle, who, having been duly sworn according to law, deposes and says that he is the publisher of the Empire State Architect and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation) etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

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AMONG THE CONSTITUENTS

WESTCHESTER COUNTY CHAPTER

(Continued from page 7)

In 1929, largely through the personal efforts of the late Howard Peare of New Rochelle, The Westchester County Society of Architects was formed. From its inception, the Society was an active force in furthering the interests of the profession in the county and state. The work of the Society in connection with state legislation, particularly the passage of the present registration laws, has probably not been surpassed by any other group.

With the forming of the Westchester County Chapter A.I.A. in 1937, the profession found itself with two organizations in the county having a minor duplication of membership and little or no coordination of effort and activity. This hardly satisfactory state of affairs was corrected in 1944 when, through the efforts of Mr. Otto J. Gette, President of the Society, and Mr. Kenneth K. Stowell, President of the Chapter, a unification of the two organizations was effected. The membership of the Society was admitted to the Institute and the Society name was dropped.

The result of this action has been that the profession is now represented by a single, strong county-wide organization, having at this writing ninety-eight members with new applications being acted on at every monthly meeting. Despite the fact that the membership is spread over a large area, the attendance at meetings averages close to fifty.

The emphasis of the Chapter’s activities for the current year is on the following points:

1. The establishing of a schedule of minimum fees for the County and the dissemination of public information relative to fees and services.
2. The establishing of basic county-wide building code standards.
3. The establishing of better understanding and coordination between labor, contractors and architects.

MARBLE MEN AND ARCHITECTS

(Continued from page 6)

Today the architect, if he properly conceives his position, finds himself but a part of a much larger field than just architecture; he is a component part of the construction industry. With him in this large sector of our national economy are labor, in its common and highly skilled, producers of and dealers in material, contractors and subcontractors, home builders, finance organizations and real estate brokers. It behooves him to fully appreciate this responsibility and the responsibility it entails.

The long awaited post war period is here. It presents great opportunity. It also presents us with grave responsibility. To the architect, what he does and how well he does it during the years just ahead will influence his own status and that of our profession for many years to come.

There is a surging demand for building and rebuilding which will test to the utmost the ability, the diligence and the imagination, not only of the architect, but of all of us in the building industry. As an industry, we are secondary only to agriculture and provide more than ten percent of our national economy.

As such we are expected to provide employment for not only the returning veteran, but for those released from war plants. To accomplish this we must be prepared to act in unison. Cooperation is mandatory if the industry is to meet the demand upon it.

If the construction industry fails to meet the opportunity presented, the architect will fail with it. The problems of other sectors of the industry are just as surely his own and what contribution he can make to their solution, is in his own interest. We are all in this "jam" together, let’s make sure we pull out together and do not fail.
A Code for rating and testing oilfired residential steel boilers and for rating commercial boilers has been issued by Steel Boiler Institute, Inc., requiring oilfired residential boilers up to 3,000 sq. ft. net rating to show at least 10% overall efficiency by evaporation test when operating at 150% of net rating. This Code will replace the steel boiler Code originally adopted in December, 1929, which, with revisions has been effective since its original adoption. Even though test results are attained better than the prescribed minimum requirements, net ratings in square feet of steam shall be limited to seventeen times the square feet of heating surface in a mechanically-fired residential boiler. A. S. M. E. Boiler Code construction is required.

Residential steel boilers are defined by the Code as those containing not more than 177 square feet of heating surface and having catalog steam SBI net ratings not greater than 3,000 square feet when mechanically fired. Ratings shall be expressed in square feet of steam or water radiation and in Btu per hour. Boiler horsepower may be shown if desired. Steam ratings are considered as emitting 240 Btu per square foot per hour, and hot water ratings are based on 150 Btu per square foot per hour. One boiler horsepower is considered equivalent to 140 square feet of steam radiation.

SBI net ratings for residential steel boilers include the load imposed by the connected radiation required to heat the building, and heat loss from piping up to 20% of the installed radiation. Piping losses in excess of 20% of the installed radiation must be considered as additional net load. The estimated maximum heat required by water heaters or other apparatus connected to the boiler must be considered as additional net load and extra boiler capacity must be provided for it.

Provisions for rating oilfired residential steel boilers under the new Code prescribe:

- **Heating Surface**: The SBI net rating expressed in square feet of steam radiation shall be not greater than 17 times the heating surface of the boiler.
- **Carbon Dioxide in Flue Gases**: The burner shall be set to produce 10% carbon dioxide (plus or minus 0.2%) in the flue gases.
- **Flue Gas Temperature**: The flue gas temperature shall not exceed 600°F when the boiler is operating at 150% of the SBI net rating.
- **Overall Efficiency**: The overall efficiency of the boiler and burner shall be not less than 70% when operating at 150% of the SBI net rating.
- **Draft Loss through Boiler**: The difference between the draft at the breeching and the draft in the firebox when the boiler is operating at 150% of the SBI net rating shall be not greater than that determined by the formula: Draft Loss (in hundredths of an inch of water) equals Net Rating over 200, plus 4. This draft loss limitation shall not apply to integral boiler-burner units regularly catalogued and marketed complete with boiler, burner and refractory designed to operate with higher draft losses and where means is provided to develop sufficient draft to overcome the high draft loss.
- **Furnace Volume**: The furnace volume shall be not less than one cubic foot for every 110 square feet of steam SBI net rating. This limitation shall not apply to integral boiler-burner units.

Every boiler is to carry a plate that shows the manufacturer's name and address, the boiler number and type, the SBI symbol, the amount of heating surface, the SBI net rating in Btu for each type of firing recommended, and whether or not baffles or turbulators are used. Non-members of SBI, upon approved application, may receive permission to test and rate boilers according to the Code.

It is recommended by the Steel Boiler Institute that all oilfired residential steel boilers rated under the code be catalogued with the ratings shown in the accompanying table.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SBI Net Rating (Sq. Ft.)</td>
<td>Steam Sq. Ft.</td>
<td>Water Sq. Ft.</td>
<td>BTU</td>
</tr>
<tr>
<td>275</td>
<td>440</td>
<td>66,000</td>
<td>2.5</td>
</tr>
<tr>
<td>375</td>
<td>510</td>
<td>77,000</td>
<td>2.9</td>
</tr>
<tr>
<td>590</td>
<td>640</td>
<td>96,000</td>
<td>3.6</td>
</tr>
<tr>
<td>1120</td>
<td>880</td>
<td>132,000</td>
<td>5.0</td>
</tr>
<tr>
<td>1760</td>
<td>1120</td>
<td>168,000</td>
<td>6.4</td>
</tr>
<tr>
<td>2600</td>
<td>1440</td>
<td>216,000</td>
<td>8.2</td>
</tr>
<tr>
<td>3520</td>
<td>1760</td>
<td>264,000</td>
<td>10.0</td>
</tr>
<tr>
<td>4800</td>
<td>2080</td>
<td>312,000</td>
<td>11.8</td>
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<tr>
<td>7200</td>
<td>2400</td>
<td>360,000</td>
<td>13.6</td>
</tr>
<tr>
<td>1336</td>
<td>2880</td>
<td>432,000</td>
<td>16.4</td>
</tr>
<tr>
<td>2200</td>
<td>3520</td>
<td>528,000</td>
<td>20.0</td>
</tr>
<tr>
<td>2600</td>
<td>4160</td>
<td>624,000</td>
<td>23.6</td>
</tr>
<tr>
<td>3000</td>
<td>4800</td>
<td>720,000</td>
<td>27.3</td>
</tr>
</tbody>
</table>

A Section of the new Code sets up the test procedure for residential steel boilers and the calculations for oilfired test items. Manufacturers are to submit their test data, and the Steel Boiler Institute will review these data and approve Net Ratings to be used for the equipment if test results are satisfactory.

No test procedure is provided or required for commercial steel boilers. Commercial boilers designed to be fired mechanically are rated in square feet of steam radiation equal to 17 times the heating surface of the boiler in square feet. The SBI rating in square feet of steam for boilers designed for hand-fired solid fuel are equal to 14 times the heating surface. A rating table in the Code shows for commercial steel boilers the SBI Rating, the SBI Net Rating, heating surface in square feet, minimum furnace volume in cubic feet for mechanically-fired boilers that are fired with a bituminous stocker. Furnace heights for stoker-fired boilers have been determined in cooperation with the Stoker Manufacturers Association. Minimum grate areas are shown for hand-fired boilers. These physical specifications for commercial boilers determine the SBI rating.

This new steel boiler Code has been developed by the Engineering Committee of the Institute under the chairmanship of L. N. Hunter of National Radiator Company. Members of the Committee include C. E. Bronson of Kewanee Boiler Corporation; J. B. Kingsley of International Boiler Works Company; C. E. Olson of Fitzgibbons Boiler Company, Inc.; and J. W. Turner of Pacific Steel Boiler Division, U. S. Radiator Corporation. Copies of the Code are available through the Steel Boiler Institute, Inc., 366 Madison Avenue, New York City.
Yes! it's a
“New Freedom GAS Kitchen”

PEEK in the window and see the 3 “musts” that put each “New Freedom Gas Kitchen” in a class by itself.

WANT TO BE A BETTER COOK? Note the new clock-controlled Gas range . . . . the fastest, smartest, most efficient and economical range you ever cooked on. No matter what “make” you buy—if it bears the CP seal it's tops in cooking performance.

THE WONDER FLAME THAT COOLS AS WELL AS HEATS

WANT TO SAVE MARKETING TIME? In your spacious new Gas refrigerator you can store more frozen food . . . keep all foods fresh longer. It always runs silently, efficiently, because there are no moving parts.

WANT PLENTY OF HOT WATER? You’ll need it for that automatic dishwasher . . . need it in the laundry for a new do-everything washing machine. And the easiest, most economical way to get all the hot water necessary for every job is with a new automatic Gas water-heater! Better get to work on your “New Freedom Gas Kitchen” today!

Call on any of the companies listed below for further information

The Brooklyn Union Gas Co.
Central New York Power Corp.
Rochester Gas & Electric Corp.
Iroquois Gas Corporation
Long Island Lighting Co.
Republic Light, Heat & Power Co., Inc.
Architect Richard J. Neutra had ample justification for selecting the Case plumbing fixtures that are going into this interesting building. Their clean design and their proven ability to give long, trouble-free service recommend them to all who are concerned with lasting value. They combine vitreous china and fine mechanical construction — primary assurance of cleanliness and health protection in bathroom fixtures. This is the third in the series of “Study Houses” to be Case-equipped. W. A. Case & Son Mfg. Co., Buffalo 3, New York. Founded 1853.

TOP—Most popular of all water closets is the Case T/N. Modern in design, quiet in operation, non-overflow and non-siphoning. A precision-built free-standing fixture.

BOTTOM—Concealed front overflow, anti-splash rim, chrome finish accessories and convenient shelf are popular features of the Wilmington lavatory. Available also wall hung.
LICENSE EXAMINATIONS
THE SECRETARY SPEAKS
ENGINEERING EDUCATION
BY-LAWS
HOUSING SHORTAGE
THAT NECESSARY EVIL
ALL METAL REVOLVING DOORS

GB revolving doors are a worthy addition to your finest buildings. These handsome, easy-operating doors embody features developed in thirty-five years' experience in fabricating non-ferrous metal products for the building industry. They are engineered to meet modern requirements and can be detailed to harmonize with the architectural treatment of the entrance.

GB revolving doors have been specified by many of the country's foremost architects for their finest buildings. Hundreds of installations in notable buildings all over the United States are constant reminders of their excellence. As you design new structures or the remodeling of old ones plan to use GB revolving doors. Write today for our catalog or consult Sweet's.

GENERAL BRONZE CORPORATION

34-19 TENTH STREET   LONG ISLAND CITY 1, N.Y.

SIX CONSECUTIVE ARMY-NAVY "E" AWARDS
LICENSE EXAMINATIONS
DESIGNED TO BE EXHIBITED BY
CHARLES BUTLER, President
New York State Board of Examiners of Architects

The State Board of Examiners of Architects is glad to announce that thanks to the cooperation of Dean Arnaud of the Columbia University School of Architecture, the exhibition of a number of design drawings which have received passing marks is to be resumed this year, probably in the early fall. The object of the Board in exhibitive design drawings was to make clear to prospective candidates for license the principal qualities desired in the examination. Many candidates have feared that brilliant rendering were what counted most. This is not the case. The Board wishes to see, primarily, well studied plans with good elevations and sections worked out in sufficient detail to show that the candidate has understood the practical working of his scheme. In many cases the intelligent and economic spacing of structural columns is also of importance. Dean Arnaud has agreed to get in touch with the School and Chapter authorities throughout the State, so that the exhibition may be circulated very generally and studied by those preparing to take the examination.

Veterans Construction Experience in Service

The question of the returning veteran is one to which the Board has given much thought. In the old law, the three or four years' practical experience required of candidates who were graduates of architectural schools had to be acquired in architects' offices; luckily the law was amended some years ago to give the Board discretion in considering the records of experience submitted by candidates. The Department of Education in Albany has agreed that each case shall be considered on its merits, and that credit may be given for service in the Engineers or Seabees, or other branches of the service where the men have had actual construction experience. This should be a real assistance to those who have been in those particular branches of the service.

Attention of Veterans is called to a very serious misstatement of the license law which appears in the 1945 Yearbook of the New York Society of Architects, in the fourth paragraph on page 11. It is there stated that, "a license as Architect shall be issued to a disabled veteran of the World War who is a resident of this State, who submits evidence that he has received from the United States Veterans' Bureau a certificate showing that he has completed a rehabilitation course of the type referred to."

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The full text of the law is given in Handbook No. 35, May 1944-45, issued by the University of the State of New York, and is to be found on page 34. Applicants can secure a copy of the Handbook by writing to the Chief of the Bureau of Qualifying Certificates and Professional Examinations, State Education Department, Albany, New York.

This notice is inserted to prevent disappointment to veterans who may happen to consult the Yearbook of the New York Society of Architects and not the official state publication.

Mr. Kidney proposed: That any member who is in good standing in the State Association may represent a constituent organization in which he has paid his dues, or any other constituent organization in good standing of which he is a member. Passed.

Next came the report of the Auditing Committee. Chairman Strauss advised us that the books had been audited and found in order. Accepted.

Mr. Ellis now reported on behalf of Editor Dave Crane of our Publication Committee. Mr. Crane's report was adopted with thanks and with instructions that it be referred to the new Committee for use of such portions as will now apply.

Publisher Kahle submitted an estimated statement for six issues of the Empire State Architect for the year 1945. This report was approved with qualifications.

It was felt that to secure the greatest reader interest and professional benefit, the Empire State Architect should be published and delivered once a month. The new administration was instructed to effectuate this.

Our collecting Treasurer, Mr. Cantor reported for 1945 as follows:

<table>
<thead>
<tr>
<th>Receipts Comparison</th>
<th>1945</th>
<th>1944</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albany Chapter A.I.A</td>
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<tr>
<td>Brooklyn Chapter A.I.A</td>
<td>120.00</td>
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<tr>
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<td>692.00</td>
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<td>Central New York Chapter</td>
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<tr>
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<td>56.00</td>
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</tr>
<tr>
<td>Brooklyn Society</td>
<td>122.00</td>
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<tr>
<td>New York Society</td>
<td>470.00</td>
<td>454.00</td>
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<tr>
<td>Syracuse Society</td>
<td>52.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Rochester Society</td>
<td>66.00</td>
<td>108.00</td>
</tr>
<tr>
<td>Bronx County Society</td>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Buffalo Chapter</td>
<td>84.00</td>
<td></td>
</tr>
<tr>
<td>Western N. Y. Chapter</td>
<td>96.00</td>
<td></td>
</tr>
<tr>
<td>Westchester Society</td>
<td>50.00</td>
<td></td>
</tr>
</tbody>
</table>

You will note from the above that no dues have been received from the Westchester Chapter and the Mid-Hudson Society. The latter is being carried as a non paying affiliate until it re-organizes. Receipts of $2,190.70 compared with $2,165.00 for 1944, are $90.70 above the figures estimated by the Budget Committee. The cash balance as of today, $1,444.56 is almost double the $754.37 of 1944.

Since this report was written, Mr. Cantor states he received a check from the Westchester Chapter for $66.

The work of Mr. Cantor's office highlights the trouble which all your officers have had because of incomplete rosters. These rosters originate with our constituent organizations. After discussion, motion was passed requesting each constituent organization to submit to the new administration before February 1, 1946 a complete roster of ALL its members, together with complete addresses, and a designating mark indicating those members who were in good standing in 1945 and for whom this constituent organization pays dues to the State Association in 1946. The Directors wish to stress upon the constituents and upon the individual members the importance of correct rosters, and to call their attention to the amount of State Association funds disbursed to get this information.

The new Secretary, Raymond Irrera has been instructed to notify each constituent organization's President and Secretary of this action of the Board and to enclose a sample roster.

Next, Mr. Cantor reported as Legislative Representative of this Association. He stated his final report on our perennial bill "Only Civil Service Architects Can Do Public Work." Mr. Frost suggested that the State Association Committee could meet with the Chapter Committee who are in confer...
ence with the Civil Service groups. In this way the Civil Service groups would not be negotiating with 2 Committees. A motion was passed that our Civil Service Committee should present a report by February 1st, after which time the President is instructed to call a Special Meeting of the Board if action is required.

Mr. Kidney of the Convention Committee reported progress; asked and received re-affirmation of authority. The Statler Hotel, Buffalo will probably be our Headquarters. The convention will probably be the 2nd week of October. We expect to hold one session in Niagara Falls; this, a joint meeting with the Ontario, Canada Chapter of the Royal Institute of Canadian Architects. Secretary Briggs read an invitation from the New York Convention Bureau to hold our convention in New York City. They offered their full cooperation, publicity and other services. It was voted to consider New York City the following year; 1947. In 1946 the Association will convene in Buffalo. The new Secretary, Mr. Irrera was instructed to inform the New York Convention Bureau.

Mr. Eldridge now reported for the Committee on Architects and Government Relations, for Chairman Kaelber. The Public Works Bureau of the State has requested a list of private architects to execute State work. After much discussion, motion passed that such a list be furnished when requested, containing the names, addresses and kind of work done by architects, plus a warning that many architects are competent to properly execute say, hospitals, even if they have not previously designed and built one.

Secretary Briggs then read letters and resolutions from the New Jersey Society of Architects, the Virginia Chapter, and Syracuse Society of Architects on the subject of pre-qualifications. There was no action taken because subsequent to the date of these communications the National American Institute of Architects had abandoned their intention of pre-qualifying architects for the American Hospital Association.

The Directors also instructed Dean Arnaud and his Committee to continue their good work with the Registration Board toward humanizing the examinations for R.A. and to secure, if possible, a traveling exhibition of drawings and examination papers of successful candidates. (See page 3 this issue. Ed.)

The question of Executive Secretary was again brought up but as our funds do not permit the retaining of one, it was not further discussed.

Mr. Del Gaudio reported for Mr. Walker, Chairman of the Committee of Public Works. They have interviewed Mr. Sells and done other work which had resulted in many jobs being awarded to private architects. It is the intention of Mr. Sells to assign competent architects from localities in which the buildings are to be built. The Directors instructed the Committee to continue their friendly relationship with Mr. Sells.

Chairman Goldberg reported. His suggested budget for 1946 based on probable receipts of $2,000 was adopted with thanks.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors Meetings—including traveling expenses, rent, etc</td>
<td>$350</td>
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<tr>
<td>A.I.A. Dues</td>
<td>250</td>
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<tr>
<td>President's expenses, incl. secretarial work</td>
<td>400</td>
</tr>
<tr>
<td>Secretary's expenses, incl. secretarial work</td>
<td>50</td>
</tr>
<tr>
<td>Treasurer's expenses, incl. secretarial work</td>
<td>75</td>
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<tr>
<td>Legislative Committee</td>
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</tr>
<tr>
<td>Other Committees</td>
<td>150</td>
</tr>
<tr>
<td>Miscellaneous and Contingencies</td>
<td>125</td>
</tr>
</tbody>
</table>

$2,000

Our Public Relations Committee was instructed to wait until the National Institute reports, before taking action. In the meantime, they are to confer with them at the earliest possible date, and report to the President.

Professor Sargent Committee's work on Safety in New York State was outlined. They have done constructive work in institutions and homes.

The Directors established the dues for 1946 to be at the rate of $2 per member.

Just before luncheon, President Del Gaudio said the following few words:

"A year ago, our country was in the middle of a battle for the survival of our institution. Our men were away, some never to return. Many architects were in uniform and many were engaged in work for the war. A prayer for light and for the might of right was on our lips. Our prayers have been answered—Right has triumphed—Our men are returning. The future is ours, ours to mold to our hopes, desires and aspirations. Architects have an unlimited opportunity to render service. Let us give of our best. Much, although not too much, has been accomplished during the year. Our treasury has grown, thanks to the efforts of our Treasurer. The magazine has grown, in size, importance and in the balance sheet. Our legislative work has been generally successful. Our relations with the State have progressed. Many of our architects have been awarded State contracts. Our committees, in general, have carried out their allotted tasks. We are on the threshold of a new era. If we all work together for the common good, our accomplishments will be great. More effort is urged in work for the profession. If we expect our profession to keep us, we must all do something for its benefit. Our efforts, so far, have been well worthwhile. Greater efforts will reflect a greater importance of the architects in the community. May we all apply ourselves, in the coming year, for the common good, to the end that our profession will approach that pre-eminence which it so richly deserves. The opportunity is ours, let us use it."

During luncheon, the By-Laws were discussed informally. These By-Laws make more democratic the operation of the Association. They provide for proportional representation which is extended to our individual members. The Directors and the Committees are subject to instructions from the Convention in whose hands policy is placed.

Mr. Kidney reported as Chairman of the Nomination Committee. Officers for 1946 are: President—Matthew Del Gaudio; Vice-President—4 to serve this year only; C. S. Barrows; Fred Frost, Sr.; Ralph Winslow; Henry V. Murphy; Secretary, Raymond Irrera; Treasurer, Maxwell Cantor.
There are at least five different features in our present-day technical education which are justly subject to criticism: (1) trend toward specialization in undergraduate courses; (2) lack of proper standards of selection of students to be admitted to engineering courses; (3) failure to develop in the student the habit of thorough understanding of subject matter and processes; (4) insufficient emphasis placed on development of student personality; (5) examinations and student grading which are not the true test of student ability desired by the employer. These, of course, do not each apply equally to all institutions, but can be accepted as fair criticism of the average institution.

It would seem that there is one underlying error common, at least in practice if not in theory, in most of our institutions to which these various faults may be traced. This is the failure to appreciate that the chief objective of a technical education should be to train the student in logical thinking and develop his creative imagination; that it should be aimed primarily toward the acquisition of power rather than toward the amassing of factual knowledge.

Undergraduate Specialization

The trend toward following the latest educational fad of the day to the injury of sound, basic education is a serious problem in all of our engineering colleges. It is the consensus of employers of technical graduates that specialization in an undergraduate course is highly undesirable for the following reasons:

1. It takes valuable time of the students which may be employed in obtaining a more thorough understanding of, and training in, the fundamentals of engineering and their broad, rather than specialized, application. Our courses in technical colleges are already over-crowded and are in need of simplification.

2. An overcrowded curriculum leads to superficiality rather than thoroughness. Above all things, the engineer must be thorough. Thoroughness, which includes and emphasizes understanding, should be the first objective of engineering training.

3. With few exceptions, current engineering practice in special fields cannot be taught successfully to undergraduates. The newer arts are advancing with exceeding rapidity and textbooks are out of date almost before they are printed. Such courses can be taught successfully only by specialists who are practicing engineers, and therefore, taught as lecture courses. It is much better that the student should gain his specialized knowledge in actual practice.

4. Probably more than 90 per cent of the students do not follow the field in which they have specialized when at college. Circumstances and opportunity for employment play the most important parts in the ultimate selection.

5. It adds unnecessarily to the over-all cost of running a technical college. Cost of instruction in, and operating laboratories for, specialized fields is all out of proportion to the cost of the more important fundamental instruction.

Inadequate Standards of Admission

There exists a very subtle yet definite competition among our technical schools for either numbers or quality of students. This leads, on one hand, to putting forth undesirable undergraduate curricula as window dressing to attract students, and, on the other hand, to the admission of some students in colleges who are unqualified for an engineering course. In general there is insufficient consideration given to student aptitude and there are inadequate requirements for admission to the course of the type of ability needed in engineering.

It may be assumed that most engineering students have an interest in their work. But more than this is required: They must have natural analytical ability. This is the real criterion of whether they should go to a trade school or take an engineering course in a university.

Unfortunately, high-school standing alone cannot be taken as sound criteria of the student's analytical ability. The increase in the age of employment, combined with compulsory education, have put into our high schools large numbers who are not interested in further instruction, as well as those who have not the ability for high-school work. This necessarily lowers the standards in many of our high schools and tends to mechanize secondary education. Entrance requirements must be revised to take into consideration definitely poorer standards of secondary education. This means that the candidates should be qualified for entrance into engineering courses by a suitable minimum college entrance examination. This should partake of the "intelligence test" type of examination to test natural thinking and reasoning ability, and should be supplementary to the qualifications indicated by high-school or preparatory-school standing. Evidence of adequate training in English should be required through examination at entrance, and further training in this subject should be provided during all four years of college.

The desirable educational standard can be made possible in engineering colleges only by the selection of the ablest from a number of applicants. This may seem severe, but it must be remembered that even now there are many more engineering graduates in this country than can be absorbed profitably by industry. Industry has no use for "duds," and the preliminary sorting out could be done most soundly and economically at the engineering college.

Subject Matter Versus Mental Training

As it has been pointed out, our engineering schools seem to vie with each other in publicizing extensive undergraduate curricula in which subject matter is stressed rather than training. Herein lies the cause of many of the principal defects observed by employers in our present-day education. The student is expected to learn more and more in a given time and the courses must be made "easy" so he can accomplish the work laid out in the curriculum. To obtain high or even passing marks, he must memorize extensively; he cannot take time to think. The main purposes of an engineering education—a thorough understanding of principles and training in the use of the mental "tools" of the profession—are thus defeated. Training in thinking is far more important than the mere acquisition of factual knowledge. Employers want graduates trained in logical thinking, in habits of thoroughness, and in the scientific method of approach.

In engineering education, the aim should be to have no fact or theory accepted until it is first thoroughly understood. Memorizing without thorough understanding does not develop the habit of mind that is so necessary in later life to the successful engineer. On the contrary, it leads to a habit of taking things for granted, and often to a feeling of mental helplessness and inferiority fatal to mental progress in later life.

The engineer who advances the boundaries of his profession must have curiosity and an inquiring mind. These natural mental attributes should not be deadened or stultified in the process of technical education, but should be stimulated and developed. Teaching, so far as possible, should be through guidance rather than through enforced assistance. The inductive method should precede the classical, and commonly overdone, deductive method.

(continued on page 14)
**HERE’S THE REASON**

We Had To Refuse Some Flexicore Jobs In 1945

<table>
<thead>
<tr>
<th>Owner</th>
<th>Type of Building</th>
<th>Location</th>
<th>Architect</th>
<th>Contractor</th>
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</thead>
<tbody>
<tr>
<td>C. F. Smallidge</td>
<td>Dairy Barn</td>
<td>Lancaster</td>
<td>Arthur Smith, Buffalo, N.Y.</td>
<td>Jantzi Bros., Williamsville, N.Y.</td>
</tr>
<tr>
<td>C. M. Smith</td>
<td>Garage</td>
<td>Buffalo</td>
<td>S. Harold Feno, Buffalo, N.Y.</td>
<td>Clyde Scharlach, Kenmore, N.Y.</td>
</tr>
<tr>
<td>Dr. O. H. Stover *</td>
<td>Dairy Barn</td>
<td>East Aurora</td>
<td>Wm. C. Lurkey, Buffalo, N.Y.</td>
<td>Arthur Willert, East Aurora, N.Y.</td>
</tr>
<tr>
<td>Duffy Silk Mills</td>
<td></td>
<td></td>
<td></td>
<td>Carl Luther, Buffalo, N.Y.</td>
</tr>
<tr>
<td>Luraschi &amp; Reese</td>
<td>Apartment House</td>
<td>Buffalo</td>
<td>A. A. Rumschik, Buffalo, N.Y.</td>
<td>Joseph Luraschi, Buffalo, N.Y.</td>
</tr>
<tr>
<td>Lancaster School Dist. No. 4</td>
<td>School</td>
<td>Lancaster</td>
<td>John Y. Sloan, Buffalo, N.Y.</td>
<td>W. M. Zacher, Buffalo, N.Y.</td>
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<td>M. &amp; K. Service Co.</td>
<td>Office</td>
<td>Williamsville</td>
<td>Owner's Building &amp; Bridges Dept.</td>
<td>Day Labor</td>
</tr>
<tr>
<td>New York Central Railroad</td>
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<td>Buffalo</td>
<td>Owner's Building &amp; Bridges Dept.</td>
<td>Owner</td>
</tr>
<tr>
<td>New York Central Railroad</td>
<td>Office</td>
<td>Buffalo</td>
<td>Owner's Building &amp; Bridges Dept.</td>
<td>George &amp; Sons, Buffalo, N.Y.</td>
</tr>
<tr>
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<td>Gardenville</td>
<td>Owner's Building &amp; Bridges Dept.</td>
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<tr>
<td>Niagara Alkali Co.</td>
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<td>W. A. Canon, Niagara Falls, N.Y.</td>
<td>Laur &amp; Mack, Niagara Falls, N.Y.</td>
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<tr>
<td>Park Cleaners</td>
<td>Store and Fur Storage Vault</td>
<td>Jamestown</td>
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<td>Day Labor</td>
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<tr>
<td>S. Katz</td>
<td>Garage</td>
<td>Buffalo</td>
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<td>Otto Grupp, Buffalo, N.Y.</td>
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<tr>
<td>South Side Cleaners &amp; Tailors *</td>
<td>Store and Dry Cleaning Establishment</td>
<td>Buffalo</td>
<td>Bert L. Beier, Clark's Summit, Pa.</td>
<td>Christ Const. Co., Buffalo, N.Y.</td>
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<td>Wangler Electric Co. *</td>
<td>Commercial</td>
<td>Buffalo</td>
<td>Joseph J. Geigand, Buffalo, N.Y.</td>
<td>George E. Schifferle, Buffalo, N.Y.</td>
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Total 264,000 Sq. Ft.

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EMPIRE STATE ARCHITECT
BY-LAWS
of the
NEW YORK STATE ASSOCIATION OF ARCHITECTS
(adopted December 8, 1945)

ARTICLE I
ORGANIZATION

Section 1. The name of this organization is the New York State Association of Architects, hereinafter called the "Association".
Section 2. This Association is an educational and scientific professional society the objects of which are to develop and maintain high professional standards in the practice of architecture, to collaborate with the American Institute of Architects in undertakings which will increase the value of the profession of architecture to society, and to coordinate the activities of all architectural organizations within the State of New York.

Section 3. The Association is a non-profit organization duly incorporated as such under the laws of the State of New York. The government of the Association shall be by members thereof in annual or other meeting assembled, and by the Board of Directors as respectively provided by law and these By-Laws. The Board of Directors is generally called "The Board" in these By-Laws.

Section 4. The domain of the Association shall be the State of New York. The Association shall function in local areas through non-profit membership organizations, the objects of which shall be identical with those of the Association. These local divisions are generally called "Subsidiary Organizations" in these By-Laws.

ARTICLE II
MEMBERS

Section 1. There shall be but one class of membership. Any person of good character who is a Licensed Architect in the State of New York, shall be eligible for membership.

Section 2. Members shall have all the rights and privileges of membership as stated in these By-Laws.

ARTICLE III
MEETINGS

Section 1. The Association shall hold an annual convention between October 1 and December 31, and such other meetings as may be authorized by the Board. The time and place of all meetings shall be fixed by the Board. Notice of meetings shall be sent to all members at least thirty days previous to the date of each meeting.

Section 2. Special meetings of the Association shall be called by the President upon a majority vote of a quorum of the Board or upon receipt of a written request signed by at least twenty members. In emergencies the President may call special meetings without such vote or request.

Section 3. All rights, powers and privileges of an annual convention and of a special meeting, granted under the laws of the State of New York, shall be vested in and may be exercised by duly accredited representatives of members of the Association elected by them. Each such representative shall be known as a Delegate.

Section 4. The number of delegates from each subsidiary organization that may be accredited to a meeting of the Association shall be proportionate to the number of Association members in the subsidiary organization who are not under suspension nor in default to the Association thirty days prior to the date fixed for the meeting.

Section 5. The Secretary shall determine the number of delegates as follows:

<table>
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<th>Number of Members</th>
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Then the number of member delegates entitled to be accredited to represent them shall be

If the number of members in the subsidiary organization who are not under suspension nor in default to Association is

More than and not more than 1

Section 6. The Treasurer shall notify the Secretary of each subsidiary organization, at least thirty days before the meeting, of the number of delegates to which that organization is entitled.

Section 7. The delegates of each subsidiary organization may cast the full vote of their subsidiary organization.

Section 8. Association members who are not affiliated with any subsidiary organization shall be represented at meetings by delegates selected by the Board. In determining the number of such delegates, these unaffiliated members shall be considered as constituting a subsidiary organization.

Section 9. The delegates of 50 percent of the number of subsidiary organizations shall constitute a quorum at any meeting of the Association.

Section 10. Any member in good standing may address a meeting of the Association but only accredited delegates present at a meeting may vote.

Section 11. The Board of Directors shall hold three regular meetings each year, including an annual meeting immediately prior to the opening of the annual convention and a regular meeting within ten days following the adjournment of the annual convention, the time and place of such meetings to be fixed by the Board.

Section 12. The President may call a special meeting of the Board and shall call a special meeting at the written request of any five members of the Board. Only business stated in the call and notice of a special meeting shall be transacted thereat.

Section 13. Five members shall constitute a quorum of the Board at all meetings held for the transaction of the business of the Association.

Section 14. The parliamentary usage governing the conduct of all meetings shall be as set forth in "Robert's Rules of Order, Revised", when not inconsistent with these By-Laws.
ARTICLE IV
OFFICERS

Section 1. The officers of the Association shall be a President, a First, a Second, and a Third Vice President, a Secretary, a Treasurer and one Director from each of the subsidiary organizations of the Association. The officers and directors shall constitute the Board of Directors.

Section 2. The officers shall be elected by the Association at the annual convention as hereinafter provided.

Section 3. The terms of office of the officers and directors shall be one year. A year is to be here construed as the period between adjournments of two successive annual conventions.

Section 4. The President and Vice-Presidents shall be ineligible for more than one re-election to the same office until the lapse of at least one term.

Section 5. The term of each officer shall begin at the close of the annual convention at which he is elected and shall continue until a successor is duly elected.

Section 6. A vacancy in the office of President shall be filled by the Vice-Presidents in the order of their rank.

Section 7. Vacancy in any office, for the unexpired term, shall be filled by appointment by the Board of Directors except as provided in Section 6.

Section 8. In the event of disability or neglect in the performance of his duty of any officer of the Association, the Board of Directors shall have the power to declare the office vacant.

Section 9. The Board of Directors shall have general supervision of the affairs of the Association. It shall authorize administrative committees to perform such duties and such authority as it deems necessary to carry on the work of the Association. Committee members shall be appointed by the President.

Section 10. The President shall perform the usual duties of the office. He shall preside at the annual convention and at the meetings of the Board of Directors, and shall be an ex-officio member of all committees. The Vice-Presidents, in the order of their rank, shall discharge the duties of the President in his absence. In the absence of President and Vice-Presidents, a President Pro-Tem, appointed by the Board, shall discharge the duties.

Section 11. The Secretary and Treasurer shall perform such duties and furnish such bond as shall be determined by the Board of Directors.

Section 12. The Association may retain a salaried Executive Director whose qualifications will permit him to assume charge of technical and staff duties of the Association under the direction of the Board. The Executive Director shall not be a voting member of the Association and need not be an architect.

ARTICLE V
ELECTIONS

Section 1. The officers shall be elected by secret ballot at each annual convention, as hereinafter provided, and shall hold office until their successors have been elected.

Section 2. At a Board meeting preceding the annual convention, the members present shall elect a nominating committee of five active members. This committee shall prepare a list of nominees for each of the elective offices. The committee shall recognize and place in nomination any candidate who is an active member, for any office, upon petition signed by five members, provided that such petition is delivered to the chairman of the committee at least thirty days prior to the date of the annual meeting. The nominating committee shall report to the Secretary at least twenty days prior to the date of the annual meeting.

Section 3. The Secretary shall mail to the secretary of each subsidiary organization, at least fifteen days prior to the date of the annual convention, a printed notice of the nominations for the various offices.

Section 4. The Board, at a meeting held prior to the meeting of the Association shall elect three delegates to act as the Credentials Committee of the meeting. The Secretary, ex-officio, shall act as secretary of the credentials committee, and the committee shall elect one of its members as its chairman. The term of office of every member of the credentials committee shall expire when the report of the committee has been accepted by the meeting.

Section 5. The election shall be determined by a plurality of the votes cast for each of the respective candidates.

Section 6. The President shall announce the results of all balloting to the convention or meeting and shall declare all elections.

ARTICLE VI
SUBSIDIARY ORGANIZATIONS

Section 1. Each subsidiary organization shall adopt and be governed by by-laws not inconsistent with these By-Laws.

Section 2. Each subsidiary organization shall elect, from its own membership, a director to serve on the Board of Directors of the Association.

Section 3. A subsidiary organization shall not have any title or interest in any property of the Association or be liable for any debt of the Association, and the Association shall not have any title or interest in the property of any subsidiary organization and the Association shall not be liable for any debt of any subsidiary organization.

ARTICLE VII
FEES, DUES, SUBSCRIPTIONS, FINANCES

Section 1. There shall be no entrance fee on admission to membership in the Association.

Section 2. The amount of the annual dues payable to the Association shall be determined by the annual convention. The subsidiary organizations of the Association shall be responsible for the collection and transmittal of these funds to the Association.

Section 3. Payment of dues includes a subscription to the EMPIRE STATE ARCHITECT as issued in the period of membership and entitles the membership to receive additional or other publications as determined by the Board.

Section 4. A member whose dues remain unpaid for a period of six months shall forfeit the privileges of membership and shall be officially notified to this effect by the Treasurer. If these dues are not paid six months thereafter his name shall be stricken from the list of members, unless otherwise specifically ordered by the Board of Directors. Members may be reinstated upon payment of all indebtedness against them upon the books of the Association.

Section 5. The Association shall not be liable for the payment of expense account of delegates.

Section 6. Prior to the beginning of a fiscal year, the Board shall adopt an annual budget showing anticipated income and expenditures of the Association, make the annual appropriations in accordance with this budget and authorize the expenditures thereof. No member, officer, director, committee or agent of the Association shall commit the Association to any expenditure whatever without the authorization of the Board.

Section 7. The fiscal year of the Association shall begin on January 1, and end on December 31 of each year.

Section 8. The Association shall furnish each subsidiary organization with an audit of its accounts at the end of each fiscal year.

ARTICLE VIII
AMENDMENTS

Section 1. Proposed amendments to these By-Laws, voted by a majority of the Board or signed by at least fifteen members, if presented in writing to the Board of Directors ninety days before the annual convention, shall be mailed to the membership at least thirty days prior to the annual convention. These amendments may be discussed and amended at the annual convention and be passed by a two-thirds vote of the accredited delegates.
HOUSING SHORTAGE

PRODUCERS' COUNCIL REPORTS

Granting of building product priorities for low-cost housing will make little difference in the number of new homes built during the next year unless the government also takes steps to stimulate increased production of certain essential materials and equipment and to encourage the construction of rental housing.

Furthermore, recent reports from manufacturers show that production of more than half of the major lines of materials and equipment is being retarded by pricing or manpower problems. Unless the government adjusts its price ceilings to meet current conditions and can devise plans for encouraging more workers to return to work in plants manufacturing building products, it is not likely that the supply of materials and equipment will permit the construction of many more housing units than the 450,000 originally estimated.

Pricing, manpower at work and raw materials problems have become dominant factors in the situation. As a result it is not possible to make any dependable predictions as to the overall building product supply situation at this time.

There are at least four classes of products which definitely will be bottlenecks for some months. And we know that if these bottlenecks are not broken, home building will be seriously curtailed, regardless of priorities, allocations, or any similar steps which the government might take and regardless of the situation with respect to other building products.

The real bottlenecks are millwork, enameled plumbing fixtures, steam, hot water and warm air heating equipment, and possibly cast iron soil pipe. These are the items which will be in short supply, unless something drastic is done. These are the bottlenecks which threaten to control the number of new homes built next year.

The one big problem we face now is how to speed up production of these bottleneck items. For, until that is done, we can not step up the production of new homes. Legislation, per se, cannot build houses. Private industry welcomes governmental assistance but recommends vigorously against expanding and permanent controls and restrictions.

Accordingly it is recommended that representatives of the manufacturers who produce these and any other bottleneck items be called to Washington to confer with OW/MR, OPA and C.P.A. officials and with the Housing Expediter, and that the conferences continue until a solution has been reached. Nothing else will do any good.

If price increases are required to increase production of a few key bottleneck items, those increases must be granted. They must be granted now, and not three or six months hence.

If moderate price increases are needed and justified on a few of the products which go into new homes, the total increase will be relatively small. It is far better to add $100 or so per unit to the cost of homes than to do nothing at all.

As for manpower shortages, the government in some way must help to channel workers into manufacturers' plants and into the building trades and must do all that it consistently can to prevent work stoppages.

Raw materials shortages are nothing more than pricing and manpower problems in related supply industries. They can be solved in the same way, but while awaiting their solution it may be necessary to channel raw materials and components to building product manufacturers by means of priorities.
That Necessary Evil, The Architectural Engineer

By THOMAS H. McKAIG

If you have had occasion to take bids on any job recently, you have probably received a jolt. It is quite possible that your low bid ran from 30 to 50 per cent higher than your estimate, despite the fact that your estimate was based on costs received only a short time ago. Not only that, but regardless of how complete and simple your plans and specifications have been, the spread between high and low bidder was far beyond anything you have ever encountered before, that is, if you were able to get any more than one legitimate bid.

I recently received bids on some retaining wall replacements, about as simple a job to bid as one could imagine, and the spread between high and low among four bidders was from $73,400 to $96,000, over 30 per cent of the low bid. (Remember the good old days when you got ten bids with a maximum spread of ten percent?)

What is the reason for this erratic spread, and are we going to have it with us always? The New York State Post War Planning Commission tells us to price our jobs on the basis of 1940 prices. The Engineering News Record Cost Index is 20 percent above 1940, but this does not begin to cover the present increase in price. We must look beyond the Cost Index rise for our answer.

I can name a number of reasons which in my opinion, have contributed to both rise in cost and the spread in the bids. You can add to them. For one thing, much of the mechanic's time was formerly saved by helpers, bricklayer's helpers, plasterer's helpers, etc. There ain't no such thing nowadays. Instead of a bricklayer and helper, you pay for two bricklayers. Obviously too, in a labor market such as we have today, the average laborer is far less efficient than in normal times. Do you remember the laborers you used to see pushing the concrete buggies? They can make a lot more money for much easier work some place else nowadays. All of which helps to knock the Cost Index into a cocked hat. As to materials, costs can go anywhere when, for instance, you get three jobs bidding for every brick that is made. Moreover, brick manufacturers are not going to manufacture face brick when the ceiling price is several dollars per thousand less than the cost of making and delivering them.

The contractor in bidding a job takes all these facts into account, and a lot of others which he may foresee. We recently took two bids for underpinning a job, one for general work and one for actual foundation work. The bids were $23,000 and $19,000 respectively. Instead, we did the work on a cost plus basis and the actual costs for the two ran $12,500 and $11,600.

As to where prices will go from here, that is anybody's guess. I think we are all agreed that they are and will remain up, higher than the Cost Index figures indicate. But the eccentric conditions will gradually steady down and we will have a normal market at a new level. Anyway, that's my guess.

Community Building, Waverly, Minn., designed in architectural concrete by Walter Dennis, Minneapolis architect. Pilasters, recessed spandrels and all ornamentation cast integrally in wall forms.

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TOWN BUILDING
Architectural Work in the U.S.S.R.

By Courtesy of The Architect and Engineer

In continuation of the wires received during the past two months comes word from ARKADY MORDVINOV, chairman of the Committee on Architecture for the People's Council of the Commissar of the U.S.S.R., that very extensive restoration work is now under way and that "millions of patriots are working with great enthusiasm carrying out Marshal Stalin's instructions to provide a normal way of life in the shortest possible time for those people who have been freed from Fascist slavery."

His report further states that the old town planning schemes will have to give way to a single architectural idea which must contain solutions in problems in Art and Technology. The old town planning schemes must not be allowed to play a leading part in the work of rehabilitation. Preparation for immediate rehabilitation is to be the prime consideration. Apparently any old plan that is "rubber stamped" "Town Plan" will not suffice as it has, so often in this country in the past.

To quote Mr. Mordvinov further, "Special architectural form MUST be found for each town being rebuilt and its individuality determined by geographical, climatic, national and other considerations which MUST be discovered and MUST find expression in our Art."

To achieve this end, groups of workers were sent out, headed by Soviet architects, to help local people to rebuild their cities. One hundred and forty towns are now in the process of reconstruction with the aid of these organizations. Towns that have been badly wrecked are to be replanned and old planning faults corrected. Stalingrad is a good example. The view of that once great city on the Volga was formerly shut off from the river by a mass of tall buildings. Under the present plans, boulevards will be built along the Volga embankment opening up the view to and from the river.

Under the latest plans, Novorossisk will become a seaside town which its location on the shores of the Black Sea would call for. Also the town of Smolensk (with its population of 150,000 we would call it a city) will be rebuilt, omitting the ugly houses that cursed the picturesque Dnieper. In all the plans for rehabilitation the landscape is one of the most important conditions to be considered.

All in all, it looks a little as if Marshal Stalin is putting on the heat. The rubber stamp has been consigned to the waste basket and the architects and town planners are going to have to take off their coats. Some idea of the enormity of the job may be had from the seventh OSTROVSKY report from Moscow, which states: "In only twelve towns the Germans burned, blew up or made unfit for habitation fifteen thousand eight hundred sixty-six buildings. They destroyed fifteen theaters, seven hundred schools and three hundred seventy-one medical institutions." So the architects have their work cut out for them and it is encouraging to learn that old theories of town planning are in the discard.

EMPIRE STATE ARCHITECT
PIPE CORROSION

Water Service Laboratories Present Exhibit

New York City's first corrosion Research Exhibit presenting a comprehensive exposition of the effects of water on the pipes in buildings, and the most effective modern methods of combatting corrosion troubles, is now open at the Water Service Laboratories in its main office at 423 West 126th Street, Manhattan.

From hundreds of samples of corroded pipes taken after the examination of more than 8,000 apartment houses, office buildings, hotels, and hospitals, there has been assembled a selection of pipe specimens which furnishes a graphic portrayal of the vicissitudes to which pipes are subject because of the formation of rust deposits that clog iron pipes, restrict the flow of water, create expensive and dangerous leaks and discolor the water. In addition there is a unique array of yellow brass pipe specimens illustrating the corrosive effect of water on this material which for many years was thought to be immune to attack.

As explained by president Henry L. Shuldener, chemical engineer who established the Water Service Laboratories in New York City in 1927, with branches opened later in Philadelphia and Washington, the corrosive properties of the water in these cities have been the source of great expense to building owners, not only on account of their effect on iron pipe, but also on yellow brass pipe, and in some cases on copper tubing.

He said, "It is interesting to note that several years ago the New York City Department of Health, in the interest of assisting in the elimination and prevention of the rusty water nuisance and prevention of reduced water flow from faucets caused by the corrosion of iron pipe, amended the Sanitary Code to provide that treatment of the water to check such corrosion can only be applied by qualified chemical engineering firms who must establish their qualifications and obtain a permit from the city authorities."

Emphasizing the efforts that water treatment specialists have made in recent years on the preservation of metals, Mr. Shuldener described a number of interesting discoveries and experiences by the chemists and engineers of his organization, some of them in cooperation with the owners of large buildings in this city. For example, a large insurance company started in 1929 to apply anti-corrosion treatment to the hot water supply to more than 50 apartment buildings in a housing development in this city. It has developed that the hot water pipes outlasted the cold water pipes, although the reverse is usually the case. It is now found necessary to replace a good part of the cold water systems and when that is done the owners will profit by experience and treat the total water supply rather than the hot water only.

The Corrosion Research Exhibit is designed to provide visual evidence of all the different types of pipe deterioration and to show interesting examples of the preventive methods that have been developed.

The exhibit also demonstrates the action of water on other parts of the piping systems such as the valves and connections, and reveals how "bottle necks" or local stoppages cut down the flow of water in a building. It has often happened that extensive repiping jobs have been done to improve the flow of water, whereas a study of the piping arrangements and the flow in different parts of the system might have located the principal bottle necks or restrictions so that the problem could have been solved at comparatively small expense.

The Corrosion Research Exhibit makes it plain that no metal is immune to corrosion and that the rate of corrosion depends principally upon the characteristics of the water involved.

EMPIRE STATE ARCHITECT
ENGINEERING EDUCATION (continued from page 6)

Furthermore, it is doubtful if our colleges today have the properly trained personnel in sufficient numbers to follow successfully any system of instruction other than that which is now so generally employed. The majority place too much dependence on slavish following of texts which are written more from the standpoint of reference books than teaching texts. Real teaching must be independent of such texts and must be individualistic with the fundamental educational aim in view. Such teaching cannot be mechanized. The text should be used primarily as a review and as a means of consolidation of what has already been taught.

Very much more time should be allotted to the mastery of the elements of a subject largely by the inductive method, and very much less time spent on the presentation of the more extensive details of the subject. Thor­oughness should be aimed at rather than completeness. Besides, the lecture method of presentation is often over­done and wholly fails to accomplish the purpose for which it is intended.

To improve our methods in technical instruction, in­structors must be far better trained in teaching methods and it must be recognized that such training is equally if not more important than the proper mastery of the subject itself by the instructor. There is today no adequate training in colleges for our instructors in their art. This should become a faculty duty, and must be so if we are to improve our method of education. Instructors must be taught how to teach and be imbued with the proper ideals of education. Today we have many teachers but few educators.

To be successful in undergraduate work, our faculties must be headed by great educators. The best educators, contrary to common practice, should be placed in charge of freshman and sophomore classes where it is necessary to start the student on the right path, and the best talent should not be left for the junior and senior classes as at present.

Development of Student Personality

There is a tendency in our schools to overemphasize the technical side of education at the expense of the human aspect. The engineer’s success depends fully as much on his ability to deal successfully with human problems as it does upon his ability to deal with mechanical problems. It has been truly stated that few engineers lose their jobs because of lack of technical ability. Jobs are lost largely because of failure in human relations.

The importance of this phase of education is becoming more appreciated in some colleges. It is usually emphasized in so-called courses of administrative engineering, but it should not be neglected in any technical course. It is almost as important for the success of research engineers as it is for those in executive positions.

System of Student Grading

Another failure of engineering schools, from the em­ployer’s standpoint, is that he finds difficulty in selecting a man on the basis of his standing in college. The employer can obtain some idea of the personality of the student from an interview, but he must rely wholly upon the college standing of the young graduate for an appraisal of his mental ability. Since today a student’s standing as evidenced by his “marks,” merely indicates his application, which is valuable, and his memory ability in memorizing facts and formulas, it does not disclose, at least independently, his ability in perception and reasoning which is one of the chief characteristics in which the employer is interested.

To appraise the student better of his educational prog­ress and to aid the employer in his judgment in the selec­tion of engineering graduates, an entirely different system of marking must be employed. Far greater stress should be laid upon a thorough understanding of principles and their application, rather than upon factual knowledge or facility in engineering calculations.

WILLIAM AUSTIN SANDERS

WILLIAM AUSTIN SANDERS, a native of Canada, entered the office of Trowbridge & Livingston, architects, about 1900 as draftsman, later specification writer and construction adviser. He was shortly after that given associate membership in the firm which he held with great distinction.

Among some of the buildings constructed under his supervision were the bank buildings for J. P. Morgan & Co., Bankers Trust, Addition to the New York Stock Exchange, Equitable Trust on Wall St., The Federal Building and Gulf Oil Building in Pittsburgh, Pa., The Home Office of the Mitsui Bank in Tokyo, Japan, and the branches in Yokohama, Osaka, Nagasaki and Kote, a group of buildings for the American Red Cross in Washington, D. C. and later a recreation centre in camps for our armed forces. Also under his supervision were the Hayden Planetarium in New York City and the State Capitol Building in Oregon.

From 1900 to 1925 Mr. Sanders taught architecture and construction at Cooper Union, New York, and many of his students are now practicing architects. Residing in Scarsdale, he was an ex-President of the Brooklyn Chapter of the A.I.A.

A nobler person probably never lived. Of all who really knew him, no one has ever uttered an unkind word about him. He possessed unusual human attributes. He was intellectual, spiritual, kind, learned, qualified to a high degree in his profession and gifted in the art of integrating all parts and minds for the completion of the most involved problems facing the architect.

ADOLPH MERTIN

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EMPIRE STATE ARCHITECT
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“New Freedom Gas Kitchen” complete with an up-to-the-minute laundry

Like every other “New Freedom Gas Kitchen”—it’s designed around 3 essentials: Better-than-ever-automatic water heating! No use planning for one of the new automatic dishwashers—or washing machines—unless you have the abundant supply of hot water that a new Gas water-heater gives you . . .

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Call on any of the companies listed below for further information

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