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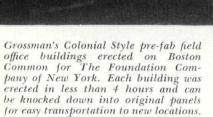
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## ..it's history

Twenty-five years ago fifteen firms who were members of the Building Contractors Association of Massachusetts voted formally to affiliate with the Associated General Contractors of America. However, like most other organizations in our society, the roots go deeper.

Although the construction industry in New England has seen groups such as the Master Builders and Building Trades Employers Associations, formed in the latter part of the last century, the earliest record of AGC participation is found in the six Massachusetts firms who were listed among the 97 charter members of the AGC of America at an organizational meeting held at Chicago in November, 1918.

These six firms were Aberthaw Construction Company, H. P. Converse & Co., Edwards and Monahan, Warren Bros. Co., all of Boston, Casper Ranger Construction Co. of Holyoke and M. I. O'Connor of Northampton.

During the 1920's general contractors slowly established local AGC chapters throughout New England. By 1928 chapters existed in Boston, Worcester, Southeastern Massachusetts, Merrimac Valley, Western Massachusetts, Connecticut and Rhode Island; and at a conference in Boston it was voted to establish a New England branch.

By 1933 additional chapters had been established in Maine, New Hampshire, and among the New England Marine Contractors. Total membership numbered 59. But the depression was deepening, and by 1934 the New England Branch and most of the chapters had ceased to exist as formal organizations. Considering the impact of the times, to say nothing of the normal high mortality-rate among general contractors, it is remarkable to note that 25 of these firms, or their direct successors, are still in existence today.

Yet the need for organization continued, and in 1935 a group of men formed the Building Contractors Association of Massachusetts. It is significant that although all were Boston contractors, they apparently saw the necessity of ultimately constituting themselves as a state-wide organization (witness the name



They seek solutions, they advise, they execute policies, they daily serve the members—ant Managing Director: Joel B. Leighton, Managing Director: Jeanne Crowley, Administrative Assistant; (standing, left to right) Enid A. Brown, Mary Burke, Staff Assistants in short, they keep the wheels turning . . . (scated, left to right) Dale R. Witcraft, Assist-

that was chosen). Among this group were Arthur T. Monahon, Isidor Slotnik, Matthew Cummings, James Mozzicato, Austin J. O'Connor, Edmund Rappoli and M. Murray Weiss.

Matthew Cummings was elected the first president of the Massachusetts chapter of AGC. John Volpe and Cesare Vappi were among those joining the group as charter members.

From the start, the young association pitched into the problems of legislation, labor relations, faulty specifications, practices of public awarding authorities, contract forms, accident prevention and the reduction of compensation insurance rates.

In 1939 the Association employed its first full-time executive secretary, Arch G. Wilson.

With the onset of World War II, the emphasis of the Association changed to meet the needs of the times. Members were active as representatives of the Industry in such agencies as the War Production Board, the War Manpower Commission and the Wage Stabilization Board.

By the end of the war, membership had increased to 36 firms. Shortly thereafter Allan E. Gifford was engaged as Executive Secretary, a position he held until 1952. Joel B. Leighton, present Managing Director, joined the Association in 1953.

In recent years the AGC of Massachusetts has continued to grow. Today 100 general contractors hold active membership. Not only has the membership grown in numbers, but it has expanded geographically, 40 of the present member firms having their main offices outside of the Metropolitan Boston area. The members perform approximately 75% of all building contract construction, other than residential, carried out in the state.

(Continued on Page 59)



Bidding on New York's newest housing project...

## every contractor set a lower price for concrete than for steel!

Nine contractors competed. In every case, their bids favored concrete. (7 contractors actually bid concrete lower than anyone bid steel!)

The New York City Housing Authority reports a saving of \$313,180 by using concrete frame and floor construction for the three 20-story buildings of the new Woodrow Wilson Housing Project. But such savings were not unexpected!

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#### COVER

Congratulations . . . Associated General Contractors of Mass.

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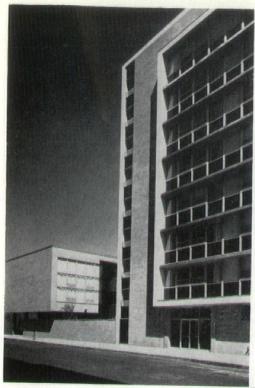
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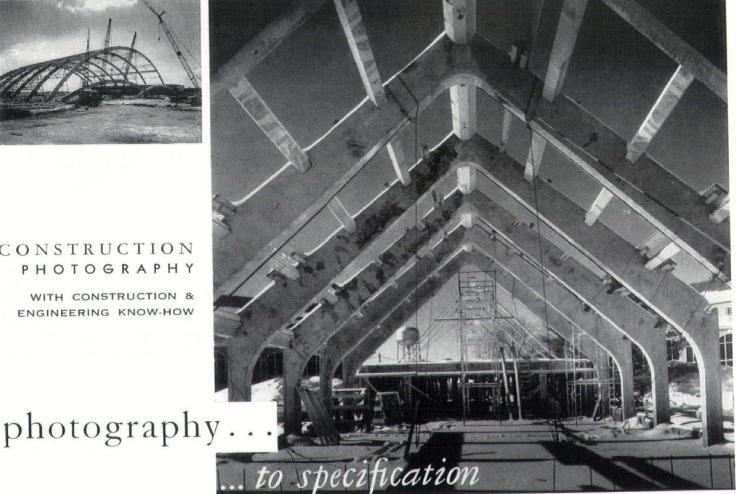
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## what will you be doing . . . ten years or twenty-five years from now?

Some of the answers to that question as it affects your work in conjunction with the construction industry will certainly be given at the Hotel Statler-Hilton in Boston on Tuesday, November 22, 1960.

On that day the Associated General Contractors of Massachusetts will observe its 25th Anniversary with a special afternoon and evening program on the theme, "Construction—The Next 25 Years." The event has been so arranged that a broad picture of the industry will be presented by some of the top personalities of the many bands which comprise the industry spectrum.

From noon until after dinner that evening those who care to do so will have the opportunity to view, to listen and to participate in the creation of buildings a quarter of a century hence. But no automated time machine this . . . though the shadows of Bellamy, Wells, Huxley and Orwell may indeed put in a brief appearance.

Instead, the shape of things to come will be projected by real, live authorities of today who also have the vision of tomorrow. Refinement will come from those attending.

The foundations for the finished structure will be laid as in any building today by first obtaining the necessary tools without which construction cannot proceed. At the kick-off luncheon Mr. King Upton, Vice President of the First National Bank of Boston, will speak on "Financing Construction—the Next 25 Years."

Since planning also precedes construction, Boston's Mayor, John F. Collins, will not only extend the traditional greetings of the City, but note what he considers must be done in the construction industry, if Boston is not to follow the fate of ancient Carthage or Nineveh.

The rest of the afternoon will be devoted to a general seminar with consecutively arranged sessions on "Building Materials—the Next 25 Years," "Construction Tools and Machinery—the Next 25 Years," "Construction Techniques—the Next 25 Years." Panelists will represent such segments of the industry as the Producers Council, the Associated Equipment Distributors, the Construction Industry Manufacturers Association, the Portland Cement Association, the American Concrete Institute, the Structural Clay Products Institute, and the Building Research Institute as well as the Associated General Contractors. The seminar will be so arranged as to invite full audience participation.

After the stimulation of the seminar, the participants will relax and enjoy the stimulation of a social hour and dinner before they learn how, why and where the new tools and materials and methods will be used.

For this section of the program the AGC has called upon three of the nation's celebrated architectural personalities, each of whom has been asked to peer into his own private crystal ball and reveal to those in attendance what he sees. Perhaps never before

(Continued on Page 69)

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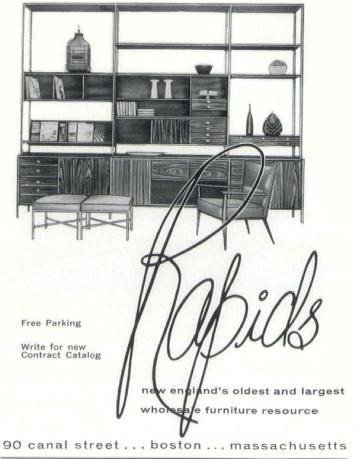
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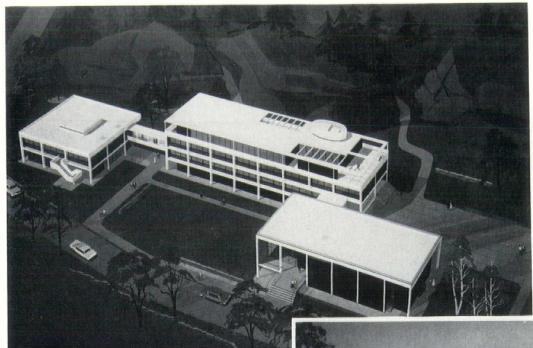
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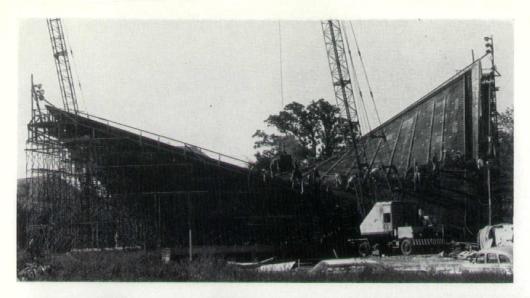
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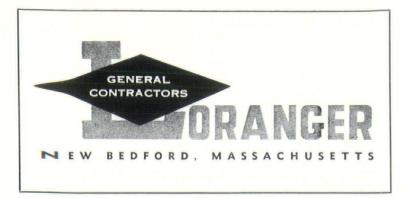


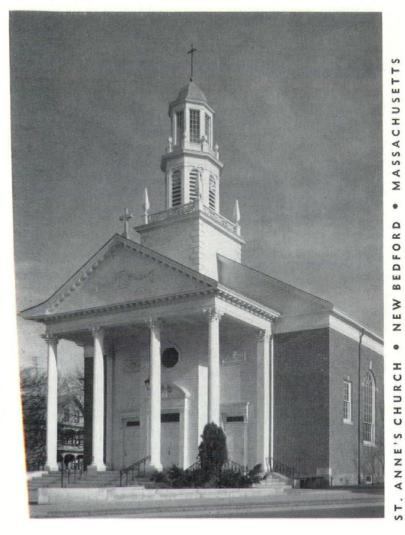




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Aerial view Apponequet Regional High School, Lakeville, Mass. **Architect:** I. T. Almy, Fall River, Massachusetts



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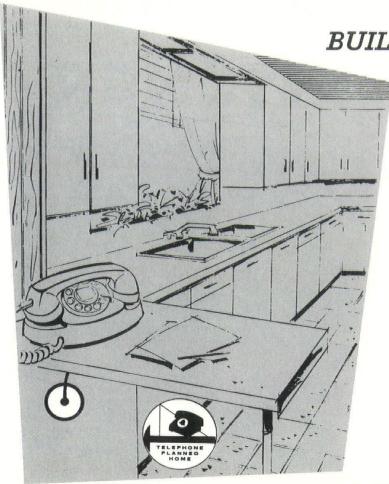
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NEW ENGLAND



TELEPHONE

#### LABOR RELATIONS

A very wise man—named Plutarch—once said:
"No man ever wetted clay—and left it; as if there would
be bricks by chance or fortune."

No architect **ever** drew up a set of plans and left them, no contractor ever studied these plans and left them, as if the building would rise by luck or magic.

When it comes to building—if owner, architect, engineer, and contractor are the beginning—it is the great labor force of the construction industry that is both the middle and the end.

The architect's dream would be as nothing, the engineer's ingenuity and knowledge as nothing, the contractor's painstakingly studied plans as nothing—steel, concrete, wood, glass, bricks would be meaningless—without the working army which welds these substances into the sum total that is a building.

The construction worker can look at the John Hancock Building, the Kresge Auditorium, Otis Air Force Base, the Cambrdige Electron Accelerator, the Wayland High School, his own church or temple and say, I built that.

And he did. With a special skill that is his, with his own physical strength, with his own trained hands, with his own personal experience and art acquired through the years, with his mastery of his chosen craft.

The point remains—that labor holds a particularly unique position in the construction industry as compared to other industries. Where the machine has increasingly taken over most labor functions in other industries, the building field production process is essentially a matter of craftsmanship and manual skills and relies almost completely upon highly trained manpower. The big technological advances to date in our industry have come more in the fields of methods and

techniques and the use of new materials rather than in the field of automation.

The Associated General Contractors of Massachusetts is keenly aware of the vital role of the craftsman on the construction team. It is keenly aware that events since World War II have clearly demonstrated the dangers of "imperialist" or "colonial" or "paternalistic" thinking. Similarly, it is keenly aware that the welfare and success of the contractor and the construction worker are interdependent and are of mutual concern, requiring respect, fair dealing and justice.

On the other side of the coin it is a function of the AGC to make crystal clear to labor what the contractor means to the security, prosperity and well-being of the vast army of construction work-

General contractors directly employ almost two million men throughout the year and millions more work in allied industries that turn out the materials for building. The total weekly pay-

roll in Massachusetts for 1959 average 76,000 men involved in construction. On the national scene, and in like proportion throughout the Commonwealth the construction industry is the nation's largest production industry, providing 15.5% of the gross national product, employing 15% of the total labor force.

And just as the man who would not leave the clay but knew that he had to take this substance and work it into the finished product, so then does the AGC take its realization of the mutual interdependence of contractor and labor and mold it into a concrete program for their mutual benefit.

Because the general contractor employes so many personnel . . and because it is a basic tenet of the Associated General Contractors that faithful performance of a contract includes a responsibility for respect, fair dealing and justice to the artisans performing that contract, the AGC in Massachusetts carries out a very intensive labor relations program. This program has as its foundation the philosophy that sound, healthy labor relations demand that the Association endeavors to work in constructive harmony with local unions which represent the employees of member contractors.

This would be a high-sounding but empty phrase if examination did not reveal it was applied in many programs of the organization.

The AGC State Labor Committee, for example, comprises representatives from every part of the Commonwealth. This committee, with the assistance of the AGC staff, is responsible for developing and distributing labor relations information to all member firms. This committee makes recommendations on such matters as contract negotiations, hiring, lay-off and discharge procedures, working conditions, wage rates, health and welfare programs and arbitration procedures.

The AGC is also aware of its responsibility to use the business experience of its members to protect money which has been contributed to employee health and welfare and pension funds. Many members serve as employer trustees on these funds throughout the state, using their prudent judgment to insure sound man-

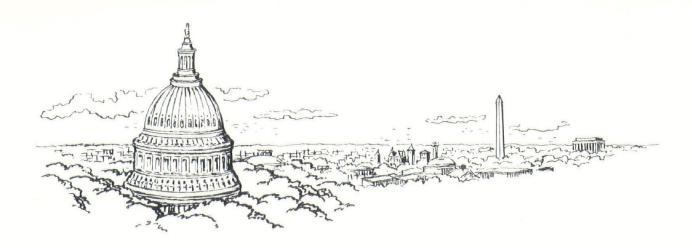
agement of these funds so that they may reduce the financial anxieties of illness for the workman and his family. Experience has also shown that health and welfare funds tend to reduce lost time because of sickness, without resultant savings for management. Similarly, pension funds tend to enable older men who wish to do so, to retire, making way for younger men to find a place in the industry.

The AGC Safety and Insurance Committee in Massachusetts is

one of the most active in the nation. Its dedication to job safety education among management and labor representatives is reflected in the very enviable rank of member firms in the construction safety picture. Nationally and locally, the AGC is continually developing standards of safety aimed at giving as much protection as possible to the workman on the job. The AGC Manual of Accident Prevention is recognized as the definitive pub-

(Continued on Page 78)





## FOUNDING OF THE AGC



The association was organized in 1918, as the result of a direct suggestion by the President of the United States, Woodrow Wilson. The government's experience with construction problems in the First

World War led President Wilson to point out the need for a national organization of general contractors through which the government could have direct contact with the construction industry. General contractors themselves were already recognizing the need for a national association to represent them in peacetime as well. As the need for such an organization became more evident to men in the industry, a prominent general contractor, Daniel A. Garber, used his influence and prestige to bring about a meeting in Chicago to form an association.

Mr. Garber wrote to a number of leading general contractors, in part as follows:

"The contractor is the prime factor in all material progress. Through him all necessary works are built, of public and private interest. He affords a livelihood for millions of men and their families.

"The contractor is now merely an individual with no influence other than his own personality and his commercial weight. Organized he can serve his own legitimate interests, open the gates for greater prosperity, benefit the country in normal times, and serve it royally in emergencies like the present,"

Ninety-seven leading general contractors founded The Associated General Contractors of America on November 21, 1918, and elected Mr. Garber as its first president. Until his death in 1929 he was active in association affairs.

#### OBJECTIVES

The Vice President of the United States, Richard M. Nixon, in delivering the dedicatory remarks at the official opening of the new national headquarters of the AGC in Washington, D. C., June 10, 1958, summed up its objectives and purposes when he said:

"An organization of this type . . . which is dedicated not simply to maintaining the profits and all of the other factors that we might term legitimate self-interests of the members of the organization, but which is dedicated also to better standards in construction and dedicated to serving the country in war . . . and also servicing it in peace . . . is typical of the free society of which we are all so proud to be members today. Because unless we have this kind of voluntary cooperation . . . the only other answer is to have the rules and regulations and the ethics handed down by an all-powerful government."

In the years since it was founded, the AGC has increased the prestige of the general contracting profession by adhering to the objectives and ideals set forth in the association's bylaws, which stress:

**Reliability:** To make membership in the association a reasonable assurance to the public of the Skill, Integrity, and Responsibility of AGC members.

**High Standards:** To maintain the standards of the contracting business at the level necessitated by its professional character and to establish members of the association in the public mind as contractors who fulfill their obligations in full faith.

**Honorable Dealings:** To provide methods and means whereby members may avail themselves of the greater power of combined efforts through the association, acting as an authoritative body, in securing just and honorable dealings with the public which they serve.

Cooperative Relations: To promote cordial and cooperative relations between general contractors and other groups within the construction industry.

Fair Practices: To seek correction of injurious, discriminatory or unfair business methods practiced by or against general contractors.

Risk Parity: To place the business risks assumed by general contractors as nearly as possible on a parity with the risks assumed by other production industries.

Contract Construction: To protect the legitimate market for the services of general contractors against encroachment by governmental or other agencies through the unwarranted use of forceaccount or day-labor methods.

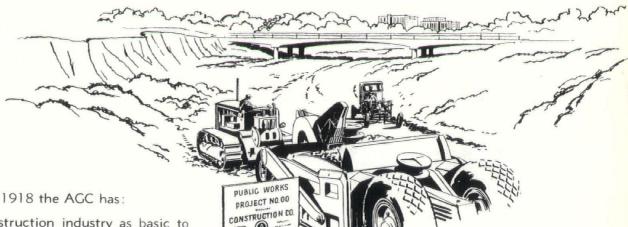
Research: To increase economy and efficiency in construction, thereby eliminating waste and reducing construction costs, through cooperation with other groups carrying on research in construction methods and materials.

Accident Prevention: To promote safe practices and reduce the chances of injury or death in construction work.

Standard Contracts: To establish various standard contracts and to coordinate these contracts with one another so that the respective interests of owners, general contractors, subcontractors, manufacturers and dealers may be properly protected.

Credit Structure: To foster a reasonable and proper credit structure for the construction industry.

#### PRINCIPAL ACCOMPLISHMENTS



(A)

Since its founding in 1918 the AGC has:

- · Identified the construction industry as basic to American progress, and as the nation's greatest single production activity, thus enhancing public understanding of its true social and economic importance.
- · Established the association as spokesman for the general contracting industry and as the authoritative source of information on which lawmakers may base legislation and governmental agencies may base their regulations affecting construction operations.
- · Provided an organization through which the government and general contractors can cooperate effectively and speedily in times of national emer-
- · Identified general contractors as key figures in the construction industry, and established recognition of the professional nature of their work.
- · Formulated and adopted a "Code of Ethical Conduct" for the general contractor.
- Established recognition of the AGC emblem as a symbol of Skill, Integrity, and Responsibility in construction.
- · Increased public confidence in responsible general contractors and in the contract method of construction.

- Provided greater public protection from irresponsible bids by promoting qualification and prequalification of bidders, and by correcting loose credit and other unsound practices in construction.
- Developed standard forms of construction contracts in cooperation with professional societies and other groups in the industry.
- Improved contract forms and specifications from time to time in cooperation with officials of public construction agencies to permit more efficient operations by general contractors, resulting in a saving of public funds.
- Provided leadership in promoting legislation beneficial to the industry and the public through the presentation of authoritative views and information to Congress.
- Exerted a major influence in the passage of legislation establishing the long-range highway construction program and in promoting improvements in its provisions through testimony before Congressional committees.

- Supplied guidance to general contractors in their negotiations with labor on wages, working conditions, jurisdictional disputes, and the stabilization of wages in times of emergency.
- Served as a major participant in the establishment and work of the Wage Adjustment Board in the Second World War and of the Construction Industry Stabilization Commission in the Korean conflict to deal specifically with the peculiar problems of the construction industry in the government's emergency programs of wage stabilization.



- Helped to establish the National Joint Board for the Settlement of Jurisdictional Disputes, in cooperation with the building and construction trades unions and eight national associations of specialty contractors.
- Encouraged improvement and expansion of apprentice training for the construction crafts and the establishment, in cooperation with labor organizations, of apprenticeship standards.
- Maintained a continuing program for the promotion of accident prevention in construction, including the publication and periodical revision of the authoritative "Manual of Accident Prevention in Construction."

- Established with surety companies improved methods for writing surety bonds for contractors qualified to perform the work, and cooperated in the establishment of the Bureau of Contract Information, which maintains performance and financial records of contractors for the information of awarding authorities.
- Participated in the work of the Highway Research Board, the Building Research Institute and the Building Research Advisory Board of the National Research Council to improve methods of construction.
- Published and kept up to date the "Contractors' Equipment Ownership Expense Manual" to guide contractors in determining the costs of owning and maintaining construction equipment.
- Established the Mixer Manufacturers Bureau and the Contractors Pump Bureau to standardize the sizes and capacities of mixers, pavers, and pumps.
- Helped to establish, with other segments of the construction industry, the Modular Building Standards Association, dedicated to furthering the use of modular dimensioning principles in building materials and specifications.
- Helped to obtain early relaxation of strict federal controls on the construction industry during the Korean war by keeping the government informed of industry conditions.
- Cooperated with the Army and the Navy in the organization of construction reserve units for national defense.
- Maintained fast, accurate information service to its chapters and members on current developments in the industry and related fields, including fre quent bulletins, and publication of the "AGC National News-Letter."
- Provided, through the regular monthly publication of "The Constructor," official magazine of the association, authoritative information, views and interpretation of developments related to the management problems of general contractors.

#### NATIONAL ASSOCIATION

The basic policies of the association are determined by the members in national conventions held early each year and are carried out by the national staff under the supervision of the executive director.

The Governing and Advisory Boards meet each September to review the association's programs and activities and to make recommendations for the consideration of the annual convention. The Governing Board, composed of district directors elected by the members, and the Advisory Board, composed of past presidents and appointed members, also have a joint meeting at the annual convention.

Between conventions and board meetings the Executive Committee meets to take necessary actions.

While the association acts as a single body on all problems, it has three occupational divisions representing the principal types of construction work—the Building Contractors' Division, the Highway Contractors' Division, and the Heavy Construction and Railroad Contractors' Division. Each has a chairman and vice chairman elected by members of the division, and a manager who is a member of the national staff. The division chairmen also serve on the Executive Committee.

The national staff's work is organized into specialized functions to handle problems and speedily disseminate information on such matters as labor relations, public relations, governmental actions, legislation, research, accident prevention, apprentice training, national and civil defense, contract forms and specifications, relations with other segments of the industry, association affairs, and mat-

ters of particular concern to each of the major types of construction.

The president and vice president are nominated at the midyear board meeting, and election is by mail ballot. Directors are also elected by mail ballot by members in their districts. Installation takes place at the next annual convention. The secretary-treasurer is elected by the Governing and Advisory Boards at their postconvention session.

#### CHAPTERS AND BRANCHES

While the national association provides the organization through which general contractors unite to take action on national problems concerning their business, the chapters and branches located throughout the United States provide the organizations through which contractors take united action on local problems. The chapters and branches are affiliated with the national association, but are autonomous organizations with their own officers and their own executive staffs.

The chapters and branches and the national association, through coordination, guidance and the interchange of information, have developed a system of complete representation and service for general contractors at the local, state and national levels in all phases of their management problems.

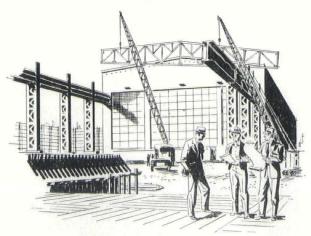
Many chapters and branches provide local associate or affiliate memberships for firms and individuals in the construction industry other than general contractors.

The Secretaries' and Managers' Council, composed of chapter and branch executives, meets in conjunction with national conventions and board meetings, and provides a forum for the effective exchange of information and views. The chapter secretaries also meet with executives of the national staff, usually in June, to discuss methods of carrying out AGC programs.

There are state and regional councils of chapters and branches in some areas which deal with problems of special interest to their sections.

### THE GENERAL CONTRACTOR

The general contractor is responsible for the actual construction of projects.



The construction of a project involves thousands of details and complex and interwoven relationships among owners, architects, engineers, general contractors, specialty contractors, manufacturers, material dealers, equipment distributors, governmental bodies and agencies, labor and others.

Technological advances are resulting in more complex structures, increasing the necessity for skillful coordination of all the construction operations to attain maximum efficency, speed and economy in their completion.

The general contractor has the distinctive function of assuming centralized responsibility for delivery of the properly completed structure at a specified time and cost. Whether a competitively bid lump-sum contract or a negotiated cost-plus-a-fixed-fee contract is used, the general contractor accepts legal, financial and managerial obligations.



Thus the professional function of managing and coordinating all construction operations and performing all or part of the work with his own experienced organization makes the general contractor a key figure in this basic industry.



John A. Volpe

President of Associated General Contractors of America; President, John A. Volpe Construction Company; Past President, Associated General Contractors of Massachusetts; Past President, Society of American Military Engineers; Past Vice President, American Society of Highway Officials; Reserve Officers Association, School: Wentworth Institute.

Governor-elect, Commonwealth of Massachusetts.



Chester E. Bond

President, Massachusetts Chapter Associated General Contractors; Treasurer, Bond Brothers Inc.; Partner, Bond Brothers Equipment Company; Past Vice President and Treasurer, Associated General Contractors of Massachusetts; Member, Engineers Club; Massachusetts Building Congress; Ancient & Honorables Artilliary Company; Society of Military Engineers. School: Massachusetts Institute of Technology, Boston College.

#### OFFICERS AND DIRECTORS

#### ASSOCIATED GENERAL CONTRACTORS of MASSACHUSETTS



S. Peter Volpe

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Eliot D. Canter

President, Canter Construction Company; Member, Harvard Club of Boston; Registered Professional Engineer, Harvard Engineering Society, Shawmut Lodge AF. and AM. School: Harvard.



Michael Lilly

Chairman, Public Relations Committee, Associated General Contractors of Massachusetts; President, Lilly Construction Company; Treasurer, Cerel-Perini Associates; Partner, Atlantic Development Company; President, Royal Fabricating and Equipment Corporation. School: University of Massachusetts, Harvard Law.



Daniel J. O'Connell

Daniel O'Connell Sons, Inc.; Advisory Committee, Associated General Contractors of Massachusetts; Member, Society of Civil Engineers. School: Massachusetts Institute of Technology.

Not Pictured

Joseph J. Vaccaro, Jr.

Secretary, Associated General Contractors of Massachusetts; J. J. Vaccaro, Inc., General Contractors.



Walter H. Barker

President, Walter H. Barker, Inc., General Contractors; Director, Taunton Council of Churches; Vice President, Taunton Savings Bank; Director, Taunton Association of Commerce; Charter Member and Past President, Taunton Kiwanis,



James M. Cazanas

N. D. C. Construction Company, Inc.; Director, Garden City Trust Company; Trustee, Holy Cross College; Chairman, Contractors Association of Waltham; Member, State and National Boards of Arbitration; Chairman, Legislative Committee, Associated General Contractors of Massachusetts. School: Washington University, Northeastern University.



Robert E. Hyatt

Treasurer, Wiley & Foss, Inc.; Trustee, Northern Massachusetts District Council of Carpenters Welfare & Vacation Fund; Member, Cornell Club of New England; former Comptroller and Administrator, Iran Rural Reconstruction Program of the Near East Foundation; Captain, Air Force Reserve; Regional Chairman, Unitarian Service Committee; Member, Fitchburg Chamber of Commerce. School: Cornell.



David O. McKinley

Executive Vice President, Aberthaw Construction; Chairman, Associated General Contractors of Massachusetts, State Labor Policy Committee. School: Penn State.

NOT PICTURED

E. J. Cross Company; President, Worcester General Building Contractors Association; Past Secretary, University Club of Worcester; Member, Worcester County Alumni Association of Dartmouth College. School: Dartmouth.

Courtland J. Cross

Joseph S. Cyr



Philip C. Monahon

Vice President, John F. Griffin Company; Member, Society of Naval Architects and Marine Engineers; Director, Massachusetts Maritime Alumni Association; Registered Real Estate Broker of Massachusetts. School: Georgetown University, Massachusetts Maritime Academy.



Charles Borden Solomon

George B. H. Macomber Company; Past Chairman, Building Contractors Division Associated General Contractors of America; Past President, Associated General Contractors of Massachusetts; American Society of Civil Engineers; Massachusetts Building Congress; National Association of Professional Engineers. School: University of Rhode Island.



Robert Anson Studley

Vice President, Ley Construction Company; Member, National Associated General Contractors, Subcontracting Procedures Committee; Member and Past President, Springfield BTEA; Member, Citizens Actions Committee of Springfield; Member, Downtown Development Commission. Trustee, Hampden Savings Bank; Director, Children's Study Home.



PAST PRESIDENTS

L. C. Cyr Construction Company;

Director, Associated General Con-

tractors of Massachusetts.

Associated General Contractors of Massachusetts, Inc.

Matthew Cummings, Sr. Matthew J. Cummings Isidor Slotnik William F. White Alan J. Potter John A. Volpe Moses Slotnik Charles B. Solomon Stanley D. Porter Julius Abrams Paul F. Donahue Victor K. Kjoss Samuel M. Suskin



Paul F. Donahue

Conti & Donahue, General Contractors. School: Massachusetts Institute of Technology.



Henry Edwin Hawkins

H. H. Hawkins & Sons Company; Member, Newton, Massachusetts Rotary Club.



Samuel M. Suskin

Hew Construction Company; Director, Associated General Contractors of Massachusetts.

new england ARCHITECT and BUILDER, illustrated-NUMBER TWENTY-TWO, 1960



#### **MASSACHUSETTS**

### m e m b e r s

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The R. L. Whipple Co., Worcester
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#### ASSOCIATE MEMBERS

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The present-day use of emblems, trademarks and other identifying symbols stems from ancient custom. The early craftsman marked each stone he hewed, identifying it as his work, and strove to make his symbol a guarantee of superior workmanship.

The Associated General Contractors of America has an emblem that is accepted by engineers, architects, public officials, and others having to do with construction, as a mark of distinction and a reasonable guarantee of the Skill, Integrity, and Responsibility of the contractor who displays it.

Each AGC contractor is entitled to display the emblem of the association, registered with the United States Patent Office.

AGC advertising and public relations programs feature the emblem as the identifying mark of general contractors of Skill, Integrity, and Responsibility.



AGC EMBLEM

## MEMBERSHIP QUALIFICATIONS

To qualify for membership in the AGC, a general contractor must have been engaged in the business of general contracting for two or more years prior to making application and must possess the essential attributes of Skill, Integrity, and Responsibility.

SKILL: He must possess the necessary technical knowledge and practical experience, as applied to his particular form or group of undertakings, to enable him to carry them to completion in a workmanlike and economical manner.

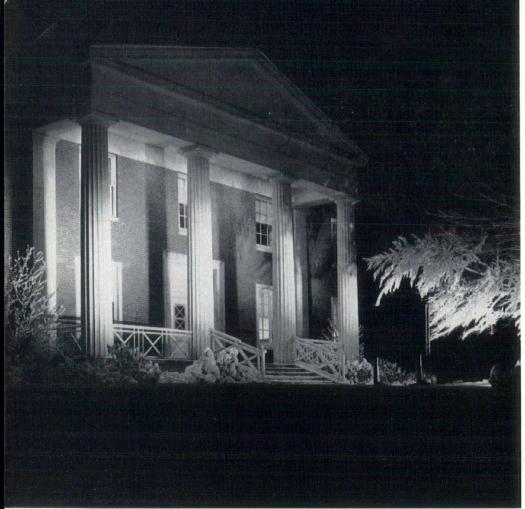
INTEGRITY: He must always comply with the spirit as well as the letter of his contracts. He must handle every transaction with fairness and honor.

RESPONSIBILITY: He must possess cash or credit to meet all of his commitments, as well as equipment and organization for the satisfactory performance and completion of his undertakings.

"The Associated General Contractors of America realizes that the vital bearing of the construction industry upon the wellbeing, comfort and safety of the entire public injects into the contractor's function an element of professional responsibility founded upon honor and trust.

"This responsibility requires, among other things, that we seek to improve construction methods, management and service, to eliminate uneconomical and improper practices, and to build responsibility throughout the industry.

"It surely cannot mean less than the establishment of construction service which will give to the investing public an assurance of skill and faithful performance." FAITHFUL PERFORMANCE



PORTICO AT NIGHT. Floodlights, carefully screened by planting from street and from eyes of those leaving building, make the facade and planting shine forth—winter and summer.

Worcester Mutual Fire Insurance Co.

The loss of something old often presages a detrimental change in trend, character, or value—particularly where it concerns the transfer of a fine old estate to business purposes. The Worcester Mutual Fire Insurance Company, the oldest insurance company in Massachusetts, founded February 11, 1823, had this problem to face. When the firm outgrew its quarters and sought more space, it seemed fitting that it should build its new home office on the site of the home of a founder and the Company's first president, Hon. Levi Lincoln. In 1951, the Company purchased the site and donated the historic Lincoln mansion, built in 1836, to Old Sturbridge Village.

#### CLIENT:

Worcester Mutual Fire Insurance Company

#### ARCHITECT:

L. W. Briggs Associates, Inc. Worcester, Mass.

#### SITE ENGINEERING, LANDSCAPING, SUPERVISION:

Planning & Research Associates, Boston, Mass.

#### CONTRACTORS:

#### General Building-

E. J. Cross Co., Worcester, Mass.

#### Mechanical-

Tucker and Rice, Worcester, Mass.

#### Electrical-

Coughlin Electric Co., Worcester, Mass.

#### Paving-

Vuona Brothers, Worcester, Mass.

#### Lawns & Planting-

Eastern Tree & Landscape Corporation, Dedham, Mass.

#### SOMETHING OLD AND SOMETHING NEW . . . by Mary F. Bunting

This proposed substitution of something new for something old and gracious at first caused great concern in the neighborhood. "How could a business office ever fit into a spot so lately enhanced by the Lincoln house? Wouldn't there be the danger that the entire neighbor-hood would be effected?" But a foresighted and sympathetic business management, together with its architect, L. W. Briggs Associates of Worcester, through careful planning and the ability to recognize the value of having the new exterior in keeping with the old, swept away all those fears and in their place is nothing but widespread acclaim for the



An early engraving of the home of the Hon. Levi Lincoln, built in 1836.

company which had the wisdom to blend old-time Colonial character and design with modern concepts and needs.

Now a charming red brick building with a marble-pillared portico, reminiscent of the original mansion, graces the same spot where its lovely forerunner stood among stately trees overlooking Elm Street, Worcester, Massachusetts. Two stories and a full basement provide 37,000 square feet of space.

The planning of the grounds and landscaping was placed in the hands of Planning & Research Associates, in Boston, whose problem it was to create driveways, walks, parking and service areas to serve the new building—which covers over three times the area of the old—yet preserve three magnificent beech trees and other specimen plant material, and meld the entire layout and planting into a pleasing whole.

#### ABOUT THE AUTHOR

Mary F. Bunting is a Landscape Architect of some 25 years' experience. In these years of practice she has run the gamut from highways, off-street parking, large recreation areas, and housing . . . to industrial developments, schools and estates.

She is a member of the American Society of Landscape Architects and is the Associate Director of Planning & Research Associates. Architect Bunting is a nationally recognized authority in her field and as such is the author of numerous articles on landscaping in many national magazines. This is her first piece for the NEW ENGLAND ARCHITECT & BUILDER ILLUSTRATED, and we trust, not her last.

The officers and directors of the Company were men who realized the value of planting and refinement outside the building. Too often business firms and homeowners alike tend to spend the utmost on the interiors and then scrimp on the exterior. They fail to see that entrance roads, parking, lawns, trees, and shrubs are the real reception room or foyer and can be even more important than the interior en-

#### MARY F. BUNTING



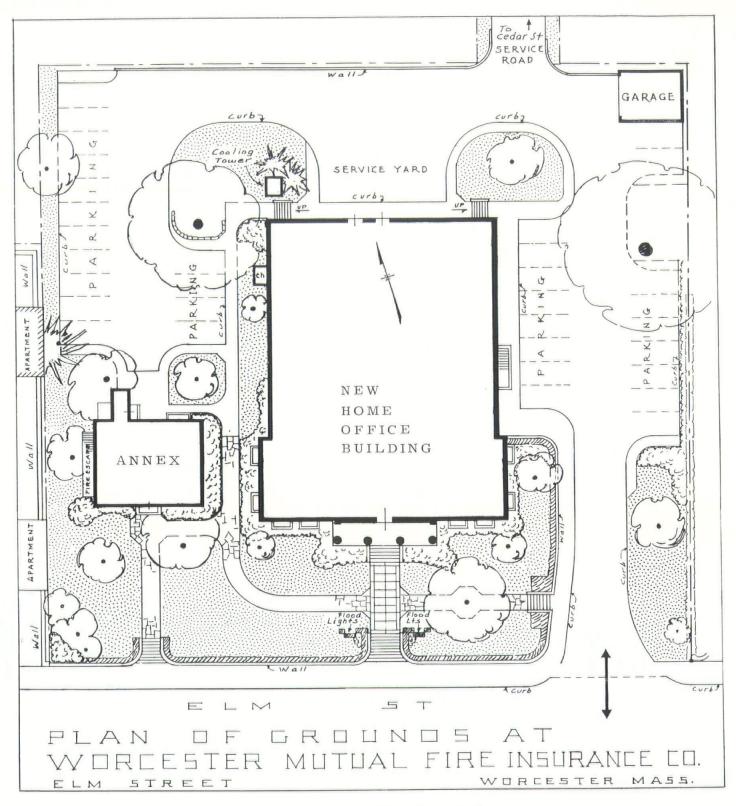
The Levi Lincoln home and site at time of purchase by the Worcester Mutual Fire Insurance Co.

Worcester Mutual Fire Insurance Co.



Planting also is planned to be effective in winter's snowy mantle.

Worcester Mutual Fire Insurance Co.



trance hall or lobby. For it is from the outside that customers and others get their first view and draw their first impression of the firm and its personnel. Well-planned and well-kept grounds are excellent salesmen.

The wholehearted cooperation of the management enabled the planners to include many refinements so often thought by industry and business as unnecessary. Gone were the usual excuses for poor roads, lack of curbing, uninteresting planting, and the bulldozer technique of stripping everything clean before beginning construction. Instead, the planners were able to specify granite curbs, bluestone walks, first class pavements, safe parking and interesting planting.

Studies were made of the grade conditions and existing features

#### MARY F. BUNTING



The approach steps, walks and planting, together with a pleasing facade, reminiscent of the Lincoln Mansion, extend a warm welcome to all. An excellent lawn and the varied shades and textures of green of the planting add much to the lovely facade.

Planning & Research Associates

to be saved which included a small two-story brick colonial residence that had been used by the Company as an annex after purchase of the land, and before their new home was ready. After the building was located, a system of drives, parking, and walkways was worked out so that the three beeches could be savedtwo are majestic Purple Beeches, and the other, in front of the building, a Cutleaf European Beech. Due to differences in grade a retaining wall was required around one beech at the termination of a parking space. The view between the two buildings to the curving dry stone wall at the base of this lovely tree. with its carpet of Pachysandra underneath, creates one of the most pleasing vistas on the site. At the rear of the building it was necessary to locate a cooling tower for the air-conditioning system. This tower was successfully camouflaged and hidden by a planting of Red Pines. A service road leads from the rear of the building to Cedar Street. All paving was of 1st-class construction, with heavy duty pavement used in all service areas. Parking for 32 cars was provided, with the visitors parking separate from that of officers and employees of the company.



The Annex becomes a part of the whole by linking of planting and walks. Repose and a home-like appearance prevail.

Planning & Research Associates

it was found advisable to move only two of the existing trees which were in the way of construction or in the way of the functional part of the layout—these were a 3' Malus theifera (Tea Crab) and the other a 6' Maple, specimens worth saving. Other trees and shrubs that were in the way were either too old, tangled or ill-kempt to be of any value.

#### MARY F. BUNTING



PRESIDENT'S OFFICE. Here Colonial simplicity and charm are carried out. Worcester Mutual Fire Insurance Co.

The planting was studied with the thought of making it a foil for the building, not an entity in itself, and of creating yearround beauty and interest by using such plant material as would give variety in form and texture, and succession of bloom and fall color.

Texture and form were gained by combining both needle and broad-leaved evergreens with suitable deciduous material. Yews, Azaleas, Rhododendrons, Hollies, Contoneasters, and Enkianthus were a few of the varieties used throughout the property. Blossom color ranges from white and cream through pinks, lavenders, and dark reds to the gay splash of the Ghent Azaleas either side of the approach steps. Brilliant fall color is made possible by the use of Highbush Blueberry, Winged Burningbush, Enkianthus, Sourwood, and various fruiting trees and shrubs.



ENTRANCE LOBBY. Curving staircase, paneling, and grandfather's clock reflect the Colonial days.

Worcester Mutual Fire Insurance Co.

#### MARY F. BUNTING

A PURPLE BEECH TERMINATES THE PLEASING VISTA BETWEEN BUILDINGS, Planning & Research Associates

Throughout the project every means of keeping maintenance costs to a minimum were used. All planting beds were faced down with ground covers to do away with weed problems. Small, inaccessible, and hard to mow areas were planted with ground cover plants, or paved. Plant material used requires only a slight amount of pruning—and that not more than once a year.

From season to season there is color and charm on these new grounds just as there was so many years ago. Surely, the outside, as well as the inside, is the cause for the feeling of all the Worcester Mutual famliy that, "This is the most restful place to work!"

This "restful" feeling, plus the admiration of the passerby, has been the Company's and the designers' reward for cherishing the old when creating the new and, by so doing, making something new that is equal in charm to something old.



TABULATION & STATISTICAL DEPARTMENT. Behind the scenes the work rooms are modern and efficient.

Worcester Mutual Fire Insurance Co.



This man is an architect, one of thousands of American architects who today are engaged in a vast building and rebuilding program which dwarfs anything ever before undertaken in American history. On several counts, he is unique. The community at large seldom sees him, as they habitually see the doctor, lawyer, and minister. Yet this man whom few of any community's citizens ever know is reshaping the face of America.

#### THE AGE OF THE ARCHITECT

An important part of your future is being shaped right now by a man you probably don't even know.

Sitting over a drafting board in his office near you, he embodies a unique combination of talents. Part artist, part engineer, professional counselor, and businessman, he is the architect—the man who is re-shaping America on a scale never before undertaken in this or any other nation's history.

In every era of American his-

tory, one profession has tended to dominate the course of public life. When the Pilgrims landed, it was the ministry which gave the early settlers the spiritual strength and courage they needed to conquer nature, disease, and hostile natives. Later, when the settlements grew into colonies, the lawyers established the political and judicial structure through which our nation took form. Still later, it was the financier who developed the nation's industry, transportation, and far-flung communications systems.

Today, in mid-twentieth-century America, a clear case can be made that we have moved into the age of the architect. Consider these facts: Construction is the single biggest industry in the country today—bigger than farming, bigger than automobile production, bigger, even, than defense. Last year, it topped \$50 billion. Within the next decade, we are expected to spend the staggering sum of \$600 billion on construction—more than the worth of all the existing buildings in the nation. And, within the

next 40 years, economists predict conservatively that we will have to duplicate every single building in the United States—in effect, build a second America—to house a population which will nearly double in that time

The architect is the leader of America's building team. In the language of the dictionary, he is the "master builder," the man who "forms plans and designs draws up specifications for buildings" and supervises their construction. The architect's responsibility is to see to it that we live, work, play, and worship in a well-planned, satisfying, and productive physical framework. The basic principles of architecture have remained unchanged since antiquity. But the ways of building, the needs of modern life, and the scale on which buildings must be planned have changed to a degree which has vastly broadened the architect's practice and the knowledge which he must assimilate to create architecture.

Perhaps the simplest possible description of architecture is that it is the professional use of space. More accurately, it is the design of various kinds of spaces. For example, the arrangement of spaces inside a well-designed house keeps children from running across the living spaces of adults. Noisy living spaces are separated from quiet sleeping spaces. In a school, well-planned spaces provide the best education for the tax dollar. The spaces inside a good business building aid production efficiency by keeping the product or key document moving in a straight workflow line.

Architecture is also the design of outside spaces; the way a house is situated on a lot to let in light without unwanted heat and glare, and provide privacy from the neighbors. It is also the way these spaces are related to each other to form a neighborhood and the way neighborhoods are related to form a community. The spaces between spaces are important, too; good planning enhances property values by providing an easy link between the house and store without jamming them together to the detriment of both. Pulling them too far apart, of course, is just as bad.

The planning of spaces and their relationship to each other is the social purpose of architecture, the meaning of the word "function" in design. The way the spaces are enclosed and supported is the engineering part of architecture, the provision of structure. To meet the third qualification for architecture, the space arrangements and enclosure should produce the effect we call beauty.

These criteria directly parallel the definition of architecture given nearly 2,000 years ago by the ancient Roman, Vitruvius. His words, as paraphrased in about 1600 by an Englishman, Sir Henry Wotton, were: "Well building hath three conditionscommodity, firmness, and delight." The fundamentals are



unchanged—function (commodity), structure (firmness), and beauty (delight).

But the scale on which the architect must think and plan has changed greatly. In pioneer America the rush westward and the handiwork of the semi-skilled carpenter created a psychology of expediency in building from which we are just beginning to recover. Today, as a spokesman for The American Institute of Architects put it: "We are just beginning to dig our way, literally, out of jumbles of bad buildings imitating past European cultures, to clear jerry-built slum neighborhoods, and to rearrange gridiron roadway systems originally planned as if the movement of cars, and not the needs of people, was the important consideration in planning.

Another hangover, the dangers

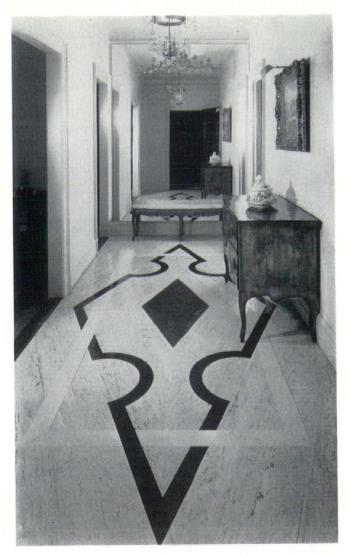
of which are just beginning to win public recognition, architects say, is the practice of allowing vast tracts of good land to be bulldozed flat and plastered with endless rows of poorly-designed, tiny suburban houses. To erase the scars of the past, reclaim valuable land from the dwindling supply, and build properly for the future will require large-scale planning on an integrated community scale, according to the architects. In hundreds of communities across the nation, this is being done today.

Today, then, architecture is no longer just a single building, but complexes of buildings, designs of neighborhoods, and the planning and redevolpment of whole communities. The nature of the client, too, has changed. Where once it was traditionally a single person, today it is often a board, as with a school or corporation; a committee, as in a church; or even a syndicate, which might involve a combination of developer, banker, or group of investors.

What kind of man is it who is equipped to meet this big design challenge and how many of him are available to do the job? To answer the second question first, there are approximately 11,000 architectural firms practicing in the nation today. In size, they range from one or two persons to hundreds, and an office may include planners, designers, production experts, specification writers, draftsmen, job captains, inspectors, and others. In addition, architects hire as employees or engage as consultants many technical specialists—such as structural and mechanical engineers—who are paid from architectural fees. The architect's fee, it should be added, comes only from his client, the building owner. He is not permitted by the ethics of practice to accept any compensation from the sale or use of building materials or services. By the professional code, no man can serve two masters. Thus the design and building process are kept separate, and the architect acts as the agent of the owner in inspecting and checking on the work of the contractor.

Architectural design—whether it involves a house, a school, bank, or any normal type of structure generally falls in four stages.

(Continued on Page 63)



Architectural designs favored centuries ago for stone floors, now are rendered effectively in resilient, modern floors of rubber and solid vinyl. Here an architectural motif in dark green rubber tile is contrasted dramatically with lighter hues of marbleized tile. The mirror at the far end of the small room also contributes to the feeling of spaciousness.

### 4,000 YEAR OLD FLOOR SHOW

A rubber or solid vinyl floor throughout the home or office, canny architects know, makes the occupants feel less tired at the day's end because of its resilience and noise muffling effectiveness. But, is there a possibility that floors have a strange power to convey strength? The Greeks of 4,000 years ago said "yes." Their legendary giant, Antaeus, was said to draw his superhuman strength from his mother, Earth. Whenever he needed a quick energy boost, he merely stretched out on the ground or floor. Discovering the secret of his power, Hercules is said to have lifted the giant in one mighty fist and held him aloft till Antaeus died.



A popular flooring design from the marble palaces of antiquity, inspires this modern rubber tile floor. The large scale checkerboard design gives the illusion of more generous proportions to this family living room. Resilient rubber or solid vinyl are favored floorings for heavy traffic rooms because damp mopping keeps colors sparkling. The colors go all the way through these aristocrats of the resilient flooring family, so stains are easily removed.

Even today, in many parts of Africa and some European villages, a new born baby is immediately placed on the floor. This down-to-earth idea is only one of many groundless superstitions on the subject. According to ancient folk belief, to step over a broom lying on the floor is to court disaster. The single girl who does so will never marry, while the expectant mother who takes the fatal step is sure to bear a hairy child.

These ground rules, of course, apply to any of a wide variety of flooring materials. Through the ages people have utilized underfoot practically everything from mud and marble to glass fragments, and now today, the aristocrats of flooring are rubber and solid vinyl tile. The first floors were only leveled dirt, beaten smooth and covered with animal skins, and even our American log cabins were equipped with nothing fancier than a dirt floor covered simply with straw.

The first tile floor was the invention of an ingenious caveman who

fitted together the water-worn pebbles he fished from the nearest river. The ancient Greeks introduced color and design by cementing white pebble figures against a chic black background and they sometimes patterned their floors to look just like their rugs, even as avant garde architects and interior designers do today with solid vinyl and rubber flooring. Later, the artistic Greeks substituted cubes cut from stone or glass or assembled floors from baked clay tiles and for public buildings and temples, marble was the thing.

The Romans contributed cement and added variety by mixing bits of marble with the cement to create terrazzo. An Egyptian king is noted as having his palace floors coated with painted plaster depicting the plant and animal life along the Nile and gold inlay enriched the mosaic clay tiling of Byzantine churches. About five centuries ago, wood floors came into general use with the parquet type as a refinement. One of the most unusual floor designs of all

time was created by the potentate, Akbar. Fond of a particular board game, he had an entire floor laid out in red and white squares representing the players area. Young slaves from his harem, wearing each player's color moved across the floor according to the throws of the dice.

New developments in floors and floor shows were sparse for a few centuries thereafter. Later, however, about the time the Floradora girls were cavorting on stage, a few men who kept their feet on the ground were experimenting with a new type of flooring consisting of interlocking rubber blocks. The first widely used rubber floors were installed after World War I; many of these in schools and office buildings still are in perfect condition, despite extensive pacing during forty years of world crisis. Solid vinyl tiles, introduced shortly after World War II, are grouped with rubber as the twin aristocrats of modern flooring.

They each have the similar characteristics of durability, beauty

In today's space-hungry homes, it's winning decorative strategy to make every bit of space useful. Here a small foyer, which also doubles as a music room, gains distinction from its unusual solid vinyl flooring design. A random pattern of bright red and gold circles set in an aqua shade of solid vinyl flooring, helps give an air of spaciousness to this small foyer. The double border of solid vinyl tile in white highlighted by inserts of red and gold, adds to the design distinction of this contemporary room, decorated by Kim Hoffmann and Stephen Heidrich, A.I.D.

and easy maintenance. Solid vinyl is the generic description of top quality vinyl flooring in which resiliency is high and colors go all the way through each tile, so can be counted on to look beautiful for the life of the building. Rubber tile colors also go all the way through, so, likewise, cannot wear out. The extraordinary durability of these modern flooring materials gives them the status of a basic structural material in modern homes, offices and institutions.

Nowadays, both rubber and solid vinyl floorings come in a rainbowwide range of colors and patterns to meet every decorating inspiration. Special cuts in curved and





Creating a distinctive flooring design of rubber or solid vinyl is limited only by the imagination of the decorator, architect or home owner, as more than a thousand hues are available. Textures simulate the beauties of wood, marble and terrazzo.

Here a random design in rubber tile by Seymour Robins, gives distinction to a small living room. By ranging varied tile colors from dark tones at the wall to light in the center, the room achieves a feeling of more generous proportions.

linear shapes, feature strips and borders are available so that it is easy for accomplished designers and do-it-yourselfers to achieve custom effects at modest cost.

So ingenious are the new designs in these aristocratic flooring materials that the eye cannot determine whether the flooring material is wood or marble, for example, or resilient rubber or solid vinyl. Wood grain effects, available in both plank and tile shapes, are a recent development in rubber and solid vinyl flooring design. Among the most dramatic new style innovations are the solid vinyl tiles that have the translucence of ancient marble. Metal styles in solid vinyl appear to have silver, copper and gold leaf embedded in them. Spark styles use tiny flecks of metallic material to give glamor to translucent color.

Whether your rubber or solid vinyl flooring is a classic checkerboard or a "wood plank" design, maintenance is easy.

Legend or not, these modern flooring aristocrats do conserve, if not actually impart, strength to the housewife because they are trouble free as well as resilient underfoot.



Huge 20-foot statue of Hermes (Greek Patron God of Science and Medicine) was unveiled in early October at the dedication of the Chas. Pfizer & Co., Inc., new medical research laboratories, Groton, Conn. The massive figure will be on a 5-ton base, carved from an original 20-ton granite block. It is the masterwork of Washington-born sculptor, William Philips, 32, one of the youngest U. S. sculptors ever commissioned by a major American company. The artist's drawing illustrates the fountain and garden setting at the plant in Groton where the statue, called "Science for the World's Well-Being," is located.

Use of sculpture in industrial landscaping will increase 100 per cent in the next five years, according to Joseph R. Gangemi, whose landscape architecture organization recently completed work at the new Chas. Pfizer & Co., Inc., Medical Research Laboratories, Groton, Conn.

The New Yorker, whose previous achievements include many nationally prominent projects, agrees with Washington, D. C., sculptor William Philips that "industry is fast becoming the patron of American arts, especially of sculpture and mosaics."

For example, the massive 1,400-pound statue of Hermes by 32-year-old Wm. Philips, now erected at the Chas. Pfizer & Co., Inc., Laboratories, is an excellent example, says Mr. Gangemi, of how a large American company made intelligent use of sculpture to set the tone of its facility. The Philips statue was created expressly to dramatize the Pfizer slogan, "Science for the World's Well-Being."

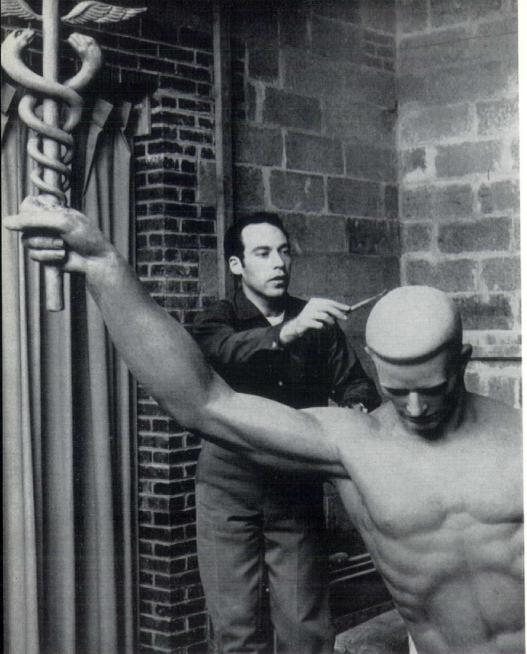
Architects are more keenly aware today of the function of skillfully planned landscaping to provide a "visual dividend" to the plant owner, commercial firm, or manufacturer of consumer goods.

One of the most important reasons for better landscape architecture today is employee relations. According to Mr. Gangemi and Mr. Philips, people like to work in the midst of impressive as well as beautiful surroundings. Better production and more satisfied employees are a by-product of "plant consciousness" during working hours. Enhanced community relations and added consumer appreciation also result.

More than any other art form, sculpture will play an increasing part in future landscape architecture, Mr. Gangemi says, because of its beauty, aesthetic quality and ultimate mobility since it can be relocated. This is also an important consideration to the home owner in his landscape planning.

# SCULPTURE

in LANDSCAPING



FINISHING TOUCHES . . . William Philips, 32-year-old sculptor, confidently applies final touches to his hugh 19-foot, 6-inch Hermes statute, which he completed for the 111-year-old Chas. Pfizer Pharmaceutical Company. Cast in bronze, the statute weighs 1400 pounds and rests on a 5-ton marble base cut to resemble a crystal similar to those which are the subject of research at the new Pfizer medical laboratories in Groton, Conn.

### WILLIAM PHILIPS

American Sculptor

It is not unusual to hear a youngster boast "I'm gonna be a fireman—or a policeman—when I grow up." But when an 8-year-old claims he wants to be a sculptor, grownups are prone to take a second look at the lad.

Back in 1936, a small Washington, D. C., school boy named William Philips was given a toy sculpture set. He quickly fashioned a model head and shoulders and announced to his startled parents and relatives that sculp-

ture would be his life work. Now a mature 32 years old, he has never deviated from that goal in the intervening years.

Today, William Philips stands alone as one of the youngest sculptors ever commissioned by American industry to execute a major work.

In September 1959, the early struggles to learn and to perfect inherent skills reached a climax when, at 31, he was commissioned to do a major work for the

internationally renowned pharmaceutical firm, Chas. Pfizer & Co., Inc. The 111-year-old company's new medical research laboratory, which was dedicated October 6 in Groton, Conn., will have as its theme, "Science for the World's Well-Being," the Pfizer slogan as well as the name given by Mr. Philips to his masterwork, a statue of Hermes in flight.

The huge statue, weighing 1,400 pounds on a base of 5 tons, reaches almost 20 feet from foundation to top. It is a single figure of Hermes, the Greek patron god of science, in flight. The statue is attached to the base at only one point and presents an unusual engineering-design problem and solution.

The commission from the Pfizer Company came about in a rather unusual manner. Landscape Architect Joseph R. Gangemi, 468 Park Avenue South, New York, was called in by the Pfizer architects, Shreve, Lamb & Harmon Associates, to consult on how terrain surrounding the new research center should be laid out. Plans then called for a small statue adjacent to a central fountain area.

Mr. Gangemi decided to review works of current sculptors and visited the archives of the National Sculpture Society, of which Mr. Philips is a member. There, Mr. Gangemi poured over pictures of members' works. Finally, he decided the Philips' technique, style and approach was exactly what was required.

Mr. Philips received word of the possible commission on a Thursday afternoon. Monday morning, original sketches of the sculpture were ready for consideration by Pfizer, the architects and Mr. Gangemi. They were accepted. In fact, Philips' proposals were so attractive that Pfizer directed the statue be the focal point of the fountain. This meant a giant 20 foot sculpture rather than just an "incidental" ornament.

Looking back on that weekend in September 1959, Mr. Philips dryly comments: "I had three hours' sleep from Thursday to Monday night. But it was worth every sleepless second once my sketches were accepted."

He believes firmly his decision to have the statue reflect the

Pfizer Company's image "Science for the World's Well-Being" was partially instrumental in his winning the assignment. The massive but lithe statue depicts Hermes in flight with a caduceus and mortar-and-pestle held aloft in his hands, a blending of science and the well-being of man.

The road from Washington, D. C., to his neat, compact studio at 65 West 56 Street, was not easy for William Philips. Encouragement from his family initially was not forthcoming. His father, Joseph J. Philips, an attorney in the Nation's Capitol and owner of a successful police equipment company, yearned for his son to "take up something useful." However, after his sculpture of "Pinocchio" was exhibited in the Petworth Branch of the Washington Public Library, his family happily encouraged the boy. He was 12 years old at the time.

One uncle, a famous goldsmith in Baltimore, enticed young Philips to apprentice in his B. D. Nuitz & Co., which would lead to a career in jewelry. The energetic sculptor seized on the opportunity to work in wax miniatures for casting in gold, silver and bronze. This great experience was but a step to his longsought goal. He soon became an expert in the art of wax miniatures and today continues these delicate miniatures as a respite from the larger architectural sculpture.

Both for self-training and personal amusement, Philips also sculptured in soap. When asked if he preserved any soap samples, the reply was quick: "No, they were used up on Saturday nights!"

By age 14, William Philips was moving rapidly through classes in drawing, watercolors, oils and pen and ink. He won a Junior High School Scholarship to the Abbott Art School (Washington, D. C.), where he studied life drawing. Thus, at 14, he was the youngest student in the history of the school to draw live nudes.

His years at Roosevelt High School in Washington were important. A major turning point was the instruction, guidance and encouragement received from Mrs. Ashton, an art teacher of some renown. Mrs. Ashton perceived the talent in Philips' hands

and she kept him before and after school. William Philips was permitted to arrive at 8 A.M., an hour before classes started, so that he could work on his sculpture. He also received permission from Mrs. Ashton to stay until 5 P.M. each day to continue his training.

especially its warm and great people. During service in the Philippines, Philips did no sculpture at all but collected art objects, and was, by his own admission, the "world's worst buck private."

Returning to civilian life, Philips attended M.I.T. to learn the



From this year of dedication in 1945, Philips won another scholarship, this time to the Maryland Institute in Baltimore. Service in the Armed Forces interrupted his study for more than a year while in Air Force communications out in the Philippines. He remembers the islands with fondness,

rudiments of architecture with the faint thought that perhaps this was "turning to something useful," as his father originally advised. Two years later he knew sculpture and sculpture alone was to be his life work. The experience and knowledge gained at M.I.T., however, were invaluable to enable him to further comprehend the many problems confronting the architectural sculptor.

### Practical Experience with World War II Battle Monuments

Thereafter, Philips returned to finish his scholarship at Maryland Institute. Famed Sidney Waugh, recognized as one of America's leading sculptors, was a source of encouragement during this period and suggested that practical experience with a working sculptor was the next step for Philips.

He joined the staff of the Noted C. Paul Jennewein for a short time during 1954, helping to enlarge Jennewein's massive World War II battle monuments. Soon after, he went to work at Leofanti Studios, Staten Island. This company, the best of only three or four enlarging studios in the nation, specialized in the all-important step of enlarging from model to plaster-casting stage. Battle monuments for France, England, Germany, Italy and the Philippines were executed in the Leofanti Studios. Of special interest to Philips at Leofanti were en-largements of Alice-in-Wonderland and Hans Christian Andersen models. The finished statues now are located in New York's Central Park.

Today, Mr. Philips maintains his affiliation with the Staten Island company and it is here that his own statue was enlarged by the Pantograph Process. There, too, Philips engages in something called "pushing plasteline dirty work of manipulating hundreds of pounds of plasteline used in construction of large sculpture. It's a sticky, messy job but sculptors are used to it.

### Philips Places Emphasis on Pure Quality of Art

Like many artists, William Philips has a myriad of opinions on art. For instance, he decries the emphasis of the 1950's which seeks "originality" in the guise of flyby-night newness, novelity and irresponsible innovation, the effect of which appears to be merely an attempt to be "different."

Mr. Philips claims that it is "quality" that counts—a pure quality of art that will give pleasure, understanding and satisfaction to people in future generations. He

conjectures that the superb Greek statue, "The Discus Thrower," perhaps was not the spontaneous creation of a genius. Rather, Mr. Philips muses, this great work resulted from four or five generations of sculptors, all working the approximate same theme. Finally, one sculptor achieved that pure quality and perfection we treasure and recognize today as one of man's greatest artistic achievements. It was not an "original" theme but it does reflect true quality.

### Increasing Importance of the Arts to Industry

Young Philips is exuberant when commenting on the Pfizer deci-

sion to use American sculpture to portray the company theme in Groton, Conn.

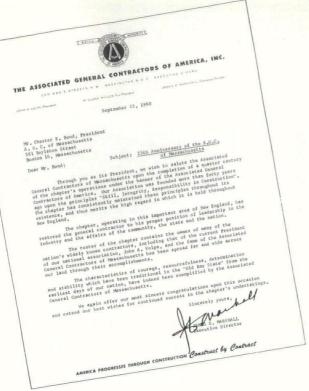
"The Pfizer Company now joins U. S. business and industry leaders—such as General Motors, Ford, Alcoa, Standard Oil (N. J.), I.B.M.—in realizing the vitality of sculpture and its place in our modern life," he says.

"Easily the most important patrons of art in the United States today are business and industrial concerns. Equally important is the growing number of executives who seek, demand and recognize quality in Art. It proves that

(Continued on Page 43)



HERMES IN TRIPLICATE... Successive growth stages of the new 19-foot, 6-inch Hermes statute by 32-year-old sculptor William Philips are shown in the artist's studio. Massive sculpture just completed silently stares down at its creator, William Philips, 32-year-old Washington, D. C.-born sculptor.







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November 1960

Editors NEW ENGLAND ARCHITECT AND BUILDER ILLUSTRATED 215 Stuart Street Boston, Massachusetts

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The Publishers and Staff of the New England Architect & Builder Illustrated wish to extend their gratitude and deep appreciation to the personnel of the Boston office of the Massachusetts Chapter, Associated General Contractors of America, and to its Board of Directors and members, without whose cooperation and close support this Special Edition would not have been possible.

THE PUBLISHERS RICHARD ZINKOWSKI

LEON ARBER

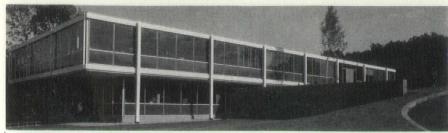
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### WILLIAM PHILLIPS

(Continued from Page 40)

beauty and business can mix and that the American artist today stands on the threshold of a new golden age for all the arts," Mr. Philips contends.

### 1960—Birth of a Renaissance for Sculptors

Mr. Philips today is excited about the future and points out that 1960 is the beginning of a renaissance for sculptors. The depression was a bad period for budding sculptors; World War II was even worse for those with an affinity for sculpture; and the Korean War era was similarly unsuitable for artistic flourishing. Thus, almost 30 years have passed with relatively few recognized sculptors emerging. Production of major works of sculpture is about  $\frac{1}{10}$  what it was in the 1920's, he states.

#### The Future

A true milestone in the life of William Philips took place this past October when his "Hermes" was unveiled at the dedication of the new Pfizer Medical Research Laboratory. His musical mother (she played theater piano in the silent picture days), his two amateur, song-writing younger sisters, his Baltimore uncle who taught him to create wax miniatures, all joined in a Philips' family salute to the home town boy who made good in a field rare, indeed, in the mid-20th century.

What the future holds for William Philips is anyone's guess. At 32, the horizon is limitless to him. He hardly dares anticipate a succession of major commissions like his Hermes but this undoubtedly is where the future lies and this is what he works toward.

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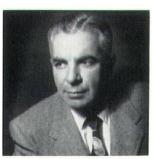




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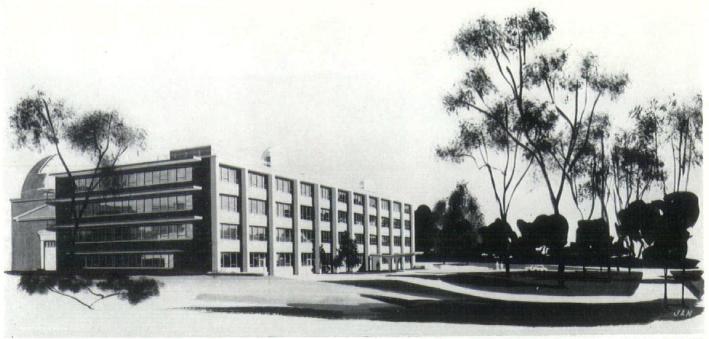


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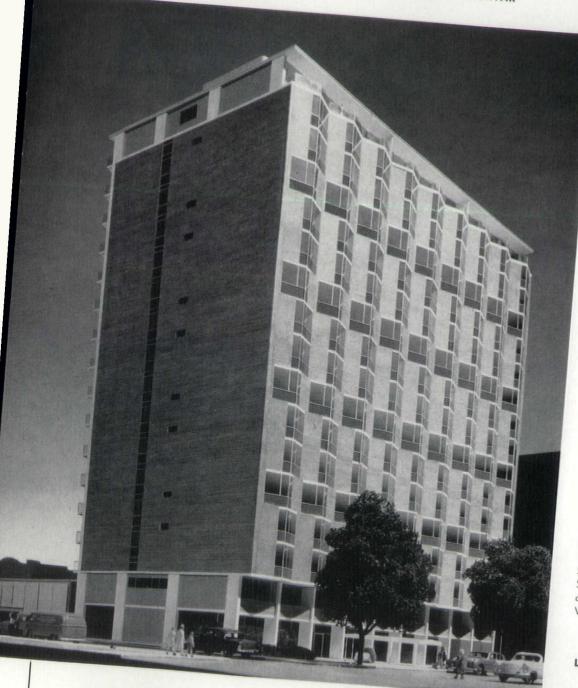


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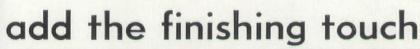


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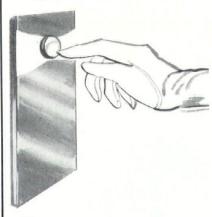
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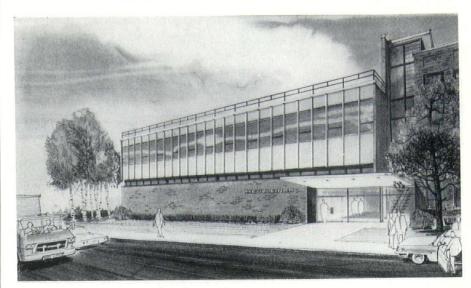
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### HEUBLEIN, INC. OF HARTFORD ANNOUNCES NEW MILLION-DOLLAR PLANT EXPANSION

Heublein, Inc., makers and importers of food products and beverages, and introducers of vodka to the U. S. market, announced today a million-dollar expansion of its main plant facilities in Hartford. The announcement was made by John Gilbert Martin, president, who stated that work would begin in August with occupancy ready for next summer. The addition will increase present facilities by 30,000 square feet. The existing floor space is 278,000 square feet on a 12-acre site.

Architects for the new building are J. Gordon Carr & Associates of New York. The building contract has been awarded to Wadhams & May

Company, Hartford. Joseph A. Prochaska, vice president in charge of production, research and development, will supervise the project. He stated that all subcontracting will be done locally and supervised by Wadhams & May.

"The two-story addition attached to the north end of our present building on New Park Avenue will feature the latest concepts in brick, steel and glass architecture," Mr. Prochaska stated. The entire length of the first floor will have a brick facade, while the second floor will consist of steel and glass paneling. The premises will be attractively landscaped and maintained.

#### ISO MEETING HELD IN GENEVA

At the recent meeting of the Council of the International Organization for Standardization (ISO) held in Geneva, Switzerland, five new international standards projects were approved and technical committees created.

Through the American Standards Association, the United States has the secretariat for standardization in the field of digital computers and data processing machines.

The four other new ISO projects cover: semi-manufacture of Timber (secretariat, Romania); derived timber products (secretariat, Germany); methods of static calcula-

tions of building constructions (secretariat, Poland); and steel roller chains and chain wheels (secretariat, United Kingdom).

The next ISO Council meeting will be held in Helsinki on June 10-13, 1961.

### DONNA LEAVES CAPE COD IN A HUFF

It's only natural for a manufacturer to sing the praises of its products. And, it's not unusual for a dealer to be equally enthusiastic. When a disinterested third party supports the claim, however, the product must have merit.

For three years now, The Ruberoid Co. has promoted its Self-Sealing roof shingles as being able to withstand winds of hurricane force. Dealer John Hinckley & Son, roofing contractors in Hyannis, Mass., has recommended Self-Sealing shingles to many homeowners throughout Cape Cod and vicinity. Recently, a somewhat windy young lady named Donna visited coastal New England only to leave in a huff when she found her massive breath couldn't budge Self-Sealing roofs. So sure was the Hinckley firm that these shingles would stay put that it offered to pay 5 cents for every blown-off piece of Self-Sealing shingle brought into the shop. Hinckley still has every nickel earmarked for this minor disaster fund and Ruberoid has a product that lived up to advance notices.

### M.I.T. PLANS \$66 MILLION EXPANSION

By Ian Menzies

A new mile-long skyline, interspersed with baby skyscrapers, will arise across the Charles River from Boston as the result of an announcement last night by the Massachusetts Institute of Technology that they are seeking \$66 million in new funds.



M.I.T.'s CAMPUS OF THE FUTURE— Looking at model are, from left, Dr. James R. Killian, Jr., corporation chairman; John J. Wilson, fund chairman, and Dr. Julius A. Stratton, president. Buildings in white are proposed additions.

The fund drive, the greatest in the history of M.I.T. and as important to the institution as its move from Copley Sq. to Cambridge 44 years ago, will bring dramatic changes on the entire personality of the university.



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### NATIONAL SOCIETY OF INTERIOR DESIGNERS MEET AT RAPIDS FURNITURE CO., BOSTON



Shown discussing the expanding role of the interior designer are left to right, Gilbert Garte, Chairman of the Board, National Society of Interior Designers, New England Chapter; Chilton Brown, General Manager, Directional Furniture Company, Contract Division; Helaine Gaines, Vice President, National Society of Interior Designers, New England Chapter and Franklin Fox, General Manager of Rapids Furniture Company.

The newly enlarged and redesigned Contract Floor of the Rapids Furniture Company, Boston, New England's oldest and largest wholesale resource, was the scene recently of the regular monthly meeting of the National Society of Interior Designers. This meeting, which featured an informal talk by Mr. Chilton Brown, General Manager of the Directional Furniture Company, Contract Division on "The

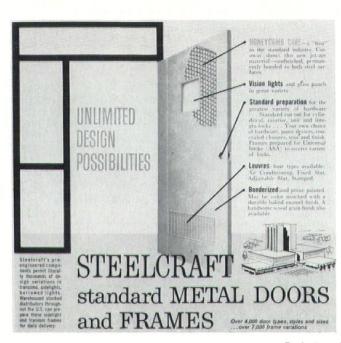
Expanding Role of the Interior Designer," was preceded by a cocktail party and dinner hosted by Rapids Furniture Company.

The New England Chapter of the National Society of Interior Designers which includes many of the nation's foremost interior design authorities, is headed by Gilbert Garte of Boston, Chairman of the Board and Miss Anna Port of Providence, Rhode Island, President. Miss Helaine Gaines of Providence, Rhode Island, coordinated the evening for the society with Mr. Franklin Fox of Rapids.

### STEEL TUBE INSTITUTE ADOPTS NEW NAME

The Welded Steel Tube Institute, Cleveland, Ohio, an organization representing more than 20 leading manufacturers of welded steel tubing, has announced a change of its official name.

The organization, founded in 1930 as an advisory group for the industry, was formerly known as the Formed Steel Tube Institute. The change, first in the group's 30-year history, was announced by Jehu R. Derrickson, executive secretary-treasurer.



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### STEELCRAFT Hollow Metal Doors and Frames

One of the primary functions of the D. H. Eskin Company, as the authorized STEELCRAFT distributor, is to supply and coordinate the delivery and application of the proper hardware with the doors and frames. In this way the STEELCRAFT distributor is able to deliver a complete package in accordance with local requirements and specifications. We believe the policy of having the distributor complete the door-frame-hardware package, at the local level, is efficient, economical, and best serves the architectural profession, and the entire building industry.



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A non-profit organization, the Institute was established to encourage research and development, foster efficient production, inform member firms of technical advances in the industry, and to explore new markets and product applications.

Among its members are divisions and subsidiaries of the great American steel-making corporations who are engaged in the manufacture of tubing formed and welded from flat rolled steel, both carbon and stainless.

With the rising importance of welded steel tubing in all phases of mechanical, structural, architectural and automotive construction, as well as direct consumer use, the Institute has created a technical information center serving its members and the industry.

#### C.S.I. OPENS FALL PROGRAM WITH HAROLD R. SLEEPER, F.A.I.A. AS GUEST SPEAKER

Over 60 members and guests of the Boston Chapter of the Construction Specifications Institute Incorporated, met at this first fall dinner meeting at the University Club on Thursday evening, September 22, 1960, to hear Mr. Harold R. Sleeper, F.A.I.A. of New York, Architect, Author, Teacher, Lecturer and now Commissioner of the New York Board of Standards and Appeals. Mrs. Sleeper accompanied her husband and shared honors at the head table.

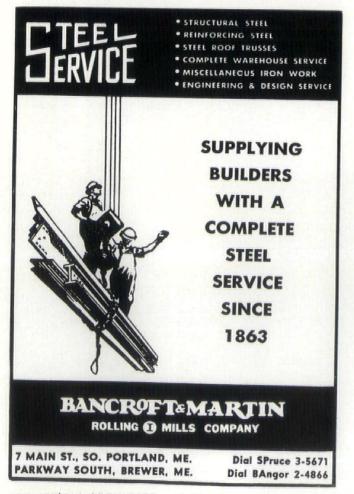


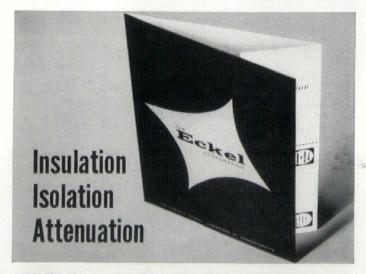
HAROLD R. SLEEPER, F.A.I.A.

C.S.I. President Win Puffer presided at the brief business meeting with short reports from the various officers. Vice President Paul Donovan outlined our exciting program for the current year. Credit goes to Don Grady, our Program Chairman, for his part in this high-level meeting.

Frank Crimp introduced Mr. Sleeper with some ear-catching, "double-spaced" remarks. Mr. Sleeper is known as the other half of Mr. Ramsey, co-author of the famous, much used "Architectural Graphic Standards," the Dictionary of Details. Other publications to his credit are "Architectural Specifications," "Building, Planning & Design Standards," co-author "The House for You," and many various articles on building and planning for Architects and home building programs. Mr. Sleeper began his career after graduation from Cornell University School of Architecture in 1915. Obviously, his life has been devoted to the Profession, gathered from his talk on "Speci-fications Becoming of Age," the keynote of which he remarked "-talking, organizing, writing and doing.'

The membership of C.S.I., invited guests of A.I.A., other invited guests and wives present, enjoyed this opening meeting of our Boston Chapter. The October supper meeting presented Mr. Louis P. Shannon of the Public Relations team of duPont Company as the guest speaker.





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### RUBIN GLASS & MIRROR MAKES TWO PROMOTIONS

Advancement of two men well known in the flat glass business in the New England states to key positions of the Rubin Glass & Mirror Co., Brighton, Mass., has been announced by David T. Rubin, executive vice president.





Mr. John L. Baril, who has been with the firm in various capacities for the past 11 years, has been appointed general manager. Mr. Baril formerly was assistant treasurer of the company.

John G. Dorsey who joined the Rubin organization in 1958 has been named manager of trade sales. In that capacity he will supervise the activities of all members of the sales organization.

The two promotions were made to strengthen the company's organizational structure and reflect the growth of the company, points out Mr. Herman H. Rubin, company president.

Mr. Baril, the new general manager, attended Indiana and Boston Universities and is a graduate of the Bentley School of Accounting. He served four years with the United States Cavalry during World War II in Europe, Africa and the Middle East. Mr. Baril lives in Waltham, Mass.

Prior to joining the Rubin Glass Co., two years ago, Mr. Dorsey, the new trade sales manager, was Portland branch manager of the Eastern Glass Company. He is a past president of the Boston Chapter of the Society for the Advancement of Management. Mr. Dorsey came to the flat glass industry after eight years as chief industrial engineer for the Chelsea Clock Co., and four years with the Grolier Society as the national sales development manager. Mr. Dorsey lives in Lynnfield Center, Mass.

The Rubin Glass & Mirror Co. was founded in 1888 and represents three generations in the flat glass industry. The company is wholesale distributor of a full line of Libbey-Owens-Ford Glass Company products, Carolina mirrors, General Bronze sliding doors and other building material specialties.

### CHANGES IN BERMICO DIVISION ANNOUNCED BY BROWN COMPANY

Executive administration changes in the Bermico Division of the Brown Company, New England's largest producer of pulp, paper and forest products, have been announced by Vice President Malcolm T. Murray, General Manager of the division which manufactures the Bermico line of electrical conduit and sewer pipe.

In issuing the revised organization chart from his office here, Murray, who is responsible for all production and distribution at Berlin, N. H., and other Bermico plants, listed Robert E. Cross as Sales Manager for the entire division. Cross, also located in Boston, joined the Brown Company in 1959. He is formerly from Buffalo, N. Y.

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The Plant Manager's position at the Berlin, N. H. operation is held by Robert W. Thayer, who will be assisted by David H. Crockett. Thayer has managed the Berlin plant since 1954 while Crockett, former Plan Engineer, has been duly appointed as Operation Superintendent.

#### BOSTON HOST TO AGC CONVENTION

New Englanders will be the hosts, Boston will be the location and the Statler-Hilton Hotel will be the headquarters for the 1961 Annual Convention of The Associated General Contractors of America.

The vanguard of the 1,800 persons expected to attend will begin arriving for meetings of the thirty-odd national committees plus various "task forces" on February 23, continuing through the 26th. The Convention itself will begin on February 27 and end on March 2.

The last time the national AGC Convention was held in Boston was in 1951.

Present plans call for the Convention to vary in form from day to

day, with general Convention sessions broken up by special building, highway and heavy contractors meetings, workshops, labor relations seminars and guest speakers. Evenings are devoted to social events, one of which will be a presentation by the famous Boston "Pops." Special luncheons and other events are planned for the ladies, and tours of the many historical and architectural sites will be available for those who desire to take them.

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### MID-YEAR MEETINGS

Contractors from the 50 states gather together twice a year to study conditions in the industry and problems which they face as general contractors. In the late winter they do this at the general convention of The Associated General Contractors of America; in the early fall those contractors who serve on the Governing and Advisory Board and on national committees of the Association, together with the managers of the 125 chapters, gather for an intensive four-day working session.

The latest of these was held last month in Phoenix, Arizona. The current president of the AGC, John A. Volpe of Malden, Massachusetts, presided over the Executive Committee and at the opening session of the Board.

Here are some of the findings of the latest executive session: The

(Continued on Page 72)

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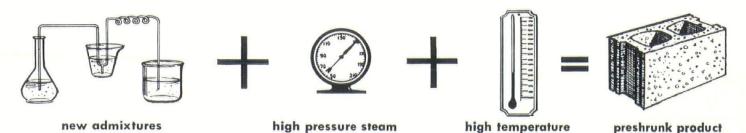
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Dennis J. Murphy, 26 Division St., Ma den 48, Mass. DA 2-8696 Richard J. Gray, 220 Edmonds Rd. Framingham, Mass. TR 2-0119 Hugh H. Mathews Box 181, Cheshire, Conn., BR 2-5472

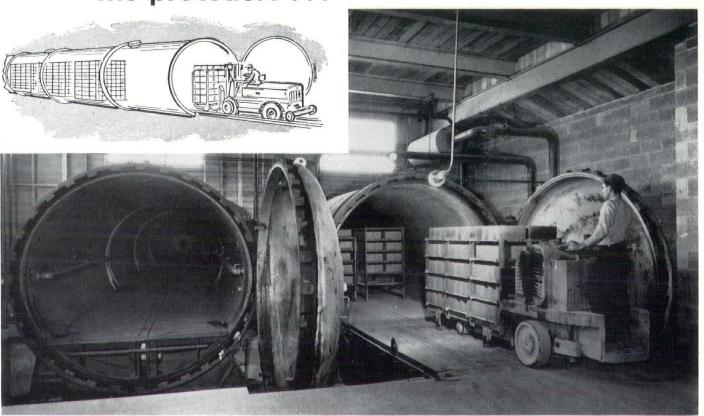
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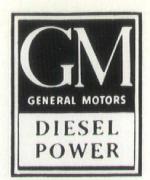
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### . . HISTORY

(Continued from Page 2)

The objectives of the Association as published in the first by-laws were rather simply stated: To become better acquainted with one another; to raise the standards of competitive bidding; to reduce the invisible burdens of the Industry; to eliminate inequitable contracts and specifications; to eliminate un-

fair practices; and in general, to work for the betterment of the building industry.

Later these objectives were put into what might be termed a more formal criteria. And although the original objectives remain, and as a matter of conviction, the Association is convinced that enlightened self-interest dictates a program that emphasizes both the public welfare and the welfare of all segments of the industry. The Association can also admit, in all honesty, that one of the objectives is to bring about a general Industry climate which will enable its members to make an honorable profit so that they may continue in business next year and the years thereafter, and to exercise the rights guaranteed by our forefathers.



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Hanover, New Hampshire
Campbell & Aldrich, Architects

City of Boston Off Street Parking Facilities S. S. Eisenberg, Architect



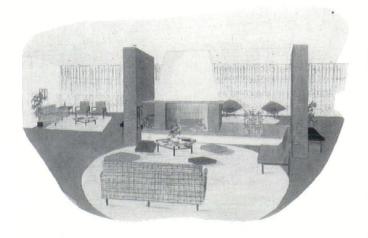
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#### DUBIN ASSOCIATES APPOINTED

Fred S. Dubin Associates, Consulting Engineers, announce the appointments of Norman D. Kurtz as Engineering Administrative Assistant to the partners, Fred S. Dubin and Harold L. Mindell and Gene A. Gessner as Associate in charge of the Mechanical Engineering Department in the New York office. The firm is currently performing a variety of mechanical, electrical and structural engineering functions on approximately one hundred and forty projects, which are in the stage of design or construction, located in twenty-one states, Puerto Rico, Virgin Islands and seven countries overseas. Mr. Gessner will handle all matters in the realm of heating, ventilating, air conditioning and related mechanical engineering trades for the firm's expanding New York office. Mr. Kurtz will handle administrative matters concerned with the firm's growing government and industrial practice.

In addition to New York, the firm maintains offices in Hartford, Boston, St. Louis, Puerto Rico and the Virgin Islands.

### COSMO E. MINGOLLA RECEIVES ACHIEVEMENT AWARD

Cosmo E. Mingolla, Executive Vice-President of Bayer & Mingolla Construction Co., Inc., is congratulated by Leon Arber, Co-Publisher of New England Architect and Builder Magazine, at the Columbus Day Banquet, Hotel Bancroft, Worcester, Mass. Mr. Mingolla was the recipient of the 1960 Sons of Italy Achievement Award presented by the Worcester & Shrewsbury Sons of Italy Lodges. The Certificate of



Award reads as follows: "In recognition of his outstanding achievement and his many contributions to his Country, to his Commonwealth and to his beloved community which he has served with honor, integrity, courage and distinction." Mr. Mingolla is well known to hundreds in the construction business, he is equally well known in civic and charitable circles where he actively serves as Trustee of St. Vincent Hospital, Director of the Worcester Better Business Bureau, Charter Member of Catholic Charities, and as a sports enthusiast, his company has sponsored 45 athletic teams covering amateur Little Leagues and semi-pro groups.

Cosmo E. Mingolla, a credit to his community, is aptly known as a philanthropist, benefactor, and popular businessman.

#### ELLSWORTH BUILDERS SUPPLY-WINNER

United States Plywood Corporation, sole distributor of Micarta high-pressure plastic laminate, reports that plastic laminates are among the fastest growing building materials.

In announcing winners in a national contest held for fabricators, dealers, and commercial users, J. R. Biles, national Micarta sales manager for U. S. Plywood, reports that, from February through May, 1960, his company's sales of the laminate increased 51 per cent over the same period of 1959.

Industry-wide, Mr. Biles said, it is estimated that sales of all types of plastic laminates will total \$100 million in 1960. This compares with \$73 million in 1957.

Ralph Coscarelli, owner of Ralph's Cabinet Shop, New Kensington, Pa., won a \$1,000 first prize in the U. S. Plywood nationwide contest. Winners of \$500 prizes each were: Victor Prosniewski, Alpine Materials Company, Anaheim, Calif.; C. W. Maine, C. W. Maine and Son, Inc., Saginaw, Michigan; Melvin G. Hayes, Custom Manufacturing, Seattle, Washington; and Roland Webber, Ellsworth Builders Supply Company, Ellsworth, Maine.

There were also 12 winners of \$250 prizes, numerous merchandise prize winners, and awards for U. S. Plywood salesmen serving these customers. Object of the competition was to focus attention on the desirability of stocking more Micarta items.

#### PIONEER PLASTICS APPOINTS NEW DISTRIBUTOR

New distributor appointments by Pioneer Plastics Corporation, Sanford, Maine, manufacturers of Pionite high pressure plastic laminates, are as follows:

Decorative Plastics Distributors, Ferndale, Michigan; Lumber Products, Portland, Medford, Eugene and Salem, Oregon; Reilly Atkinson Co., Salt Lake City, Brigham City, Ogden and Provo, Utah; United Sash & Door Co., Baton Rouge, Louisiana.

Pioneer also announces the opening of a new warehouse by New England distributor, Martin Lumber Company, in Providence, Rhode Island.

# Changing 7

Times do not always change as much as some of us sometimes think. Frequently the problems of yesterday are also the problems of today. They may well be the problems of tomorrow.

Digging into the files of the old *Boston Evening Transcript* for Thursday, November 22, 1928, we uncovered a news story which bears on this point. Its headline—"Builders Meet to Study Local Conditions Here."

The story tells of a two-day conference held under the auspices of The Associated General Contractors of America at the Elks Hotel in Boston. At that time the Elks Hotel, which today is the Bradford, was the newest hotel in the city, having been completed in 1925.

### STAIN ... OR PAINT?



Architect: Pietro Belluschi, Cambridge, Mass. Builder: Eichler Homes, Palo Alto, Cal. Cabot's Stains on exterior & interior

To answer this question, an architect weighs the advantages and limitations of each against the job at hand . . . effect, durability, and cost on wood surfaces inside and outside the home. Cabot's Stains, for example, answered all requirements for the home above. Here are the reasons for today's architect-led trend toward stains:

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#### CHANGING TIMES

(Continued)

Attending the conference, says the article, were "leading builders" in New England from the AGC's local units in Boston, Worcester, Southeastern Massachusetts, Merrimac Valley, Western Massachusetts, Hartford, New Haven, Bridgeport and Rhode Island. A. W. Merchant, president of A. W. Merchant, Inc. of Providence acted as toastmaster. Addresses were delivered by William F. Williams, Massachusetts Commissioner of Public Works, William Stanley Parker, Boston architect who is still active as consultant for the American Institute of Architects, at that time president of the Boston Building Congress, and

Fred E. Ellis, representing the New England Road Builders Association.

Builders from other sections of the country were also in attendance, including Dan Garber, veteran builder, founder of the AGC and at that time general manager of the national association; E. J. Harding, at that time a staff member of the national association, who succeeded Mr. Garber as general manager, E. L. Cranford of Brooklyn, pioneer subway builder; and Richard Hopkins of Albany, a dean among constructors of highways.

Active in supervising the arrangements for the con-CHANGING TIMES (Continued on Page 66)

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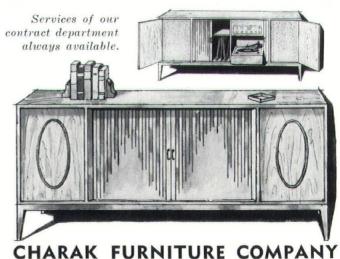
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# THE AGE OF THE ARCHITECT

(Continued from Page 33)

The first or "schematic" design stage involves consultations with the client. He must state what is to happen in the building. How many people will do it and how will it be done? What result is expected? In a house, for example, the manner and habits of the family are more important to the design process than the client's real or imagined feelings about types of materials and color or draperies. Here, clear and direct communication between client and architect are of paramount importance.

Also important is the site, its grade, soil condition, shape, and size. It will affect the building design and its orientation, and so will the local climate, sunload, amount of rainfall and available light, and a host of other environmental factors.

From this accumulation of data develops the preliminary drawings. In this second stage, draw-

ings are prepared to show the general plan and how it fits the site. Recommendations are made to the client on construction methods, use of materials, and mechanical systems and equipment. An estimate of cost and outline of building specifications



are prepared. After the client approves this, the third or "construction documents" phase begins.

Detailed working drawings are made to illustrate all essential architectural, structural, and mechanical work. These drawings, together with others showing interior space arrangements, building elevations, cross-sections, and details, are accompanied by a book of specifications outlining the materials to be used and the required levels of craftsmanship. The fourth phase is the construction itself. The architect directs tests of the quality of materials, checks contractors' shop drawings, and inspects the work as it goes on. He keeps the client informed on progress, checks costs, and approves contractors' applications for payment. When satisfied that the job is done, the architect certifies to that effect.

In large-scale community design projects, of course, the architect, and sometimes teams of architects, work closely with city planners, sociologists, and many types of construction specialists. On this level, both private and public money and interests are involved. But, in the final analysis, the end product is still design—the product of the designer and one of the prime needs of the mid-twentieth century—the age of the architect.





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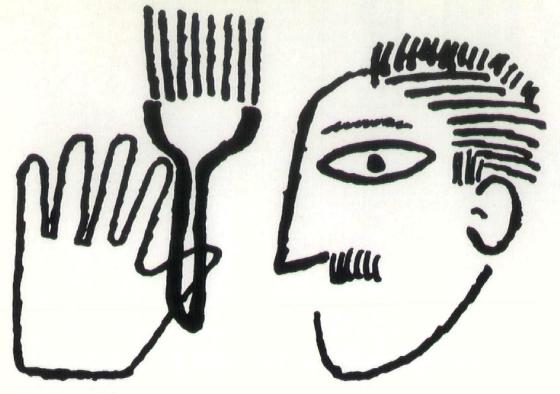
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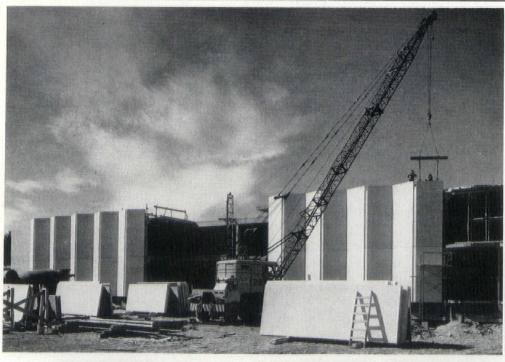
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ference was Leonard C. Wason, president of the Aberthaw Construction Company. At that time he was serving as vice president of the national organization. This firm has remained continuously active in affairs of the local chapter, with David McKinley, vice president of Aberthaw, serving today as a director of the AGC of Massachusetts.

Here are some of the subjects discussed:

- Winter construction—new materials and new techniques are still being developed.
- Cooperative accident prevention—The AGC of Masachusetts and other chapters even today have active committees working in this field. Since workmen's compensation rates are set on the basis of industry rates, a builder or a building owner with a perfect accident record pays for the poor records of others. Cooperative action is necessary to reduce such building costs. It is also necessary to demonstrate industry initiative and prevent hasty or unwise legislation in the field of safety.
- Prequalification of bidders—In recent years relatively little attention has been paid to this problem in New England in building construction, although the practice is more widespread on highway work. Many architects and owners have discovered that price is not neccessarily the only criteria for selecting contractors. As the AIA and the AGC have stated in the "Guide to Bidding Procedure," "Bidders should be limited to Contractors of established skill, integrity and responsibility, and of proved competence for work of the character and size involved; they should be selected by the Architect or by means of an adequate method of prequalification." A standard form developed by the AGC with other groups in the industry exists for this purpose.
- Eliminating errors in estimating quantities of materials—It is reliably reported that this is still a problem!
- Legislation—Little did those men in 1928 realize what a problem this would be today. The AGC and other groups all have staff and committees who are constantly analyzing legislation at both the state and national levels to determine its affects upon the industry.
- Improvement of credit practices in the industry— Another problem still unsolved.
- Contractual relationships with architects, engineers and public bodies—As the industry has changed, so have the contractual procedures, necessitating review by the respective industry groups. The AGC both nationally and locally has many Joint Cooperative Committees with other segments of the industry continually working on this problem.

Although few of those who attended the conference are still living, and although most of the firm names have changed, it is evident from reviewing the reports of the conference that every one of the problems are still with us today. It is not to be concluded that the conference served no useful purpose. Highlighted rather is the fact that our industry, like our society, is a dynamic one. The problems of yesterday, although they still exist, are today in a different frame of reference. They need to be solved today. They will need to be re-solved tomorrow. But solved they must be. And for this group action is necessary.



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### WHAT WILL YOU BE DOING . . .

(Continued from Page 11)

have all segments of the industry in New England been afforded the opportunity to think ahead to the future with three men who will certainly play a role in shaping "Design—the Next 25 Years."

The three are Paul Rudolph, Dean of the Department of Architecture at Yale University, Jose Luis Sert, Dean of the Department of Architect at Harvard University, and Hugh Stubbins, head of the firm which bears his name, architect for the Berlin Congress Hall, and the U. S. Legation Building in Tangier who was honored this year by being elected a Fellow of the American Institute of Architects.

Since such a program is bound to provide a wide range of practical, valuable and new information to be put to use in planning the future operations of construction industry firms, and for those in the related professions, it is expected that the full session will draw wide attendance from architects, engineers, material and equipment manufacturers and suppliers, general contractors, subcontractors, banking and real estate interests and college students.

Tickets for the event may be obtained by calling the office of the Associated General Contractors of Massachusetts, 581 Boylston Street, Boston, telephone KEnmore 6-8083. For those who are unable to attend the full program, separate tickets are available for the luncheon and seminar, or singly for the seminar and dinner.

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Included in this bulletin are illustrations of seven typical floor systems employing this new floor design concept. One of these systems offers a dead load weight of only 24 lbs. per sq. ft. and consists of metal forms, lightweight concrete fill and Synthanite concrete topping. Uses, advantages and specifications are also presented.

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# PRINCIPAL ACCOMPLISHMENTS

In 1950 the AGC of Massachusetts general contractor membership stood at 54. Today, ten years later, it stands at 100. Here are some of the major accomplishments. The AGC has:

- Established a coordinated labor relations policy among general contractors throughout the Commonwealth.
- Cooperated with the building trades union to establish an arbitration board which has, to all intents and purposes, eliminated jurisdictional disputes in the Metropolitan Boston area.

- Fought to preserve the single general contract as the proven method of obtaining quality construction, completed on schedule for the lowest possible cost. Defeated attempts to establish separation of contracts on public construction.
- Promoted safety programs to reduce the accident toll and the expenses of lost time, thus lowering construction costs for those who contemplate building. Accident prevention statistics, tools, training courses and aids have been furnished members.
- Reduced Workmen's Compensation costs through factual presentation and argument before the Insurance Commissioner at rate hearings.
- Sought to provide the reservoir of trained manpower for the future through joint apprenticeship committees with unions representing bricklayers, carpenters and cement masons.
- Developed a manual of "Recommended Practice" with the Massachusetts State Association of Architects covering such matters as sup-

- plemental general conditions, specifications, bidding procedure, and general construction administration.
- Organized with the AIA a Joint Committee of Building Practices to prepare case studies of recommended practices.
- Created with the Massachusetts State Association of Architects a "Standard Specification Numbering System." (This system is presently being considered as a possible model for national application.)
- Furnished members, during the last ten years, with over 400 News Bulletins containing specific local news and information not available in other publications.
- Furnished members copies of all state legislation enacted which was of special interest to general contractors.
- Fought to regain the right of general contractors to obtain bonds from their subcontractors, a right denied them as the result of a 1957 ruling of the Massachusetts Supreme Judicial Court. Massachusetts is the only state in the nation where this condition exists.

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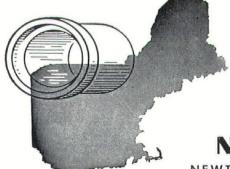


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general contractors in North Central Massachusetts

- Established the Association as the spokesman for general building contractors in the Commonwealth and as the authoritative source of information on matters affecting the industry.
- Cooperated with the Massachusetts Division of Building Construction in revising and updating its various contract documents.
- Brought about a greater understanding of mutual problems by sponsoring an annual conference between contractors and representatives of the United States Army Corps of Engineers, New England Division.
- Through its labor information service, enabled member contractors to have correct wage rate and fringe benefit cost data for estimating and payroll purposes.
- Served as a major participant in the work of the Construction Industry Stabilization Commission in the Korean conflict to deal with the peculiar problems of the Construction Industry.

- Promoted the desirable practice among awarding authorities and architects of scheduling bid openings after 2 o'clock on Tuesdays, Wednesdays and Thursdays.
- Advocated the use of competitive bids by quasi-public authorities.
- Increased the use of commercial arbitration under the Standard  $\overline{AIA}$  General Conditions as the fairest, quickest and least costly method of settling contract disputes. For the past several years all officers and directors of the AGC of Massachusetts have volunteered to serve, without compensation, on the arbitration panels of the American Arbitration Association.
- Instituted a program to attract qualified young men into the construction field through the showing to high school students the AGC film, "The Constructors."
- Established recognition of the AGC emblem as a symbol of Skill, Integrity, and Responsibility in building construction.

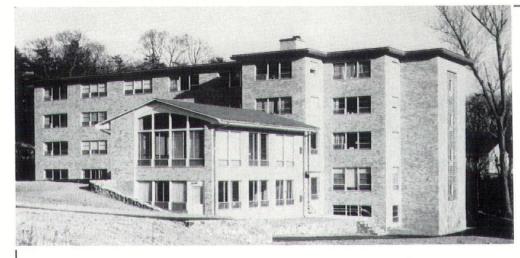
### MID-YEAR MEETINGS

(Continued from Page 57)

total dollar volume of new construction is holding about the same as last year, with the expectation that activity in the next several months will continue about the same.

There are growing indications that profit margins are inadequate to support good contracting organizations. The AGC is shortly to issue a cost accounting manual for its members which has been over two years in development.

Although the AGC of America is resisting strenuously the efforts of both Nixon and Kennedy to legalize secondary boycotts in the construction industry, the AGC is also striving to bring about greater cooperation between labor and management at all other levels. The AGC is continuing to support the National Joint Board for Settlement of Jurisdictional Disputes in the Construction Industry, and has proposed certain minor changes to make the Board even more effective than it has been





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since the AGC, the Mechanical Specialty Subcontractor organizations and the building trades unions established it in 1947. Through the Construction Industry Joint Conference these same organizations are challenging manufacturing contractors and non-building trades unions for construction work on missile sites and challenging industrial plant engineering de-partments and industrial unions for industrial plant maintenance work and new construction. They are doing this by working together to make certain that the general and specialty contractors, and the building trades unions can do such work more quickly, better and at lower cost.

The building directors' session at the board meeting recommended that a proposal to strengthen the AGC program of improved relations with subcontractors be presented at the next AGC convention, which is to be held in Boston in 1961.

A report to the building directors on a meeting of representatives of the AGC and the American Institute of Architects on September 27 stated that leaders of both organizations reached agreement on the proper role of the architect and the general contractor in the construction industry.

It was the gist of the highway directors' meeting that careful procedures for cross-checking the quality and quantity of materials used in highway construction projects are necessary to insure the public of value received and to assure the continued use of the contract method of construction under the federal-state highway partnership policy.

The directors of the heavy, muncipal and utility committees opposed the small Business Administration's program of set-asides in defense construction contracts, in as much as the definition of a small business is one which does an annual volume of less than five million dollars is well nigh meaningless and because "any restriction on open competitive bidding for public works is not in the public interest."

An increasing emphasis upon ethics was apparent through reprimands issued to three member firms and through the scheduling during the

Boston convention of a special discussion on the subject of ethics in labor relations.

The directors also acted upon committee reports covering the field of safety, education, apprenticeship, contract forms and specifications, public relations, taxes and legislation.

In addition to President Volpe, other New Englanders attending the session were Paul F. Donahue, Lynn, Daniel J. O'Connell, Holyoke, and Charles B. Solomon, Boston, all Directors from Massachusetts and Joel B. Leighton, Managing Director of the AGC of Massachusetts.

Albert D. Blakeslee, New Haven, Edward S. Noble, Naugatuck, and Charles F. Grisham, Executive Vice President of the Connecticut State Chapter.

John and Leo Marshall of Pawtucket, Rhode Island, Paul Harvey of Manchester and Frank Whitcomb of North Walpole, Directors from New Hampshire, and Thomas A. Power, Executive Secretary of the AGC of New Hampshire and Vermont.

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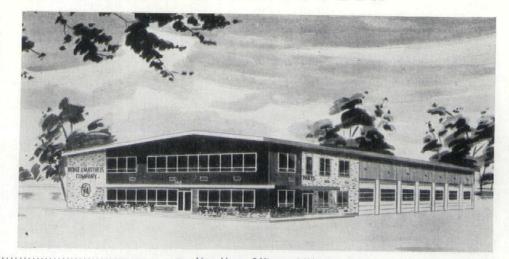
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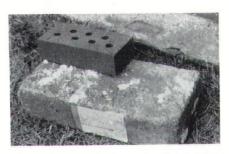
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# THE ROMANCE OF BRICKMAKING

by WIN SNOW Waldo Bros. Company, Boston

If you assume that one can't wax romantic about something as commonplace as bricks, you're mistaken. Bricks are one of the most ancient—as well as the most modern of building materials.

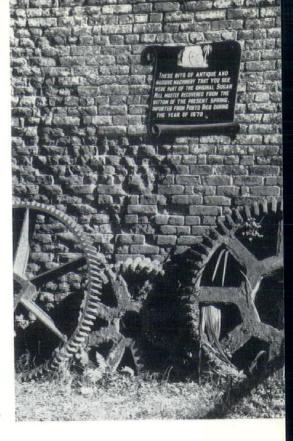
As far back as 2200 B.C. the art of brickmaking was pursued in Babylonia and Assyria to an extent unparalleled anywhere else in the world. Later in the great Achaemenian period of 558-333 B.C., beautiful enameled brickwork with pictorial designs in low relief was developed. This can be seen today at the Boston Art Museum in the Lion panel from the Gates of Ishpar in Babylon.



Shown is a comparison of a brick taken from the Great Wall of China and a standard-size domestic brick.

As a matter of fact, in the first book of Moses the wandering families said one to another, "Come, let us make brick and burn them thoroughly."

Other early examples of brickwork are found in Europe and Asia. The imposing Great Wall of China was constructed of oversized or jumbo brick which were over four times the size of our standard size brick, more closely resembling the jumbo brick found in our Southern States, which are —3½" x 11½" x 7½".



The Adobe bricks of New Mexico resembled the ancient ones of Egypt, in that they were not burned—but sun dried. They were made by Indian women kneading the clay with bare feet, mixing it with straw or manure as a binder and pressing it in the form boxes known as "Adobero." Hence the word "Adobe." These bricks were eighteen inches long and weighed as much as fifty pounds.

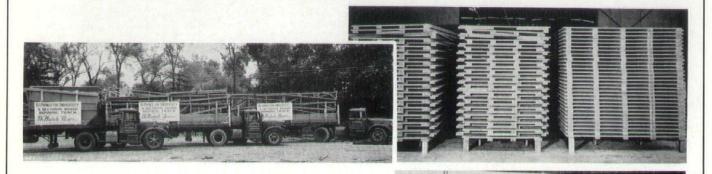
Discriminating early American architects and builders designed and constructed many buildings of brick whose rich permanent colors improve with age.

The belief that all bricks used in America prior to the middle of the eighteenth century were imported from Europe is erroneous. A small amount were brought from Holland to New York-but for buildings in New England and Virginia they were made on the spot or in the general area. A good example of this is the Weeks House in Greenland, New Hampshire, built in 1638, where the bricks were made right on the site. These were large 3" bricks made with a green header flemish bond on the front, but softer brick on the ends and covered with a plaster of sand and fish glue which has nearly all come off except in the protected gable ends.

(Continued on Page 76)

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#### THE ROMANCE OF BRICKMAKING

Continued

It follows therefore that the art of brickmaking in America was firmly established soon after the first white settlers arrived.

In the early days in New England, with its plentiful supply of timber, there were very few brick houses to be found.

reference to them is found in Edward Johnson's description of Boston in 1652.

There were no more than eleven brick buildings recorded in New England in the seventeenth century and half of these were in Medford, Massachusetts, one of the principal brickmaking centers in the colony. By 1776 this city was producing 4,000,000 bricks a year—the individual brick molder producing 1,000 bricks in a fifteen hour day.

Other brickmaking cities at that time were Salem, Chelsea and Portsmouth, New Hampshire. A very interesting point is that from 1791, Portsmouth, New Hamp-shire, "exported" large quantities of brick.

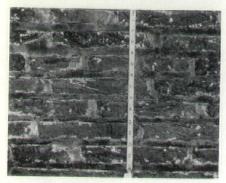
By the time the Old North Church was constructed in 1722, one thousand out of three thousand houses in Boston, were built of brick. By 1715, a town order requiring new houses to be built of "stone or bricke" and covered with "slate or tyle," was rigidly enforced.

In the South, skilled brickmakers were among the first settlers of Virginia and as early as 1611, bricks were being made there. The brickwork of Williamsburg, the fourth "planned town" in the American Colonies and the capital of Virginia from 1699 to 1779, was outstanding.



St. Luke's Church-Smithfield, Virginia.

In Savannah, Georgia, 200,000 bricks were used in construction of the Charles Pinchney residence. Author Samuel Gaylord Stoney describes the color of the brick used in the Blalock House,



Imported brick used for this Savannah School was probably used as ballast aboard a foreign ship.

Charleston, S. C., as "Savannah Grey," and says: "In reality these bricks are more of a leaf brown, flushed at times with red. The full charm of their color being brought out by contrasting materials;—the red brick forming the arches, fitted together with almost paper thin joints; the white-painted wall panels; the keystones of white marble and



Laborer making brick at the site of Williamsburg, Virginia, restoration.

the stairs of grey Portland Stone -all forming an enchanting result."

The creative architect and designer of today has a wide range of brick from which he can select about any color, size or texture that will precisely suit his project. These range from the traditional wood burned waterstruck brick, made in the same manner of the early colonial brickmakers, to the large jumbosized 31/2" x 111/2" face brick that are used extensively in the South. Incidentally, the reason

for this large size is economy. The production of 400 a day by the brickmaker is equivalent to over 1600 standard-size brick, and size also lends itself to the scale of the large projects that seem to be the trend in building today.

From this moment on-if you are a bit more aware of the buildings that surround you, if you suddenly pause a second and actually "see" them for the first time—then the publishing of this short article has been more than justified.

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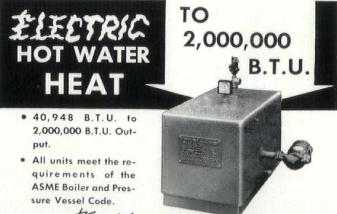
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#### LABOR RELATIONS

(Continued from Page 17)

lication in its field. This emphasis on safety has paid off. In 1959 eighteen member firms won national safety awards from the Associated General Contractors of America. Fifteen firms worked the entire year with NO LOST TIME ACCIDENTS. Among a sample of thirty member firms, the lost time accident average was less than two per year for more than a million man hours worked.

Those on the AGC management side of construction are also keenly aware of the need for securing a reservoir of skilled manpower to fulfill their responsibilities to those who plan construction projects. In an industry where the volume has increased each year for the past fourteen consecutive years, where every indication points to a continuing phenomenal growth throughout this century, it is necessary to stimulate the entrance into the construction industry of young people who will do the building

of the future. To accomplish this, the AGC has joined in cooperative programs with labor sponsor apprentice training in masonry, carpentry and other construction trades.

Equally important in the day-to-day construction operations, is the prevention of delays through disputes on the job. While members of the AGC have demonstrated that they will resist contract demands which they consider detrimental to the industry and to the buying public, they have also demonstrated through the support of the principles of arbitration that they believe in the peaceful settlement of disputes wherever that is possible.

Of particular note in the industry has been the combined efforts of the AGC subcontractor organizations locally and nationally to eliminate the jurisdictional and labor disputes which once plagued the industry. Assistance to members in labor relations matters is perhaps the single largest daily activity of the AGC staff.

The Associated General Contractors engages in all these labor relations activities because of what is termed "enlightened self-interest." Though the term is trite, it is nevertheless valid. Great demands are now being placed on construction people. A great future may lie ahead. But members of the AGC of Massachusetts are keenly aware that they can participate in and enjoy the fruits of that prosperity only as long as they conduct themselves forthrightly-only so long as they recognize that they cannot build a prosperity for themselves without insuring the prosperity of those who work with them to make it possible.

Labor strife, unfair practices of management toward employees, unreasonable demands by labor, are all barriers to progress. It is therefore the credo of the AGC of Massachusetts that with management and labor shoulder to shoulder in the field, hands joined in amicable discussion and negotiation across the bargaining table, working in the spirit of the golden rule they can reach a common goal-a construction industry in Massachusetts which is a true public servant, contributing to the general prosperity of the Commonwealth.



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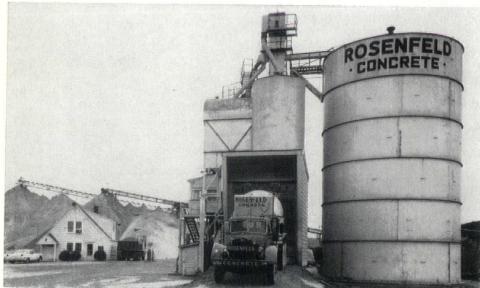
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