

The AMERICAN ARCHITECT

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FOUNDED 1876



The Cover

A SCENE in Widdacombe is shown on this month's cover. Widdacombe is a tiny hamlet near the southern edge of Dartmoor in Devonshire, England. To quote Mr. Sterling's words, "Rough and untameable, it has a terrifying charm of its own, furnishing a spectacular contrast to all the sylvan beauty which surrounds it." The hamlet consists of a cluster of cottages grouped about the green in front of the ancient almshouse and still more ancient church of St. Pancras, in the yard of which are remains of the early Saxons.

Albert M. Sterling, the artist, studied at the National Academy of Design and with William M. Chase. He was engaged in newspaper work for a time, then did magazine illustrating, and finally entered the field of commercial art. He is now with Lambert & Feasley, Inc., a New York advertising agency.

Next Month

WATERPROOFING — Keeping the rain out of sky-scrapers.

A.I.A. CONVENTION—How it will affect architectural practice.

TERMITES—A construction hazard of far greater extent in the United States than generally realized.

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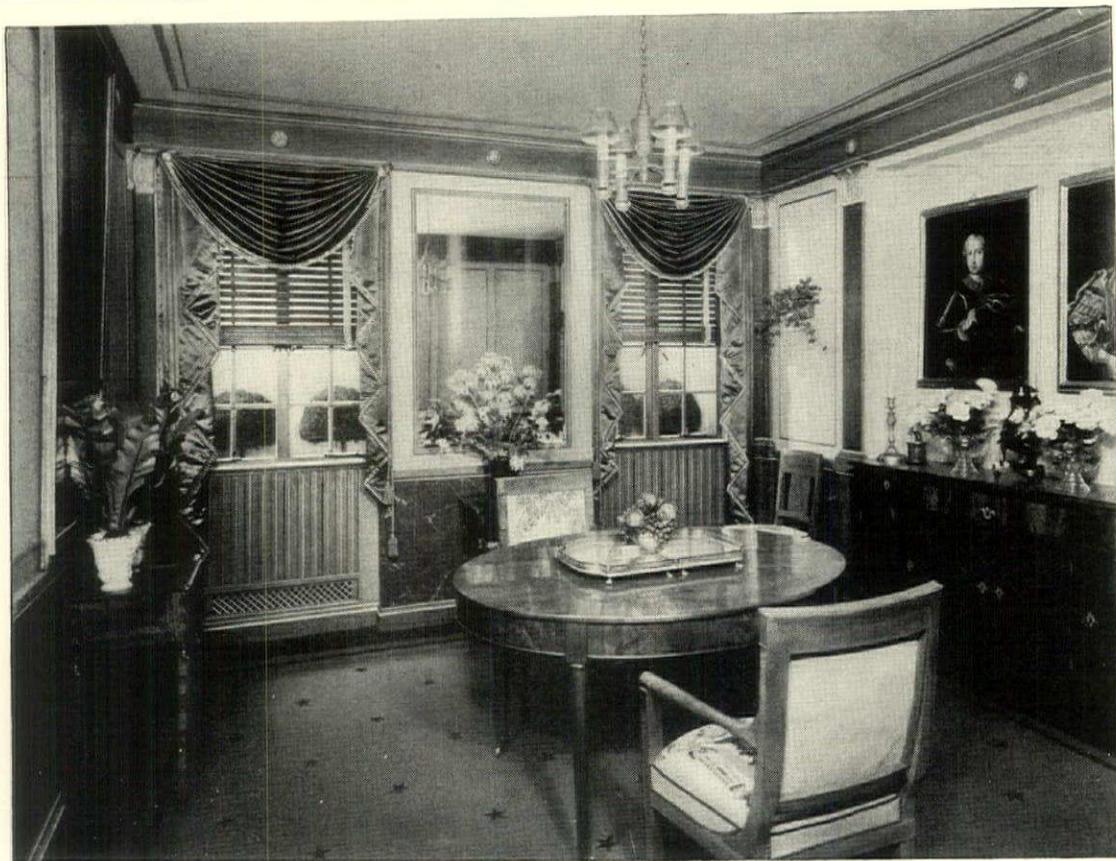
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A new achievement for the home—FANTOM the Recessed Radiator

The new "American" Fantom Radiator has been characterized as "the recessed radiator with the retiring disposition."

As illustrated above, the Fantom becomes an integral part of the room. Recessed beneath the window, its simple, straight, unobtrusive lines merge into the interior as part of the architectural scheme. Nothing is sacrificed in heating, for its unshielded surface radiates heat—pure, stimulating, radiant heat like that from the sun—while the warmed air rises in a gentle flow through the grille work at the top, bringing warmth to every nook and corner of the room. The Fantom is a modern radiator of high efficiency and low visibility. It may be painted to match anything from a chair to a chintz.

The Fantom has won preference by leading architects and is installed in foremost modern buildings from coast to coast. Here is an outstanding sales feature for the home. Just write us for details.

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RADIATORS & BOILERS

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AMERICAN RADIATOR & STANDARD SANITARY CORPORATION

More than a Designer

BY RAY W. SHERMAN

SO MANY ARCHITECTS have expressed interest in the experiences of this magazine in a new form that it may be interesting to others to recite some of them here. In the realm of architecture the idea may have seemed experimental. It really was not, for the publishing formula used in shaping *THE AMERICAN ARCHITECT* to a changing field is one which has proven successful in other businesses.

When the magazine appeared in its present form last October its reception was varied. The majority readily sensed its fitness and desirability but with some there were reservations. A few did not like it at all. But even the few have mostly changed their minds and therein is an exceedingly interesting picture of architecture itself in this changing era of an old profession.

The daily life of the architect is most complex. The world thinks of him in terms of his completed work, which seems to be design. But he is far more than a designer.

One day he hears of a project. He desires to apply to it his skill; wherefore he "contacts the proposed client," and if he is successful the proposed client becomes a client in fact. Next he and the client go into many conferences—and if the client is a committee the task is difficult indeed.

THERE are rough outlines and plans. There may be the determination of a site, and the architect who lacks a knowledge of real estate fundamentals may by his first decision mar the value of his work. As the work progresses the architect often must add to his own organization. He becomes an employer of labor. He becomes a buyer of supplies.

And there then enter problems of engineering, research, accounting, cost finding, contract documents, supervision of work, selection of materials and a motley aggregation of activities which strip the beautiful profession of design of its glamor and reveal the successful architect as a most versatile person with knowledge of a multiplicity of crafts and sciences.

It is a trying job. But finally it is done and the structure stands for the world to see. The "man in the street" looks at the design and, if he likes it, applauds. The capital invested in the building, too, sees the design but it looks deeper than that and rates the architect on so many other points that design is almost lost in the complicated maze of business and technical considerations.

TRUE some one does take a picture, and the picture is of interest to other architects, but what interests them more is how the architect solved all the problems from the day he "contacted the client" until the building was ready to be photographed, because, if these problems were poorly worked out the design is relatively unimportant. These problems are the field in which *THE AMERICAN ARCHITECT* is serving.

An architect in a large western city well expressed the changing thought in architecture when he wrote: "When *THE AMERICAN ARCHITECT* changed its character last October I didn't like it. Today I look forward to its coming."

Modernism affects all things. And the architect who is truly modern is "more than a designer."



PATTERN

A photographic study in black and white contrasts made by John Kabel. One of nature's patterns which in its piercings is reminiscent of Gothic tracery and in composition possesses unity, balance, variety and emphasis



An asymmetrical composition that might be termed a study in tones, form, and circles in perspective. It has rhythm and yet possesses the quiet restful quality of nature in repose. John Kabel places photography on the plane of art

DESIGN

THIS VICIOUS CIRCLE of Jobs by Hand



By ROYAL
BARRY
WILLS
*Architect of
Boston, Mass.*

THOUGH the last twenty-five years have seen practically a revolution in the method of erecting office buildings, we still construct our houses by the same slow hand methods that have been used for centuries. In spite of increases in the cost of materials and labor; in spite of electricity, plumbing, ventilation, and fire proof construction, the cost per square foot of available space in the modern office building is only slightly more than 50% over similar costs of fifty years ago. The reason is, of course, that materials and methods in office building construction have been keyed to the economies of our machine age.

Compare this modern efficiency in erecting office buildings with the costly way we build our houses. Materials in themselves out of date are assembled at the site in a hit or miss fashion by skilled labor not properly directed or organized. Bricks are laid one upon another by hand, as they were when the Romans built their aqueducts. Wood is sawed and nailed by hand. Work that should be done under factory conditions is done on the job in the most expensive way possible. In practically all residential construction, too, the walls are double-faced; that is with a framework faced with one material on the outside, and another on the inside. As a consequence of these traditional methods, house building is slow and expensive. The economies which mass production and machinery have introduced into every other department of our life, are noticeably absent in house construction. When it comes to building homes, we are still living in the age of horse cars and hoop skirts!

There are many reasons for our backwardness in house construction, the most important of which is the fact that financial backing has not been forthcoming, either by construction companies or material manufacturers, to properly develop new processes and materials to fit present day needs. Another retarding factor is the antiquated building codes in our cities and towns. While in office building construction, new methods have been quickly accepted, and codes revised to include them the local boards, particularly in our smaller muni-

cipalities, have been slow to accept or permit them.

We are therefore travelling in a "vicious circle." We cannot radically improve our materials, because materials designed for mass production of houses could not properly be used by the type of hand labor that is available. Nor can we improve our methods, because all the materials we have are fitted only for the piece-by-piece, built-on-the-job system of construction.

What we must have, to get out of this vicious circle, is both a new material or new materials and new mass-production methods of using them.

First, let us see what qualities this new material must have. It should be as strong as wood, and as light, or even lighter, for ease of transporting and handling. It should have a pleasing texture, and should be capable of being surfaced in many attractive ways. It should be fireproof, and so nearly waterproof as to permit its use for roof construction where there is reasonable pitch. It should be a good insulator against heat and cold. The material should be workable with a saw; tough enough to permit of rough handling without breakage, and strong enough to carry floor loads. It should also permit of pressing into shape with dies, as this quality

WE NEED NEW MATERIALS

• *This article by Mr. Wills is another of those received in answer to the request printed in connection with the article by Harold Sleeper, published in the March issue. Several other very interesting articles on this same subject have been received and will be published in early issues*





LAZARNICK

WHEN shall we get rid of this vicious circle of jobs by hand on little units, this clinging to the methods that were old two thousand years ago? When shall we develop twentieth century materials made by mass production methods and employ mass production methods of using them?

would make it most suitable for mass manufacturing methods. Finally, it should sell for \$30 a thousand board feet, or \$75 a thousand square feet in 2½ inch thickness.

Needless to say, such an ideal material is not available today. Concrete is too heavy, and not waterproof. Gypsum is lighter, but not heat and cold proof. Fibre board is heat and cold proof, but has no strength and is not weatherproof. The new synthetic resins which have been proposed for furniture seem to offer possibilities for interior trim, but their cost would undoubtedly be too high for general construction purposes.

Perhaps the ultimate material will be a combination of known materials; perhaps it will spring from some

chemist's laboratory. How it will come, no one can tell; but we predict that eventually it will come, and that it will revolutionize house construction.

If we can judge from other industries, it will probably mean a number of great house building companies, formed perhaps by merging various material manufacturers, and using local builders as agents and service men. Like the automobile companies, these giant corporations will have their own selling, manufacturing, servicing, and financing divisions. They will probably build groups of houses in developments, and also build to order on land owned by the customer. Since they will standardize on materials and methods, and will use unskilled labor wherever

(Continued on page 120)



The traveling architectural exhibition was displayed in the furniture department of the William F. Gable store

How Architecture was SOLD TO THE PUBLIC in Altoona, Pa.

By BENJAMIN F. BETTS, A.I.A.

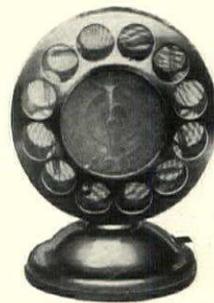
ARCHITECTURAL exhibitions, when conducted as unselfish, public spirited community movements, can be made a vital factor in interesting the public in good architecture. This fact was demonstrated by an exhibition recently held in Altoona, Pennsylvania. This exhibition again proved that the public will visit an exhibition that is easily accessible and that generous publicity will be accorded it when it is obviously held in the interest of the public and the community.

The traveling architectural exhibition, sponsored by the American Federation of Arts, was displayed in the William F. Gable Company Department Store, Altoona, Pa., from March 31 to April 19, 1930.

It was accorded the support of the Chamber of Commerce, the Altoona Booster Association and other local clubs and organizations.

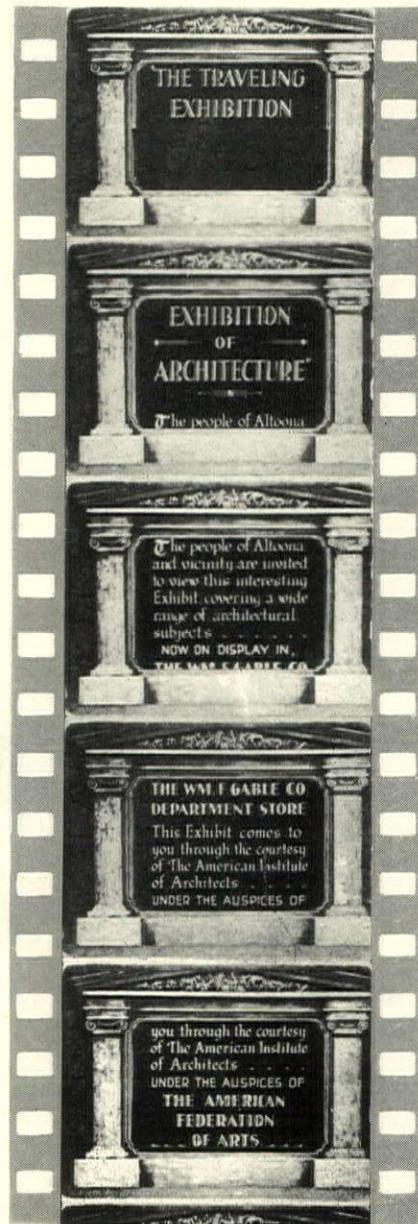
The two local newspapers, the Altoona *Mirror* and the Altoona *Tribune*, contained daily accounts of all interesting events connected with the exhibition. Architecture became the subject of several editorials.

Architecture was brought before the local schools through the medium of the exhibition and talks were delivered to the students by several visiting architects.



RADIO

talks on architecture were broadcast over station WFBG in the Gable store



MOVIES

in the city of Altoona cooperated by displaying movie trailer announcements of the exhibition on the screens of the local theaters



SHOW WINDOWS of the Gable store attracted the attention of the "man-in-the-street" to the architectural display in the store

The local radio station was utilized to broadcast talks on architecture.

The local theatres announced the exhibition on their screens.

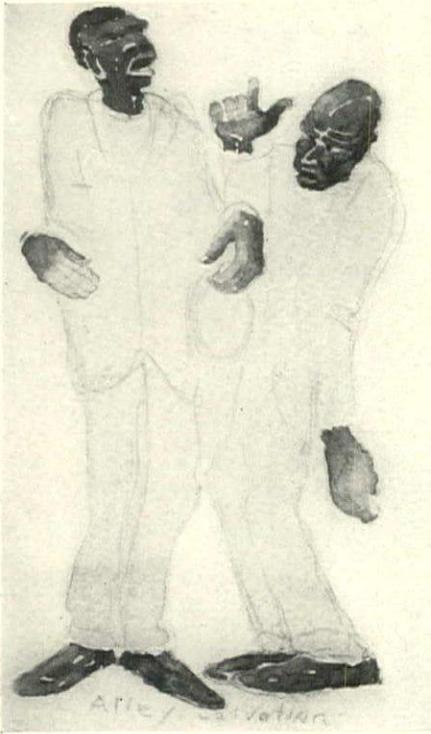
Through the medium of Dodge Reports the exhibition was brought to the attention of contractors and builders within a large radius of Altoona.

Throughout the exhibition the names of local architects were omitted from all publicity. The newspapers and local organizations were impressed with the fact that the exhibition was being held in the interest of the city of Altoona and that any benefit that might accrue to the architects practicing in Altoona would be indirect. As a result the exhibition received unanimous support everywhere. The building and general public visited the exhibition. The largest attendance recorded on any one day was four hundred persons. The attendance for the first five days of the exhibition registered fifteen hundred.

A chronological description of the procedure followed in developing the first architectural exhibition ever held in the city of Altoona follows:

A firm of architects of Altoona had believed for some time that an architectural exhibition (Continued on page 86)

NEWSPAPERS gave ample space daily to news of the exhibition and commented upon its importance to the community



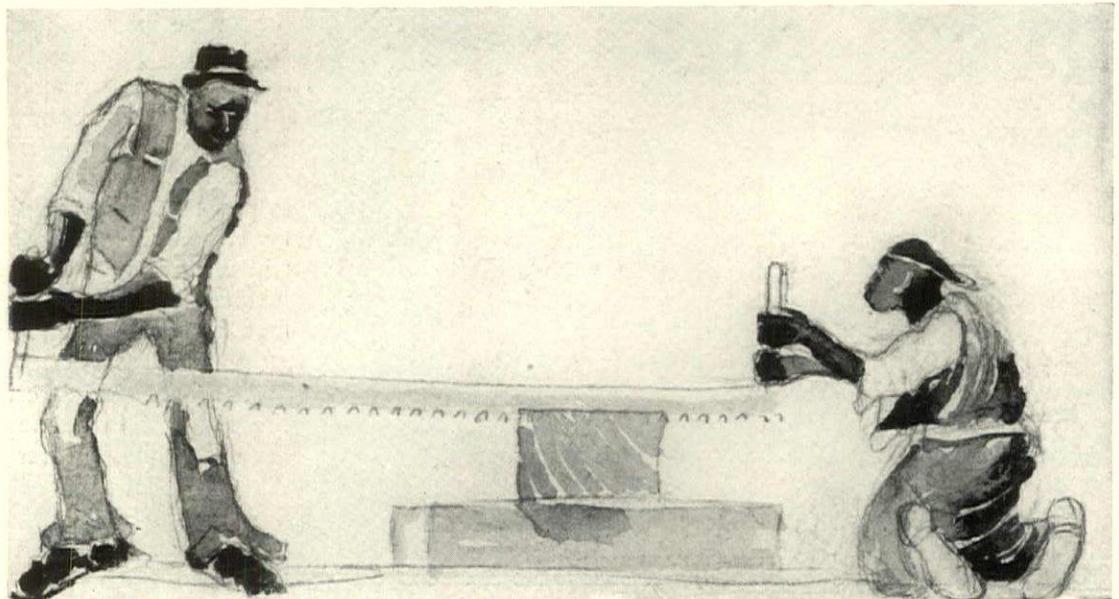
LOCAL COLOR

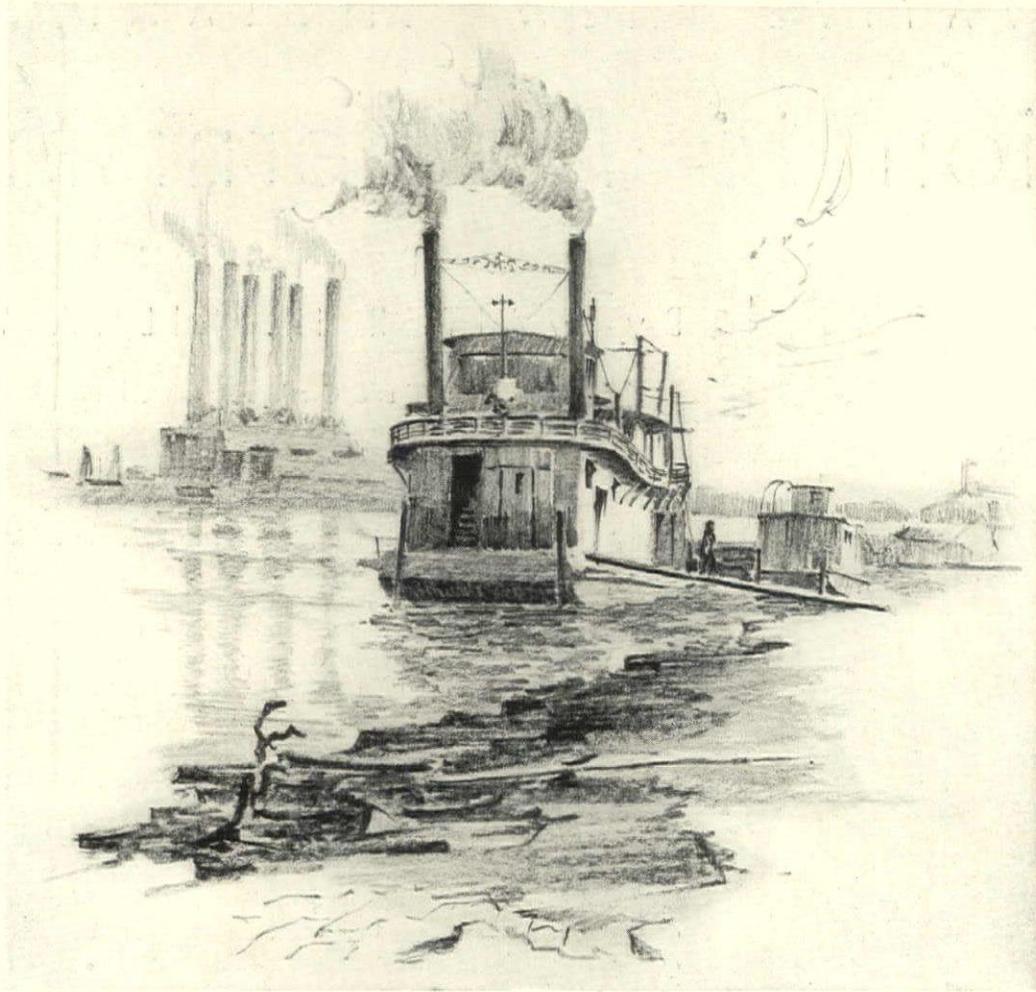
in Philadelphia

by Llewellyn Price

The character studies on this page were made by an architect of Philadelphia from his office window. His office is located in a district where there are numerous alleys on which front quaint houses and which

swarm with native life such as Mr. Price has depicted. In spite of the efforts of artists, and real estate agents to reclaim the section, these alleys and their native characters remain as picturesque as ever





.. and picturesque
ST. LOUIS

by Victor J. Kunz

Mississippi River craft have an individuality all their own that lends a picturesque and romantic atmosphere to the waterfront of St. Louis. The above drawing by Mr. Kunz combines the tall stacks of a modern power house with the ungainly but characteristic stacks of a Mississippi River steamboat. At the right is another sketch by Mr. Kunz of a section known as Commission Row



Reaction to Modernism

By WALTER H. KILHAM

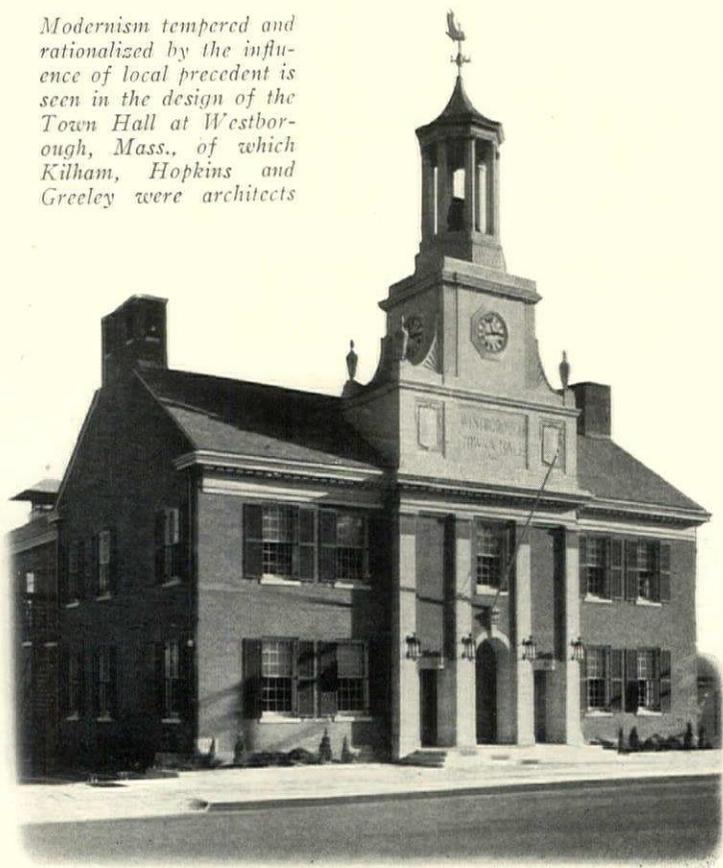
Kilham, Hopkins & Greeley, Architects

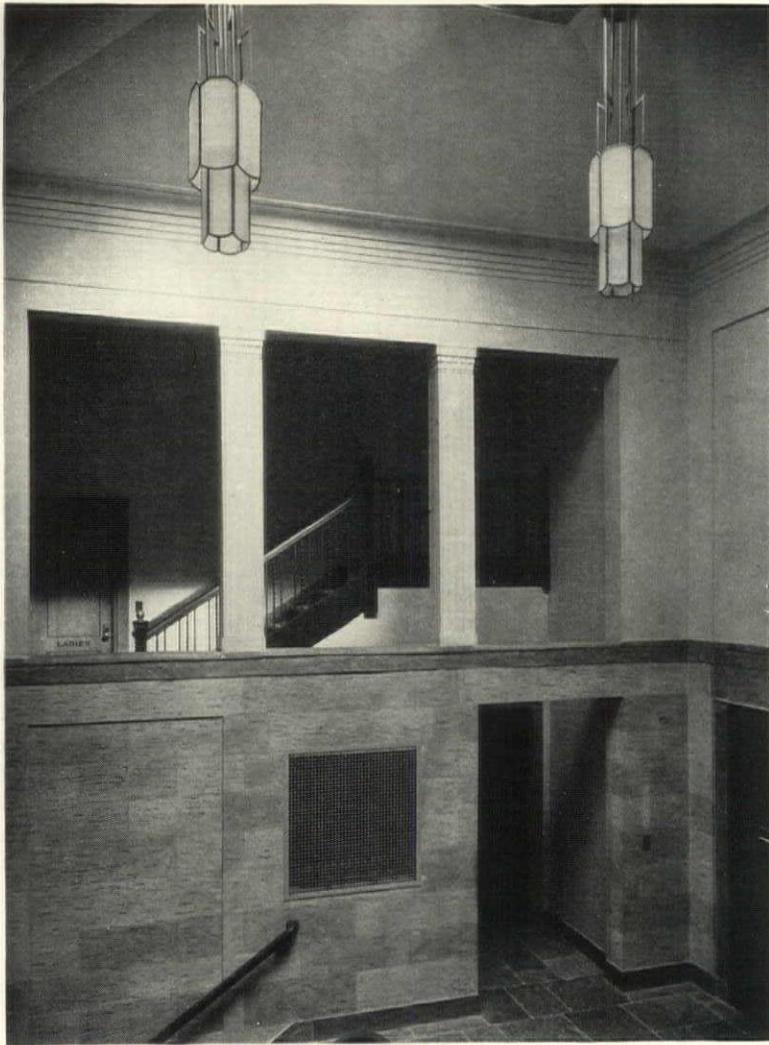
Photographs by Paul J. Weber



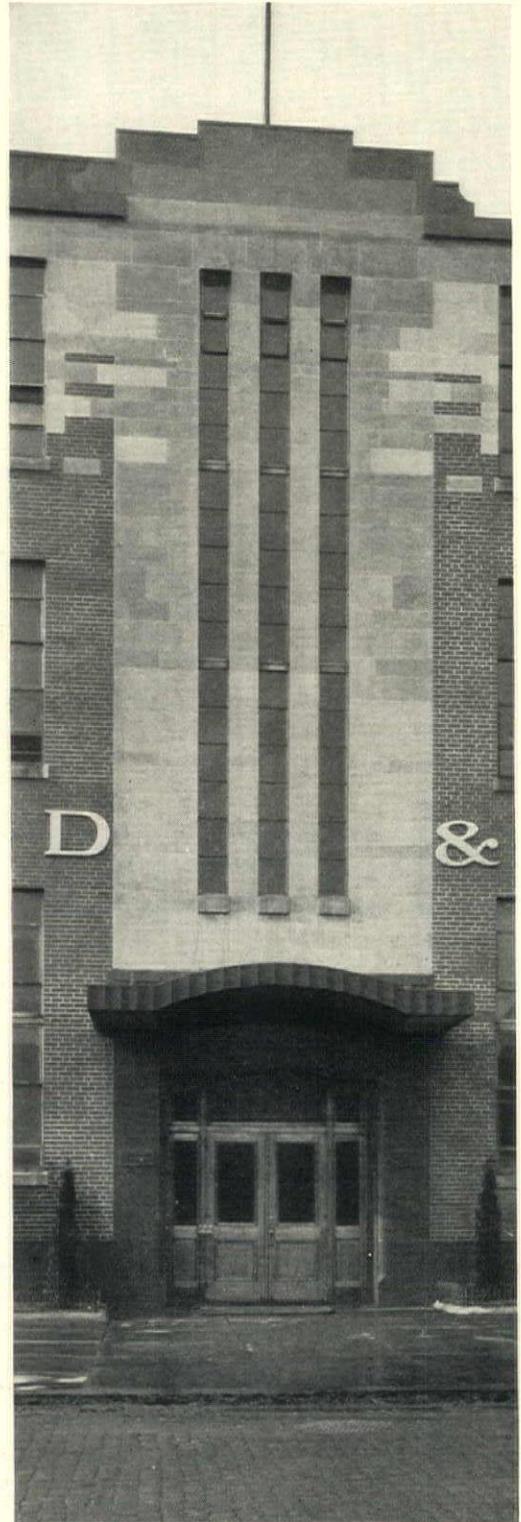
MODERN design, if it is destined to live, must, like other styles, possess the element of appropriateness; the Gothic, for example, with its large windows and pointed roofs, was appropriate to Northern Countries but did not flourish in the South, and similarly modernistic design cannot confine itself to flat roofs and corniceless walls if it is going to survive in America. If it is able to assimilate pitched roofs, double hung sash, and local materials, its great principles of clean lines, lustrous surfaces and freedom from useless decoration should assure for it a brilliant career, and one which will take full advantage of the decorative possibilities latent in the play of light and shade on clean walls and the projection of colors on flat or curved surfaces by electric lights, while accommodations for private airplanes and the development of sun bathing facilities, to mention only two of the newer accom-

Modernism tempered and rationalized by the influence of local precedent is seen in the design of the Town Hall at Westborough, Mass., of which Kilham, Hopkins and Greeley were architects





Local tradition has not been disregarded nor has it been copied in the design of the interior of the Westborough, Mass., Town Hall



The milk laboratory of H. P. Hood & Sons Co., Boston is an example of rational modernism that is not influenced by traditional details or European models. Kilham, Hopkins and Greeley, architects

modations wanted for country houses, suggest exciting adventures in design for the modern architect. As long as architecture keeps abreast of mechanical invention it will be a living art, but if it continues to build twelfth century Gothic churches with steel frames and hung vaulting, or Roman temple museums and railroad stations it will simply follow the road which leads nowhere.

FROM all this turmoil of theorizing, New England is neither more nor less exempt than other sections of the country, but the people of this section have long been noted for a deep-rooted sense of the fitness of things. A recent number of Harper's magazine tells of two good American ladies who were impressed while traveling in Europe by some of the picturesque native architecture and considered the possibility of its adoption at home, and decided it couldn't be done. Said one of them, "It's being exotic like this that we don't do in America."

New England and Boston, its leading city, are popularly believed, at least by the editors of the *American Mercury*, to be congenitally averse to new ideas in any form. The disinclination of the city of Boston to smother itself with immoderate skyscrapers, the failure of its audiences to fall for every Broadway theatrical success that is held before its eyes, and the pitiable lack of haste and jamming in Boston subways is taken as evidence of an incorrigible backwardness in the New England make-up. This lamentable lethargy it would seem, cannot fail to be evidenced in the local architecture, which stubbornly refuses to abandon its cherished red (why not say wine-

(Continued on page 78)

An Easy Accounting System that increases ARCHITECTS' PROFITS

by H. P. Van Arsall, A.I.A.

SAMUEL HANNAFORD & SONS, Architects, of Cincinnati

• *The larger the difference between fee and production cost, the greater must be the profit.*

To maintain the lowest production cost, know how each production hour and dollar is spent.

Mr. Van Arsall's article tells how to accomplish this. It was written at the request of the editors of THE AMERICAN ARCHITECT because of the many letters received by them expressing a desire for such information, inspired by the publication of Mr. Van Arsall's article in the January issue.

It has been said that many members of the architectural profession are now commercializing their business by adopting modern business system. This is probably true—and why not? There is just as much reason for the architect to succeed financially as there is for him to succeed professionally. No one can produce “bigger and better” buildings when he is continually harassed by financial worries. Neither can success be achieved by an architect unless his business is properly organized and well managed.

The average architect has waited entirely too long to give consideration to the business side of his profession; because of this there has been created in the mind of the public the fallacious idea that the contractor is the “master builder” and guiding hand in any building operation. If the architect is going to be the “master builder” he must impress his clients with the fact and there is no surer way to do so than by conducting every detail of his affairs in the most businesslike way.

In the January, 1930, issue of THE AMERICAN ARCHITECT the writer endeavored to outline in detail a system of organization and management for the architect's office, but did not propose any system of accounting. It is needless to say that an accounting system is a vital and necessary part of any business and it has been suggested that the previous article be continued with a description of a definite system of accounting.

The financial records of the system described are designed for *double entry* and are kept on the so-called *accrual system*. At the end of an accounting period

(month) accrued wages, expenses, etc., are shown as liabilities, while fees earned but uncollected are shown as assets.

Deferred charges, such as prepaid insurance, are shown as assets and are extinguished by charging to an expense account the monthly proportion of the total amount. This procedure is necessary to show a true statement of affairs.

After all adjustments and entries from the journal to the ledger have been made, a *trial balance* is taken from the ledger to prove the completeness of entry.

The cost system is planned so as to distribute *overhead expense* on the *man-hour plan*. Under this scheme no account is taken of the difference in rate of wages. It is assumed that every employee, in a general way, requires the same amount of supervision, light, heat, space, insurance, drinking water, toilet facilities, etc.

All time is divided into *productive* and *non-productive hours*. Productive time is spent in directly producing a particular job. Non-productive time is spent on work not chargeable to any particular job.

Since overhead expense is a vital part of production cost, it becomes necessary to distribute it in proper proportion to the jobs benefited. To determine the amount chargeable to each job the rate per productive-hour is found by dividing the number of productive hours worked during the month into the total overhead for the same period. The total overhead expense is distributed each month.

There are four elements composing the cost of production, viz: drafting, engineering, superintending, overhead. The collecting of the first three cost items is comparatively simple as every man turns in time cards, one for each job, showing the exact time spent on the operation. Time is not kept closer than half hour divisions. It has been found that smaller divisions are unnecessary. Non-productive time is charged as an overhead expense. When the monthly time sheets show a large amount of non-productive time, the business manager knows immediately that the chief draftsman is not allotting the work in the drafting room to the best advantage. The percentage of non-productive time should never run over ten per cent. No doubt this seems large, but an architect's office cannot be run as a factory, due to the peculiar nature of the work and the impossibility of keeping every man engaged at all times.

The accounting system described uses the account classifications as shown on page 32.

• Account Classifications •

- 1 ... ASSETS
11. FIXED ASSETS
111. Office Furniture and Fixtures
112. Books
113. Automobiles
- 114.
- 115.
12. CURRENT ASSETS
121. Imprest Fund
122. Cash in Bank
123. Accounts Receivable
124. Sundry Debtors
125. Investments (Bonds)
126. Materials and Supplies on Hand
1261. Printing and Stationery Materials
1262. Drawing Materials
- 127.
- 128.
13. PREPAID ACCOUNTS
131. Prepaid Insurance
132. Advances
- 133.
14. WORKING
141. Work in Process
- 142.
- 143.
15. EXPENSES
151. Drafting Room Salaries (to be distributed)
152. Engineering Salaries (to be distributed)
153. Superintendent Salaries (to be distributed)
154. Undistributed Expense (Overhead to be distributed)

1541. Non-chargeable time of Principal
1542. Non-chargeable time of Draftsmen
1543. Non-chargeable time of Engineers
1544. Non-chargeable time of Superintendents
1545. Overtime allowance
1546. Lost time, vacations, etc.
1547. Office Salaries (Controlling)
1548. Rent
1549. Printing and Stationery
1550. Drawing Materials
1551. Telephone and Telegraph
1552. Membership and Dues
1553. Donations
1554. Light
1555. Insurance
1556. Traveling
1557. Periodicals
1558. Legal and Accounting
1559. Taxes
1560. Depreciation of Equipment
1561. Bad Debts
1562. Miscellaneous Office Expense
1563. Variations in Undistributed Expense
1564. Automobile Expense

- 2 ... LIABILITIES
21. FIXED LIABILITIES
22. CURRENT LIABILITIES
221. Accounts Payable
222. Notes Payable (Loans)

223. Salaries Payable
224. Sundry Creditors
225. Variations in Undistributed Expense
226. Allowance for Depreciation (Furniture, Fixtures and Books)
227. Allowance for Bad Debts
228. Accrued Expenses
229. Allowance for Lost Time, Vacations, etc.
230. Allowance for Depreciation, Automobiles

- 3 ... PROPRIETARY INTEREST
31. CAPITAL INVESTMENT
32. SURPLUS
33. PROFIT AND LOSS

- 4 ... OPERATION PROFIT and LOSS
41. COST OF COMPLETED WORK
42. FEES

- 5 ... INCIDENTAL PROFIT and LOSS
51. INCIDENTAL INCOME
52. INCIDENTAL EXPENSE
521. Interest
- 522.

SAMUEL HANNAPORD & SONS ARCHITECTS CINCINNATI, OHIO		MONTHLY TIME SUMMARY TO DISTRIBUTION SHEET		January 1 st TO 31 st 1936		SHEET NO. 5																																
EMPLOYEE <i>H. B. White - Draftsman</i>		ACCT NO. 157-5		RATE		1.88 7/8																																
				PRODUCTIVE HOURS		188																																
				AMOUNT		355.10																																
CHARGE TO JOB	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL HOURS	AMOUNT					
<i>Corvley Radio Corp.</i>																																	6	11.33				
<i>1st Presbyterian Church</i>																																		139	263.55			
<i>Commercial Trust Bldg</i>																																		36	68.00			
<i>Leetons Lumber & Rubber Co.</i>																																		3	5.67			
<i>Clyde School - B. of C.</i>																																		2	3.78			
<i>Cincinnati Graphing Co.</i>																																		1	1.87			
<i>University of Cincinnati Laboratory</i>																																		1	1.87			
<i>Time - Park & City</i>																																						
Total Chargeable to Clients (NON-CHARGEABLE TIME) Office Time																																		188	355.10			
Overtime Allowance																																						
Lost Time - Vacations, etc.																																						
Total Non-Chargeable Time																																						
Totals																																						

ENTRIES are made on the monthly individual time summary sheet which show number hours each draftsman has spent on each job

The nature and purpose of the above accounts is as follows:

1. ASSETS. Asset Accounts represent values owned.

11. FIXED ASSETS: Fixed Assets are properties owned that are necessary in the operation of the business. These assets, of course, are not to be sold. The subsidiary accounts under Fixed Assets are:

111. OFFICE FURNITURE AND FIXTURES: To these accounts is charged all new equipment and books that are purchased and have a life beyond one year's time. These accounts should be depreciated monthly and the depreciation should be figured on ten (10%) per cent annual basis. At no time should the original book value be reduced, but on the balance sheet deduct the allowance for depreciation in order that the original value will not be disturbed until the time

JOB COST SHEET

is a monthly summary of production costs on each job together with credits. The ledger page shows how much the client owes, the date of his payments, the balance due

SHEET No. 1		NAME <i>First Presbyterian Church</i>		ACCOUNT No. <i>F-141</i>				
JOB COST SHEET		ADDRESS <i>Cincinnati, Ohio</i>						
DATE	ITEM	HOURS	DRAFTING	ENGINEERING	SUPERINTENDING	OVERHEAD	TOTAL DEBIT	TOTAL CREDIT
July 31	From Bill Sheet #7	2,975	3,709.99	2,800.00		3,744.88	7,954.87	
Aug 31	" " #8	2,025	1,688.83	1,072.33		2,761.16	5,520.89	
Sept 30	" " #9	3,500	3,335.53	1,245.00		4,580.53	9,205.53	
	To a/c #41							14,352.99
Oct 31	From Bill Sheet #10	8	7.93			10.80	20.73	
Nov 30	" " #11	2,500	2,100.00			2,970.00	6,070.00	
	To a/c #41							8,142.73
Dec 31	From Bill Sheet #12	2,600	4,854.00			4,860.00	9,714.00	
	To a/c #41							9,714.00
1930								
Jan 1	Balance Brought Down	5,985	6,624.80	1,497.78		8,022.58	16,139.85	16,139.85
31	From Bill Sheet #1	2,000	4,408.00			5,720.00	10,028.00	
	To a/c #41							10,028.00

SHEET No. 1		NAME <i>First Presbyterian Church</i>		ACCOUNT No. <i>F-123</i>	
CREDIT LIMIT		ADDRESS <i>Cincinnati, O.</i>			
RATING		BUSINESS			
DATE	ITEMS	FOLIO #	DEBITS	CREDITS	BALANCE
June 24	Contract: - 6% on completed costs for Plans, Specifications, and Superintending of Remodeling and Additions to present building. Fee to be due and payable as follows - 1.2% when sketches are complete 2.4% " drawings + spec. are " 2.4% on work progresses.				
Oct 1	Due on account to date	625	2,000.00		2,000.00
Nov 1	By Cash	634		1,500.00	500.00
	5 Building Permit	635	28.40		528.40
Dec 31	Due to Date	642	2,527.70		786.40
31	" " "	649	1,538.00		1,324.40
1930					
Jan 1	Balance Brought Down		1,324.40	1,500.00	174.00
31	By Cash	653		700.00	40.00
31	Due to Date	658	2,206.60		269.00

when it is completely wiped out.

12. CURRENT ASSETS: Current Assets represent values owned that are constantly changing in value. The following accounts come under Current Assets:

121. IMPREST FUND: At the beginning of operation this account is debited with a certain sum (say, \$25.00) and cash credited. This sum is placed in the cash box and is used for paying small current bills. When the fund is nearly consumed, a check is drawn for the amount of bills paid during the period, restoring the fund to its original amount, and the various bills are charged to their proper accounts at this time.

122. CASH IN BANK: Cash in Bank should represent at all times the amount of cash owned (not including Imprest Fund). All cash receipts should be deposited in the bank intact and all disbursements made by check.

123. ACCOUNTS RECEIVABLE: This is a controlling account and receives only the monthly totals from the journal. The subsidiary accounts controlled by Accounts Receivable represents all moneys owing by clients. When these accounts are debited with fees, Account No. 42 should be credited.

Advances paid out for clients in the way of building and water permits, etc., are to be charged direct to the client's account and a cash credit made.

124. SUNDRY DEBTORS: This is a controlling account. The accounts that are controlled under this heading are the drawing accounts of firm members and other accounts of a similar nature.

125. INVESTMENTS: This account shows at all times any bonds, stock, etc., owned by the firm. It is credited when the stocks, bonds, etc., are sold.

126. MATERIALS AND SUPPLIES ON HAND: This account is charged with all materials and supplies purchased and is credited monthly with all supplies which have been used. The corresponding charge is made to one of the various expense accounts.

13. PREPAID ACCOUNTS: The subsidiary accounts are such items as:

131. PREPAID INSURANCE: This account is charged with all insurance premiums paid during the year and credited monthly with one-twelfth of the total, and the cor-

responding charge should then be made to Account 1555.

14. WORKING ASSETS: This account represents the work passing through the office. The subsidiary account of this item is:

141. WORK IN PROCESS: To it is charged all drafting room expense, engineering and superintendents' time, and the total of the undistributed overhead expense. This is taken from the time distribution sheet and overhead distribution monthly. When work is completed, this account is credited with cost of completed work debited.

15. EXPENSES: The subsidiary accounts are:

151. DRAFTING ROOM SALARIES ACCOUNT: This account is charged with all drafting room salaries, and at the end of the month is credited and the amounts debited to proper jobs in Work in Process.

152. ENGINEERING EXPENSE: This is treated the same as Account 151.

153. SUPERINTENDENTS' SALARIES: This is treated the same as Account 151.

154. UNDISTRIBUTED EXPENSE: This account controls the following subsidiary accounts:

1541. NON-CHARGEABLE TIME OF PRINCIPAL: All time of firm members not actually chargeable to jobs is debited to this account.

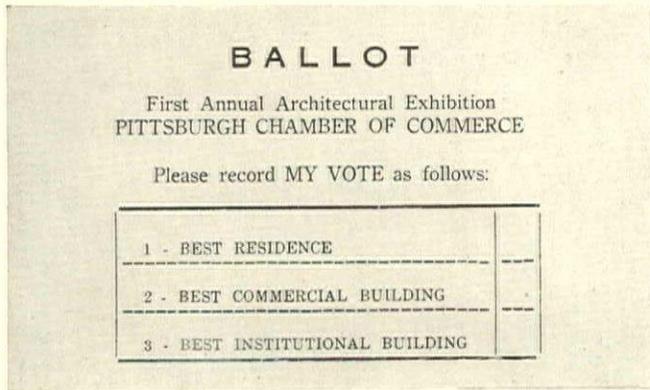
1542. NON-CHARGEABLE TIME OF DRAFTSMEN.

1543. NON-CHARGEABLE TIME OF ENGINEERS.

1544. NON-CHARGEABLE TIME OF SUPERINTENDENTS: These three accounts are treated in the same manner as Account 1541.

(Continued on page 90)

PUBLIC votes on Architecture in Pittsburgh



By Benjamin F. Betts, A. I. A.

THE first annual exhibition of the work of architects located in the city of Pittsburgh and Allegheny County, Pennsylvania, under the auspices of the Pittsburgh Chamber of Commerce, was held in the Chamber Auditorium, April 8 to April 12, 1930. With a view toward giving the encouragement and recognition merited by local architects for producing better designed, better constructed and better planned buildings, the Chamber of Commerce awarded a bronze medal to the architects doing outstanding work in three classes of buildings—residential, institutional and commercial. Only buildings within a radius of 100 miles of Pittsburgh were eligible for consideration. The Chamber of Commerce proposes to continue the making of annual awards.



Ballot used in recording the public vote, and sticker used on letters by architects and the Chamber of Commerce

There were one hundred twenty entries in the first exhibition. Janssen and Cocken, architects, of Pittsburgh, Pa., received the medal awards in all three classes of building, based upon the Longue Vue Country Club, the Keystone Athletic Club and the Rolling Rock Stables. Honorable mention was also accorded the same firm for the excellence in design of the exterior of the Edgar J. Kaufmann house.

Certificates were awarded to the owners and contractors of the buildings receiving medal awards.

Exhibits were identified with the name of the building, but the architects' names were omitted. The competition was judged by a combination of public vote, an honorary jury and an active jury. The value of the public ballot was 20 per cent, honorary jury, 20 per cent, and the active jury, 60 per cent.

Approximately five thousand people visited the exhibition and about half of them cast ballots in the public vote on the works to be awarded medals. It is of interest to note and compare the reports of the public, honorary jury and the active jury. The public vote was decisive in its approval of the Longue Vue Country Club, William



Rolling Rock Stables, Pittsburgh, Pa., Janssen and Cocken, architects, awarded by the active jury the bronze medal for merit in domestic work

Penn Hotel, and the house of Edgar Kaufmann. The honorary jury selected the Church of the Most Holy Sacrament, William Penn Hotel and the house of Col. H. W. Coulter. The active jury agreed with the public vote in the case of the Longue Vue Country Club, but determined upon the Keystone Athletic Club, and the Rolling Rock Stables for the balance of the awards.

The exhibition was reasonably well supported by the newspapers and secured mention over the radio. Small stickers were distributed for attaching to all letters issued by the Chamber of Commerce and architects.

The idea of asking the public to cast ballots indicating its judgment of buildings (Continued on page 104)



Bronze medal designed by Ulrich Schoenberger, modeled by Frank Vittor, and made by the Gorham Company. This medal was awarded to the architects whose work was placed first in each of the three classes in the exhibition



Awarded the bronze medal in the institutional class of the Chamber of Commerce of Pittsburgh exhibition. Longue Vue Country Club. Janssen & Cocken, architects



Honorable mention was given the architects, Janssen & Cocken, for excellence in design of the exterior of the E. J. Kaufmann house



Janssen & Cocken, architects of the Keystone Athletic Club, Pittsburgh, were awarded the bronze medal for commercial work submitted in the first annual exhibition of that city

Detailing Hardwood Doors

By W. E. GRIFFEE

FOREST PRODUCTS ENGINEER

National Lumber Manufacturers' Association

MANUFACTURERS of stock hardwood doors are continually studying their designs and methods of construction in an effort to build doors better and more economically. Since most special doors are made in the same plants, by the same machinery and by much the same processes as are stock doors, it is desirable that the architect, in detailing his special doors, should not depart from standard construction any more than is necessary to secure the effect for which he is striving.

One of the greatest advantages of wood doors is the ease with which the architect may carry out his own ideas of design at a reasonable cost. Often, however, details come to door factories which, if followed closely, increase the cost considerably with no resulting improvement in the doors. Construction which looks all right to one not thoroughly familiar with the actual manufacture of doors may be impractical from a production standpoint. In this article will be pointed out some of the commonest of these departures from standard practice, except those that relate to veneers and paneling, and similar construction.

In Figure 1 are shown three methods of applying flush moldings around panels. The best method to use, of course, depends upon the type of panel and the width of the molding.

Figure 1-A shows the moldings nailed to a fillet so that the panel can slip back and forth between the moldings without moving them. This allowance for shrinking and swelling of the panels was very important in the days when wide solid panels were used, and it is still necessary when solid panels have moldings planted around them. Care should be taken to see that the fillet is well fitted at the corners as otherwise it is often possible to see daylight through a door at the point where the moldings are mitered together, even though the crack between the moldings is no wider than the thickness of a sheet of paper. In high grade work the panels should be at least stained and filled before the doors are molded so that a slight amount of shrinkage in the panel or in the molding will not leave an undesirable white line showing.

The laminated panels now widely used in doors expand and contract but slightly with the small changes in moisture content which occur in properly cared for doors. Even raised panels, for high grade doors, are often made of three ply construction so they will not change in width. Distortion, if any, is apt to be that of twisting, so many manufacturers recommend the construction

shown in Figure 1-B. Here the panel is firmly anchored in the stiles and rails; the molding serving merely as a decoration and not to hold the panel in place. Doors made without a fillet are somewhat cheaper than those with a fillet, since the fillet either has to be stuck on the stiles and rails or fitted in place after the frame of the door has been clamped together.

The construction shown in Figure 1-C is a recent development, though the principle is the same as that of the insert frame so popular in stock doors the last few years. The molding is really a backband fitted around the panel and secured at the corners with a metal spline or clamp nail before it is clamped into the frame of the door. This gives a very rigid construction, like that of a solid stuck door, though a contour like that shown could not be solid stuck on a stile or rail of a door because of the overlapping profiles. It is more expensive to set up a sticker to machine this backband type of molding than to run the corresponding single molding, but when a large number of similar doors are to be made this construction is cheaper than that for a door on which the moldings must be set by hand. It is not practical for very wide moldings, however, as the lumber used would be too thick.

A DOOR which has the molding stuck on the stiles and rails costs \$.75 to \$1.00 less to manufacture than does a molded door. Also it does not have the nail holes or the possibility for imperfect joints in the molding that are found in a molded door. For these reasons it is desirable to use sticking wherever possible. It is important, however, to hold sticking down to $\frac{5}{8}$ " in width, and to be sure that none of the profiles overlap, as the molding is all cut with one knife on the sticker.

In Figure 2 is shown an actual detail of a molded door and, on the right, an alternate design which could have been readily stuck on the stiles and rails. Where the effect to be secured requires that the profiles on the molding overlap, it is, of course, impossible to stick the design, but often the change necessary for sticking can be effected without greatly changing the design. Few door manufacturers venture to change an architect's molding details in the slightest, but often the architect himself can easily do so without seriously affecting the design and with a saving in cost of manufacture.

On paneled doors, with divided lights above, specified with flush or raised molding, the millman should know whether the molding is to go around both lights and panel or the panel only. *(Continued on page 108)*

3 ways to detail flush moldings around panels

FIGURE ONE

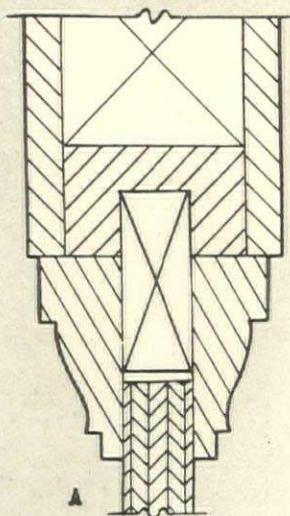


Figure 1

Which of these three methods is the best depends on the type of panel and width of the molding. That at "C" is a recent development

Figure 2

Narrow molding can often be stuck on the stiles and rails with but minor changes in design. Detailing as marked "right" will save from seventy-five cents to one dollar on each door

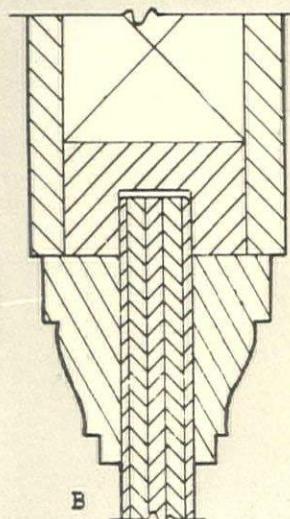
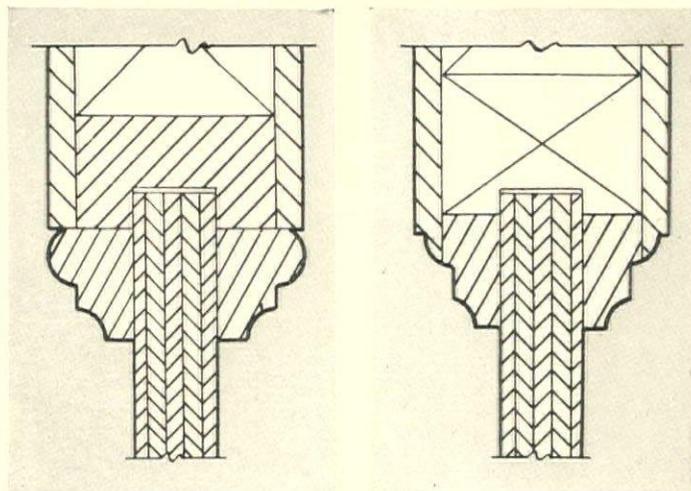
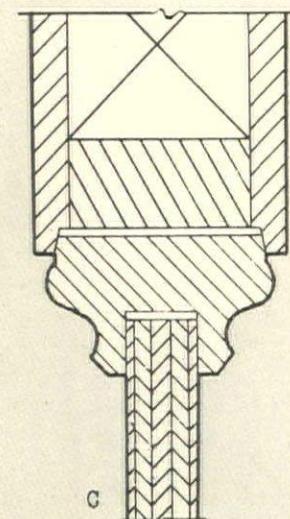


Figure 3

When the detail requires a cut too close to a glue line, as at "A," chipping is apt to result. This chipping can be prevented by carrying the cut below the glue line

Figure 4

It is difficult to machine a bevel or a shallow curve which runs to the surface of a stile; after sanding the joint usually shows up as an irregular line. Such joints should be detailed as indicated by "right"

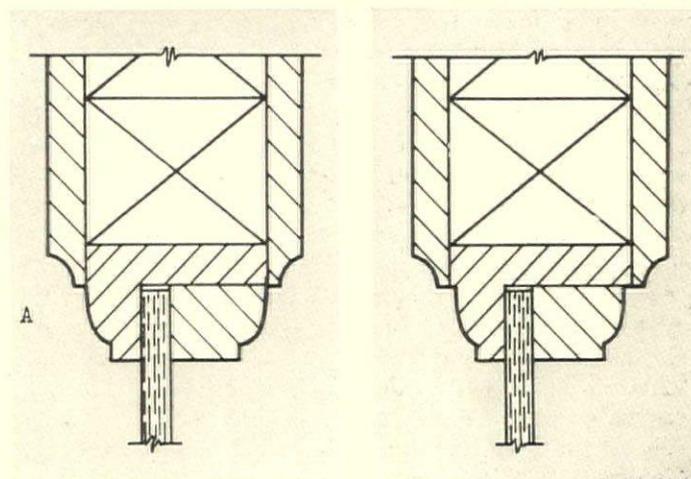


Wrong

Right

Seventy-five cents saved

FIGURE TWO



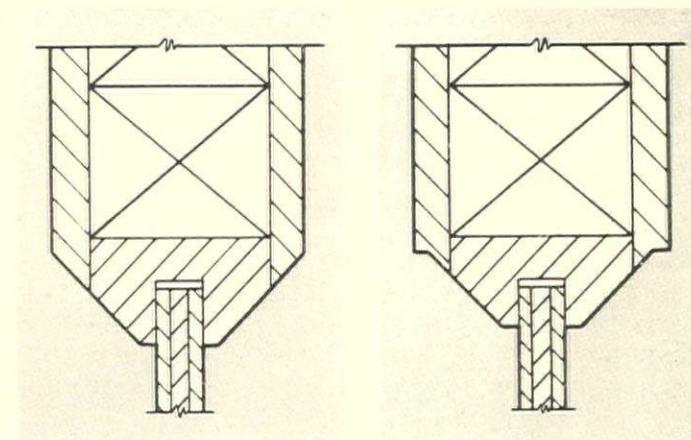
A

Wrong

Right

To prevent chipping

FIGURE THREE

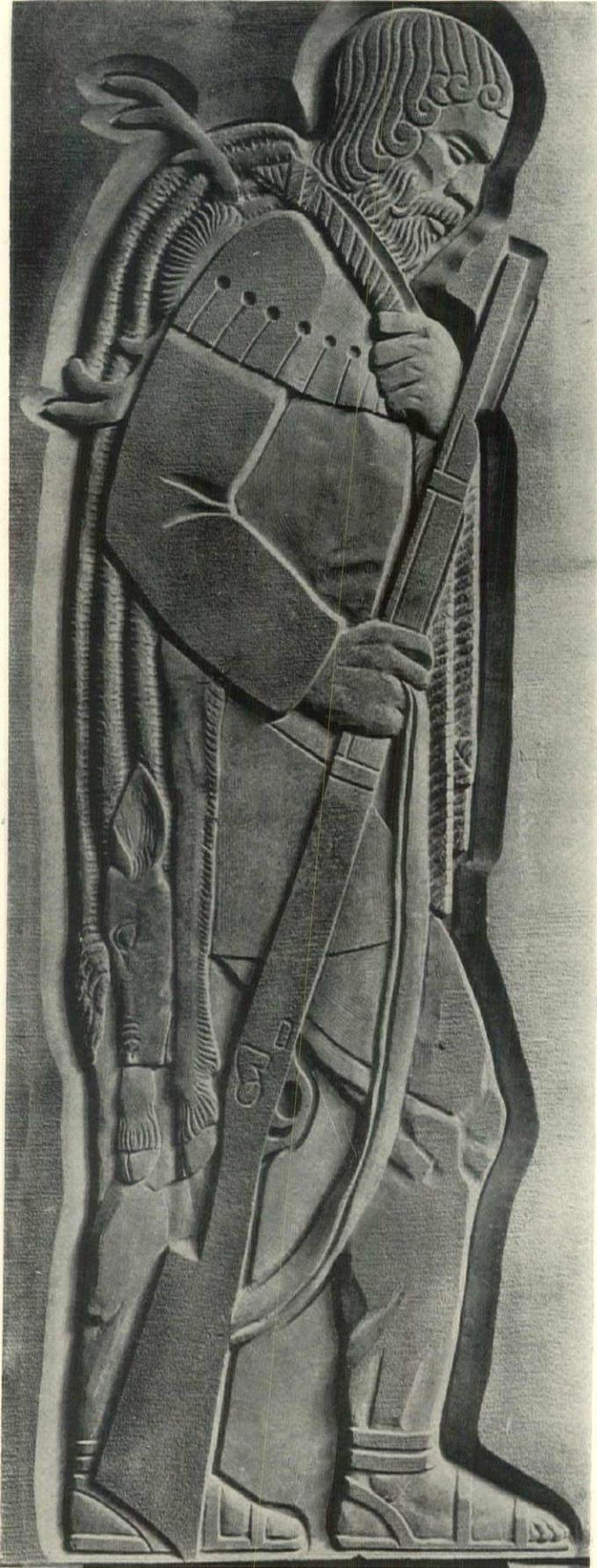


Wrong

Right

Machining made easy

FIGURE FOUR



10 pages of
LIME



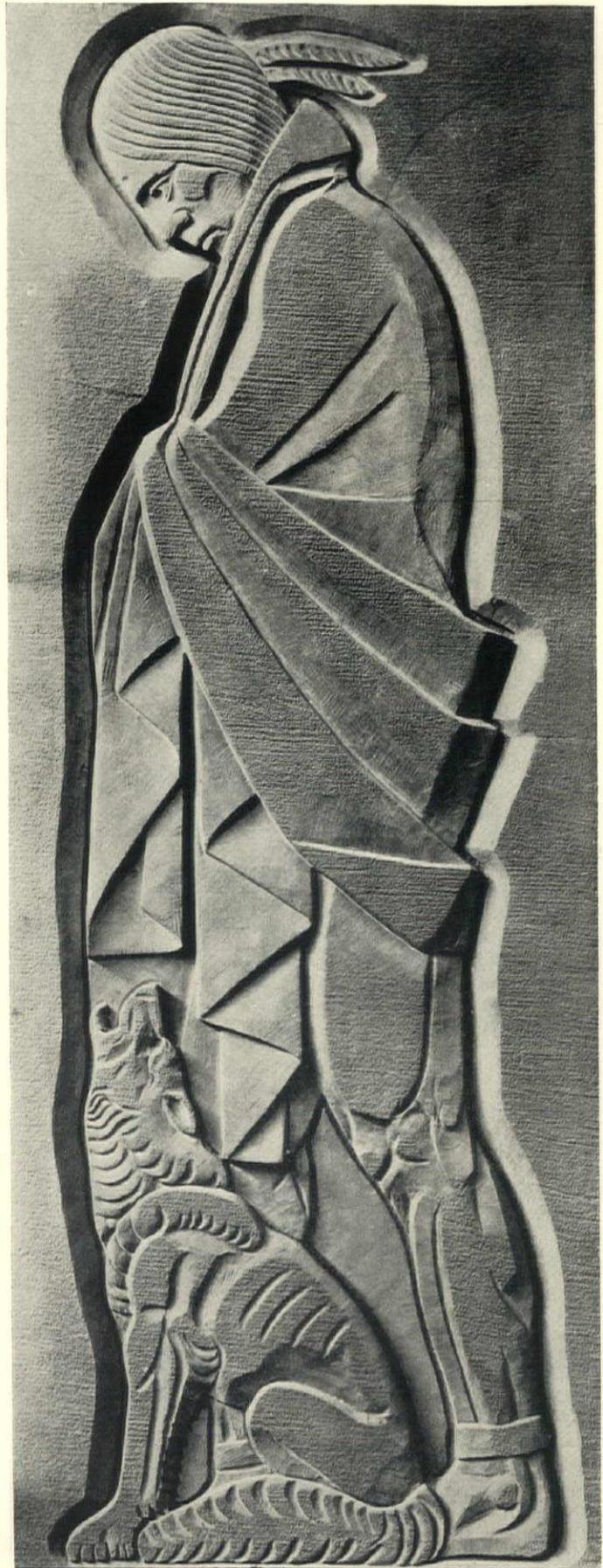


PIONEER CHARACTERS are depicted in a series of decorative panels above the lower stories of No. 333 North Michigan Avenue, Chicago, Ill. Holabird & Root, architects. Fred M. Torrey, sculptor

STONE details



EAGLES nine feet high are decorative features of the Market Street Bridge, Wilkes-Barre, Pa. Carrere & Hastings, architects.





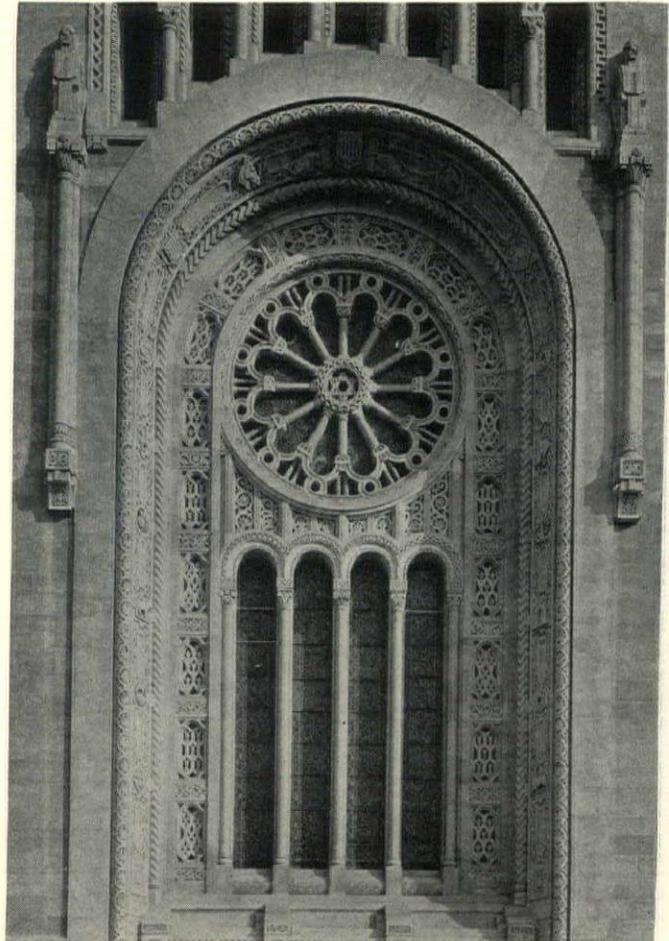
Entrance motif of the Central Savings Bank, New York City. York and Sawyer, architects. Modeled by Ricci and Zari. Carved by John Donnelly Co., New York

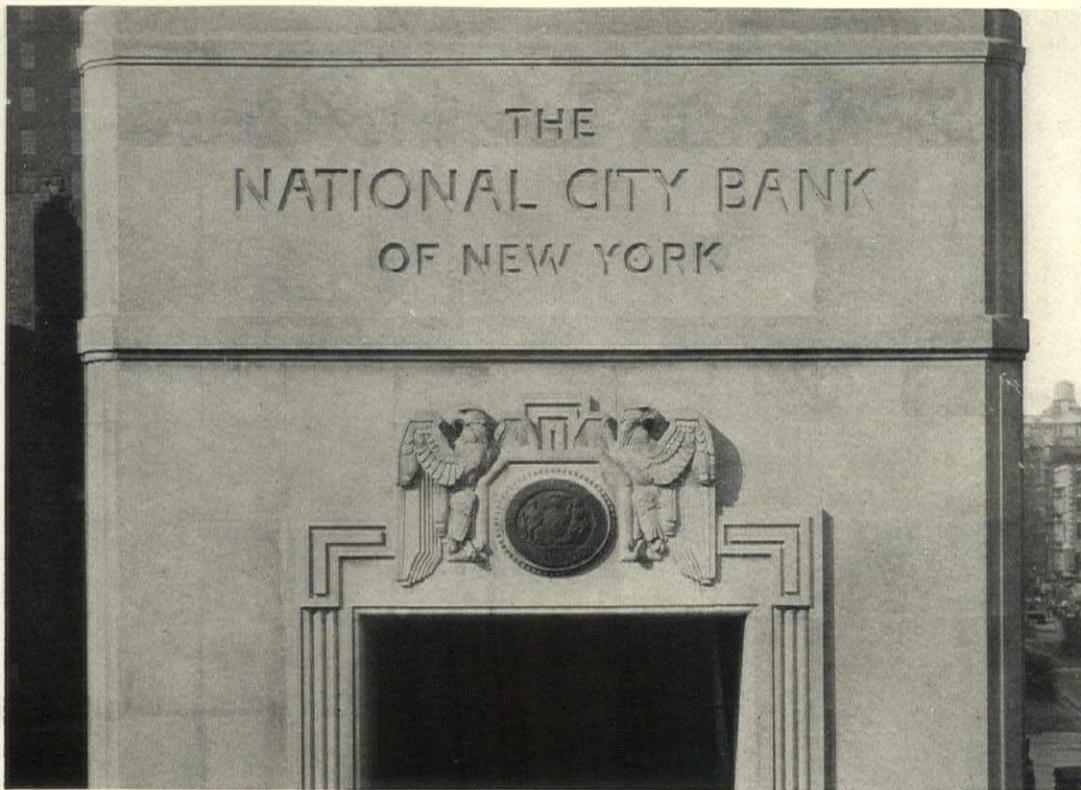


A pair of column caps, Parish House, St. John's Church, Laddington, N. Y. Henry W. Rowe Associates, architects

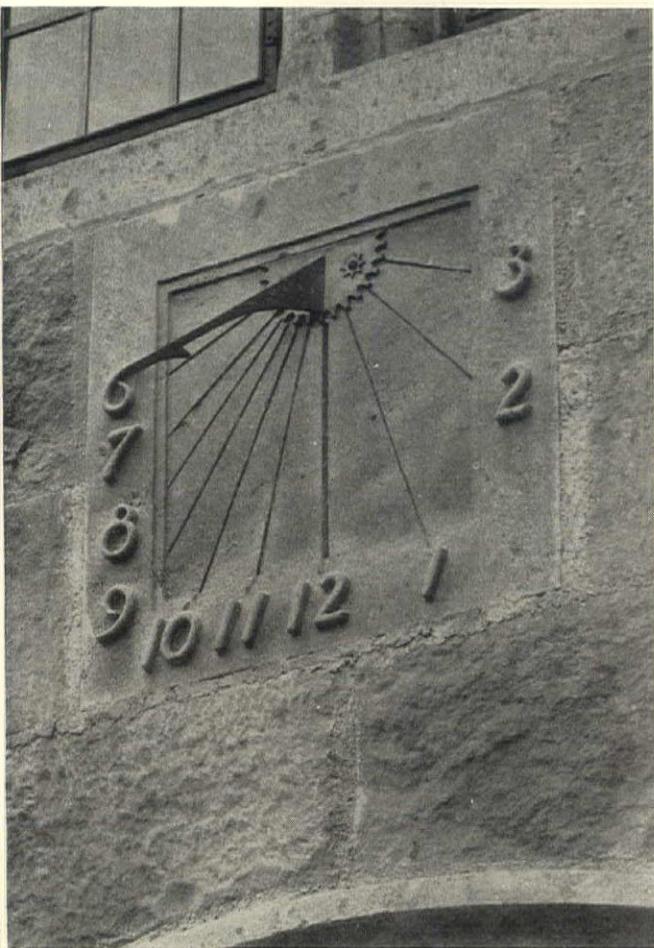


The design of Temple Emanu-El combines Standard and Dark Hollow Gray, Standard and Selected Buff and Variegated Limestone. Kohn, Butler & Stein; Mayers, Murray & Phillip, architects





The facade of the Canal Street Branch of the National City Bank is faced with Select Dark Hollow Gray Limestone, smooth finish. Walker and Gillette, architects



A sun dial carved in Limestone which forms one of the many interesting details to be seen in the house of Samuel Savage at Great Neck, Long Island, N. Y. Roger Bullard, architect

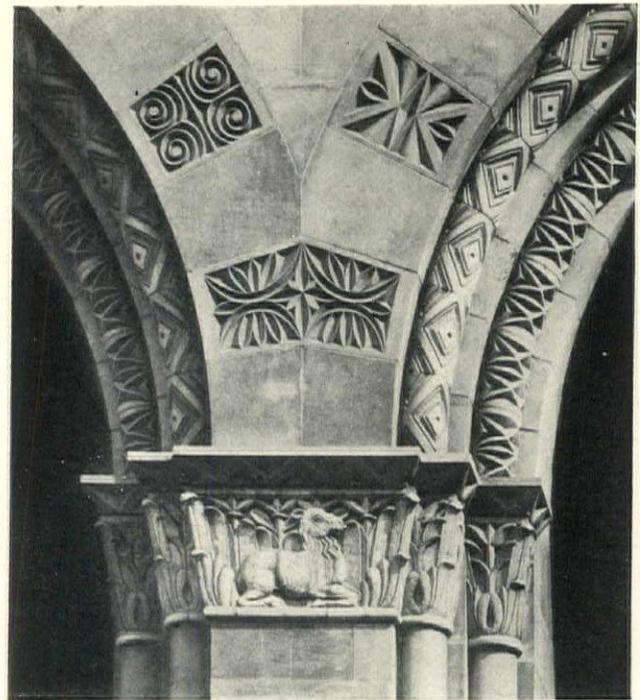


Column and cap executed in Limestone, Parish Church of St. Anselm, New York City. Maginnis and Walsh, architects





One of four lions carved in Statuary Buff Limestone for the Indiana World War Memorial, Indianapolis, Indiana. Walker and Weeks, architects. Henry Hering, sculptor



Detail executed in Variegated smooth finish Limestone. Rodeph Sholem Synagogue, New York. C. B. Meyers, architect



Ornamental detail from the new British Embassy building, Washington, D. C. Sir Edwin Lutyens, architect



Pair of lions each nine feet long carved in Limestone for the new British Embassy building, Washington, D. C. Sir Edwin Lutyens, architect. Broad Bent, sculptor

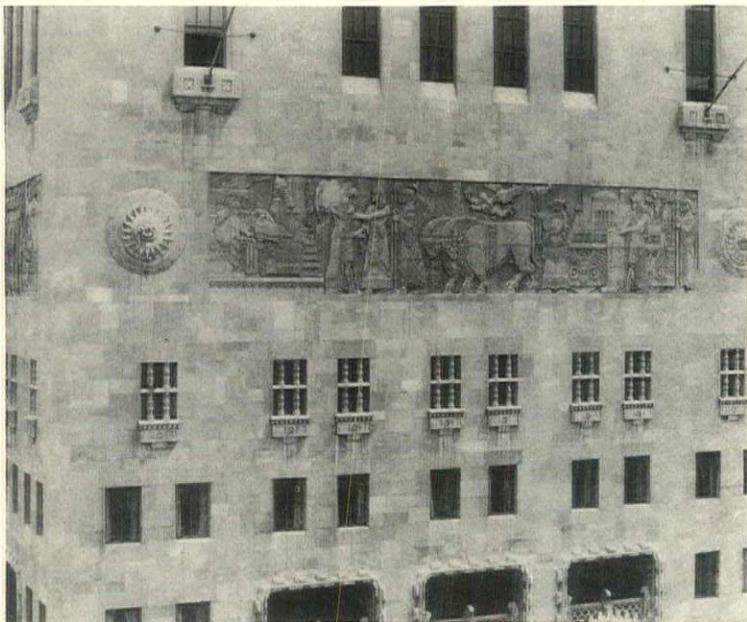
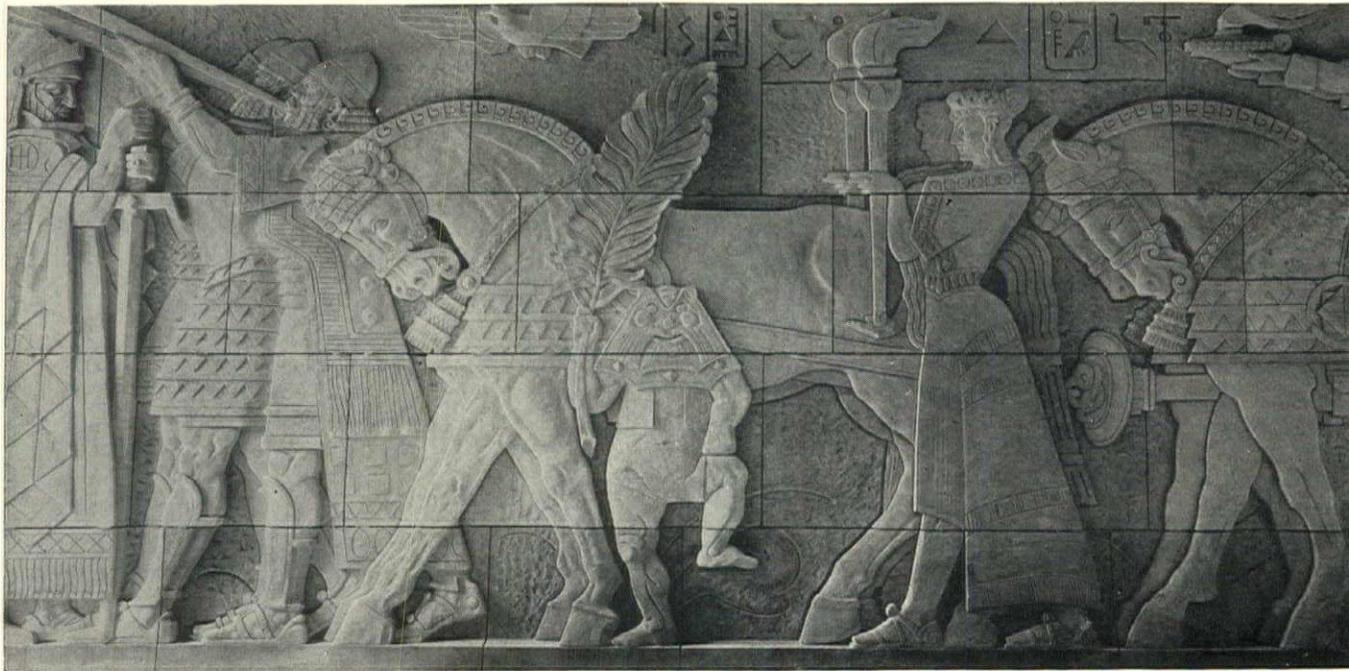


Detail of capital and impost, St. Bartholomew Community House, New York City. Mayers, Murray & Phillip, architects



Models for the ornamental details of the new British Embassy building were made in Brussels, Belgium





Detail of a carved decorative panel of the facade of the Medinah Athletic Club, Chicago, Ill. Walter Ahlschlager, Inc., architect. Leon Hermant, sculptor. Building is faced with Coarse Buff Limestone, shot sawed; trim in smooth finish



Variegated and Rustic Buff Limestone, sawed finish, was selected to face the Williamsburg Savings Bank, Brooklyn, N. Y. Halsey, McCormick and Helmer, architects





*Detail from the Chicago University Chapel.
Ulrich Ellerhusen and Lee Lazrie, sculptors*



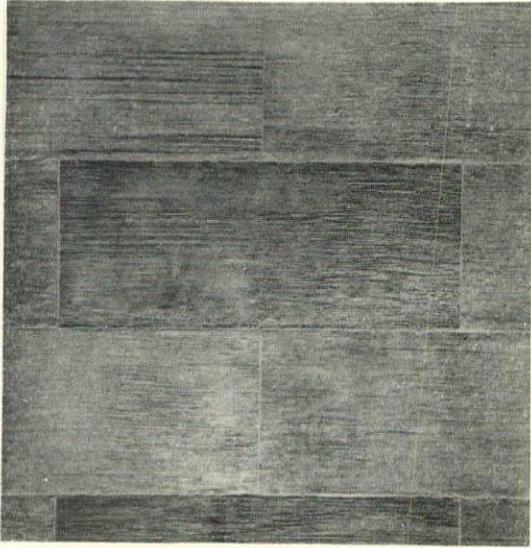
*An amusing detail from the Wil-
liamsburg Savings Bank, Brooklyn,
N. Y. Carved by John Donnelly Co.*



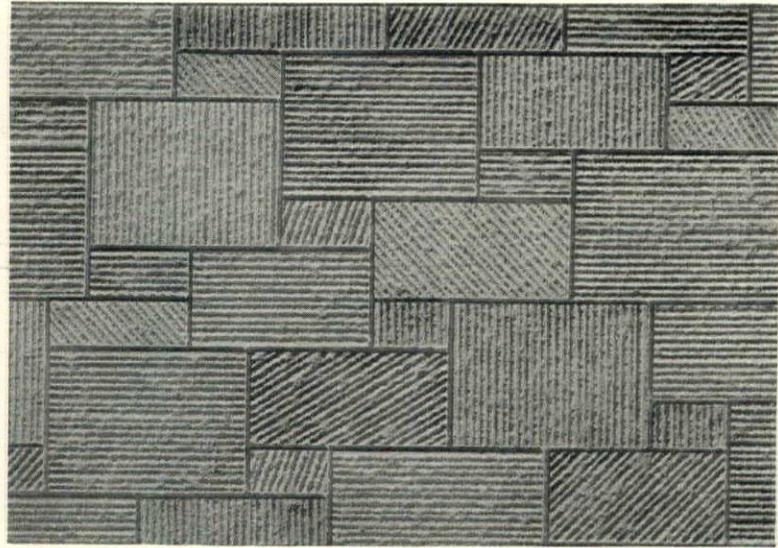
*Cut stone detail, Parish House of
St. John's Church, Laddington, N. Y.
Henry Rowe Associates, architects*



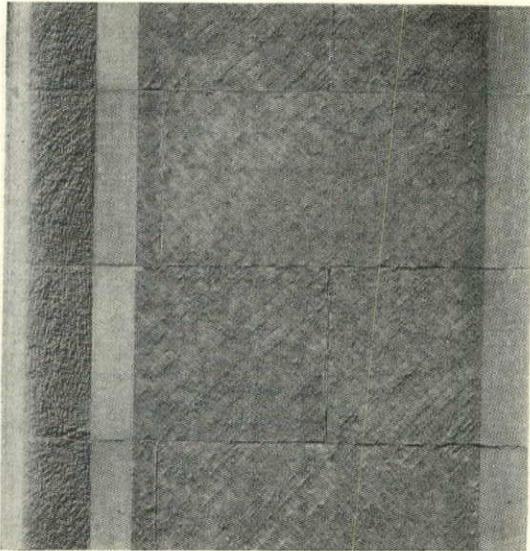
VARIOUS LIMESTONE



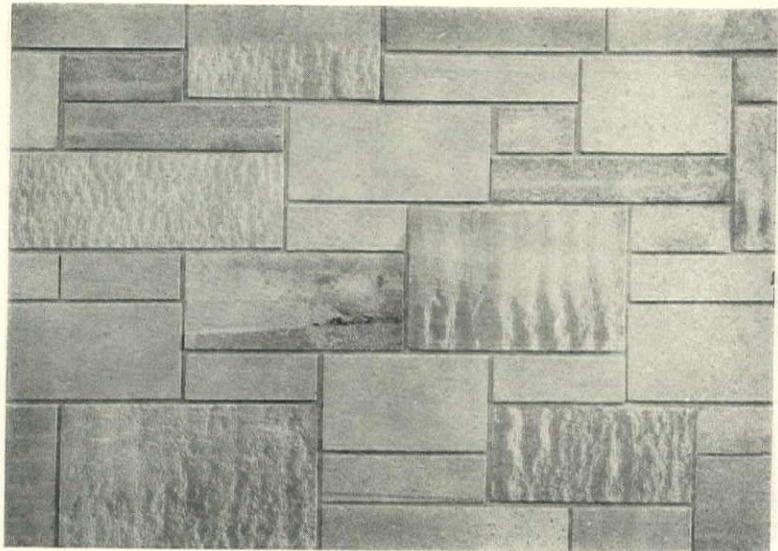
Regular ashlar, shot sawed finish



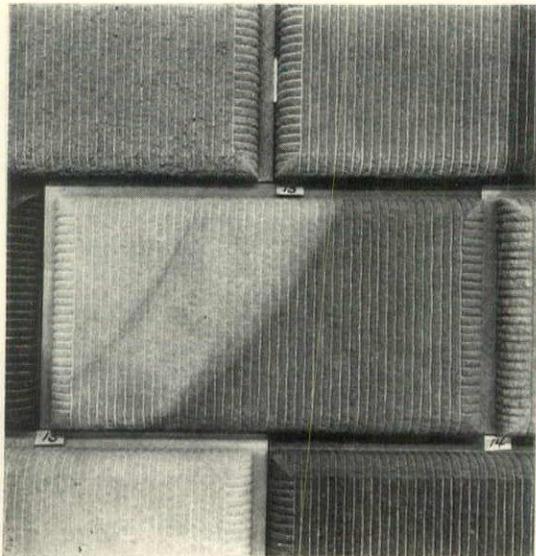
Three unit random ashlar, raked joints, planer ripped finish



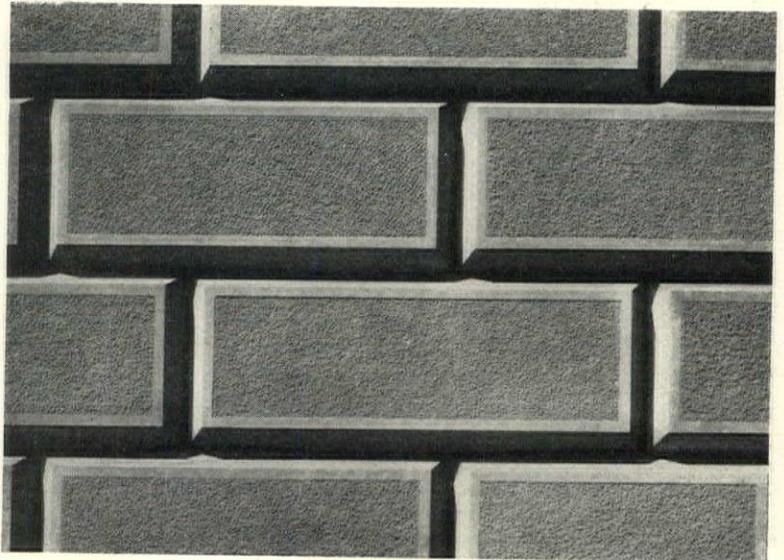
Diagonal and vertical tooling combined



Random ashlar, channeler cut face and sand sawed finish



Rusticated ashlar, face and edges broached finish

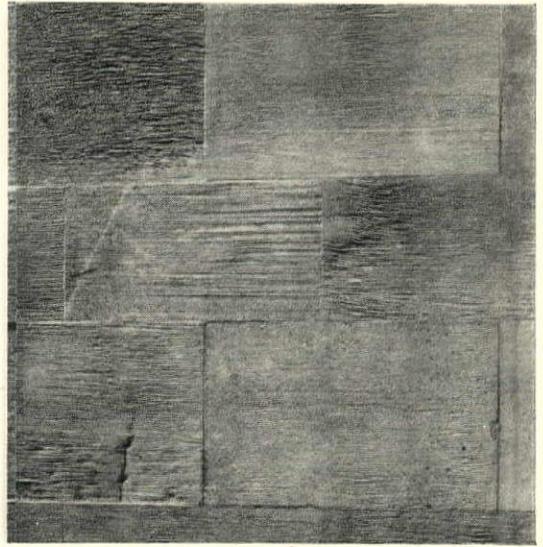


Rusticated ashlar, bush hammered with smooth margin finish

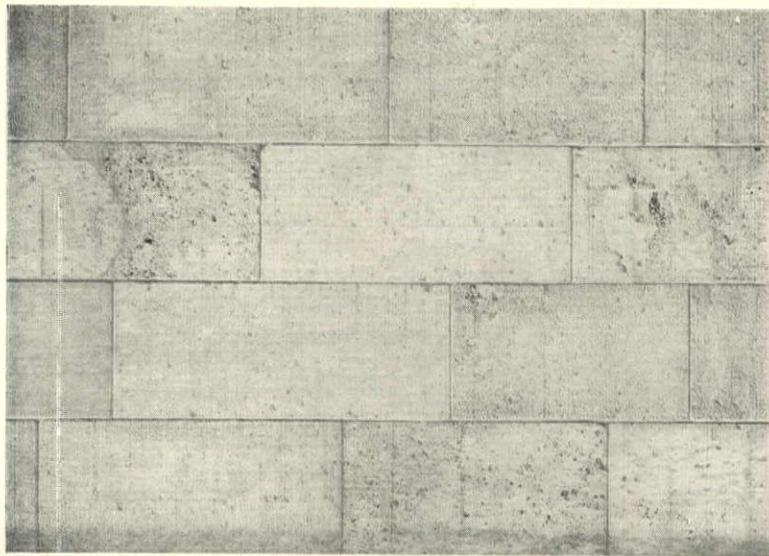
BONDS and FINISHES



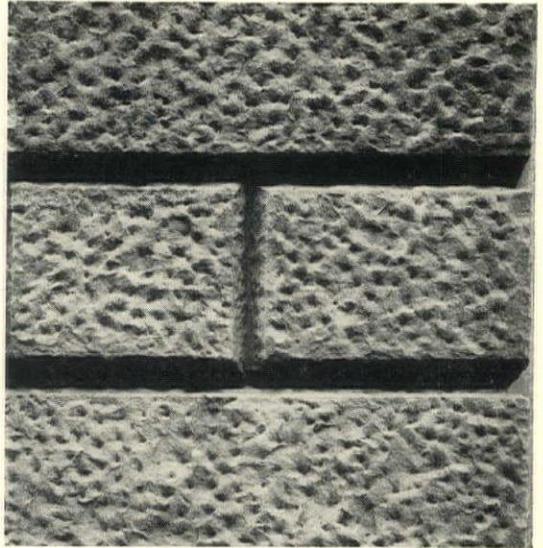
Bull nose rusticated ashlar, flush joints, fine pointed finish



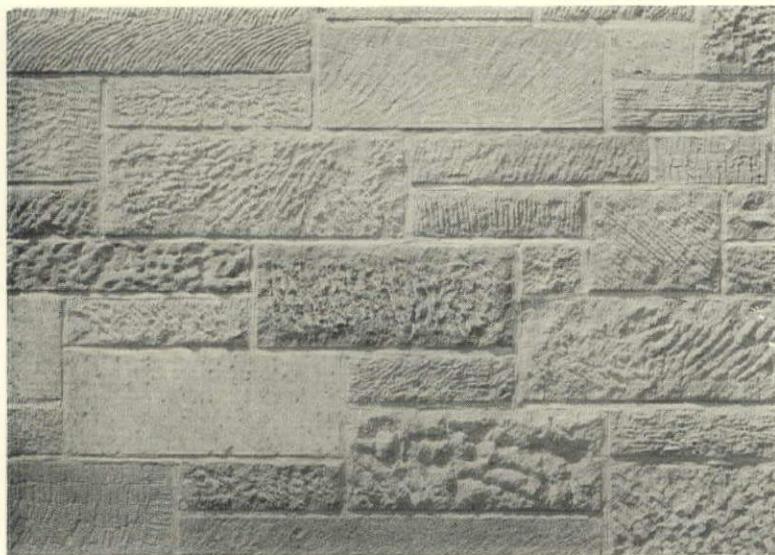
Regular ashlar, shot sawed finish



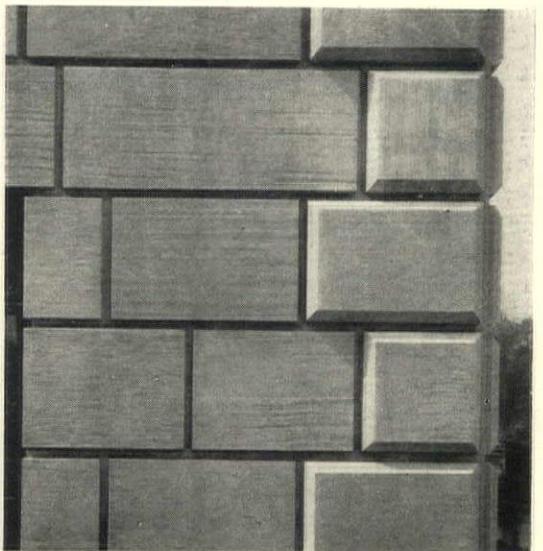
Course range ashlar, struck weathered joints, plucked planer finish



Rusticated ashlar, coarse pick pointed finish



Random ashlar, pointed, hand chiseled and channeler cut finishes



Rusticated ashlar, shot gang sawed finish

As It Looks

Greater Optimism for 1930 Building

"WILL 1930 be a good building year despite its gloomy beginning?" states the "New York American" editorially on April 22. "Already some of the most conservative economists estimate that the American people will expend in construction this year eleven thousand million dollars—one thousand million more than the same estimators predicted a month ago." The outlook generally seems to be gradually brightening and 1930 may yet prove to be a highly prosperous year.

Forecast Change in Modern Plan

DOES a proposed forty story building in Philadelphia forecast a change in modern planning? This building will have seven stories of garage space, fifteen stories of offices, a loft floor for building equipment, and fifteen floors of apartments. Here, in one building without necessity for commuting, a man can have his office and home. Even in the most severe winter weather he needs neither hat nor coat to pursue his ordinary activities.

The building of which Leroy B. Rothschild is the architect, will be located at Spruce and Fifteenth Streets. Its influence on other Philadelphia structures will be watched with the keenest interest, for here may be a tendency that will transform modern living conditions in our cities.

D. K. Boyd Made Master Craftsman

AT the fourth annual presentation of craftsmanship awards, held by the Philadelphia Building Congress on April seventh, D. Knickerbacker Boyd, President of the Congress for the past eight years, was himself the recipient of the citation of "Honorary Master Craftsman" by the Craftsmanship Award Committee of the Congress. In presenting the award John Irwin Bright, Chairman of the Committee on Awards said in part:

"It is given to the man who, almost alone, through years of discouragement, denied until lately the support of the very men and organizations who have most to gain by the fulfillment of the idea, has never faltered in his championship of the Philadelphia Building Congress. . . . It has just been said that eligibility for our award requires a steadfast character and the devotion of a whole working life to the principles of fine craftsmanship. There is no man of his generation, throughout the entire breadth of our land, to whom these high standards more fittingly apply."

This is not the first time that D. Knickerbacker Boyd has been honored in Philadelphia. Mr. Boyd may be numbered among the few who live to disprove the Biblical statement, "A prophet is not without honor but in his own country." There is always a note of sincerity in honoring the living. Too often honors are delayed too

long to reward those who contribute to the progress of the world—particularly in its building. This recent honor to a man who has unselfishly contributed much to the advancement of architecture in the United States can not fail to receive the approval of the entire profession.

Great Lakes A.I.A. Wants Advertising

SOME form of advertising the services which the architectural profession can render should be adopted by the American Institute of Architects. This is the opinion arrived at during the discussion of the question of advertising and publicity at the annual conference of the Great Lakes Division of the American Institute of Architects. It is an opinion which is particularly rife in the West and Middle West and which, well handled can do much not only to benefit the architectural profession but the general public as well.

England to Solve Building Problems

ENGLAND has already taken a distinct step towards the solution of building problems. The collection and dissemination of all information available regarding building materials and methods of construction is one of the primary objects of an intelligence service set up at the Building Research Station of the Department of Scientific and Industrial Research, Garston, North Watford, Herts., England. Architectural societies in the United States might well advocate a similar research and development idea under their collective direction.

Cleveland Informs Prospective Clients

THAT prospective builders of small houses shall be educated as to the meaning of an architect's services, and not afforded merely another place to buy stock plans, is the principle on which the Architects' Small House Bureau is being operated in Cleveland. This branch, opened the first of the year, is under the direct control of the Cleveland Chapter of the A. I. A. It is being conducted as a clinic where persons desiring houses under ten thousand dollars may secure expert advice on building problems. Fifteen of the best residential architects in Cleveland devote an hour each day at the office of the bureau to consult without charge with those who wish advice. Although no attempt is made to sell complete architectural service, yet every effort is made to cause the prospective builder to appreciate the value of supervision and competent advice and some of the inquirers have been so awakened to the value of architectural service that they have been directed to architects interested in this class of work.

The architect can never hope to compete with stock plans and contractor planned houses except through education of the general public. The public needs to be

to the Editors . . .

protected from itself. The Cleveland plan is accomplishing this, with the result that the city will generally enjoy a higher type of residence and become more beautiful.

Illinois Emphasizes Change in Practice "UNDER conditions which have existed for some years, an architect, in addition to being a designer and a business man, must be a financier and for the majority of projects must be able to secure the funds necessary to finance new construction." That is the editorial opinion expressed in the March issue of the Monthly Bulletin of the Illinois Society of Architects. It is an opinion held by many of the most successful architects. Unfortunately there are still many architects who deplore the necessity for mixing architecture and business. Yet,

with few exceptions, what building is erected out of sheer altruism? Certainly the New York Central Railroad did not put up its Park Avenue building in order to provide New York with a beautiful structure. Certainly Walter Chrysler is not spending several millions of dollars just to have an enjoyable apartment in the far flung stories of the world's highest structure. Certainly the "Daily News" in New York is not spending its millions just to provide a vehicle for Raymond Hood's ideas. Those architects who wish to remain Simon-pure artists will quite likely find themselves working for the business man with all the hampering of their self expression that such an association necessarily means.

Architectural Exhibition

THE practicability of holding architectural exhibitions in department stores has been demonstrated in Philadelphia, having a population of over two million persons and in Altoona, Pa., a city of about eighty thousand. Exhibitions of this order properly promoted are evidently a powerful factor in stimulating public interest in architecture. A group of carefully selected subjects properly designed as a traveling exhibition brings the idea within easy reach of every community. It requires only personal effort on the part of local architects to make it a successful means of placing architecture in the path of the "man-in-the-street." A good traveling exhibition is now touring the United States under the direction of the American Federation of Arts. It should be possible for a number of communities to arrange for an exhibition similar to that held in Altoona and with equal success. In the meantime it would be worth while for the American Institute of Architects to begin arranging for the formation of a similar exhibition that could start out on tour about the first of October. An exhibition of this type to be most effective must be especially designed to meet the varied interests of the people who will view it.

Death of H. J. Leffingwell

IT is with sorrow that the editors of THE AMERICAN ARCHITECT announce the death of Harry J. Leffingwell on May 4, 1930. Mr. Leffingwell had been associated with this magazine since his appointment in 1918 as advertising representative. The many warm friends made by him and the high esteem in which he was held was in no small measure responsible for his election as president and secretary of the Architectural and Building Press, Inc., publishers of THE AMERICAN ARCHITECT, upon its becoming a member of Trade Publications, Inc. His fine record and kindly spirit made the present publishers insist upon his remaining with the magazine as advertising manager upon its being acquired by International Publications, Inc.

Mr. Leffingwell had the uncommon ability of creating loyalty in those who worked with him and for him by virtue of his own unswerving loyalty to them. He was always a firm friend, with a good word for those with whom he came in contact. His success was never won at the expense of any co-worker, for it was characteristic of him to carry his associates forward with him rather than to advance at their expense.

He was born in Chicago, August 24, 1874, and was educated in the Chicago Public Schools. Before joining THE AMERICAN ARCHITECT, he had been with the Wells-Fargo Express Company, serving in practically every capacity from collector to superintendent of the Eastern-Central Division. There he was held in such esteem that the company insisted on regarding his resignation as a leave of absence so that he might return to the organization without loss of seniority should the publishing business not appeal to him. He is survived by his wife and three sons.

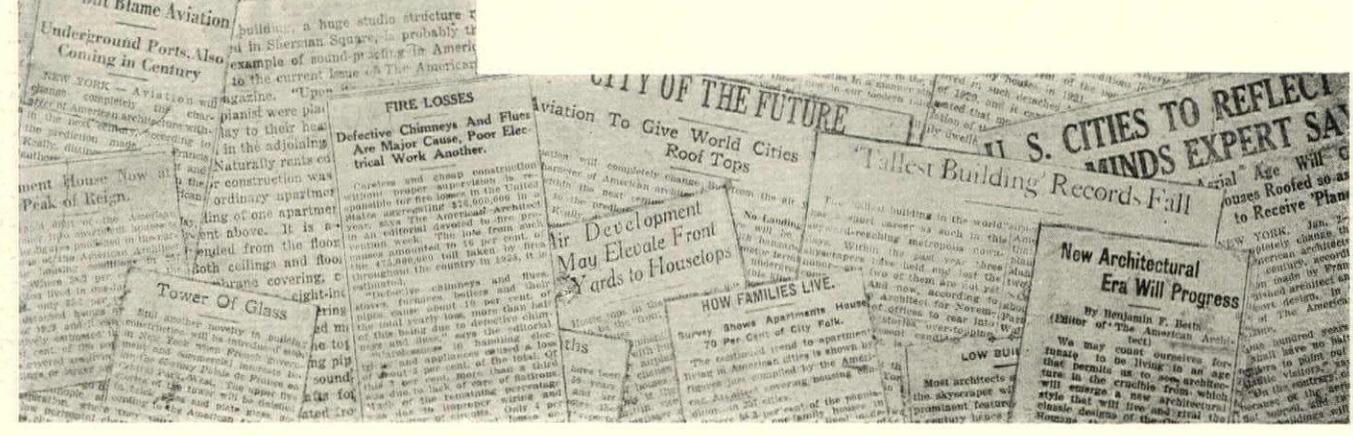
Tangible Evidence

"IF 10,000 Architects Went to Work," an editorial published in the April issue of THE AMERICAN ARCHITECT, inspired the architects of Altoona, Pa., to lend their personal effort to the bringing of an architectural exhibition to their city and making it a success. By the aid of the description of the joint exhibition of the Philadelphia Chapter of the American Institute of Architects and the T Square Club held in Wanamaker's store, Philadelphia, the support of local newspapers and civic organizations was obtained. This description, which indicated the essential procedure to be followed, was stated to be of invaluable assistance in making the Altoona exhibition a success. What the architects of a city of eighty thousand can do others can do as well—if they will go to work and make personal effort count.



NEWSPAPERS

WHEN THE AMERICAN ARCHITECT became a part of the International Magazine Company, an educational campaign reaching nearly 2000 newspapers was inaugurated by the publishers. This campaign has been in successful operation for eight months and is planned to continue for many years. It is based upon selling the value of good architecture to the man in the street, a thought which not only has strong news value but which is in full accord with the finest ethical traditions of the profession of architecture. And to sell the idea of good architecture, the public must be taught to think of good architecture, appreciate it, and realize the architect's part in producing it. The whole idea seems to be one to which newspaper editors





are Glad to Help

are prone to incline a sympathetic ear for hundreds of them are quoting THE AMERICAN ARCHITECT even to the point of making items in the campaign a matter of editorial comment. These editors, being an integral part of their respective communities, know the practical value of beautiful environment. They know that a beautiful city is a healthful city. That it turns transients into residents. That, measured by the cold, hard yardstick of dollars and cents, it has a practical cash value. And so, because of their pride in their city and their natural desire for its growth, they want to make it a beautiful city. Who can help them and their fellow citizens more than those men trained in the achievement of beauty—the architects of America?





Mayfair Lane...

A NEW IDEA in Community Planning

By EDWARD B. GREEN, Jr., A.I.A.

Edw. B. Green & Son—Albert Hart Hopkins, architects

MAYFAIR LANE, as the name implies, consists of a group of twenty small houses built to solve the perplexing problem of the man with a family, whose interests are centered in the downtown area of the city and whose tastes run to a New England cottage nestled in the hillside, which might normally be possible in the outskirts of the city or the remote suburbs.

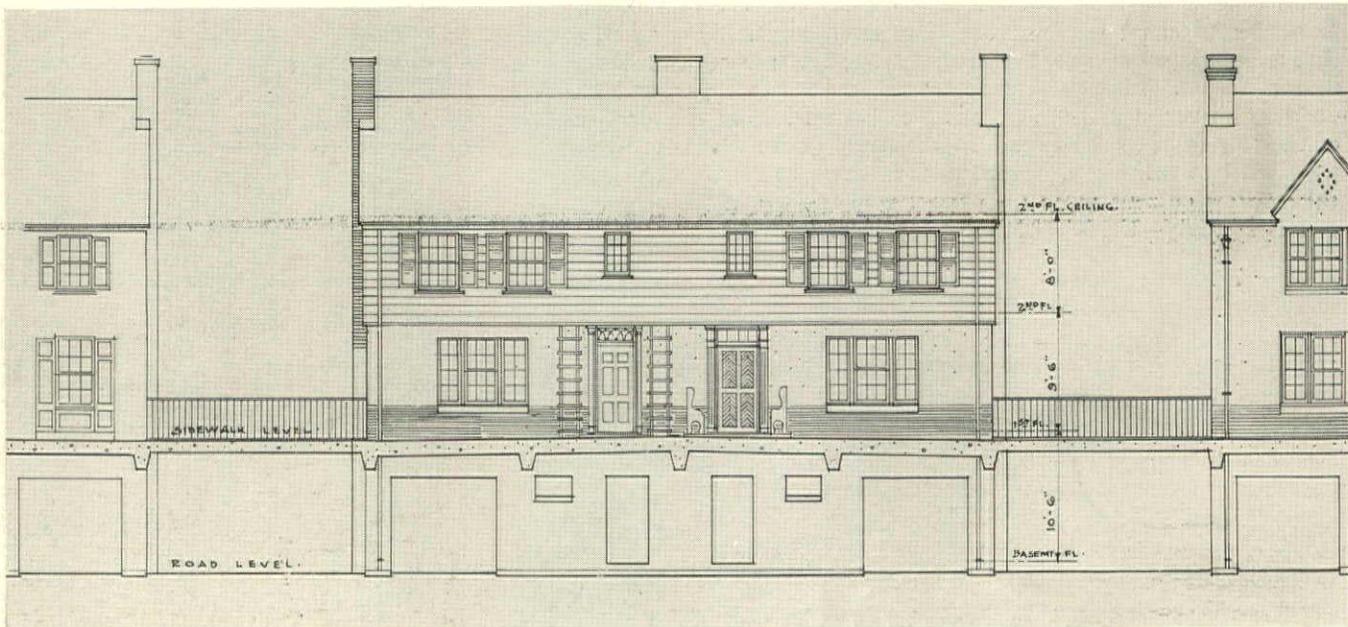
The environs of a large city, such as Buffalo, are delightful in summer season, but the rigorous winters of Northern latitudes tend to mitigate the enthusiasm of suburbanites. Modern apartments, with all modern conveniences, with nearby garages, provide the comforts, but Mayfair Lane provides all the advantages of modern apartments plus the individuality of a small house.

The site selected was in the heart of the fine old

residential district of the city, within five minutes drive of the theatres and clubs, which is gradually giving way to apartment houses and hotels. The property, located in the center of a block, has a frontage of 100 feet with a depth of 400 feet. This property is situated in one of the largest city blocks with beautiful trees and gardens and faces on one of the principal thoroughfares, providing an ideal setting for this project.

These houses are sold to the owner completely finished with all equipment such as linoleum, lighting fixtures, refrigeration, stoves, kitchen cabinets, bathroom fixtures, wall decorations, screens, the same as a completely finished apartment would be rented to a tenant. These houses, completely finished, sell for \$23,000, except the houses facing on the main thoroughfare, which sell for slightly more.

Realty values in this locality are rapidly appreciating



Different levels are provided for automobile and pedestrian traffic as shown by this section looking toward Group C



MAYFAIR LANE PROVIDES

1. Different levels for automobile and pedestrian travel.
2. Conveniences of the modern apartment house.
3. Twenty small houses costing about \$23,000 each.

and it is believed that in the development of this idea, the property has been utilized to its maximum economic advantage. It has made possible the development of small individual houses in a locality where land costs would otherwise have been prohibitive for this particular class of development.

Architecturally, Mayfair Lane recalls the quaint homes of old England. Examples have been chosen from several periods including the Elizabethan and the early Georgian with the result that, although no two of the houses are alike, the whole is marked by pleasing harmony of style. The picturesque has been given full sway, though in no instance has the style of architecture

been allowed to stand in the way of planning the most up-to-date conveniences of modern living.

One discovers that Mayfair Lane is delightfully similar, from an architectural standpoint, to the famous Pomander Walk of history. However, one of the interesting developments is the manner in which the automobile has been introduced to Pomander Walk.

The level of the terrace, eight feet above the street, is reached by means of picturesque flagstone steps sweeping up from two sides. The houses consist of three groups on the east and west sides of the terrace garden. The first group on either side comprises four private residences under one roof, then an open space followed



TYPICAL
LIVING ROOM
MAYFAIR LANE
HOUSE

Living rooms, designed for comfortable living, average 13 ft. x 18 ft. The exteriors of the houses in the different groups are varied in design but harmonious in character. They are in effect individual apartments

by two houses under a single roof, again an open space and finally another group of four. The terrace has a wide flagstone walk in the center with grass and shrubbery on each side.

One of the interesting features of this scheme is the street below the terrace. This is a street twenty-five feet wide, connecting with the city thoroughfare through an archway sixteen feet wide. On each side of this street there is a sidewalk. Each house has a service door opening on the sidewalk and under each house there is a garage, for one car, opening on the private street. This street has a clearance of nine feet and is two feet below the level of the main thoroughfare.

EACH owner has a deed to the land upon which his house stands, with 1/21 share in the lower level and terrace, which is devoted to lawns, and landscaping. The walks are cleaned, the grass cut and planting attended to by owners acting collectively as a group, and an office has been provided under the steps of the approach for a caretaker.

Thus the owner of a home on Mayfair Lane enjoys all the co-operative advantages of the tenants of an apartment building. In fact, the houses have been planned in the compact manner of the modern apartment, and have been equipped with the most up-to-date appointments and conveniences. On the other hand, it has been realized that many people are reluctant to surrender their own individuality and the sense of pleasure in owning their own home. Hence, an effort has been made to carry out the particular desires of each owner in regard to the finish and decorative character of the interior of his home.

The materials used on the exteriors were stucco and old common brick. The roofs are of slate and conform to the City Building Code governing the fire district. Considerable variation was adopted in the design of the facades of each house, both in the roof lines and materials used. This is especially true of the facades facing the garden. Each doorway has its own individuality both in material and color; some are trimmed with

stone and some with wood. The design of the fenestration was also varied. English domestic architecture, inspired by several periods was adopted as most suitable for the development but so blended and tied together by the roof lines of the different groups, as to make a harmonizing whole in its composition.

The superstructure of this street is constructed of steel and reinforced concrete. Supporting steel columns parallel the street, between the curb and the sidewalks. The girders supporting the terrace are cantilevered across the sidewalks and are independent of the construction of the houses. The garden above is built on this construction and is so designed that the planting area adjacent to the houses has a depth of three feet and a soil depth of one foot for the turf. A wide flagstone walk occupies the center of the upper street.

The upper terrace is just the width of the walks between the different groups of buildings, so that an abundance of light is admitted to the lower level and artificial light is necessary only at night. An interesting feature of the terrace lighting is the use of low pedestals of concrete adjacent to the side walk at each entrance, which diffuse a soft glow of light instead of a direct glare which higher standards sometimes produce. The terrace lighting is controlled by a time switch, which operates automatically.

THE drainage of the turf and gardens on the upper level is accomplished by weepholes at the low points which drain into metal gutters, suspended beneath the concrete slab, and are connected to the sewer by conductors in the usual manner.

Sewer, water and gas are brought in to the development below the lower street level as in city streets. The electric service is hung from the concrete slab of the terrace so as to be readily accessible.

Each kitchen is equipped with either a gas or electric range, depending upon the preference of the individual owner. A central chimney is provided between each two houses for an incinerator and kitchen vent flue. Each kitchen is equipped with an electric refrigerator. The

heating boiler in each house is fired by gas. The boiler is located in the laundry.

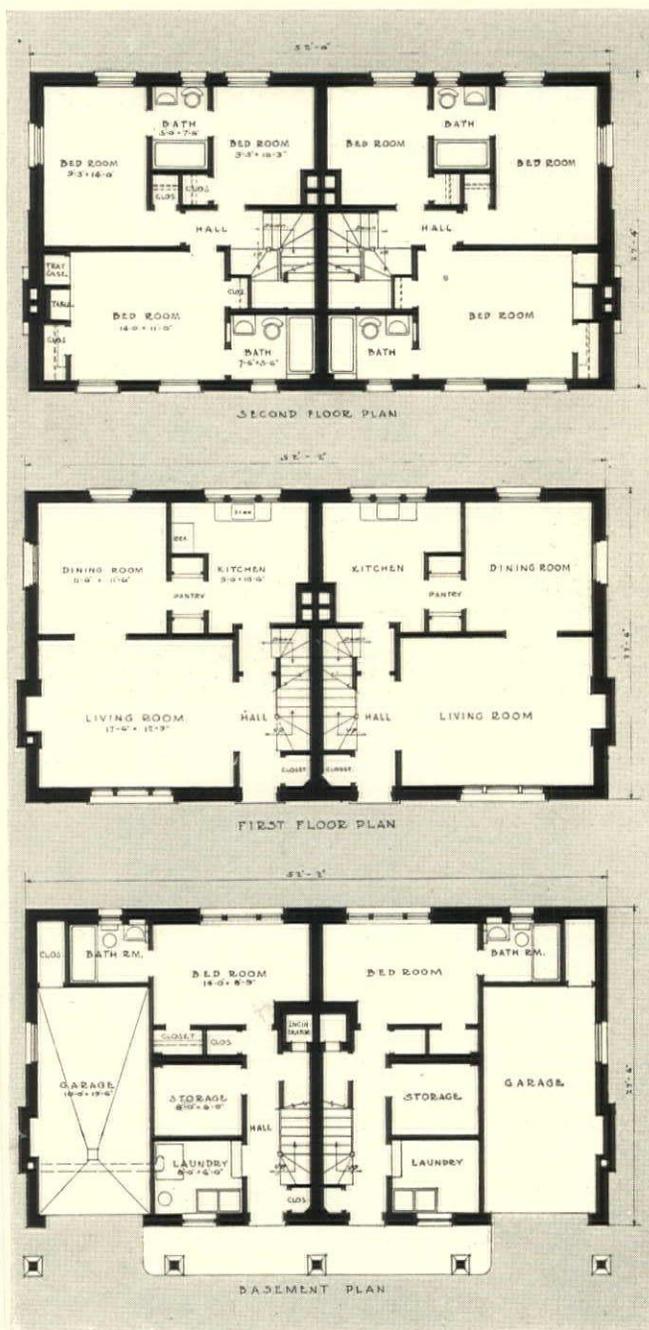
The basement or ground floor of each house is entirely above grade and as a result can be readily used for living rooms. This floor, in addition to the garage, laundry-heater room, and storeroom, provides for a maid's room and bath. This plan not only provides a basement of maximum usable area but affords a saving in construction cost through the elimination of a considerable amount of excavation.

In the execution of this project, in which economy required the standardization of construction, it is worthy of notice that in the architectural treatment as a whole the monotony and commonplace usually found in connection with standardized construction has been eliminated to an unusual degree.

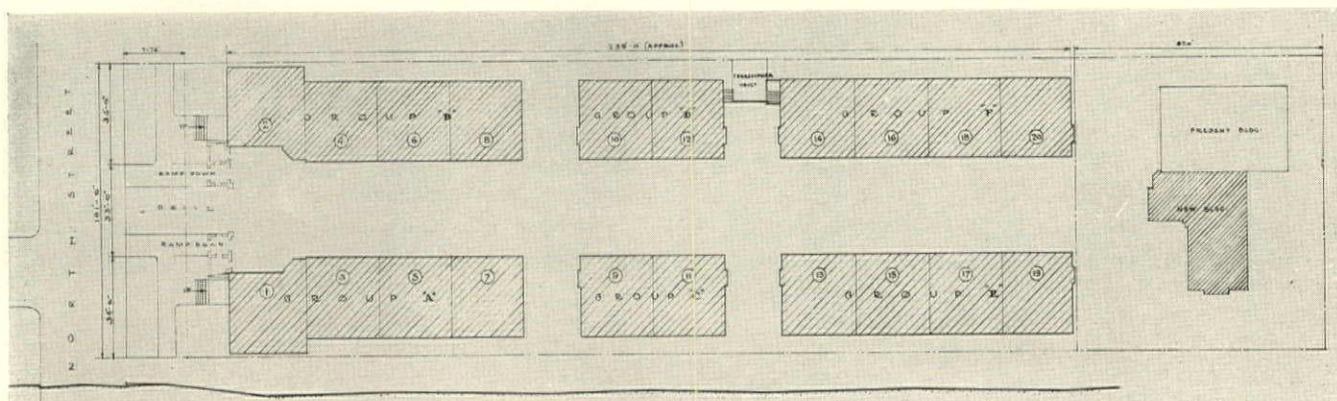
THE old adage holds true that there is nothing new in architecture, yet it would appear that this particular combination of architectural elements has not been developed in this particular combination before and it is interesting to surmise how this particular nucleus can be developed into a larger and more comprehensive scheme, using the same principles as a foundation.

The construction above the street has demonstrated that considerable annoyance and disturbance resulting from driving and parking automobiles in the street has been eliminated. Certainly it is preferable to look upon a small garden free from the noise and fumes of motor traffic, which is recognized by many authorities as detrimental to general health. Who can say that this development may not be the forerunner of an intensive development of this scheme for a general motor traffic level with pedestrian streets above for safety, thus retaining the benefits of restful and healthful conditions of living on the one hand and maintaining the advantages of isolated lanes for motor traffic on the other.

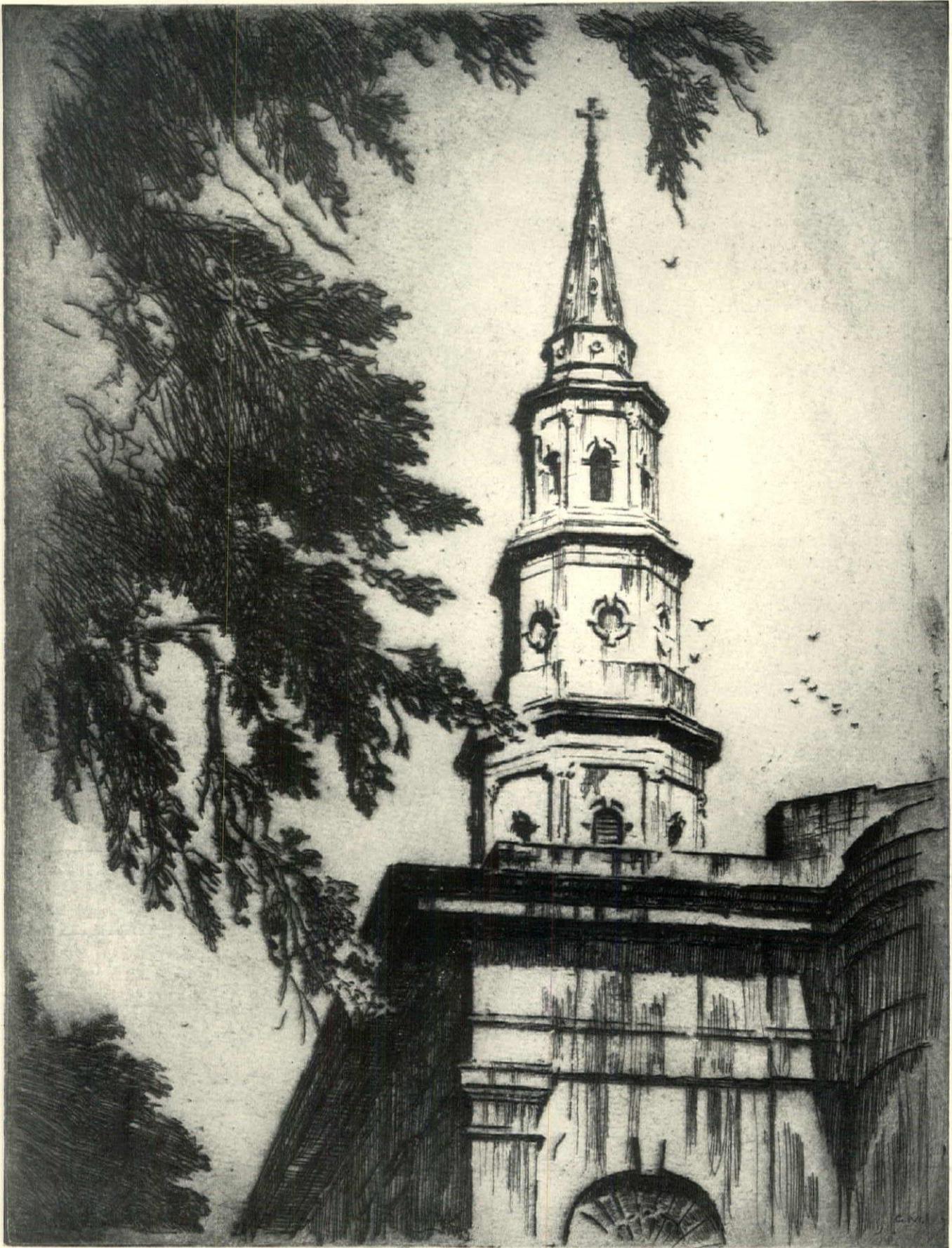
Mayfair Lane offers what is possibly the first two-level street in a group development, an idea that has been frequently discussed but probably never before actually applied. The two-level street, particularly in small suburban communities, is a safe means of separating pedestrian and automobile traffic. It can not help but appeal to families with children, for even in the smallest community the chance for injury is ever on the increase with the mounting number of automobiles being sold. Communities throughout the country would do well to study the Mayfair Lane solution.



FLOOR PLANS of houses 9 and 11 of Group C. All houses are approximately the same size but are varied in treatment to produce a pleasing, harmonious architectural entity



Plot plan of Mayfair Lane, Buffalo, N. Y. Edw. B. Green & Son—Albert Hart Hopkins, architects



Spire of St. Philip's Church, Charleston, South Carolina
Etching by Christopher Murphy, Jr., Brooklyn, N. Y.



The Edge of Antibes, Etching by Arthur W. Hall

Courtesy of Goodspeed's Book Shop

SKETCHES



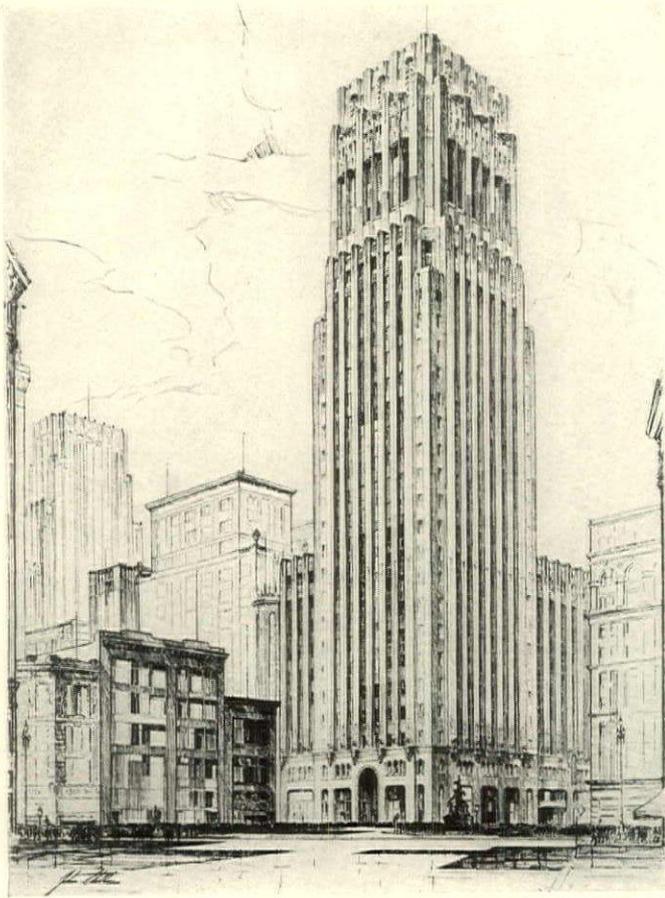
Old Houses
Petersham

Pencil Drawing

By Burton F. Lamfrom

Boston

WHAT ARCHITECTS



Rendering by John Stoll of the recently completed twenty-nine story Shell Building, San Francisco. Spandrels are of colored concrete. Four stories are devoted to garage space. George Kelham, architect

THE Hudson River Bridge, with a span of 3,500 feet between towers, is twice as long as the next longest span in the world," according to Charles N. Fitts, president of the American Institute of Steel Construction. "The main span of the Liberty Bridge, designed to cross the Narrows at the entrance of New York Harbor, will be 1,000 feet long, and the bridge to be built over the Golden Gate at San Francisco will be 1,500 feet longer in its main span. Their towers will be higher than the Woolworth Building. These gigantic bridges were not dreamed of before the World War."

SEARS, ROEBUCK & CO., which describes itself as "the world's largest builders of fine homes," now lends seventy-five per cent of the total value of the house and lot, payable \$8.56 per month per thousand dollars for 14 years, 8 months. So far, the company has sold 50,000 houses, chiefly of the ready-made variety.

FIRE prevention work in Grand Rapids, Mich., has lowered the per capita loss of \$7.78 in 1923 to \$1.01 in 1929. The main feature of the work was through the inauguration of a plan conceived by Assistant Fire Chief Higgins, the organization of the city into twelve fire districts, each district being subdivided into individual blocks. A boy scout was assigned to every block and went on a tour of inspection accompanied by a fireman. Special hazards or bad condi-

Grand Rapids Fire Loss Cut From
\$7.78 to \$1.01

Welding Permitted in 105 Cities

Athletic Stadiums Designed for Night Use

tions are reported by the boy scout and the fireman makes follow-up inspections to correct the hazards. When blocks are interested in the work, special meetings are called at which city officials and firemen explain fire prevention work and the value of cooperation. Records of each block are kept for comparison.

HOUSE buyers have become much wiser during the past two or three years, according to A. W. Hicks, president of the Hicks Lumber Co., who says: "Educational talks delivered at public forums, stressing points of construction and types of materials in the advertising and direct-by-mail literature of leading builders and suppliers, and the personal experience which present and prospective home owners have had with inferior grades of building materials, have all contributed to make the public 'building wise.' Further, the average blueprint is no longer a maze of misunderstood lines and figures."

THE draft of a uniform lien act has been arrived at after five years' work by the lien act committee appointed in 1924 by Herbert Hoover. The approval of the Conference of Commissioners on Uniform Laws is now necessary before presentation to the various state legislatures. Representatives of various groups in the building industry cooperated to work out a proposed law fair to all parties concerned.

SEATS for operators of passenger elevators are required by the Sargent bill, which has recently passed the New York State Assembly. This bill adds a new section to the Health Law, giving the Health Commissioner authority to order the installation of seats in all elevators except those in factory buildings.

ONE out of every four bills introduced in the New York State Legislature concerns real estate, according to reports. Many of them concern taxation and lend weight to the fact that organizations interested in building should have representation to watch proposed legislation.

THAT athletic stadiums may be designed for night use as well as for day use is forecast by the fact that when the Syracuse-Hobart football game was played in Syracuse at night 25,000 instead of the usual 4,000 attended. The increased receipts paid for the costs of illuminating installation twice over.

WELDED building construction is permitted in 105 cities, according to a survey conducted by the Westinghouse Mfg. Co. About seventy structures in fifty cities are electric welded.

ARE TALKING ABOUT

New York Code Increases Steel Unit Stress
to 18,000 lbs

Draft of Uniform Lien Act Complete

Colored Concrete for New Orleans Road

THE American Rolling Mill Co., in a recent broadcast over Station WLW, Cleveland, said, with reference to the architect: "Shall we ask the architect for his help? He knows the difference in the life of old-fashioned iron sheets and ordinary steel. He studies them; finds out which ones are best to help us defeat rust. You know, we don't always appreciate how valuable an architect's service can be. In fact, to his creative genius and painstaking supervision we owe the towering skylines of our great cities, as well as the comfort of our homes. His contribution to the cultural development of man is hard to describe and difficult to estimate. Time was when the architect's services were limited to the monumental works of government, art and science. But today the influence of the architect and his handiwork has extended to commerce, industry and the home."

COLORED concrete has made its appearance in road building. A sixty foot strip of concrete, rose in color, has been laid along the center of Canal Street, New Orleans.

THE new West Side Y. M. C. A. building at 5 West 63rd Street, New York, is said to be the largest institutional building of its kind ever erected. Dwight James Baum is the architect.

OFFICERS of the Concrete Reinforcing Steel Institute, Chicago, were elected at the sixth annual meeting in Augusta, Ga., as follows: C. Louis Meyer, president of the Concrete Engineering Company, as president; O. W. Irwin, vice president of the Truscon Steel Company, vice president; Hugh J. Baker, president of the Hugh J. Baker Company, treasurer, and W. H. Pouch, president of the Concrete Steel Company, was re-elected as a director to serve three years. E. B. Wilkinson, president of the Wilson-Weesner-Wilkinson Company, Nashville, was elected to represent the South as a director for three years. M. A. Beeman, of Chicago, was re-elected secretary for his sixth consecutive year. R. W.

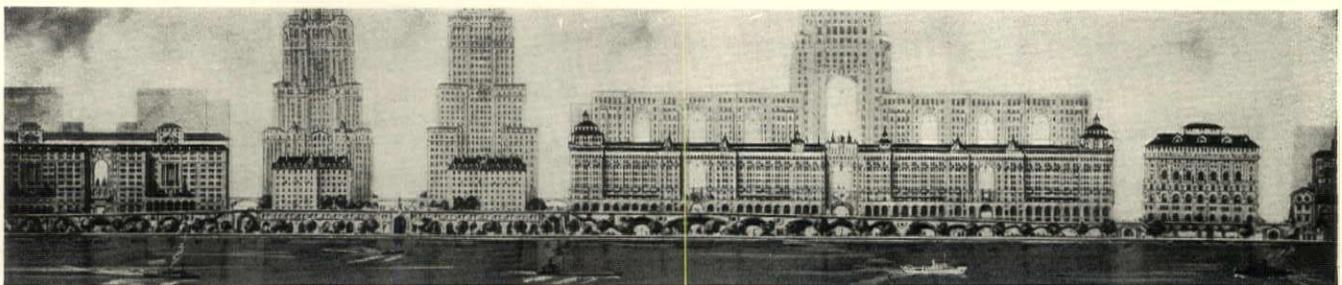


Sketch of the proposed State Capitol of Louisiana, to be erected at Baton Rouge. Estimated cost, \$2,000,000. Weiss, Dreyfous & Sciferth, Inc., architects

Johnson was re-appointed as engineer of the Institute, while J. P. Thompson will continue as district engineer for the eastern territory and Arthur Burnie will continue as district engineer for the Kansas City territory.

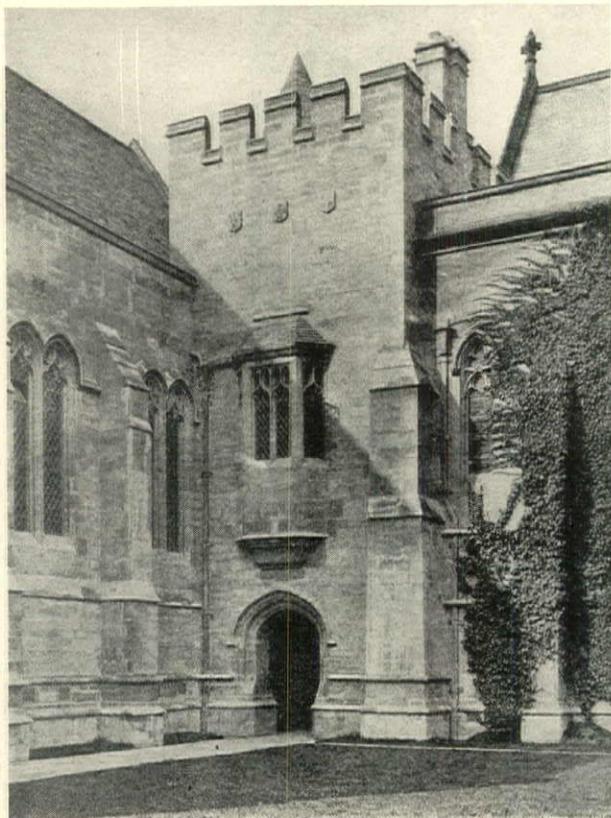
KNOTS in lumber do not seriously affect the stiffness of long timber columns, according to tests on 12" x 12" structural timbers twenty-four feet long made at the Forest Products Laboratory.

THAT part of the suggested changes of the New York Building Code affecting the use of iron and steel has been made effective as an amendment to the present code. The unit stress has been increased to 18,000 lbs.; alloy steels are allowed; there is recognition of the strength added to beams by stone concrete incasement. (Con't. on page 94)

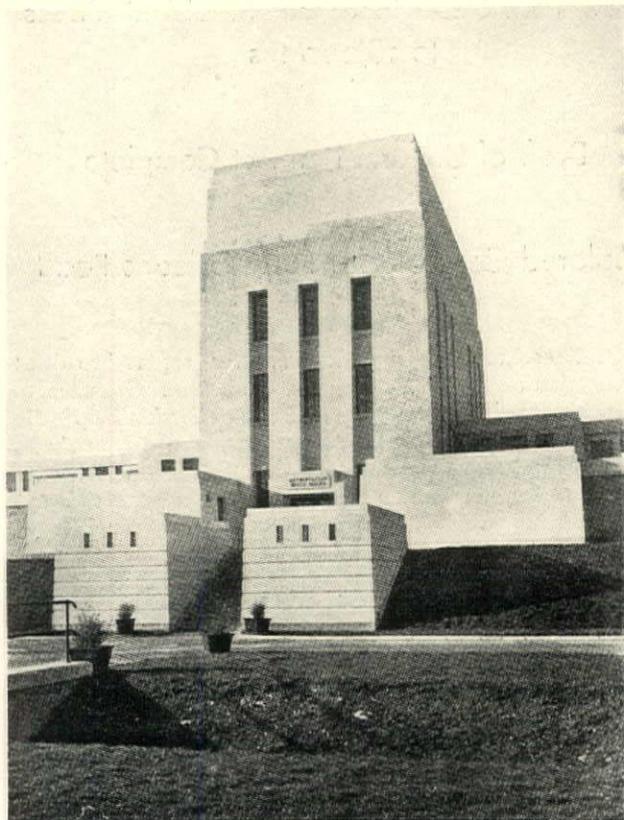


Suggested East River waterfront development, Fortieth to Forty-eighth street, New York City, according to the Regional Plan of New York. Francis S. Swales, consulting architect

...and ABROAD



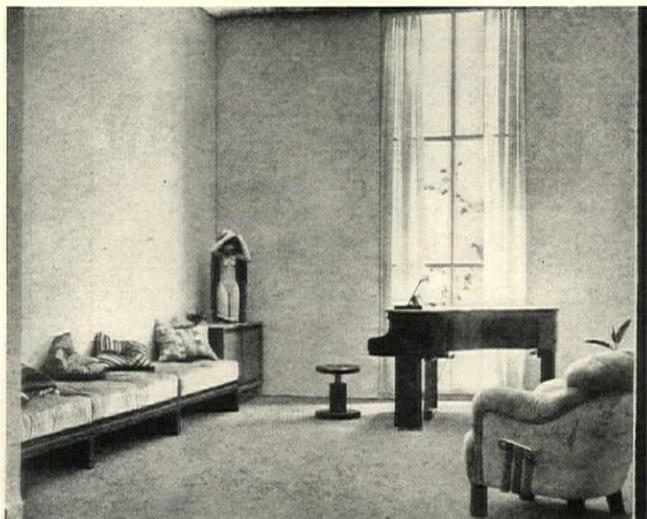
Arlosh Hall, Manchester College, Oxford. Designed by Percy Scott Worthington, architect and recipient of the gold medal of 1930 of the Royal Institute of British Architects. From the "Journal of the R. I. B. A.," of April 12, 1930



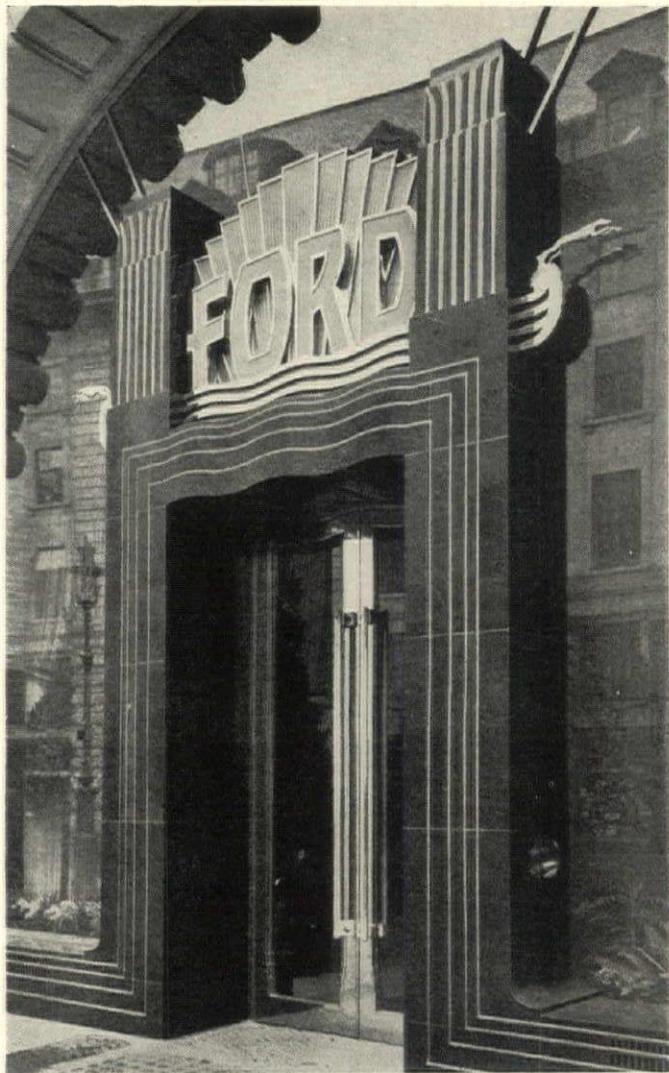
Filtration plant of the Metropolitan Water Board, Kempton, England. An example of harmonious collaboration between architect and engineer. Designed under the direction of H. E. Stilgoe, chief engineer. "The Architect & Building News," Feb. 21



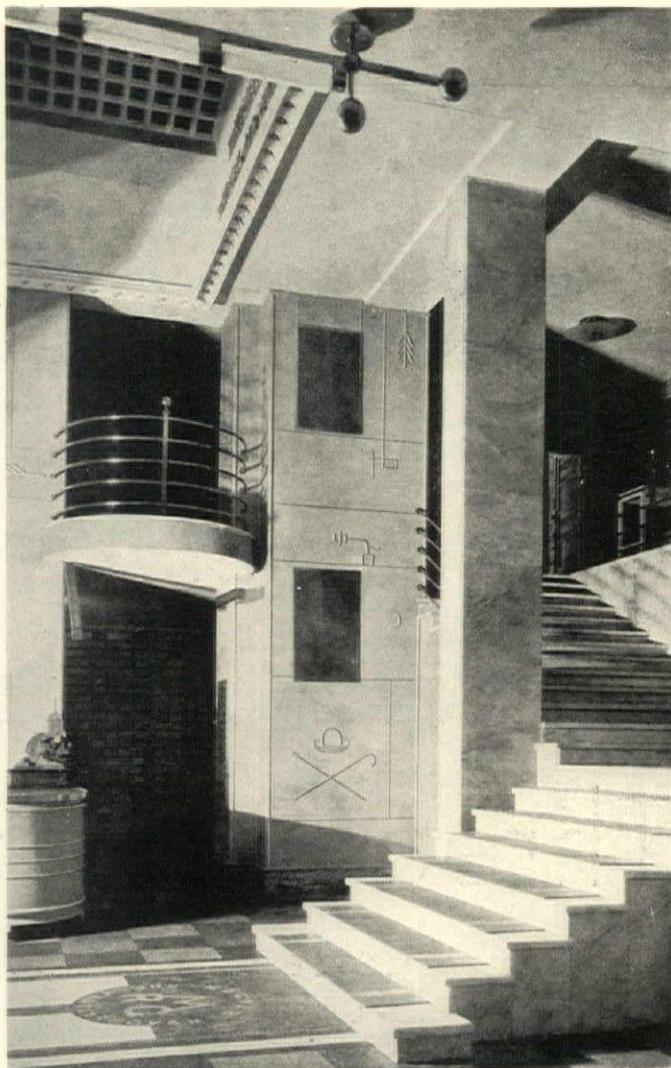
All Saints' Church, East Sheen, Surrey, England. Newberry and Fowler, architects. Lancet windows of brick without tracery are unusual features. From "The Architects' Journal," March 19, 1930



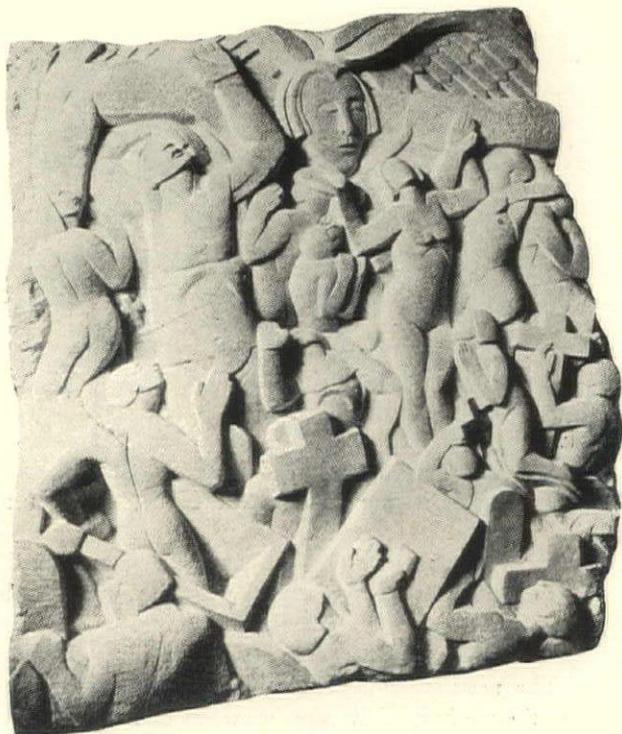
Music room designed by Bernhard Pfau, Dusseldorf. Walls are covered with raw silk, floors with blue green velvet, and furniture with neutral plush. From "Moderne Bauformen," March, 1930



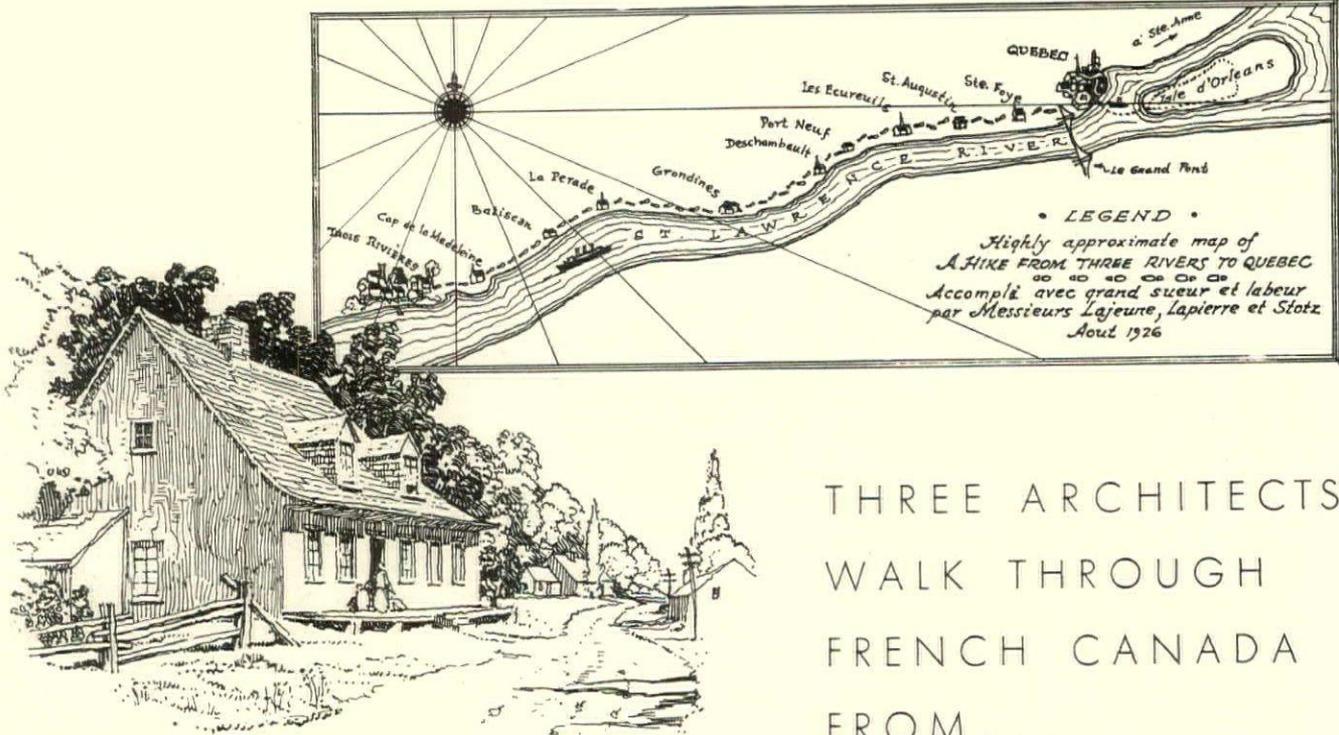
Entrance motif of the Ford Building, Regent Street, London. Chas. Heathcote & Sons, architects. From "The Architect & Building News," April 11



Stairway of rose-colored marble. Department store, "M.D.C.S.," Budapest. Ludwig Kozma, architect. From "Moderne Bauformen," April, 1930



"The Creation," above, and "The Resurrection," at the left, are two of Bainbridge Copnall's recent sculptures. Mr. Copnall is a native of Cape Town, South Africa, and studied at the Royal Academy Schools. While he paints portraits, his real vocation is carving stone at Slinfold, Sussex. From "The Architectural Review," February, 1930



THREE ARCHITECTS
WALK THROUGH
FRENCH CANADA
FROM

Three Rivers to Quebec

By CHARLES MORSE STOTZ, A.I.A.
Director and Past President, Pittsburgh Architectural Club

THE motives of visitors from "the States" are apt to be misunderstood by our Canadian neighbors. During our brief stop in Montreal while en route to Three Rivers, we asked the jovial gentleman at the Information Booth, who spoke French a little better than English, if he would watch our knapsacks while we went out to buy some "slickers." Upon reclaiming our things he expressed the hope that we had gotten our "liquor" successfully.

We might have told him that we had come to his country not primarily to get a "kick" out of his liquor but to see at first hand and intimately the landscape, architecture and people in that remarkable district settled and still completely occupied by his French comrades. French-Canadian is the proper word, but though they are loyal Canadians, the marks of their ancestry are more strongly imprinted on them and on the numerous works of their hands.

Our more or less haphazard decision was to choose the section between Three Rivers and Quebec for our walk. And to this purpose, with a hasty glance at the French section in Montreal, we arrived after a short ride in Three Rivers. We noticed that the station sign had it "Trois Rivieres—Three Rivers." And so it was with all public signs from this point onward; such as, "Ecole—School," "Traverse de Chemin de Fer—Railway Crossing." In the course of our walk we stayed in houses where English had never been used. A glance at the names of the towns between Three Rivers and Quebec will indicate the completeness of the French

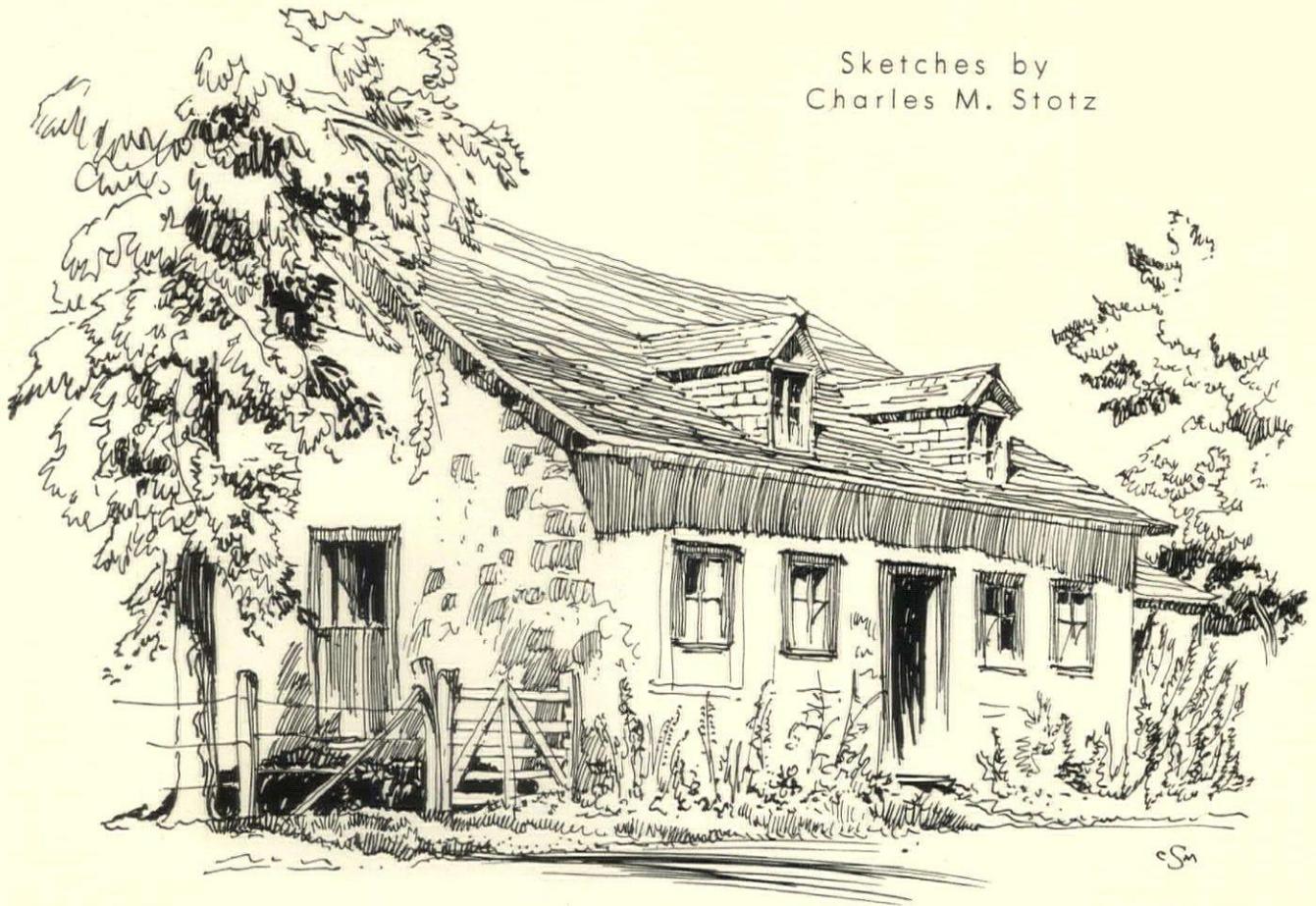


Eighty-four miles to Quebec—Messrs. Stotz, Young and Stone out of step and on their way

influence: Cap de la Madeleine, Batiscan, LaPerade, Grondines, Deschambault, Port Neuf, Cap Sante, Les Ecoureils, Neuville, St. Augustin, Ste. Foye. These villages are from five to seven miles apart and really represent the points where the houses occur sufficiently close together to be called a town. The impression is that of one long town from Three Rivers to Quebec.

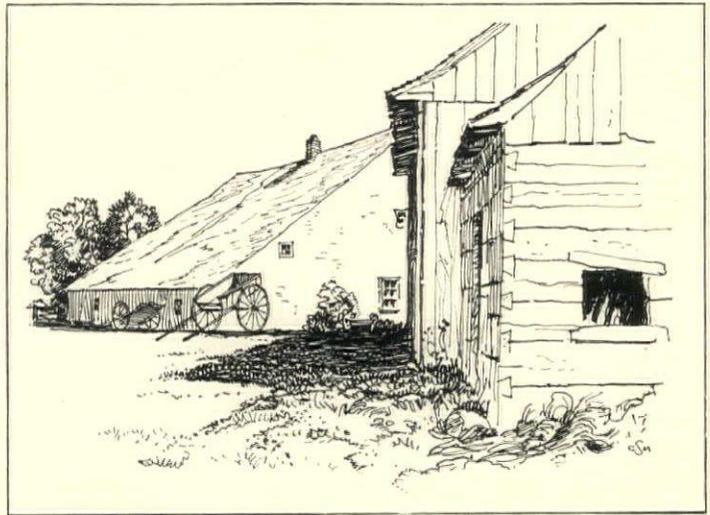
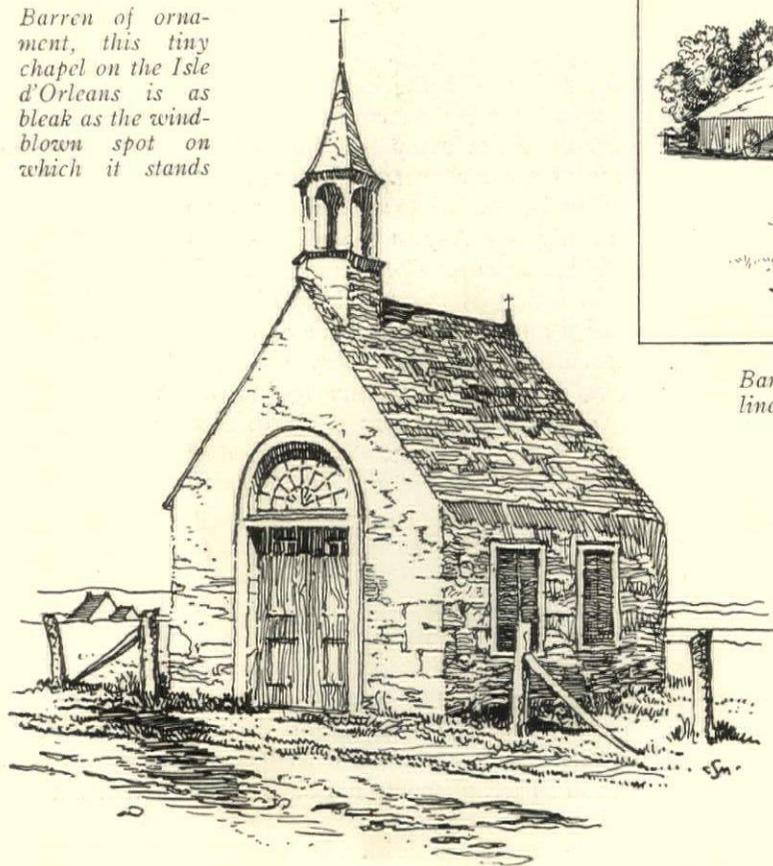
The peculiar topography of the St. Lawrence valley and the method of division between farms are responsible

Sketches by
Charles M. Stotz

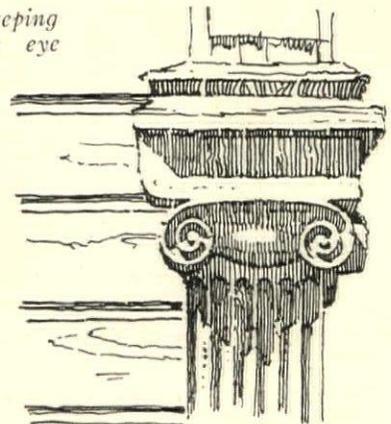


The west wall is usually built of stone to face the prevailing wind

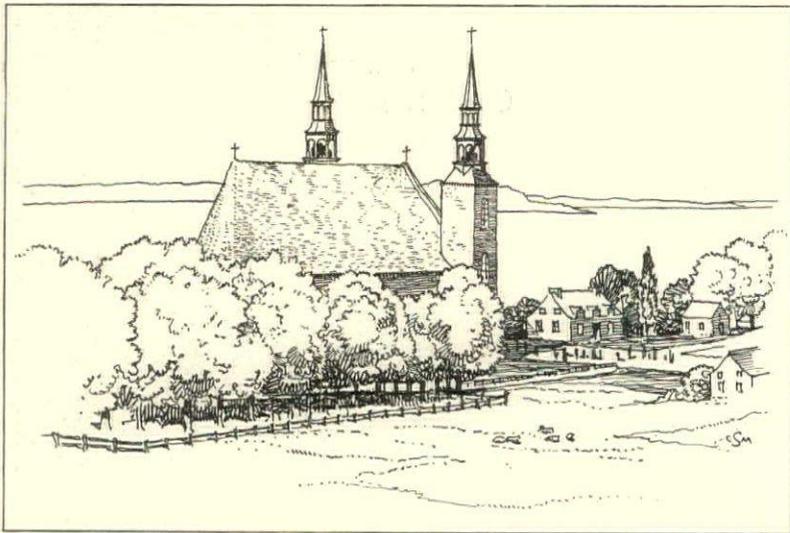
Barren of ornament, this tiny chapel on the Isle d'Orleans is as bleak as the wind-blown spot on which it stands



Barns whose sweeping lines delight the eye

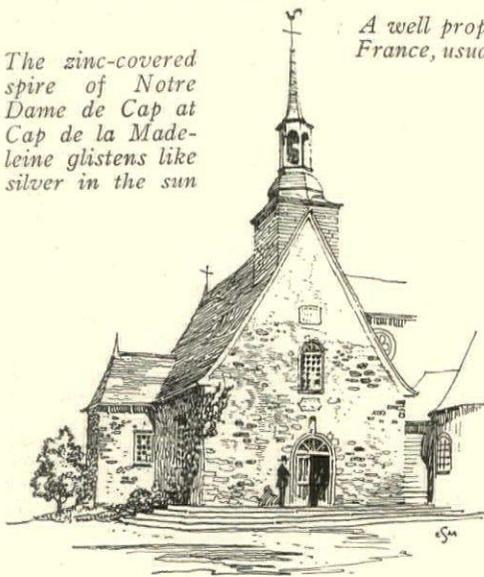


Native craftsmen drew freely on classic precedent



A well proportioned church, as in France, usually dominates the town

The zinc-covered spire of Notre Dame de Cap de la Madeleine glistens like silver in the sun

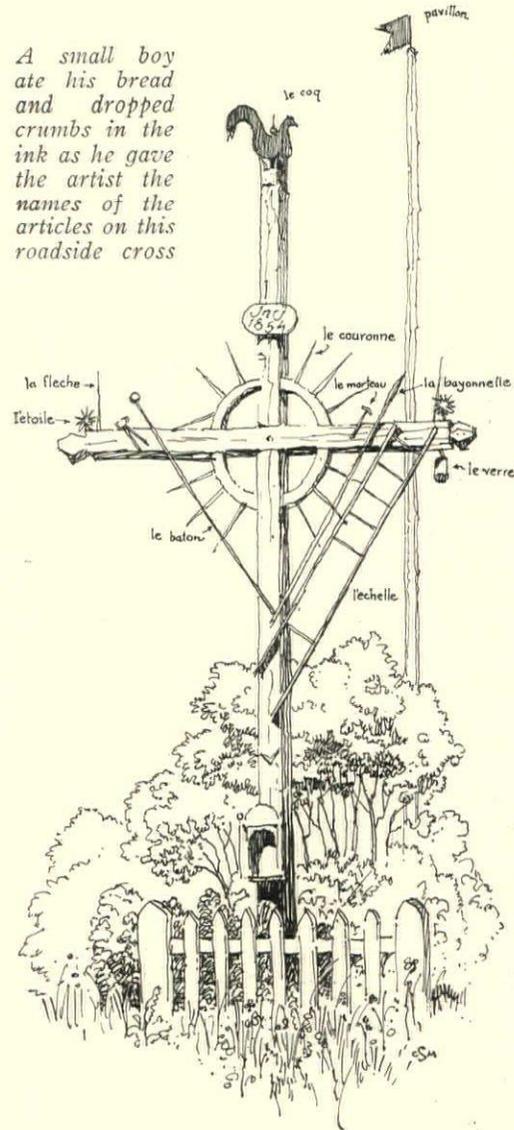


ARCHITECTS who plan to spend the summer going places and doing things are invited to send the editors of THE AMERICAN ARCHITECT a record of their jaunts with a view toward developing an article similar to that by Mr. Stotz

for much of the charm of the landscape. The vast river dominates the view and is always within sight from the road. The farms run at right angles to the river and road. I have been told that their property lines are laid out on the latitudes, (that is, the fences, if sufficiently extended, would all meet in a point at the North Pole). In dividing a farm among the heirs, with the idea of retaining for each access to both the road and the river, the ribbons of farm land are further decreased in width. I suppose they will not get any narrower than the width of two plough furrows so that a farmer having gone as far North as possible will have something to do on the way back. The effect of these thin strips differing in texture and color makes a very decorative pattern on the landscape. At no point did we find this more effective than standing on the Isle d'Orleans looking towards the North Shore. The South shore is rather hilly all the way to Quebec, but the North side is quite flat until, about half the distance from Three Rivers, at Grondines the low rolling hills come down from the North and gradually increase in height to the high bluff on which Quebec is built.

We found Three Rivers a large, modernized town with one of the most attractive railway terminals we had ever seen. Well planned and detailed, it contained some very beautifully executed mural paintings. We

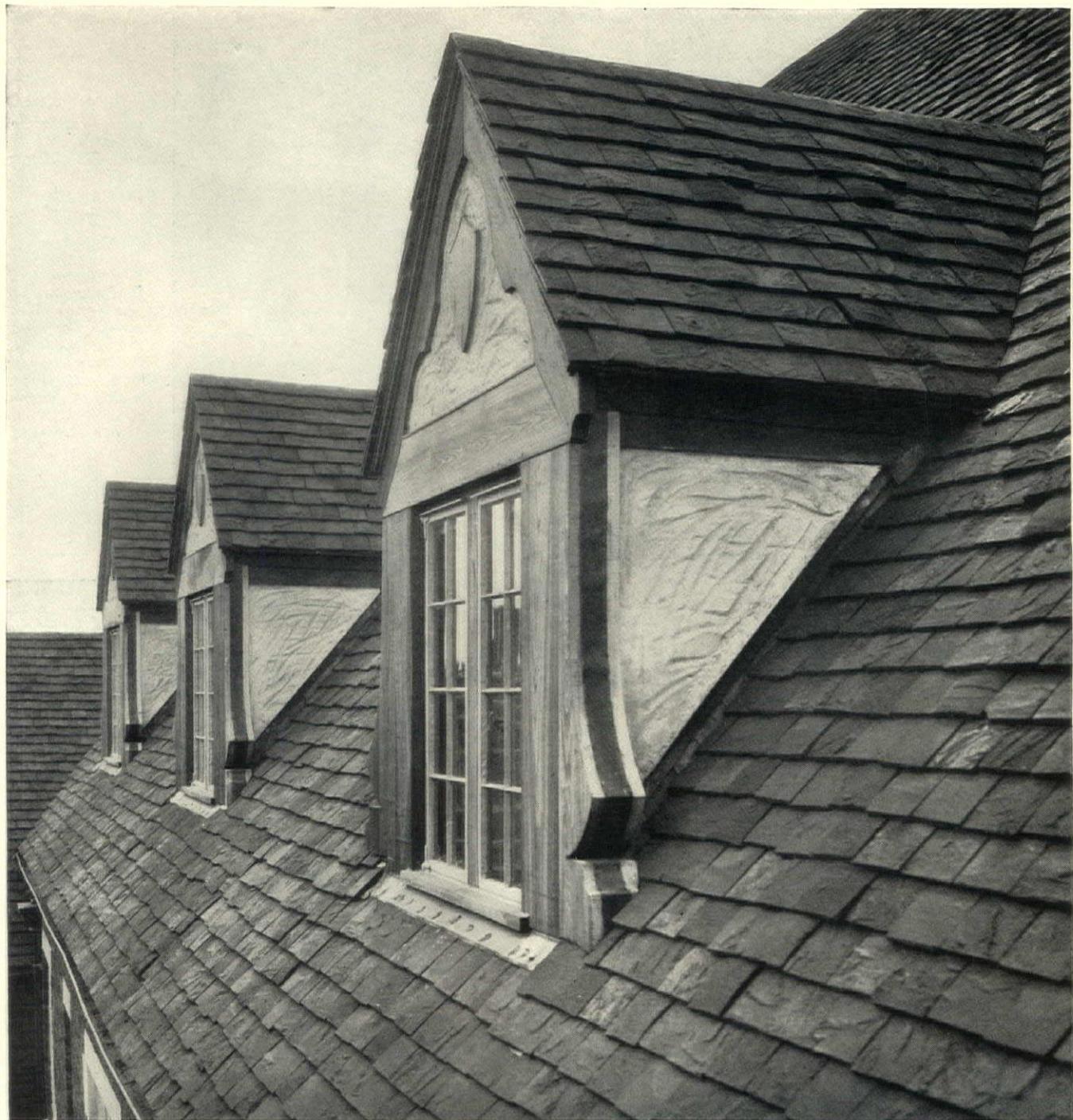
A small boy ate his bread and dropped crumbs in the ink as he gave the artist the names of the articles on this roadside cross



learned that with the industry created by the War the town had steadily grown and was still expanding. However, there are many buildings of the older days and some of great charm. We were anxious to get on the road and gave the town only a short examination.

Finally one August morning we gave our feet their first big surprise. The two other enthusiasts who joined me in facing 84 miles of hard highway to Quebec once faced me from the other side of the professor's desk at Cornell. Now it was every man for himself. Their names accommodated themselves to the French manners of the country and changed from Stone and Young to Lapierre and Lejeune. You can't do that to Stotz.

The first little settlement, Cap de la Madeleine, contained a very excellent old church, Notre Dame de Cap. It agreed in most of its features with those we were to see later, with its simple plan and roof, bell tower, capped with a zinc covered spire which glistens like silver in the sun. There was seldom any exterior ornament but always good proportion. The windows were invariably casements and had extra storm windows on the outside. The town was frequently dominated by the church, just as in France, and the church was evidently large enough to accommodate not only the townfolk but also a certain population from the outlying districts. The Sunday services which we (Continued on page 98)



● "Modern skill," says *House & Garden*, "has supplied admirable substitutes for old English tiles, mellow hued in soft, rich reds and russet browns. There is now tile as crude and rough in appearance as the hand-made product of Elizabethan days." The writer very probably was referring to *IMPERIAL* Antique Shingle Tiles, whose uneven surfaces are splendidly illustrated by the photograph above. In color they closely resemble century-weathered tiles.

L U D W I C I - C E L A D O N C O M P A N Y

Makers of IMPERIAL Roofing Tiles

NEW YORK: 565 FIFTH AVENUE

104 S. MICHIGAN AVENUE, CHICAGO

WASHINGTON: 738 FIFTEENTH ST., N. W.

FOR JUNE 1930

65



Part of exhibit, showing work of Atlee B. & Robert M. Ayres, which was awarded the grand prize

Below, another part of exhibit, showing work of Adams & Adams; Phelps & Dewees; Herbert S. Green; Ralph Cameron, and Richard Vander Straten

8,000 visit first TEXAS EXHIBITION



SAN ANTONIO members of the West Texas Chapter of the A. I. A. report excellent results from their architectural exhibition, the first of its kind to be held in the State of Texas. Between six and eight thousand people attended the opening program and the exposition, which was held on the mezzanine floor of the Municipal Auditorium. Local artists, at the invitation of the Chapter members, put on an exhibit of their work at the same time, but in another room of the building. Invitations were sent to local schools, clubs and organizations.

The exposition was opened on Sunday, March 30, and continued until the following Sunday. In order to interest the general public, an opening program was held with no admission fee being charged. The entertainment features included a Mexican orchestra, Spanish singers and dancers, and an organ recital. Of considerable educational value was a showing of the film, "The City of Washington." The program was opened by an address by Walter T. Rolfe, A. I. A., of the Department of Agriculture, University of Texas.

At the conclusion of the program, Professor Ernest Langford, A. I. A., of the Department of Architecture, A. & M. College, announced the awards given to those

exhibiting. There were eight classes of award, with first, second and third prizes in each class, in addition to a grand prize won by Atlee B. & Robert M. Ayres. Silver loving cups were given as first prizes.

The jury of award consisted of Professors Goldwin Goldsmith and Walter T. Rolfe, of the Architectural Department of the University of Texas, and Professors Ernest Langford and Sam Vosper of the Architectural Department of A. & M. College.

The exhibition, conducted by Atlee B. Ayres, chairman; Harvey P. Smith and George Willis, was so well attended that it is planned to make it an annual affair.

OPENING PROGRAM INCLUDED:

- Address by Professor W. T. Rolfe, A.I.A., of the Architectural Department of the University of Texas.
- Showing of the film, "The City of Washington," picturing the development of the National Capital.
- Organ recital and entertainment.
- Announcement of awards to those exhibiting.

STRUCTURAL STEEL CREATED THE SKYSCRAPER IS THE SKYSCRAPER A MENACE?

THE SKYSCRAPER—a study of its economic height—by W. C. Clark and J. L. Kingston. 164 interesting pages of facts, charts, tables and drawings. *Published by the American Institute of Steel Construction, New York. \$2.*

Is THE skyscraper an economic fallacy? A fire hazard? An assault on public health and safety? Shall it rise still higher or be banished from the face of the earth?

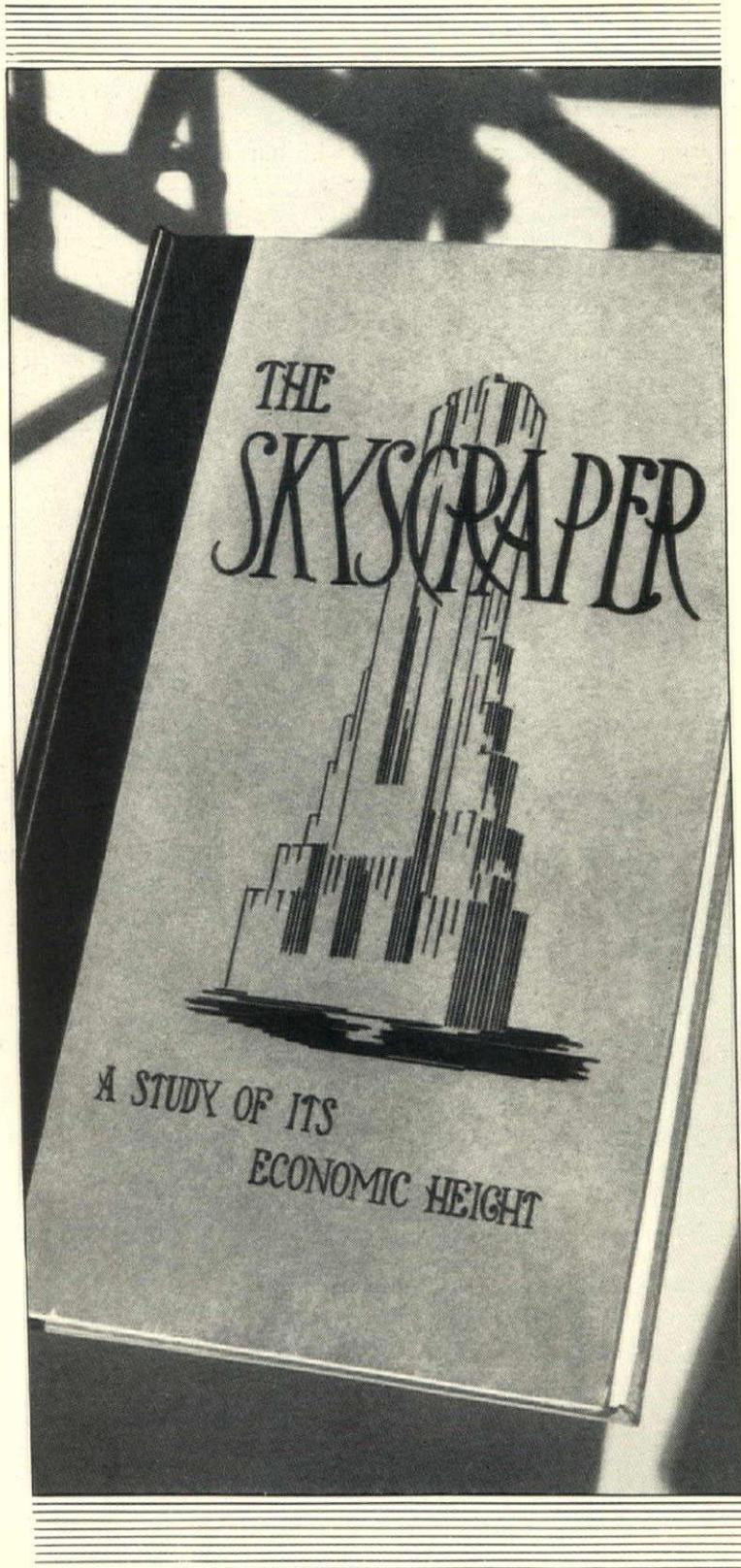
Into the raging controversy comes this clear, calm brief for the skyscraper. While admitting that the extremists are not all on one side, the authors recognize in the attacks of many *antis* "the eternal prejudice against 'the new' . . . which less than a century ago caused German doctors to protest against a railroad on the ground of danger to the health not only of those who dared to ride on it, but also of those unfortunate citizens who could hardly escape injury to health from observing the trains racing along at 20 miles an hour."

Which side of the question are you on—and how far? Here's red meat for the *antis* as well as the *pros* and information so authoritative and comprehensive that no steel man, no architect, builder, executive or metropolitan realtor can afford to be without it.

Send check to the New York Office for your copy before edition is exhausted.



The co-operative non-profit service organization of the structural steel industry of North America. Through its extensive test and research program, the Institute aims to establish the full facts regarding steel in relation to every type of construction. The Institute's many publications, covering every phase of steel construction, are available on request. Please address all inquiries to 200 Madison Avenue, New York City. District offices in New York, Worcester, Philadelphia, Birmingham, Cleveland, Chicago, Milwaukee, St. Louis, Topeka, Dallas and San Francisco.



AMERICAN INSTITUTE OF STEEL CONSTRUCTION

STEEL INSURES STRENGTH AND SECURITY

THE READERS Have a Word to Say

• TENNESSEE CHAPTER TO ADVERTISE

Editor, THE AMERICAN ARCHITECT:

IN your April number I have read with much interest "What 44 A. I. A. Chapters Are Doing to Sell the Man in the Street." I especially noted that you listed the Tennessee Chapter as one of the many Institute Chapters that neither sponsor nor employ paid advertising as a medium for this work.

For your further information, I feel that you will be interested to hear that the Publicity Committee of the Tennessee Chapter met at Knoxville March 1 to take definite steps toward formulating plans for conducting a publicity program for Tennessee that would specifically bring architecture and the architect's service before the people. The committee was composed of M. H. Furbringer, Memphis, whom every architect in the South looks to as the one that successfully promoted the recent Southern Architectural and Industrial Arts Exposition; Donald W. Southgate, Nashville; Benjamin F. McMurry, Knoxville; B. F. Hunt, Chattanooga; Walk C. Jones, Memphis; E. R. Denmark, Editor Southern Architect and Building News, Atlanta; W. A. Rutherford, Jr., Knoxville, Secretary to the Committee; and A. B. Baumann, Jr., Knoxville, President of the Tennessee Chapter.

The committee definitely decided to immediately plan a publicity program that will cover a period of several years, and which will be directed by an experienced advertising agency. In fact, the Gottschaldt-Humphrey Agency of Atlanta was tentatively selected to formulate definite plans and to handle the campaign under the advisory direction of Mr. E. R. Denmark.

The Tennessee Chapter's Publicity Committee considered immediate publicity action of vital importance for the good of architecture in Tennessee and the South, regardless of what action might be taken by the Institute or other Chapters. Action in this matter was decided upon after giving due thought and careful consideration to the relatively small circulation of all national mediums in Tennessee and the Southern States, which means that to accomplish our purpose we must employ a localized medium of advertising that will directly reach the people with whom we come in contact. The committee also deemed it advisable to start this campaign at once in order that their concerted action might serve as a stimulant in creating similar campaigns by other Southern Chapters, which should materially assist in promoting an increased building activity. In that the committee considered themselves as architects and not advertising experts, they therefore considered it good business to place such a campaign in the hands of an agency experienced in this particular field of endeavor.

The committee budgeted a minimum sum of \$10,000 for the first year's program which is being raised by

subscription from the architects of the State. In fact over one-tenth of this amount has already been subscribed by the committee alone, which leads us to believe that the entire amount can and will be subscribed immediately for this work through the splendid effort of Mr. Furbringer and his committee.

We realize, of course, that \$10,000 is a very small sum with which to launch this very important work however we expect to continually work until our program is successfully carried out and to increase the amount of our subscriptions from year to year.—A. B. Baumann, Jr., President, Tennessee Chapter, American Institute of Architects.

• MR. SMYTH HAS A JUST COMPLAINT

Editor, THE AMERICAN ARCHITECT:

PERMIT us to take this opportunity to congratulate you on the very decided improvement that has taken place of late in the editorial matter and general get-up of THE AMERICAN ARCHITECT, and now that there is a publication that has the courage not only to stand up for the members of the architectural profession but at times to advise them where they are in error, would it be out of place to ask you to write some editorials on ethics, touching on the points that the architect's main idea in writing specifications should not be simply to protect himself or themselves and their clients.

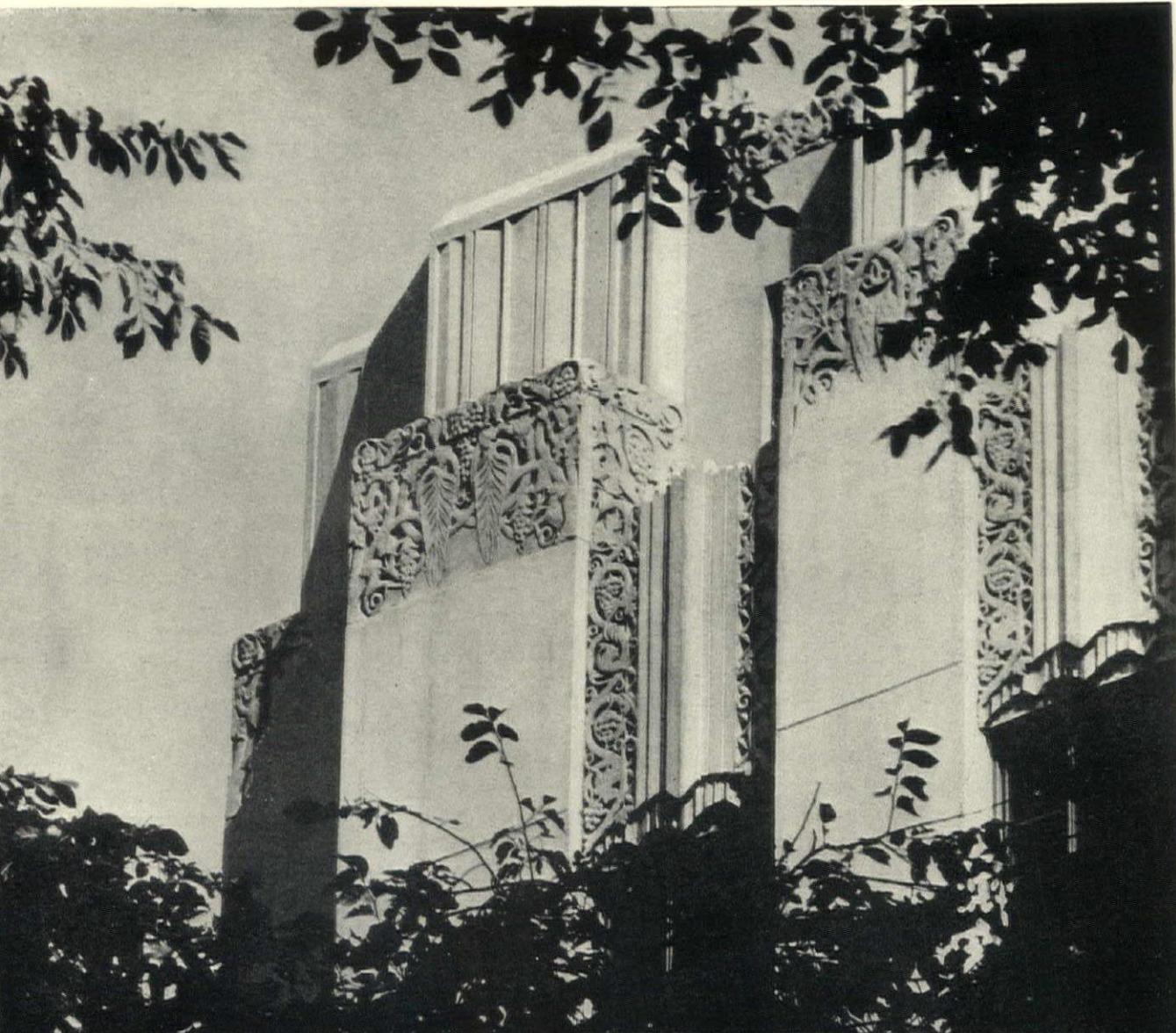
Since the depression in building construction has set in, we note that a number of architects are calling in their specifications for unfair guarantees. Just this morning we received a copy of specifications, which we are using to illustrate our point.

These specifications call for the installation of a Plastic Magnesia Composition Flooring in a building to be constructed at Albuquerque, New Mexico, and the guarantee section reads as follows:

"The contractor will be required to furnish at the time of signing contract, a two-year written agreement, which will cover all expenses for repairs of all defects arising from settlement, cracking, shipping, hollowness and discoloration, loosening from concrete, imperfect work of material of all composition floors, including from time that final certificate is issued."

Now every member of the architectural profession knows that flooring is not supposed to hold up a building. Why, therefore, should this industry be held responsible for cracks due to settlement cracks or for construction settlement of any kind, shape, or description, or for defects in the concrete slab?

We, of course, make careful inspection of the under-floors before making installation of our material, but all that we can do is to satisfy ourselves that it looks OK. We could not tell whether the concrete mix is right or wrong, unless we had a man on the job supervising the



Dedicated to coming generations

Telephone companies have to be far-sighted. Their completely equipped buildings must serve coming generations, and be a source of pride to the community. So the Syracuse headquarters building of the New York Telephone Company, designed by Voorhees, Gmelin and Walker, Architects, of New York City, was built of reinforced concrete throughout. As pictured above, the beautiful exterior is of cast stone in which the richness of hand-tooling is combined with the speed and economy of reproduction from models. This practical and fire-safe structure will endure long past the time when its capacity and facilities are adequate for the growing city it serves.

— [Informative booklets on concrete construction gladly mailed on request] —

PORTLAND CEMENT *Association*

Concrete for permanence and firesafety

CHICAGO

The READERS have a Word to Sa

mixing and pouring of the concrete, and this Mr. Architect's superintendent is supposed to supervise.

On all installations made by us we guarantee our material and our workmanship. Our material is a standardized product, and if the architect has any doubt about the standardization of Plastic Magnesia Flooring on his various jobs, it is a very simple matter to have the material tested by an outside laboratory test.

Insofar as we are concerned we would not give any such guarantee as is requested in this particular specification, and the only firms who would give any such guarantee are those of little or no financial standing, or those who once having received their money would not carry out their guarantee.

The writer has claimed for many years past that the architectural publications of the United States have never had the courage to preach that the architect in his specifications has a duty not only to his clients, to himself, but also to the contractors, whether general contractor or sub-contractor, and in writing specifications such as we are illustrating in this letter, they are preventing their clients receiving bids from reputable firms.

We might state that of late we have come across instances where architects, in their specifications, have called for guarantees covering all kinds of trouble in flooring—whether due to the flooring or to the construction of the building. Especially is this so where an industry has not a national association, and unfortunately for our industry, we have not any such organization.—*W. R. Smyth, President, Franklin R. Muller, Inc., Waukegan, Ill.*

P. S. Since dictating the above, we are in receipt of an extract of the specifications prepared by _____, covering the asphaltic tiles for the _____. In these specifications the architect calls for a ten-year certificate of guarantee covering material and workmanship. There is subject matter in this specification for a satirical editorial. You know, and we know, that these long term guarantees issued by certain types of firms are worded by their legal advisers in such a manner that the guarantee does not mean anything.

• WHAT A CRITIC THINKS OF FRANCIS KEALLY'S IDEAS

Editor's Note: This letter refers to the three pages of ideas illustrated by Francis Keally and published in the March issue of THE AMERICAN ARCHITECT under the title, "Well, Why Not?"

Editor, THE AMERICAN ARCHITECT:

WHY not, indeed? Francis Keally has set me thinking so actively that I have improved upon some of his ideas—and stumbled over a few obstacles to the success of others. Here they are in order:

1. Let's add variety to the door-knob-key-hole group—locating knob in center of circle of seven key holes—one for each night in the week, with Saturday on top. This arrangement will not only be more pleasing in design, but will have practical advantage as well:

(a) Householder will be trained to find key-holes in unexpected places.

(b) Burglars will become confused and go elsewhere with their skeleton keys.

2. Tri-partite bath rooms, with separate sub-divisions for men, women and children (remember, mates, women and children first!) is a grand idea, but when I came to apply it to layout of floor plan for an apartment house I am designing for the Carl Schurz district, I found I took up so much exterior wall space, I had to leave out the living rooms. It might be worked in better if you became aquatic-minded and replaced living rooms with swimming pools, which do not ordinarily have outside light (except at the Harvard Club, as tenants of the Berkeley Arcade have learned to their amusement).

3. "More Corner Windows" is another innovation tried to introduce in the Carl Schurz apartment. Two apartments with corner rooms shoulder-to-shoulder and O. K.—however, when a third apartment tries to crowd in between the other two, as Mr. Keally indicates by the number "2" on his sketch, it becomes, of necessity, a one-room affair, which, as Phidias would have remarked, "is not so hot." (Moonlight perspective of outside of building is fine—so why worry after all about the inside arrangements.)

4. To quote from Mr. Keally: "Should we not consider in our architectural expression, the life that is going on in the various floors, which is horizontal in character?" Certainly not, sir! I can only hope that the night view of the ice cream sandwich building is not intended to represent an apartment house—and that the horizontal life to which he refers is purely commercial.

5. "Apartments that Divide like Office Space," will still keep alive, remind me of the tenacious earth worms—and are about as palatable to the practical mind. Unfortunately the apartment renting public has very little versatility of taste.

If we could only get some couples to adapt themselves to a foyer-library-living-room suite and others to a kitchen-dining-room-maid's-room combination, the problem of sub-dividing old-fashioned multi-roomed apartments to suit modern small families would be greatly simplified.

6. Now, as to the shape of elevator cars. I'll say design "A" is "occasional." To the best of my recollection it was last used in the central shaft of the pyramid of Cheops. The oblong car, design "C," with the gate across the long side will undoubtedly be adopted by every architect who reads Mr. Keally's article and who, in planning buildings, is happily not burdened with the problem of ratio of rentable area to gross.

7. To save the space thus wasted, it is suggested that two elevator cars be installed in the same shaft. Fair enough—if the building is tall enough to give the first car a decent start. Anyway the Otis Company has been working on this idea for some years—page them.

8. Every business man who has spent twice as long as it takes him on the 5c transit lines driving his car to the office through traffic, will agree with Mr. Keally that "the dark space in the building" should be converted into a parking garage. But, alas, the majority of office structures are in business (*Continued on page 110*)

TALLEST BUILDING SOUTH

Starts With Insurance of

**LIFETIME
SERVICE**

Throughout

• • •

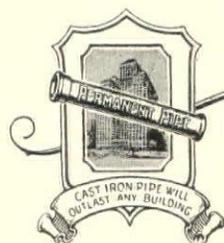
NO HIDDEN SKELETONS will be closeted within partitions of the 33-story Hotel Malbis, Mobile, Alabama, to diminish returns to its investors, after the first twelve to twenty years.

Cast Iron Soil Pipe, throughout, insures safe, healthful, permanent interiors as well as exteriors. Cast Iron Soil Stacks are 444 feet in Height.

Service will be uninterrupted — investors protected, by



**HOTEL
MALBIS
MOBILE, ALA.**



The
**SOIL PIPE
ASSOCIATION**

BIRMINGHAM, ALABAMA

Henry J. Apflebach, *Architect*
Harold W. Jeter, *Assoc. Architect*
Thomas R. Shaver, *Struct. Engineer*
A. S. Grossberg, *Mech. Engineer*

Buying an Honest House

By Milton Tucker. Published by Little, Brown and Company, Boston, Mass. Illustrated: 150 pages: size 5¼ x 8: price \$2.00.

THIS is a book meant for the layman, and yet it contains a great deal of information that will be of considerable interest to the younger architect or draughtsman. It deals with "sizing up" a house and finding out what is wrong with it from the construction standpoint being intended to help the buyer of a house already built to get an honest building. In a sense, the book might be said to deal with supervision, for it explains many dishonest tricks of the trade and offers instructions for recognizing them.

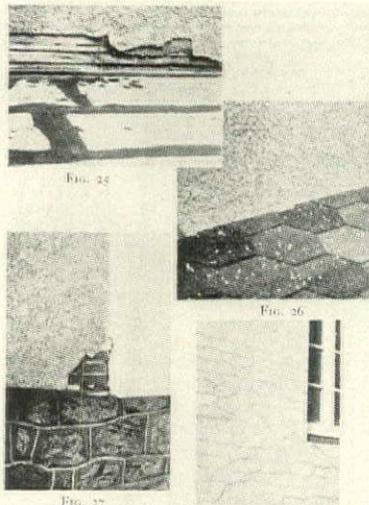


FIG. 25 Stucco is absorbent and should be kept five inches above flat, watered surfaces. FIG. 26 Pebbles used for a 'pebble-dash' finish should be firmly imbedded in the stucco. FIG. 27 Wooden strips at the bottom of a stucco wall prevent water from draining off. FIG. 28 Poor workmanship disclosed by the outlining of the brick through the stucco.

Page illustrating defects in construction. From "Buying an Honest House"

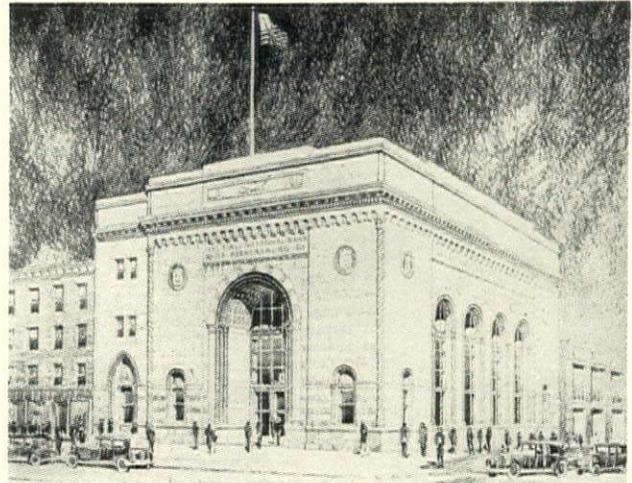
The book covers inspecting the foundation; important things to note about the framework; some considerations with regard to woodwork; painting, glazing and hardware; chimneys, fireplaces and other masonry; roofing and sheet-metal work; heating, plumbing, gas and electrical equipment; the garage; and similar subjects. Illustrations are well chosen and interesting because they show the result of poor work and tell how it could have been avoided.

The Fundamentals of Good Bank Building

By Alfred Hopkins. Published by the Bankers Publishing Co., New York City. Illustrated: 142 pages: size 6¾ x 9¼: price \$7.50.

MR. HOPKINS is so well known as an architect specializing in bank buildings that those interested in this subject need no introduction to his work. His book is primarily intended for a lay clientele, it being written more for bankers than for architects. This, if anything, enhances its value to the architect as it approaches every problem from the point of view of the client.

The book is well illustrated by plans of banks, sketches and photographs of exteriors, and photographs of interiors. Subjects treated include lot areas, types of plan, the safe deposit department, vaults, the work room, the vestibule, the screen, lighting, ventilation, floors and



Rendering of a bank building. From "The Fundamentals of Good Bank Building"

furnishings, the architectural aspect, the combination office and bank building, and the value of a new building and how far to go with it.

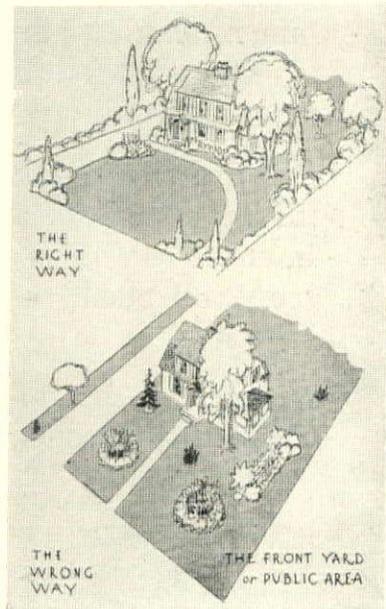
Landscaping the Home Grounds

By L. W. Ramsey, landscape architect. Published by The Macmillan Company, New York. Illustrated: 170 pages: size 5½x8¾: price \$2.00.

HERE is a particularly readable and intelligently written book, well illustrated and containing many pictures and diagrams contrasting the right and wrong ways of landscaping. Although intended for the layman, it will prove to be of considerable interest to architects interested in the subject, for much of the information contained should be at their finger tips.

The book was written following a national survey made for the American Association of Nurserymen, to determine to what extent the house grounds of America were planted. Its purpose is, therefore, to show home owners just how to develop their grounds according to the standards of good taste as they prevail today.

Some of the subjects (Continued on page 102)



Page illustration with the caption, "Styles change in gardening as in anything else." From "Landscaping the Home Grounds"

NO SCALDING OR UNEXPECTED SHOWERS...!

The shower bather first tempers the water at the spout, then switches the same water up to the shower head by simply lifting the lever on the diverter. No accidental scalding.

When the shower bather turns off the HOT and COLD valves, the diverter automatically returns to the TUB position. The lever is always down until the user lifts it up. No unexpected showers.

The diverter valve is in the spout on the wall—not in the wall. It is all-metal . . . no rubber, no spring. Gravity holds it in the TUB position because the handle outweighs the flapper. When the water is on and the handle is raised, water pressure holds it in the SHOWER position as long as there is water in the riser.



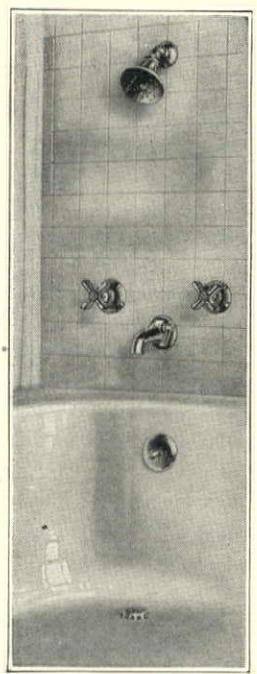
No Rubber— No Spring.▲▲

The complete bath fixture illustrated herewith has other special features: A shower head with removable face plate and holes that will not stop up; only two valves, separate HOT and COLD in the wall which are accessible from the face of the wall; each valve has a standardized working unit that's as easily renewed as a light bulb—all wearing parts come out with the loosening of the cap—seat is of Monel Metal; a pop-up bath waste with the stopper in the outlet of the tub—no need to get at it from behind.

This unusual fixture is available in three designs: Art Chrome all-metal octagonal pattern, chromium plated; round pattern with all-metal or china trim.

Write for a copy of our new 76-page catalog just off the press.

THE CHICAGO FAUCET CO., 2700-22 N. Crawford Ave., Chicago, Ill.



CHICAGO FAUCETS

“We’re
not going
ahead...”



You can't collect for plans"

BY GEORGE F. KAISER

WHAT HE DID. Roberts was a contractor. One day he called on Stillman, who was an architect, and made an agreement for the latter to draw preliminary sketches of a building for a stipulated percentage as fee. The sketches were finished and approved. Plans were drawn, bids were solicited, and some work preliminary to the actual construction was done by Stillman. When Stillman had gone this far, Roberts ordered all further work stopped, and refused to pay anything more than the original amount agreed upon for the preliminary sketches. "Sue if you want to," challenged Roberts. "I will," answered Stillman quietly, and called on his lawyer.

WHY HE DID IT. Roberts, of course, hoped he could get something for nothing. Having agreed to pay the stipulated percentage for preliminary sketches,

that was all he thought the architect could recover. Roberts had never heard of a suit for the "reasonable value" of service in the absence of a special agreement.

WHY HE SHOULDN'T HAVE DONE IT. A contract providing that an architect preparing preliminary sketches shall receive a stated percentage limits the architect's compensation to that percentage if the contractor determines at that point not to proceed. If however, the contractor orders or permits the architect to proceed with the plans, receives them, and permits him to solicit bids and pay for work preliminary to the actual work of construction, and then prevents the architect from doing further work at that point, the architect may recover for the reasonable value of his services subsequent to preparation of preliminary sketches.

... Can architect's fees be contingent upon building loan?

WHAT HE DID. When Biggs commissioned Tyson to prepare plans and specifications for an office building, to supervise construction, and to audit claims, nothing was said or inserted in the contract about where Biggs would get a loan if needed. As a matter of fact, Biggs had been promised a building loan, but when he was ready to go ahead, mortgage money was so tight that the promise was withdrawn. Biggs told Tyson to stop work and he did. "How about my bill?" Tyson inquired. "I don't owe you anything," Biggs declared, to Tyson's surprise. "Your employment depended on my getting a proper building loan, so of course, I must refuse to pay you."

WHY HE DID IT. Biggs, of course, was looking about for some way to excuse himself from paying Tyson's charges. The solution, he thought, lay in the fact that the promise of a loan had been withdrawn.

WHY HE SHOULDN'T HAVE DONE IT. The courts hold that if one proposes to erect a building and contracts in writing to employ an architect, to draw up plans and specifications, to supervise the work and audit claims, the client cannot show by parol evidence that the erection of the building and payment of the architect's fees is contingent upon the procuring of a loan. Tyson collected his fee for the work done.

★

A Convenience feature of the modern Residence

★



On the estate of Mr. Monroe Eisner, Red Bank, N. J., are fourteen telephone outlets: eleven in the residence, and one each in the superintendent's cottage, the stables and a detached garage. Built-in conduit connects these outlets and carries the wiring for the telephone system which includes intercommunicating features. The dining-room and breakfast-room outlets are served with a portable telephone.

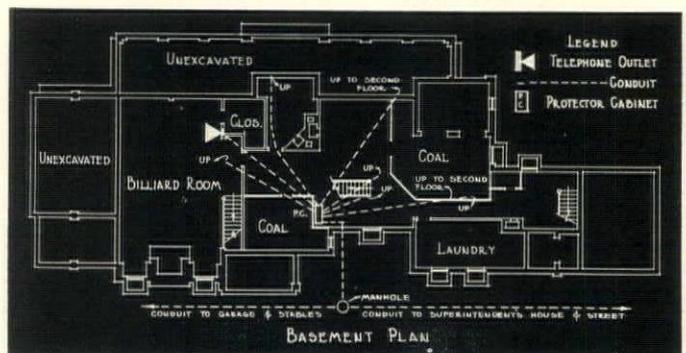
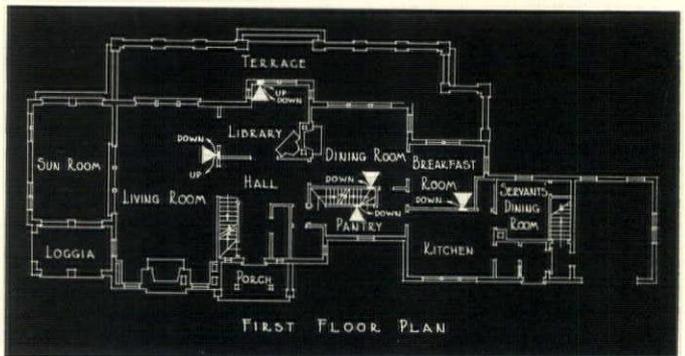
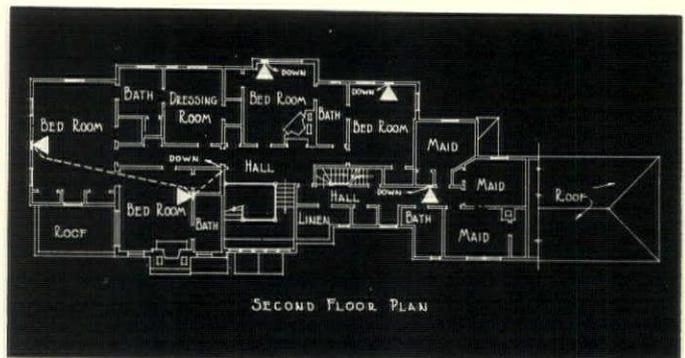
FRED M. TRUAX, Architect,
New York City.

Telephone outlets throughout the house

THE TELEPHONE REQUIREMENTS of the modern household are radically different from those of a few years ago. Telephones are needed in many locations . . . living-room, library, dining-room, kitchen or pantry, breakfast nook, garage, game room, bedrooms, servants' quarters . . . wherever, in fact, they will save steps and time, and add to comfort and convenience.

Many architects are meeting this demand for complete telephone convenience by specifying conduit for the telephone wiring in their plans for new and remodeled residences. In this way they provide for telephone outlets in all of the important rooms. The home owner can use just those he desires, and he can readily expand or rearrange the service to meet changing needs. In addition, he can enjoy the improved appearance that results from concealed wiring.

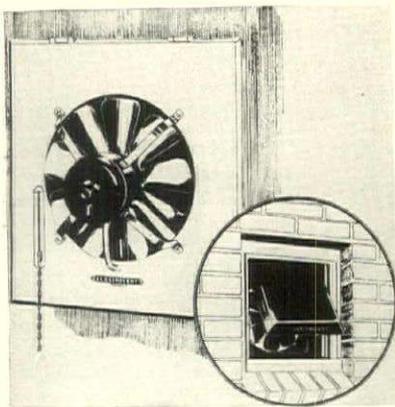
Your local Bell Company will gladly confer with you and your clients in planning the telephone arrangements for all your building projects. There is no charge. Just call the Business Office.



NEW MATERIALS & EQUIPMENT

BRIEF REVIEWS THAT MAKE IT EASY
TO KEEP IN TOUCH WITH THE
PROGRESS MADE BY PRODUCERS

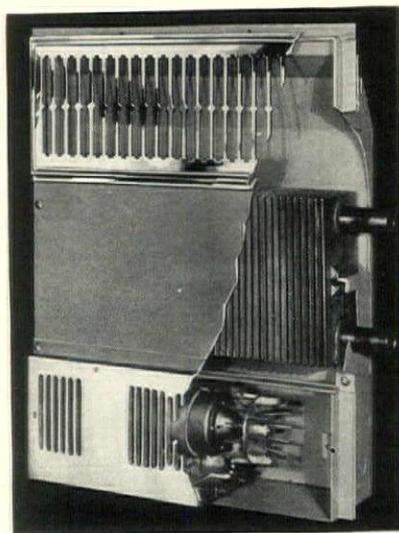
Built-in Ventilating Fan for Domestic Use



operates either backward or forward and so can either be used as to exhaust air or bring fresh air into the kitchen or other room.

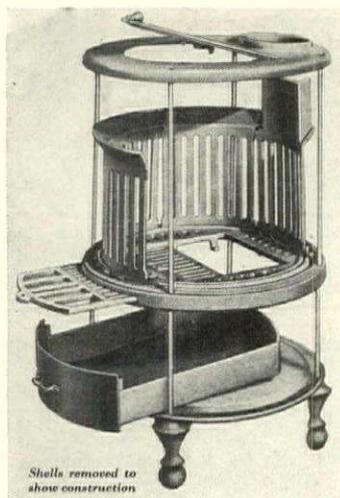
A new type of built-in ventilating fan for residential use has been announced by the Electrovent Corporation, 5057 Woodward Avenue, Detroit. It is sold complete with a box frame sized to go between standard 16" studding without cutting, being mounted like a window frame. The motor is of a special, brushless type which

New Type Electric Heating



A new heating device called the Electric Aeriet has been placed on the market by the Air-Way Electric Appliance Corp., Toledo, Ohio. It consists of a motor-driven fan which draws the air into the Aeriet, passes it through a specially designed heat element, and projects it into the room. The electric heat unit is a low temperature non-glowing element. It is operated by a three-way switch; one turn

operates the fan so that it can be used like the ordinary electric fan, another turn releases electric current into half the heating element, and the third turn puts the entire element into use. Current consumption of model 14 is 1½ kilowatts per hour, giving 5635 B.T.U., or the equivalent of about 23½ sq. ft. of direct radiation. It is said that complete diffusion of warmed air in the room is accomplished in less than a minute. The device may be built in walls or partitions. There is also a portable type. Besides being made in these two electric types, there is also a type which can be used as a heat element connected to hot water or steam pipes. The principle of operation is the same as that described above.

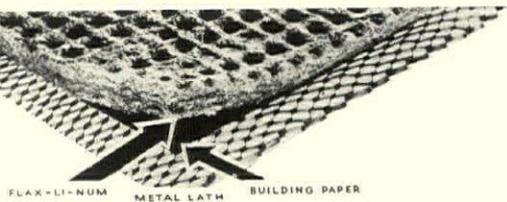


New Basement Incinerator

A basement incinerator 36" high and 24" in diameter has been placed on the market by the Majestic Company, Huntington, Ind. Cost of operation is estimated to be from three to seven cents per hour of operation, depending on the local cost of gas, one to three hours of operation per week being required by the average family.

Electrically Operated Portable Adding Machine

The Burroughs portable adding machine, made by the Burroughs Adding Machine Co., Detroit, Mich., may now be electrically operated. The machine's original proportions are maintained, as the motor is built into the mechanism with enlargement of the case. The machine weighs about 25 lbs. and is operated on either A.C. or D.C. current.



Insulation on Metal Lath

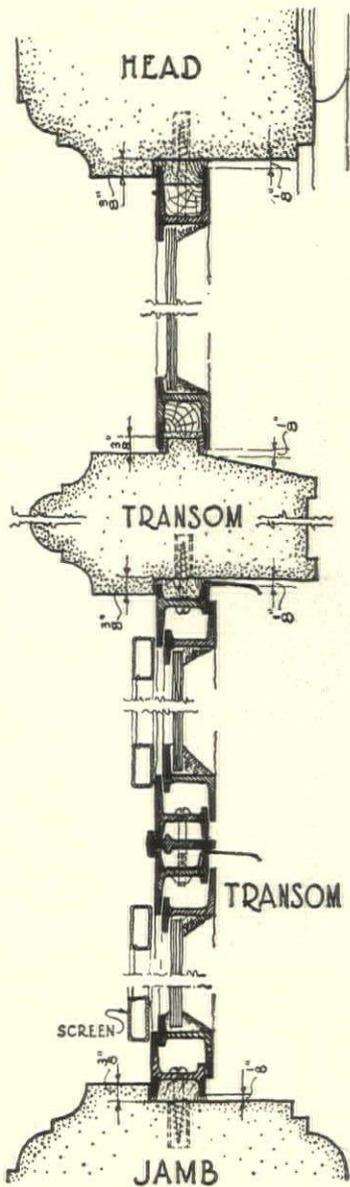
A new building product combining insulating material with a metal plaster base has been announced by the Flax-li-num Insulating Co., St. Paul, Minn. This makes it possible to handle and apply insulation and a plaster base as one unit. The insulation is Flax-li-num, to which is attached diamond mesh metal lath in such a way as to keep the plaster from coming in direct contact with the insulating material.

Playground Shower

A new playground shower has been placed on the market by the Bradley Washfountain Co., Milwaukee, Wis. It throws a spray of water in a shower or curtain from a central sprayhead extending from the central support, outward to a radius of ten to fifteen feet.

(Continued on page 122)

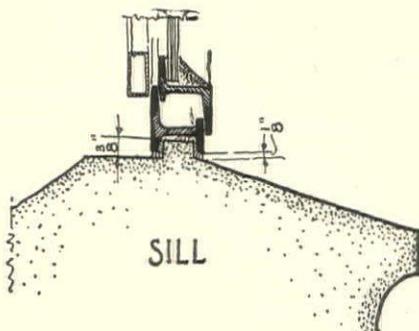
BEAUTY, GRACE, RESTRAINT



"Fencraft"—a steel casement of superior quality in design, materials and workmanship—gives the architect a wide latitude in the designing of window openings—a choice of many sizes—a choice of hardware, solid bronze or nickel silver—a choice of windows with or without bronze screens.

The heavy construction favors glazing in leaded or plate glass where desired. Heavy, sherardized hinges fitted with 100% bronze bearings.

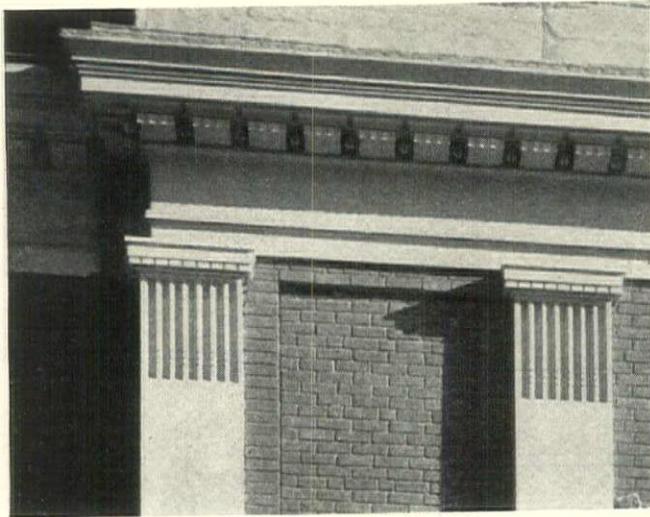
A new catalogue giving complete "Fencraft" details is now ready.



Fenestra

FENCRAFT CASEMENTS
(Screened)

DETROIT STEEL PRODUCTS COMPANY
2288 EAST GRAND BOULEVARD, DETROIT, MICHIGAN



Pilaster cap and cornice detail of the Town Hall, Westborough, Mass. Traditional forms have been handled in an original manner that is fresh, vigorous and in the spirit of the twentieth century

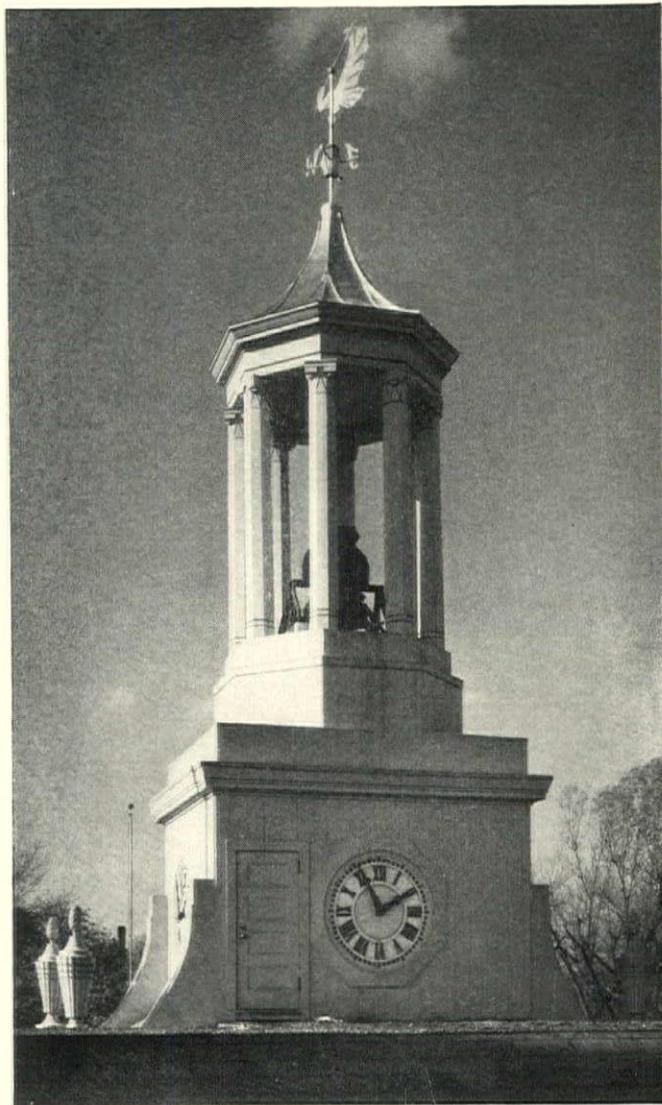
REACTION TO MODERNISM

(Continued from page 29)

colored?) brick for corniceless stucco à la J. P. Oud and still clings to slated roofs and double-hung windows instead of airplane decks and French casements.

If, however, the investigator would discard his inhibitions and approach New England with an unprejudiced eye, he would find that the district's apparent lack of *élan* in seizing on the outward trappings of modernistic architecture is due not to a reluctance to adopt new forms, but a well founded desire to use them in an appropriate manner or not at all. Indiscriminate copying of the designs of the new school of European architects in American buildings is not held to be any greater virtue than was the frantic copying of "Buhlman and Raguenasy" in the Gay Nineties; in fact, not so great, for we are older and should be wiser; but if the traditional idioms of the country can be preserved in spirit, there is no limit to the adventuring possibilities of the local designers' minds.

AS was hinted above, genuine architectural progress has always been accomplished by the gradual assimilation of appropriate ideas rather than by the bodily transplanting of organized styles; thus a palpably Spanish or Mission interpretation has never seemed appropriate for a New England town hall or library any more than would a copy of the church at Le Raincy seem at home in a typical village green, nor can it be said that good old George W. Babbitt has ever seemed much at ease in some of the period interiors which his enthu-



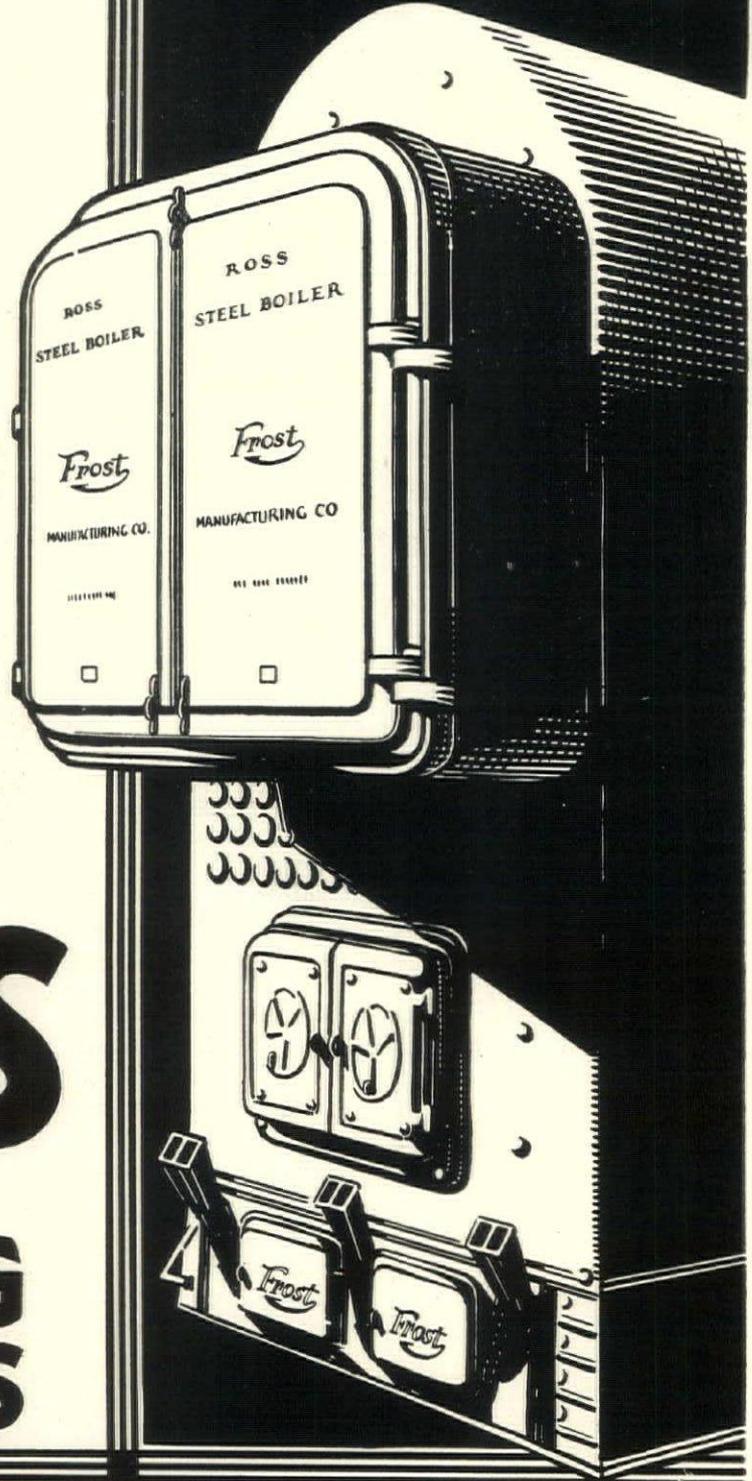
The cupola of the Westborough Town Hall, though it conforms to local traditional form, is detailed in a manner that marks it as of today

siastic architects have seen fit to force upon him.

The Town Hall at Westborough is a good example of this insistence upon local tradition. An ultra-modernistic building on the elm shaded street of this Massachusetts town would have been an intrusion and would have been felt as such by the citizens, but the designers felt that it was entirely possible to combine the new ideas with the well known red brick and white cupola of the native idiom, and the result is a building modern in every detail within and without but with the ensemble harmonizing perfectly with its environment. The lot upon which the building had to be placed was that occupied by the old wooden Town Hall and was only one hundred feet wide, closely flanked on the left by a four-story brick block and on the right by a high wooden church. For this reason it seemed well to place the clock tower on the front of the building, to prevent dwarfing by the high structures on each side; and the details of the tower, as well as those of all the rest of the building, are studied from an entirely fresh point of view and, I think, are harmonious without self-consciousness. In the interior the same theory is continued. In the main lobby the floor is of split slate and the door trims and

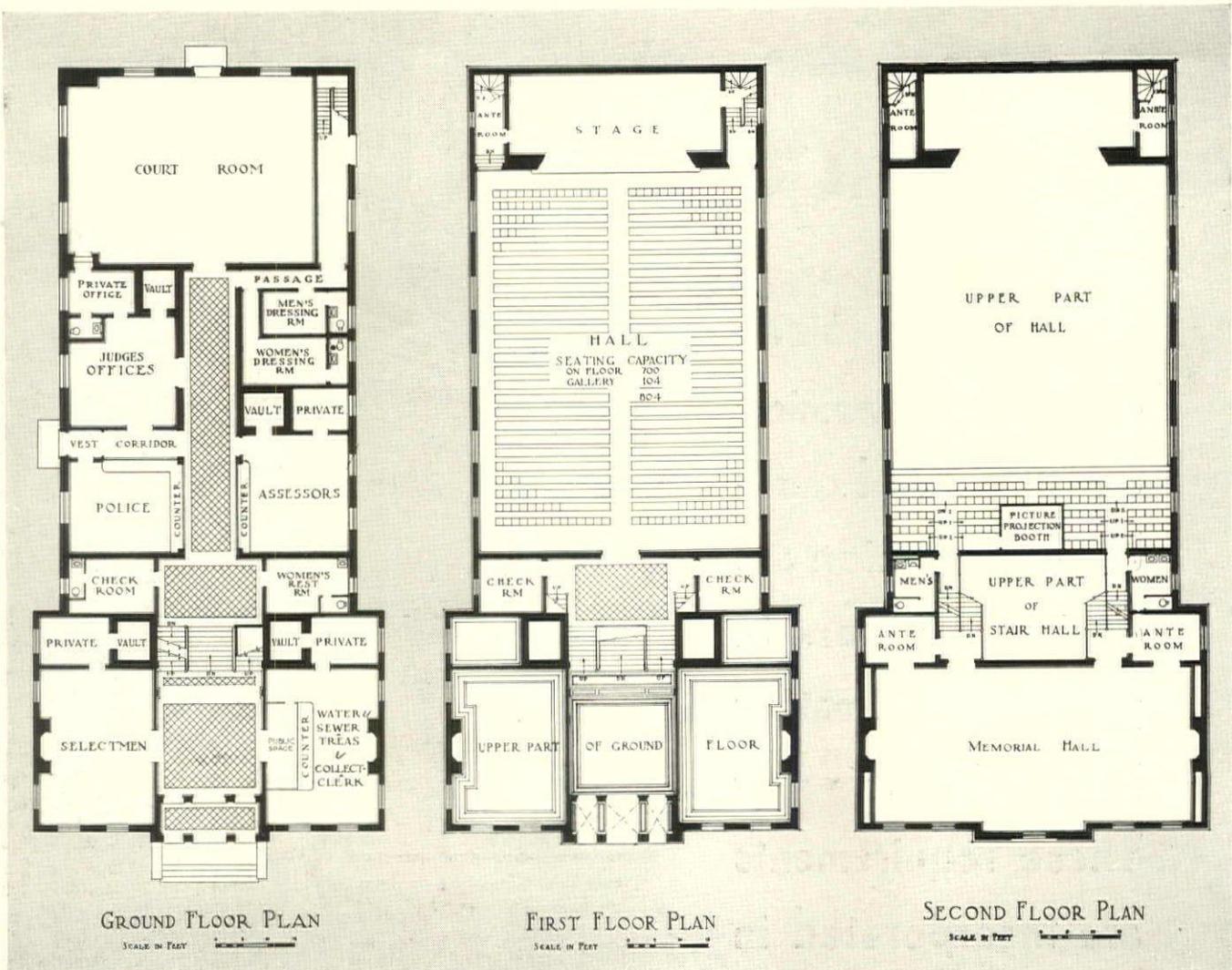
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The plans of the Town Hall at Westborough, Mass., show a direct approach to the problem of designing a building to meet the requirements of use and location. The site is one hundred feet wide and flanked by relatively high structures

stairs continue the same material. The railings are of hammered iron and the ceilings of textured materials. The auditorium has a color scheme of copper and peacock blue. The walls, balcony and proscenium fronts are paneled in country pine, stained brown, while the draperies and stage curtain are of peacock blue velvet shot with copper threads, which material continues through the lighting fixtures and all the metal work.

The H. P. Hood & Sons Co.'s milk laboratory in Boston is another building, by the same architects, whose architecture displays a feeling for what might be called rational modernism, but at no time falls into copying European models. The Company's traditional use of red brick and limestone for all its buildings restricted the architects to these materials which are used in a quiet way but one wholly appropriate to the purpose of the particular building.

The essence of modernism, it seems to me, lies not as the brilliant Pittsburgh writer has recently stated, in reiterating the up-and-down, the zig-zag, the golly wobble and the streak of lightning, but in directness of approach to the problem and in availing one's self of all the new inventions and materials which science is placing in the architect's hands. Immeasurable opportunities are opening up through the employment of Neon

tubes for decorative lighting; new metals offer dazzling vistas of ornamental effects in color and surface; the possibilities of glass have not begun to be realized. All these things are being placed in our hands, and are capable of harmonious and appropriate use, and for certain purposes where advertising results are desired they may be used blatantly and self-consciously, but that does not prevent their adaptation to appropriate purpose in permanent buildings, for after all, they are matters of detail.

In schools, commercial buildings and all sorts of structures rational modernism is finding ready acceptance in New England but "being exotic" is something that New Englanders don't do.

• • •

Frederick Putnam Platt of F. P. Platt & Bro., architects, was the designer of the Fountain of Light installed in the display room of the Westinghouse Lighting Institute, illustrated on page forty-three of the February issue of THE AMERICAN ARCHITECT.

A competition for a new craftsmanship button to be used by the New York Building Congress has resulted in Ray Wever winning first place and H. E. Prehn second place.

No. 3 of a series illustrating: "Thoughtful hints to help the architect."

Two Daughters welcomed this Architect's Idea

TWO daughters thought alike, wore each other's clothes, shared everything. "Why not plan a room that reflects this happy companionship?" thought the architect. This room resulted. Will they like this room? Will they want to share everything in it? And will the architect, who went a little beyond what *had* to be done, win their gratitude and thanks? Will this thoughtful service help him gain new clients?

These questions answer themselves.

One of the striking features of this room is its Armstrong's Linoleum Floor, with inset star. It was planned especially for this room, as the foundation for the entire decorative scheme. It will give years of cheerful service, and keep its charming color to the last.

No matter what interior effect you wish to create, no matter what color scheme you may have in mind, you

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There's a lot of good floor information in our new file-size specification book. Sent, with colorplates and samples of modern linoleum, upon request. We are also represented in Sweet's Architectural Catalog. Armstrong Cork Company, Floor Division, Lancaster, Penna.



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An original touch in this room is the floor of Armstrong's Plain Blue Linoleum with a sixteen-point star inset and a Linostrip border.

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CARROLLTON, GEORGIA

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Heating Contractor: Wm. E. Manning & Sons

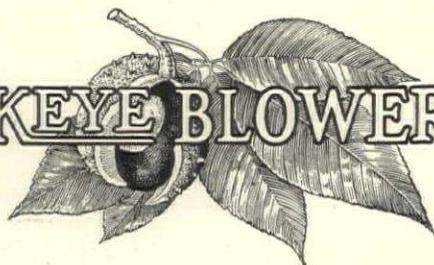
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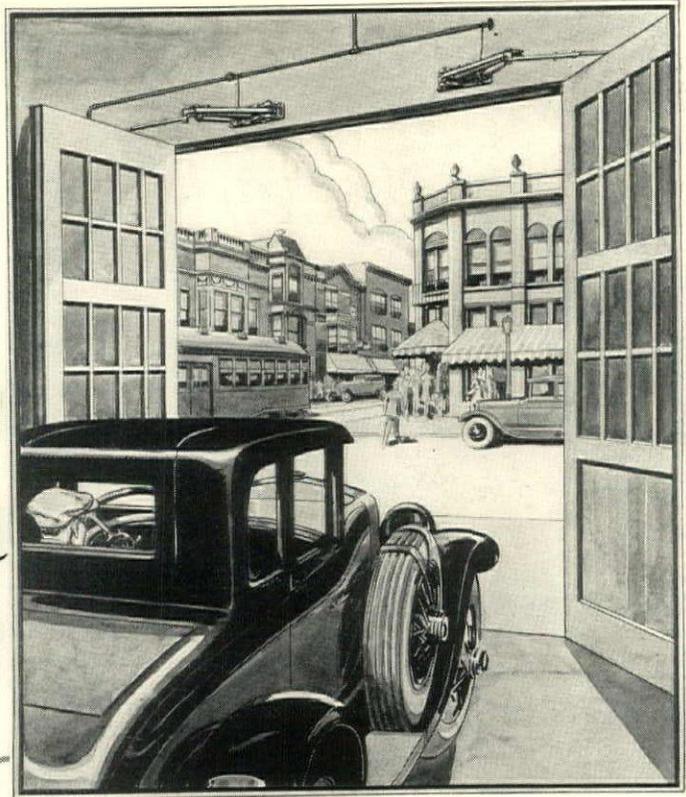


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TYPE OF DOORS: (swinging; folding; sliding)
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The central focus is a large bag of **BEST BROS. PIONEER FINISH PLASTER**. Below it, the text reads: **THE BEST BROS. KEENE'S CEMENT CO. MEDICINE LODGE KANSAS.**

Surrounding this central bag are four smaller bags, each with a different plaster type:

- Top-left: **BEST BROS. KEENE'S CEMENT** (with 'BEST BROS.' and 'KEENE'S' in a circle)
- Top-right: **BEST BROS. PIONEER GAUGING PLASTER**
- Bottom-left: **BEST BROS. PIONEER CASTING PLASTER**
- Bottom-right: **BEST BROS. PIONEER MOLDING PLASTER**

The background features a line drawing of a pioneer scene with a man on horseback, a cow, and a covered wagon.

*An Architect is
an Investment
— Not an Expense*

(34)



How Architecture was Sold to the Public in ALTOONA, PA.

(Continued from page 25)

At left W. H. Caldwell and at the right John Hunter Jr., architects of Altoona, who arranged for and directed the staging of the exhibition in their city



would be highly beneficial as a means of informing the public in their city and arousing its interest in the subject of good architecture. The problem of assembling an adequate exhibit of good representative work and the securing of a proper location to display it were the most difficult items to be overcome. The idea suggested by the exhibition of the Philadelphia Chapter of the American Institute of Architects and the T-Square Club of that city held in Wanamaker's department store solved the problem of location—the securing of space in a local store. The traveling exhibition selected from the exhibits shown in Philadelphia and sponsored by the American Federation of Arts solved the problem of assembling a suitable group of photographs and drawings.

A time was arranged with the American Federation of Arts when it would be possible to have the exhibition sent to Altoona for display. The manager of the William F. Gable store was approached and the idea of an exhibition similar to that held in Philadelphia was discussed. The suggestion was given favorable consideration and steps immediately taken to complete the necessary arrangements for placing the exhibition upon its arrival in alcove rooms of the furniture department on the third floor of the store.

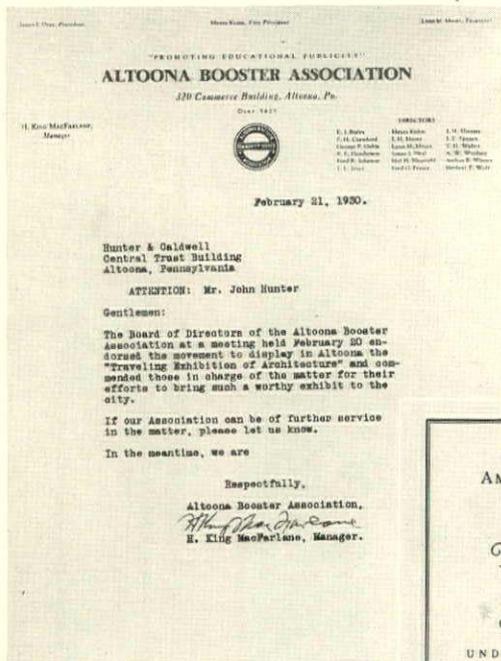
The next step was to talk to leaders in the community to get their reaction to the idea of holding an architectural exhibi-

tion in Altoona. This naturally aroused much discussion on the subject and paved the way for later developments. About the same time the Chamber of Commerce and the Booster Association were approached and the idea explained to them. Incidentally, the report of the exhibition held in Philadelphia printed in the March issue of THE AMERICAN ARCHITECT proved of value in enlisting the interest of these organizations in the Altoona project.

In all of these discussions the importance of the exhibition to the community was stressed together with the fact that it would not be made the vehicle for advertising local architects. It was explained to the Chamber of Commerce that the exhibition would be a community

and civic matter and that the Chamber would not be asked to contribute funds to support it. No difficulty was experienced in obtaining from the Chamber of Commerce and the Booster Association resolutions and letters endorsing the movement. With these letters and data on the exhibition held in Philadelphia before them, the editors of the local newspapers were consulted and again the public spirited aspect of the movement was emphasized rather than any benefit to be derived by the architects. The editors at once agreed to give the movement the necessary support and essential publicity.

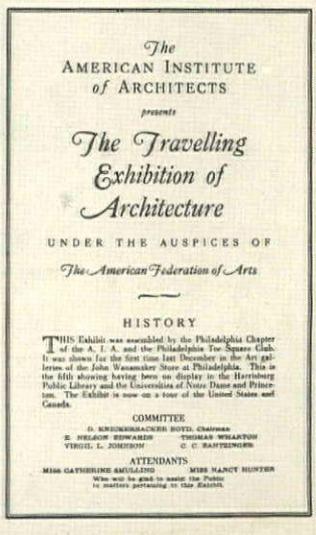
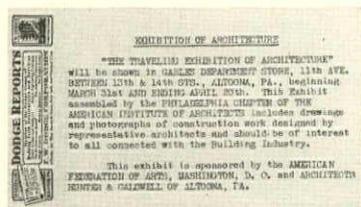
Radio Station WFBG in Altoona and the managers of



BOOSTER

Association letter that assisted in securing the cooperation of the editors and others in Altoona to support the exhibition

Below is shown the catalog distributed at the exhibition and one of the Dodge Reports on the exhibition





Herbert N. Straus Stable, Red Bank, N. J.

Alfred Hopkins & Associates, Architects

“Stable Fittings by FISKE”

THE Herbert N. Straus stable at Red Bank, N. J., interior view of which is shown above, is another example of the predominating excellence of FISKE stable fittings. If there is any one factor more responsible than another for the ever growing roster of FISKE successes, it is FISKE experience, which extends over the past 70 years.

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SPECIALISTS IN ORNAMENTAL METAL WORK

the local theatres were contacted to learn whether they would lend their support. With the help of the newspapers an atmosphere of uncertainty as to whether the exhibition could be secured for Altoona was created. In this the psychology of "desire" under the condition of uncertainty was used to stimulate public interest before it was definitely announced that the exhibition was scheduled to be held.

UPON assurance that all of these agencies would cooperate it was definitely announced that the exhibition would be sent to Altoona for showing from March 31 to April 19. Following this announcement came the work of arranging for a program of speakers, printing of invitations for the private opening, the ordering of a movie film trailer containing the announcement to be displayed on the screens of the theatres, and the preparation of news releases to go to the newspapers. Notices were sent to schools, stores, clubs and civic organizations. Arrangements were completed for a show window display in the Gable store during the term of the exhibition.

Invitations were issued to three hundred people of prominence in Altoona for the private opening of the exhibition on the evening of March 31. No program was arranged for this night but the store remained open, furnished elevator service, and arranged to have a number of store employees dressed in smocks and berets in attendance. The attendance on the opening night numbered about two hundred.

At a dinner of the Lions Club of Altoona on March 31, J. R. Helme, Assistant Professor of Architecture at Pennsylvania State College, gave an address on architecture and the importance of the exhibition.

ON the morning of April 1, D. Knickerbacker Boyd, of Philadelphia, gave talks on architecture before eight hundred pupils of the Hollidaysburg High School and fourteen hundred pupils of the Altoona Junior High School. At noon he addressed the Rotary Club at the Penn-Alto Hotel. In the afternoon he conducted the art classes of the Altoona High School through the exhibition. In the evening Mr. Boyd spoke before the Kiwanis Club of Hollidaysburg. Through the courtesy of the principal of the Altoona High School a special assembly of eighteen hundred pupils was called on April 2 to listen to addresses by D. Knickerbacker Boyd and Dr. Lewis F. Pilcher, Professor of Architecture at Pennsylvania State College. At noon Mr. Boyd's address before the Kiwanis Club of Altoona was broadcast over Station WFBG. In the afternoon Dr. Pilcher gave a talk on architecture over the radio and William H. Caldwell, A. I. A., conducted a group of school children through the exhibition. In the evening a meeting was held in Gable's store which was attended by the city officials and other leading citizens of Altoona. An open discussion on architecture was led by Messrs. Boyd and Pilcher. The discussion revolved principally around the subject of city planning.

On April 7 John Hunter and Professor Percy Ash of the Architectural Department of Pennsylvania State College addressed the Altoona Real Estate Board.

On April 8 the editor of THE AMERICAN ARCHITECT spoke at the luncheon meeting of the Rotary Club of Altoona, broadcast a ten minute talk over Station

WFBG, and in the evening addressed the Blair County College Club.

Tangible evidence of the results obtained from exhibitions are not easily determined. There can be no question but that public interest can be aroused and if the momentum stimulated by the exhibition continues, it will ultimately have a decidedly favorable reaction on the public engaging architects for every building undertaken in the community. The indications in Altoona during the exhibition were that a keen interest in architecture and building had been created at remarkably *little cost in money but much in personal effort*. It is to the splendid cooperation of the local newspapers that the creating of this unexpected and enthusiastic reaction on the part of the public is largely due.

TO John Hunter, Jr., and W. H. Caldwell, of Hunter and Caldwell, architects, is due much of the credit of securing the exhibition, organizing it and setting the stage for its endorsement by the city of Altoona. In an interview with Mr. Hunter, he made the following observations on the subject of architectural exhibitions: "Such exhibitions should be designed to interest the public first; the interest of architects is secondary but it follows that a well balanced exhibition will automatically interest them. There should be a good range and variety of subjects selected for exhibition by an unbiased committee rather than by individual firms. More small houses should be included in the work shown than is usually the case. Only good architecture should be selected for presentation to the public. The exhibition should be national rather than local in its scope as to work displayed, but a few *well selected* examples of local work should be shown. One reason for the latter is that in showing too much work executed by local architects the public is apt to gain the impression that it is done as a means to advertise local individuals rather than to show good examples of architecture."

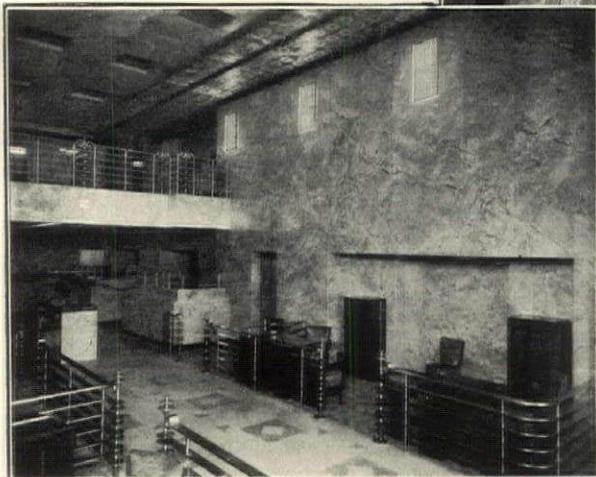
With respect to the location of exhibitions Mr. Hunter stated that in his opinion the place in which they are held should be convenient for the public to visit. He believes that the most popular department store that is patronized by the best people should be selected.

Mr. Hunter's experience with the Altoona exhibit leads him to believe that in every case the committee in charge should secure the cooperation and moral support of the local Chamber of Commerce and other civic bodies. Arrangements should be made to interest the schools. In the case of the schools the movement should be explained and brought to the attention of both the superintendent and the art director.

According to Mr. Hunter good speakers should be obtained to address school pupils, clubs and other organizations. Advantage should be taken of radio facilities. Radio talks should be varied and arrangements should be made for frequent announcements of the time and place of the exhibition. Newspaper editors should be correctly informed as to the importance of the exhibition and should be furnished with news items and photographs as promptly as possible. In connection with the newspaper phase, it is advisable to have all matters in connection with the exhibition pass through the hands of one reporter on each paper. Newspaper cooperation should be obtained well in advance of definite action.

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ARCHITECTS

Rambusch considers it a privilege to have executed the painted ceiling decoration in the office of the National Title Guaranty Company, Brooklyn, N. Y., under the direction of the Architects, Corbett, Harrison & MacMurray of New York City.

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HOTELS
RESTAURANTS
THEATRES
PUBLIC BUILDINGS

Established Forty Years

If possible the support of local theatres should be enlisted to use a film announcement on the screen while the exhibition is open. Local women of prominence should be interviewed. The interest of women attending the exhibition indicated that more small houses should be shown. One or more attendants, preferably young women, should be in constant attendance at the exhibition to explain the exhibits and call the attention of visitors to interesting facts about the exhibits that they would otherwise pass by. A private opening to which the leaders of the community are invited by special invitation is important.

C. E. Callaway, secretary of the W. F. Gable Co., in whose store the Altoona exhibition was held, stated that most department stores in every locality are willing to make room for exhibitions of this character or have model rooms that can be advantageously used for hanging photographs and drawings. He further advised against the selection of the "cheap" store as a location and recommended the use of a good popular priced store in the small city and a high priced store in the large city, since the object should be to secure the attention of a large number of people of reasonable or better financial means. The department store has the facilities to do

many things that cannot be easily done in a public building. For instance, every department store has a staff of people accustomed to the handling of displays; they will minimize the depreciation that is bound to occur in shipping and handling exhibits; and they have space which they are glad to devote to civic meetings. Mr. Callaway emphasized the fact that for an exhibition to be successful, both the architects and the store must remain in the background.

Mr. Callaway was enthusiastic about the results achieved in Altoona by the exhibition and believed that it was of mutual benefit to the community and the store. It is his belief that similar exhibitions can be successfully conducted in every city.

Mr. Callaway had the following suggestions to make relative to the handling of traveling exhibitions. The exhibits should be carefully packed in well protected boxes. There should be a list of the exhibits packed in each box for use in filing claims in case of loss. The contents of each box should be counted and checked upon opening or shipping the crate. The boxes should be adequately covered by insurance and a proper valuation list should accompany the shipment. The boxes should be well made to withstand repeated opening and shipping.

Accounting System that Increases Profits

(Continued from page 33)

1545. OVERTIME ALLOWANCE: To this is charged any increased rate of pay that is paid to draftsmen on account of overtime work. It is not just that any particular job should be burdened with this expense on account of it having been the particular job to rush through the office.

1546. LOST TIME, VACATIONS, ETC.: (Draftsmen, engineers and superintendents.) This account is debited monthly with one-twelfth of the annual amount set up in Allowance Account 229. An allowance account for lost time, vacations, etc., will be set up, and the accrued expense shown as a credit each month and the same amount should be debited to this account. When the actual money is paid out for the lost time, cash is credited, and the allowance account debited.

1547. OFFICE SALARIES: Firm members are paid salaries the same as others in the office. The executive's salary is charged to overhead expense and the other members are classed as draftsmen or superintendents, as the case may be. This account is charged with the salaries of the principal, the office business manager, stenographer and office boy.

1548. RENT: This is paid monthly and is charged as a regular monthly expense. Credit cash and debit rent when it is paid.

1549. PRINTING AND STATIONERY: Charge this account each month with the amount of materials used and credit Account 1261 with it.

1550. DRAWING MATERIALS: Treat in the same manner as Account 1549.

1551. TELEPHONE AND TELEGRAPH: Treat same as Account 1548.

1552. MEMBERSHIP AND DUES: This account is charged with all dues, membership fees, etc. If any one month should be burdened, then a prepaid account should be set up and the expense distributed over the twelve months.

1553. DONATIONS: Treat same as Account 1548.

1554. LIGHT: Treat same as Account 1548.

1555. INSURANCE: This account is charged monthly with one-twelfth the total annual prepaid insurance and at the same time credit is made to Prepaid Insurance, Account 131.

1556. TRAVELING: Debit this account with all traveling expenses when it is not directly chargeable to a job.

1557. PERIODICALS: Debit all magazines, papers, etc.

1558. LEGAL AND ACCOUNTING: Charge with all attorney and accountant fees.

1559. TAXES: An architect's taxes are usually small and it is not necessary to distribute the sum over the entire year. When taxes are paid, debit this account and credit cash.

1560. DEPRECIATION OF EQUIPMENT: Debit this account, monthly, with one-twelfth of depreciation charges and credit the Allowance Account.

1561. BAD DEBTS: Handle same as Account 1560.

1562. MISCELLANEOUS: Office expenses of all kinds are charged to this account (small).

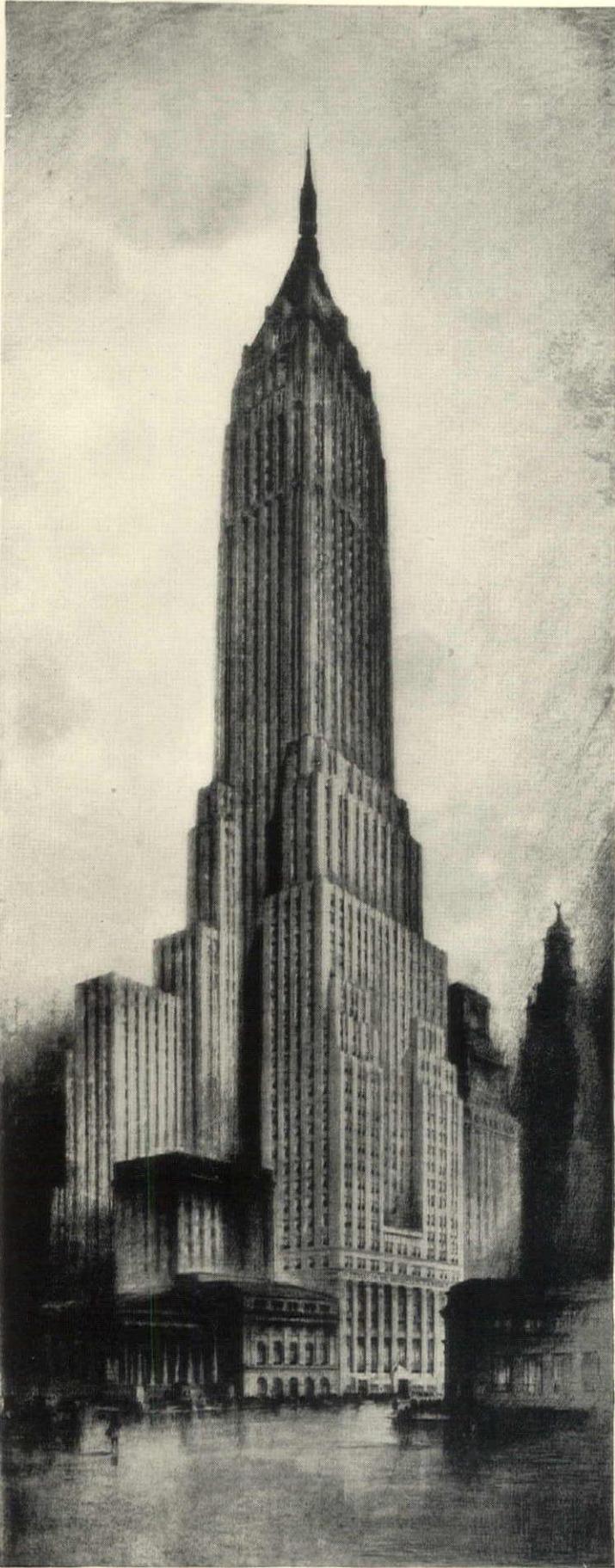
1563. VARIATIONS IN UNDISTRIBUTED EXPENSE: Where there is a balance in Account 225, it is charged out the next month and debited to this account.

1564. AUTOMOBILE EXPENSE: Debit this account, monthly, with one-twelfth depreciation (annual) charge and credit Allowance for Depreciation Account, also debit with all operating expense.

2. LIABILITIES—Liabilities are all values owed.

21. FIXED LIABILITIES: Liabilities of a fixed nature only are credited to this account. Under ordinary circumstances an architect has no fixed liabilities, unless he has issued bonds or stocks.

22. CURRENT LIABILITIES: These are liabilities that are alive and are constantly changing in value. This is a controlling account and carries the following subsidiaries:



BANK of
MANHATTAN
BUILDING
New York City

—
Framework of
Bethlehem
Wide-Flange
Structural
Shapes

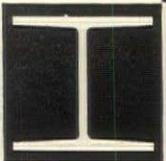
BETHLEHEM
STEEL COMPANY

General Offices: Bethlehem, Pa.

District Offices: New York, Boston, Philadelphia, Baltimore,
Washington, Atlanta, Buffalo, Pittsburgh, Cleveland,
Cincinnati, Detroit, Chicago, St. Louis.

Pacific Coast Distributor: Pacific Coast Steel Corporation,
San Francisco, Los Angeles, Seattle, Portland, Honolulu.

Export Distributor: Bethlehem Steel Export Corporation,
25 Broadway, New York City.



BETHLEHEM

MODEL
BALANCE SHEET
of
June 29, 1929

ASSETS

<i>Fixed Assets</i>	
Office Furniture and Fixtures	3,326.06
Books	1,246.04
<i>Current Assets</i>	
Imprest Fund	25.00
Cash in Bank—Checking a/c	3,405.59
“ “ “ —Savings a/c No. 1	161.68
“ “ “ “ “ No. 2	466.74
“ “ “ “ “ No. 3	284.76
Accounts Receivable	47,048.02
<i>Sundry Debtors</i>	
C. E. Hartford	100.00
H. E. Hammond	466.31
S. N. Hunt	89.84
John Edwards	1,330.96
<i>Investments</i>	
Stock (The Cincinnati Club, Inc.)	300.00
<i>Deferred Assets</i>	
Prepaid Insurance (Fire)	188.30
“ “ (Life)	43.67
<i>Working</i>	
Work in Process	1,901.43
	60,384.40

LIABILITIES

<i>Current Liabilities</i>	
Accounts Payable	8,767.52
<i>Sundry Creditors</i>	
C. E. Hartford	159.30
H. B. White	491.00
G. F. Furst	433.21
G. A. Langley	404.35
<i>Reserves and Allowances</i>	
Variations in Undistributed Expense	1,370.12
Allowance for Depreciation	2,394.66
Allowance for Bad Debts	60.00
Allowance for Lost Time, Vacations, etc.	1,061.68
<i>Capital</i>	
C. E. Hartford	4,000.00
H. E. Hammond	8,000.00
S. N. Hunt	4,000.00
John Edwards	4,000.00
<i>Surplus</i>	
Undivided Profits	25,242.56
	60,384.40

MODEL
STATEMENT OF
PROFIT AND LOSS

December 31, 1928, to June 29, 1929

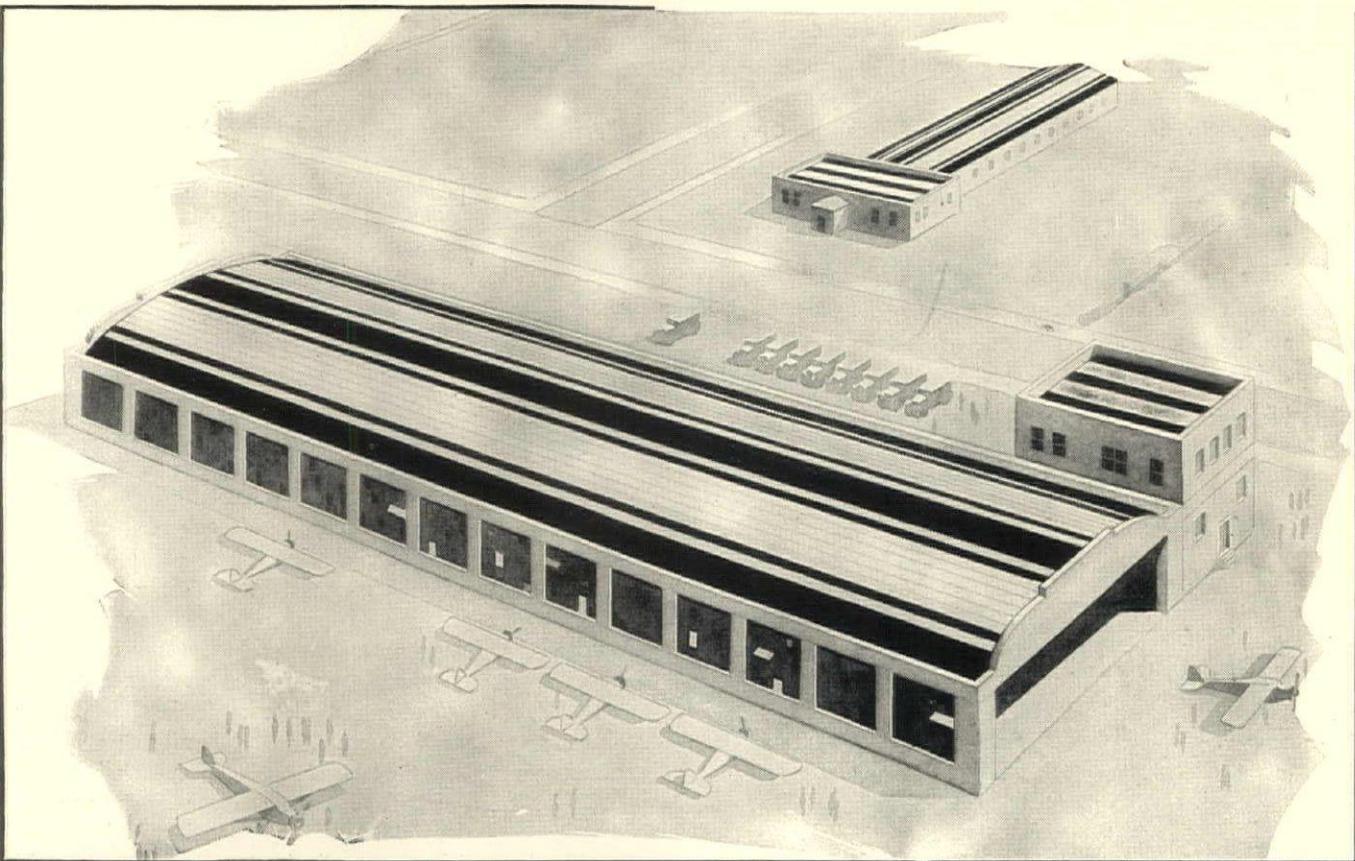
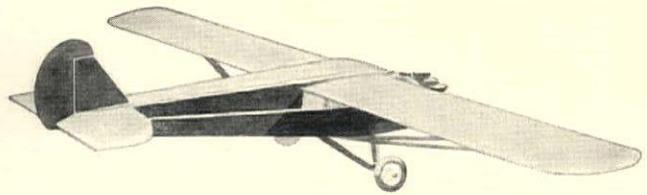
<i>Operation Profit and Loss</i>			65,909.20
Fees earned during 6 months			
Work in Process—December 31, 1928	2,932.99		
<i>Work Put in Process During 6 Months</i>			
Drafting Expense	13,696.33		
Engineering Expense	1,810.61		
Superintending Expense	4,889.50		
Overhead Expense	18,400.01		
	38,796.45		
Less—Associate Architect paying one-half our expense on certain work	1,645.46	37,150.99	
		40,083.98	
Less—Work in Process, June 30, 1929		1,901.43	
Net Cost of Completed Work			38,182.55
Operation Profit			27,726.65
<i>Incidental Profit and Loss</i>			
Incidental Loss			
Expense, Interest, etc.	100.00		
Abandoned Work	1,304.46	1,404.46	
Incidental Income			
Miscellaneous		248.93	
Net Incidental Loss			1,155.53
Net Profit for 6 Months			26,571.12
<i>Less Profits to Employees</i>			
H. B. White	491.00		
G. F. Furst	433.21		
G. A. Langley	404.35	1,328.56	
Profits due firm members			25,242.56
During the six months, December 31, 1928, to June 29, 1929, there were worked:			
Productive Hours	14,315½		
Non-Productive Hours	2,824		
			17,139½
Total Hours			
Average rate of overhead per productive hour		1.29 1/6	
Average rate of draftsmen, engineers and superintendents per productive hour		1.41 1/4	
			2.70 5/12
Average Prime Cost per productive hour		2.70-5/12	
Average Profit per productive hour		1.85 2/5	

221. ACCOUNTS PAYABLE: All accounts due and payable are credited to this account.
222. NOTES PAYABLE: Treat same as Account 221.
223. SALARIES PAYABLE: This account will be credited at time of closing books or when the end of the month falls in the middle of the week, with all accrued salaries up to date. When salaries are paid, cash is credited and this account debited.
224. SUNDRY CREDITORS: This account will be credited with all items not included under Accounts Payable.
225. VARIATIONS AND UNDISTRIBUTED EXPENSE: Any balance at end of period remaining in Account 154 is absorbed by this account.
226. RESERVE FOR DEPRECIATION: This account is credited monthly with the regular amounts of depreciation fixed upon.
227. RESERVE FOR BAD DEBTS: This account is credited monthly with the approximate or estimated allowance for bad debts.
228. ACCRUED EXPENSES: At the end of any accounting period any expenses not as yet paid, but accrued, are credited to this account.
229. RESERVE FOR LOST TIME, VACATIONS, ETC.: This account is credited monthly with one-twelfth of the

- annual estimated lost time, etc., and the corresponding debit made to Account No. 1546.
3. PROPRIETARY INTEREST—This account represents the net worth of the business. The subsidiary accounts are:
31. CAPITAL INVESTMENT: This is a controlling account and shows the original investment at start of business and represents amounts paid in by the firm members.
32. SURPLUS: All profit or loss at end of year is debited or credited to this account, as the case may be. Any dividends paid are debited to this account.
33. PROFIT AND LOSS: All trading or operating accounts are closed into this account at the closing period, or once a year.
4. OPERATION—PROFIT AND LOSS: Accounts Nos. 41 and 42 are closed into this account at end of accounting period.
41. COST OF COMPLETED WORK: This account is a controlling account and controls all jobs that have been completed. These are listed in alphabetical order and on the completion of any job, Work in Process is credited and this account debited.
42. FEES: When Accounts Receivable is debited with a fee this account is credited. (Continued on page 94)

For every aviation building ... a Carey Roof that "fits"

Since eighteen-seventy-three, architectural recommendations for buildings in every phase of the transportation industry have read: "... and a Carey Built-up Roof." So, it is logical and fitting that the newest (and perhaps the most exacting) member of that great industry should enjoy this same time-proved overhead protection.



Three "aviation" Specifications . . .

Everywhere, airway terminals, hangars, manufactories, test sheds and repair buildings—structures at foremost aviation fields—are Carey Roofed. With Carey Feltex Built-up Roofing, for large areas subjected to abnormal vibration; with Carey Asbestos Built-up Roofing, where fire hazards and acid fumes are prevalent; with Carey Combination Built-up Roofing, combining in a single specification the super qualities of both Asbestos and Feltex

Roofs. And Carey Ready Roofing, of course, specially prepared for temporary structures.

We'd like to mail you our interesting Architects' Specifications Book, with detailed information. Just write.

Carey
BUILT-UP ROOFS

"A roof for every building"

THE PHILIP CAREY COMPANY Lockland, CINCINNATI, OHIO

Kimball

STRAIGHT LINE DRIVE ELEVATOR MACHINE

Sturdy, compact and vibrationless this powerful straight-line drive machine is the most modern elevator machine made.

With motor and machine aligned and bolted together as one complete unit there is no chance of misalignment. The electric brake magnets are submerged in oil, eliminating the noise of contact so objectionable in other machines. All vital points are housed and run in oil.

The mobile parts of Kimball Straight Line Drive machine are reduced to a minimum with very little to get out of order. A machine of long life that will give continuous and snappy service.

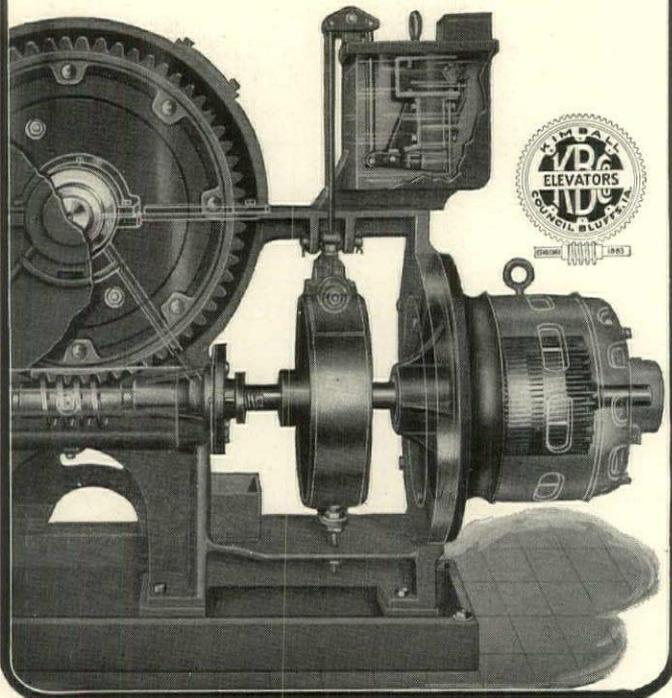
*Write for literature on the
Kimball Straight Line Drive Machine.*

KIMBALL BROS. CO.

Builders of Elevators for 46 Years

1119-27 Ninth St. Council Bluffs, Ia.

7-29



5. INCIDENTAL PROFIT AND LOSS—Accounts No. 51 and No. 52 are closed into this account at the end of accounting period.

51. INCIDENTAL INCOME: This account records any earnings received outside of the regular order of business, such as money paid for renting a portion of the office to an outside person, etc.

52. INCIDENTAL EXPENSE: This is a controlling account and has the following subsidiary accounts:

521. INTEREST: This account is debited with any interest paid out. Interest cannot be charged as an overhead expense.

OPERATION OF SYSTEM

The following forms are required for the proper operation of the system:

- Time Card
- Monthly Time Summary
- Time and Overhead Distribution Sheet
- Journal
- Ledger Page
- Job Cost Sheet

These forms are all bound in books except the Daily Time Cards and Distribution Sheets. Time Cards are filed in envelopes and placed in the ordinary standard alphabetical file case. Distribution sheets are filed in the vertical letter file cabinet.

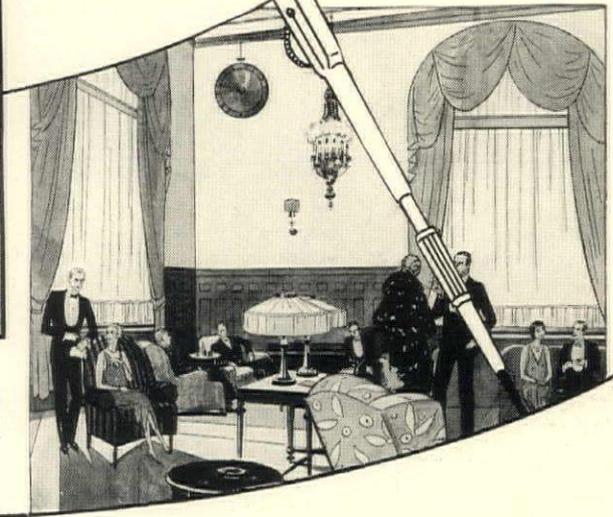
The *Daily Time Card* is arranged in half-hour divisions, and it is a simple matter for a draftsman to indicate on a card just what particular work is performed during the day. A white card is used for productive work and a blue card for non-productive work. Separate cards are used for each job worked on during the day. This permits the filing of all cards together that show time for one job. Cards are gathered up daily and entered on the *monthly individual time summaries*.

The *Monthly Time Summary sheet* contains a column for the listing of all jobs that the individual has worked on during the month. Opposite this column are columns for each day in the month, wherein the number of hours for each day is placed opposite its particular job. All non-chargeable time is also listed. This sheet also contains a total hours' column and adjoining this there is a column containing the cost in dollars for each job worked on. For each man a Monthly Time Summary is required. On completion of the month the information contained on this Summary is distributed on the *Time and Overhead Distribution Sheet* to the proper jobs. There is a space for each employee's account number (account number is used instead of writing out the name) and just below it in the corresponding column is the total time, in dollars, for the month, opposite its particular job. The horizontal extension of this time is placed in drafting engineering, superintending or non-chargeable time space, as provided. These totals are then debited to *Work in Process and Undistributed Expense*.

At the bottom of the time distribution sheet the totals of the individual columns under employees' names are credited to the individual salary accounts. This is done on account of charging the regular payroll to salary accounts in the ledger. It is therefore necessary to credit the salary accounts and place their totals in *Work in Process*. The purpose of this is to have a record showing all salaries paid.

There is then entered from this sheet to the journal

WIDEN THE HEARING CIRCLE



MUSIC FROM ONE SOURCE WIRED TO EVERY ROOM

Plans for many buildings now include the equipment which "widens the hearing circle"—the Western Electric Public Address System. Hotels, clubs, schools, hospitals—all are finding many uses for this system which amplifies and distributes sound.

With this apparatus, hotels are bringing music to public rooms and guest rooms alike via loud speaker. Clubs are providing dance music for members. Schools are holding music appreciation courses. Hospitals are

shortening weary hours for their convalescents.

The equipment is made by the makers of the nation's telephones. For further data consult Sweet's Catalog, pages D5441-5444. Or write the Graybar Electric Company, Graybar Building, New York. Offices in 73 principal cities.

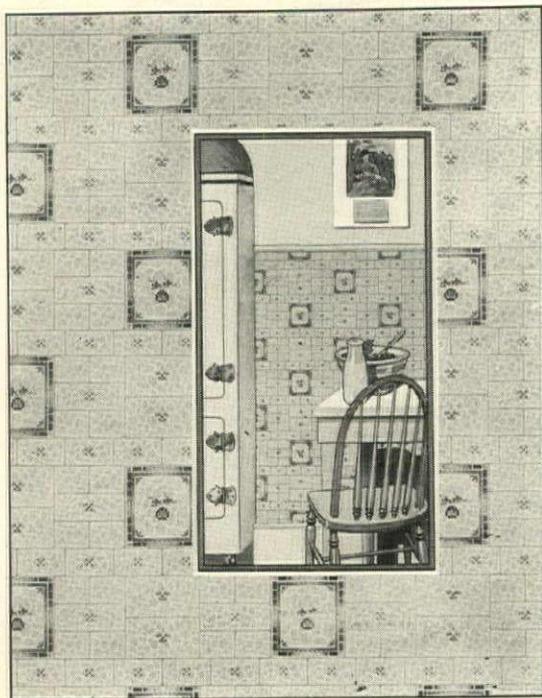
Western Electric

PUBLIC ADDRESS AND MUSIC REPRODUCTION SYSTEMS

Distributed by GRAYBAR Electric Company



See the beauty... feel the strength of Wall-Tex



LOOK at the new Wall-Tex fabric wall covering patterns. See the wide variety of modern and conventional designs in glossy and dull numbers. There's an attractive pattern for every room in every home, priced to please you and your client.

Notice the strength and elasticity of the material. This strength keeps Wall-Tex from cracking and peeling. This sturdiness prevents plaster from breaking. Examine the fabric. It is closely woven. Inspect the coating. It is cleansable! Dirt and spots may be wiped away with a damp cloth. After ten or more years of service, if desired, Wall-Tex may be used as a base for modern plaster, paint and lacquer treatments.

Architects, builders and decorators should write name and address on the margin of this page in sending for samples, information and booklet, "The Modern Trend in Wall Coverings."

COLUMBUS COATED FABRICS CORPORATION
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Dept. C-6-30 COLUMBUS, OHIO



the charges to Work in Process and charges to non-chargeable time, and credit individual salary accounts.

Overhead expense can not be distributed. Since the man-hour basis for distribution is being used, enter productive time opposite the various jobs in the columns for the various employees and carry the total horizontally to its proper space on the right hand side of the sheet. Since the total productive man-hours for the month and the total overhead for the month are known, the rate can be found by dividing the total man-hours into the total overhead. When the rate has been determined this figure is used for arriving at the overhead for each particular job benefited during the month.

Entries are then made to the journal to the various jobs charged. The total of the overhead column is then credited to Undistributed Expense, which places all of the time and overhead during the month in the proper Work in Process Accounts.

The journal is so designed that all accounts that are frequently used are allotted special columns. Those infrequently used are handled in the Other Accounts column and can be designated by their proper numbers. Four columns have been provided for Work in Process, and a single column for Cost of Completed Work.

This completes the architect's accounting problem.

A typical model balance sheet and statement of profit and loss over a six months' period are shown on page 92.

PERSONALS

THE architectural firm of Morris & Weinberg, Cleveland, has been dissolved, owing to the death of Charles Morris, F. A. I. A. Joseph L. Weinberg, A. I. A., will continue in independent practice and announces the removal of his offices to the Union Building, 1836 Euclid Avenue, Cleveland, Ohio.

COGGINS & HEDLANDER, architects, and George H. Petit, associate, announce the removal of their offices to 45 East Putnam Avenue, Greenwich, Connecticut.

THOMAS H. SCOTT, architect, has moved to new offices at 335 Fifth Avenue, Pittsburgh, Pa.

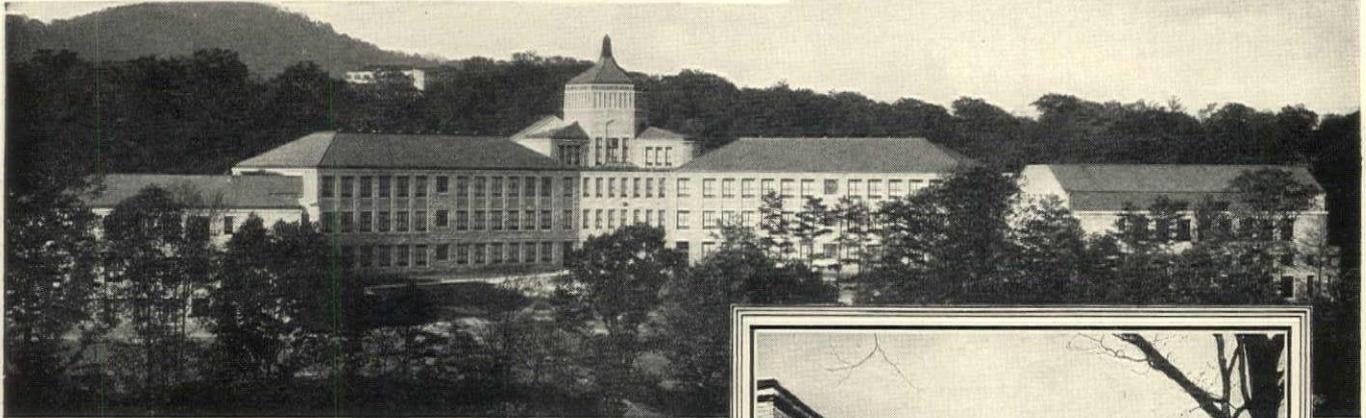
Ivan H. RILEY & Company, architects and engineers, have moved to the Old Dearborn Bank Building, 203 North Wabash Avenue, Chicago.

JAMES RIELY GORDON, architect, has moved his offices to suite 509, Farmers Loan & Trust Co. Building, 475 Fifth Avenue, New York.

Conventions and Expositions

June 19 — 30	<i>Pan-American Congress of Architects, Rio de Janeiro, Brazil.</i>
September	<i>International Architects' Congress, Budapest, Hungary.</i>
November 18 — 19	<i>Art Exhibition, Royal Institute of British Architects, London.</i>

TE-PE-CO in the School



Asheville High School and Junior College, Asheville, North Carolina
 Architect—DOUGLAS D. ELLINGTON
 Plumbing Contractors—PICKARD & Co., through Hajoca Corp.

THE "Universal" Closet has all the advantages of the wall-hung closet plus a simplified installation that requires no carrier. Its center of gravity is within itself. Full syphon jet construction with extended lip and a large vent passage from the bowl opening vertically into the pipe chamber.

The pipe corridor has long been popular in the planning of buildings where closets must be used in groups. The economy of this installation is obvious. With the "Universal" a quite narrow corridor is possible. Venting is accomplished at no cost. All supplies and wastes, being back of wall, permit use of rough material, a saving in both material and labor. The outlet being in the corridor also avoids the necessity of dropping or boxing the ceiling.

The fine syphon jet construction, large water surface, oversize trapway, and strong action make the Universal Closet ideal for all types of public building construction.

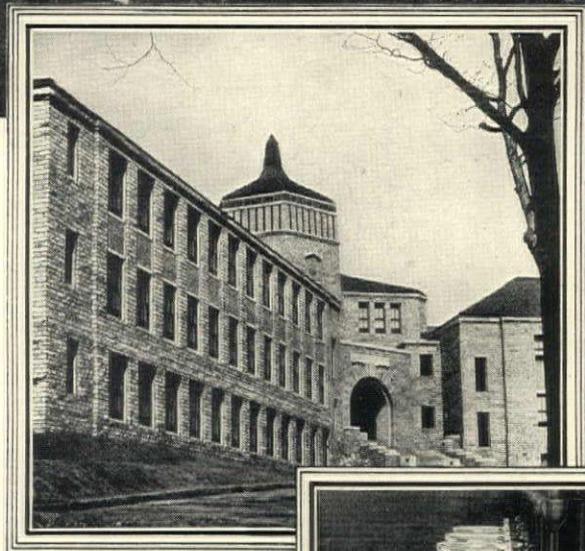
THE TRENTON POTTERIES COMPANY Trenton, New Jersey, U. S. A.

NATIONAL SHOWROOM
 New York City, 101 Park Ave.
 Entrance on 41st St.

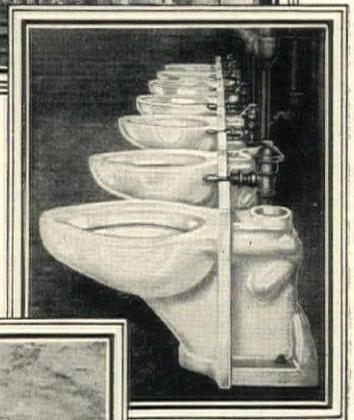
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Detailed view of building
from campus



Battery of Universal closets before setting partitions.



Universal closet as seen from room after finished installation.



PARTIAL LIST OF STEELCRETE INSTALLATIONS

Nashville Branch of Federal Reserve Bank of Atlanta, Nashville, Tenn.	Bank of Hawaii, Honolulu, T. H.	Washington Trust Co., Newark, N. J.
New Orleans Branch of Federal Reserve Bank of Atlanta, New Orleans, La.	First National Bank, Montgomery, Ala.	Brooklyn Trust Co., Brooklyn, N. Y.
Jacksonville Branch of Federal Reserve Bank of Atlanta, Jacksonville, Fla.	Title Insurance & Trust Co., Los Angeles, Cal.	Frontier Nat'l Bank, Buffalo, N. Y.
Baltimore Branch of Federal Reserve Bank of Richmond, Baltimore, Md.	Second National Bank, Washington, D. C.	Home Savings Bank, Albany, N. Y.
Buffalo Branch of Federal Reserve Bank of New York, Buffalo, N. Y.	Lincoln Trust & Savings Bank, Chicago, Ill.	United States Trust Co., New York, N. Y.
Federal Reserve Bank of New York, New York, N. Y.	Virginia Avenue State Bank, Indianapolis, Ind.	Jefferson Standard Life Ins. Co., Greensboro, N. C.
Mitsui & Company, Tokyo, Japan	Federal Land Bank, Louisville, Ky.	First National Bank and Trust Company, Springfield, Ohio
Royal Bank of Canada, Montreal, Canada	Canal Bank & Trust Company, New Orleans, La.	Exchange National Bank, Tulsa, Okla.
	First National Bank of Boston, Boston, Mass.	Allegheny Title & Trust Co., Philadelphia, Pa.
	Bank of Detroit, Detroit, Mich.	Monongahela National Bank, Pittsburgh, Pa.
	City Bank of Kansas City, Kansas City, Mo.	National Life & Accident Insurance Co., Nashville, Tenn.
	South Side Trust Co., St. Louis, Mo.	Nat'l Bk. of Commerce, Milwaukee, Wis.

NOW UNDER CONSTRUCTION

Royal Bank of Canada, Vancouver, B. C.	Iring Trust Co., New York, N. Y.	Germanic Safe Deposit Company, New York, N. Y.
City Bank-Farmers Trust Co., New York, N. Y.	Kansas City Federal Reserve Bank, Kansas City, Mo.	

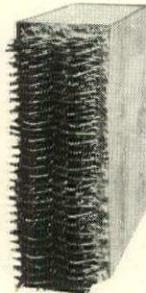
For These Institutions

ONLY 3 POINT BANK VAULT PROTECTION will do!

The list of Steelcrete Bank Vault users includes not only many of the foremost financial institutions in the world, but hundreds of small banks and financial companies. To all of these cost is naturally a business-like consideration.

For Three Point Protection—against (1) Cutting Flame, (2) Drill, (3) Explosives—is excellent protection. At no greater cost than that of the small all-steel vaults of other days, the banking house can now have a larger and stronger vault, built the Steelcrete way. Your local contractor does the construction under the supervision of your local architect, assisted by a representative of Steelcrete. Modern banking requires larger vaults.

Our engineering staff is ready to cooperate with you on any Bank Vault problem. Send for Certified Endorsements from bankers and architects who thoroughly investigated before selecting the Steelcrete Bank Vault System.



Around a dense skeleton work of Steelcrete Units tied together with steel bars, concrete is poured—a complete unit doubly strong at corners and floors



CUTTING FLAME



DRILL



EXPLOSIVES

THE CONSOLIDATED EXPANDED METAL COMPANIES
Steelcrete Building, Wheeling, W. Va.

Branches: Boston Cleveland Philadelphia Pittsburgh Chicago
New York Buffalo Detroit



OTHER STEELCRETE PRODUCTS FOR SAFETY

FRAME BAR and Industrial Mesh for Window Guards . . . Industrial Mesh for Safety Guards and Partitions . . . Metal Lath and Accessories . . . Expanded Metal Concrete Reinforcement . . . Welded Wire Fabric

Three Rivers to Quebec

(Continued from page 64)

happened to witness were crowded to the doors.

We had a pleasant time the first day with a little boy and his grandfather who were cutting grass at the side of the road. At the point where we met them stood a large cross by the road, the wood worn white as a bone by the weather. The articles mentioned in connection with the Crucifixion, fastened on it, were all made of wood, except the metal cock. The names on the sketch were furnished by the little boy who supervised the drawing leaning over my shoulder while he ate his bread and dropped crumbs in the ink. He was born in Canada but spoke no English. They were highly amused at everything we said or did and could not understand our explanation in poor French of why we were walking with packs on our back in the heat of August while all the other people rode in automobiles. The boy discovered a mouth organ projecting from my pocket, which instrument he had never seen before. I furnished the music while Messieurs Lapierre and Lejeune performed a few figures on the road. After which we walked on, leaving them staring after us with expansive grins on their faces.

THE French-Canadian house is almost invariably a simple, story-and-a-half house with a ridge running down the center, a chimney at each end, sometimes dormer windows, a slight overhanging of the roof at the front and back with a delicate change in curve at the eaves. This overhang is sometimes large enough to form shelter for a narrow porch when delicate posts are introduced in pairs with lattice separating them. Double hung windows are rarely seen. They usually have outside as well as inside casements for protection against the bitter winter weather. This is also true of public buildings. As further protection against cold, the west wall is usually built of stone to face the prevailing wind. In one deserted home we noticed brick behind the clapboards. Shutters are rarely used in country districts.

We occasionally saw an interesting detail on the houses where some adventurous soul had attempted home-made ornamentation. The sketch of the Ionic capital is illustrative of this. And how much more desirable than the dry repetition of porch orders which clutter up our older American houses and more suitable to wood than the grandiose "Greek Revival" used by our own builders of the 1840's. Some houses had imitation stone quoins at the corners and in a few cases imitation ashlar carried over the entire exterior. We noticed that the chimneys on each end of the roofs were slightly different in appearance and found, on examination, that frequently one was a genuine brick chimney while the other was made of board and painted to imitate brickwork. The longing for balance had led to this quaint trick. On questioning, several farmers all offered the same answer "seulement pour apparence, Monsieur." The people occasionally gave names to their houses and most were quite pleasing. I remember two examples, "Bruit des Vagues" (Sound of the Waves) and "Chalet sans Bruit" (The Quiet Cottage).

But the chief joys for me were the French-Canadian barns. They seem to present a perfect blending between

**HOTEL
GOV.
CLINTON**



**UNITED SHOE MACHINERY
BUILDING**



**HOTEL
NEW
YORKER**

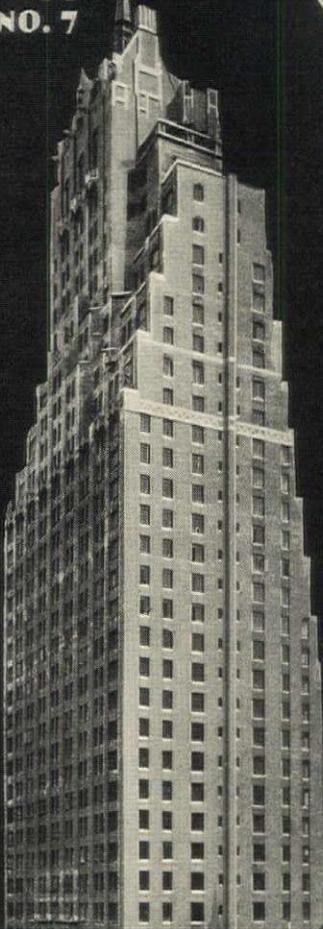


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Square Feet of
GYPSTEEL
PARTITION TILE
were used in
these Great Buildings**

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LINDEN 3700**

**TUDOR
CITY
NO. 7**



**CHRYSLER
BUILDING**



**WILLIAMSBURG
SAVINGS
BANK**





architectural
TERRA COTTA

Pacific Telephone & Telegraph Building, San Francisco, Calif. J. R. Miller and T. L. Pflueger, Architects

"MODERNE"

means

TERRA COTTA

which offers the greatest freedom in developing new
ORNAMENT.

NATIONAL
TERRA COTTA
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230 PARK AVENUE
NEW YORK

man and nature. Generous in proportion and sweeping in line, they were a constant delight to the eye. The neat, clean landscape of the region sets them off to perfection. The barn itself, if painted was almost invariably white as were the houses and sometimes the trim brought out tastefully in color. How ridiculous it seems that one must go so far to be able to revel in the barren simplicity of architecture that is built with little more intention than satisfying the most primary demands of comfort and shelter. To see this architecture is as refreshing as hearing a child speak after listening to an elaborate banquet program. We may go back home to profit by the experience but find our hand involuntarily reaching for the sophisticated trickeries that come from knowing too much architecture and not enough of it thoroughly.

RASPBERRIES were in season and we frequently bought them by the wayside. In accordance with the current slang, we frequently used the expression "raspberries" which was altered for the time being to "framboises." One evening while at dinner with five or six natives who were carrying on their own conversation in French, Lapierre retorted to one of Lejeune's remarks with "framboises." One of the natives thereupon passed him a dish of raspberries. Stone spent the rest of the meal and most of a hilarious evening explaining. The ice once broken we made quite an evening of it, every one doing his little tricks. But the prize was the rendition of a melodramatic love song in French by a sad little fellow with a "Chaplin" mustache, accompanying himself on a piano which lacked a third of its keys.

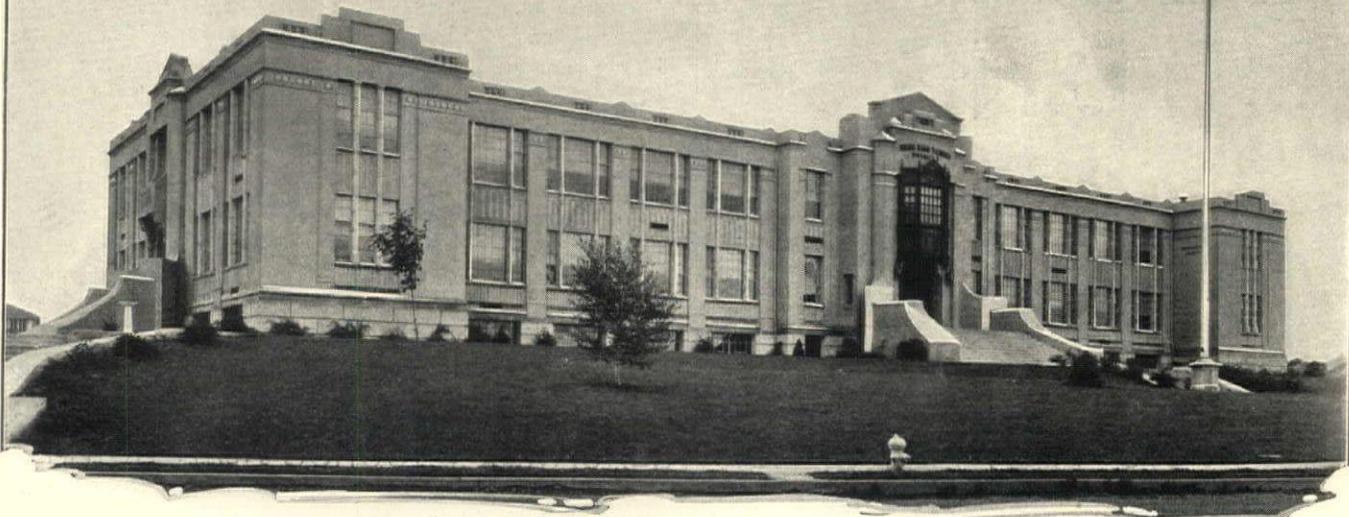
We frequently saw for sale colorful hooked and braided rugs of naive pattern hanging over the porch railing. I eagerly bought some of the first I saw and found to my despair that I had to carry them on my back for two days before I found a post office where I could mail them and then spent an hour about town hunting a piece of paper large enough to wrap them in. The museum at Montreal has some of the best of these rugs in their permanent collection and it is there one fully realizes what really artistic things they can be.

Almost every farm contains an area planted in tobacco. This tobacco when dried is extremely dark and makes strong smoking. They take the dried leaf and crush it in their hand and smoke it without any further treatment or blending.

WE were much amused at the great seriousness with which croquet is treated in the little towns. The court is usually clay that has been accurately leveled and beaten smooth as a billiard table. The shots are made with extreme accuracy and the game is followed by the players and spectators alike with great interest. No child's play, this.

One day a funeral procession slowly passed us, consisting of about 40 carriages and two automobiles, a rare sight for modern eyes. The people were dressed in black and, looking into these faces, one could with little difficulty really imagine himself back in France. Very real is the memory of an old lady sitting in the sunlight by the window of a tiny wayside house. In her white lace cap and black dress, with her lobster-red complexion and contrasting light blue eyes, her countless wrinkles and sprightly spoken "Bon jour, Monsieur," one almost

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forgot that he was not in a village home of Normandy.

Quebec was a fitting climax for the hike but it is so well patronized these days that I will not dwell on its many delightful features. However, in case you have not been forewarned, do not fail to make the tour of the Isle d'Orleans. This large island lies in the St. Lawrence a short way down the river from Quebec. A ferry runs regularly to it and automobiles may be hired at reasonable prices to make the circuit of the island in a few hours. The sketch of the little chapel was made on the island. This tiny structure sits on a bleak wind-blown spot and contains a shrine and altar. Our great thrill was in taking the road which leaves the southern shore, cutting straight across the island which is raised in the center. On arriving at the summit we passed through a dense, green wood which framed a most marvelous landscape. In the foreground beyond the wooded area lay the fields with the color of their ripening crops. The ground sloped downward to the distant river, a ribbon of deep blue, from the other side of which the land rose in a gentle slope cut into long strips of farmland at right angles to the shore. Each strip varied in tone and texture, making a magnificent pattern. Across them ran the road leading to Ste. Anne de Beaupre. Montmorency Falls gleamed in white cascade a short way down the river. In the remote distance the Laurentian mountains hung like a grey-blue veil. And the sky filled with clouds completed a picture not to be forgotten.

The St. Lawrence Valley has a charm that lingers in the memory with the same persistency as a strong personality one has known. Whether this is due to the constant nearness of the great river, with its monumental quality or the novelty and color imparted by the French settlers and their handiwork is hard to say. But all who have once been there know what I mean, and look forward, likewise, to revisiting this remarkable district.

BOOKS

(Continued from page 72)

covered at length are: locating the house, arrangement of walks and drives, developing the landscape plan, special purpose gardens such as the rock garden and the rose garden, and practical considerations such as grading, drainage, construction of walks and driveways, swimming pools, etc.

The Aluminum Industry

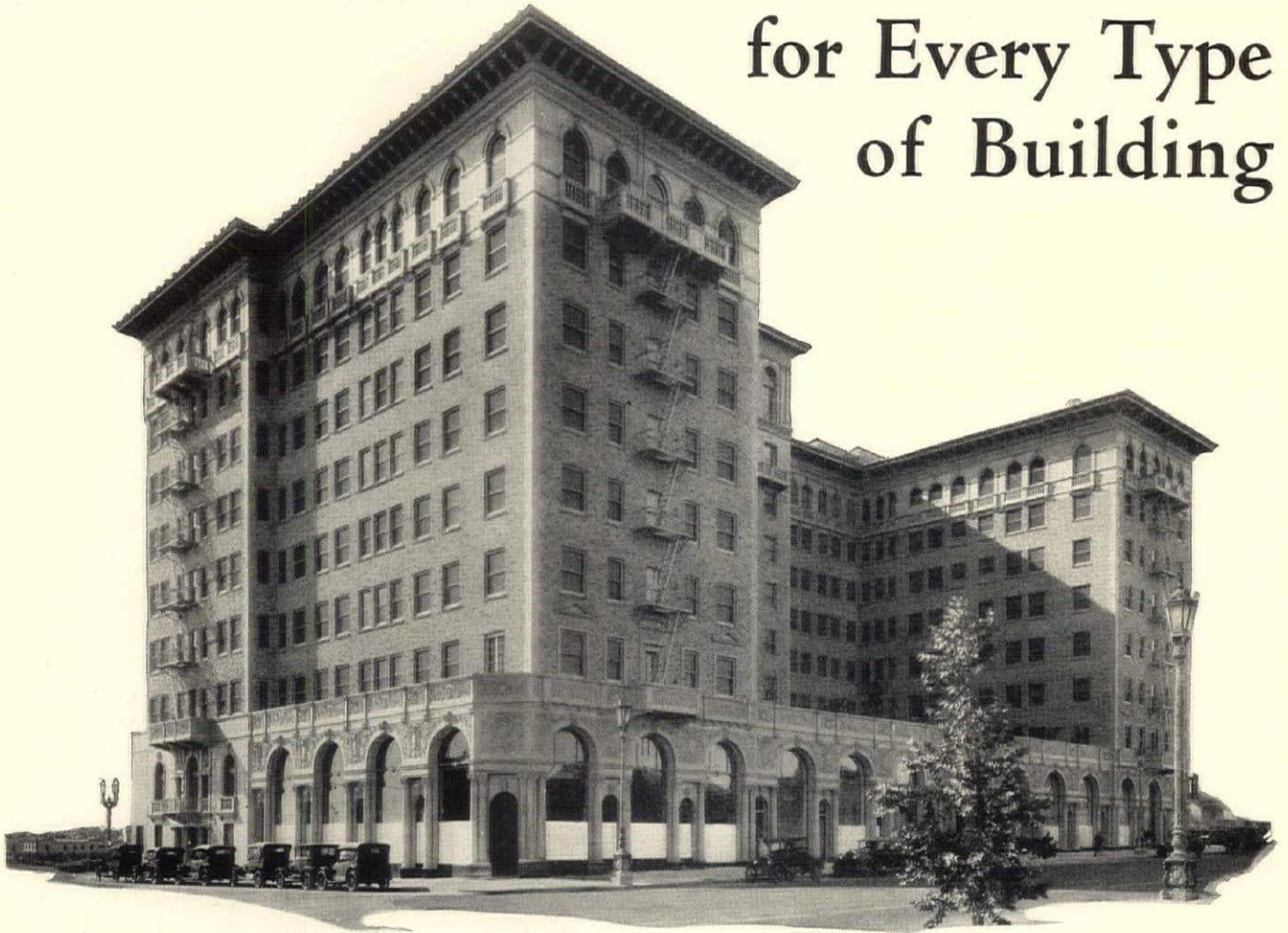
By Junius David Edwards, Francis Frary and Zay Jeffries. Published by the McGraw-Hill Book Co., Inc., New York. In 2 vols., each 6¼x9¼; vol. 1, 358 pages; vol. 2, 870 pages; illustrated; price \$12.00.

THE first volume of the two is titled, "Aluminum and Its Production." The second, "Aluminum Products and Their Fabrication." Together they are stated to be, "A complete and modern handbook of the aluminum industry, covering every phase of the production and industrial use of this material."

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STORE FRONTS

Public Votes on Architecture in Pittsburgh

(Continued from page 34)

having outstanding merit is a good suggestion for use as a means of creating public interest—providing the public will take the time to make a careful selection and cast its ballot. It would appear of doubtful value, however, as compared with a good publicity campaign that will create public interest and enthusiasm in architecture. Many architects in Pittsburgh questioned the advisability of omitting the names of architects from the exhibits. In this they apparently forgot that the most successful exhibitions that have been held have stressed the value of good architecture to this community rather than the work of any specific firm or firms. Inasmuch as medal awards were to be made, it was certainly advisable to conceal the name of the architects to forestall any accusation of favoritism by the jury. Exhibitions that present examples of good architecture in the cause of public information are decidedly of greater value than those that are obviously "advertising" for the firms exhibiting. If the public is interested in any work exhibited it is a simple matter to ascertain the name of the individual architect or firm.

It was unfortunate that the exhibit was not arranged and hung in a manner that would create a better impression on the public. The exhibition was located in a place convenient to the members of the Chamber of Commerce and no doubt reached many influential people in Pittsburgh.

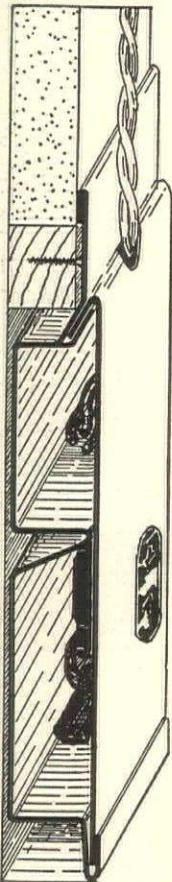
The Honorary Jury consisted of Taylor Allderdice, Chairman; Dr. John G. Bowman, F. J. Chesterman, Wm. G. Clyde, Howard Heinz, J. H. Hillman, Jr., A. L. Humphrey, Edgar J. Kaufmann, R. B. Mellon and H. H. McClintic.

The active jury consisted of C. H. Hammond, F. A. I. A., Chicago, President of American Institute of Architects; Harry T. Lindeburg, New York; Frank J. Forster, A. I. A., New York, and William S. Miller, Builders' Council of Pittsburgh Chamber of Commerce.

Competition News

A COMPETITION for a new city hall costing eight million dollars will be held by the city of Detroit. The council has approved a three million dollar bond issue as an initial appropriation for a new structure on the site of the present building. Nation-wide invitation for submission of plans will be made.

TEN architects of international reputation will compete in the final stage of the architectural competition for the selection of a design for a Monumental Lighthouse to honor the memory of Christopher Columbus, to be erected in Santo Domingo, as a result of having their designs placed first in the preliminary competition: Will Rice Amon, of the United States; Josef Wentzler, of Germany; Helmle, Corbett and Harrison, of the United States; Pippo Medori, Vincenzo Palleri and Aldo Vercelloni, of Italy; Louis Berthin, Georges Doyon and Georges Nesteroff, of France; Donald Nelson and Edgar Lynch, of the United States; Joaquin Vaquero Palacios and Luis Moya Blanco, of Spain; Theo. Lescher, Paul Andrien, Georges Defontaine and Maurice Gauthier,



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Whether used with ice or mechanical refrigeration of any type, the McCray delivers the same efficient service. And it should be re-

membered, too, that the character of service you get depends finally upon the refrigerator itself, regardless of the cooling method used.

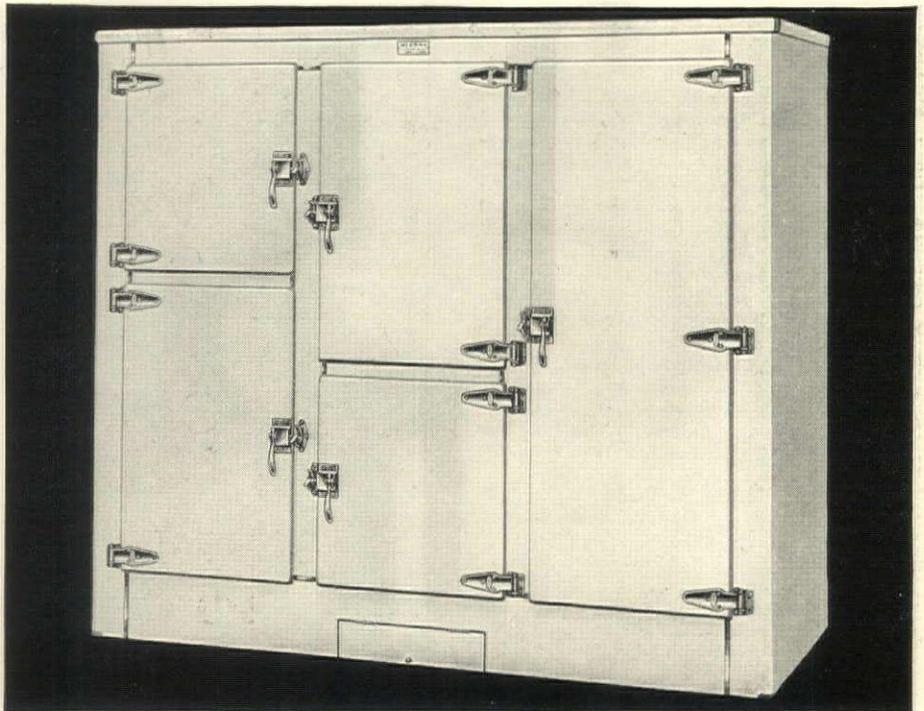
The McCray illustrated is the Model No. P332, one of a series of new All-Porcelain refrigerators for Hospitals, Schools, Institutions, Hotels, Restaurants—in fact wherever perishables must be

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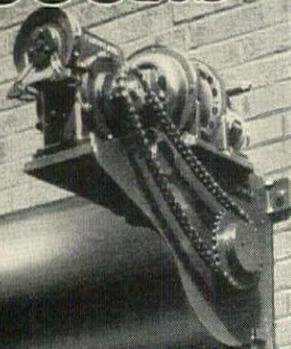
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of France; J. L. Gleave, of England; Douglas D. Ellington, of the United States.

The ten competitors will now submit entirely new designs to the judgment of the Jury of award, which will meet at Rio de Janeiro, Brazil, some time during 1931.

In addition to being declared the architect of the lighthouse, the author of the design placed first in the final competition will receive a prize of \$10,000; second prize will be \$7,500; third prize, \$5,000; fourth prize, \$2,500, and \$1,000 will be paid to each of the other six competitors. Albert Kelsey, F. A. I. A., is technical advisor to the committee.

THE competition for the redesign of a water tower at the Frelinghuysen Avenue factory of the Carrier Engineering Corp., Newark, was won by Carl Kudlich, architect, Scarsdale, N. Y., who was awarded the \$500 prize. The second prize of \$300 was won by Leonard DeWitt, Chicago, and the third prize of \$200 by James Gordon Carr, Boston.

TWO awards for artistic steel bridges will be made this year by the American Institute of Steel Construction. One award will be for the bridge costing over \$200,000 and the other for one costing less than that. These will constitute the most beautiful long span and short span steel bridges opened to traffic during 1929. Awards will be made in June, 1930. Stephen F. Vorhees and Cass Gilbert are the two architects on the committee, Gustav Lindenthal and Prof. William H. Burr are the two engineers, and Dr. Horace McFarland, president of the Pennsylvania Fine Arts Commission, will represent the civic interests.

BULLETINS

TESTS of Large Timber Columns and Presentation of the Forest Products Laboratory Column Formula," by J. A. Newlin and J. M. Gahagan, is the title of technical bulletin 167 issued by the United States Department of Agriculture, Washington, D. C. Price, 15 cents. Explains a new formula developed as a result of these tests, together with other valuable information.

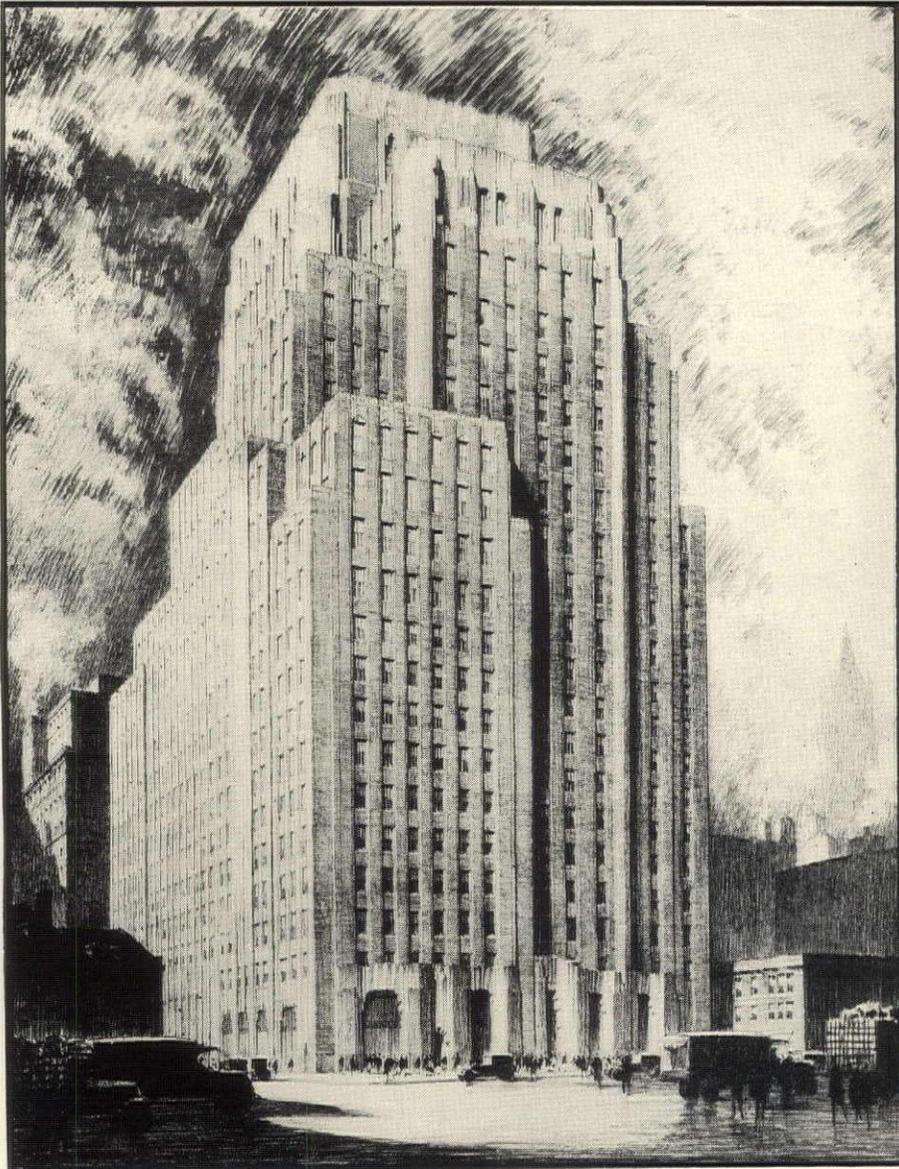
"**A**RGHITECTURAL Acoustics" is a bulletin by Paul R. Heyl, Bureau of Standards, U. S. Department of Commerce, Washington, D. C. Covers usual defects of auditoriums, dead spots and sound foci, calculation of the reverbration time, and planning an auditorium. Price, 5c.

COMPARATIVE Strength Properties of Woods Grown in the United States," by L. J. Markwardt, of the Forest Products Laboratory, is the title of technical bulletin 158, issued by the United States Department of Agriculture, Washington, D. C. Price, ten cents.

REGULATIONS of the National Board of Fire Underwriters for the Installation and Operation of Acetylene Equipment for Lighting, Heating and Cooking," "Regulations of the National Board of Fire Underwriters for the Construction of Merchandise Vaults," and "Regulations of the National Board of Fire Underwriters for the Installation, Maintenance and Use of First Aid Fire Appliances," are the titles of three booklets issued by the National Board of Fire Underwriters, 85 John Street, New York.

THERMAL Insulation of Buildings" is the name of a new booklet issued by the United States Chamber of Commerce and for sale by the superintendent of documents, Washington, D. C. Price, five cents. The insulating properties of a number of general classes of insulating and building materials are given, together with the probable fuel savings resulting from the use of such materials.

TURNING PLANS INTO REALITY



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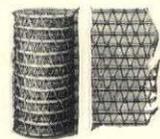
TODAY—the development of American architecture has reached a plane that holds the undivided attention — the admiration and acclaim of the entire world.

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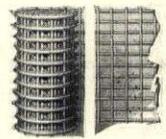
Today—as in years past—the American Steel and Wire Company is supplying a major portion of the wire fabric (the steel backbone of concrete) that enables plans to be turned into reality.

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Design of Special Paneled Doors

(Continued from page 37)

If such a molding is required around the divided opening it necessitates the use of an inserted sash, since it is nearly always impossible to stick bars and muntins to match flush moldings. \$1.00 to \$1.25 a door will be saved by designing bars and muntins which can be stuck. If they are designed for sticking it is easy to stick the stiles and rails, too, with the same knives, and then rout out the stiles and rails around the panel to receive the molding.

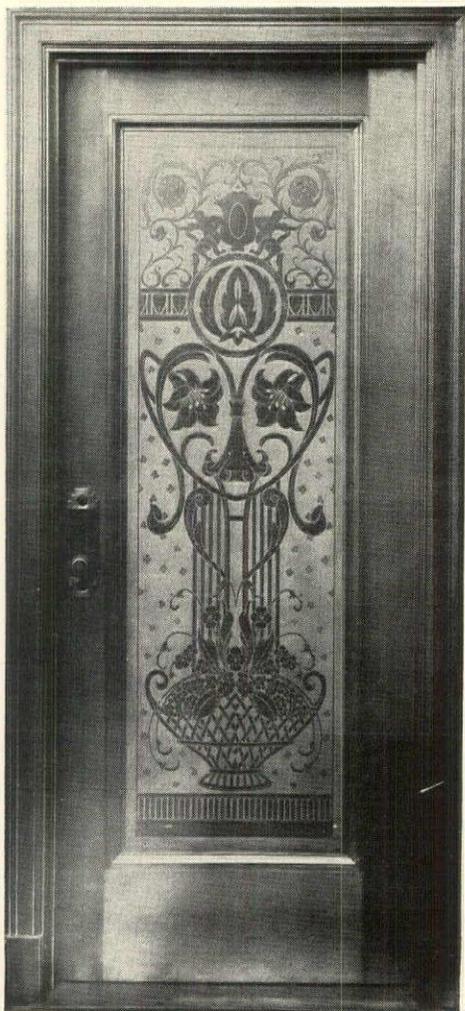
In detailing stickings for stiles and rails care should be taken to see that none of the molded surfaces coincide with the glue line of the face veneer as more or less chipping of glue and wood is bound to occur during sticking. Figure 3 shows a typical example. By carrying the cut down $1/32''$ or so into the edging strip any chance for chipping at the joint will be avoided.

Whenever the stuck surface fails, as in Figure 4, to break sharply away from the surface of the stile a feather edge must be coped on the end of the rail. This coping is hard to machine and assemble, and the joint nearly always shows as an irregular line after sanding. When face veneer is $1/8''$ or less in thickness it is a good idea to show, where the contour of the sticking will permit, a right angle cut from the face of the stile down through the veneer, and into the edging strip at least $1/32''$. This conceals the glue line in the angle, and helps make a firm true joint between stiles and rails.

FLUSH moldings should, where possible, be brought out almost even with the surface of the stiles and rails, or at least near enough to cover the joint between the core and the face veneer. If the molding is so low that the glue line is exposed, edging strips on the inside of the stiles and rails are necessary just as though they were to be stuck instead of molded. The addition of these hardwood edging strips is expensive, and increases the tendency of the stiles to warp.

Most stock door plants glue up the cores for stiles and rails from western pine blocks 8" to 18" long, while the cores for the more expensive doors produced by cabinetmakers are usually built up from longer strips of northern white pine or chestnut. In either case it is important that the core be properly and uniformly dried before veneering and have no holes in it which will cause depressions in the face veneer. The type of joint used between the core blocks or strips is not important from a service standpoint since any well-made glue joint will develop the full strength of the soft woods used for cores. Manufacturers use dovetailed, tongue and grooved, or plain flush joints depending on equipment.

A surprisingly large number of special doors are still detailed with mortise and tenon joints, in spite of the fact that all full size stock doors and a large part of the special doors are doweled. The present doweled construction was developed to conserve material, reduce warping, speed up production, and prevent the introduction of the considerable amount of moisture which the glue on large tenons carries into the stiles. It also



Doors of Etched Aluminum

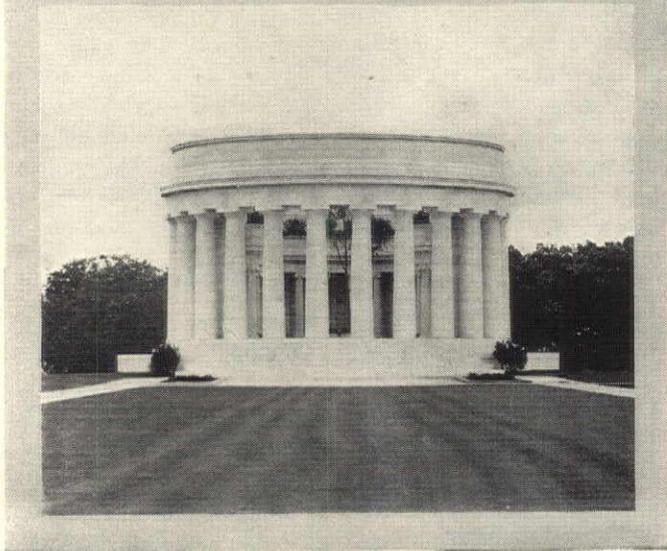
In step with the modern trend toward the use of new metals in architecture, United now offers strikingly handsome doors of etched aluminum. The years take no toll of this permanent metal. The silvery polish and soft gray of aluminum permit effects of rare beauty and charm.

There are no restrictions upon the designer of such doors and no upkeep penalties for the user. They remain objects of permanent beauty. United also supplies panels of stainless steel, etched in any design, with plastic enamel background in color if desired.

Never has a wider range of decorative possibilities been available to the Architect. Further information on the use of white metals, as well as the conventional materials, will gladly be furnished upon request.

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simplifies the construction of cores for rails as in the older method it was necessary to make all the core blocks on the ends of the rails at least as long as the tenons.

RECENT tests made at Cornell University on doors with the two types of joints show doors joined with 1/2" dowels, the smallest used in doors, to be slightly stronger than mortised and tenoned doors, with about the same deflection at the maximum load. Both types of joints were strong enough to develop the full strength of the stile against splitting. These tests, together with the other evident advantages, definitely justify the use of doweled construction. Requiring mortise and tenon joints usually increases the cost without any structural advantage. Some small plants are not equipped to make doweled doors, so on orders for a few special doors still use mortise and tenon joints. Since the two types of joints look exactly alike in the finished door, and both are satisfactory, it is suggested that manufacturers be allowed to supply either doweled or mortised doors.

What a Critic Thinks of Francis Keally's Ideas

(Continued from page 70)

restricted districts where a garage for more than five cars is, under the Zoning Law, prohibited.

This scheme has already been tried out, however, in cities where *carte blanche* is the rule.

9. Still on the subject of garages, but this time moving the scene to the suburban residence, the reason why most home owners don't want the garage ornamenting the front of the house is because they are not particularly proud of exhibiting to the passerby the collection of flat tires, empty oil cans, and greasy overalls which the average open-door garage displays.

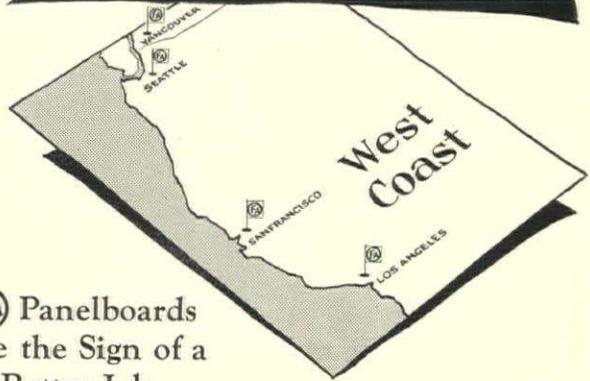
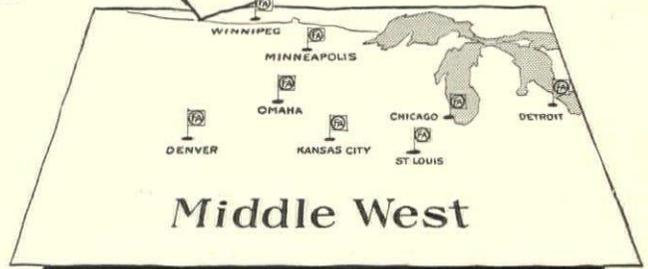
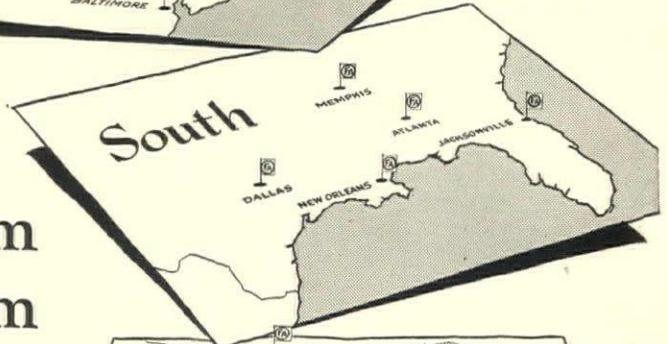
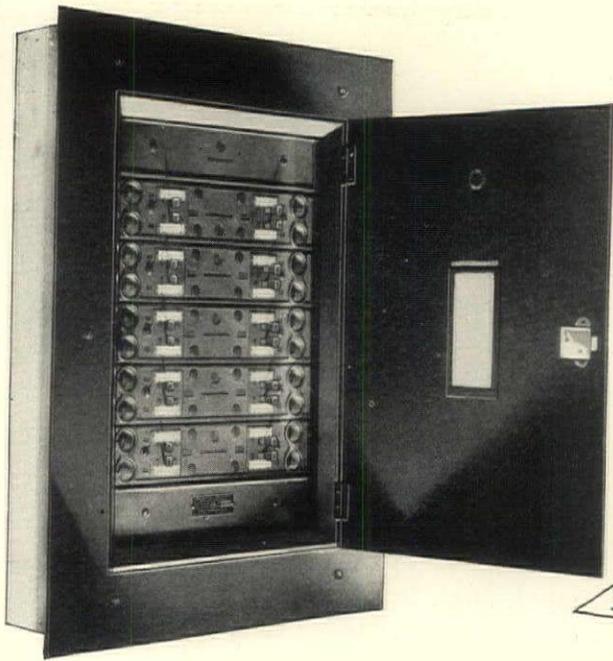
10. After having washed the car in the front garage, and taken off our overalls, we ascend eagerly to our bath room (a single cubicle this time) for a good old-fashioned shower—only to be confronted by the great scalding problem, exemplified by rendered perspectives A and B.

FORTUNATELY this is short lived, because Mr. Keally's inspirational arrangement of handles on the wall at the end of the tub, shown in "A," is of pre-war origin, the majority of bath-tub showers being installed that way. In fact, I am puzzled as to where he could have found the angle-shower head, shown in "B," aimed as it is across the width of the tub, and squarely on the adjoining floor space.

11. Having bathed unscalded, we are invited to sojourn on the roof. Again I say, "No, no, Nanette." Too cold in winter—and in summer, too hot by day, too mosquitoey by night.

Now that the smoke raised by Mr. Keally has cleared away, the architects of the Old Guard are found busily working at their boards—almost unscathed—and ready to receive the next batch of ideas they never thought of.

Well, why not?—"Anthrax, Jr.," architect, *New York*.



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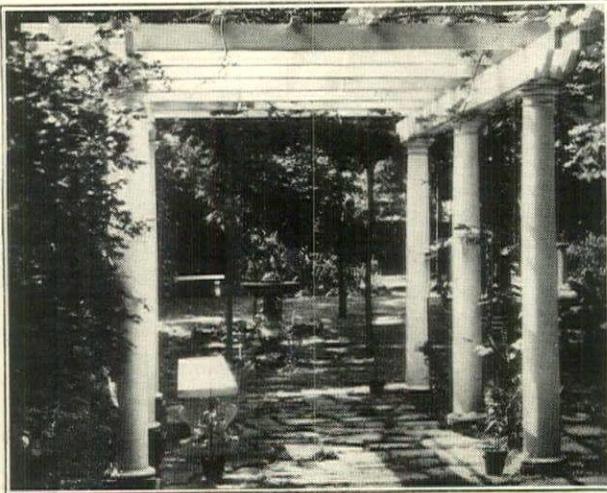
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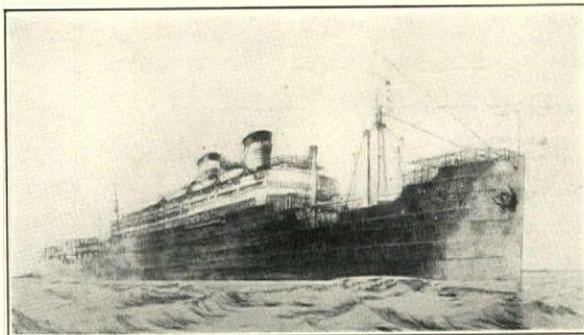
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October 24, 1929

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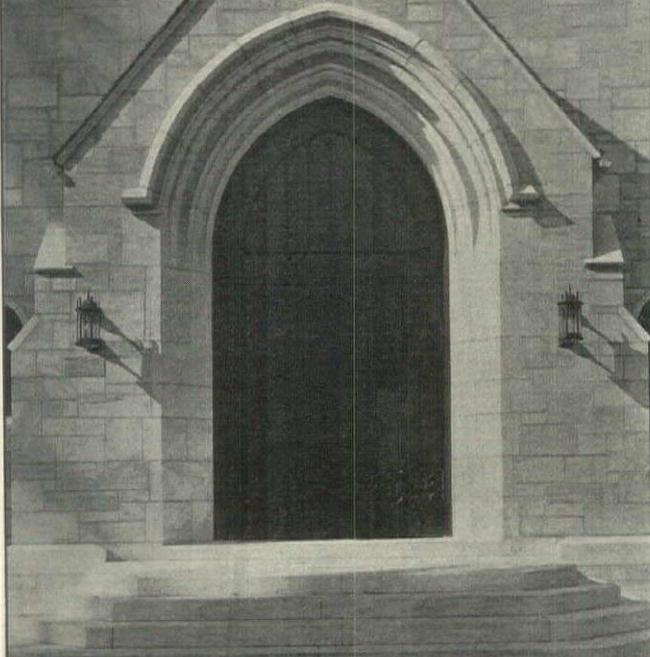
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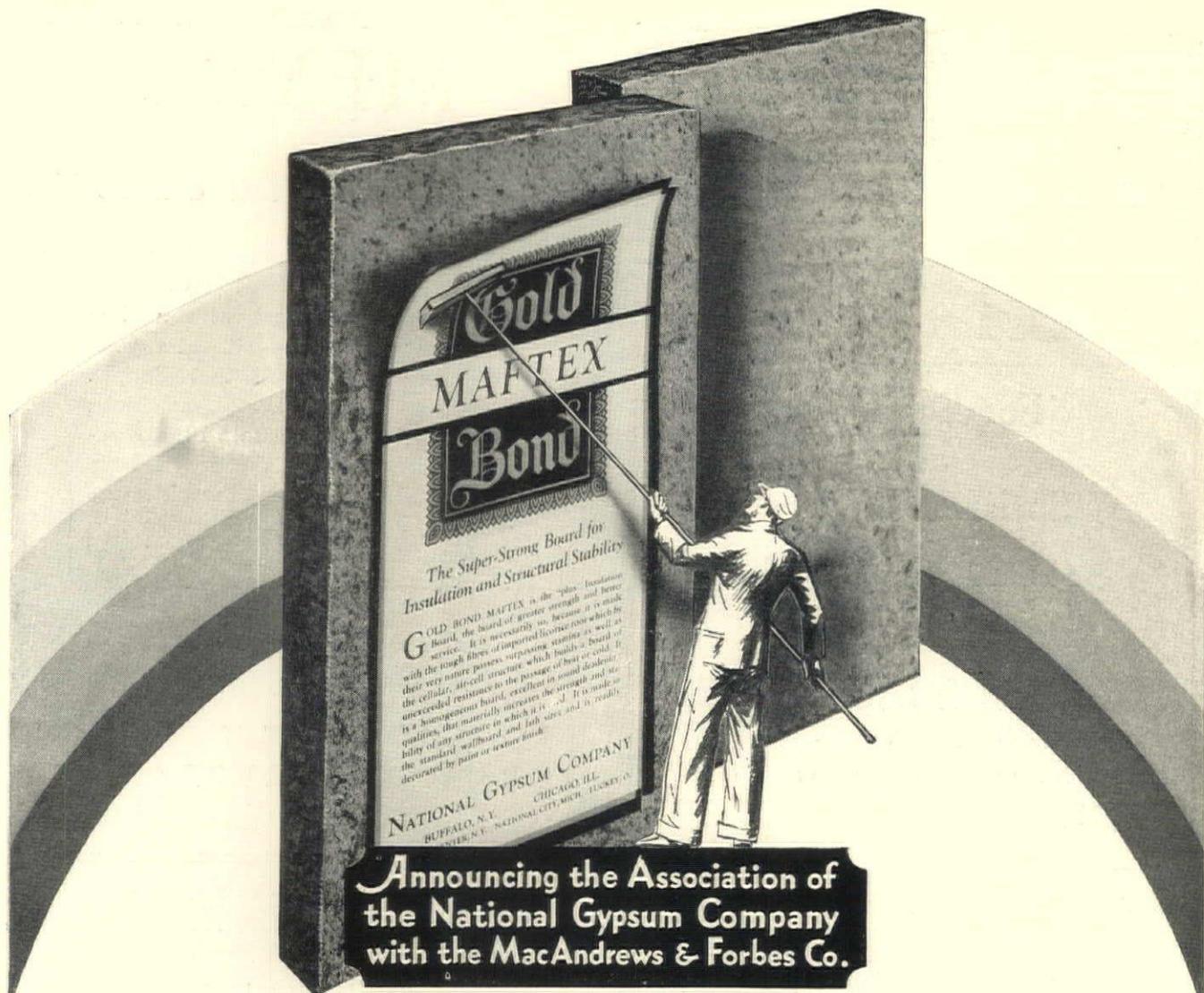
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 OF AUGUST 24, 1912.

Of American Architect, published monthly at New York, N. Y., for April 1, 1930.

State of New York, }
 County of New York, } ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared E. H. McHugh, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the American Architect and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, International Publications, Inc., 959 8th Ave., New York City; Editor, Benjamin Franklin Betts, 959 8th Ave., New York City; Managing Editor, Ernest Eberhard, 959 8th Ave., New York City; Business Manager, E. H. McHugh, 959 8th Ave., New York City.

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Sworn to and subscribed before me this 31st day of March, 1930.

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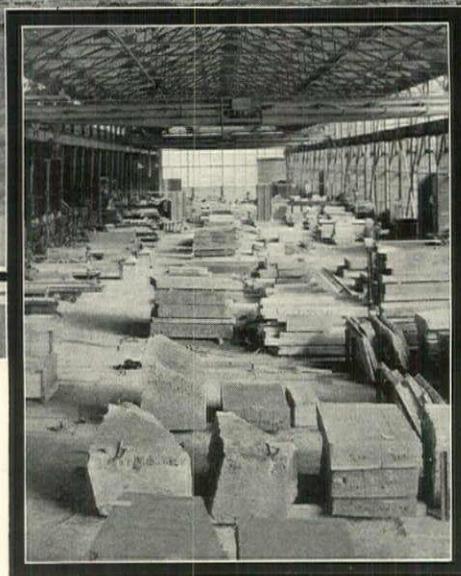
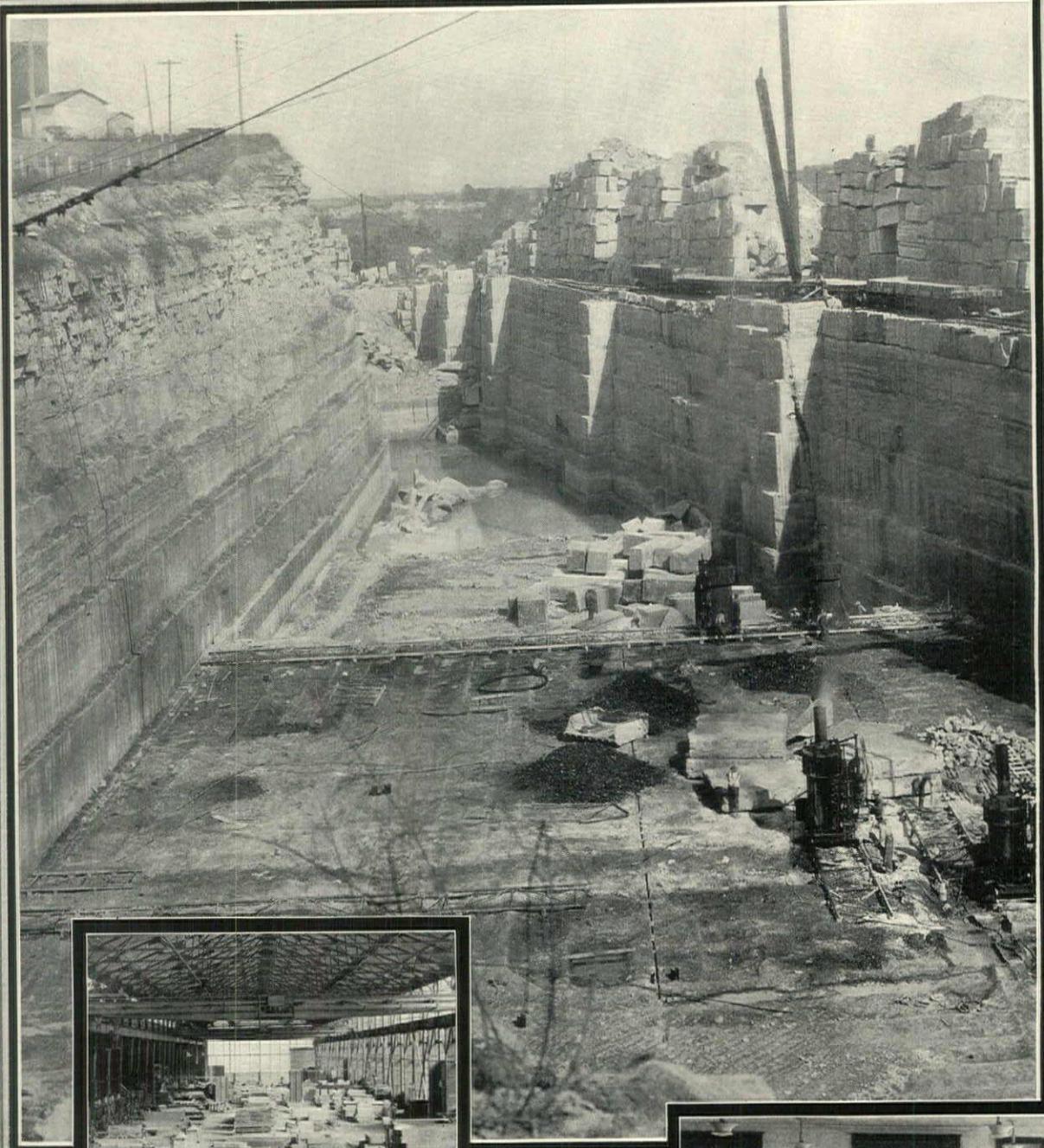
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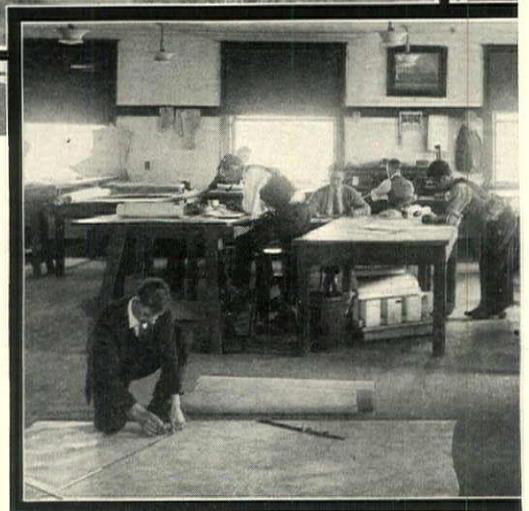


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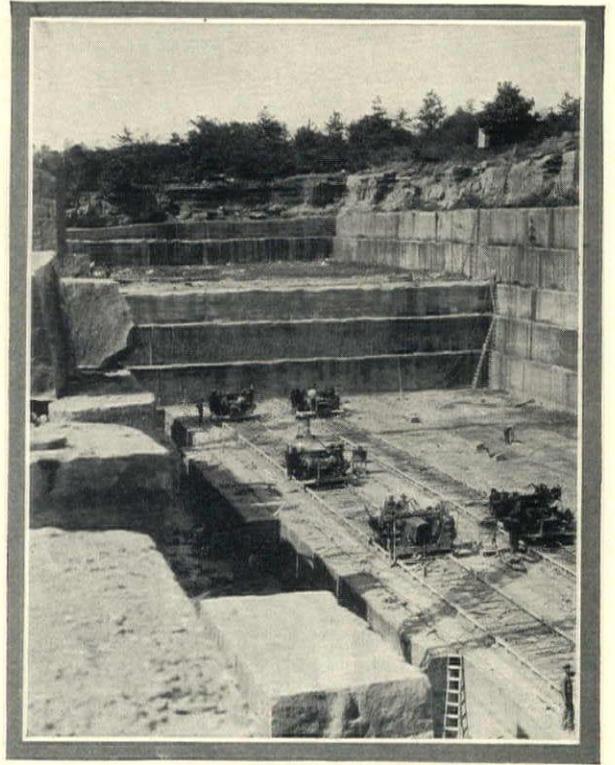


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(Below) Dickinson Mill, Bedford, Indiana. One of many units of tremendous capacity in the "ILCO" group.



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The Vicious Circle

(Continued from page 23)

possible, the cost of their houses will be reduced enormously. They should be able to sell for \$2,000 a house which today would cost \$5,000. Their advertisements will fill the magazines. Their booklets will be as elaborate as those of motor car builders today. Their sales offices will contain completed rooms in various styles, in which their high-pressure salesmen can convert the reluctant prospects. Even the mortgage will be handled by a subsidiary finance corporation, instead of the bank.

Now let us follow briefly the new methods that might be used in the construction of one of these mass-production houses.

AFTER the foundation is built—probably of concrete, moulded in standard forms—the material, which for euphony we shall call “Syntex,” is shipped to the site in large units. These are too large and heavy to lift by hand, and would be moved and placed in position by a small derrick or hoist.

A single thickness of Syntex would be used for both the inside and outside walls, and for the floors, which would mean a tremendous saving over the present double-layer construction. Due to the insulation value, strength, and sound-proof qualities of Syntex, no air spaces would be needed.

Large slabs of Syntex, cut at the shop to fit the plan, would be laid directly on the foundation to make the first floor. Steel or aluminum alloy joists would be used at five-foot intervals, to support these slabs. The slabs would be tongue and grooved together so that the joints would be hardly more noticeable than those in linoleum. The surfaces would be patterned like linoleum or cork tile, to make a pleasing and restful floor.

The exterior posts of the walls, and the structural struts on either side of the windows and in the position corresponding to the plate, would be steel or aluminum alloy beams of special section. The slabs of Syntex would be jammed by a special machine into these beams, so that there would be no leakage around the joints, and both the outside and inside wall surfaces would be smooth. This would produce a one-layer house, strong, weather proof, fire proof, with no leakage, and with excellent heat insulating qualities. While the outside and inside walls might be coated with plaster or stucco, or painted, the material should have an attractive enough color and surface to make an agreeable looking house without further finish. It should be smooth enough to take wall paper with but little preparation save filling in the joints, and smoothing over any accidental irregularities.

The structural frames around the doors and windows would be of pressed metal. They might be finished in color, or grained in imitation of wood; or if made of aluminum alloy, might be left bright. The doors would be factory built, and shipped with the hardware in place, ready to hang. The windows would be metal sash.

The roof would be the same Syntex construction as the walls.

As Syntex would be fireproof, it would be used for

the chimney. Four-foot sections would be used, large enough to fit around the flues; or it might be moulded so that the flues were an integral part of the chimney. Since the house is fireproof, the chimney could receive some support from the floors, though it could be self-supporting, if desired. The chimney would thus be erected quickly, the sections fitting together with flanges like sewer pipe. Fireplaces would be single units, completely decorated, ready to set in place.

The heating, plumbing, and wiring would be carried out as far as possible on mass production methods. Since most small houses would be in stock patterns, the wiring and piping for them could be built into the walls at the factory. Larger houses, built to the customer's taste from stock units, would have piped and wired sections, as required. The larger pipes would be sent in ten and twelve-foot lengths, as the standardized house designs would avoid the necessity of endless bending of short pipes.

The heating system would probably be of the hot air type; probably a one-pipe heater in the smaller houses; and perhaps in the larger houses, a pressure system in which the air, heated, or cooled, and properly humidified, is blown into each room by pressure through comparatively small pipes. This would do away with all water or steam-tight joints, and all radiators. The heating system would be as simple as the pneumatic tube systems for department stores, the pipes for which are usually concealed in the walls, and are so easily put in that they are often installed after a building is completed. A riser from the heater, with lateral pipes extending through the walls or floors to the various rooms is all that would be needed. The heater, which would be operated by gas or oil, would be dropped into place as a single complete unit.

THE plumbing system is more of a problem, though if the materials are standardized in a few patterns, and installed by the manufacturer with special tools made for saving labor, a saving of 50% should be realized over methods of today. Another saving would be made by the use of stock house plans in which baths and water connections would be placed for simplest runs of pipe. One-story houses would, of course, offer no particular problem, but two or three-story houses might utilize a pipe well, such as is used in large office buildings, to contain heating and plumbing pipes. Baths, sinks, toilets, and other water connections would be tapped off the main pipes in this well. With the single layer wall and floor, some such plan would have to be followed, or double thick walls with the piping moulded in would be used as a pipe well. Much of the piping would be in the form of tubing, to save the labor of making joints at the bends. Sewer piping would be in some lighter, easier to handle form than the cast iron pipe now used. The fittings on sinks, tubs, lavatories, and other equipment would, for most houses, be shipped in place, and would be as standard as the equipment on the dashboard of an automobile.

The electrical system would be built into the walls,

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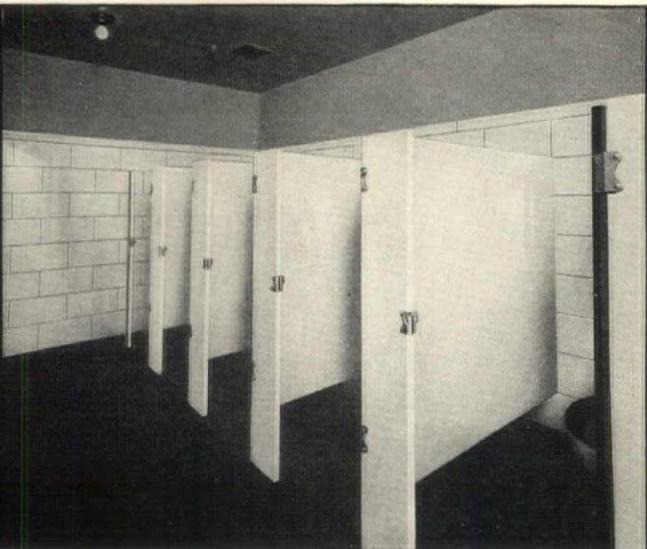
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VITROLITE
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like the plumbing and heating. New arrangements of indirect lighting, using perhaps the new white neon tube lights, would probably be developed to simplify the wiring, and avoid the use of fixtures; or simple fixtures would be moulded into the walls at the factory. With one layer walls, it might seem difficult to run wires from say, a switch to a light on the opposite wall of the room; but a moulding at the floor or ceiling grooved to carry the horizontal wires, with vertical wires to outlets and switches embedded in the walls, would probably solve this problem, and cut installation costs very materially.

Now that we have examined materials and methods, what will our mass-production houses look like? I imagine they would be rather terrible as long as people insisted on having them designed in colonial, old English, and other traditional styles. At first, public taste would probably force moulding and coloring the Syntex walls to resemble bricks, stone, shingles, and stucco; roofs would have to look like slates or shingles. We have our precedent for this in the early automobiles, which were made to look like buggies and closed carriages. But eventually, the older designs, made for older materials, would be discarded, and new designs suitable for the new materials and methods would be created as fresh inspirations. They would probably be somewhat modernistic in style, attaining their beauty through proper proportion and mass, and simplicity of surface treatment. Some traditional details would undoubtedly be retained, as the landau bar is retained on smart present day sedans. Color would play a very important part in

making the new houses attractive. Aluminum structural members might be used to add interest to the exterior. Inside, polished metal, enamels, synthetic resins, and other new materials would probably be combined with the new wall and floor material to create striking effects that are undreamed of today. One thing we may be sure of. The cheapest house would be designed and decorated by the world's greatest architects and interior decorators. Mr. Ford's experience has proved beyond question that beauty sells merchandise. Beauty and charm and genuine homeiness will sell factory built houses.

If a certain pattern of a seven-room house, selling for say \$5,000, is reproduced a thousand times, the gross sales would be five million dollars. A one per cent charge for initial plans and specifications would permit spending \$50,000, which should secure as attractive a house as human ingenuity and artistic talent can produce. By designing each basic pattern of house in several exterior types and many color schemes, these thousand houses could be spread over the United States without danger of excessive duplication in any one locality.

Mass production houses will probably be as different from present day houses as the streamlines of a mass produced automobile are different from the short, chunky curves of the old hand built carriage. But I believe they will be beautiful, convenient, and liveable. To those of us architects who have the opportunity to help in their development, there is promised an extremely interesting—even exciting—adventure!

New Materials

(Continued from page 76)

Small Submersible Floodlight Projector

A submersible floodlight projector, small enough to install in swimming pools, which have not been provided with recesses for projectors, without forming an obstruction within the pool, has been placed on the market by the General Electric Company, Schenectady, N. Y. It has a casing of aluminum, is 10 $\frac{5}{8}$ " in diameter, 9" deep, and weighs 15 lbs. The unit can be fastened at the top of the pool by a $\frac{3}{4}$ " standard pipe, hinged at the point of support, and throws a beam which will not leave the water to cause glare for spectators and swimmers. The unit may also be used for fountain sprays.

Radiator Trap

The Thermoflex Radiator Trap No. 3 is a new trap placed on the market by the Grinnell Company, Providence, R. I. It is thermostatic in operation and has an extra long Hydron bellows. Meant for special conditions where the service is continuously severe an over-capacity trap is required. Nickel plated with highly polished trimmings.

Liquid Waterproofing Compound for Cement

A liquid waterproofing compound used for many years throughout the British Empire and European countries in connection with cement, cement mortar, and concrete is being introduced in the United States by the American Sika Corporation, 56 West 45th Street, New York. It is called "Sika", comes in several types, and is added to the mixing water. It is claimed to have been used under water pressures

up to five hundred feet without having to remove the pressure. It is also said that it will cause cement mortar or concrete to set under still or agitated water in a few seconds, or that it will cause a cement or cement mortar to seal a hole through which water is running under pressure without removing the pressure. A test quoted states that Sika will cause a neat cement test piece to have a tensile strength rising to 100 lbs. per sq. in. at the age of one hour. For use on either new or old work.

Two New Window Screens

The Truscon Steel Company, Youngstown, Ohio, has placed two new window screens on the market, the Casement Rol-up Screen and the Casement Side Hinged Screen. No details need be changed to accommodate either of these screens, and they may be applied after the window is installed or removed entirely without affecting the casement or the reveal construction. The screens were developed exclusively for Truscon standard casements and their use involves no special operating mechanism for ventilators. Awnings may be raised and lowered and glass cleaned on both sides without interference. Screens are set flush against the window frame. Wire cloth of bronze. One type is a roll up type; the other is hinged at the side.

New Built-in Mail Box

A new mail box is being sold by the Majestic Company, Huntington, Ind. It is built to receive the largest magazines and newspapers and mail is removed indoors. A feature is a ground glass name or house number panel which is lighted from behind, and a neat bell button.