One Responsibility for Ideal Elevator Hardware

There's all the difference in the world between Ideal elevator hardware and the ordinary kind. When hangers, checks, closers and inter-locks all bear the Ideal name, there's Complete Unit Control with One Responsibility for smooth, swift, silent, safe performance. Many of the finest modern buildings standardize on Ideal elevator hardware because it's everlastingly certain to be wholly satisfactory. Let us send you complete data for your files.

Ideal gives noiseless and efficient daily service in these Cincinnati Buildings.
MEMORIAL HALL,
GEORGE WASHINGTON MASONIC NATIONAL MEMORIAL, ALEXANDRIA, VA.
HELMLE & CORBETT, ARCHITECTS
In discussing the value of any particular type or kind of architecture, we are all likely to draw comparisons. We might say, for example, that motion picture theater architecture is more valuable than home architecture, because most people don’t stay at home nowadays, but do go to the “movies” — that factory, office building or store architecture is more valuable than “movie” architecture because people must spend their working hours in some such building; and then again, that people go to church only once a week (if that) and see a bit of memorial architecture only occasionally. If we make our comparison in terms of financial outlay, investment or productivity, we are again confronted with the thought that memorial architecture has the least value of any type. In fact, if we judge the matter on any commercial basis in this super-commercial age, we might very well ask ourselves why consider it at all, why think about it or, much less, why write about it.

Yet there are certain aspects of memorial architecture which demand very careful consideration. In the middle ages there were but two kinds of architecture, — domestic and religious; — the people lived in hovels and worshiped in cathedrals. The hovels were poorer than anything known today; the cathedrals greater than anything man can now produce. The material life of that time offered little that could be called attractive, and the spiritual life was the only compensating reward that poor humanity enjoyed. The home provided the bare necessities of existence, — hardly that, in fact. With the advance of civilization many relationships have changed. Material well-being, comfort and cleanliness have replaced squalor, suffering and plague, and instead of only two kinds of architecture we have at least “57 varieties,” all different, functioning to increase material happiness or worldly wealth. “Spiritual architecture” has an ever-diminishing rating on the ledger of modern life. Does this mean a diminishing value? Quite the contrary. Spiritual architecture, and in that we would include religious as well as memorial, as they are very much the same in purpose and should be classified together, is the last remaining bulwark of the soul of man. Instead of being of the least value, it is of the greatest. No type or kind of architecture is more important. No other form of building has such vital significance, and certainly no other kind of architecture demands such study, such imagination, such vision. It is the one and only architecture in which the problem must be treated abstractly, — in which the message it carries is more important than the form, the material, the style, or even the use.

The problem from the architect’s point of view is the most difficult, and therefore the most fascinating and alluring. Memorials are not built for a generation, to be “scrapped” when land values demand new and modern structures. The present-day architect, if he doesn’t “pass out” in his early youth, lives to see many of his masterpieces torn down and rebuilt, generally by another man. But memorial work is different. Its spiritual significance defends it against the encroachments of a material age, and the man who has the opportunity of designing and producing in this field may feel fairly certain that coming generations will at least see it, and that if he does it well, if he holds strongly to the spiritual thought which inspired it, if he but carries the message, not alone by the graven word but also by the dignity of form and proportion, the refinement of color and detail, future generations will also admire his work!

It might be urged, of course, that the extent of what is here called memorial architecture is not sufficient to warrant its being developed by anyone as is done, for example, with the designing and planning of hotels, churches or apartment buildings. The designing of a memorial, whatever may be its character, comes to an architect (when it comes at all) as part of his general practice, and the problem must be solved and the work done just as a solution is found and attention given in any other type of architectural work. For there is, after all, no essential difference between architecture of this type and architecture of any other variety; the function of architecture, it has been said, is to “build beautifully,” and architecture’s purpose is served when a structure of any kind possesses inherent beauty, although perhaps there is need for rather more than usual care, thought and inspiration where memorial architecture is concerned. Since a memorial is likely to occupy a position of prominence, as has already been suggested, its very permanence creates an obligation to posterity which the architect will do well to heed.
December, 1926

THE ARCHITECTURAL FORUM

MAIN ENTRANCE HALL

PLYMOUTH MEMORIAL BUILDING, PLYMOUTH, MASS.

LITTLE, RUSSELL AND JOSEPH D. LELAND & CO., ASSOCIATED ARCHITECTS

SIDE EXIT FROM AUDITORIUM
MEMORIAL HALL

AMERICAN LEGION ROOM
PLYMOUTH MEMORIAL BUILDING, PLYMOUTH, MASS.
LITTLE & RUSSELL AND JOSEPH D. LELAND & CO., ASSOCIATED ARCHITECTS
Memorial Buildings

By EGERTON SWARTWOUT

The title, I'm afraid, is a bit misleading. It might be confusing to the casual reader, if indeed there is a casual reader of architectural articles, or any reader at all for that matter; so let us start again in the subjunctive, and say that if there should be a casual reader, and if he should start to read this casually, he might, in his casual way, imagine that he would find here a complete historical dissertation on the subject of memorial buildings, with an indexed list and footnotes and references and pictures and, above all, evidences of painful research. Now that isn't my idea at all. I have only the vaguest kind of a notion of the historical side of it, and I have not the slightest intention of reading up the subject, for I particularly loathe painful research. Let us treat the subject in a different way.

All I intend to do is to ask a question and answer it myself, to my own satisfaction I hope, if not to that of the casual reader. And the question is:

Should buildings be erected as memorials, or rather, should memorials be buildings and not arches, or statues or fountains or shafts? A very simple sort of question, perhaps, but rather hard to answer to anyone's satisfaction; in fact I think the only answer is that there is no answer, and that it all depends on the subject to be memorialized and the type of building proposed. If it is the intention or the testamentary obligation to commemorate the industrial capacity and business acumen of a highly successful manufacturer, say of Chiclets or Esquimo Pie, I can imagine that there might be built, in close proximity to the factory of the deceased, a neat Pompeian swimming pool or an early English billiard parlor, or an entirely modernesque hall for movies and a place of meeting for the social activities of the local Rotary Club. Or I can imagine the very proper and appropriate erection of a gymnasium or a baseball cage or swimming pool as a memorial to.
DETAIL, MEMORIAL HALL, ELKS' NATIONAL MEMORIAL, CHICAGO
EGERTON SWARTWOUT, ARCHITECT; J. HOLLIS WELLS, ADVISORY ARCHITECT
ELKS' NATIONAL MEMORIAL, CHICAGO
EGERTON SWARTWOUT, ARCHITECT; J. HOLLIS WELLS, ADVISORY ARCHITECT
some distinguished athlete who has been an honor to his university or college or school, as for instance the skating rink built as a memorial to “Hobey” Baker at Princeton. Or again a family, wealthy enough to do it properly, might well build a much-needed college building as a memorial to a son who was an alumnus; I can imagine a number of instances in which buildings would be appropriate, but I cannot imagine the erection as a memorial, whether by a state or municipality, of a strictly utilitarian building which should properly be paid for by taxation.

In some good sized town, for example perhaps, there is a proposition on foot to erect a memorial to the men of the town who were killed or wounded or who served in the Great War. Quite a respectable sum has been raised by subscription, and a happy idea strikes some of the city fathers. They need a new high school, or a town hall, but they don’t want to raise the tax rate; it is not good politics to raise the tax rate; hence the great idea. Let us, say the city fathers, build this school or this town hall as a memorial; under the guise of a memorial, that is, really; let us incorporate in the building an auditorium with a tablet of names somewhere, and perhaps a statue, or at least some sculpture about it. How much better, they say, to do some good for the people; how much more practical this would be than to put up a shaft or a statue or some such gimcrack. And the deed is done. There
is a town meeting at which much is said of patriotism and of modern common sense and practicability, and the good of the dear people, but no open allusion is made to the non-increase of the tax rate; that is done by a whispering campaign. And so the school or town hall is built as a memorial, and there is an impressive ceremony at the corner-stone laying and another at the dedication; patriotic speeches by distinguished military and political personages; the band plays, and flags are plentiful, and then—the school in a year or so is just known as the Elm Street School, and the memorial town hall has become merely the offices of the mayor or the common council, and the auditorium is used for movies or an occasional town meeting. No one passing through the place would ever imagine either building was a memorial! The townspeople themselves have forgotten there was a memorial. The flags are gone and the band is gone, and the inscriptions on the tablets are nearly obliterated by dust and neglect. The memorial idea is forgotten, not because of any lack of feeling or of patriotism, but because we as a people are likely to forget quickly unless we have some visible and beautiful object to awaken our remembrances. Suppose, for example, those in charge of the Washington Monument had decided to build a new wing to the capitol instead of the majestic shaft which is now the center of the mall treatment. It would have been a practical thing, to be sure, but
who in 50 years, or in five years either, would have remembered the saving to the tax payers, or who would know that the new wing was a memorial?

Generally speaking, no memorial, if it is to be a real memorial, can serve any useful purpose; or to put it in another way, no structure can serve two purposes. It is either a memorial of some great act or sacrifice or of some great man, or else it is merely a school or a town hall. There can be no half way, and yet on the other hand it is conceivably possible to introduce in a distinctively memorial building certain subordinate features that may be of a practical nature. I hesitate to take as an example a building of my own, but as I have said before, I have no time or inclination to do any research for material. I perforce take what is at hand. There are, I'm quite sure, many other more appropriate examples and better buildings, but as a concrete example the Elks' Memorial in Chicago will serve. This building is a national memorial to those members of the order who have served in the World War, and the feature of it is a great memorial hall, circular in form with a domical treatment; the interior is of richly colored marble and of bronze, decorated by distinguished artists with mural and sculptural decorations which are in progress but not yet in place. There are, in addition, three other monumental rooms which serve as retiring rooms or anterooms. It is so far all monumental, and serves no utilitarian purpose. It is not intended as a meeting place or hall of any kind; there are no lodge rooms. In the side wings, however, there are certain utilities; the grand secretary of the order has his permanent offices in one wing, and in the other are the headquarters of the Elks' Magazine, but they are quite separate from the monumental part of the building and have their own exterior entrances. They are treated frankly as accessories and do not interfere with the monumental appearance of the structure and, as it is generally seen from the front, the wings count as pylons rather than as utilitarian buildings; the basement windows have ample light but are completely hidden by the terrace wall; the domical central mass, the circular colonnade, the piers of the subordinate order screening the court, the great niches, and the steps and terraces, all these suggest to the passing stranger that here is a memorial to somebody or something, and he generally reads the inscription to find out just what it is. He may not like it architecturally, he may prefer a square to a round, but still he has no doubt of its character. At least that's the way it seems to work out actually. But enough of the Elks' Memorial. I only mentioned it as an example.

And this is my thesis. I have tried to show in a few words that under certain circumstances memorials can be practical buildings and still retain their monumental character, and that in many cases they cannot. I have put a question and tried to answer it, and if the casual reader doesn't like the answer, he may write his own version. It is a matter of opinion.

Details, Memorial Hall, Elks' National Memorial, Chicago
Egerton Swartwout, Architect; J. Hollis Wells, Advisory Architect
Memorials—Columns, Shafts, Cenotaphs and Tablets

By PAUL P. CRET

BEFORE we consider particularly the types of monuments grouped in the heading of this page, it should be remembered that the class of architecture which may serve the purposes of commemoration is large. Almost any type of architectural work can be given a commemorative character, and plazas like the Place Vendome, or the Place de la Concorde, built to commemorate the two kings, Louis XIV and Louis XV respectively; fountains, like those in Rome built by the popes; hospitals, libraries, auditoriums and bridges are examples of a very large number of memorials in which provision for public utility or enjoyment is included in the design. While utility may undoubtedly be an advantage that need not interfere with the essential requirements of any work of memorial architecture, it seems obvious that in a memorial the end to be achieved, primarily, is the perpetuation of the memory of a great man or a great event to future generations. This object being granted, it follows that permanency and a clear and arresting expression of the commemorative idea are essentials of the program; and that the most appropriate memorial is that which may best withstand the changes of centuries, and by the beauty and dignity of its design arouse to attention and respect the heedless mind of the wayfarer and that of the wayfarer still to come.

Tested by their fulfillment of these basic requirements, a number of our memorials, despite their present popularity, must be classed as of doubtful value. The memorial trees or groves in our public squares and parks, for instance, can hardly be regarded as fitted for long survival, and many of the auditoriums, libraries and convention halls which fill the land fall short both in point of permanence and in the expression of the commemorative idea.
The construction of some of these buildings, in the first place, though adequate certainly for ordinary use, is not often of a sort to stand the wear of centuries; and, secondly, the constant changes in the requisite programs render them quickly antiquated; lastly, the commemorative idea is very frequently lost sight of in the utilitarian, so that thought of the man or the event to whose glory a building has been erected may well be the last that comes into the minds of the people who pass in and out of its doors.

We, perhaps no less strongly than did our forefathers, feel the desire of keeping alive the memories of our great men and of our patriotic achievements, but how much of our building will bear testimony five hundred years from now, to our spiritual life of today? The earlier civilizations knew better how to apportion effort to the result to be achieved. If their commercial and domestic buildings were not designed to last for more than a few generations, and have in consequence almost entirely disappeared (but for the exceptional case of Pompeii), their memorial and civic architecture is still standing because they wanted it to stand, and so gave to it all
their skill in design and construction. Thus our knowledge of the architecture of antiquity has come down to us through its finest forms, and to this perhaps the glamour of the past is in no small part due. Does our belief in "utility,"—however temporary that utility may be,—denote a spirit superior to that which inspired the apparent extravagance of the Egyptians or the Roman builders, who, intent upon conquering time, were willing to pay the price required, or does it bear witness only to a mean and short-sighted parsimony? But this is not the place for such a discussion. Suffice it to say that a work of commemorative architecture which has little chance of enduring is hardly worthy of the name.

Among the important forms of this class of architecture, designed solely to commemorate men or events, are shafts, arches, cenotaphs, tablets and columns. Such types have been in use from the earliest times, and their tradition is all but as old as man's own hope of immortality. The shafts and obelisks have inherited from their common ancestor, the sacred upright stone, a rugged strength which seems to defy the elements; the Egyptian obelisks testify...
to us of the splendor of royal dynasties of 40 centuries ago, whether they are at present in their birthplace, Egypt, or in London, Paris, Rome, or New York. This form is particularly effective in large monoliths. The Egyptian obelisk measures on the average 75 feet without the base, and has slightly convex sides. The pocket editions in our cemeteries, and the “monumental” versions with intricate pedestals and “heroic” sculpture are decidedly not an improvement on the original form, and the inscriptions, easily accommodated in the vertical writing of the Egyptians, have now to be confined to the pedestals. But there are fine examples of the later types in Italy and France, and of the modern in the Washington Monument, this last a satisfying example.

Columns have been still more popular as commemorative monuments. It is in vain that the purists have protested against the use of a support independent of the thing to be supported, or with some reasoning to that effect. The Greeks, who were pretty good judges in such matters, set the pernicious precedent, none the less, and the Romans and moderns have followed. It has merely added another example to the long list of constructive elements turned into decorative types. When a constructive form has through successive improvements become beautiful, it is not long before the idea of its original use is lost sight of, and the beautiful form is used more or less for itself. The city gate then becomes the triumphal arch, the pediment a door-crowning motif,
and an order becomes the jamb of a mantelpiece. Thus the Greek column becomes the votive column, and from it have been evolved the Column of Trajan or Duilius in Rome, the columns of the Place Vendome and of the Place de la Bastille in Paris, the column of the prison ship martyrs in Brooklyn, and the memorial column at West Point. These few examples among the thousand that exist are sufficient at least to convey the suggestion that the individuality of the artist, to assert itself, has no need of any brand new theme. The architect of tomorrow may find in the good old program of the commemorative column an opportunity for work just as characteristic of his times as the examples we have cited are vividly characteristic of their own periods. There is no time-worn theme, but only time-worn ways of treating it as well as methods which are fresh and new.

The cenotaph is a form of memorial that has been less often used in this country than in Europe, especially in the Europe of the Renaissance. As its name implies, it is a memorial monument in the shape of a tomb, but which does not receive the remains of the man to whom it is erected. The tomb proper was usually near by,—under the pavement of the church, for instance, where the cenotaph stood against the wall. The Romans have left us such a number of fine examples of this type of memorial that the following generations have been satisfied with variations of one or another of their designs. All the churches of Europe have beautiful examples of the
cenotaph, and among the recent we can mention the Cenotaph at Whitehall, the work of Sir Edwin L. Lutyens. The main element in this austere type of memorial is the empty sarcophagus, and perhaps a reason for its disfavor among our contemporaries is their aversion to so direct a reminder of death, even when it is closely associated with the idea of immortality. Stern suggestions are losing favor with the modern public. Everything must be made pleasant. The inscribed tablet is today the most widely and favored form of memorial. It may be as inexpensive as is desired, a place for it is easily found, and it has at least the permanency of the building to which it is attached. If it does not attract attention as readily as do some of the forms we have already described, it tells its story no less completely. A large part of our knowledge of many civilizations is in fact derived only from such inscriptions; 30,000 or 40,000 Greek inscriptions have been catalogued, and the number of Roman inscriptions is much larger,—which speaks well for the tablet as an enduring form of memorial. It should be said in passing, however, that bronze tablets have shown a bad habit of disappearing in times of crisis, whether during the invasions of the barbarians at the time of the fall of the Roman Empire, or the invasions of northern France during the World War. Of the treatment of the tablet, it should be said that over-crowding the lines is a fault; the text must be written in such a way as to lend itself to harmonious distribution. To such apparently simple work as much talent can be devoted as to the most ambitious and worthy building. The iconography may play an important part, as may be seen in the Shaw Memorial in Boston, or the text can be the dominating feature, as in the Gettysburg Speech Tablet in the Lincoln Memorial.

These forms which we have considered in some detail are, as we have said, far from being the only types of memorial architecture, and if they have received special attention, it is because they are representative of the commemorative purpose in the strictest sense. In these works, which even in their strongest and noblest examples are but frail symbols of man’s eternal hope to secure his glories and perpetuate his memory to future generations beyond the grasp of time, utility is, perhaps, best subordinated to beauty and simplicity of form, and to that reverent care in execution for which even time shows respect.

Perry Memorial Arch, Bridgeport, Conn.
Henry Bacon, Architect
DECEMBER, 1926

THE ARCHITECTURAL FORUM

PLATE 81

——— he. a

PHOTO. PAUL J. WEBER

DETAILED PLYMOUTH MEMORIAL BUILDING, PLYMOUTH, MASS.

LITTLE & RUSSELL AND JOSEPH D. LELAND & CO., ASSOCIATED ARCHITECTS
DETAIL, WAR MEMORIAL, SOUTHPORT, ENGLAND
GRAYSON & BARNISH AND A. L. MacMILLAN, ASSOCIATED ARCHITECTS
WAR MEMORIAL, RIDGEWOOD, N. J.
HENRY BACON, ARCHITECT; HENRY HERING, SCULPTOR
MEMENTO TO AUGUSTUS ST. GÄLDENS, CORNHILL, N. H.

DESIGNED BY HENRY HERING, SCULPTOR

MAX W. REED & WHITE, ARCHITECTS
PLAN

MEMORIAL TO AUGUSTUS ST. GAUDENS, CORNISH, N. H.
DESIGNED BY HENRY HERING, SCULPTOR
MCKIM, MEAD & WHITE, ARCHITECTS
PLOT PLAN, VOORHIES MEMORIAL, DENVER

W. E. & A. A. FISHER, ARCHITECTS
WAR MEMORIAL, ENGLEWOOD, N. J.
KENNETH W. DALZELL, ARCHITECT; HARRY LEWIS RAUL, SCULPTOR

Photo: George H. Van Anda
WAR MEMORIAL, NEW ROCHELLE, N. Y.
EDMOND T. QUINN, SCULPTOR; LOUIS METCALFE, ARCHITECT

Photo: George H. Van Anda
Bridges as Memorials

By WILLIAM EMERSON

What are the essential characteristics that should find expression in every memorial? Not to put too fine a point upon it, shall we not answer,—durability, serviceability, and beauty?—durability, expressing the material aspect, as does beauty the spiritual, while serviceability introduces that human relation, without which a memorial can never be enduring, withstanding the changes of time.

Does not each of these characteristics find convincing expression in the masonry bridge? Surely its material is durable; time only mellows and adds beauty of color and texture to the original beauty of line. As for serviceability, it is one of the inherent characteristics of a bridge. The bridge is indeed essential to the daily life of both highway and river, whose different uses it serves, helping the one without hindering the other. Beauty, perhaps, is less definitely associated in our minds with the characteristics of a bridge than is either durability or serviceability. That the lack of this last quality is more the fault of our times and our ignorance than of any inherent inappropriateness to the nature of the bridge, is what I shall try to demonstrate. In so doing I hope further to convince the reader of the peculiar suitability of a bridge when established as a memorial.

Lest what follows may appear to have no more weight than a purely personal opinion, and in order that one may agree with me as to the beauty of the bridges that have come down to us from other centuries, let me quote the loving appreciation that M. Victor Laloux, Membre de l'Institut and dean of French architects, expressed in regard to the architectural beauty of the bridges of France: “Perhaps there is nothing surprising in this, for does not the very essence of architecture, whether we are intimately or only generally acquainted with it, lie in this haunting quality of beauty? Is there a single constructive problem that the talent of the designer cannot, at a given moment, develop and embellish to the point of profoundly moving us?” And again: “The conscience, talent, and taste which a man like the Burgundian Gauthey has brought to the solution of the most elementary bridge problems, such, for example, as those in the suburbs of Auxerre and of Chalon, show better than any mere theorizing that the purely utilitarian character of a programme imposes upon the constructor neither indifference nor vulgarity.” The architect’s supreme effort is demanded. The quality of beauty in these old structures has won recognition from other generations as well.

Old Bridge at St. Generoux, Poitou
Jean Jacques Rousseau was so moved by his visit to the Pont du Gard that he thus expressed himself: "It was the first work of the Romans which I had seen. I hoped to see a monument worthy of the hands that had raised it; and for the first time in my life my expectations were surpassed by the reality. It belonged only to the Romans to produce such an effect. The aspect of this simple and noble work struck me all the more that it was in the midst of a desert where the silence and solitude increased the effect. . . . I walked along the three stages of this superb construction with a respect that made me almost shrink from treading on it. The echo of my footsteps under the immense arches made me think I could hear the strong voices of the men who had built it. I felt lost like an insect in the immensity of the work. I felt, along with the sense of my own littleness, something nevertheless which seemed to elevate my soul: I said to myself, with a sigh—'O that I had been born a Roman!' I remained several hours in this rapture of contemplation. I came away from it in a kind of dream, and this reverie was not favorable to Mme. de Larnage (the latest of the numerous objects of Rousseau's sentimental attachments). She had been careful to warn me against the attractions of the young women of Montpelier, but not against the Pont du Gard. One cannot think of everything." Thus the old Roman Pont du Gard!

What is it, then, that gives these bridges of Eu-
Europe a quality, a spirit, a personality, that with rare exceptions seems lacking in those of our own time and country? Why do the very stones and lines of their compositions inspire our imagination and satisfy our eyes? It is, to my thinking, not alone the historical associations that they recall, nor is it the skill with which they meet the practical purposes that they are intended to serve; but rather, that while meeting the needs of the pedestrian above as well as the boatman below, they are conceived with so true and inherent a love of beauty that they have been thus glorified into masterpieces that are the delight of the centuries—enduring memorials to the sincerity, ability, and instinctive love of beauty that animated the original builders, but often wanting today.

Let us look at some of the great bridges that the world has inherited;—Spain, France, Italy, Syria, Africa, China,—these and many other countries glory in such treasures; not constructed as memorials, it is true, but built beautifully to meet the needs of their civilization, and lasting today as a lesson from which we might derive infinite profit and delight, but which we tend to ignore. In almost every one of these countries it is the hand of mighty Rome that we recognize. Roads and bridges, waterways and aqueducts, were essential to her Empire building, but lasting beauty was ever a part of the enduring workmanship with which these monuments of her progress were built. There can indeed be no denying

Old Bridge at Montmorillon
Sketch by S. V. Chamberlain for "Old Bridges of France," Press of the American Institute of Architects

Pont du Gard, Remoulins
© Compagnie Aerienne Francaise
the beauty of these old bridges. Their durability and serviceability are alike attested by their present existence and use. Can we, then, escape the conclusion that the bridge is composite of those qualities that should find expression in every memorial? Does not this conclusion point the way toward the creation in our own time of bridges that are as truly beautiful as they are already durable and serviceable? The need of bridges as public utilities is infinitely greater now than ever it was in the old world, and this need we have satisfied from the practical standpoint with great skill; but in doing so we have generally omitted beauty as one of the essential requisites, with the result that our modern bridges only half fulfill their possibilities. May we not, in consequence, decide that in that which is useful there lies hidden the very germ or essence of beauty? Any museum showing the utensils of the Egyptians, Greeks and Romans reveals how much thought they gave to making these humble accompaniments of their daily lives a delight to behold without impairing in the least their usefulness. We, in the hurry

McKim, Mead & White, Architects

Peabody, Wilson & Brown, Architects; Ralph W. Gray, Associated
of our modern lives, are likely to find a place for beauty only when we are convinced that it will add to our incomes or to our importance. Its intrinsic excellence is little recognized. So with our bridges; the great proportion of those with which we are familiar are so exclusively utilitarian that there is no suggestion of beauty about them. They serve their purpose,—which is well,—but is it enough? Do they add dignity to the approaches of our great cities? Infrequently. Those that do so form a group of rare distinction. Do they add any line of beauty to their surroundings? Do they offer to our citizens any inducement to add to the beauty of their own lives? Do they, in sooth, inspire the beholder with any loftier vision, any finer conception of life? Very rarely. And yet, I hold that they may; and that in their very nature lurk untried possibilities, all but infinite in their variety, and so full of suggestion and inspiration as to tempt the imagination of our ablest designers. In these times a little thought will insure to the bridge its place, not merely as a utility that in a purely mechanical and rather un-
lovely way serves its purpose, but as a thing of beauty and a source of pride, meeting the needs of a growing city and at the same time offering a most inspiring subject for the creative genius of the modern architect. It is an opportunity full of possibilities.

The world at large since the period of the Armistice has sought something that might best symbolize the spirit that animated those who freely gave their lives in the hope that their countries might live in peace. Every sort of war memorial has been erected, each and every one doubtless dedicated to the same spirit, but showing such variety of solutions and, in many instances, such hopeless ugliness of form, as to make the observer wish that he might have been left with his own mental picture of the spirit that was to be symbolized rather than the sad travesty on beauty that confronts him in a material so durable as to offer little hope of its early dissolution. May not, then, a bridge be in many instances an appropriate alternative? It would solve many a problem.

That there is a growing recognition of the suitability of the bridge as a memorial by engineers as well as by architects is apparent from some of the illustrations that we include here. How nobly the bridge at Arlington, Va., immortalizes the sacrifices made in our Civil War! What a graceful addition to the growing group of Harvard's buildings is the John W. Weeks Memorial Bridge! With this the earlier Larz Anderson Memorial Bridge introduces a most harmonious and suitable note between the Colonial college buildings on the one hand and the modern stadium on the other. Springfield, Mass., may well be proud of its bridge across the Connecticut River, a memorial to the citizens of Hampden County who gave their lives or means that the city might prosper. The memorial to Charles Eliot is a particularly appealing and appropriate piece of work,—a lasting tribute to the foresight of a landscape architect, set in the surroundings which his vision had secured for the enjoyment of the public.

At Hamilton, Mass., is perhaps the most perfect solution that we have found. This bridge could hardly be better suited to the lines of the road and stream, or more charmingly suggestive of its memorial purpose. These smaller bridges are excellent examples of the intimate character that may so properly find expression in a memorial, and are convincing evidence that it is not necessary for a bridge to be large to be effective from any point of view.

In addition to the three characteristics that we have found essential in any memorial, we should note how perfectly the best of these bridges, whether old or new, harmonize with their surroundings, and how essential it is that in our admiration for the past we
should avoid the repetition of features that are of only archaeological interest. We should bend our energies to insure the solution of our problem first as a bridge problem, and then to incorporate with it the memorial character, which is highly important.

See how perfectly the bridge at Montmorillon, in France, lends itself to the conformation and character of the town beside it! It seems to become an integral part of it! What distinction and beauty are expressed in the old Roman bridge at Saint Chamas! Incidentally, how appropriate are its triumphal arches for use in a memorial! The leisurely repetition of the arches in the bridge at Saint Generoux is perfectly in keeping with the quiet countryside and the half-hidden church with which it is composed.

Limitations of space preclude the showing of other examples, but many handsome modern bridges exist in this country, such as that at Harrisburg, Pa., and the railroad bridge over Hell Gate, in New York, which have been studied and achieved with a fine feeling for beauty. Together with these accomplishments there should be mentioned the excellent policy adopted by many of our park commissions of adding to the beauty of the landscape by securing carefully studied bridge designs across waterways. The work of the Metropolitan Park Commission of Boston affords a notable and most successful instance. Nor should we fail to mention the efforts of individuals who through their positions in the community and through never hesitating to voice their convictions have been a power for progress on the lines that we have suggested. Such a one was Colonel William A. Hayes, of Cambridge, Mass., whose belief in the suitability of a bridge for memorial purposes he never failed to express, urging its appropriateness particularly as a Harvard war memorial.

Those who would look further into the possibilities of bridges as memorials I refer to the suggestive etchings and water colors of Brangwyn, to the masterly water colors of Vignal, or to the sketches of Rosenberg and Chamberlain. Perhaps no one has recognized how manifold and fascinating are these possibilities from the point of view of composition better than the English etcher, F. L. Griggs. His architectural training, coupled with a fertile imagination, has taught him how to combine the simple bridge elements in great variety, with marvelous results.

In conclusion, let us realize that although practical necessities, aside from any consideration of beauty, are even more exacting in bridge building than in other architectural problems, it is often in the satisfying of these requirements that we find the very essence of our problem. In frankly meeting the practical we often discover the truly beautiful.
BRIDGE COMPOSITION
FROM AN ETCHING BY F. L. GRIGGS
THIS is one of the most interesting of the numerous splendid war memorials and monuments which have been erected in England during the past eight years. Both in mass and detail this memorial has great appeal. The interesting bas-reliefs showing artillery in action, as well as the model of the latest type of cannon which surmounts the monument, are executed in the same stone as the bulk of the memorial itself, which gives a consistency and solidity to the entire design, and creates a suitable background for the several bronze figures, executed in heroic size, which ornament each face of the monument. Although the scale of the sculptured bas-relief is only life size, no inconsistency is felt because these bas-reliefs are treated as a decorative frieze on the monument itself. The inscriptions themselves form one of the chief decorative features. The price of valor is suggested by the heroic bronze figure of the dead artillery man.
White Memorial Fountain, Public Garden, Boston
Henry Bacon, Architect; Daniel C. French, Sculptor

Spencer Trask Memorial, Saratoga Springs, N. Y.
Henry Bacon, Architect; Daniel C. French, Sculptor
The Relation of Sculpture to Architecture
By CHARLES O. CORNELIUS

Of the many arts which contribute to the major art of architecture, none seems to present to its creators such difficult problems for solution as does that of architectural sculpture. At the same time there is no element in the composition of a complete architectural design which is of greater importance to the whole.

There must indeed be reasons why so many failures have been registered among the increasing number of examples of building in which architectural sculpture plays an essential part. The chief of these would seem to be a divergence between the points of view of the architect and the sculptor. The architect thinks primarily in terms of constructional composition,—part precisely related to part. The whole composition is built up in his mind not only as a pattern in light and shade or in voids and solids but also as a primary scheme upon a basis of weight and support. He thinks chiefly in terms of form and of light and shade. The sculptor, on the other hand, is a rather free agent, usually expressing himself in his work. The limitations of an architectural setting often hamper him and hinder to some extent the full swing of his genius. If, on the other hand, these limitations are not imposed, he is likely to go the full limit of the conception which is in his mind, interrupting perhaps the movement of the general design.

On one hand we have the architect, to whom the sculpture is an enrichment for his building; on the other the sculptor for whom the building is a setting for his sculpture. It is a happy medium between these two which produces the finest results,—the sculptor working untrammeled, but conscious none of the less of the limitations and requirements of his problem; the architect in his design properly placing the decorative sculpture so that it contributes to his structural design as a whole. The placing of the sculpture is chiefly the architect's province. Here too many mistakes are made, the decorative relief frequently serving to negative the structural composition.

There are two general basic requirements to be met in the creation of good architectural sculpture. The first of these is the accurate relation between the sculpture itself and the architectural design of which it forms a part. The degree of its relief, its mass and form, its pattern in light and shade must all harmonize with certain lines and proportions, and with the scale and mass of the main composition.

Secondly, the idea expressed by the sculpture, usually an abstract idea, should be clearly yet subtly suggested, and its connection with the uses of the building should be quite definite and apparent.

There is endless precedent for the placing as well as for the character of the sculptured work which is directly architectural. Perhaps a higher percentage of successes may be found in Greek work than in any other, although even here we must admit degrees of successfulness. The metope sculpture would seem to be almost always adequate. The cella frieze of the Parthenon and the drums of the columns at Ephesus are almost flawless and perfectly fresh creations. Pediment sculpture is not always equally successful. Tomb and theater reliefs are generally spirited and full of definite architectural character.

In much of the Greek work there is a surprising freedom of treatment within the limitations of the general design. The observance of basic lines or directions of the design seems only to have inspired a greater intensity in the sculptor. In Gothic usage the sculpture is more cramped by the architecture. Expressing a different approach and point of view, it is none the less equally successful. There probably remain to us today a greater number of examples of completely satisfying architectural sculpture in Gothic form than in any other. The hieratic tradition which carries into this Gothic sculpture is peculiarly suited to the structural feeling of the architecture. The formalized and restrained expression of emotion in the figures, the quaint grotesquity of the animals are all contributing influences.
The first requirement for the successful use of architectural sculpture, that of its relation to the building behind it, is controlled by the architect. He has here opportunities of emphasizing vertical or horizontal lines in his design, of accenting particular points or areas, and of gaining richer coloristic effects in light or shade. Often a too insistent vertical may be softened by the sculpture, or an exaggerated horizontal broken up at proper points. A subtle building up of mass is achieved by proper sculptural grouping. All of this sculptural treatment is closely associated with the carving. The sculpture and carving should be distinct, the latter—usually of repeated motifs and seldom possessing any other than a decorative idea—emphasizes the architectural lines.

If we can form any conclusions from the past to serve as a guide for the future, we may say that sculpture, when not used for itself alone, has been best placed in some position not primarily structural. The Greeks are seen using it most successfully in metopes,—spaces originally between beam ends which merely formed screens against the weather. The same is true of the great pediment sculpture of that nation. In tomb sculpture even less structural consid-
eration is required. In panels such as those on the Tower of the Winds, we again have pure decoration on a screen wall just as we have it in the Athenaic frieze of the Parthenon. Architecturally less successful than these treatments is the use of the caryatid where peculiar beauty or effectiveness lies in other qualities. In the Gothic usage this deduction holds true to a large extent. The many exquisite statues about great portals or across facades are set with architectural enframement. Gargoyles project where variety in line or silhouette of mass is desired. Finials rising high above a buttress or roof line may carry some soaring figure. This, then, is one conclusion to be drawn,—that sculpture in itself is not a strength-giving element. It is rather an adjunct which may be employed to increase or subtract from the strength-giving elements of the main architectural design.

Now as to methods in which this can be achieved. Standing off some distance from the sculpture, we may observe that the form of the main mass will serve to emphasize some subtle balance or proportion of the design behind it. Coming closer we will note that the predominating lines of the piece will carry out those of the architectural design, whether
WAR MEMORIAL TO MEMBERS, LIVERPOOL EXCHANGE NEWSROOM
W. P. HORSBURGH, ARCHITECT
VICTORY MEMORIAL, CAMBRIDGE, ENGLAND
R. TAIT McKENZIE, ARCHITECT
actually modeled in light and shade or more subtly suggested in the natural line of support of the group or figure. This will hold true whether the sculpture is free-standing, set against a facade or crowning its cornice, or whether it is in panel form breaking up into a certain tonality the surface of a screen wall. The actual treatment of the surfaces comes into this part of the discussion. One of the first requirements is a certain degree of formalization of pattern. Pure, free realism, while often splendidly gay used in connection with architecture, cannot well be made an essential element in so formalized an art. Formalization calls for simplification not only of form and line but also of surface. Broad surfaces of light throwing fine surfaces of shadow are requisite.

Too literal a following of such general ideas as are expressed here can lead only to insipidity. It is merely as a general thought that they are offered. When we think of some of the great architectural sculpture of the eighteenth century in France or that of the Baroque in Italy, we find what would seem to be almost a complete contradiction to our general conclusions. Yet upon closer examination we would find that the same general ideas would hold true, though perhaps interpreted on a special scale. Scale plays a very important part in architectural sculpture. A sculptural motif can often be brought into harmony with its adjacent architecture by a proper employment of scale in its modeling.

The abstract idea expressed by the sculpture calls less upon architectural than upon literary and iconographic knowledge. We may have representative scenes, such as the Egyptian, or semi-representative or allegorical, such as the Greek. Here figures are shown, usually in repose, but suggesting by their juxtaposition some idea associated with their place in the history of religion or thought. Actual characters from history or mythology may suggest the abstract qualities which are associated with them in men’s minds. Often, in such types of sculpture, inscriptions must identify the characters. Another usual method is the personification of abstract qualities such as Justice or Probity,—figures equipped with attributes which identify them to the knowing. Much of modern subject matter in architectural sculpture is based upon either classical mythology or upon Christian iconography, both frequently interpreted from Renaissance models.

More intelligible, even if less subtle, is the personification of abstract qualities or the representation of the arts and sciences whose attributes are a clue to their identity. Association of ideas, too, is utilized in applying motifs whose repeated use in the past has led to their association with certain buildings devoted to special uses. In the purely modern school it seems possible to dispense with any very precise ideas, relying more upon the pure aesthetic pleasure to carry the design. Spirited dancing figures or musicians at play seem adequate both from the point of view of design and meaning to express the uses of many buildings. Mourning figures or others in dignified procession might express an opposite extreme of feeling. This idea, while finding its place in modern usage, is nothing new, but a carrying on of the finest conceptions of ancient times. The famous balcony of musicians, for which Donatello is responsibility, the Pisan pulpits, the tombs of the Dukes of Burgundy all express in sculptured form the sensations of joy or grief combined with an abstract quality of beauty which gives its own thrill.
SOLDIERS' GATE, BROWN UNIVERSITY, PROVIDENCE

COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS
DETAILS, SOLDIERS' GATE, BROWN UNIVERSITY, PROVIDENCE
COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS

The Architectural Forum Details

No. 15

DEC 1926
WAR MEMORIAL, BURY, LANCASHIRE
SIR REGINALD BLOMFIELD, ARCHITECT; HERMAN CAWTHRA, SCULPTOR
PLAN, CHEESMAN MEMORIAL PAVILION, DENVER
MAREAN & NORTON, ARCHITECTS
WAR MEMORIAL, BIRKENHEAD, ENGLAND
LIONEL B. BUDDEN, ARCHITECT
STATUE OF FRANCIS ASBURY, DREW THEOLOGICAL SEMINARY, MADISON, N. J.
AUGUSTUS LUKEMAN, SCULPTOR
WAR MEMORIAL, EXETER, N. H.
HENRY BACON, ARCHITECT; DANIEL C. FRENCH, SCULPTOR
TENNESSEE WAR MEMORIAL, NASHVILLE

EDWARD DOUGHERTY AND M-KIM, MEAD & WHITE, ASSOCIATED ARCHITECTS
PLANS, TENNESSEE WAR MEMORIAL, NASHVILLE

EDWARD DOUGHERTY AND MCKIM, MEAD & WHITE, ASSOCIATED ARCHITECTS
WAR MEMORIAL TABLET, CHAPEL OF THE INTERCESSION, NEW YORK
BERTRAM GROSVENOR GOODHUE, ARCHITECT
The Winchester College War Cloister
By SIR HERBERT BAKER, Architect

All the war memorials at Winchester are of one type; they are memorials pure and simple, making but one direct appeal; they have been designed not to serve any practical purpose but to consecrate a part of our daily way to or from school or chapel, so that those who run may read.

The War Cloister, which commemorates the Great War, is built upon the lines of Wykehamical tradition and in close connection with the South African War Gate; together they form a Via Sacra for commoners, leading to work and worship. William of Wykeham made magnificent provision of gateways and courts for his 70 scholars; but he could not foresee that in the twentieth century five-sixths of the school would be living outside his original precincts. Fortunately commoners still come there day by day to worship in chapel or chantry, and the cloisters have become accessible to all. Great and simple architecture has a direct message for youth as well as for age, and it exercises an untold influence upon those who live under its spell. Therefore it seemed right, in commemorating the greatest event in our history, to endeavor to correct the architectural balance between college and commoners and between the east and the west side of "Meads." This was done by removing some unsightly buildings which hid the old flint wall, and by raising in their place a greater "Commoner Gate" in the form of a War Cloister, which harmonizes in material and design with the spirit of the founder's work. While these changes do much to enhance the beauty of Meads, which is the special garden of college men, they add even more to the heritage of commoners, who during centuries to come will pass through the War Cloister many times a day.

The new building confronts, but does not attempt to challenge, Wykeham's peerless cloister; they are both flint-faced, stone-dressed and bonded, roofed with oak, and are approximately of the same dimensions; but the resemblance ends there; they have nothing in common in general style or in detail of structure. Although a cloister in shape and suggestion, gaining in dignity and repose from the fact, our memorial differs, both in use and association, from the normal Gothic cloister. It will be used less as a place of rest or meditation than as a thoroughfare, and its associations are all of a special kind. Its architecture, sculpture, heraldry, and symbolism all tell how the fellowship of Wykehamists was merged, by service and sacrifice, in the unity of the British Empire and allied nations in the memorable years of War.

The exceptional character of the War Cloister is expressed by the original style of its architecture. It has round arches which rest on simple pillars set in pairs to bear the roof stresses, and on each of three sides there are two buttresses to carry the thrusts of the arched roof trusses inside. The style is not so much eclectic as elemental; the forms are simple and austere and depend for their beauty upon proportions, texture and color. Four ashlar-faced domes occupy the corners of the Cloister and are dedicated to the greater dominions and to India, whose quick response and heroic service stirred the heart of Great Britain. It is a great tribute, though no tribute could be too great to commemorate their valor. Use of the flintwork, with which the inner as well as the outer walls of the Cloister are faced, is an original treatment, and forms a beautiful background for the stone arches and marble columns as seen from the open garth, and a rich setting for the interior gems of arms, symbols, inscriptions, bas-reliefs, and name tablets. A narrow bed of flowers, in which roses and lilies predominate, makes a fringe to the grass squares where they touch the arcades. The main entrance, that from Meads, is a circular arch 15 feet high; a pair of iron gates has been wrought for it, but they are seldom closed in term time. Above the arch is a gable containing a niche with a statue of the Virgin and Child, and her monogram is inlaid in flintwork. On either side is a tablet; one records the fact that the foundation stone was laid July 15, 1922, and the other the fact that the Cloister was opened May 31, 1924.

Most of the shaped stones which formed the face of the old wall opposite the racquet court and museum, or were found buried in its core, are used as bonding stones in the new flint walls, while a few interesting pieces of moulded and carved stone have been placed in the museum. There are some "temples" among them, and there are others in the long piece of Wykeham's wall, which was hidden behind the squash racquet court and has now been repaired and strengthened; all these were relighted for the first time after many years at "illumina" in December, 1923. There has been excellent use of old material.

The other chief entrance is in the southwest cor-
Commoners enter by the South African War Gate from Kingsgate Street and look through a high round-arched doorway directly down the south gallery of the Cloister. They tread exactly the same path which commoners have long been treading. There is a little forecourt, ten yards in length, with the entrance to the armory on the right and on the left a stone tablet set in the old wall. It bears famous words from Pilgrim's Progress: "Then said he, 'My sword I give to him that shall succeed me in my pilgrimage, and my courage and skill to him that can get it. My marks and scars I carry with me, to be a witness for me that I have fought His battles Who will now be my Rewarder.' So he passed over, and all the trumpets sounded for him on the other side." The four lion heads placed right and left in this open court were discovered em- bedded in the stone wall. Above the doorway, by His Majesty's gracious permission, are placed the royal arms. The large door and the small blocked doorway in the northwest corner have been provided to connect the Cloister with school buildings which may some day be built on the north side. The remaining door, on the south side, the "Door of Victory," leads to the racquet court, the gymnasium, and the college sick house.

Inside the Cloister, the center and circumference both strike the note of Christian sacrifice. Where the four paved ways of the garth meet between the grass squares there is an octagonal monolith, inscribed "Esto fidelis usque ad mortem et dabo tibi coronam vitae." From this base a stone shaft rises, crowned with a cross inscribed in Greek, "Christ is risen," while two sentinel crusaders, facing east and west, guard the symbol of sacrifice. The long inscription of solid stone letters set in a background of knapped flints forms the circumference and runs right round the Cloister in a continuous band 9 feet from the ground. It is not an inscription in the usual sense of the word, but a prose poem, which fell naturally into Biblical language. The Lombardic script has been designed, with much labor and skill, to suit the special qualities of flintwork. The words are these: "Thanks be to God for the service of these five hundred Wykehamists, who were found faithful unto death amid the manifold chances of the Great War. In the day of battle they forgot not God, Who created them to do His will, nor their country, the stronghold of freedom, nor their school, the mother of godliness and discipline. Strong in this threefold faith they went forth from home and kindred to the battle fields of the world, and treading the path of duty and sacrifice laid down their lives for mankind. Thou, therefore, for whom they died, seek not thine
own, but serve as they served, and in peace or in war bear thyself ever as Christ's soldier, gentle in all things, valiant in action, steadfast in adversity." Such are the lines.

Round the garth, in the spaces between the arches, are arms and badges, symbols of all the national thoughts and home thoughts which haunted and inspired our soldiers in the war. On the east side, the arms of the four nations—England, Scotland, Ireland and Wales—occupy pride of place, and the four national emblems, rose, thistle, shamrock and leek, are set right and left of them. As we come westward, there are (in pairs) facing one another, badges of the royal navy and the mercantile marine; of the infantry and the artillery; of the flying corps and the Red Cross; of rewards of valor (typified by the V.C.) and high command (typified by the crossed baton and sword of a lieutenant-general); of foreign policy (represented by the arms of Lord Grey of Fallodon, Foreign Secretary) and government of the empire (by the arms of Lord Chelmsford, Vice-roy of India). Toward the west, in the center are the arms of William of Wykeham and of the see of Winchester; right and left, the arms of the city of Winchester and a symbolic device for Hampshire; the arms of the universities of Oxford and Cambridge; and finally, as representing the school at this epoch, the arms of Lord Selborne, warden (1920-1925), and of Dr. Rendall, head master (1911-1924). On the inside walls are built tablets of gray Derbyshire marble inscribed with the names of the 500 Wykehamists who fell in the war,—16 tablets in all, grouped in pairs, between each pair a stone recording the great battles of the war. Above stand the arms of the allied nations, and the leopard of England is linked with them in cords of friendship.

Among the stones which bond the flint facing to the core of the wall are larger and more regular stones carved in low relief—like the little stone shields on either side of the porch of the college sick house—representing the arms of the dominions and the provinces of India and symbols of the dependencies, groups of dependencies, islands, and mandatory states of the empire, and also some battlefield areas outside the territories of the allies. These symbols, like the arms recently granted to the provinces of India and here displayed for the first time, attempt to express historical, geographical, mythological, and other dominant facts and influences of those portions of the empire. The four corners of the Cloister are dedicated to dominions, colonies, and India. They are vaulted with stone domes, their keystones being carved with the imperial emblems. In the pavement are
large circular slabs, which have been quarried in the dominions or India and generously given for the memorial by their governments. Inlaid in these paving slabs are symbols in brass to be polished into gold by the feet of the future centuries' generations of Wykehamists.

Badges of 120 regiments, in which the 500 Wykehamists served, are blazoned on the corbels and tie beams of the roof; the remaining four badges, which belong to the regiments most closely associated with Winchester, are carried by angels on the oak struts of the roof over the arches. On other struts shaped as angels and on the bosses, where the curved roof trusses meet, are other carved symbols. There are two sculptured reliefs, of Victory and Peace, opposite each other at the center on the north and south walls. For a general system of low-toned illumination, electric lights are set high up in the walls behind pierced stones, in the manner of the traditional "temples." Provision has been made for hanging lanterns, if required, from the roof beams. In the outside north wall, close to the northeast angle, stands a craftsmen's stone, recording the names of the architect,—Sir Herbert Baker, A.R.A.; and the sculptor and carver,—Alfred Turner, A.R.A., who, under the generous instructions of the builders, Messrs. Holloway Brothers, treated the interests of his employers and the school as one. Below the names are carved the words: "Non sibi sed Deo et mortuis."

There are others who must not be forgotten; it was a joy to all at Winchester to see the foundation, a raft of steel-enforced concrete, laid deep and strong; to watch the walls rising day by day, hour by hour; to mark the swift and continuous growth of this building. But most pleasant of all was it to observe the energy and pride which the men (practically all of them of Winchester) displayed in their work; their hammers, hods and chisels were never idle; we were back in the good old days. The Cloister was indeed a work of willing cooperation, in which artists and craftsmen felt the spell of Wykeham's art and tradition, were inspired by the greatness of their task, and were encouraged by the generous trust and ready assistance of the committee. While essentially modern in form and spirit, the War Cloister fits well into its position among the other collegiate buildings which during centuries have been growing up in this historic old city. It typifies the spirit of Winchester, essentially modern, yet carefully regarding tradition.
The Charlesfort Monument, Parris Island, S. C.

By ALBERT SIMONS and SAMUEL LAPHAM, JR.

CHARLESFORT was established in 1562 on what is now Parris Island, S. C., by Jean Ribaut, acting under a commission from Admiral Coligny. The purpose of this settlement was not only to extend the domains of the King of France, Charles IX, but also to form a colony that would be a refuge for Huguenots. On the seaward end of Parris Island was built Charlesfort, and here Ribaut erected a small octagonal stone column to mark the land as belonging to Charles IX and to France. The little settlement existed until 1563, when mutiny arose among its members. The fort was abandoned, and having built a small ship, the garrison attempted to return to France. Shortly after its departure the site was visited by the Spanish, the fort burned, and the column carried away.

For many years it was supposed that Charlesfort, while on Port Royal Sound, was not on Parris Island. Led by his interest in historical matters, Col. John Millis of the U. S. Corps of Engineers, assisted by Gen. Harry Lee of the Marine Corps, began a search for the site in 1917. The World War intervened, but after it was over the search was resumed by General Lee and Major G. H. Osterhaut, under authority from the Secretary of War and with aid and suggestions from prominent citizens and authorities on South Carolina history. Full reports of the search can be found recorded in "Transactions of the Huguenot Society of South Carolina," so we quote herewith only part of General Lee’s report on the final result:—"... when men were available, Major Osterhaut was placed in charge of the work with directions to clear the site and then to run deep and narrow trenches at right angles across the supposed location of the fort and within the area traced by the old moat. After digging, the trenches disclosed the butt ends of cedar posts, generally their tops and sidings, some 2 or 3 feet below the surface of the ground. The trees within this area had markings on them showing where the old parapet had been, and eventually complete traces of the old stockade were disclosed. . . ." With the exception of the old stone tower at Newport, this fort on Parris Island is certainly the oldest structure erected by the white race within the present limits of the United States of which any discernible trace remains today.

Upon being told of what was found, the Huguenot Society of South Carolina conceived the idea of building an appropriate monument on the site; its officers appealed to the state’s congressmen and senators for aid in securing an appropriation for a monument, and this was later approved and passed by congress. A committee composed of the Secretary of the Navy, the Commandant of the 6th Naval District, and the President and Secretary of the Huguenot Society was appointed to handle the matter, and they selected Messrs. Simons & Lapham, of Charleston, as the architects for the proposed memorial.

The parti pris had already been made, and it was decided that the monument should consist of an octagonal shaft, bearing the royal arms of France, reminiscent of the marker set up by Jean Ribaut. The general character of this marker was known, since Ribaut had set up two, the other being on the River of May, in Florida, and Jacques Le Moyne, an artist, accompanying Laudonniere on another colonizing voyage to Florida in 1564, had sketched it. This engraving is contained in the "Brevis Narratio."
For the Charlesfort monument's design, however, the details, sketchily indicated in LeMoyne's engraving, had to be exact, and it was therefore necessary to verify the French arms of the time of Charles IX and to identify the order that surrounded the shield. This presented a line of research which led to correspondence with students and authorities of military insignia and heraldry, especially Capt. G. M. Chandler, U. S. A. and Col. R. L. Collins, U. S. A., who took a personal interest in the search. Thanks to the rather extended efforts of Col. Collins, the details were definitely verified by descriptions in the "Promptuaire Armorial et General" by Boisseau, published at Paris in 1657, and in the "Manuel du Blazon" by Parois, published at Paris in 1854. Through the enthusiasm of Col. Collins, Lt. Col. Falls became interested and supplied a definite check on the heraldic correctness by obtaining and presenting the architects with rubbings from a coin minted in the reign of Charles IX, which showed the French shield and crown, and with a rubbing of the medalion of the collar of the Order of St. Michel, probably dating from the early eighteenth century, both taken from specimens in the collection of the American Numismatic Society. From these and from an illustration in the files of the architects, showing the arms above the fireplace in the ballroom at Fontainebleau, the details were determined beyond peradventure. The arms consist of a shield bearing three fleurs de lys, surmounted by the royal crown and surrounded by the grand collar and pendant of the Order of St. Michel. This order, it may be said in passing, was founded by Louis XI in 1469 to commemorate the heroic resistance of the fortress-monastery of Mont St. Michel to the English invasions, and consisted in the beginning of 36 chevaliers.

In setting up the monument it was possible, through the cooperation of the personnel of the Public Works Office of the Marine Reservation, to carry out one of those minor refinements which have added to the interest of the work. A calculation was made of the reckoning of Parris Island from Dieppe, and the angle bearing the royal arms was set by the compass on that reckoning facing toward the coast of France and the homes of those brave colonists. The reverse or landward side was designed by the architects to present a contrast to the pomp of royalty. The open Bible is surmounted by the sacred monogram "I. H. S." and supported by a scroll bearing the words "Religion, Freedom and Trust." These might be interpreted as symbols of freedom of conscience, tempered by that divine humanity that leads to the goal of enlightenment and truth. The double wreaths at the top recall the sacrificial garlands placed on Ribaut's marker by the Indians when they worshiped it as a totem, as shown in the engraving by Le Moyne. In the approval of the drawings by the National Commission of Fine Arts, the Commission suggested the use of native plant forms as more significant than the usual highly conventionalized forms of decoration. The wreaths are therefore composed of pine, magnolia and sycamore leaves and branches, all native to the place.

The problem of the inscriptions for the monument involved two legends, being brief in order that the letters be in scale with the heroic size of the shaft. The inscription below the Bible was prepared by John Bennett, the author and historian, and that the French arms by Miss K. B. Mazyck, Librarian of the Huguenot Society. The orthography used for the proper names was verified by W. C. Miller, the President of the Huguenot Society.
SEAWARD SIDE, CHARLESFORT MONUMENT, PARRIS ISLAND, S. C.

SIMONS & LAPHAM, ARCHITECTS

ERECTED 1825
BY THE GOVERNMENT
OF THE UNITED STATES
OF AMERICA
TO MARK THE FIRST
STRONGHOLD DEFENDED
ON THIS CONTINENT
MONUMENT TO THE A. E. F., NEAR ST. NAZAIRE
GERTRUDE V. WHITNEY, SCULPTRESS
ELECTUS D. LITCHFIELD, ARCHITECT
COMMODORE THOMAS MACDONOUGH MEMORIAL, VERGENNES, VT.

JOHN RUSSELL POPE, ARCHITECT
MEMORIAL FOUNTAIN, ARLINGTON, MASS.
R. CLIPSTON STURGIS, ARCHITECT
DETAIL of FOUNTAIN

ARLINGTON TOWN HALL
ARLINGTON MASS

R. CLIPSTON STURGIS ARCHITECT
BOSTON MASS

The Architectural Forum Details
ROYAL AIR FORCE MEMORIAL, LONDON
SIR REGINALD BLOMFIELD, ARCHITECT; REID DIRK, SCULPTOR
WAR MEMORIAL, GLEN RIDGE, N. J.
WILLIAM EDGAR MORAN, ARCHITECT
The Glen Ridge Memorial

The Architectural Forum Details

DEC 1926
No. 17
MEMORIAL TO ROBERT LOUIS STEVENSON, SAN FRANCISCO
WILLIS POLK, ARCHITECT; BRUCE PORTER, SCULPTOR
BASE OF FLAG STAFF, ARLINGTON, MASS.
R. CLIPSTON STURGIS, ARCHITECT
DETAIL OF
MAST STANDARD
ARLINGTON TOWN HALL
ARLINGTON MASS.
R. CLIPSTON STURGIS, ARCHITECT
BOSTON MASS.

- Wood Pole
- Carving

SCALE IN FEET

Grade Line

The Architectural Forum Details
WAR MEMORIAL, KEARNY, N. J.

JULIUS LOESTER, SCULPTOR
Memorial Tablets
By ROBERT P. BELLOWS

In some localities there has been, of late, a surprising improvement in the quality of indoor memorials. For instance, at the top of Beacon Hill, within a 200-yard radius of my office, there are enough examples to suggest the text and illustrations for this article. This survey, therefore, will be confined to the work, old and new, in King’s Chapel, to the new War Memorial in the Boston Architectural Club Library, and to that most surprising series of wall tablets lately erected by Boston architects in the stairway hall of the New England Historic Genealogical Society, at 9 Ashburton Place. If the reader wishes to go slightly farther afield, he will find recent memorials of merit in the Massachusetts State House, and in the Old North and First Churches. The work of R. Chipston Sturgis in these churches deserves an article by itself. He set a pace in the Old North which no doubt has influenced the other Boston architects, mentioned here for their work on Ashburton Place. Most of these tablets, as will be seen, hark back to old times. Wall tablets erected today in such historic buildings as King’s Chapel or the Old North must necessarily conform to the eighteenth century character of those delightful old edifices. The New England Historic Genealogical Society on Ashburton Place, in commemorating worthies of other days, has sought to maintain the same character, which clothes with architectural dignity these memorials to some of New England’s pioneers.

Among the most delectable spots on this hemisphere for the study of wall tablets in historical sequence, is King’s Chapel. This gracious building dates from 1749. As we tread its venerable, historic aisles, between the high-backed, damask-covered pews, we view a succession of mural monuments dating from the building of the church to the present day.

1746. “M. S. Francisce Shirley”—
Her many virtues and those of her daughter require some 54 lines of Latin for their enumeration. Though we may stumble at their meaning, the well-cut letters are a delight.

1758. “M. S. Caroli Apthorp”—
Another lengthy inscription, cunningly placed upon a square white marble field. Though death provides its theme, the monument is full of life and color. The insets of tawny red marble, the urn of yellow, the golden torches (these of wood!), the painted arms and the lamenting cherub are the work of “Hen: Cheere,” for he has so signed his name and “Fect’ after it. What a thrill was felt when we found this same name in a book devoted to the London of the eighteenth century! There Mr. Cheere figured as a worker in marble and a maker of mantelpieces. It is not to be doubted that these wall monuments of the grander sort were ordered from London, made there, and shipped to the colonies. Here is another, perhaps in certain respects the best.

1766. “Sacred to the Memory of Samuel Vassall, Esq.” He was “a steady and undaunted asserter of the Liberties of England.” His fortunes suffered from the rage of the times.” Yet his great-grandson, Florentius, of the island of Jamaica, found the wherewithal to commemorate his ancestor most handsomely. For once the script is in English. Much is to be recounted. Two columns of praise are deemed necessary. But what style to the lettering, what a telling spacing and arranging of the resounding phrases! The author has signed his work, “W. Tyler, Sculpit, London.”

Dr. Oliver Wendell Holmes, (himsel the subject of a large tablet in King’s Chapel), has well voiced the sentiment awakened by these memorials:
VASSALL MONUMENT, KING'S CHAPEL, BOSTON
W. TYLER, SCULPTOR, LONDON 1766
MEMORIAL CHIMNEYPIECE, BOSTON ARCHITECTURAL CLUB LIBRARY
BELLOWS & ALDRICH, ARCHITECTS
"Lightly we glance the fresh-cut marbles o'er;
Those two of earlier date our eyes enthral:
The proud old Briton's by the western door,
And hers, the Lady of Colonial days,
Whose virtues live in long-drawn classic phrase,
The fair Francisca of the southern wall."

The poet refers to the Vassall and Shirley monuments. And so on down the years, the scholars' Latin giving way to good English, the lengthy eulogies becoming more direct and (praise God!) shorter. Alas, the design and lettering are losing much of their earlier distinction and architectural character.

By Civil War times, the art of designing memorials had sunk to its lowest level. There is true pathos in such inscriptions as "Cabot Jackson Russell, Captain 54th Reg't. Infantry Mass. Vols. Killed at Fort Wagner, S. C., July 18, 1863 æ 18." Note that this boy-captain was only 18 when he laid down his life for his country! This is one of 14 glorious names, all of sons of the Chapel, set forever in ugly block-cut letters on shiny chamfered marble. Many words are abbreviated. The one attempt at Latin, "ae" is wrong. The standard is lower.

Now don't let us suppose that this decline in the art of designing mural tablets was due to lack of reverence or care. Our fathers and grandfathers had lost touch with the niceties of the eighteenth century productions. They had been
too busy with other things to work out their own artistic salvation. Art was "down, but not out." Gradually the quality of the tablets became better again. A recognition of the beauty of lettering per se was once more evident. McKim's firm glorified the Roman letter both in the Public Library and in the Shaw Memorial. Frank Chouteau Brown in his book taught the architects a wide range of delightful alphabets. The ancient graveyards gave up their best script. Typography improved. President Eliot reduced the bulk of many an inscription to a few impressive lines. The wording was calculated to fill acceptably a definite space. That quiet, persuasive and beloved stone carver, John Evans, knew much more about such things than his clients, the architects. But all were learning. Is it any wonder that those who cared became dissatisfied with the stock block letter long admired and used by the stone cutter?

In recent years only a restricted number of carefully considered memorials have been placed in King's Chapel. One of the last is that to Robert S. Peabody, "Architect, Warden of this Church." After the erection of this simple tablet, all the available space seemed to be taken. Odd corners and the stair walls to the galleries alone remained, and they were soon filled up also. In 1918 the architects of Boston erected an unusually attractive slate tablet to Peter Harrison, architect of the building. It was placed in the vestibule, unfortunately somewhat overshadowed by the
Despite the fact that "all available and proper wall space on the main floor of the church was used up," the Great War induced a reconsideration of this pronouncement. Again the children of the Chapel must be honored—those who had "died leaving an example of noble courage." A solution was found by taking the scant space above the western door, the main door of egress under the organ gallery. The required tablet and surrounding architecture were united to form the new Memorial Doorway. The old doors remain between their richly classical columns.

At the house of the Boston Architectural Club, 16 Somerset Street, a similar problem presented itself. In the new Memorial Library, the fireplace, mantelpiece and over-mantel are designed to form one composition. The tablet with the names of those members of the Club who lost their lives fighting in the Great War is the motif dominating the room.

Now comes the most interesting part of this narrative. A few years ago the New England Historic Genealogical Society invited contributions to a fund. Several subscribers under certain conditions were asked to name ancestors of worth for commemoration. It was planned to place tablets up and down the walls of the central staircase of the Society's new building. The response was impressive, and the Society found itself under the delightful obligation of placing a large number of tablets. There was, of course, only a limited amount of money to spend on the individual tablets together with the architectural
services involved. Fortunately the Society had the
good sense to turn for advice and counsel to one of
its members, William T. Aldrich, architect. It is to
the everlasting credit of Mr. Aldrich and the ar-
chitects he invited to share the work with him that they
accepted this difficult and unremunerative com-
mission. But the idea appealed to all of them. Here
was a chance to try themselves out in friendly rivalry.
The architects who designed the tablets, now placed
up and down the Society’s stairway, are William T.
Aldrich; Gordon Allen; the firm (now dissolved) of
Bellows & Aldrich; Brainerd & Leeds; Alexander
Emerson; Ralph W. Gray; Little & Russell; the late
Lawrence Park; Stanley Brampton Parker; and
Strickland, Blodgett & Law. The monument to
Abraham Lincoln, given by his son, the late Robert
T. Lincoln, was designed by Frederic Allen, sculptor.

Much of this information as well as permission to
use its photographs is due to the kindness of the
Society. William Prescott Greenlaw, Librarian and
Assistant Treasurer, was the originator of the scheme
and has been kind itself. Mrs. Florence Conant
Howes, Assistant Secretary, has won many a dis-
tracted architect’s appreciation by her helpfulness and
tact in carrying out the work. There are about 60
tablets in place. Some of the designers did more,
some less. The work has gone along quietly for
eight years, and is not wholly finished yet. The
Tablets average about 10 square feet in area. No
two are of the same pattern. There are limestone,
slate and marble tablets. A few are of wood. Some

Aquila Chase
Hingham, Mass., 1670
Hampton, N. H. 1640

Hamden, Mass., 1646

Newburyport, Mass. 1635

Monument to
Abraham Lincoln
Erected by his descendant
John Carroll Chase
1924

Capen Tablet, New England Historic Genealogical
Society, Boston
Gordon Allen, Architect

Barber Tablet, New England Historic Genealogical
Society, Boston
Ralph W. Gray, Architect

Chase Tablet, New England Historic Genealogical
Society, Boston
Strickland, Blodgett & Law, Architects

To honor
the memory of
Thomast Barber
Immigrant
and
Settler in
Windham Connecticut
1635

the Tablet is ERECTED
by his descendant
Edward Willard Barber
1920
are of brass or of bronze. Several show a combination of materials. Some are frankly experimental. Color has been introduced by the use of contrasting materials. The application of paint or enamel has been particularly successful where coats of arms form parts of the designs. Paint has also been used with good effect, in some cases, to bring out the lettering. A wise committee kept down the number of words in each inscription to a minimum. Much time and thought must have been put into the simple, condensed phrasing. Then it was up to the architects. They were given their locations and told to "go to it." The results have justified the scope given by this generous treatment.

The expensive nature of such memorials was a check on over-elaboration. There was, however, a chance for well carved lettering, a simple enframing, and perhaps a bit of ornament. But this was as far as it was possible to go. The architects' designers worked their heads off over the lettering! The local antiquities, such as those already here described in King's Chapel, were never scrutinized so sharply before; and cobbler's wax was rubbed across white paper on many a headstone in the Granary Burying Ground or that on Copp's Hill. English books on memorials became the "best sellers" in architectural circles, for the English for the most part are doing this sort of thing better than we. Occult words pertaining to lettering such as "spur" and "serif" and "flourish" became common in office parlance. It is incredible how well some of this lettering is designed and executed. It is readable and full of variety. It shows a high regard for emphasis and balance. But few will ever know at what cost of toil and study it was produced! The enframing and ornament were much easier.

Sometime, we hope a book will be published in handsome form giving each of the tablets a full page. At that scale it would be possible to give more than a mere suggestion of their merits and their distinction.
Bakelite switch plates require no polishing nor refinishing

An outstanding advantage of Bakelite plates is the fact that their color and lustrous finish will last. Frequent handling does not stain them, nor dim their lustre. Exposure in damp climates does not corrode them. Walls near them are free from the unsightly marks so often made by cleaning cloths and pastes.

An additional advantage is the fact that Bakelite is an insulator, removing all chance of static shocks when operating a switch. Bakelite switch and outlet plates are made by several leading wiring device manufacturers, all of whom mark their plates with the trademark BAKELITE.

Should you request it, we will see that samples are shown to you.

BAKELITE CORPORATION
247 Park Ave., New York, N.Y. Chicago Office, 636 W. 22nd St.
BAKELITE CORPORATION OF CANADA, LTD., 163 Dufferin St., Toronto, Ont.
FOREIGN MARBLES

Our exceptionally favorable relations with leading foreign quarries and our huge, modern mill facilities enable us to make very attractive quotations on finest foreign marbles.

Appalachian Tennessee Marble is not only used for the interiors of great banking rooms, hotel lobbies and other interiors of regal beauty.

It is used for any interiors where long wear and absolute cleanliness are of first importance.

For lavatories, etc., it is ideal because its beauty is unaffected by exposure to oils, dyestuffs and other liquids.

By actual test made by T. Nelson Dale, Retired Geologist, U.S. Geological Survey, its average absorption is but 0.06 per cent, making it practically impervious in resisting stains of any kind. It is especially easy and quick to clean. In fact, careful data, kept by huge department stores having Appalachian interiors and floors, shows Appalachian Marble substantially reduces cleaning costs.

An interior of Appalachian Tennessee Marble will endure as long as the building of which it is a part, and will never cost one penny for waxing or other refinishing.

Architects are invited to send us plans and specifications for prompt, accurate cost estimates.

APPALACHIAN MARBLE COMPANY

Knoxville, Tennessee
A Form for every pile—
A Pile for every purpose

means, to most engineers, primarily the standard concrete piles that are poured into tapering, spirally reinforced steel shells that are left in the ground—but we install many other types of piles and will be glad to supply full information thereon.

RAYMOND CONCRETE PILE COMPANY
NEW YORK: 140 Cedar St. CHICAGO: 111 West Monroe St.
MONTREAL, CANADA
Branch Offices In Principal Cities
Made in three types and fourteen sizes to heat 200 to 2600 gallons of water per hour

Kewanee
Water Heating
Garbage Burners

Make Fuel of Garbage and Rubbish

Every time the garbage man calls he carts away a lot of good fuel—and leaves a host of foul odors behind. Garbage and rubbish contain many heat units. In a Kewanee Water Heating Garbage Burner all this waste matter can be turned into fuel and used for heating water.

The By-Pass (a patented feature) makes it possible to burn garbage without any odor, by preventing the moist matter from smothering the fire.

Built of the same fine materials (steel and rivets), by the same skilled workmen, and in the same faultless manner as Kewanee Boilers. Hence, you are assured long service free from up-keep costs.

Kewanee Boiler Company
KEWANEE, ILLINOIS
Steel Heating Boilers, Radiators, Tanks and Water Heating Garbage Burners

BRANCHES

ATLANTA, 1140 Little Bldg., 90 Boylston St.
BOSTON, 1522 Candler Bldg., 6th Johnston Bldg.
CHARLOTTE, N. C., 1204 James Bldg.
CHATTANOOGA, 822 W. Washington Bldg.
CHICAGO, P. O. Box 74
CINCINNATI, Superior Ave., N. E., at 17th St.
CLEVELAND, 1226-7 Well Bldg.
DENVER, 707 Rubell Bldg.
DES MOINES, 1126-7 California St.

DETOIT, 1522 Candler Bldg., 6th Johnston Bldg.
EL PASO, 1204 James Bldg.
INDIANAPOLIS, 822 W. Washington Bldg.
KANSAS CITY, P. O. Box 74
LOS ANGELES, Superior Ave., N. E., at 17th St.
MEMPHIS, 1226-7 Well Bldg.
MILWAUKEE, 707 Rubell Bldg.
MINNEAPOLIS, 1126-7 California St.

NEW ORLEANS, 2051 W. La Fayette Bldg.
1326 N. Campbell St.
PHILADELPHIA, 402½ Mich. Trust Bldg.
PITTSBURGH, 221 Ind. Term. Warehouse
ST. LOUIS, 2014 Wynnwood St.
SALT LAKE CITY, 1050 W. Crocker St.
SAN ANTONIO, 440 Barclay St.
SAN FRANCISCO, 708 Builders Exchange Bldg.
SEATTLE, 1018 New Orleans Bk. Bldg.
TOLEDO, 516 Seventh Ave.

CANADIAN REPRESENTATIVES: Dominion Kewanee Boiler Co., Ltd., 66 Richmond St., East, Toronto 2, Ontario
The advantages of metal lath construction are so obvious that the architect will find satisfaction in knowing that the 1/4" flat rib North Western PLASTA-SAVER Metal Lath so lowers its cost that he can use it in even his low priced work.

Shall we send your specification writer full particulars and samples of PLASTA-SAVER?

NORTH WESTERN EXPANDED METAL CO.
1234 Old Colony Bldg., CHICAGO

Copyright, 1926, Northwestern Expanded Metal Company.

It Pays to build this way!

The foreman who superintended the installation of Milcor "Expansion" Casings in the home shown above, was surprised to find that this superior type of door-and-window-trim actually showed a big saving. He wrote us a mighty enthusiastic letter—here is part of it:

"Comparative costs of wood casings and Milcor "Expansion" Metal Casings showed that a considerable saving resulted wherever Milcor Casings are used. Wood here is very cheap (in Oregon). In other sections where wood is expensive, the saving would be still greater."

The fine thing about these Milcor Products is that they not only improve the appearance of any home or building, but they also insure permanence and firesafety—all at a price that will satisfy the most conservative builder.

People are inclined to balk at much of this talk about quality construction. It may be very fine, they think, but they can't afford it! Here are products, however, that will save money not only in first cost but principally in maintenance expense. It is no longer a question of whether the builder can afford these modern Milcor products, but rather, can he afford to build without them?

By all means investigate Milcor "Expansion" Casings—get samples and prices; install them on one job; then you'll appreciate the reasons for their success and growing popularity.

Investigate also the many other products made by Milcor—Stay-Rib Metal Lath, Netmesh Metal Lath, "Expansion" Corner Bead, Base Screed, Concealed Metal Picture Molding, Metal Tile Roofing, Architectural Sheet Metal, etc. Getting acquainted will cost you nothing and will obligate you not one bit.

Would you like to have a copy of our now-famous book on "Modern Modes in Better Plastering" and "The Milcor Manual", a technical data book on Milcor Metal Lath and allied products? We'll gladly send you both. Yours for the asking. The coupon, a Post Card, or a letter will do.

Member of BETTER PLASTERING National Council 
Member of Associated Metal Lath Manufacturers 

MILWAUKEE CORRUGATING COMPANY, Milwaukee, Wisconsin 
Chicago, Ill. 
Kansas City, Mo. 

La Crosse, Wis.

MILWAUKEE CORRUGATING CO., Milwaukee, Wisconsin 
Please send "Modern Modes in Better Plastering" and "The Milcor Manual", without cost or obligation.

Name. Address. 

INGOT IRON
Perfect Acoustic Qualities Can Now Be Predetermined

It is no longer necessary to depend on accident for perfect acoustics.

Akoustolith, the R. Guastavino Company's sound absorbing tile, is used to get perfect acoustic qualities, combined with beautiful architectural effects.

Akoustolith has six-fold the absorbing power of any existing masonry construction.

It can be had in a variety of pleasing colors. It is extremely light and can, therefore, be used where heavier material would be impractical.

Akoustolith answers the problem of how to build vaults with no unpleasant reverberations.
An Atmosphere of Good Taste

Acme Brick do more than give constant pleasure to the owner—they surround him with an atmosphere of good taste. This interesting and pleasing cottage-type home is faced with Acme Perla Light Gray wire-cut weatherproof Face Brick. Thirty-five years in the art of brick-making and ten Acme owned-and-operated plants enable us to offer—"a brick for every type, a color for every color scheme."

Acme Brick Company
Manufacturers of the Products We Sell

Acme Brick
(Where Your Color Schemes Can Be Solved)

ANNUAL CAPACITY 170 MILLION FACE BRICK
SUMMER-GREYS

Worthy to rank with Bradford Reds

The expanses of wall in many large buildings such as Churches, Community and Memorial Buildings depend for their architectural character largely upon the brick of which they are built. Architects and builders value GREY because it possesses high color value, affords subtle play of light and shadow, and, particularly when used in large areas, assumes a richness and variety which lend character wholly apart from any ornament the walls may possess. SUMMER GREYS and BUFFS with their fine, rich color and interesting textures lend architectural dignity to any building in which they are used, and throw into bold relief any ornament the architect wishes to emphasize.

The unquestioned architectural merit of "SUMMER GREYS"—their beauty, color, durability and excellence in every small detail—constitute compelling reasons why leading Architects find them the ideal Face Brick.

Dry Press and Wirecut in all shades and textures.

HANLEY COMPANY, Inc.

FACE
BRICK

9 Fast 46th St., New York, N.Y.
Bradford, Pa.

BRADFORD BRICK & TILE CO.
Plants at Bradford, Lewis Run, Summerville, Pa.
Common Brick gives Full Play to the Skill of the Architect

COMMON BRICK is "common" in the best sense of the word. It is a natural, native material — varying widely in shade and color.

Thus it lends itself readily to the creative imagination of the architect. Truly it is clay in the hands of the man who knows how to mold distinctive beauty.

Architects, themselves, have ushered in the new day in the use of Common Brick. By developing a wide variety of appropriate bonds and patterns, and single-coat whitened effects for suitable types of architecture, they have rendered an outstanding service to home building America.

For Common Brick adds to brick's inherent advantages, a price saving which leaves a margin for those finishing touches desired by architect and owner.

THE COMMON BRICK MANUFACTURERS' ASSOCIATION of AMERICA

At Your Service

2134 Guarantee Title Bldg.,
Cleveland, Ohio

<table>
<thead>
<tr>
<th>Brick Books for Your Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Skimmed Brickwork&quot; (15c)</td>
</tr>
<tr>
<td>&quot;Brick, How to Build and Estimate&quot; New Edition (25c)</td>
</tr>
<tr>
<td>&quot;Hollow Walls of Brick&quot;—FREE</td>
</tr>
</tbody>
</table>

Check above, and send for any or all of these books.

2134 Guarantee Title Bldg.,
Cleveland, Ohio
America Needs More Garages in Her Cities

Linked Together — offices and handy garage

That the business man who drives downtown in the morning must find garage facilities admits no argument. Even before "no parking" ordinances outlawed it entirely, curb parking was so hazardous as to be forbidding. Downtown parking garages are a necessity in every city.

Talk it over with office building owners. They are vitally interested. They need convenient garages to protect the rental desirability of their office building properties. But you can go further and show them that a Parking Garage is in itself a most profitable property improvement—one that will pay probably a higher net return than any other building investment.

Let our booklet "Building Garages for Profitable Operation" give you some leading information.

Ask for new Edition "F."

Ramp Buildings Corporation
21 East 40th Street  New York, N. Y.
Garage Engineers
Consultants on Promotion and Garage Operation
Interior views from the
Diamond Theater, Oakland, Calif.
Architect
A. A. Cantin, San Francisco, Calif.
Plastering Contractor
P. H. Donnelly, Oakland, Calif.
As far West as California —

Banner continues to be the dominating finish

To transport from Ohio, lime for finishing the walls of California’s finest buildings costs much in the way of freight charges. Unless this added expense were warranted by the superior results achieved and the saving in labor and material, Banner Finishing Lime would not be used there.

In Oakland’s newest theater, the interior walls are finished in the varied and beautiful texture or period finishes— with BANNER. The close-up on the left page illustrates a rough texture executed with Banner Lime and sand— no gauging material was used. And yet the walls are stone-hard with acoustical properties that greatly pleased the builders.

For the kind of walls that have as long a life as the building itself, giving the fullest measure of satisfactory service down through the years, Banner Finishing Lime continues to be the dominating finish.

Ask for more information.

NATIONAL MORTAR & SUPPLY COMPANY
Federal Reserve Building, Pittsburgh, Pa.

"Easy to spread—hard to Beat!"

Made in the world’s largest plant devoted to the production of one brand— from an unequalled deposit of limestone in the well-known Ohio high magnesiu m field.
St. John’s Episcopal Church, Los Angeles. Both exterior and interior are monolithic exposed concrete—except the facade, which is Tufa. Architectural ornaments were cast in place. Architects: Pierpont and Walter S. Davis, Los Angeles. Contractors: Clinton Construction Co., San Francisco.

New, illustrated booklet, “The Concrete of the Architect and Sculptor,” will be sent promptly on request. In writing, please address the nearest office listed below.

Concrete for Permanence—and for Beauty
Store front display is one form of advertising in which the actual goods constitute the main selling appeal. How important that they have every advantage of frame and setting!

A Zouri Store Front takes the place of those elements which enhance an advertisement on the printed page. Its substantial, easy lines and rugged copper construction speak quality. It is an evidence of liberal patronage; a standing testimonial that other satisfied customers have built up a flourishing business.

The architect, going further into the matter, finds underneath a unique construction that fulfills the promise of its surface beauty. Zouri's special safety features—Indirect Key Setting, Self-Adjusting Setting Block, Drawplate and Reinforcing Bracket—assure him of satisfaction during its installation and its life.

Send for our detail sheets and data book on Zouri. They tell the story.
This plate with plate No. 5 detail a complete facade of enameled brick. Architecturally it is an original interpretation of the European influence in modern construction. Artistically it shows the possibilities of the use of three tones or colors of enameled brick.

American Enameled Brick & Tile Co.
52 Vanderbilt Avenue
New York City

Copies of these plates in folio will be mailed upon request.
Armstrong's Linoleum for every floor in the house

Color, Pattern, Permanent Beauty—These Floors Have All—and More

The home-planner today looks to his architect for complete details of interiors.

Take, for example, the home of Spanish design that must be built at moderate cost. You specify wall-texture, the wrought-iron effects, and other notes that will help your client complete the decorative treatment. You can go a step further without increasing the cost—and perhaps even save money—by specifying floors that also contribute to the interior design.

In Armstrong's Linoleum you can get a design to fit almost any type of room. And these floors, cemented in place over a layer of builders' deadening felt, are a structural part of the building. The first cost is the last cost.

When considering any decorative floor-treatment, you will find there is an Armstrong floor to complement ideally the other units you have in mind. Our Bureau of Interior Decoration will be glad to send you reproductions of the newest designs in linoleum floors, or even help you in planning your color schemes. You may find good use for some of the suggestions which our decorator will gladly send you, without obligation, upon request.

Armstrong Cork Company, Linoleum Division, Lancaster, Pennsylvania
Entrance, The Roosevelt Hotel, New Orleans, La., Favrot & Livaudais, Architects. Lower story ashlar and ornamental enrichment in unglazed buff-grey Terra Cotta.

The Decorative Value of TERRA COTTA

For lower story finish and effective enrichment of entrance features Terra Cotta offers you unsurpassed possibilities.

Messrs. Favrot & Livaudais demonstrate in this building the success attending a well chosen motif reflecting local atmosphere and beautifully detailed.

*Note: Architects will also find many fine motifs in "Terra Cotta of the Italian Renaissance" published by this Society, $3.00 per copy.

NATIONAL TERRA COTTA SOCIETY
19 WEST 44th STREET
NEW YORK, N.Y.
An inlaid linoleum which gives the appearance of a custom-laid floor while permitting the economy of the usual one-piece installation. This is the unique combination of advantages presented in the extra-wide spaced Belflor Inset Tiles—a new group of patterns exclusive with Nairn Gold Seal Inlaids.

Here, indeed, is a valuable addition to the architect's resources for enhancing the individuality of an interior and providing a thoroughly permanent flooring at moderate cost.

Pattern and color contrast are contributed by this new wide-spaced inset tile floor—
Gold Seal Inlaid, Belflor Pattern No. 2172/2. The 6-inch tiles are 18 inches apart.

New—a distinguished tile design by Nairn

The interior above illustrates how the wide-spaced islands of color provide an interesting element of contrast absent in plain one-color flooring, yet avoid any sense of crowding or excessive regularity.

But it is not alone to residences that these new Belflor Inset Tiles are adapted. Their singular suitability for offices, stores, lobbies, club-rooms and similar interiors is self-evident.

Further descriptive data will be found on the back of this page.

NAIRN
GOLD SEAL INLAIDS

(See next page)
The New Belflor Inset Tiles

Here appears another of the new wide-spaced Belflor Inset Tile patterns. The pleasing open effect of this type of design comes from setting the tiles considerably further apart than in other inset patterns. This arrangement is found only in Nairn Gold Seal Inlaids.

Instead of the usual solid-color inset some of the patterns carry the distinctive Belflor mottled colorings in the tiles as well as in the field. Many different color combinations are offered in this new group of Belflor patterns. Lithographed reproductions of any of the patterns in actual size will be forwarded on request.

Recent Advances in Nairn Quality

Architects who have seen the new inlaid linoleums that are being produced by Nairn have noted several outstanding features. The highly perfected wax finish is unsurpassed. It protects the goods against dirt and cement stains during installation, thus insuring a clean, handsome-looking finished job. Both flexibility and resilience—factors which make for easy laying—represent the highest standards of linoleum manufacture.

These qualities, plus the Gold Seal Guarantee of Satisfaction, permit architects to specify Nairn Gold Seal Inlaids with entire confidence that they are serving their clients’ best interests.
In the newest Statler Hotel—

VENTO CAST IRON HEATERS

In the new Hotel Statler in Boston, Vento Cast Iron Heaters will furnish perfect warmth.

Vento was chosen for this installation because under every kind of test Vento Heaters proved so dependable. They are becoming more and more popular because they bring so many advantages and yet cost less. They are permanently tight—do not wear out, do not leak—and they withstand all the unusual conditions found in heating and ventilating, cooling, air washing, humidifying and drying processes.

We shall be glad to send you our "Engineers' Data Book on Vento," in which are tables showing the results of the most thorough tests ever applied to Blast Heaters.

AMERICAN RADIATOR COMPANY


Makers of IDEAL BOILERS and AMERICAN RADIATORS and other products for heating, ventilating and refrigerating
Interlocking—

Compound's Source of Strength

The veneers of Compound Doors are compounded to the core by tongue-and-groove construction, a unique union which has two distinct advantages over the ordinary face-to-face joint:

1. Gluing surface is doubled.

2. Resistance is also increased by the shearing pull made necessary on surfaces A and B, parallel to the strain that is tending to pull veneer and core apart.

This results in a very definite increase in COMPOUND'S strength over the usual method of applying veneer flat. What do you figure the exact increase to be? We'd like to have your answer.

Send for more detailed information, and sample of Compound construction.

THE COMPOUND & PYRONO DOOR COMPANY
ST. JOSEPH, MICHIGAN

Compound VENEERED DOORS

MADE BY AMERICA'S OLDEST VENEERED DOOR SPECIALISTS
November, 1926

THE ARCHITECTURAL FORUM


FOR PERMANENCE

Architect and House Committee Agree on Crodon Finish

The new Elizabeth Town and Country Club Crodon has been specified as the finish for all of the exposed metal fixtures throughout the building.

By this means all maintenance charges for metal polishing as well as future assessments for the replacement of worn fixtures, have been eliminated. For Crodon will last as long as the building itself.

Crodon is a chromium electro-plate with a brilliant, mirror-like lustre. Used as the standard finish for many metal products of quality, its unusual features have brought it general recognition.

Even in salt atmosphere Crodon surfaces will never tarnish or peel.

Crodon prevents the formation of verdigris and resists steam, high temperatures, the majority of acids, and all alkalies. An occasional wiping with a cloth to remove grease or other foreign matter maintains the original lustre. No metal polishes are ever required.

Manufacturers of quality products carry Crodon-plated products in stock or can supply them by having them Crodon-plated in one of our plants.

Upon request our Architects' Service Department will give any desired details or estimate the probable cost of Crodon for any building project. Write the Chromium Corporation of America, 26 Broadway, New York City.
Here a living monument to Masonic War Veterans has been built of sturdy colorful Face Brick. As a result its stately dignity will be enhanced by the passing years.

Ever since the days of ancient Chaldea, Babylon and Egypt, through all the centuries, in every land, men have erected their revered and hallowed Memorials of hard-burned brick because of its eternal beauty.

Today, as ever, the enduring qualities of Face Brick make it exceptionally well-suited to the requirements of important Memorial Buildings.

"Architectural Details in Brickwork," a portfolio of many halftone plates showing excellent examples of fine brickwork. Sent postpaid to any architect making a request on his stationery.

"English Precedent in Modern Brickwork," a 100-page book, beautifully illustrated with halftones and measured drawings of Tudor and Georgian types and American adaptations; sent postpaid for two dollars.

"Brickwork in Italy." 298 pages, an attractive and useful volume, especially for the architect, profusely illustrated with 69 line drawings, 300 halftones, and 20 colored plates with a map of modern and XII century Italy. Bound in linen, six dollars postpaid. Half morocco, seven dollars.

AMERICAN FACE BRICK ASSOCIATION
1751 Peoples Life Building
CHICAGO
Nothing To Do, But Redecorate Again!

A beautiful home in a beautiful setting. But look at the interior!

The sun room ceiling streaked and discolored! The stair well and other portions of the house, cracked—disfigured. Nor is it the plasterer’s fault. He did his best with the materials which were specified.

The owner made one mistake. He insisted on a cheap lathing base which did not give satisfaction. In other respects the owner of this home is delighted. But he can never forget that omission. The marks of it are ever before his eyes.

That is the great trouble in cheapening the plastering job, and the plastering base. The result is invariably dissatisfaction because the earmarks of that saving keep cropping up in the most noticeable places.

Isn’t it worth a little extra effort to keep your clients from being just a trifle dissatisfied with the job? Explain the reason for a Better Plastering on metal lath specification to any client and you will be surprised what a ready ear he will turn to your remarks.

If you have not already received a copy of “Better Plastering in Modern Homes,” we will be glad to send it to you. It will help you to put this point over to the “tightest” owner.

THE NATIONAL COUNCIL FOR BETTER PLASTERING
1305 Madison Square Bldg., Chicago, Ill.
The New Home of the Knights of Columbus adds another building to the growing list of conspicuous structures in New York City and vicinity faced with beautiful "Greendales."

Whether allowed the rare opportunity of perfect expression amid perfect surroundings or working under the close restrictions of commercial limitations, many architects are finding that they can turn to "Greendales" with equal confidence.

"Greendales" owe their wide popularity to their universal adaptability, pleasing texture, wonderful color harmony and great durability. They are distributed throughout the United States and in Canada and Cuba.
Towering majestically above the streets of storied Louisville, this Inter-Southern Life Insurance Building is an achievement of which D. X. Murphy & Boone, its architects, may well be proud.

Beaver American Gypsum Block throughout

This eighteen-story Louisville office building is one of hundreds of large structures where Beaver American Gypsum Block is giving excellent service.

Beaver American is the gypsum block that is recognized for its fire-proof, sound-deadening, structurally efficient qualities. And the new "Her-Born" process, now employed in its manufacture, gives it uniformity of weight and dimension. Each block follows closely the specifications of the Underwriters' Laboratories and The American Society for Testing Materials.

For information on Beaver American Gypsum Block or other Beaver American Gypsum products, address our Dept. 2512.

THE BEAVER PRODUCTS CO., Inc., Buffalo, N. Y.
RELIABLE

Uniformity of Materials—Supervised Installation—Financial Responsibility

Physical and chemical tests of raw materials assure uniformity. Thorough supervision and strict observance of engineering principles assure successful installation.

Satisfactory results are guaranteed by the resources of an organization with sixty years of business experience.

MOULDING'S FLOORS

T-M-B Flooring
A permanent quiet flooring with a durable, rubber-like texture. It is applied over cement or wood, forming a seamless, sanitary surface easy to clean. It gives distinctive beauty at a cost often less than for other floorings. Made in red, brown, green and black. Used in all kinds of buildings.

Dance Floor
Applied over any cement or wood surface, resulting in a smooth floor easily waxed to the desired slipperiness. Available in several colors. Unaffected by rain, snow, heat or cold. Used as outdoor dance floors in many leading amusement parks throughout the country.

T-M-B Acid Resisting Flooring
A special compound of T-M-B Flooring where protection is desired from acids, alkalies and water. In laboratories of schools, colleges and industrial plants T-M-B Acid Resisting Flooring has proved its ability to give long service under severely adverse conditions.

Outdoor Floor
Composed of imperishable minerals that successfully defy frost, heat, rain and snow. Ideal for roof gardens, porches, roofs used for recreation, etc.

T-M-B Electrical Insulating Flooring
Specially compounded to serve as a flooring that guarantees perfect electrical insulation. It is also waterproof and seamless. Extensively used by public utilities and in electrical departments of schools and colleges.

Mouldstone
A permanent fire-proof floor for stores, lobbies, reception-rooms, toilets and offices. An ideal flooring for making new floors over old ones. In variety of colors, permitting border, panel and inlay design. Can be scored to resemble tile. Applied over cement, wood sub-floors or old wood floors.

Moultyle
A resilient tile floor of unusually durable texture. Green, red and brown tiles afford almost any combination desired.

THOS. MOULDING BRICK COMPANY
133 W. Washington Street
Chicago, Illinois

Grand Central Terminal Bldg.
New York, N. Y.

Moulding's TMB Flooring

MADE, LAID AND GUARANTEED BY US—60 YEARS OF RESPONSIBILITY
Specify these beautiful wear-resisting floors!

Consider the smooth, sanitary Blabon floor of Plain Linoleum in this room of the State Capitol of Minnesota. Its waxed and polished surface is pleasing to the eye. Its resiliency makes it comfortable to walk upon; it deadens the sound of moving feet and chairs. It is easy to keep clean, and economical to maintain. In fact, this Blabon floor is ideal for such a room in this substantial, imposing building.

Particularly so, because it is cemented down over builders' deadening felt, which makes the seams watertight and practically invisible. Moreover, it is adapted to fireproof construction.

These are reasons architects are specifying Blabon floors for public buildings, skyscrapers, libraries, churches, homes and wherever they want this combination of qualities not found in any other floor, or desire to achieve unusual decorative effects.

Our Advisory Bureau of Interior Decoration will gladly cooperate with you without charge.

We will mail, upon request of architects, our reprint from Sweet's Architectural Catalog, box of quality samples, and our new 1927 Pocket Size Pattern Book.

The George W. Blabon Company, Nicetown, Philadelphia
Established 75 years

In this age of hustle and bustle—when speed counts—the building trade demands even more than quality in building materials.

A quick, easy and convenient way of identifying this quality is also wanted. There is no time for wondering, investigating or guessing.

For this reason the adoption of blue bags for our brands of finishing and building hydrated has met with enthusiastic approval.

It is now possible to pick our brands of finish out as easily and as quickly as pointing your finger. The distinctive blue bag positively identifies our brands. No mixups, mistakes or confusion. The blue bag means quality when its filled with Finishing Hydrated Lime.

The Woodville Lime Products Co.
Toledo, Ohio

WHITE ENAMEL - GOLD MEDAL
AND WHITE LILY
FINISHING - HYDRATED - LIME
The gymnasiums and shops of the Roosevelt and Hawthorne Schools and the gymnasium of the Franklin School, all at Yonkers, N. Y., have been floored with Bloxonend. G. Howard Chamberlin, Architect.

A Wood Flooring that cannot splinter or sliver

A butcher's block cannot splinter—neither can a BLOXONEND floor. In one respect both are identical—the tough end grain of the wood forms the wearing surface.

BLOXONEND is the only wood flooring adaptable to gymnasium use that is splinter and sliver proof. This advantage alone has gained for BLOXONEND the approval of many architects and physical directors who have observed the seriousness of those injuries to players caused by splintered-silvered floors.

BLOXONEND is a resilient floor. It is bright, clean and attractive, affords a firm, safe foothold, stays smooth and is far more durable than the ordinary types of wood flooring. Prominent architects specify it extensively for gymnasiums, shops and school corridors.

Write nearest office for Architectural Specifications

CARTER BLOXONEND FLOORING COMPANY
Kansas City, Missouri

Branch Offices in Principal Cities—See Sweet's

BLOXONEND
Lays Smooth FLOORING Stays Smooth
A well known architect has this to say about Coldak Electric Refrigeration...

GEORGE NELSON JACOBS
ARCHITECT & ENGINEER
9 BOSWORTH STREET, BOSTON, MASS.

May 24, 1926.

Coldak Corp. of N. E.
889 Boylston Street,
Boston, Mass.

Gentlemen:

After investigating the various refrigerating systems for apartment houses, I decided on Coldak as being the most satisfactory for Lowell Manor. Many of the suites are occupied by the students and these suites are vacant during the summer.

With Coldak, it is possible to shut off the unused refrigerators and shift the load to one machine, cutting down materially on the operating expense.

No attention is required other than oiling the motor once in three or four months. The system has been in operation for several months and it has proven most satisfactory.

I cannot speak too highly of Coldak and I should be glad to answer any inquiry.

Architect for Lowell Manor
Prescott Street,
Cambridge, Mass.
“Shut off the unoccupied apartments ... shift the load to one machine”

Coldak is the only system of Electric Refrigeration that has this advantage

In the Lowell Manor there are 80 apartments. All of them get perfect electric refrigeration from 4 Coldak machines, installed as a central plant in the basement. The machines are connected in multiple. When the load permits, three machines can be shut off and one machine does all the work. This is made possible by the Coldak “open circulating” system. It is an exclusive Coldak feature. No other system of electric refrigeration has it!

Coldak supplies all the apartments with the same automatic electric refrigeration they would get with a separate machine in each apartment. But it has this great advantage—Coldak does the job from one central plant. There is no machinery, no servicing in the living quarters. One Coldak machine supplies as many as 25 apartments. Fifty apartments need only two machines, 75 apartments 3 machines—and thus the system can be expanded indefinitely.

Coldak is not a brine circulating system. It requires no large, insulated pipe lines. The Coldak feeder pipes are only 3/4 inch! They require no insulation whatever. And Coldak needs no watchman or engineer to operate it. Consider the saving!

Coldak simplifies the whole problem of apartment house refrigeration. It does the work of the most complicated central plant system, yet it has all the operating advantages of a small household machine—and needs no more attention. No other system is like it!

More complete information about Coldak has been put in booklet form. Mail the coupon and get a copy for your files.

Coldak is the most rugged electric refrigerating machine made. Simple too! It has no belts, pulleys, pistons, cranks, reduction gears or reciprocating parts—just two sets of rotary gears do the job.

Coldak Corporation
Eight West Fortieth Street, New York City

Coldak under J. G. White Management

The Coldak Corporation is managed by the J. G. White Management Corporation, whose services were secured after their own investigation had proved the superiority of Coldak.
CAEN STONE CEMENT INTERIORS

For the new building or the remodeling job

DIGNITY and beauty are realized by the use of Caen Stone Cement. You need never fear a "dull brown plastery" appearance. Caen Stone Interiors have all the charm of the natural Imported Caen Stone.

Caen Stone Cement is applied to wall surfaces like plaster; plain moldings are run with templets; details are cast in glue molds.

Send for AIA Specification Book

PALMER LIME & CEMENT COMPANY
103 Park Avenue
NEW YORK, N.Y.
Seven Period Letter-Designs in This Free File Book

To the architect who must provide inscriptions and signs for the buildings he plans and who wants them in harmony with period-architecture, this book is a real help. It shows photoprints of architectural details, together with plates of authentic lettering for each of seven leading periods—Greek, Roman, Romanesque, Gothic, Byzantine, Renaissance and Georgian.

Then it points out how the architect may plan for complete harmony of Flexlume Electric Signs with the architecture of his design, thus preventing the marling of his buildings with the indiscriminate product of the ordinary sign shop. The Flexlume glass letters can be moulded to conform with the architectural style of lettering desired—they are entirely subject to the architect's pencil.

Have your secretary write today for your copy of "Signs and Inscriptions in Architecture." And communicate with our Department of Design for intelligent co-operation whenever you have a sign problem to solve.

FLEXLUME CORPORATION
1420 Military Road Buffalo, N. Y.
Flexlume Offices All Principal Cities
LARGE SCALE INTERIORS

The warm glow which greets one who enters this bank is due to the use of texture finished Pink Georgia Marble. This is a good example of the pleasing results obtained with Georgia Marble for spacious interiors. The Georgia Marble Company, Tate, Georgia; New York, 1328 Broadway; Atlanta, 511 Bona Allen Bldg.; Chicago, 456 Monadnock Bldg.

GEORGIA MARBLE
Just another weary, wasted footstep—a waste of time and energy! Only one of thousands left by tired women trudging needlessly about in offices and schools. Needless walking, because Western Electric Inter-Phones would halt that waste of time and footsteps. Prove it for yourself. Look into the places where the architect's wise advice on Inter-Phones has been adopted—you'll see people talking to each other over the Inter-Phone—you'll see no wasted footsteps. There are lots of places like that; lots of places where people appreciate the wisdom of the architect who suggested the Inter-Phones that conserve their time. And there are many architects who value highly the very real assistance given them by the Inter-Phone specialist from Graybar, distributor of Western Electric Inter-Phones.

We are well aware that the most effective means of banishing us is Western Electric Inter-Phones, with their name for leadership in electrical communication.
Clear DRIWAL for Cut Stone Application

It would be next to blasphemy to allow staining and discoloration to mar the beauty of this stone doorway. Clear DRIWAL was used—and will preserve the original beauty, color and texture of the stone work for years.

Clean, natural beauty of stone exteriors can now be preserved

Conspicuous staining and discoloration of an otherwise beautiful stone building is by no means an enjoyable spectacle for either the architect or the owner.

The ugly, brown stains, caused by cement mortar and back-up materials; and the discoloration of the surface caused by exposure to smoke, soot, grime and the elements: these are problems which the architect must consider if he would be mindful of the future beauty of the stone exterior.

Clear DRIWAL provides the practical solution to both these problems and its success has been proved, over a period of years, on many notable structures.

Clear DRIWAL eliminates the absorption of water—and without the aid of moisture, those unsightly brown stains cannot come to the surface.

Accumulated dirt, soot and grime are washed off instead of into the surface by subsequent rains. As a consequence, the building remains cleaner, and free from water streaks and surface discoloration.

An important point to consider is that Clear DRIWAL in no way changes the natural appearance, color or texture of the surface to which it is applied. It penetrates and becomes a part of the stone surface—but is absolutely invisible after drying.

DRIWAL is also furnished in White and Colors for application on Stucco, Concrete or Brick surfaces—for dampproofing, decorating, stainproofing, and to hide stains which cannot be removed.

Write us for specifications and further information. Use the coupon below for convenience.

Kindly send DRIWAL specifications, file size, to:

Name
Street
City
TRI-LOK the Last Step in Grating and Tread Evolution

For many years, Inventors and Designers have tried to give grating and tread the qualities TRI-LOK alone possesses! Here they are:

- Greatest Strength
- Least Deflection
- Lightest Dead Load
- Maximum Light Beneath
- Freest Ventilation
- Easiest Painting
- Most Complete Galvanizing
- Quickest Service
- Lowest Cost

To Engineers, these FACTS speak volumes!

THE TRI-LOK COMPANY, 5517 Butler St., PITTSBURGH, PA.
President Hotel Has Par-Lock Insulation

Among the fine hostelries of Atlantic City's popular Board Walk, the President Hotel is conspicuous for the structural qualities that impart lasting comfort and luxury.

Wall leakage of moisture, the bane of many buildings similarly exposed to the driving storms of the seaboard, is entirely avoided in the President Hotel by the application of Par-Lock to the interior of its 13 inch masonry walls.

Par-Lock means complete damp-proofing, plus an effective plaster key. In preventing condensation, Par-Lock supplants furring and thus saves money, space and dead load.

For expert, responsible, Par-Lock service, as well as preliminary counsel and estimates, rely on the nearest Par-Lock Applier or write to

THE VORTEX MANUFACTURING COMPANY
1984 West 77th Street
CLEVELAND

Wm. G. Souders, Inc., Owner and General Contractor. G. A. McGimpsey, Plastering Contractor.
Par-Lock applied by The Par-Lock Appliers of New Jersey.
THE same qualities that insure the permanence of BRIXMENT mortar also reduce the possibility of freezing to a minimum and enable the architect to continue his building program throughout the winter without interruption. Even when the temperature is below freezing, the set of BRIXMENT mortar can be easily timed, without the admixture of other ingredients, to take place without freezing and without impairing the strength of the joint. There is no free lime in BRIXMENT to absorb excessive moisture and thus the cause of swelling, scaling and popping is removed.

Send for Architect's Handbook
It tells how the architect can now specify the strength of the mortar joint just as he specifies the strength of his steel work—with the same assurance that his specifications will be adhered to. For BRIXMENT mortar is naturally smooth and easy-working, requires no lime and removes the temptation to weaken the mix for the sake of obtaining plasticity. These advantages and complete technical data, tests and specifications are contained in our handbook gladly sent you on request. LOUISVILLE CEMENT CO., Incorporated, Louisville, Ky.

Eastern Mill Now Shipping
The new BRIXMENT mill at Brixment, N. Y. (formerly Akron Falls) now puts BRIXMENT within the reach of every project in the east. BRIXMENT specified by such architects as Graham, Anderson, Probst & White; Ludlow & Peabody; Schultz & Weaver, etc. Used in such buildings as Biltmore Hotel, Miami; Senior-Junior High School, Baltimore; New York Times Annex, New York; Cincinnati Enquirer Building, Cincinnati; Fisher Body Ohio Co. Building, Cleveland; Parke Apartments, Buffalo; U.S. Mail Terminal, Chicago, etc.

Cement Manufacturers for Nearly a Century
Federal Roofs

link light weight

with High Strength

When you roof with Federal Cement Tile, you effect substantial savings on the steel super-structure or frame. That is due to Federal Tile's light weight.

Because these pre-cast slabs are quality controlled, accurately reinforced with wire mesh, and thoroughly cured under uniform temperature conditions, they link this light weight with high strength.

And you are sure of the same permanent freedom from repairs that Federal Roofs have been providing on industrial and public buildings of every type for a quarter of a century.

Made of concrete, these roofs are fire-proof and rust-proof. They are also freeze-proof and sun-proof. They are unaffected by gases, by smoke, or by acid fumes.

Let us tell you the full story of Federal Roofs, and of the engineering and erection service that goes with them. Your request will be given prompt, courteous attention without placing you under any obligation.

Made, Laid and Guaranteed by the
FEDERAL CEMENT TILE COMPANY
608 South Dearborn Street, Chicago, Illinois

FEDERAL CEMENT TILE ROOFS

"For Every Type of Permanent Building"
HEAT-LOSS in winter is one thing—heat-invasion in summer is quite another. Modern INSULATION must keep heat where it belongs—outdoors in hot weather and indoors in cold weather. MASONITE does both. It is all-wood and therefore superior to substitutes in all essentials.

Architects appreciate the many advantages of all-wood Structural Insulation and unhesitatingly recommend MASONITE. They have seen reports of unbiased official tests which prove that all-wood insulation possesses greater heat-resistance than substitutes.

Contractors understand the permanence of wood as a building material and recommend MASONITE to all who build for Permanent Comfort and Value. They find it profitable to work with a material that handles as easily and with as little waste as this remarkable new product.

MASONITE replaces other building materials, effects building economies, adds to the strength and permanence of new and old dwellings, stores, offices, churches, theatres, factories and schools. Hence "Structural Insulation," which completely describes the product and its uses.

MASONITE is recommended for sheathing, plaster base, interior finish, and under roofing—as insulation wherever used—and as sound-deadener in floors and ceilings.

You can obtain MASONITE through leading lumber dealers everywhere. Send for a sample and make your own comparisons. Read the MASONITE literature which tells the whole story—how the new product is made, how used in modern building operations. Write today for the sample and the story.

MASON FIBRE COMPANY
Dept. 612 111 W. Washington St.
CHICAGO, ILL.
“Safety Plus” Stair Treads

STAIR treads and landings of Alberene Stone have a smooth, but “toothed,” surface that neither slips nor grips and gives an equally secure footing wet or dry.

In case of fire, they stand the most extreme heat without fracture, splitting or chipping. Their light gray color gives them a “high visibility.”

They wear smoothly, evenly, and far more slowly than other natural stone or composition treads.

Ask us for the Catalog of Alberene Stone for Architectural Purposes.

ALBERENE STONE COMPANY
153 WEST 23rd STREET, NEW YORK
Baltimore Boston Buffalo Chicago Cleveland Newark
Philadelphia Pittsburgh Richmond St. Louis

ALBERENE STONE
QUARRIED FOR OVER 40 YEARS
THE INDESTRUCTIBLE MATERIAL FOR LABORATORY USE
STANDARD ALSO FOR TOILET, URINAL AND SHOWER PARTITIONS, STAIR TREADS, ELECTRICAL CONSTRUCTION

OTIS
FOR NEARLY THREE QUARTERS OF A CENTURY
THE WORLD'S WORD FOR ELEVATOR SAFETY

OTIS ELEVATOR COMPANY
OFFICES IN ALL PRINCIPAL CITIES OF THE WORLD

Architects!

The Clinton Metallic Paint Company offers its technical services to the architect to assist him in expressing his conceptions of color, in mortar and in stucco.

Clinton Metallic Paint Co.
412 CLINTON ROAD
CLINTON, N. Y.
Firesafety
at no more cost

Firesafety is surer, steel costs are lower and roof framing is simpler, when the roof deck is of Pyrobar Gypsum Roof Tile.

These smooth white bars of gypsum rock, pre-cast to standard sizes, may be sawed readily, and since they are lighter, they require less steel. And they will not burn nor transmit fire.

The noticeably mounting preference for Pyrobar roof decks, among leading architects and builders, hinges quite as much on the facility with which they may be used, and their relatively low cost, as upon their known, positive firesafety.

The file-facts are interesting and comprehensive. Have the coupon below filled out and mailed, and add them to your data.

UNITED STATES GYPSUM COMPANY
General Offices
Dept. R, 205 West Monroe Street, Chicago, Illinois

PYROBAR
ROOF TILE
Made by the United States Gypsum Company
Notre Dame Institute, Baltimore, Maryland
Architect: A. K. Kaiser, Baltimore, Maryland
15,000 sq. ft. Pyrobar Roof Tile used
Prevent Corner and Joint Cracks with
NATIONAL CORNER & JOINT REINFORCEMENTS

NATIONAL Steel Fabric Corner and Joint Reinforcements, when plastering over wood lath, insulating lumber, or wall board, prevent corner and joint cracks and assure better construction.

They strengthen the framework as well as the plaster, automatically insuring the application of a sufficient thickness of plaster.

The conveniently handled 50-inch lengths of Corner and Joint Reinforcements are quickly and easily nailed in all angles, around all frames, and across all butted joints. The wire fabric becomes embedded in the plaster.

Steel Fabric Corner and Joint Reinforcements cost only about $15 for the average house, less than the cost of repairing one break in plaster due to lack of reinforcement.

That’s why Architects are specifying Corner and Joint Reinforcements on all wood lath or other non-reinforced base jobs.

Write for Descriptive Literature
The friendly warmth of true hospitality

Have you ever considered the part that room-temperature plays in a guest’s opinion of your hospitality? All too often, a night made restless by heat sends some booster away with ice in his heart. And no amount of warmth in your greeting at the desk can survive the effect of a radiator that sulks . . . That is why The Statler, United and American chains as well as hundreds of other hotels use Webster Systems of Steam Heating extensively. Webster Service helps you determine the exact type of system best suited to your locality and operating conditions, insures perfect circulation of steam at least cost, and offers the personal cooperation of a nation-wide corps of trained steam heating specialists whenever their services are needed.

Let the nearest Webster office show you how Webster Service can provide the friendly warmth of true hospitality for all of your guests—all of the time.

Warren Webster & Company
Pioneers of the Vacuum System of Steam Heating
Camden, N. J., 50 Branch Offices

- since 1888

Webster Systems of Steam Heating

More than 37,000 installations in America’s finer buildings.
COME TO CLEVELAND!

National Exhibition of Lighting Equipment

Joint Conventions of National Association of Lighting Equipment Dealers and Artistic Lighting Equipment Association will be held at the Hollenden Hotel, January 31 to February 5, inclusive

Here, all that is best and modern in lighting equipment will be displayed under one roof. This is the only exhibition of its kind—nothing of greater educational or business building value to the lighting equipment industry or to the user has ever before been attempted.

All architects, who would know of better artistic lighting equipment of quality, should attend this exhibition. Here, also, you will gain a more thorough understanding of what can be accomplished through co-operative effort in increasing lighting equipment sales and installations.

Come to Cleveland—your attendance at this exhibition will result in knowledge that can be turned to profit.

Certain days this exhibition will be open to the public, also, and these buyers are certainly interested in what you can provide them in better and more artistic decorative lighting equipment, properly designed to harmonize with their surroundings.

Again, come to Cleveland! The most modern equipment for the home, factory or public building will be displayed here.

Complete Details—Reduced R. R. rates will apply. Those desiring information as to space for exhibits may secure all details by writing or wiring Artistic Lighting Equipment Association, 424 Guarantee Title Bldg., Cleveland, Ohio.
Hospital sterilizer specifications made easy

Architects' Data Sheets
give essential details

Full information on the following sterilizer installation details is given in the Architects Data Sheets:

- Layout
- Dimensions
- Clearances
- Piping Outlets
- Condensation
- Wiring
- Venting
- Dimensions
- Draining
- Condensation

These are for every kind and size of sterilizer and any combination thereof. This is a 16 page booklet and is file size. Specimen pages are shown at the right.

Two other books in complete reference set

A set of Sterilizer Specifications and the Castle Hospital Sterilizer Catalog go with the above Data Sheets and make the complete sterilizer reference set.

This should be in the office of every architect who contemplates hospital work. All three will be sent without obligation to those filling in the coupon below.

Complete Set Free on Request

CASTLE
Sterilizers for Hospitals, Physicians, Surgeons and Dentists

Please send your set of Hospital Sterilizer Data to

Attention of ........................................
Firm ..................................................
Address ............................................

Mail this to Wilmot Castle Co., 1209 University Ave., Rochester, N. Y.
The above illustration is from a Lehigh announcement (in general magazines) on the beautiful Lehigh Prize-Winning Homes. Leading architects supervised the building of each demonstration home. The twenty-eight prize-winning designs were offered to the public as suggestions in the book "28 Better Homes." Readers were urged to engage an architect.

Thousands of people inspected

**The Modern Trend in**

*Forty thousand more wrote us about them.*

**Pictures** and complete architectural details of four Lehigh Prize Demonstration Homes, plainly showing the new trend in concrete construction, have been incorporated in a forty-page book entitled, "Building Better Homes." This book will be sent you on request.

The four homes were built not only to show the trend toward permanence through concrete construction, but to indicate its beauty possibilities as well as its practical character. The book contains a picture story of construction, step by step, general views and close-ups. Costs,
THE four houses described in this book are from among twenty-eight prize-winning designs selected from the Lehigh Competition by the following architectural jury:

DAVID ADLER, Chicago AYMAR EMBURY II, New York
CHARLES G. LORING, Boston D. WES DABBER, Knoxville
HARRIE T. LINDBERG, New York

these beautiful Prize Homes to see

CONCRETE CONSTRUCTION

specifications, and quantities of material are given. Proper application of stucco is graphically shown and the almost limitless variety of texture and colors possible with grey Portland Cement.

We are told that this book is a notable contribution to authentic literature on the subject.

It is a suitable sequel to "28 Better Homes," a book showing the twenty-eight prize-winning designs and which has been so widely welcomed by architects.

Mail us your request and we will gladly send you a copy of "Building Better Homes." Use the coupon if you find it convenient.

CEMENT COMPANY

LEHIGH PORTLAND CEMENT CO., Box 3-L, Allentown, Pa.

Please send me "Building Better Homes."

Name........................................................................
Street ................................................................. Place.................................................................
HOTELS equipped with Sargent hardware may be seen in practically every section of the country. They range in size and prominence from the modest havens for commercial travelers in isolated communities to the largest hotels in the metropolitan centers. Choice of Sargent locks and hardware of solid, time-resisting brass or bronze is a guarantee of lasting service—of security and protection for both guests and management. Another reason for their wide use in hotels, apartments, office and public buildings is the convenience of the Sargent system of master-keying.

SARGENT & COMPANY, Hardware Manufacturers
NEW HAVEN, CONN.

New York: 92 Centre Street
Chicago: Wacker Drive at Randolph
The New and Amazing McKinney Friction Control Hinge

The salient features of this remarkable new hinge are listed above. They stamp it at once as the culmination of success in attaining what outstanding men in the profession have been hoping for, for years.

Tests equivalent to seven years of constant door-service have proved its positive simple action and its durability. We do not hesitate to say that the features of this hinge are such as to make obsolete and inadequate any installations of ordinary free-swinging hinges in Hospitals, sleeping quarters, Hotels, Clubs and in all other places where tired nerves long for the assurance of tranquility and quiet.

Additional information and samples will be sent upon request. McKinney Manufacturing Co., Pittsburgh, Pa.
In precision machinery, Ball Bearings prevent the wear that would destroy accuracy.

In fine, split-hair work, the thickness of an oil film—squeezed out when a load is applied—would ruin the accuracy of the work. The “point contact” of ball bearings gives absolute accuracy under all loads and prevents the wear that would destroy this accuracy.

McClintock & Craig Architects Springfield, Mass.
Stanley Ball Bearing Butts were used in this building.

The preventive for sagging doors...

Ball Bearing Butts

Adjustments, repairs and replacements due to wear of butts add greatly to the cost of maintenance. Ball bearing butts practically eliminate this wear.

By eliminating such expense, ball bearing butts pay for themselves—absolutely. Consequently, ball bearing butts are an investment—not an added expense.

Stanley engineers have originated most butt and hinge improvements since 1852, including cold rolled steel, the non-detachable (non-losable) washer, non-rising and self-lubricating pin, improved finish, and the use of ball bearings.

This wide experience enables us to make a product of uniformly high quality that sets the standard in butt manufacture. The Stanley trade-mark is on every butt.

The Architects Manual of Stanley Hardware contains information which will aid you in selecting and specifying the correct hardware. We will gladly send you a copy. A description of the Stanley line of Butts and Hinges can be found in Sweet’s Catalogue, pages 1500 to 1503, and 1556 to 1568.

THE STANLEY WORKS, NEW BRITAIN, CONN.
New York Chicago San Francisco Los Angeles Seattle

STANLEY BALL BEARING BUTTS
No spotlight needed to find this keyhole—it comes to meet you in the knob of the Corbin Unit Lock

Yes, an unusual place to put a keyhole but a convenient place to find it. But this is an unusual lock. It leaves the Corbin plant completely assembled—not "knocked down." It is easily applied in five minutes—and it will work perfectly ever after.

For all doors in office and public buildings, for all exit and entrance doors it is known as "the perfect lock". It deserves the title for it is perfectly made, perfectly designed and it will work perfectly as long as the building stands.

Whatever the hardware need may be, Corbin answers it in an unusual way—unusual in the way it works, the way it lasts, distinctive in the way it looks. No wonder so many architects say Corbin Hardware is Good Hardware.

P. & F. CORBIN SINCE NEW BRITAIN CONNECTICUT
The American Hardware Corporation, Successor
NEW YORK CHICAGO PHILADELPHIA
Worthy of
THE FINEST ROOF

The life of a roof is largely dependent on the nails that hold it. Made of solid copper this new roofing nail will last a lifetime. It cannot rust nor streak and the extra large head insures the roofing being held permanently in place. Furnished in numbers 10, 11 and 12 gauges and in lengths from \(\frac{3}{4}\)" to \(2\frac{3}{4}\)". Samples and prices upon request.

JOHN HASSALL, INC.
CLAY and OAKLAND STREETS
BROOKLYN - NEW YORK
Established 1850

It's a Stronger Job

THAT Sanymetal Partitions have outstanding features of strength and rigidity can be demonstrated by a study of these features:

(1) Unique and original Interlocking Design in the assembly of units holds all members in a rigid grip.
(2) More-than-adequate bolting at floor and wall—the installation actually becomes part of the building.
(3) The sheet metal panels, posts and molds are, at every point, of sufficient gauge to stand unexpected stress and strain. There is no skimping—no "thin sheets."

Sanymetal Toilet and Office Partitions are made in a grade and design adapted to every requirement of price and service. The consulting service of our engineering department is at your disposal—no obligation.

Sanymetal Products are: Partitions for toilets, showers, dressing rooms, urinals. Partitions for offices and factories. Metal doors, screens and wainscot. Sanymetal Gravity Roller Hinges for toilet doors. Write for new Catalog No. 15.

THE SANYMETAL PRODUCTS CO.
1702 Urbana Rd.
Cleveland, O.
Hauserman Service is Nation-wide

YOUR clients can have Hauserman Steel Partitions wherever and whenever they want them—installed under Hauserman direction by Hauserman men. A complete service including manufacture, engineering and erection for which we assume entire responsibility from start to finish.

Hauserman installations are nation wide for nationally known companies, such as:

- American Can Co.
- Bauer & Black, Chicago
- Cadillac Motor Car Co.
- Cleveland News Publishing Co.
- Union Gas & Electric Co.
- St. Louis Commonwealth Edison Co.
- Eastman Kodak Co.
- Famous Players Lasky Corp.
- Ford Motor Car Co.
- General Electric Co.

Send blue prints or sketches for suggestions and estimates by Hauserman engineers.

THE E. F. HAUSERMAN COMPANY
CLEVELAND, OHIO
6803 Grant Avenue
NEW YORK BOSTON DETROIT PITTSBURGH CHICAGO

The 7 points of Superiority

1. Complete Line.
2. Built of Steel.
3. Attractive Appearance.
4. Greatest Movability.
5. Sensational Prices.
7. Erection Service.
Income Producing Property

Because Circle A Partitions, themselves, are income producing property, they have aided many owners and managers in putting, or keeping, business buildings in class of income producing property.

Circle A Partitions, sectional and movable, are really operating equipment, they can be used over and over again to satisfy the new demands of old tenants, or meet the arrangements desired by new ones.

Because they never grow dingy, they present an attractive appearance even after many years of use, whereas plaster walls require frequent cleaning and decorating, if they do not have to be wrecked and rebuilt as the demands of business change.

Our attractive new booklet will tell you how Circle A Partitions are producing income on many business properties. Shall we send you a copy?

Circle A Products Corporation
650 South 25th Street, Newcastle, Indiana
New York Office: Farmers Loan and Trust Bldg., 475 Fifth Ave., New York
In this volume there is given a general view of the architecture of the reign of George III, with some account of the various men who produced it, from architects of prominence, such as Robert and James Adam and Lord Burlington, to the work of little known and merely provincial men, showing that so long as a single style was dominant, its forms and proportions could be established and used with success by men of moderate abilities and narrow training.

The English in 1760 were tiring of Palladian pedants and Roccoco designers. Many architects, though they may have desired to express themselves in a new or individual manner, clung somewhat closely to established form. Chief among these were James Paine and Sir Robert Taylor, who had neither the natural originality nor the acquired knowledge to stamp them as originators of a style. Robert Adam left England for Rome in 1754, and made full use of his time and abilities, and in his endeavor to get away from mere "temple" architecture he visited Spalatro, where Diocletian's palace in great measure survived. Adam absorbed all that was earliest and best in the architecture and decoration of the Italian Renaissance before the beginning of its Baroque phase, and establishing himself in London in 1758, he rapidly made his reputation as the leading light of the new school. From the time of his return from Italy may be dated a very remarkable improvement in building construction and furniture design in London and throughout England. A representative but not exhaustive list of the men who produced the domestic architecture of the day includes the brothers Adam, Robert and James; William Chambers, who was appointed to teach architecture to the Prince of Wales, afterward George III, and who in 1759 published his "Treatise on Civil Architecture,"—George III allowed him to use a knight's title, and he became known as Sir William Chambers; James Gandon, a pupil of Sir William Chambers, who published the fourth and fifth "Vitruvius Britannicus"; Henry Holland, who held the appointment of architect to His Royal Highness until his death, and who remodeled Carlton House when it was assigned as a residence to the Prince of Wales when he came of age in 1783; and James Stuart, known as "Athenian Stuart," through his "Antiquities of Athens," published in 1762.

There was also James Wyatt, whose exhibition of his designs for the Pantheon, a building which in 1771, although still incomplete, amazed Horace Walpole, and which raised general enthusiasm when it was opened in 1772. In a few years he had outdistanced even Adam, and was then preeminent in the extent of his country practice.

The volume is superbly illustrated and sets forth the excellence of the Georgian architecture of that day. Included among the illustrations are those of Ashridge Park, built on the site of an old home of his ancestors by the seventh Earl of Bridgewater from designs by James Wyatt. Bayfordbury, south of Hertford town, was built in early Georgian style by Sir William Baker in 1759-1762, but his son enlarged and remodeled it in the neo-Greek manner in 1809-1812. Tabley House, near Knutsford in Cheshire, was built for the Leicester family in 1761 by Carr of York, who also carried out later additions. Mention is made of Jacob Tonson of Sedbury, a well known bookseller, who ran the famous "Kit Cat Club" and owned portraits of its members. The chief treasure and delight of his home, Bayfordbury, consists, in the opinion of most people, not of its architecture, its furniture, or its trees, excellent as these are, but of its paintings, for among them there still remains that remarkable and historic set of portraits of the members of the Club. We are told by Thomas Hearne, in an entry he made in his diary in 1705, that the "Kit Cat Club came to be so called from one Christopher Cathing (a pudding pyeman) with whose puddings and conversation the first founders of the society were extremely well pleased." A letter written by Vanbrugh in 1763 refers to his building a room in his house, "Barn Elms," now the Ranelagh Club, wherein to entertain the Kit Cat Club and to hang the portraits of its members painted expressly for him by Sir Godfrey Kneller. In this section of the volume there are reproduced the portraits of Sir John Vanbrugh, William Congreve, John Dryden, Joseph Addison, Sir Richard Steele, Jacob Tonson, Senior, and Sir Robert Walpole, the Duke of Grafton and Lord Mohun, and other lights in the architectural and literary worlds.

Spanish Details
A Highly Practical Work on
the Spanish Renaissance

By William Lawrence Bottomley

This volume there is presented a collection of illustrations and measured drawings of carefully selected details of Spanish Renaissance architecture. The work of a New York architect who has been notably successful in attractive use of Spanish motifs in his own practice, the volume presents not so much work of a striking and magnificent character as what is comparatively moderate in scale and therefore adaptable for present-day use in America.

The volume is replete with illustrations of well chosen, simple Spanish facades, doorways, windows, balconies, balustrades, exterior stairways and the grilles of wrought iron or carved and turned wood which are used at gates, windows and doorways. Interior details include the arcades of patios, ceilings, chimney pieces, floors, doors, shutters, wall fountains, etc., and since in most instances the illustrations are accompanied by measured drawings the reproduction of these details is not difficult.

Of all the recent works on the Spanish Renaissance this is perhaps the most practical for actual use.

Frontispiece in color; 104 plates and measured drawings, 11 x 13¾ ins. In portfolio form, $12.50; if bound, $15.

ROGERS & MANSON COMPANY
383 MADISON AVENUE NEW YORK


Writers on subjects connected with architecture have many times emphasized the fact that the architecture of probably no other country is as little known to Americans as that of Mexico, a land separated from our own not by vast expanses of ocean, but by the narrow Río Grande. Various American architects and writers have explored the countries of Europe,—particularly during late years have they explored and studied Spain,—producing works of incalculable value to architectural designers as well as to writers and historians; but for one reason or another the really noble and splendid architecture of Mexico, particularly of religious buildings almost at our very doors, remains relatively unknown.

The architecture of any country must necessarily be studied in the light of the country's political history. The American colonies, outposts for the most part of English civilization, produced upon these Atlantic shores architecture modeled as closely as was possible upon that then current in England. Mexico developed something patterned after what prevailed in Spain, for Mexico was for ages a possession of Spain, and the wealth which she poured into the coffers of the mother country supplied in large part the means which made possible much of Spain's architectural development. With Mexico's exploitation almost completely in the hands of Spanish generals, governors, soldiers and ecclesiastics, to say nothing of architects and engineers, and with almost limitless resources closely at hand, there came into being marvelous works in the way of engineering, superb cathedrals and churches, and well ordered cities and towns modeled upon the Spanish pattern, and all this when the American colonies were barely emerged from their early primitive stages; and notwithstanding war, domestic upheavals, and the chronic state of revolution which has been Mexico's portion, these achievements, and many of a later day, remain for the embellishment of American architecture.

The value of Mr. Ayres' work to architectural designers will be great. He has been rarely successful in obtaining photographs of buildings which while not of the first magnitude as to size or cost are those which are most useful as models here in America. This usefulness applies particularly to illustrations of domestic structures and religious buildings,—perhaps especially to those of religious buildings, for of late there seems to have come into vogue in America in planning churches a certain appreciation of what one might call "structural integrity"—building which is real and genuine rather than of the "office building" type, and many of these fine old Mexican churches, afford examples of this integrity and offer examples of structures which may be developed upon scales either modest or lavish. Like almost all books dealing with Mexican or Spanish architecture, this volume devotes considerable space to illustrating interiors made beautiful by work in the form of metal forging, wood carving and the making of pottery and tiles, forms of art which sometimes seem to be almost as full of appeal as architecture itself. Possibly if it were not so feudal and its history so dramatic, the impression of vast strength gained from the architecture of Mexico, would not be so impressive. Mexico's inborn pride and her isolation gave whatever she did a distinct national flavor.

As the art among all the arts which sustains the closest relations with life, architecture is of course influenced by all the changes which time brings to human existence. In no sphere of architecture is this being more strikingly illustrated than in that which has to do with structures planned and built to serve purposes directly or indirectly connected with religion. Over a great part of the religious world there have come, during the last 50 years, changes in point of view which seem to have been of the first magnitude. Growing indifference to dogmatic teaching has brought into new prominence the importance of what is today known as "social service," practically unknown a half-century ago, but now frequently depended upon to hold the interest of people to whom doctrinal teaching or belief has ceased to exert any very strong appeal. This change has brought into wide favor buildings devoted to, in addition to Sunday School purposes, club or social uses, Boy Scout and Camp Fire organizations, gymnasiums, swimming pools, bowling alleys, kitchens and many other adjuncts which are necessary or at least very helpful where much is made of social service; and many of these buildings, since they are often the work of experienced architects, are models of everything which such structures should be.

It is, of course, extremely helpful to have presented in book form an account of the progress thus far made in work of this character, particularly by men as widely experienced as Dr. Tralle, a specialist in religious education and author of "Psychology of Leadership," "Dynamics of Teaching" and several other works, and Mr. Merrill, who in addition to being a member of the American Institute of Architects, is one of the authors of "Planning Church Buildings." In the volume there are described and illustrated by plans and views of interiors the most advanced and highly specialized of the numerous buildings devoted to this work. The volume is obviously intended to be an aid to clergymen and building committees entrusted with the carrying out of plans and erection of buildings for these forms of effort, and the thoroughness with which the authors cover every detail of the subject should be an immense help toward their achieving success in an admittedly difficult field.


Probably because in America reliefs of an interesting and worthy architectural past are so few (and rapidly becoming fewer), the student is likely to look to other countries for that inspiration in the way of domestic architecture which is so largely denied to him at home,—to England chiefly, for there the spirit of progress moves at a less rapid gait than in America, and it deals rather more gently with the obstacles in the form of old buildings which interfere with its line of march. Not that countless treasures in the way of English architecture are not either gone or going; the fate of a large number of London's old churches seems to be even now trembling in the balance, famous Regent Street has disappeared, and there are frequently heard disturbing rumors regarding the impending fate of more treasures, rumors which warn the student to delay no more than is neces-

FRENCH PROVINCIAL ARCHITECTURE
A Constructive and Practical Work on Minor French Buildings
By Philip Lippincott Goodwin and Henry Oothout Milliken

Some of the most graceful and distinguished architecture in the world exists in French provincial towns, small villages and in tiny hamlets which cluster about the great chateaux—small manors, half-timber cottages, shops and buildings of other kinds. Much of this wealth of design is applicable to American use—the exteriors largely for suburban or country houses, and the interiors for residences or apartments. The authors, with unerring architectural taste and judgment, have selected just those details which possess proportions and suitability for present-day use. The volume contains illustrations, plans and measured drawings worth considerably more than the cost of the work.

Text, 40 Plates of Measured Drawings
94 of Illustrations
Size of Pages, 11 x 15 ins.
Price $20

ROGERS & MANSON COMPANY
383 MADISON AVENUE NEW YORK

Any book reviewed may be obtained at published price from The Architectural Forum
sary his sojourn in England if he would find that inspiration and enjoyment of architecture of which he goes in quest. Very little of architectural interest may remain.

But if interesting old buildings must disappear, let us at least have some record of their glories, lest their charm be entirely lost to the world, and this volume preserves it. The form of illustrations makes many minor details of architecture and around London which, while not in imminent peril of destruction, are likely eventually to go the way of much which has already vanished. There are countless localities in London or in the spread-out suburbs which lie on every side,—Chelsea, Southwark, Chiswick, Highgate, Stepney, Blackheath and many others,—where the charm of earlier days still lingers, often in stages of more or less picturesque decay, and the authors of this helpful volume have gathered from these and from other forgotten parts of London illustrations of certain old buildings, brick town houses in rows or in groups, for the most part, their fine facades, porticos, hoods, entrance doorways and the ironwork in the form of railings, fences or gates which so frequently go with them; or else of equally fine old structures which stand detached,—manor houses, perhaps, or the homes of prosperous merchants before they descended in the social scale to the status of almshouses,—but even as almshouses still boasting their pedimented gables, rich details of door and window surrounds, quoins of stone or of brick, and often their fine brickwork, laid in many excellent bonds and with keystones or string courses of brick or stone disposed in ways which often add high architectural dignity to an exterior which would otherwise be commonplace. Several of the most valuable plates show piers of brick or of brick and stone placed as parts of gateways or as supports for the iron fences which previous Victorian architects knew so well how to use, while other plates deal with the “memorial tombs” which are seen in so many of London’s old and half-forgotten graveyards, tombs which make excellent use of classical details and funerary urns, motifs which are much used today.


The relations between architecture and engineering, which are so close and intimate that it is difficult to designate the point at which one ends and the other begins, lend to any department or division of the subject of engineering an interest to architects who might be supposed to be concerned chiefly in design. This work by a well known English structural engineer is an attempt to fill one gap in what might be called the literature of engineering. There are several treatises on the theory of structure, but they are as a rule so written that a complete knowledge of higher mathematics is demanded of those who would profit by them. The subject by its very nature is one which would hardly engage the attention of the inexperienced, and this volume has been prepared with the needs of students in technical schools chiefly in view. As engineering involves a number of problems of different sorts, to help the student the supplementary matter at the end of the book gives a complete table of the dimensions and properties of British standard steel joists. The fact that it is based on English rather than American engineering practice does not impair its value to students of the subject but increases it by giving a wider view and many constructive hints.

PROVINCIAL HOUSES IN SPAIN

By Arthur Byne & Mildred Stapley

Architects value Spanish types of domestic architecture because of their simplicity of design and plan and also because they are easily developed in materials inexpensive and easily had. Spain offers a choice of several kinds of residence architecture, types sufficiently different from one another to afford considerable range of selection, yet all possessing the same strength and virility, the excellent lines, the same graceful but unaffected grouping, and the discriminating use of detail which renders distinguished so many Spanish domestic buildings.

Houses in various parts of the Spanish peninsula, particularly the buildings of medium size in rural districts or provincial towns, offer excellent precedent for use in different parts of America where climate conditions are about what prevail in the provinces of Spain.

ROGERS & MANSON COMPANY, 383 Madison Avenue, New York

In this volume two well known writers on Spanish architecture and decoration review the various forms which are given to the small or medium sized house in Spain. To render the work as helpful as possible to architects, the authors have included many plans and drawings of different kinds, details of such exterior parts of buildings as friezes, cornices, windows, timber overhangs, soffits and balconies, or of such interior parts of the structure as ceilings, fireplaces, doors and stairways. Part of the work deals with the tiles, pottery, ironwork, plaster in relief and the other forms of craftsmanship which contribute so much to the excellence of domestic architecture in Spain. It is a work likely to be invaluable to the designer.

The book contains text and 190 plates 12¼ x 16 inches, and is bound in cloth. Price $25, postpaid.
Economy!

Cut your electric light bills—and window shade replacement costs

Plenty of sunshine out-doors—plenty of windows. Yet inside—electric lights going full blast!

All because of those dark, opaque shades at the windows—ugly, light-dimming shades that shroud each room in gloom.

After all, why shut out free daylight and then pay for expensive artificial light? Is that economy?

Compare this absurd waste of daylight with the sound economy of Columbia Crescent Tint Window Shades—translucent tone-color shades that admit a maximum of natural light, yet exclude all harsh, eye-straining glare.

And still another advantage: Columbia unfilled Shades are strong on durability. Never stretch, crack or pinhole.

That's because they're closely woven, firm-textured, carefully painted—all for the kind of usage that most hotel and office building equipment is subjected to, day in and day out. Replacement costs drop right down toward zero with these long-wearing window shades on the job.

The Columbia Mills, Inc.

In addition to the institutions pictured here the following Los Angeles buildings are Columbia equipped:

Los Angeles Gas & Electric Building
Arcade Building
Talmadge Apartments
National City Bank Building
Rosslyn Hotel Annex
Jonathan Club
Victoria Arms Apartments
Chelsea Hotel
New Orpheum Building
Boy's & Girl's Aid Society
Goodyear Tire & Rubber Co. (homes, apartments and administration buildings)
Pomona High School

Columbia

WINDOW SHADES and ROLLERS
The above building is of reinforced concrete construction throughout and shows how readily concrete can be adopted for institutional buildings.

Hospital Building erected by

**Turner Construction Company**

TURNER CONSTRUCTION COMPANY

ATLANTA  PHILADELPHIA  BUFFALO
BOSTON  NEW YORK  CHICAGO
### Contents for December 1926

<table>
<thead>
<tr>
<th>PLATE ILLUSTRATIONS</th>
<th>Architect</th>
<th>Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memorial Building, Plymouth, Mass</td>
<td>Little &amp; Russell and Joseph D. Leland &amp; Co.</td>
<td>81</td>
</tr>
<tr>
<td>War Memorial, Southport, England</td>
<td>Grayson &amp; Barnish and A. L. MacMillan</td>
<td>82, 83</td>
</tr>
<tr>
<td>Memorial at Ridgewood, N. J.</td>
<td>Henry Bacon</td>
<td>84</td>
</tr>
<tr>
<td>St. Caudens Memorial, Cornish, N. H.</td>
<td>McKim, Mead &amp; White</td>
<td>85</td>
</tr>
<tr>
<td>Voorbies Memorial, Denver</td>
<td>W. E. &amp; A. A. Fisher</td>
<td>86</td>
</tr>
<tr>
<td>Memorial at New Rochelle, N. Y.</td>
<td>Louis Metcalf</td>
<td>87</td>
</tr>
<tr>
<td>Soldiers' Gate, Brown University, Providence</td>
<td>Coolidge, Shepley, Bulfinch &amp; Abbott</td>
<td>88</td>
</tr>
<tr>
<td>War Memorial, Bury, Lancashire</td>
<td>Sir Reginald Blomfield</td>
<td>89</td>
</tr>
<tr>
<td>Cheesman Memorial Pavilion, Denver</td>
<td>Kenneth W. Dalzell</td>
<td>90</td>
</tr>
<tr>
<td>War Memorial, Birkenhead, England</td>
<td>Louis Metcalf</td>
<td>91</td>
</tr>
<tr>
<td>Statue of Francis Asbury, Madison, N. J.</td>
<td>Henry Bacon</td>
<td>92</td>
</tr>
<tr>
<td>War Memorial, Exeter, N. H.</td>
<td>McKim, Mead &amp; White</td>
<td>93</td>
</tr>
<tr>
<td>Tennessee War Memorial, Nashville</td>
<td>Edward Dougherty and McKim, Mead &amp; White</td>
<td>94</td>
</tr>
<tr>
<td>Tablet, Chapel of the Intercession, New York</td>
<td>Bertram Grosvenor Goodhue</td>
<td>95</td>
</tr>
<tr>
<td>Macdonough Memorial, Vergennes, Vt.</td>
<td>John Russell Pope</td>
<td>96</td>
</tr>
<tr>
<td>Memorial Fountain, Arlington, Mass.</td>
<td>R. Clipston Sturgis</td>
<td>97</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PLATE ILLUSTRATIONS</th>
<th>Architect</th>
<th>Plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Air Force Memorial, London</td>
<td>Sir Reginald Blomfield</td>
<td>81</td>
</tr>
<tr>
<td>War Memorial, Glen Ridge, N. J.</td>
<td>William Edgar Moran</td>
<td>82, 83</td>
</tr>
<tr>
<td>Memorial to Robert Louis Stevenson, San Francisco</td>
<td>Willis Polk</td>
<td>84</td>
</tr>
<tr>
<td>Memorial at State House, Boston</td>
<td>R. Clipston Sturgis</td>
<td>85</td>
</tr>
<tr>
<td>Flag Staff at Arlington, Mass.</td>
<td>Henry Bacon</td>
<td>86</td>
</tr>
<tr>
<td>War Memorial, Kearny, N. J.</td>
<td>Kenneth W. Dalzell</td>
<td>87</td>
</tr>
</tbody>
</table>

**LETTERPRESS**

<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover Design: Washington Arch, New York From a Drawing by Louis C. Rosenberg</td>
<td>67</td>
</tr>
<tr>
<td>The Editor's Forum</td>
<td>68</td>
</tr>
<tr>
<td>Memorial Hall, Alexandria, Va.</td>
<td>69</td>
</tr>
<tr>
<td>Helmle &amp; Corbett, Architects</td>
<td>Frontispiece</td>
</tr>
<tr>
<td>The Value of Memorial Architecture</td>
<td>Harvey Wiley Corbett</td>
</tr>
<tr>
<td>Memorial Buildings</td>
<td>Egerton Swartwout</td>
</tr>
<tr>
<td>Columns, Shafts, Cenotaphs and Tables</td>
<td>Paul P. Cret</td>
</tr>
<tr>
<td>Bridges as Memorials</td>
<td>William Emerson</td>
</tr>
<tr>
<td>Royal Artillery Monument, London</td>
<td>Charles O. Cornelius</td>
</tr>
<tr>
<td>The Relation of Sculpture to Architecture</td>
<td>Sir Herbert Baker</td>
</tr>
<tr>
<td>Winchester College War Cloister</td>
<td>Sir Herbert Baker</td>
</tr>
<tr>
<td>Charlesfort Monument, Parris Island, S. C.</td>
<td>Albert Simons and Samuel Lapham, Jr.</td>
</tr>
<tr>
<td>Memorial Tablets</td>
<td>Robert P. Bellows</td>
</tr>
</tbody>
</table>

---

**Published Monthly by**

ROGERS & MANSON COMPANY  
383 Madison Avenue, New York

Howard Myers, Pres.; C. Stanley Taylor, James A. Rice, Vice-Pres.; Robert Sweet, Sec. and Treas.  
Paul W. Hayes, Asst. Treas.

Yearly Subscription Payable in Advance, U.S.A., Inland Possessions and Cuba, $6.00. Canada, $6.75. Foreign Countries in the Postal Union, $7.50.

Single Copies, 60 cents. All Copies Mailed Flat  
Trade Supplied by American News Company and its Branches. Entered as Second Class Matter at the Post Office at New York, N. Y.

Copyright, 1926, by Rogers & Manson Company
When time is money... use Quick-Hardening Concrete made with standard Universal Cement

How Big Will Your Profits Be This Winter?

Whether the winter months will be months of profit for you depends largely upon whether you allow cold weather to interfere with building plans.

Today winter concrete is more practicable than ever before. During cold weather, materials must be kept at a warm temperature and the structure protected from freezing. Use of High Early Strength Universal Concrete shortens the period in which protection from freezing is necessary. It makes possible early removal of forms. It hurries completion of the job.

You can help turn cold-weather months into profit with high early strength concrete made by using special methods and standard Universal (not special) cement.

Detailed information furnished promptly on receipt of coupon.

Universal Portland Cement Co.
Chicago Pittsburgh Minneapolis Duluth Cleveland Columbus New York

Concrete for Permanence

---

High Early Strength Universal Concrete will help you turn these months into increased profit.

UNIVERSAL PORTLAND CEMENT CO.,
210 South La Salle Street, Chicago.

Without obligation, please send me detailed information on methods for securing strong concrete in 3 days with standard Universal (not special) cement, the same quality Universal regularly used.

Name ........................................
Address ....................................

AF 12-26
THE EDITOR’S FORUM

T  o the recent necrology of American architecture, a passage of necrology already impressive by reason of its length, more names must be added—the names of Charles I. Berg, Frank W. Ferguson, Andrew C. McKenzie, George W. Maher, and James Hollis Wells.

CHARLES I. BERG
BORN in Philadelphia in 1856, Mr. Berg received the greater part of his architectural training at the Ecole des Beaux Arts, and during many years he was prominently identified with the Society of Beaux Arts Architects as well as with the Architectural League of New York and with the American Institute of Architects, of which he was a Fellow and for three consecutive terms Secretary of its New York Chapter. Mr. Berg was also a member of the Players’ Club, the National Arts Club, and of various other organizations whose aim is to promote the development of architecture and the other fine arts. His death occurred on October 13, 1926.

FRANK W. FERGUSON
IN 1889 Mr. Ferguson became identified as a construction engineer with the Boston firm of Cram & Wentworth, to be admitted to partnership when the firm was reorganized later as Cram, Wentworth & Goodhue, and still later as Cram, Goodhue & Ferguson. During some 35 years Mr. Ferguson was “the solid, enduring, and ever-reliable foundation” on which the work of his organization was established and developed. “Self-effacing and modest to a degree, he never came prominently before the general public, but through the fair weather and foul of the formative years of the firm he was constantly present in all the material affairs of the office, and was the directing head of all its building operations. Possessed of unfailing patience, a serene philosophy and sense of humor, he bridged every difficulty and invariably brought order from threatened chaos. “It was not his function to contribute to the artistic product of the firm, but aesthetics, after all, are only a part of architecture. For nearly a quarter of a century he saw to the material working out of the dreams and visions of his less practical associates, and therefore he played an equal part in whatever his firm produced.” Besides being a member of the Boston Society of Architects, Mr. Ferguson was a Fellow of the American Institute of Architects. He died at his home in Boston October 4, 1926.

ANDREW C. McKENZIE
BORN in Dunkirk, N. Y., and educated in Buffalo, Mr. McKenzie came to New York in 1884, and became associated with Babb, Cook & Willard. He later was associated with Cyrus L. W. Eidlitz, with whom he became a partner in 1902, at which time they designed the Times Building in New York. Upon the retirement of Mr. Eidlitz in 1910, the partnership with Stephen F. Voorhees and Paul Gmelin was formed. While he was a member of this firm, McKenzie, Voorhees & Gmelin designed the West Street Building of the New York Telephone Company, the Telephone Buildings in Albany and Buffalo, the Brooklyn Edison Company Building, the Municipal Building of Brooklyn, and many others. Mr. McKenzie was a member of the American Institute of Architects, the Architectural League of New York, the Union League Club, Canadian Club of New York, the Railroad Club, the Briar Hills Country Club, and St. Andrew’s Society, and the City Planning and Survey Committee of New York. His death occurred October 10, 1926.

GEORGE W. MAHER
BORN in Michigan on Christmas Day, 1864, Mr. Maher was identified with the architectural development of Chicago and its vicinity during their highly important formative era and during the period of astonishing growth which has been going on since the ending of the World War. As an architect he possessed to an unusual degree that business acumen which must guide any successful architectural practice, along with other somewhat different qualities which pertain to the sphere of aesthetics. Added to these qualities he possessed to an extent wholly unusual that public spirit without the support of which many of the activities connected with present-day architecture would languish if not perish. He was a Fellow of the American Institute of Architects and a past president of the Institute’s Chicago chapter.

JAMES HOLLIS WELLS
A FIGURE prominent in more than one sphere of New York life was removed by the death on September 24 of James Hollis Wells, senior member of the firm of Clinton & Russell and for many years in command of the 71st Regiment, N. Y. N. G. Born in England in 1864, he received the degree of Civil Engineer from Lehigh University in 1885 after having received his earlier education in the public schools of South Bethlehem, Pa., and having taught in the grammar schools of the same place. In 1886 he was appointed Inspector of Pavements in New York, and later was connected with a well known contracting firm before he became identified with the construction projects of the Vanderbilt interests, still later becoming associated with Clinton & Russell, the firm of which he finally became the senior member. Colonel Wells during the 33 years of his service in the National Guard occupied many posts of honor in New York’s “Seventh” before going to the 71st, of which he was for so many years colonel, and as a major he saw active service with the flag in Cuba.
HERE is a wood and glass office partition that in 15 years has changed the partition habits of the nation.

It has entirely eliminated the loss and expense of changing office layouts. Erected entirely with screws, it can be taken apart and erected again without ripping and pulling it to pieces.

The Telesco Extension top reaches to any height ceiling quickly and securely. Normally 7’ 0” high it can be extended to 13’ 0” or more.

Telesco Cabinet Quality wood, construction and finish has set a new standard for office partition. The fact that electric wiring can run concealed and that outlets and switches can easily be provided for will be of especial interest to you.

Write for catalog and full details.

IMPROVED OFFICE PARTITION CO.
ELMHURST, N. Y.
Sales Office: 9 East 37th St., New York City
ENGLISH oak furniture of the 17th Century expresses the character of a great home-loving people. In fact, much of its fascination lies in its livable quality—the sense it imparts of homely service. It has an individuality, too, not found in the more highly developed work of the Continent because it grew under the hands of the craftsman and was not the realization of a formal design previously conceived in detail.

We illustrate an interesting example—a court-cupboard reproduced from an early 17th Century original. The form is distinctly English, well-balanced and an excellent piece of cabinet construction. In all of the ornament is the spirit of the renaissance, but most entertainingly rendered in the traditions of English craftsmanship. Furniture, such as this, so expressive of Anglo-Saxon character, finds its place naturally in the American home.

All of the character and the decorative quality of the old work are retained in Kensington reproductions, because they, too, are the product of real craftsmanship and faithfully reflect the spirit as well as the form in every detail of design.

Kensington Furniture is made in all the decorative styles appropriate for American homes.

Architects interested in completing the interiors they design with furnishings harmonious in both character and quality are cordially invited to avail themselves of the service of the Kensington Showrooms and staff.

Illustrated Booklet sent on request

KENSINGTON MANUFACTURING COMPANY
MANUFACTURERS AND IMPORTERS
DECORATIVE FURNITURE & ART OBJECTS
NEW YORK

WORK SHOPS
605-611 EAST 132ND STREET

SHOWROOMS
41 WEST 45TH STREET
6TH FLOOR
Canada's Senate Chamber is in Walnut

Here is an interesting example of the rich contribution in beauty and dignity which walnut makes to the public building.

In replacing the building destroyed by fire ten years ago, the architects selected materials which would last through the years and become more beautiful with age. Walnut is pre-eminently such a material.

Age only increases the beauty of walnut. There are plenty of historic buildings which prove this to be a fact. Years add a soft mellowness to walnut that gives it a constant charm.

Walnut is particularly well suited to purposes such as the one portrayed here because it is a wood which combines to an unusual degree beauty with utility.

The woodwork of this room must withstand the coming and going of large numbers of persons. Walnut stands the wear of daily use perhaps better than any other wood. Dents and fingermarks seem to remain almost invisible upon the hard surface of this fine cabinet wood. This is largely because the beauty of walnut is in the wood itself.

We have recently published an interesting book which gives valuable data on simple paneling jobs. This book is called "American Walnut for Interior Woodwork and Paneling." Send for a copy for your files. Use this coupon for convenience.

---

Fill in, clip and mail

AMERICAN WALNUT MANUFACTURERS ASSOCIATION
Room 1000, 616 South Michigan Ave., Chicago

Please send

"American Walnut for Interior Woodwork and Paneling"
A HAPPY example of the modern trend toward artistic individuality in business interiors is illustrated in this photograph. Note the important role played by the striking floor of Gold Seal Marble-ized Tile.

This resilient cork-composition tile combines the standard BONDED FLOOR comfort, quiet and durability, with the rich color shadings of marble. Hundreds of luxurious designs are possible.

For these reasons, the architect seeking unusual effects in floors of proved merit will find it worth while to investigate Gold Seal Marble-ized Tile—and the BONDED FLOORS service and Guaranty Bond that go with it.

BONDED FLOORS COMPANY, INC.
1421 Chestnut St., Philadelphia, Pa.
EXPERT ADVICE

On Linoleum Specifications

For the convenience of architects we offer, through our sole selling agents, a complete contract service on linoleum floors.

In New York, or any of the cities listed below where there are branch offices, a Sloane representative will, upon request, cooperate with any architect, not only in recommending the particular type or grade or linoleum most suitable for any job, but also in drawing up specifications and supplying the names of representative contractors who are in a position to supply and lay the linoleum specified.

In availing themselves of this service, architects assure their clients of thorough satisfaction, both as to the quality of the linoleum and its installation.

Communicate with W. & J. Sloane, either at 577 Fifth Avenue, New York City, or at any of the branch offices listed below.

W. & J. Sloane Manufacturing Co., Trenton, N. J.

W. & J. SLOANE
THE LINOLEUM OF QUALITY

Branch offices at CHICAGO - BOSTON - DETROIT - SAN FRANCISCO - PHILADELPHIA - BALTIMORE
ST. LOUIS - DALLAS - DENVER - LOS ANGELES - PORTLAND and SEATTLE
French Bucolics told in pictures
give this Toile de Jouy its Eighteenth Century charm.

A PEASANT woman rubs out her clothes on a rock beside a watermill...two men gather in their nets after the day's catch...a boy bends beneath the weight of his sheaf of wheat...a man fishes, idly reclining on a mossy rock, while a girl and a dog sit quietly beside him.

These delightful scenes of rural France give this toile de Jouy an antique air, quite as if it had been designed by the famous J. B. Huet himself, back in the 18th Century.

They are developed on a cream background in rouge, dull blue, mauve, or sepia—all characteristic toile de Jouy tones.

Toiles de Jouy, with their little rural or historical scenes printed in a single clear color on a neutral background, make delightful draperies or slip covers. They may be used for bedspreads or wall coverings, as well. And since they lend themselves to the decorative schemes of widely varied types of interiors—living-rooms, bedrooms, dining-rooms, sun-rooms, children's rooms, libraries—these toiles have a large and ever-increasing following.

The delightful pattern and color range of the Schumacher toiles de Jouy will be of the greatest interest to decorators, upholsterers and the decorating services of department stores. There are also other fine Schumacher drapery and upholstery fabrics suitable for furnishings of every period—lovely brocades, damasks, brocades, velvets, tapestries, chintzes, linens, satins and taffetas.

“Your Home and the Interior Decorator”

Many people who could well afford the services of a decorator fail to do so through failure to understand how such a service functions. To explain the economy and advantages of using a decorator, we have prepared the booklet, “Your Home and the Interior Decorator.”

Beautifully illustrated in color, this book is being mailed to decorators, upholsterers and the decorating service of department stores. If you have not received a copy, please write us. And let us explain our special offer whereby you may send this book to your prospective clients. F. Schumacher & Co., Dept. J-12, 60 West 40th Street, New York, Importers, Manufacturers and Distributors to the trade only, of Decorative Drapery and Upholstery Fabrics. Offices also in Boston, Chicago, Philadelphia, Los Angeles and Paris.

F-SCHUMACHER & Co.
A GREETING

AN APPRECIATION

AND A PROMISE

The season's greetings are in order. The TUTTLE & BAILEY MFG. CO., wishes you A MERRY CHRISTMAS . . . A HAPPY, PROSPEROUS NEW YEAR.

As 1926 approaches its end, we find it fitting and natural to reminisce. During our eighty years existence it has been our pleasure to work with hundreds of architects. We have kept pace with architectural tendencies through four score years. We have progressed—achieved. Much of our advancement has been made possible by the confidence you have placed in us. A word of appreciation is not amiss . . . we thank you for your past favors and consideration.

Today—TUTTLE & BAILEY facilities reach around the world. Branch offices are established in centrally located cities. Each has a personnel capable of rendering architects in their vicinity efficient, prompt co-operation. We solicit your commissions with the promise that the same dependability associated with all TUTTLE & BAILEY dealings in the past is assured you in the future.

TUTTLE & BAILEY MFG CO.

Established 1846

441 LEXINGTON AVENUE
NEW YORK CITY

REGISTERS • GRILLES • RADIATOR CABINETS
PLATE No 2
ENGLISH LIVING ROOM

JACOBSON PLASTER ORNAMENTS
ARE MOSTLY AUTHENTIC REPRODUCTIONS OF FAMOUS WORK—
BECAUSE OF THIS FACT, MODELING CHARGES ARE ELIMINATED.
IN OUR CATALOGUE YOU WILL FIND AN AMPLE SELECTION FOR
EVERY PERIOD OF DESIGN.

JACOBSON
AND COMPANY
241 EAST 44TH STREET
NEW YORK CITY
ESTABLISHED 1897

Complete folio of this series will be sent you on request.
Zenitherm lends itself admirably to use in large buildings where the architectural effect is primarily dependent on mural design. The view shown herewith indicates clearly the blend of dignity and beauty imparted by Zenitherm as a wall material. Zenitherm is weather-proof, fire resistant, lasting, greatly increases acoustic values, and is moderately priced.

Write for descriptive booklet B

Zenitherm CO., Inc.

NEWARK, N. J.

AGENCIES IN 30 CITIES

Looks like stone—works like wood.
Lutheran Church of the Epiphany
Brooklyn, New York
CHERRY & MATZ, Architects
Furniture by DE LONG

We develop designs for church seating from the architect's sketches; or when he designs the furniture in detail, we execute the work faithfully and well. We also supply objects that are generally needed for the complete equipment of church interiors.
When architects see no restrictions laid upon their originality and art, when contractors find no difficulty in installation work, when building managers foresee easy leases, when underwriters estimate a surer return—

When professional men all agree, as they do, about Murphy In-a-Dor Beds, there must be exceptional features—both mechanical and economic—about the product.

Murphy In-a-Dor Beds—even the largest of the four standard bed sizes—swing through a standard three foot door and thus do not affect the appearance of the room. With variety of designs they harmonize, too, with the furnishings.

Independent of the door, the Murphy In-a-Dor Bed is easily installed and needs no adjustments later.

Tenants like Murphy In-a-Dor Beds because they are so easily handled, mean more closet space and give spaciousness to a floor area that would otherwise be cut up into small rooms.

Murphy In-a-Dor Beds make possible the building of apartments and homes on conveniently located, close-in, high priced land, thus attracting a substantial tenantry and assuring a ready sale.

Learn more about In-a-Dor Beds

There is only one In-a-Dor Bed—the Murphy. Learn all about it and about the Murphy Cooperative Service. See why the professional men all agree on this building requisite. Write, please, to our office nearest you.
Performance Squares with Theory in the Halls of Learning

Many commissions for hall, auditorium and class-room seating have been received by this company from the great institutions of learning of this country. These are convincing testimony from highest engineering authorities to the efficient and practical manner with which our product and policies square with accepted principles of correct and efficient seating. No other form of approval can carry greater weight. The recent installation of seating in the University of Florida is but one of many.

American Seating Company

General Offices
NEW YORK 1094 Lytton Building
CHICAGO 79 Canal Street

Interior view of Chapel, University of Florida
Edwards and Sayward, Architects

University of Florida
Gainesville, Florida
Administration Building as it will appear when completed.
NEPONSET BLACK is a tough, heavy Waterproof Building Paper that keeps out dampness and drafts. Its glistening, asphalt-coated surface sheds water like a duck’s back.

For a permanent barrier against the elements, specify Bird’s Neponset Black. Over roof boards and under slate, tile, metal or asphalt shingles it makes a watertight covering. When placed back of stucco and under clapboards or shingles it keeps out drafts and dampness and makes the heating of the house more economical.

Your contractor or builder can get Neponset Black at a moment’s notice. It is standard stock with dealers in Bird’s Building Products. Refer to Sweet’s or write to us for complete specifications.

BIRD'S NEPONSET BLACK BUILDING PAPER

Early English Mantelpiece

Jacobson Mantel & Ornament Company

ARTIFICIAL STONE MANTELS

322-4 East 44th Street, New York

ALSO COMPO ORNAMENTS FOR WOODWORK

LOUIS GEIB ARTHUR P. WINDOLPH
REISCHMANN SPECIAL FURNITURE
worthy of the fine buildings
in which it is installed

for Lodge Rooms, Fraternal Organizations, Club Rooms, Y. M. C. A.'s, Public Institutions, Hotels, School and Colleges.

The prestige of Reischmann Installations grows more secure with every important building for which Reischmann Furniture is produced. Sixty-four years of experience are your assurance of unvarying quality.

Complete installations are created from our own designs, or in accordance with architects' specifications. There is also a large variety of stock models from which practical selections can be made.

Write for Catalog "AF"

RECENT INSTALLATIONS
Mecca Temple, New York
K. of C., Brooklyn
Atlantic City Elks
McKinley Lodge, F. & A. M.
Queensboro Elks, Brooklyn
Flushing Y. M. C. A.
Scottish Rite Temple
Highland Park, Brooklyn, Y. M. C. A.

W. Reischmann & Sons inc.
135th St. and Willow Ave.
New York

Furniture Manufacturers since 1863
Solved—

the problem of convenience
in limited kitchen space!

No matter how limited in space, modern kitchens can have convenience that will win the praise of every woman. Compact Kitchen Maid Units provide all the storage and working space a woman needs. They are scientifically designed and built by specialists in kitchen equipment.

These harmonized units cover every use—from kitchen cabinets to refrigerator, from disappearing "breakfast nook" and folding ironing board to linen cupboards, from sink and range to broom and dish closets. Each unit is complete in itself—and can be used alone or in combination with other units.

Kitchen Maid Units alone provide the added cleanliness of rounded inside corners and smooth doors. Only these units can offer Kitchen Maid construction, beauty and efficiency. Yet Kitchen Maid Units cost no more installed than old-fashioned cupboards.

For the satisfaction of your client and his customers, specify Kitchen Maid Units in your kitchen plans. Mail coupon for catalogue, dimensional drawings and prices.

WASMUTH-ENDICOTT COMPANY
1812 Snowden Street, Andrews, Indiana

"Let the Kitchen Maid Be Your Kitchen Aid!"

Kitchen Maid Equipment Used in All Model Homes Built by Home Owners Service Institute
"He spilled the jam and destroyed the evidence—but not the Valspar"

To preserve the appearance of lovely homes—Valspar!

Your clients will appreciate Valspar's waterproofness and durability—especially when accidents occur—for Valspar withstands exceptional as well as ordinary household service with dependable faithfulness. Indoors and out, it is proof against spilled liquids and common everyday accidents. And it never turns white!

Clear Valspar—transparent, colorless, quick-drying—enhances and protects the original beauty of any wood or metal surface to which it is applied.

Valspar Varnish-Stains—Clear Valspar plus transparent, natural woodstains—intensify all the beauty and character in the natural wood.

And Valspar-Enamels—high-grade, solid-covering pigments combined with clear Valspar—offer a great variety of decorative tints and shades, which may be mixed to obtain any number of additional and intermediate tones.

Valspar, clear and in colors, has a naturally high, durable polish. It can, however, be rubbed down to wax-like luster or dull mat finish if desired—without losing any of its remarkable toughness and durability.

Specify Varnish satisfaction—with Valspar

Valentine & Company
Established 1832
Largest manufacturers of high-grade varnishes in the world

VALENTINE'S VALSPAR
The Varnish That Won't Turn White

Valentine & Company
New York Chicago Boston
Toronto Paris London
Amsterdam
W. P. Fuller & Co., Pacific Coast
Among the many decorative features which contribute to the interior beauty of the home, none have such permanent characteristics as those surfaces grouped under the term "inside trim."

Wall decorations, draperies, and furnishings are influenced more or less by styles in decoration. But the fireplace, the stairway, the doors, the windows, are not only permanent in design but should be permanent in finish as well. They are a part of the house.

No wonder then that Ripolin, because of its qualities of beauty and endurance, is so universally specified by architects for the finishing of these permanent features in American as well as European homes.

AND the exterior trim, the stately pillars, the attractive pilasters and doorways—all beautiful in their architectural design—demand even greater protection than similar interior surfaces—and surely no less in beauty of finish.

The incentive for this more adequate protection and refined quality of decoration brought Ripolin into the field of exterior decoration more than forty years ago, when this "Original Holland Enamel" was first discovered—and "over there" as well as in America the use of this better finish has proven its economy. Is it any wonder that architects are so frequently using Ripolin for exterior purposes?

The greatest job an organization has is to consistently satisfy its customers... We've grown from one to thirteen factories. We must have done our job pretty well. Anyway, we are very thankful for the loyalty our customers have shown us.
Durable paint beauty throughout with this famous interior finish

in Gloss, Semi-Gloss and Flat—White, or easily tinted

**There** was a pleasing response from the friends of Barreled Sunlight when we recently presented this famous enamel-like paint in three different finishes.

In hundreds of fine buildings where Barreled Sunlight Gloss has been for years an established favorite, the Semi-Gloss and Flat finishes are now welcomed for other interior jobs, either in the pure white or in tint. Being an all-oil product, Barreled Sunlight is easy to tint any desired shade with colors-in-oil.

Barreled Sunlight is so handsome it replaces the finest enamel. It costs less, and is so opaque that fewer coats are required.

There is also a real saving in the labor of application, for Barreled Sunlight, containing no varnish, flows on freely with brush or spray.

When used in the pure white, Barreled Sunlight resists for years the yellowing tendency common to so many white paints and enamels—an advantage due to the exclusive Rice Process of manufacture.

Sold in 55- and 30-gallon churn-equipped steel drums, and in cans from $\frac{1}{2}$ pint to 5 gallons. Where more than one coat is required, use Barreled Sunlight Undercoat first.

See our complete catalogue in Sweet's Architectural or Engineering Catalogue. Note coupon.

U. S. GUTTA PERCHA PAINT CO.
Factory and Main Offices
3 Dudley Street, Providence, R. I.
San Francisco—156 Eddy Street
Distributors in all principal cities

By simply mixing colors-in-oil with Barreled Sunlight white, the painter on the job can easily obtain any desired shade. In quantities of 5 gallons or over we tint on order at the factory, without extra charge. For tinting small quantities our dealers carry handy tubes of Barreled Sunlight tinting colors.

U. S. GUTTA PERCHA PAINT CO.,
3 Dudley Street, Providence, R. I.
Please send me your booklet “3 Questions Answered” including specifications, and a panel painted with Barreled Sunlight. I am interested in the finish checked here:

Gloss ( ) Semi-Gloss ( ) Flat ( )

Name ............................................
Street ...........................................
City ............................................ State ..............................
HAVEN'T you often wished that the original beauty of the interiors of your jobs would always be bright and attractive? Wouldn't it be a treat to walk into a building a score or more years after its completion and find the original finish still lustrous and the colors still bright? Wouldn't it give you a feeling of satisfaction to know that the surface under the finish is still as sound as the day it became a part of the building?

There is a way to secure permanent protection for fine architectural interiors other than the expensive method of refinishing every few years. The initial application of non-oxidizing, chemically stable finishing materials will provide maximum protection over a long period of time.

Zapon OBS Lacquers and Lacquer Enamels differ from ordinary oil base finishing materials in both their chemical and physical properties. Oil base materials dry slowly by the process of oxidation and remain chemically active until the film becomes brittle and deteriorates. The film produced by Zapon OBS materials dries in about two hours, due to the evaporation of the solvent, and remains chemically stable.

A Zapon OBS Lacquer or Lacquer Enamel finish is hard, exceedingly tough and sufficiently flexible to expand and contract with temperature changes. Ordinary acid or alkaline solutions have no effect upon it. Water cannot injure it.

The appearance of a Zapon OBS Lacquer finish is always attractive for the reason that, being chemically stable, it does not lose its lustre with age. The colors are permanent and will not fade.

Zapon OBS Lacquer Finishes are quite economical. They may be obtained by either brushing or spraying. They can be applied speedily, thus cutting down costs. The cost of maintenance is small as there is no necessity for refinishing for a considerable period of time.

A booklet containing a complete description of OBS Lacquers and Lacquer Enamels, together with specifications formulated from practical application on various types of surfaces will be sent, free of charge, to any architect, builder or decorator upon request.

THE ZAPON COMPANY
247 Park Avenue, New York City

BRANCHES:

Cleveland . 8810 Bessemer Ave. Los Angeles . 1214 Venice Boulevard
New York . . 547 Greenwich St. San Francisco . . 169 Seventh Street

New Haven . . 185 Church St.
Oakland . . 304 Twelfth St.

ODORLESS
BRUSHING & SPRAYING

LACQUERS & LACQUER ENAMELS

The pioneer lacquer finish
The Murphy Varnish Company once told me that it was not its ambition to have the largest varnish business in the world, but to be sure that wherever the name Murphy appears upon a can of varnish, or any other finish, that name would stand for a good job faithfully done and fully delivered. If that way of doing things should lead to the largest varnish business in the world, well and good, but not on any other terms.

NOW YOU CAN

harmonize the radiator

WITH THE DECORATIVE SCHEME

Murphy Brushing Lacquer makes a good durable radiator finish. This is interesting and important to the painter, the architect and the interior decorator because this new material comes in a sufficiently wide range of colors to fit into any scheme of decoration.

Heating engineers further vouch for the fact that the lighter colors which Murphy Brushing Lacquer puts within your reach permit more heat radiation than the metallic aluminum and bronze paints now in common use.

Murphy Brushing Lacquer has all the advantages of the lacquer type of finish, quick drying, resistance to heat and cold, water and steam. The colors are non-fading and the white resists the tendency to turn yellow more successfully than most white enamels.

Recommend Murphy Brushing Lacquer for radiators. A color card will be sent you gladly at your request.

Murphy Brushing Lacquer

MURPHY VARNISH COMPANY
NEWARK - CHICAGO - SAN FRANCISCO - MONTREAL
WHILE the use of Egyptian Lacquers for interior woodwork is a new application, the material itself has been known to the industrial finishing field for a half century. It is reasonable to assume that during our fifty years' of lacquer manufacturing experience we have gained knowledge that enables us to turn out a product of unquestioned merit. May we tell you how Egyptian Lacquers may be used to advantage in your work?

The Egyptian Lacquer Mfg. Co.,
90 West Street, New York
Interesting Interiors

By M. Rea Paul, Consulting Colorist

Sixth of a series of articles discussing practical uses of the newer wall finishes obtainable with Dutch Boy white-lead and Dutch Boy flatting oil

One of the advantages of the Sponge-Mottled Finish is its wide adaptability. Almost any room may be decorated successfully in this finish, whether it is used as an all-over treatment or in panels. In the case of panels there should usually be greater contrast between the colors selected than when an all-over pattern is employed. While almost any number of colors may be used, one or two in addition to the ground coat will ordinarily be found sufficient to produce a decidedly interesting effect.

Either the undercoat or the mottling color may predominate in the Sponge-Mottled Finish. The amount of tamping on a unit of surface regulates to a large extent how much of the undercoat color will show.

The mottling color is usually applied in a haphazard manner with no attempt to secure a regular pattern, although a regular pattern is occasionally used with very satisfactory results. As a rule, the haphazard mottling will prove more satisfactory for the reason that a great deal of the charm of the Sponge-Mottled Finish lies in its irregular pattern.

Suggestions for its use

In addition to the formal dining room shown here, the Sponge-Mottled Finish may be employed successfully in the following rooms, with the suggested color treatments:

<table>
<thead>
<tr>
<th>Ground Color</th>
<th>Mottling Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium Brown</td>
<td>Golden Yellow</td>
</tr>
<tr>
<td>Cold Gray</td>
<td>Rose</td>
</tr>
<tr>
<td>Red Buff</td>
<td>Light Red Buff</td>
</tr>
<tr>
<td>Soft Grayed Green</td>
<td>Light Cream Yellow</td>
</tr>
<tr>
<td>Warm Gray</td>
<td>Light Yellow</td>
</tr>
<tr>
<td>Dark Blue</td>
<td>Gray</td>
</tr>
<tr>
<td>Corn Yellow</td>
<td>Tan</td>
</tr>
<tr>
<td>Tan</td>
<td>Blue Green</td>
</tr>
<tr>
<td>Buff</td>
<td>Cream</td>
</tr>
<tr>
<td>Yellow Buff</td>
<td>Light Golden Yellow</td>
</tr>
<tr>
<td>Shell Pink</td>
<td>Light Gray</td>
</tr>
</tbody>
</table>

Formal dining room of a hotel showing the Sponge-Mottled Finish employed in panels. Reproduced from the booklet "Decorative Possibilities of Paint." Write our nearest branch for copy.

To the right, close-up showing the charming irregularity of the Sponge-Mottled Finish, secured by tamping on a finishing coat with the flat side of a sponge.

Booklet on Distinctive Finishes

Complete directions and formulas for producing the Sponge-Mottled Finish are contained in a new booklet in color, "Decorative Possibilities of Paint." In it are also instructions for obtaining many other interesting finishes with Dutch Boy white-lead and Dutch Boy flatting oil. A copy of this booklet will be sent upon request.

National Lead Company

New York, 111 Broadway
Boston, 131 State Street
Buffalo, 116 Oak Street
Chicago, 900 West 18th Street
Pittsburgh, National Lead & Oil Co. of Penna., 316 Fourth Avenue
Philadelphia, John T. Lewis & Bros. Co., 457 Chestnut Street

Cincinnati 659 Freeman Avenue
Cleveland, 820 West Superior Avenue
St. Louis, 722 Chestnut Street
San Francisco, 485 California Street
Pittsburgh, National Lead & Oil Co. of Penna., 316 Fourth Avenue
Philadelphia, John T. Lewis & Bros. Co., 457 Chestnut Street
INDUSTRY'S IMPREGNABLE DEFENSE AGAINST DECAY

“R.I.W.” products are a guard, an impregnable defense, ranged between Industry's millions of invested capital and the driving forces of blind destruction.

Throughout the world, whether on the steel frame of a Manhattan skyscraper, the machinery of a sugar mill in Cuba, or a foundation embedded in oozing shale, an “R.I.W.” protective coating bears the brunt of slashing rain, damp rot, biting acids, and blistering sun.

Whatever Industry's problems, no matter how exacting its test, these technical paints, varnishes and waterproofing compounds, meet every requirement—their value gauged in super-protection, money saved, usefulness unimpaired.

New problems demanding special remedies are continually being solved by “R.I.W.” Engineers. If, in the wide range of “R.I.W.” products there is not one that meets your specific needs, special research will evolve it for you.

Consult Sweet's Catalog for Specifications

TOCH BROTHERS
Established 1848

Technical Paints  R.I.W. Waterproofing Compounds

443 FOURTH AVENUE - NEW YORK

Remember It's Waterproof

ALUMINUM

The New Industrial Paint

ARCHITECTS, especially those whose major interest is along industrial lines, will find our booklet—“Aluminum Paint—A Step Ahead in Industrial Painting”—interesting, informative and suggestive. A copy will be sent on request.

Aluminum Company of America
2412 Oliver Building, Pittsburgh, Pa.

Offices in 18 Principal American Cities

ALBANY, N. Y.  CLEVELAND, OHIO  KANSAS CITY, MO.
BOSTON, MASS.  DAYTON, OHIO  NEW ORLEANS, LA.
BUFFALO, N. Y.  DETROIT, MICH.  NEW YORK, N. Y.
CHICAGO, ILL.  DALLAS, TEXAS  PHILADELPHIA, PA.
CINCINNATI, OHIO  DALLAS, TEXAS  PITTSBURGH, PA.
COLUMBUS, O.  DALLAS, TEXAS  PITTSBURG, PA.
COLUMBUS,  DALLAS, TEXAS  SAN FRANCISCO, CAL.
DAYTON, OHIO  DALLAS, TEXAS  ST. LOUIS, MO.
DALLAS, TEXAS  DETROIT, MICH.  TULSA, OKLA.
DALLAS, TEXAS  DETROIT, MICH.  TOLEDO, OHIO.
DENVER, COLO.  DETROIT, MICH.  WASHINGTON, D. C.

ALUMINUM IN EVERY COMMERCIAL FORM.

PECORA MORTAR STAINS
are made by an establishment that has been serving architects for over 60 years

12 STANDARD UNFADING COLORS

PECORA PAINT COMPANY

Established 1862 by Smith Bowen

Incorporated, 1911

PECORA PAINT CO., INC.

WILL NOT FADE OR RUN
(February 1885 by Smith Bowen, Pa.)
The new Sherman is another of the Chicago hotels which has attained a position of distinction among the popular hostelries in the country. One of the interesting features are the public rooms finished in different periods. They are unique in their conception and have an appealing charm.

"38° Preservative Varnish is used on all the woodwork in this attractive hotel. For many years to come this varnish will enhance its beauty without the necessity of refinishing. Made for the very highest type of interior trim, "38° Preservative Varnish is naturally selected for buildings of importance — structures that are monuments to the architects and contractors.

There are Pratt & Lambert Varnish Products for every finishing requirement — materials to meet every specification for coating all interior and exterior surfaces. For over three-quarters of a century, discriminating architects in the United States and Canada have recognized their dependability and specified their use on the finest work.

May the Pratt & Lambert Architectural Service Department help you solve your finishing problems? Its members will be pleased to assist you. Write to Pratt & Lambert Inc., 122 Tonawanda St., Buffalo, N.Y. Canadian Address: 34 Courtwright St., Bridgeburg, Ontario.

PRATT & LAMBERT VARNISH PRODUCTS

Vitralite The Long-Life Enamel
Made in the gloss and eggshell and is available in white and six attractive tints. It produces a porcelain-like finished of rare beauty, and is so durable that it is guaranteed for three years inside or outside. It is specified by architects on modest homes and large city buildings.
FOSSIL GUMS when used in varnish have excellent linseed oil absorbing and amalgamating powers, and form a hard, tough, durable and elastic film.

Substitutes for fossil gums are rosin or ester gum (treated rosin).

LINSEED OIL dries, by the absorption of oxygen, to a most elastic and durable film.

CHINA WOOD OIL is the most water-resisting oil commonly used in Varnish manufacture.

When combined with linseed oil and fossil gums in the proper proportion it makes a Varnish film more waterproof.

TURPENTINE is the most satisfactory solvent and thinner for a long-oil fossil gum Varnish. It dries partly by absorbing oxygen from the air, and in the drying of Varnish the film of vegetable origin thus created, readily combines with the film of fossil gum and oil (both of vegetable origin).

Mineral spirits (naphtha, benzine, kerosene and gasoline), all distilled from petroleum, evaporate rapidly and completely and do not benefit the Varnish film.

Know what you buy
Making Known the Facts About Douglas Fir Lumber Products

Correctly Seasoned
The Long-Bell dry kilns at Longview, Washington, are of the latest design, having the largest capacity in the Pacific Northwest, and the kiln drying is scientifically controlled, which assures properly seasoned lumber.

Edge Grain
Rift sawed or edge grain stock is most serviceable. The amount of edge grain stock produced in Douglas Fir lumber is many times that obtainable in other commercial softwoods.

Heartwood
Heartwood is matured wood, dependable and enduring. A greater percentage of heartwood is obtained in Douglas Fir lumber than in any other commercial softwood... more than 78 percent of the entire production of Long-Bell trade-marked Douglas Fir lumber is all heart.

Trade-Marked
Long-Bell Douglas Fir lumber and timbers are trade-marked for identification of unusual thoroughness in manufacture—plus more than fifty years' experience as lumbermen.

Straight Lumber
Long-Bell trade-marked Douglas Fir lumber is stacked flat, seasoned flat and stays flat.

THE LONG-BELL LUMBER COMPANY
R. A. Long Building Lumbermen Since 1875 Kansas City, Mo.

Douglas Fir Lumber and Timbers; Douglas Fir Window Frames; Western Hemlock Lumber; Southern Pine lumber and Timbers; Creosoted Lumber, Timbers, Posts, Poles, Ties, Guard-Rail Posts, Piling; Southern Hardwood Lumber and Timbers; Oak Flooring; California White Pine Lumber; Sash and Doors; Box Shooks.

KNOW THE LUMBER YOU BUY
PAINE HANGING CLOSET

Need  
Economy of space is demanded in all types of modern constructed homes, apartments, hotels and other buildings. Full advantage must be taken of all the conveniences to insure easy and efficient operation, especially during the present day servant problem.

The Paine Hanging Closet solves the problem of sufficient closet and storage room and utilizes space not ordinarily used.

Purpose  
The Paine Hanging Closet is an all-purpose cabinet and can be used to equal advantage in the Kitchen, Bathroom, Bedroom or Den. This cabinet will lessen steps and work and assist in the ease and efficiency of operation of the household to an extent comparable to the vacuum cleaner and the other modern conveniences.

Construction  
This cabinet is made in one size. Width inside 19", height 68", depth 51/2". The back is a three-ply panel. It is attached with a hanging moulding that is nailed to cabinet and screwed to wall. For 2-4 doors and narrower, moulding is applied only to the top and bottom of closet.

Specifications  
It is made of Basswood, one of the lightest of the commercial woods, and on account of its light weight can be hung or attached where desired. Basswood has a fine, tight grain and soft texture, takes paint and enamel perfectly and accepts and retains a smooth finish.

Facilities  
The Paine Hanging Closet is of strictly cabinet construction and is built and guaranteed by an organization that controls their supply of Basswood and operates with facilities without a parallel in the woodworking industry. They have pioneered in introducing new designs of doors and interior finishings for the convenience of the home.

Value  
The sale or rentable value of a building is now very largely determined by the up-to-dateness not only of its design and arrangement but by the extent, location and type of the conveniences. A moderate investment in new and unusual features will bring returns many fold over their cost.

The working tools of the housewife should be easily accessible. How convenient it is to have a place within arm's reach of the stove and sink for the kitchen utensils, etc., used in the preparation of meals. This cabinet takes the place of the always unsightly kitchen shelf, is sanitary, and up off the floor and therefore does not interfere with the daily cleaning.

PAINE LUMBER COMPANY, Ltd.  
OSHKOSH, WISCONSIN

"CHURCH BUILDING"—By Ralph Adams Cram  
(A NEW AND REVISED EDITION)

THE improvement which has accompanied the progress of American architecture during recent years has been no more marked in any department than in that of ecclesiastical nature. This has been due primarily to the rise of a few architects who by travel and study have acquired much of the point of view from which worked the builders of the beautiful structures which during the fourteenth century and the fifteenth were being built over all of Europe. These architects have closely studied the churches, chapels, convents and other similar buildings in England, France, Spain and elsewhere, and the result has been a number of American churches of an excellence so marked that they have influenced ecclesiastical architecture in general and have led a distinct advance toward a vastly better standard. This improvement has not been exclusively in the matter of design, for plans of older buildings have been adapted to present-day needs, and old forms have been applied to purposes which are wholly new, which in view of the change which has come over ecclesiastical building of every nature is both significant and helpful.

Illustrations used in this new edition of "Church Building" show the best of recent work—views of churches and chapels large and small, in town and country, buildings rich in material and design and others plain to the point of severity, with the sole ornament in the use of fine proportions and correct lines. Part of the work deals with the accessories of the churches and their worship.

345 pages, 6 x 9 inches, Price $7.50

ROGERS & MANSON COMPANY, 383 Madison Avenue, New York
ARCHITECTS who have been repeatedly disappointed with the results obtained from other brands of Oak flooring have become continuous users of Ritter Appalachian Oak Flooring after once trying it.

The reasons for the popularity of Ritter Appalachian Oak Flooring are the excellent quality of the timber from which it is made, due to the favorable growth conditions, and the superior methods and machinery employed in its manufacture and grading.

Ritter Appalachian Oak Flooring possesses all that you seek in Oak floor beauty — fine, subdued grain, uniform texture and faultless match. You will be assured satisfactory results by specifying it and insisting on its use.

The savings in time, labor and material in laying, nailing and finishing Ritter Flooring more than offset any slight difference in its initial cost.

Complete information gladly furnished to architects on request.

The same qualities which are so characteristic of Ritter Appalachian Oak Flooring also make Ritter Appalachian Oak Lumber superior for interior trim.

W. M. RITTER LUMBER COMPANY
Appalachian Lumbermen since 1890
Dept. F, General Offices: Columbus, Ohio

---

**Fig. 1**

Slow growth which depends on favorable climate, soil and drainage, causes the close annular growth rings (A), which, in turn, produce the fine, even grain (B), typical of all Ritter Appalachian Oak Flooring (Fig. 1), the use of which assures the most beautiful Oak floors.

**Fig. 2**

Fast-growing Oak results in the wide annular growth rings (C), which, in turn, produce the coarse grain (D). Fig. 2 shows a panel of flooring made from rapid-growing Oak. Such flooring lacks the elegance and charm typical of Ritter Appalachian Oak Flooring which is manufactured exclusively from slow-growing Appalachian Highland Oak timber.
Promoting and Financing Coöperative Apartment Buildings

A Statement of the Forms and Methods Approved by the Coöperative Apartment Section, National Association of Real Estate Boards, with Complete Sample Documents

Whether you require fine interior or exterior work, Hartmann-Sanders craftsmen can give fullest expression to your artistic conceptions. Catalogs of Koll Lock-Joint Columns, Entrances, or Garden Equipment gladly sent on request. Hartmann-Sanders Co., 2151 Elston Avenue, Chicago, Eastern office and salesroom, 6 East 39th Street, New York City.

HARTMANN-SANDERS
Pergolas
Rose Arbors
Garden Equipment
Colonial Entrances
Koll Columns

DOORWAYS of the OLD BAY STATE

Here is a Curtis entrance inspired by many of the old Massachusetts-doorways. Note the slender, graceful columns; the subtle curve of the spandrel; the fan-light transom, with well proportioned side-lights; and the typical six-panel Colonial door with raised panels.

All these details are offered as a unit by Curtis. The wood is white pine and the entrance is made for any type of wall construction. The Curtis Catalog is full of equally interesting designs. Curtis Companies Service Bureau, 465 Curtis Bldg., Clinton, Iowa.

Price $20

ROGERS & MANSON COMPANY
383 MADISON AVENUE NEW YORK
To realize the beauty that you plan specify Pondosa Pine

Charming entrances and lasting doors! Unblemished surbases, moulding, window frames and sash! Delightful newel post and balusters that gracefully mount wide winding stairs! These are assured when you specify Pondosa, the beautiful, versatile pine. Sovereign of softwoods! Dependable, light, strong, easily worked—and most certainly economical. For siding, porches or wherever wood is to be used, specify Pondosa, Pick o’ the Pines.

Every trade-marked stick is rigidly graded, thoroughly seasoned and carefully milled. It comes ready for use.

Millions of acres of forests are available in the Inland Empire of the Great Northwest. New growth is added each year. There is an abundance of Pondosa for every building purpose at all good lumber yards. Write for booklet. Address Dept. 29, Western Pine Manufacturers Association of Portland, Oregon.

Pondosa Pine

The Pick o’ the Pines
Consistency of Design and Materials

It is a noble thing to erect a memorial to carry down through the years the memory of those who have devoted or sacrificed their lives to any great cause.

Indiana Limestone memorials possess all the essentials of beauty, dignity and repose. Whether they be monumental structures, or simple shafts of stone, such memorials arrest the attention of the beholder by the sheer loveliness of color-tones and texture.

The Elks National Memorial Headquarters building, Chicago, and the Tennessee War Memorial, Nashville, illustrated elsewhere in this issue, are also built of Indiana Limestone.
Other Indiana Limestone Memorials

Liberty Memorial, Kansas City, Mo.
War Memorial, Southampton, L. I.
Memorial Arch, New Orleans, La.
Soldiers Memorial Gateway, Brown University, Providence, R. I.
Memorial Arch, Oberlin College, Oberlin, Ohio.
Confederate Memorial, Richmond, Va.
Hulbert Memorial, Detroit, Mich.
Centennial Memorial Bldg., Springfield, Ill.
Soldiers and Sailors Monument, Indianapolis, Ind.
Astor Memorial, Trinity Church Yard, New York, N. Y.
Waddell Memorial Fountain, Winnipeg, Canada
War Memorial Cross, Philadelphia
War Memorial, St. James Cathedral, Toronto, Ontario, Canada
Soldiers and Sailors Monument, Bedford, Indiana

General Offices: Bedford, Indiana
Executive Offices: Tribune Tower, Chicago

Address all communications to
Box 766, Bedford, Indiana

The Nation's Building Stone

Indiana Limestone Company

John B. Murphy Memorial, Chicago
John M. Lyte, Architect

Royal Military College Memorial Arch, Kingston, Ontario
John M. Lyte, Architect

Jefferson Memorial, St. Louis, Mo.—Isaac Taylor, Architect
A few stock designs of Mediaeval Character

ROOKWOOD

is pre-eminent in the field of decorative tiles. Designs conforming to all periods are at your disposal for use with marble, brick, stucco and plain tile work. We invite inquiries.

THE ROOKWOOD POTTERY CO.
Architectural Dept., Cincinnati, Ohio
An interesting example of the unusual decorative effect obtainable with floors of "U.S." Tile. And in addition to colorful beauty, when you include "U.S." Tile in your specifications you assure your client floors of maximum durability, resilient comfort and sanitation.

May we send you information for your files?

United States Rubber Company
1790 Broadway, New York City

"U.S." TILE FLOORING
Store Floors of Inviting Beauty and Comfort

HERE is an excellent example of how the floor can be used to heighten the effect of beauty and comfort in a store. This Linotile floor has all the attractiveness and individuality of a ceramic tile design as well as restful comfort underfoot—a welcome relief from hard floors and sidewalks.

Linotile is a resilient tile, made of cork composition—quiet and easy underfoot, nonslippery and nonabsorbent. It is extremely durable, too, and withstands even heavy traffic near doorways and counters with very little sign of wear. The colors are solid and do not become dull or faded. Made in many sizes and colors, Linotile allows the greatest freedom for individual designs and color combinations. It is readily adaptable to any decorative scheme, and can be laid over any smooth, dry base.

The 32-page book, "Linotile Floors for Public and Semi-Public Buildings" contains many illustrations in full color of Linotile designs together with complete information and specifications. It will be mailed on request. Write for it and for a free sample of Linotile. Address Armstrong Cork & Insulation Company, Division of Armstrong Cork Company, 132 Twenty-Fourth Street, Pittsburgh, Pa.

Linotile Floors
The Several Colors of Norton Aggregates Afford Opportunity for Attractive Effects Where Slip-proof and Wear-resisting Floors Are Desirable

The floor in the entrance to the Hebrew Orphan Asylum, Amsterdam Avenue, New York, is an excellent example of the use of Alundum Aggregates in terrazzo to secure a walking surface that is both slip-proof (wet or dry) and wear-resisting. Three colors of Alundum Aggregates and three similar colors of marble chips in a contrasting diamond design have resulted in a floor that is strikingly attractive as well.

In one set of diamonds Botticino marble chips have been combined with approximately 30 per cent of cream Alundum Aggregates. In another set the marble chips are yellow Verona and the abrasive aggregates are buff, while in the third set of diamonds the marble chips are red Verona and the aggregates are brown in color.

NORTON COMPANY, WORCESTER, MASS.
New York, Chicago, Detroit, Philadelphia, Pittsburgh, Hamilton, Ont.
Nature's lasting beauty for your floors

Nature itself purrs beauty and life and tenacious durability into Maple, Beech and Birch. The wind, the sunshine and the rain of the northern climate gives these woods their amazing toughness and firmness, with their close-grained compactness that invites a perfect polish and resists the hardest wear.

With the proper polish to enhance their natural hues, they provide a floor which appeals to the eye and mind. The architect likes them, because they harmonize with any scheme of decoration and wall finish. The builder likes them because they justify his good work.

Smooth, quickly cleaned, such a floor is easily kept free from dust and dirt, and steady wear only adds to its pleasing glossiness of surface.

Lay one of these floors right over your present floor, if you like. This can be done, regardless of the kind of floor you have.

Our Service and Research Department is a clearing house for accurate information about the utility and characteristics of Maple, Beech and Birch flooring. This information is freely given to any user of MFMA flooring. Let us assist you with your flooring problems. In order to co-operate in every possible way we have prepared the following booklets for your use. Any one or all will be gladly sent to you free upon request.

- Color Harmony in Floors
- The Floors for Your Home
- Three Native Hardwoods of Sterling Worth
- How to Lay and Finish Maple, Beech and Birch Floors
- Floors for Educational Buildings
- Hardwood Flooring in Office Buildings

MAPLE FLOORING MANUFACTURERS ASSN.
1057 Stock Exchange Building, Chicago

Get this NEW 32 page Hand Book on CORNELL ROLLING STEEL DOORS—COMMERCIAL AND UNDERWRITERS LABELLED ROLLING STEEL FIRE DOORS

Drawings, giving complete dimensions and clearances.

An explanation of the construction, application and use of Rolling Steel Doors.

Plans, sections and elevations of 42 types of doors.

Class of label, limiting sizes, dimensions and clearances of 30 types of Rolling Fire Doors.

Fits a standard letter file—8 1/2" x 11" your copy.

CORNELL IRON WORKS, INC.
36-23 Thirteenth Street.
Long Island City, N. Y.
Please mail a copy of the new 1926 handbook and catalogue of Cornell Rolling Steel Doors and Fire Doors to

ARCHITECTS, builders and construction engineers who select roofs for industrial buildings, hospitals, apartments, schools, etc., will find in Ruberoid Built-up Roofs the very qualities they most desire—unsurpassed ability to resist weather and wear combined with light weight and economy of construction.

We shall be glad to send you on request specifications for Ruberoid Built-up Roofs, bound in a convenient folder which fits your files.

The RUBEROID Co.
95 Madison Avenue, New York
The Finest Buildings use Grauer Sidewalk Lights

Cheerful, pleasant, efficient, is the first thought of an observer of the modern laundry plant in the first basement of the palatial Book-Cadillac, Detroit's beautiful hotel. The girls in their smocks of varied colors make a rainbow in the sunlight. This is no idle sentiment—but practical business. For color means greater efficiency of workers, because they are satisfied with their working conditions.

Would they be thus satisfied in an artificially lighted basement? Could a well-organized force be maintained under those conditions? Here is a typical example of the revenue-producing effect of daylight—daylight that costs less than artificial light—daylight that actually pays for itself in a short time out of savings in electric current.

Better Basement Light at Less Cost

And Repair Troubles Eliminated

Grauer Sidewalk Lighting is distinctly a convenience and an investment. Grauer Lights are non-leakable, rust-proof, non-chipping, easily installed, rarely need replacing. Plastic cushions around each glass protect them from breakage and shaling due to expansion of surrounding concrete. Glasses broken by accident may be easily replaced by unskilled labor.

GUARANTEE

Our iron-clad guarantee provides that Grauer Sidewalk Lights shall be rust-proof, free from defect for one year; replacement glasses will be supplied free for five years. 300 lb. per square foot is the normal carrying capacity, although they can be made to carry 1000 lbs.

This coupon or your letter will bring clearly illustrated specifications bulletin, and special questions are welcomed.
A TILE ROOF OUTLASTS ANY HOME

On the Homes of Many Architects

IMPERIAL Roofing Tiles have been selected by numerous architects to roof their own residences. Among the latest is Walter Boschen, whose attractive home at St. Joseph, Missouri, is illustrated above. No one appreciates better than an architect that a roof of these tiles is assurance of lifelong beauty and protection without repainting or repairs.

LUDOWICI-CELADON COMPANY
Chicago, 104 S. Michigan Ave. • New York, 565 Fifth Ave.

IMPERIAL Roofing Tiles
Four years ago, George, when we decided to build that Morton plant and put you in charge as superintendent, I let you have your say on the specifications. One item you balked at was a Barrett Specification Roof—said you could get a roof that was O. K. for less money.

Now let's face facts.

We have nine plants scattered over the United States. Eight of those plants have been built anywhere from eleven to sixteen years. On those eight plants we have Barrett Specification Roofs. To date not one cent for roof repair or maintenance from those eight roofs. But what about the Morton plant, your plant, built four years ago with your just-as-good roof? That roof cost us last year $367.00 for repairs, plus damage to stock from roof leaks amounting to $2160.

Do I have to point the moral?—that cost per year of service, and not initial cost, is the important factor to consider when buying certain things. Roofs, for instance.

Yours very sincerely,

R. K. Sutherland [Président]

Experience has proved that a Barrett Specification Roof will show the lowest unit cost (the cost per square foot per year of service) of any roof.

With it the owner receives a Surety Bond which guarantees him against any expense for roof repairs for 20 years.

Add this: Service records on file tell of great numbers of Barrett Roofs of this type laid 35 to 45 years ago which are still weather-tight—and never a cent for repairs. Finally—Barrett Specification Roofs take the base rate of fire insurance.

Barrett

SPECIFICATION ROOFS

Within the last few months we've asked a number of architects:

"Why do you specify Barrett Specification Roofs? What points about them interest you most?"

In the minds of these men these things loomed big—important!

1. No supervision by the architect is necessary to see that quantity and quality of materials are right. The Barrett Specification prescribes exactly the number of layers of Specification Felt, the amount of Specification Pitch, the top coat of pitch poured (not mopped) and finally the wearing surface of firmly embedded gravel or slag.

2. No supervision by the architect is necessary to make sure that a dependable man is laying the roof. The man who lays the roof must have earned a name for dependability. Only such men can qualify to lay a Barrett Specification Roof—can obtain a Bond for the owner.

3. No supervision by the architect is necessary to be sure that his client gets a roof in which every detail of material and construction is exactly according to a specification, universally recognized as 100% right. Highly trained Barrett technical men are on the job while the roof is being laid to see that The Barrett Specification is followed in every detail.

4. Finally, a Barrett Specification Roof takes the base rate of fire insurance.

Send for your copies of our Architects' and Engineers' Built-up Roofing Reference Series.

THE BARRETT COMPANY
40 Rector Street, New York City

IN CANADA:
The Barrett Company, Limited
551 St. Hubert Street, Montreal, Quebec, Canada
Sheet Metal Work that Resists Rust!

The destructive enemy of sheet metal is rust. It is successfully combated by the use of protective coatings, or by scientific alloying to resist corrosion. Well made steel alloyed with Copper will last longest. Insist upon KEYSTONE Rust-Resisting Copper Steel Sheets and Roofing Tin Plates.

Add safety to satisfaction, with full protection from fire, lightning, and weather. Keystone Copper Steel gives superior service for roofing, siding, gutters, spouting, flashings, metal lath, tanks, culverts, and all uses to which sheet metal is adapted. Look for the Keystone included in brands. We manufacture American Bessemer, American Open Hearth, and Keystone Copper Steel Sheets and Tin Plates for every requirement of particular architects, builders, and property owners.

Black Sheets for all purposes
Apollo Best Bloom Galvanized Sheets
Apollo-Keystone Galvanized Sheets
Formed Roofing and Siding Products
High Grade Roofing Tin Plates
Fire Door Stock, Long Ternes
Bright Tin Plates, Black Plate, Etc.

APOLLO-KEYSTONE Galvanized Sheets give increased service and added permanence to your building construction. These are unquestionably the highest quality sheets produced for galvanized sheet metal work. KEYSTONE COPPER STEEL Roofing Tin Plates make clean, safe, attractive and satisfactory roofs. Supplied in grades up to 40 pounds coating—specially adapted to residences and public buildings. Metal roofs may be painted to harmonize with the color scheme of the building—an important feature which is often overlooked. Keystone quality products are sold by leading metal merchants, and used by first-class roofers and sheet metal workers.

American Sheet and Tin Plate Company
General Offices: Frick Building, Pittsburgh, Pa.

CUTLER MAIL CHUTE

To meet Post Office requirements and arrangement of the Mail Chute Equipment should have early and careful attention.

We shall be glad to furnish information, details and Copies of Regulations on request.

CUTLER MAIL CHUTE CO.
GENERAL OFFICES AND FACTORY
ROCHESTER, N.Y.

Engineering Counsel for Architects

KEWANEE’S nationwide organization of hydraulic-electric engineers will counsel any architect without charge. KEWANEE men are not salesmen or ex-plumbers, but trained experts in private water supply, electric light and sewage disposal. Back of them is the KEWANEE quarter century of technical and manufacturing experience and the KEWANEE line of over 200 private utility systems.

We appreciate the architect’s needs and problems. We are glad to help draft specifications for proper private utilities to fit the exact needs of each job—from country cottage to million dollar club or estate.

FREE BOOK of Specifications
Our complete architect’s specification book contains a mass of engineering data and specifications on water supply, electric light and sewage disposal. You need it. Sent free. Write for it.

KEWANEE PRIVATE UTILITIES CO.
442 Franklin St., Kewanee, Ill.
THE wearing qualities of Preston Shingles depend not only on the quality but on the quantity of asphalt which each shingle contains. If you examine the edge of a Preston Shingle, you will notice that it is practically a solid body of asphalt. This feature of Preston Shingles accounts for their remarkable wearing qualities.

THESE two qualities make a Preston Roof distinctive. Green, blue-black, red and a sunset blend are offered to the architect who seeks a distinctive color effect without obtrusiveness. Soft natural tints are secured from the slate particles with which Preston Shingles are surfaced.

The Massive Weight is one-third thicker than a No. 1 standard slate shingle. This ample thickness creates the shadow line that architects demand. Samples of Preston Shingles and an information card for your files will be mailed on request.


Harmonious colors  
and unusual thickness

Preston ROOFING
The inside door bottom illustrated here is but one of the many features Higgin can provide for the comfort and economy of your client. It prevents the passage of cold air from bedroom into halls, baths, or dressing rooms and can be installed on any door.

The Higgin Rib Track and Spring Temper Bronze Insert equipment is recognized as the outstanding weather-stripping for double-hung windows. (See detail panel above.) The track and insert form a metal-to-metal contact which drafts will not pass. Casements, also, can be perfectly equipped with Higgin-made and Higgin-installed weather-stripping.

Only thoroughly trained mechanics install Higgin Weather-stripping and the Higgin reputation backs every job. Our representative is at your call. He will be glad to work with you. Ask him in today. Look for "Higgin" in your telephone directory.

A. I. A. File No. 19 e 14 (Weatherstrips)

THE HIGGIN MFG. COMPANY
Newport, Kentucky

Toronto, Canada

This illustration shows felt automatically raised flush with bottom of door when door is open thus allowing for free swinging of door over rug.

This illustration shows felt automatically lowered to a snug contact with the floor when the door is closed.
HERE is the doorway to the Doges Palace, through which many great rulers have come and gone—a beautiful piece of architectural ornament. The Eldorado pencil drawing shown above was made by Earl Horter from the piazza of St. Mark's.

DIXON'S ELDORADO
"the master drawing pencil"

JOSEPH DIXON CRUCIBLE COMPANY
Pencil Dept. 124-J, Jersey City, N. J.

SAMPLE OFFER
Write for full-length free samples of "The master drawing pencil" and of Dixon's "BEST" Colored Pencils. In their field, the "BEST" Colored Pencils hold the same position of supremacy as Dixon's Eldorado.
This is the fourth
of the 1926 Quarterly Reference Numbers
being published by
THE
ARCHITECTURAL FORUM

EACH Reference Number is a comprehensive treatise on a single
type of building—complete, authoritative, up-to-date, and in
many cases the only published work on the subject.

There are over 20 types of buildings of sufficiently vital interest
to architects to form the subject matter of Reference Numbers. Since
these issues appear quarterly, a little more than five years are re-
quired to complete the cycle. Once the cycle has been finished, the
subjects will be treated anew, thus placing before an architect a
record of progress made and forming a self-perpetuating reference
library for his office.

Sold singly, the Reference Numbers cost $2 each. Four Refer-
ence Numbers and eight regular issues are included with a Forum
subscription, for which the charge is $6 (Canada $6.75; Foreign
$7.50).
### Previously Published Forum Reference Numbers

<table>
<thead>
<tr>
<th>Year</th>
<th>1922</th>
<th>1924</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHOOLS</td>
<td>CHURCHES</td>
<td></td>
</tr>
<tr>
<td>HOSPITALS</td>
<td>SHOPS AND STORES</td>
<td></td>
</tr>
<tr>
<td>OFFICE BUILDINGS</td>
<td>APARTMENT HOTELS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>1923</th>
<th>1925</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUNTRY HOUSES</td>
<td>GOLF AND COUNTRY CLUBS</td>
<td></td>
</tr>
<tr>
<td>BANKS</td>
<td>MOTION PICTURE THEATERS</td>
<td></td>
</tr>
<tr>
<td>INDUSTRIAL BUILDINGS</td>
<td>APARTMENT HOUSES</td>
<td></td>
</tr>
<tr>
<td>HOTELS</td>
<td>UNIVERSITY BUILDINGS—PART I</td>
<td></td>
</tr>
</tbody>
</table>

### Reference Numbers for 1926 and 1927

**1926**

- March: SMALL DWELLINGS
- June: UNIVERSITY BUILDINGS—PART II
- September: CLUB AND FRATERNAL BUILDINGS
- December: COMMUNITY AND MEMORIAL BUILDINGS

**1927**

- March: AUTOMOTIVE BUILDINGS
- June: PUBLIC BUILDINGS—PART I
- September: PUBLIC BUILDINGS—PART II
- December: LIBRARIES

---

**THE ARCHITECTURAL FORUM**

383 Madison Avenue, New York
W O Model A G&G Telescopic Hoists were installed at Madison Square Garden, New York (McKim, Mead & White, Architects) in 1889 and were in continuous use until the building was razed in 1925—a total of 37 years dependable, efficient service!

GILLIS & GEGHEGAN
544 West Broadway, New York
Forget the mechanical aspect of automatic temperature and humidity regulation for the moment, and consider the human element which constitutes Johnson service, accompanying Johnson System Of Temperature And Humidity Control. The ability and responsibility of men and an institution of highest standing are the influence cooperating with you when you specify The Johnson System. And automatic temperature and humidity regulation, therefore, becomes reliably accurate and successful: in your behalf, as well as for your clients.

JOHNSON SERVICE COMPANY
MAIN OFFICE & FACTORY, MILWAUKEE, WISCONSIN
AUTOMATIC TEMPERATURE REGULATION SINCE 1885.
TWENTY-NINE BRANCHES, UNITED STATES & CANADA

JOHNSON SYSTEM OF TEMPERATURE AND HUMIDITY CONTROL
The All Metal System: And Designed, Manufactured, Installed Solely And Entirely By Johnson Engineers And Mechanics: Assuring Thoroughly Correct, Reliable Results Permanently.
Johnson Dual or Two Temperature Thermostat: one temperature for occupied rooms, another temperature for unoccupied rooms day or night. Write for details of this Johnson advantage.
EVERY genuine Sherwin-Williams product carries this famous "Cover the Earth" trade mark. Millions of home owners —great railroads, steamship lines and industrial concerns—from one end of the world to the other—have implicit faith in it.

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat Tone</td>
<td>800 gallons</td>
</tr>
<tr>
<td>Semi-Lustre</td>
<td>75 gallons</td>
</tr>
<tr>
<td>Semi-Paste Paint</td>
<td>45 gallons</td>
</tr>
<tr>
<td>Old Dutch Enamel</td>
<td>60 gallons</td>
</tr>
<tr>
<td>Handcraft Stain</td>
<td>40 gallons</td>
</tr>
<tr>
<td>Shellac</td>
<td>45 gallons</td>
</tr>
<tr>
<td>Mar-Not</td>
<td>75 gallons</td>
</tr>
<tr>
<td>Concrete Floor Paint</td>
<td>30 gallons</td>
</tr>
<tr>
<td>Flat Rice</td>
<td>100 gallons</td>
</tr>
<tr>
<td>Oil Colors</td>
<td>200 pounds</td>
</tr>
<tr>
<td>Paste Filler</td>
<td>300 pounds</td>
</tr>
<tr>
<td>Zilo</td>
<td>800 pounds</td>
</tr>
<tr>
<td>ODP Lead</td>
<td>2100 pounds</td>
</tr>
<tr>
<td>Deco-tint</td>
<td>1500 pounds</td>
</tr>
<tr>
<td>Floor Wax</td>
<td>75 pounds</td>
</tr>
</tbody>
</table>
In Tulsa's 7 new big buildings

The Sophian Plaza Apartments rank with the largest and finest buildings in Oklahoma. Last year Sherwin-Williams paints and varnishes were used exclusively in this and six similar new buildings in Tulsa alone.

Sherwin-Williams finishes bring public-building durability combined with color and texture to interpret any scheme. The large technical laboratories and complete decorative service of Sherwin-Williams can prove helpful in planning the decoration of all types of buildings.

THE SHERWIN-WILLIAMS COMPANY
Cleveland, Ohio
Specify Bronze

Floor Boxes

(with reversible covers)

Frankly, you will not find the same collection of good features elsewhere. Floor Boxes are adjustable. They can be installed at any angle, yet the top can be adjusted to the proper floor level. Floor Boxes are substantial. They cost less than two-cover type. They become a permanent floor connection for lights, bells, buzzers, telephone, etc. A quick change from "out of service" to "in service," or vice versa, can be made at any time. Floor Boxes are water-tight. A heavy, round, long-life gasket gives full protection from all moisture. The inside is always dry. The wiring can never be damaged... You should be interested to learn more—

Send for the Catalog. It gives full details and is entirely free. Complete estimates furnished gratis; ask for them.

Frank Adam

ELECTRIC COMPANY

ST. LOUIS

District Offices

Atlanta, Ga.  Dallas, Texas
Baltimore, Md.  Denver, Colo.
Chicago, Ill.  Kansas City, Mo.
Cincinnati, Ohio  Los Angeles, Calif.

Minneapolis, Minn.  New Orleans, La.
London, Ont., Canada

Portland, Ore.  Seattle, Wash.
San Francisco, Calif.  Winnipeg, Canada

WINDOWS

IN

SOLID NICKEL-SILVER

(CASEMENT OR WEIGHT HUNG)

PERFECT WEATHERING

WILL NOT RUST

SEND FOR INFORMATION

THE

Kawneer

COMPANY

NILES, MICHIGAN
The Architecture of Show Windows

Increasing store rentals have produced a marked trend toward more effective use of window display space. Bays, recesses, island windows are a natural result of the attempt to lengthen out the actual display frontage, particularly of narrow stores.

Brasco, from the architectural viewpoint, is an efficient store front construction. It permits of the most advantageous use of any frontage available, no matter what size or shape.

The complete assortment of attractive copper mouldings in varied finishes—sash, corner, division, and reverse bars, sills, jambs, transom bars and accessories—gives a broad flexibility of design covering innumerable architecturally beautiful fronts.

Added to this opportunity for individual expression, are the many patented constructional features with their definite assurance of glass safety, strength, efficient ventilation and drainage and long satisfactory service.

Our catalogs, detail sheets and actual samples are gladly furnished on call.

BRASCO MANUFACTURING CO.
5031 Wabash Avenue, Chicago
Eastern Sales Office and Warehouse
28-14 Wilbur Ave., Long Island City, N. Y.

Brasco "Series 500" All Copper Construction
VI Unit equipped for automatic vacuum control, showing piping connections. Suction strainer and check valve at inlet of pump are furnished with unit, as well as companion flanges, bolts and gaskets

YOUNG CENTRIFUGAL VACUUM AND BOILER FEED PUMPS

Before being shipped each Young Pump is connected and run for hours under rigid working conditions. Every part must be correct and every bearing perfectly aligned. This careful test insures proper operation the first time the switch is pulled.

Because of their simple, rugged construction Young Pumps may be depended upon to deliver constant uninterrupted service in the hands of the average janitor or boiler fireman.

YOUNG PUMP COMPANY

DUNHAM BUILDING
450 East Ohio St., CHICAGO
Factory: Michigan City, Indiana

In Canada: C. A. DUNHAM CO., Ltd.
1523-41 Davenport Road, Toronto

Young Pumps Have Large Reserve Capacity
Reputations in the "balance"

Reputations go on trial when Switches go into the walls. Installed to be as permanent as the walls, these lighting controls concern the Architect as key-mechanisms in a building's service.

If a switch fails after a few thousand snaps, someone's confidence "snaps" in the specifier. Is it ever well to risk a name on a thing so small in cost? Is it ever wise to yield the point of assured performance to a shading in price?

So far as switches can safeguard a name—your own and ours—rely on the "balanced movement." Here in the "8601 Tumbler" is the smoothest of actions, the freest from impact; mechanically most immune from wear.

Practical tests of the Balanced Tumbler have established records unparalleled in the performance of switches. That's where your H & H workmanship counts—not in claims but in hundreds of thousands of snaps.

The connecting link between good Reputations and good, reliable Switches is Catalogue "S." Sent gladly if you'll drop a line to the "Makers of electric switches since 1890."

The Hart & Hegeman Mfg. Co.
Hartford, Conn.

"The Switch with the Balanced Movement"
A Complete Kitchenette in

The “White” Duo-Unit Kitchen Cabinets

One of the Greatest Contributions to Modern Apartment Comfort—providing a complete Kitchen in as little space as 5’9” x 7’0”!

Including

- Sink
- Range
- Work Table
- Broom Closet
- Refrigerator
- Linen Chest
- Complete Pantry
- Folding Ironing Board

Unit A—Contains range, refrigerator designed for electrical refrigeration, storage space, sugar and flour bins, spice jars and work table. When used with Unit B the result is the most efficient conception of a kitchenette within a minimum of floor space—less than 40 sq. ft.

Unit B—Contains full size sink with work top, ironing board, storage compartments and linen trays. The use of these two units forms a compact arrangement of maximum convenience in a space as small as 5 ft. 9 in. x 7 ft.

The “WHITE” Duo-Unit Kitchen Cabinets are part of the famous line of “WHITE” Door Beds, Kitchen Cabinets, Dressing Cabinets, Ironing Boards and other Space-Saving Conveniences. Complete Catalog with typical floor plans will be sent free. Shows many ways of conserving space and reducing building costs.

The floor plan at the left shows the marvelous efficiency of the “White” Duo-Unit Kitchenette and the many conveniences provided in a minimum of space. Write for complete information.
these Two “White” Cabinets

These “WHITE” Duo-Unit Kitchen Cabinets, like all the Space-Saving Conveniences offered by this company, are designed to reduce space (and consequently building cost) while increasing comfort for the tenants. They appeal to owners and tenants alike. They make rentals easy and prolong leases.

This letter from Mr. Phillip M. Jullien, prominent Washington Architect, is typical of the expressions of approval we receive constantly. Plans for three great apartment projects in Philadelphia and Buffalo specify these new “WHITE” Cabinets exclusively. Architects and builders alike pronounce them the most advanced conveniences for modern apartments.

Write for Catalog
Our new large catalog, including many typical floor plans, will be sent free. Our Engineering Department will gladly show you how “WHITE” Cabinets can be adapted to your buildings.

The “White” Door Bed Company
130 North Wells Street ~ Chicago, Ill.

SALES AGENTS IN ALL THE PRINCIPAL CITIES

“White” Duo-Unit Cabinets used in these great buildings

CELEVALD HALL
Buffalo
Phillip M. Jullien, Arch.

43rd and LOCUST APARTMENTS
Philadelphia
Phillip M. Jullien, Arch.

HUNTINGTON HALL
Philadelphia
Phillip M. Jullien, Arch.
Make Room for Kitchen Progress

Illustration above shows residence of Mr. J. Paul Zeno, 768 Postum Road, Shaker Heights, Ohio. Architects, Philip Lindsay Small, Cleveland, Ohio. Below: Interior view of kitchen with Lorain-equipped Dangler Gas Range.

THE provision of adequate space for a Lorain-equipped Gas Range of cooking capacity in proportion to the size of the household should be a major consideration in planning the kitchen.

Women examining new homes look for the Red Wheel that identifies the Lorain Self-regulating Oven, because it means perfect cooking, easy canning and leisure.

More than 1900 school and university domestic science departments use Lorain Red Wheel Ovens. Millions of women see the Red Wheel advertisements that appear continually in their favorite magazines.

Lorain Red Wheel Ovens are built only in the following famous makes of Gas Ranges: Reliable, Clark Jewel, Dangler, Direct Action, New Process and Quick Meal. For specific data see Sweet's Catalog, 20th Edition, Pages 2769-2778 or send for our Handbook on Gas Ranges for Architects and Builders.

AMERICAN STOVE COMPANY
Largest Makers of Gas Ranges in the World
444 Chouteau Avenue    St. Louis, Mo.
Why Leading Hotels specify "Van" Equipment!

ECONOMY is always a first consideration—and it is a lasting one when you buy "Van" Equipment.

That's one of the reasons why leading hotels of every size specify "Van" Equipment every time. It is their assurance of low cost in the beginning and economy always. "Van" Equipment is really worth twice its cost because of the double service and satisfaction it provides.

Perhaps you are planning to replace part of your equipment—or entirely remodel your present kitchen. In either case, for the sake of economy and satisfaction, consult the House of Van.
A Memorial of the Past That is Built for the Future

Nowhere in the world can there be found the counterpart of the Elks National Memorial Headquarters Building in Chicago. It combines in one beautiful design the two functions of a War Memorial and the executive headquarters of a great national fraternity.

In a building designed to stand with all the endurance of the hills from which its marble walls were carved, how fitting was the selection of Neptune brand Atlantic wires for the electrical circuits.

All three Atlantic brands—"Neptune," "Triton," and "Dolphin"—have been known to architects for over a quarter century. Their longevity and high dielectric strength are recognized as the best insurance against wiring troubles in any building.

Samples and detailed specifications will gladly be sent to any architect or engineer.

ATLANTIC INSULATED WIRE & CABLE COMPANY, Rome, N. Y.

ATLANTIC INSULATED WIRES AND CABLES

The Insulation is Cured Before Vulcanization
Study the wonderful illumination of this store. Note the absence of shadows. No glaring reflections from polished surfaces. The photo was taken entirely by the illumination from GuthLites, spaced the average distance apart, and is unretouched.

GuthLite gives a flood of diffused, controlled light. Adjustable reflector controls the rays vertically and horizontally. Wide light distribution. Write for regulation GuthLite folder with A. I. A. file number.

The Edwin E. Guth Company
Designers Enginees Manufacturers
Lighting Equipment
St. Louis, U.S.A

GUTH LITE
Super-Illuminator
A self-contained unit for every size window —

and only **one** connection to make!

The New Silverlite Multilite

**FOR** economy and ease of installation, for greater efficiency of operation we have produced Multilite reflectors — the newest, most modern development in window lighting.

With either 2-4-6-8 or 10 light units Multilite comes ready to install with but one connection to make through knockout in end of reflector.

The reflectors are the famous all metal Silverlite of highest efficiency. Adjustable to any window or condition Multilite comes ready to install. No parts to lose. Extra frames for screens unnecessary. Finish, Walnut Brown. Write for circular 79.

Established 1857

**THE FRINK CO. Inc.**

241 Tenth Avenue, New York

Representatives in all principal cities
Gives a Stronger Spot

The new "Pittsburgh" Windo-Spot No. 500 is for intensive spot lighting where the user desires a stronger beam than is given by our Windo-Spot No. 200. It accommodates either 300 or 500 watt lamp. Gives a concentrating beam with candle-power maximum of 52,000, more than 100 candle-power per watt. Equipped with adjustable bracket for attaching to ceiling of show window or other supporting surface. Reflector may be tilted to any desired position and held there by a single thumb screw.

New "PITTSBURGH" Windo-Spot—No. 500

There are 44 reflectors in the "Pittsburgh" line—to meet every need in the lighting of show windows; for direct and indirect lighting; for cove lighting, flood lighting, etc. "Pittsburghs" are all guaranteed for five years, and their wonderful record proves that they stay bright. If your files do not contain "Pittsburgh" brochures on Show Window Lighting (A.I.A. File No. 31F14) and Cove Lighting (A.I.A. File No. 31F17) they will be sent on request.

PITTSBURGH REFLECTOR COMPANY

411 Bowman Building  Third and Ross Streets
PITTSBURGH, PA.

REPRESENTATIVES IN 26 LEADING CITIES

PITTSBURGH SILVERED REFLECTORS STAY BRIGHT
The Shadow Chasers

Ample Light without Glare

Doctors, interns and nurses must not be hampered by dim, insufficient light or light that glares. Mistakes in a hospital are costly.

For that reason, CREMAX GLOBES were chosen to light the new Homeopathic Hospital Annex in Pittsburgh. These globes, artistic as well as scientifically correct, shed a bountiful flood of light into the farthest corners. There is no Glare, no sharp Shadow. Light is diffused in all directions.

Patients, too, appreciate this gentle, even, abundant light. It is not tiring or nervewrecking to gaze at these rich chrome-tinted, gracefully-shaped globes.

CREMAX—a natural colored glass—is the newest development in illuminating glassware from the laboratories of the Macbeth-Evans Glass Company. It transmits a rich, warm, cream-colored quality of light, free from tones of green.

The Illuminating Engineering Department of Macbeth-Evans will gladly furnish any information you desire for the solution of lighting problems. You do not incur any obligation by making use of this service. MACBETH-EVANS GLASS CO. (Eastern Division), Dept. J, Charleroi, Pennsylvania.
Here is a thoughtful booklet

We want to send to every architect and home-builder in America a carefully prepared booklet which we now have ready for mailing, in which is interestingly set forth the need of taking the kitchen cabinet problem into consideration at the time the home-plans are made. Some architects are not thinking far ahead in this important matter of kitchen equipment. G. I. Sellers & Sons Company, Elwood, Indiana, will gladly mail to you a copy of this booklet upon your request, without cost and without obligation.

The cheapest kitchen equipment

As compared with built-in cupboarding, the modern kitchen cabinet, especially with the associated utility closet, is certainly more beautiful, more sanitary, and much more highly developed in labor-saving conveniences. It is also equally flexible because it can be combined with utility closets to fit any need. It costs less than built-in shelves, being made and finished by standardized methods as against slow hand work. No cupboarding, however elaborate, can possibly take the place of the modern kitchen cabinet.
SUCCESSFUL PROPERTIES

The Straus Plan of Finance revolves around one simple principle—to lend only upon successful properties. The results of 44 years in underwriting first mortgage real estate securities proves the soundness of the principle, and is another reason why investor, architect, contractor and builder best can serve themselves by bringing their financing problems to S. W. Straus & Co.

We are always interested in loans of $250,000 upward, either on completed buildings or structures to be built, provided that the undertaking is soundly conceived and embodies those factors which we all commonly recognize as making for success.

Write today for our booklet, "The Straus Plan of Finance", and direct your request to our Loan Department

S.W. STRAUS & CO.

Established 1882

Investment Bonds

Incorporated

Straus Building
365 Fifth Ave. at 46th St.
New York

Straus Building
Michigan Ave. at Jackson Blvd.
Chicago

Straus Building
79 Post Street, San Francisco

44 YEARS WITHOUT LOSS TO ANY INVESTOR
Selected List of Manufacturers' Publications

FOR THE SERVICE OF ARCHITECTS, ENGINEERS, DECORATORS, AND CONTRACTORS

The publications listed in these columns are the most important ones issued by leading manufacturers identified with the building industry. They may be had without charge, unless otherwise noted, by applying on your business stationery to The Architectural Forum, 583 Madison Ave., New York, or the manufacturer direct, in which case kindly mention this publication.

ACOUSTICS

The Celotex Co., Chicago.

Acousti-Celotex. 16 pp., 8¾ x 11 in. Illustrated brochure on a wide variety of sound absorbing materials. Specifications and details for application and decoration of buildings. Model E, 8½ x 11 in. Full color. Fully illustrated. Contains specifications in four forms with manufacturers' names and addresses in each. Scale drawings of each sound absorbing material are given.

John-Manville, Inc., 337 Guthrie St., Louisville, Ky.

BRIXTON for Perfect Mortar. Self-filling handbook 8½ x 11 inches. 16 pp., illustrated. Contains complete technical description of BRIXTON for brick, tile and stone masonry, specifications, data and tests.

Sauereisen Co., Dept. F., Cleveland, Ohio.


CONCRETE BUILDING MATERIALS

Concrete Surface Corporation, 341 Madison Ave., New York.

Binding Surfaces on Concrete. Booklet, 12 pp., 8 x 11 in., illustrated. Deals with an important detail of building.

CONCRETE COLORINGS

A. C. Horn Company, Long Island City, N. Y.

Keramic Catalog. Booklet. 8½ x 11 in. 26 pp. A magnificent brochure, illustrated in color, written in both English and German, provides line specialties for use with concrete floors—colorings, hardeners, waterproofing, etc.

CONDUIT


Orangeburg Fibre Conduit. Booklet. 8½ x 11 in. 8 pp. Details regarding a valuable form of conduit.


Bulletin of all National Metal Molding Products. In correspondence folder. 9 x 11 in. illustrated. Sent free to electrical and mechanical engineers.

Sherraduct. Circular. 5 x 8 in. Illustrated. Flaxsteel. Circular. 5 x 8 in. Illustrated.

CONSTRUCTION, FIREFPROOF

Massillon Steel Joint Co., Canton, Ohio.


Massillon Metal Lath. Pamphlet. 8½ x 11 in. 8 pp. Illustrated. Contains cuts, illustrations and recommendations for the use of various weights and kinds of metal lath for fireproofing columns, beams and steel joists.


Fireproofing Structural Steel. Booklet. 8½ x 11 in. Illustrated. Information on concrete fireproofing and reinforcing of beams, girders, and columns, including tables and formulas.

Northwestern Expanded Metal Co., 174 Old Colony Building, Chicago, Ill.

Northwestern Expanded Metal Products. Booklet. 8½ x 10¼ in. 18 pp. Fully illustrated and describes different products of this company, such as kno-burn metal lath, 20th Century Corrugated, Plaster-Sava and Longspan lath channels, etc.

DAMPROOFING

Philip Carey Co., Lockland, Cincinnati, Ohio.

Architects' Specifications for Carey Built-Up Roofing. Booklet. 8 x 10½ in. 24 pp. Illustrated. Complete data to aid in specifying the different types of built-up roofing to suit the kind of roof construction to be covered.

Carey Built-Up Roofing for Modern School Buildings. Booklet. 8 x 10½ in. 32 pp. Illustrated. A study of school buildings of a number of different kinds and the roofing materials adapted for each.

A. C. Horn Company, Long Island City, N. Y.

Waterproofing. 9½ x 11½ in. Folder. Contains folders giving data on excellent waterproofing and dampproofing materials.


Specifications sheet. 8¾ x 11 in. Illustrated. Specifications of compounds for dampproofing interior and exterior surfaces.

Tech Brothers, 110 East 42nd Street, New York City.

Specifications for Dampproofing, Waterproofing, Enameling and Technical Paint. Complete and authoritative directions for use of an important line of materials.

DOORS AND TRIM, METAL

The American Brass Company, Waterbury, Conn.

Anodica Architectural Bronze Extruded Shapes. Brochure. 180 pp. 8½ x 11 in., illustrated and describing more than 2,000 standard bronze shapes of cornices, jamb casings, mouldings, etc.

Art Metal Construction Co., Jamestown, N. Y.

Hollow Metal Doors and Frames. Pamphlet containing several brochures and a catalog of 135 pages and plates 8½ x 11¾ in.
SELECTED LIST OF MANUFACTURERS

DOORS AND TRIM, METAL—Continued


DUMBWAITERS

Sedgewick Machine Works, 151 West 15th St., New York. Catalog and descriptive pamphlets. Standard specifications, plans and prices for various types, etc. 4% x 8% in. 60 pp. Illustrated.

ELECTRICAL EQUIPMENT

Frank Adam Electric Company, St. Louis, Mo. Catalog No. 25—1925. Floorboards—Steel Cabinets. 7% x 10% in. 64 pp. Illustrates and describes sectional built-in cabinets, and the fittings which go with them.

PICK & COMPANY, Albert, 208 West Randolph St., Chicago, III. Specimen of Electric Equipment. Booklet, 7% x 11% in. 16 pp. Illustrated. Describes entire line of fireproof and corrosion-free doors, track, accessories, and automatic fire-curtains.

ELEVATORS

Ottis Electric Company, 260 Eleventh Ave., New York, N. Y. Ottis Push Button Controlled Elevators. Descriptive leaflet. 8% x 11 in. illustrated. Full details of machines, motors and controllers for these types.

Pick & Company, Albert, 208 West Randolph St., Chicago, Ill. Special data for architects. Describes the design and equipment of school cafeterias with photographs of installation and details of equipment.

Kitchen Equipment. Booklet, 7% x 11% in. Illustrated. Photographs and descriptions of Hotel, Club and Hospital kitchens with treatise on plans and equipment of efficient kitchens.

Electric Kitchen Equipment. Booklet, 7% x 11% in. Illustrated. Describes entire line of kitchen equipment for houses and schools.

Western Electric Co., 135 Broadway, New York, N. Y. Western Electric Inter-Phones for Apartment Houses. Booklet, 8% x 11% in. 32 pp. Illustrated. Illustrates and describes use of Inter-Phones in Apartment Houses.

Installing and Maintaining Western Electric Inter-Phones. In addition to giving general information on layout of system, details are given on individual Inter-Phone Systems, listing battery and wire requirements.

ENAMELING


FIRE DOORS—(Steel, Windows and Trim, Metal

FIREPROOFING—See also Construction, Fireproof

Concrete Engineering Co., Omaha, Neb. "Concrete Construction." Booklet, 53 pp., 8% x 11 in. Valuable work on methods of fireproofing.


FLOORING (GENERAL)

Master Builders Company, Cleveland, Ohio. Catalog. 48 pp. Gives complete sets of specifications for every type of floor in which concrete floors are used, with descriptions and results of tests.

FLOORING—Structural

Truscon Steel Co., Youngstown, Ohio. Truscon Locktyle. Booklet, 8% x 11 in., 8 pp. Illustrations of material and showing methods of application.

Truscon, Fluekitle Construction, with complete details and specifications.

Linate floors for residential. 79% x 10% in. 16 pp. Illustrations of actual jobs under construction. Lists of properties and information on proper construction. Proper method of handling and tables of safe loads.

FLOORING


Armstrong Cork & Insulation Co., Pittsburgh, Pa. Armstrong's Cork Tile Floors. Booklet, 7% x 10% in. 32 pp. Illustrated. Complete sets of specifications for every type of floor in which concrete floors are used, with descriptions and results of tests.

FLOORING—Structural

Truscon Steel Co., Youngstown, Ohio. Truscon Locktyle. Booklet, 8% x 11 in., 8 pp. Illustrations of material and showing methods of application.

Truscon, Fluekitle Construction, with complete details and specifications.

Linate floors for residences. 79% x 10% in. 32 pp. Illustrated. Describes entire line of installings for residences and schools.


BARS, ALCOHOL ASH TRAYS, Philadelphia

Pick & Company, Albert, 208 West Randolph St., Chicago, Ill. Special data for architects. Describes the design and equipment of school cafeterias with photographs of installation and details of equipment.

Kitchen Equipment. Booklet, 7% x 11% in. Illustrated. Photographs and descriptions of Hotel, Club and Hospital kitchens with treatise on plans and equipment of efficient kitchens.

Electric Kitchen Equipment. Booklet, 7% x 11% in. Illustrated. Describes entire line of kitchen equipment for houses and schools.

Western Electric Co., 135 Broadway, New York, N. Y. Western Electric Inter-Phones for Apartment Houses. Booklet, 8% x 11% in. 32 pp. Illustrated. Illustrates and describes use of Inter-Phones in Apartment Houses.

Installing and Maintaining Western Electric Inter-Phones. In addition to giving general information on layout of system, details are given on individual Inter-Phone Systems, listing battery and wire requirements.

ELEVATORS

Ottis Electric Company, 260 Eleventh Ave., New York, N. Y. Ottis Push Button Controlled Elevators. Descriptive leaflet. 8% x 11 in. illustrated. Full details of machines, motors and controllers for these types.

Ottis Geared and Geared-escapement leaflet. 8% x 11 in. illustrated. Full details of machines, motors and controllers for these types.

Escalator Company, Chicago. Escalator catalog, 8% x 11 in. 22 pp. Illustrated. Describes use of escalators in subways, department stores, theaters and other similar installations. Includes elevators and dock elevators.

Richards-Wilcox Mfg. Co., Aurora, Ill. Elevator catalog. 8% x 11 in. 24 pp. Illustrated. Describes complete line of "Ideal" elevator door hardware and checking devices, automatic safety devices.

Sedgewick Machine Works, 151 West 15th St., New York, N. Y. Catalog and descriptive pamphlets, 4% x 8% in. 70 pp. Illustrated. Descriptive pamphlets on hand power freight elevators, sidewalk elevators, automobile elevators, etc.

ENAMELING


FIRE DOORS—(Steel, Windows and Trim, Metal

FIREPROOFING—See also Construction, Fireproof

Concrete Engineering Co., Omaha, Neb. "Concrete Construction." Booklet, 53 pp., 8% x 11 in. Valuable work on methods of fireproofing.


FLOORING (GENERAL)

Master Builders Company, Cleveland, Ohio. Catalog. 48 pp. Gives complete sets of specifications for every type of floor in which concrete floors are used, with descriptions and results of tests.
Residence at 88 Robsart Road, Kenilworth, Illinois. Frederick Stanton, Architect.
Celotex Insulating Lumber used as roof insulation and as sheathing and insulation.

“Celotex adds great strength”

Frederick Stanton, Chicago, specifies this insulation because it builds stronger as it insulates ... and adds little or nothing to building costs.

Used as sheathing, replacing wood lumber and building paper, Celotex Insulating Lumber gives you several important advantages over wood. It provides the insulation needed back of wood siding, shingle, brick or stucco exteriors at no added building cost.

This lumber, made from the tough fibres of cane, has a thermal conductivity of only 0.33 B.t.u. per hr., per sq. ft., per °F., per inch thickness. It is sound-deadening, scientifically sterilized and waterproofed.

Celotex also builds a stronger house. Mr. Stanton has used Celotex in many ways in his houses and writes: “Celotex not only produces the insulating results claimed for it, but also adds great strength and stiffness to the framework of the building.”

Numerous tests by Robert W. Hunt and Company, universities and other authorities also prove that the resistance of Celotex to lateral distortion in wall sections is several times that of horizontal wood sheathing. That is because Celotex is applied in large boards which afford a greater angle of bracing to the wall framework than the narrow wood boards.

Celotex is also used to replace lath on inside walls and ceilings. It bonds perfectly with gypsum or wood fibre plaster, forming stronger walls than lath and plaster, free from lath marks and far less apt to crack or stain. This use of Celotex costs a few cents more per yard ... but gives advantages well worth the difference.

In the roof, either over or under the rafters, Celotex provides insulation where it is most needed at but slightly added cost.

All of these uses are approved by the Investigating Committee of Architects and Engineers, New York, when Celotex is applied in accordance with our specifications.

We have prepared portfolios of detail sheets in A. I. A. bulletin form which contain specifications and detail drawings for numerous applications of Celotex. May we send you one?

THE CELOTEX COMPANY, Chicago, Ill.
Branch Sales Offices in many principal cities
(See telephone books for addresses)
Canadian Representatives:
Alexander Murray & Co., Limited
Montreal, Toronto, Halifax, Winnipeg, Vancouver

Celotex Insulating Lumber
SELECTED LIST OF MANUFACTURERS

FURNITURE


White Door Bed Company, The, 130 North Wells Street, Chicago, III. Illustrated. Describes the use of "White" Door Bed and other space-saving devices.

GARDEN ACCESSORIES
Davey Tree Expert Company, The, 907 Elm St., Kent, Ohio. When Your Trees Need The Tree Surgeon. Booklet. 16 pp. 9 x 96 in. Illustrated. Lists and explains a number of serious disease tree troubles of common occurrence; contrasts the scientific methods used by properly trained and conscientious men to remedy these troubles with the work of unscrupulous or untrained men.

GLASS CONSTRUCTION

GRATINGS

HARDWARE
F. & F. Corbin, New Britain, Conn. Illustrated book of the new Corbin Steel Hardware, and descriptive catalogue of the same. Willow Wire Grilles, 49 x 98 in. 32 pp. Illustrated. An important illustrated work on this type of hardware.


Richards Hardware, Ill. Illustrated book of the new Richards Hardware, and descriptive catalogue of the same. Willow Wire Grilles, 49 x 98 in. 32 pp. Illustrated.

Sarno Hardware, Ill. Illustrated book of the new Sarno Hardware, and descriptive catalogue of the same. Willow Wire Grilles, 49 x 98 in. 32 pp. Illustrated.

HEATING EQUIPMENT
American Blower Co., 6004 Russell Street, Detroit. Heating and Ventilating Utilities. A binder containing a large number of valuable publications, 69 x 11 in., on these important subjects.

American Radiator Company, The, 40 West 40th St., N. Y., C. Ideal Type of Radiator for all heating and ventilating purposes. Willow Wire Grilles, 49 x 98 in. 32 pp. Illustrated.

Ideal Water Tube Boilers. Catalog 706 x 1096 in. 32 pp. Willow Wire Grilles, 49 x 98 in. 32 pp. Illustrated.


Monroe Pipeless Booklet, 4 4% x 8 in. 20 pp. Illustrated.


HEATING EQUIPMENT—Continued
Dunham Vacuum Heating System. Bulletin 110. 8 x 12 in. Illustrated.


International Heaters Company, Utica, N. Y. International Heaters Company, Utica, N. Y. International Heaters Company, Utica, N. Y. International Heaters Company, Utica, N. Y. International Heaters Company, Utica, N. Y. International Heaters Company, Utica, N. Y.


The Fulton Company, Knoxville, Tenn. Syphon, Temperature-Regulator. Catalog. 8 x 11 in. 26 pp. Complete data on Syphon temperature regulators for air and liquid heat systems. Illustrated.

Standard Equipment on all these Boilers

Abendroth
Anes
Birchfield
B-Line
Burnham
Cull

Cootesville
Congress
Fitzhugh
Floral City
Freed
Galva

Heggie-Simplex
Imperial
International
Kewanee
Keystone

L-O
LaSalle
Maury
National
Oil City

Ottis-Sawyer-
Economy
Pierce-Peirce
Putnam
Richardson
Richmond

Ross
Senate
Spencer
Standard
Star
Thatcher
West Coast

Steam Damper Regulators

No. 104 Sylphon Steam Damper Regulator, extra sensitive type.

No. 22 Sylphon Damper Regulator for low pressure steam boilers.

No. 22-J Sylphon Damper Regulator for low pressure steam boilers with light steam damper regulators.

Only the sensitive, flexible, all metal Sylphon Bellows used as the diaphragm of Sylphon Damper Regulators can deliver continuous and proportionate response to changes in steam pressure, without "snap action" or "lag."

When you specify any one of the 15 boilers listed above—you'll find Sylphon Regulators already attached as standard equipment. On all other boilers, you'll find it decidedly to your advantage also to specify Sylphon Regulators, because you can assure your clients of uniform heating with low fuel consumption under completely automatic damper control for the life of the boiler. Be sure you get the genuine Sylphon Regulator. Refuse imitations. At the same time, you are assured that your clients will never have any servicing troubles with the genuine Sylphon Regulator.

Ask for Bulletin FDR-5

Every genuine Sylphon Bellows is drawn and formed seamless from a flat sheet of specially prepared metal, with folds or corrugations formed to provide the greatest strength and flexibility.

Breakdown, so common with the ordinary type of thermostat is eliminated, for neither years of constant use nor the powerful action of steam weaken the Sylphon Bellows.

THE FULTON COMPANY KNOXVILLE, TENN.

ORIGINATORS AND PATENTEES OF THE SYLPHON BELLOWS

SALES OFFICES IN:

New York
Chicago
Detroit
Boston
Philadelphia

and all the Principal Cities in U.S.

European representatives: Crosby Valve & Engineering Co., Ltd.

41-42 Foley Street, London, W. 1, England

Canadian representatives: Darling Bros., Ltd.

120 Prince Street, Montreal, Canada
HEATING EQUIPMENT—Continued


INSECTICIDES

Mason Fibre Co., 111 West Washington St., Chicago, Ill. Booklet, 12 pp., 8% x 11 in. Illustrated. Gives complete specifications for use of insulating hemlock and details of construction involving its use.

INSULATION


INSULATION—Continued


JOISTS


KITCHEN EQUIPMENT


LABORATORY EQUIPMENT

Alberene Stone Co., 153 West 23rd Street, New York City. Catalog 42¢, 7 x 10% in., 16 pp. Illustrated. Describes various types of heating equipment, with photographs and descriptions of Pix "Master-Made" ranges, ovens, etc., for Hotels and Restaurants. Hotel, Apartment Building. Club and Institution Installations. Portfolio. 17 x 11 in. 86 pp. Illustrated. The last word in laboratory equipment to meet all requirements.

LANCETRAS

Todhunter, Arthur, 414 Madison Ave., New York. Hand Wrought Lanterns. Booklet, 54 x 8% in. 20 pp. Illustrated in Black and White. With price list. Lanterns appropriate for exterior and interior use, designed from old models and meeting the requirements of modern lighting.

LATH, METAL AND REINFORCING

Cork Insulation on the Roof of the Hiram Sibley Building

ARMSTRONG'S Corkboard was used to insulate the roof of the Hiram Sibley Building, Rochester, one of the handsomest business structures in central New York, for the two-fold purpose of economy and comfort.

In winter the top floor will be easily and comfortably heated, and at a substantial saving in fuel, for the insulation will prevent the tremendous waste of heat that is lost through uninsulated roofs.

In summer, the top floor will be protected from the direct heat of the sun and the offices under the roof will be as cool and comfortable as those on the floors below.

In any kind of building—office or manufacturing, public or residential—insulating the roof with Armstrong's Corkboard is the most effective means of overcoming those temperature conditions which are usually so troublesome and expensive on top floors and in single-story buildings.

Armstrong's Corkboard is easily applied on any type of roof, new or old. It is furnished in boards of such thickness that adequate insulation can be obtained in a single layer—an important advantage from the standpoint of labor cost. Armstrong's Corkboard is fire retardant. It is also non-absorbent of moisture and does not buckle or swell, but makes a firm, substantial base for the roofing.

Send for complete detailed information on the use of Armstrong's Corkboard for the insulation of walls and roofs of any type of building. There is no charge.

Winning 200,000 Battles with Water and Wear

An unseen battle is fought every time you turn on a faucet—a battle with water and wear.

In too many of these battles faucets have been defeated. Valves and seats wear away, and water pushes through. The result is a constant dripping in sinks, lavatories, and bath tubs.

But water and wear have had their day. Clow "Triumph" Brass Trimmings have won 200,000 faucet opening battles.

Under city water pressure, ten Clow "Triumph" Brass Trimmings were opened and closed more than 200,000 times. This is the equal of fifteen years of service.

After the test, wear on the working parts was measured. It was so slight that the faucets looked good enough for another "15 years" test. And not one of them showed any sign of dripping or leaking.

This test assures plumbers and architects that when they install Clow "Triumph" Brass Trimmings there will be no leaking or dripping, even after years of service.

Clow "Triumph" Brass Trimmings are standardized—parts are readily interchangeable. If replacements are desired, they can be made easily, quickly and cheaply.

And the Clow "Triumph" Line of Brass Compression Trimmings sells at popular prices.

JAMES B. CLOW & SONS, 201 to 299 N. Talman Avenue, CHICAGO

Offices in Principal Cities
SELECTED LIST OF MANUFACTURERS

PAINTS, STAINS, VARNISHES AND WOOD FINISHES—Continued


How to Keep Your House Young. Illustrated brochure, 22 pp. Illustrated. Shows how to keep your house on the upkeep of residences.


PANELING—See Millwork

PARTITIONS

Circle M Metal Products Corporation, New Castle, Ind. Circle M Partitions Sectional and Movable. Brochure. Illustrated. 8½ x 11 ½ in. 34 pp. Full data regarding an important line of partitions, together with detailed instructions for partitions of three different types.
Hanneman Company, E. F., Cleveland, Ohio. Hollow Steel Standard Partitions, Various folders, 8½ x 11 in. Illustrated. Gives full data on different types of steel partitions, together with details, elevations and specifications.

Detailed Instructions for erecting Telesco Partitions. Booklet. 24 pp. 8½ x 11 in. Illustrated. Complete instructions, with cuttings, showing how easily Telesco Partition can be erected.


Seychelles Mfg. Co. 8½ x 11 in. 40 pp. Illustrated. Describes metal partitions, wallcots, roller hinges and toilet room hardware.


PIPE


Clow & Sons, James B., 534 S. Franklin St., Chicago, Ill. Cast Iron Pipe. Booklet. 8 x 11 in. 6 pp. Shows a full line of steam, gas and water works supplies.


National Tubing Co., Frick Building, Pittsburgh, Pa. "National" Bulletin No. 25. "National" Pipe in Large Buildings. 8½ x 11 in. 88 pp. This bulletin contains 264 illustrations of prominent buildings of all types, containing "National" Pipe and considerable, engineering data of value to architects, engineers, builders and others.

Modern Welded Pipe. Book of 88 pp. (8½ x 11 in.), profusely illustrated with halftone and line engravings of the important operations in the manufacture of pipe.

PLUMBING EQUIPMENT—Continued

Kohler Co., Kohler, Wis. Catalog F. 9½ x 10½ in. 216 pp. Illustrates and describes the complete line of Kohler trade-marked plumbing ware.

Roughing-In Measurement: Binder containing loose leaf sheets on all staple fixtures.


Muller Co., Decatur, Ill. Catalog G. 8 x 11 in. 166 pp. Profusely illustrated. Contains full data on plumbing, water and gas brass goods, including valves, faucets, spigots, regulators, bungs, and shut-off Astral and automatic systems of hot water control. Complete details are presented with a number of data sheets showing roughing-in measurements for built-in bath equipment.


PUMPS

Chicago Pump Company, 2300 Wolfram Street, Chicago, Ill. The Correct Pump to Use. Portfolio containing handy data. Individual bulletins 8½ x 11 in. on bile, sewage, condensation, circulating, house, boiler feed and fire pumps.


RAMPS

Ramp Buildings Corporation, 21 East 40th Street, New York. Ramp Building for Profitable Sales. Catalog. 8½ x 11 in. 16 pp. Illustrated. Discusses the need for modern mid-city parking garages and describes the advantages of Hoffman Ramp System of design, on the basis of its superior space economy and features of operating convenience. Gives cost analyses of garages of different sizes, and calculates the pay back period in dollars. Ramp Garage Designs. Series of informal bulletins issued in loose-leaf form, with monthly supplements.

The Trans Co., LaCrosse, Wis. Trans Small Centrifugal Pumps. Booklet. 36 x 8 in. 18 pp. Complete data on an important type of pump.

The Hanchenlly System Incorporated, New York, Pa., for years specializing in the financing of modern community hotels, of which they have financed a hundred and fifty in the United States, has expanded its service to include the financing of MOTORAMP garage buildings. They now have available for distribution an 8½ x 11 booklet entitled: "The Hitching Post Problem Is Here Again," in which they explain their solution of the street motor parking problem, which will be sent free to inquiring architects.

REINFORCED CONCRETE—See also Construction, Concrete


ROOFING


Tri-Guard—Its Effect Upon Steel for Roofing Tin. Catalog. 8½ x 11 in. 28 pp. Illustrated. Describes the merits of high-grade roofing tin plates and the advantages of the copper-steel alloy. The Testimony of a Decade. Bulletin. 8½ x 11 in. 16 pp., with Graphic Chart and illustrations showing losses to various Iron and Steel Sheets for roofing, from atmosphere corrosion.


The Barrett Company, 40 Rector Street, New York City Architect's and Engineers' Built-up Roofing Series, Volume IV Roof Drainage System. Brochure. 63 pp. 8½ x 11 ½ in. Gives complete data and specifications for many details of roofing.

Philip Carey Company, Cincinnati, Cincinnati, Ohio. Architects Specifications for Carey Built-up Roofing. Catalog. 8 x 10½ in. 24 pp. Illustrated. Complete data to aid in specifying the different types of built-up roofing to suit the kind of roof construction to be covered.

Carey Built-up Roofing for Modern School Buildings. Booklet. 8½ x 10½ in. 32 pp. Illustrated. Describes a number of different kinds and the roofing materials adapted to each.

Federal Cement Tile Co., 608 So. Dearborn St., Chicago, I11. The Indestructible Roof. Booklet. 10 x 13 in. 32 pp. Illustrated. Describes the installation of permanent concrete interlocking tile, tile with glass inlets, flat tile and chamfered tile, on all types of industrial plants and other buildings with flat and pitched surfaces.
A PRACTICAL SUGGESTION FOR COLD WEATHER MASONRY

TIME after time, Carney Cement Mortar has been used for winter construction—always with perfect results. The reason is very simple. Carney Cement Mortar can freeze solid in the wall, yet set up perfectly after thawing out.

In addition to this strong winter feature, Carney Cement offers other decidedly important advantages. Its simple mix of water, sand and Carney Cement overcomes the need of close supervision at the mortar box. The elimination of soaking and lime slaking aids in preventing mistakes and materially reduces labor costs as well. Besides, the masons rarely need to tamp or re-temper Carney Cement Mortar. As a result, masonry costs are considerably reduced.

If you have a winter project, use Carney Cement for the mortar. You will find an everlasting bond—relief from mixing worries—and a labor and material cost far below what is ordinarily expected.

THE CARNEY COMPANY
Cement Makers Since 1883

DISTRICT SALES OFFICES:
Cleveland, Chicago, Detroit, St. Louis, Minneapolis

CARNEY CEMENT
for Brick and Tile Mortar
SELECTED LIST OF MANUFACTURERS

ROOFING—Continued

Standard Steel Sheet. Booklet. 8 1/4 x 11 in. 40 pp. Illustrated. With full-page drawings. Gives full details of all forms of roof construction, covering both flat and gable construction, parapet arrangement, spacing, etc., for standard roofs.

Johns-Manville, Inc., Madison Ave. & 41st St., New York, N. Y.

A comprehensive catalog of various types of roofing. Contains full details of metal, slate, asphalt and rubber roof construction. Illustrated.

ROOFTOPS


An efficient method of applied insulation, built-up and liquid asphalt roofing. Illustrated.

Milwaukee Corrugating Co., Milwaukee, Wis.

The Modern Architectural Steel Sheet Guide. Booklet. 8 1/2 x 11 in. 64 pp. Illustrated. Gives valuable technical sheet metal data.

Rutberg &sons, Inc., 155 Madison Avenue, New York, New York.

Instructions for Laying built-up Roofs. Booklet. 8 1/4 x 11 in. Illustrated.

Ruebord Strip Shingle. Booklet. 3 1/4 x 6 1/4 in. 16 pp. Illustrated.

U. S. Gypsum Co., Chicago.

Pyrophylite Roof Construction. Booklet. 8 1/2 x 11 in. 48 pp. Illustrated. Gives valuable data on the use of tile in roof construction.

SEWAGE DISPOSAL

Athey Company, 6015 West 65th St., Chicago, Ill.

The Athey Perennial Window Shade. An accordion pleated window shade, made from translucent Herringbone woven Coutil. It eliminates awnings, affords ventilation, can be dry-cleaned and is washable. Illustrated.

Samson Cordage Works, Boston, Mass.

Sash Cord. 1 1/4 x 2000 ft. 80 pp. Illustrated. Contains complete data on composition and uses for all types of window and door gearing.

Smith & Egge Mfg. Co., ™ Bridgeport, Conn.

Sash Chain. 1 1/4 x 2000 ft. 80 pp. Illustrated. Contains complete data on composition and uses for all types of window and door gearing.

SEWING MACHINES

A Collection of Successful Designs. Catalog. 9 1/2 x 6 1/4 in. 64 pp. Illustrated. Shows by use of drawings and photographs many types of American-made sewing machines.


The Valve Behind a Good Heating System. Booklet 4 1/2 x 7 1/2 in. 24 pp. Illustrated. A useful brochure dealing with the importance of the water system in relation to heating systems.

Jenkins Bros., 80 White Street, New York.

Natco on the Farm. 8 1/2 x 11 in. 38 pp. Illustrated. Describes a method purifying water in bathing pools.

Kawneer Co., The, Niles, Mich.

Illustrated. Showing by use of drawings and photographs many types of Kawneer Solid Copper Store Fronts.

Kaiser Co., The, Niles, Mich.

A Collection of Successful Designs. Catalog. 9 1/2 x 6 1/4 in. 64 pp. Illustrated. Shows by use of drawings and photographs many types of American-made sewing machines.

Kaiser Co., The, Niles, Mich.

The Valve Behind a Good Heating System. Booklet 4 1/2 x 7 1/2 in. 24 pp. Illustrated. A useful brochure dealing with the importance of the water system in relation to heating systems.

ROOFING—Continued

Limestone, its physical characteristics, etc. Illustrated. Giving general information regarding Indiana Limestone. 8 1/2 x 11 in. 80 pages. Illustrated.

Lyon-Todd Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.

Portfolio. 8 1/2 x 11 in. 32 pp. Illustrated. Selected examples of Brassco Copper Store Fronts suitable for different businesses and varying conditions.


Catalog 28. 8 1/2 x 10 1/2 in. 30 pp. Illustrated with plates. Details of Brassco Copper Store front construction. Also show-cases, ventilator sashes. Detail Sheets. Set of five sheets giving details and suggestions for store front design enclosed in a special portfolio for filing.

Brassco Copper Store Fronts; Series 202. Brassco Standard Construction. Illustrated brochure. 16 pp. 8 1/2 x 11 in. Complete data on all sizes and thickness of standard Brassco Copper Store Fronts.

Brassco Copper Store Fronts; Series 500, All-copper Construction. Illustrated brochure. 20 pp. 8 1/2 x 11 in. Details of Brassco Copper Store fronts of a high class.

ROOFING—Continued

McKee Company, 900 Madison Avenue, New York City.

Water Sterilization by Means of Ultra Violet Rays. Booklet 8 1/2 x 11 in. 16 pp. Full data on a system of purifying water. Illustrated. A useful brochure dealing with the value of pure water and the importance of the chlorination process in sterilization.

TECHNICAL PAINTING

Cranes Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.

Portfolio. 8 1/2 x 11 in. 32 pp. Illustrated. Selected examples of Brassco Copper Store Fronts suitable for different businesses and varying conditions.

Cranes Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.

Volume 9 1/2 x 12 in., containing a treatise upon the basic principles of color in architectural design, illustrating early European and modern American examples. Excellent illustrations in color.

Cranes Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.

Set of five sheets ‘giving details and suggestions to use in bank design by Alfred C. Boscomb, Architect.

TERRA COTTA

National Terra Cotta Society, 179 West 44th St., New York, N. Y.

Standard Specification for the Manufacture of Wall and Roof Terra Cotta. Booklet. 8 1/2 x 11 in. 12 pp. Describing the use of Terra Cotta with an article on modern methods of application, containing a complete list of standard Specifications. Glossary of Terms Relating to Terra Cotta and Short Forms for Use in Requesting Speci-

Cranes Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.

National Terra Cotta Society, 179 West 44th St., New York, N. Y.

Booklet 8 1/2 x 11 in. 24 pp. Describes a method purifying water in bathing pools.

Wallace & Tiernan Company, Newark, N. J.

The W. T. & Chlorometer, Technical Publication, No. 55. Booklet 8 1/2 x 11 in. 8 pp. Illustrated. A useful brochure dealing with the value of pure water and the importance of the chlorination process in sterilization.

TECHNICAL PAINTING

Cranes Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.

Volume 9 1/2 x 12 in., containing a treatise upon the basic principles of color in architectural design, illustrating early European and modern American examples. Excellent illustrations in color.

Cranes Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.

Set of five sheets ‘giving details and suggestions to use in bank design by Alfred C. Boscomb, Architect.

TILE, HOLLOW


Standard Wall Construction Bulletin 174. 8 1/2 x 11 in. 32 pp. Illustrated. A treatise on the subject of hollow tile wall construction.

Nacho on the Farm. 8 1/2 x 11 in. 38 pp. Illustrated. A treatise on the subject of fire safe and permanent farm building construction.

Nacho Homes and Garages. Booklet. 7 x 10 in. 32 pp. Illustrated. Shows the use of Nacho hollow Tile for private residences.

TREADS

The Tri-lok Company, 3533 Butler Street, Pittsburgh, Pa.


Brasco Copper Store Fronts; Series 500, All-copper Construction. Illustrated brochure. 20 pp. 8 1/2 x 11 in. Details of Brassco Copper Store fronts of a high class.

VACUUM CLEANING APPARATUS

The Spencer Turbine Company, Hartford, Conn.

Specifications for Dampproofing, Waterproofing, Enameling and Technical Painting. Complete and authoritative directions for use of an important line of materials.

TERRA COTTA

National Terra Cotta Society, 179 West 44th St., New York, N. Y.

Standard Specification for the Manufacture of Wall and Roof Terra Cotta. Booklet. 8 1/2 x 11 in. 12 pp. Describing the use of Terra Cotta with an article on modern methods of application, containing a complete list of standard Specifications. Glossary of Terms Relating to Terra Cotta and Short Forms for Use in Requesting Speci-

Cranes Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.


Standard Wall Construction Bulletin 174. 8 1/2 x 11 in. 32 pp. Illustrated. A treatise on the subject of hollow tile wall construction.

Nacho on the Farm. 8 1/2 x 11 in. 38 pp. Illustrated. A treatise on the subject of fire safe and permanent farm building construction.

Nacho Homes and Garages. Booklet. 7 x 10 in. 32 pp. Illustrated. Shows the use of Nacho hollow Tile for private residences.

TREADS

The Tri-lok Company, 3533 Butler Street, Pittsburgh, Pa.


Brasco Copper Store Fronts; Series 500, All-copper Construction. Illustrated brochure. 20 pp. 8 1/2 x 11 in. Details of Brassco Copper Store fronts of a high class.

VACUUM CLEANING APPARATUS

The Spencer Turbine Company, Hartford, Conn.

Specifications for Dampproofing, Waterproofing, Enameling and Technical Painting. Complete and authoritative directions for use of an important line of materials.

TERRA COTTA

National Terra Cotta Society, 179 West 44th St., New York, N. Y.

Standard Specification for the Manufacture of Wall and Roof Terra Cotta. Booklet. 8 1/2 x 11 in. 12 pp. Describing the use of Terra Cotta with an article on modern methods of application, containing a complete list of standard Specifications. Glossary of Terms Relating to Terra Cotta and Short Forms for Use in Requesting Speci-

Cranes Manufacturing Co., 5025-35 South Wabash Avenue, Chicago, Ill.


Standard Wall Construction Bulletin 174. 8 1/2 x 11 in. 32 pp. Illustrated. A treatise on the subject of hollow tile wall construction.

Nacho on the Farm. 8 1/2 x 11 in. 38 pp. Illustrated. A treatise on the subject of fire safe and permanent farm building construction.

Nacho Homes and Garages. Booklet. 7 x 10 in. 32 pp. Illustrated. Shows the use of Nacho hollow Tile for private residences.
“Not all asphalts will do for roofing”
says Henry C. Hibbs

“TESTS that we have made show a great deal of variation in the qualities or characteristics of asphalts, and not all asphalts will do for roofing purposes.” This statement was made recently by Henry C. Hibbs, well-known architect of Nashville, Tennessee.

“There is a marked difference in melting point, and some asphalts are harder and some less elastic than others. A good roofing asphalt must not become brittle in cold weather nor flow in hot weather. It should be stiffly elastic in a temperature range from $15^\circ$ below zero to $125^\circ$ above. Between these points it should neither flow nor crack.

“And the asphalt must not be too volatile. Otherwise, the oils will dry out, leaving almost pure carbon, which soon goes to pieces.”

Many buildings designed by Mr. Hibbs are covered with Carey roofs. The asphalt in Carey Built-up Roofs is specially refined and blended at the Carey plant for roofing purposes exclusively. It will not melt below $215^\circ$, and retains its flexibility in the coldest weather. On buildings all over the country—office structures, factories, hotels, schools—on such buildings as the New Madison Square Garden in New York, the 16-acre Atwater Kent factory, the Chicago Coliseum and Cleveland Auditorium—Carey Built-up Roofs are giving proof of the quality built into them. Full information on request.

THE PHILIP CAREY COMPANY
Lockland, Cincinnati, Ohio

NOTE TO ARCHITECTS:
Write for our Architects' Specification Book.

American Trust Company Building, Nashville, Tenn.—one of the many splendid, Carey-roofed structures designed by Henry C. Hibbs, who is numbered among the best known architects in the South.
How Big is This Hotel?

Is it of 100 rooms? 500? Neither. It's a lobby corner of Hotel Lykens, the 48-room Hockenbury financed community hotel in Lykens, Pa. Only 48 rooms, but it's attracting state-wide attention; speed-up and toning up general business and realty values for everybody in Lykens. Yes, and it's bringing in outside dollars, too!

Being Hockenbury financed, it is properly financed; properly located; properly managed.

The FINANCIALIST, a journal devoted to community hotel finance, may help YOUR community acquire a similarly modern hotel. Your name on our complimentary list, "F-12," brings it without obligation.

The HOCKENBURY SYSTEM Inc.
HARRISBURG, PENNSYLVANIA

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 146

VALVES—Continued

Jenkins Valves for Plumbing Service. Booklet. 4½ x 7½ in. 16 pp. Illustrated. Jenkins Brass Globe, Angle Check and Gate Valves commonly used in home plumbing. Jenkin’s Angle Check and Gate Valves have been used in larger plumbing installations.

Moeller Co., Decatur, Ill.

Catalog G. 8 x 11 in. 316 pages. Profusely illustrated. Contains full data on plumbing, water and gas brass goods, including valves, faucets, traps, regulators, built-in bath equipment, and automatic systems of hot water control. Complete details are presented with a number of data sheets showing roughing-in measurements for built-in bath equipment.

VENETIAN BLINDS


Venetian Blinds. Booklet. 7 in. x 10 in. 24 pages. Illustrated. Describes the "Burlington" Venetian blinds, method of operation, advantages of installation to obtain perfect control of light in the room.

VENTILATION

American Blower Co., Detroit, Mich.


Duriron Company, Dayton, Ohio.

Aciroof Exhaust Fans. Folder. 8 x 10½ in. 8 pp. Data regarding fans for ventilation of laboratory fume hoods.

Specification Form for Aciroof Exhaust Fans. Folder. 8 x 10½ in.

Globe Ventilator Company, 206 River Street, Troy, N. Y.

Globe Ventilators Catalog. 6 x 9 in. 32 pp. Illustrated profusely. Catalog gives complete data on "Globe" ventilators as to sizes, dimensions, gauges of material and table of capacities. It illustrates many different types of buildings on which "Globe" ventilators are in successful service, showing their adaptability to meet varying requirements.

Peerless Unit Ventilation Company, Long Island City, N. Y.

PeerVent Heating and Ventilating Units. Brochure 6 x 9½ in. Illustrated. Valuable data on apparatus for ventilating and heating buildings of different types.

Van Zile Ventilating Corporation, 155 East 42nd Street, New York, N. Y.

The Ventadore Booklet. 6½ x 9½ in. 16 pp. Illustrated. Describes and illustrates the use of the Ventadore for Hotels, Clubs, Offices, etc.

WATERPROOFING

Corey Company, The Philip, Lockland, Cincinnati, Ohio.

Waterproofing Specification Book. 8½ x 11 in. 52 pp.

The General Fireproofing Company, Youngstown, Ohio.


A. C. Horn Company, Long Island City, N. Y.

Waterproofing. Folder. 9½ x 11½ in. Contains folders giving data on excellent waterproofing and dampproofing materials.

Master Builders Company, Cleveland, Ohio.

Waterproofing and Dampproofing and Allied Products. Sheets in loose index file, 9 x 12 in. Valuable data on different types of materials for protection against dampness.


Impermite. Circular. 8½ x 11 in. 4 pp. Illustrated. An integral water-proofing compound for concrete, stucco, cement, mortar, etc.

Sandusky Cemen Co., Dept. F., Cleveland, Ohio.

Medusa Waterproofing, General specification. 8½ x 11 in. 32 pp.


"Permantile Liquid Waterproofing" for making concrete and cement mortar permanently impervious to water. Also circulars on floor treatments and cement colors. Complete data and specifications. Sent upon request to architects using business stationery. Circular size, 8½ x 11 in.

Somnolor Sons, Inc., 116 Fifth Ave., New York, N. Y.


Toch Brothers, 110 East 42nd Street, New York City.

Specifications for Dampproofing, Waterproofing, Enamepling and Technical Painting. Complete and authoritative directions for use of an important line of materials.

WEATHER STRIPS

Chamberlin Metal Weather Strip Company, 1444 Lafayette Boulevard, Detroit, Mich.

Chamberlin Metal Weather Strip Details, 1925 edition. Catalog 8½ x 11 in. 48 pp. Complete specifications and full-sized details. With or without 9 x 11½ in. folder conforming to A. I. A. filing system. May also be used in loose leaf form. Excluding Cold and Dust with Chamberlin for 32 years. Booklet 8½ x 7½ in. 16 pp. Illustrated. Completely and interestingly illustrates application of Chamberlin equipment.

The Higgins Manufacturing Co., Newport, Ky.

Higgin All-Metal Weather Strips. Booklet. 6 x 9 in. 21 pp. Illustrated in colors. Describes various types of Higgin Weather Strips for sealing windows and doors against cold and dust.

WINDOWS

David Lupton’s Sons Company, Philadelphia, Pa.

Lupton Pivoted Sash, Catalog 12-A. Booklet 48 pp. 8½ x 11 in. Illustrated and describes windows suitable for manufacturing buildings.

WINDOWS, CASEMENT

Richter-Wilso Mfg., Aurora, Ill.

Casement Window Hardware. Booklet. 24 pp. 8½ x 11 in. Illustrated. Shows typical installations, detail drawings, construction details, blueprints if desired. Describes All-way Multifold Window Hardware.
"Cal" Pine and the Architect
Discuss Garages and Garage Doors

What are your reasons, 'Cal' Pine, for recommending California White Pine and Sugar Pine for garages and garage doors?

"All the reasons for the use of these woods in house construction apply to garage construction. I don't know any other wood that has so many service qualities for the purpose. For framing, these pines have sufficient strength and are free from twisting. Freedom from warping and end shrinking keeps joints tight—this is an important quality, both in garages and garage doors. The uniform soft texture and close, even grain of California Pine make cutting and sawing easy without splintering, hence less waste of material. It takes and holds nails tightly, right up to edges and ends without splitting, it permits accurate, permanent joinery and faithful rendering of the sharp lines and contours of architectural designs. Garage doors made of California Pine have the strength to stand hard knocks but they are light enough in weight to hang true on hinges without strain. They are not subject to twisting, swelling or contracting—they open and shut without sticking."

"How about painting qualities of California Pine?"

"There too, you have many advantages in specifying this wood. It is most economical to paint. Its smooth, satiny surface requires less time for painting and because of its own natural light color it requires fewer coats for a fine job. Absence of grain-raising tendencies further insure the lasting beauty of the painter's work."

"Does California Pine come in all forms for garage construction?"

"Yes—dimension for framing comes in standard grades and sizes and for siding you can have all sizes of bevel siding, even the extra wide known as Eastern Colonial, while all patterns of drop and rustic sidings are always available, made from either select or common grades, usually from the latter, which are economical in cost, smoothly milled and when painted make a first class job suitable for any garage. My illustrated book of grades, forms and sizes will give you full specification data. A postcard will bring you a copy without cost."

CALIFORNIA WHITE AND SUGAR PINE MANUFACTURERS ASSOCIATION
Also producers of CALIFORNIA WHITE FIR • CALIFORNIA DOUGLAS FIR • CALIFORNIA INCENSE CEDAR
454 CALL BUILDING, SAN FRANCISCO

CALIFORNIA PINE
California White Pine (tradename) California Sugar Pine
They ripped it off and put on Genasco!

When the covering on this magnificent memorial failed to afford the protection for which it was chosen, it was decided to turn to nature's own unequalled wear and weather resistant—and the handsome arcade is now adequately protected by Genasco Asphalt Mastic.

Because it is made from Trinidad Native-Lake Asphalt, it possesses the same protective properties which have made Trinidad famed the world over as a street-paving material for the past half-century.

So extremely satisfactory has Genesco Asphalt Mastic proved as a flooring in manufacturing establishments, warehouses, hotels, stores, schools, and other public and private buildings, that it has come into use for numerous other purposes where resistance to wear and weather is an important factor.

Genasco Asphalt Mastic is resilient, noiseless, dustless, sanitary, water-proof, and gives such service as no other flooring can equal. Let us send you complete information about Genasco Asphalt Mastic—resilient, noiseless, dustless, sanitary, water-proof, and giving such service as no other flooring can equal.

When the covering on this magnificent memorial failed to afford the protection for which it was chosen, it was decided to turn to nature's own unequalled wear and weather resistant—and the handsome arcade is now adequately protected by Genasco Asphalt Mastic.

The Barber Asphalt Company
Philadelphia
New York Chicago Pittsburg St. Louis Kansas City San Francisco

MEMORIAL AMPHITHEATRE, ARLINGTON NATIONAL CEMETERY, WASHINGTON, D. C.

The modern flooring for large areas

The Barber Asphalt Company
New York Chicago Pittsburg St. Louis Kansas City San Francisco

SELECTED LIST OF MANUFACTURERS' PUBLICATIONS—Continued from page 148

WINDOWS, CASEMENT—Continued

Crittall Casement Window Co., 1051 Hearne Ave., Detroit, Mich. Catalog No. 32. 9 x 12 in. 76 pp. Illustrated. Catalogue of actual work accompanied by scale details for casements and composite steel windows for banks, office buildings, hospitals and residences.

Hope & Sons, Henry, 103 Park Ave., New York, N. Y. Catalogue. 16% x 10½ in. 30 pp. Illustrated. Full size details of outward and inward opening casements.

Lupton Casement of Copper-Steel. Catalog C-122. Booklet 16 pp. 8½ x 11 in. Illustrated brochure on casements, particularly for residences.

Truscon Steel Co., Youngstown, Ohio


Truscon Donovan Awning Type Steel Windows. 24-pp. booklet, 8% x 11 in., illustrating the economical application of Truscon windows in modern house design.


WOOD—See also Millwork


American Walnut. Booklet, 7 x 9 in. 45 pp. Illustrated. A very useful and interesting use of Walnut in Fine Furniture with illustrations of pieces by the most notable furniture makers from 1890 to the present.

American Walnut for Interior Woodwork and Paneling.” 7 x 9 in. pages, illustrated. Discusses interior woodwork, giving costs, specifications, the different grades and sizes of all lumber products of the mills in the United States.


California White Pine, Information Sheet No. 1, California White Pine, Information Sheet No. 2, California Sugar Pine. Illustrated booklets 8 x 10½ in. First of a series of Information Sheets on these woods and their uses for construction and finish.

Introducing “Cal” Pine, Guardian of the Grades. Booklet, 50 pp., 7½ x 10½ in. illustrated. Valuable data on siding, battens, flooring, moldings, etc.

A series of information sheets on California White Pine, Sugar Pine, California White Fir, Douglas Fir and Incense Cedar. Technical data as to supply, production, quantities, uses, grades and sizes of all woods in the United States. Furnished with standard size filing folder for easy reference. Information sheets are 8 x 10½ in. text matter is arranged in uniform style.

Curtis Companies Service Bureau, Clinton, Iowa.

Better Built Homes, Vol. XV-XVIII, incl. Booklet. 9 x 12 in. 40 pp. Illustrated. Designs for houses of five to eight rooms, respectively, in several authentic types, by Trowbridge & Ackerman, architects, for the Curtis Companies.

Long-Bell Lumber Co., Kansas City, Mo.

The Perfect Floor. Booklet 5½ x 7½ in. 16 pp. Illustrated. Describes the production of floor material in various ways.

WOOD FINISHES—See Paints, Varnishes, Stains
When Privacy Counts

When important matters are being discussed between executives by telephone—when the successful handling of matters requires not only absolute privacy, but instant and accurate connections—this is the time when business most appreciates these individual features of P-A-X.

By means of the P-A-X Conference Wire service—which necessitates no outside or switchboard calls—the executive can have several of his staff on the wire at one time. Each person, in his own private office, takes part in the general conference the same as if all were together in one room—and this with the assurance that no one can cut in.

This ability of P-A-X to delegate private inter-office calls direct to the persons concerned, isolating all switchboard or outside interferences and precluding even the possibility of "cut-ins", is one of the many reasons for its adoption by more than 2,000 banks, manufacturers, and other business organizations of every line, both in America and in foreign countries.

~Count on P-A-X~

P-A-X-ophone, Type 1

The P-A-X-ophone fills a rapidly growing need for an instrument with all of the compactness and efficiency of the conventional telephone, but with the additional advantage of having the transmitter and receiver in a single, easily-handled unit. This is the P-A-X-ophone Desk Set No. 1; available for use with all types of P-A-X.

The P-A-X is, fundamentally, a private automatic telephone exchange built of the same Strowger type of automatic telephone equipment being so widely adopted for city service. The P-A-X may be furnished to include and coordinate such services as code call, conference, executive's priority, emergency alarm, etc., to meet individual needs.

Automatic Electric Inc.

Engineers, Designers and Manufacturers of the Automatic Telephone In Use the World Over.

Home Office and Factory, CHICAGO, ILL. Branch Offices in all principal cities.
Beauty and Enduring Worth are Combined in PIX Kitchens

THE WORLD'S LEADING EQUIPMENT HOUSE FOR
The public may with freedom be invited to inspect any Albert Pick & Company Kitchen. Gleaming cleanliness is everywhere apparent. This Kitchen of the new Standard Club, Chicago, is a recent example of PIX Engineering.

ALBERT PICK & COMPANY
208-224 WEST RANDOLPH ST. CHICAGO
HOTELS, RESTAURANTS, CLUBS, HOSPITALS
Casements Have Varied Uses

The accompanying photographs illustrate the wide range of effects to which Crittall Standardized Casements are adapted. Beautiful steel casement windows give themselves to the architect's ideas of design in a multiplicity of ways. The different arrangements possible in wholly standard sizes, the varying widths in mullions and transom bars, the flexibility of beautiful leaded glass, all combine to assist the skillful designer in obtaining surpassingly beautiful effects.

Crittall Standardized Casements are made in both inward and outward opening types. They are guaranteed weather-tight. They are priced so low they are suitable for your most modest commissions. Their quality is such they will grace your finest work.

Crittall Standardized Casements

CRITTALL CASEMENT WINDOW COMPANY - Manufacturers
10969 HEARN AVENUE, DETROIT, MICHIGAN

Also Makers of Crittall Steel Casement Windows built to the architect's sizes, designs and specifications
Beauty plus Protection -

CHAMBERLIN

SILL-DOR-SEAL

CHAMBERLIN Sill-Dor-Seals become outstanding features of finer residential buildings because of the attractiveness and protection they lend to entrance doorways. Chamberlin Sill-Dor-Seals are made of extruded brass —highly polished and artistically formed. They are securely anchored to either wood, stone or metal sills where they seal door bottoms most effectively, shutting out draughts, rain, snow and dust. And at the same time, they add dignity and beauty to the building threshold. The inclusion of the extra wide Chamberlin Sill-Dor-Seal No. 36 puts the final touch to Chamberlin door equipment which seals jambs and heads of entrance doors by interlocking weather strip members or by highly tempered, hemmed edge, flexible spring bronze. Send for detailed drawings and specification sheets.

CHAMBERLIN METAL WEATHER STRIP COMPANY
West Lafayette Blvd., Detroit, Michigan

100 Sales and Service Branches Throughout the United States
Limitless in Service

To both the Architect and the Builder this factful Catalog of ART METAL Hollow Metal Doors and Trim presents an invaluable fund of information and suggestion applicable to every project requiring a hollow metal installation. Picturing representative ART METAL installations and a complete series of architectural detail plates, it furnishes data that invites constant and ready reference to its pages.

Limited in edition, the Art Metal Hollow Metal Catalog is available to executives only. A request for it on your letterhead will bring you your registered copy.

Art Metal


ART METAL CONSTRUCTION CO., JAMESTOWN, N.Y.
Unsightly Window Shades are a thing of the past.

Athey Perennial Window Shades

Increase Architectural Beauty—yet are the most practical shades made

Beauty must naturally be a first consideration in planning fine buildings—yet practicability must not be sacrificed. Shades are no longer a bothersome question for Athey Perennial Window Shades enhance architectural beauty yet are the most practical shades made.

The specially woven (non-fading) Coutil cloth of which they are made gives windows a draped appearance in harmony with the architectural effect of the building.

They run on strained wires eliminating all fluttering when the windows are open. The can be raised from the bottom, or lowered from the top, to shade the portion of the window that requires it without shutting out all the light and air. They do everything awnings can do, eliminating that expense, fire hazard and unsightliness. Yet thousands of installations—many of them 10 years old and more—prove they last so long they actually are the least expensive shades obtainable.

Athey Company

6025 West 65th Street  -  Chicago, Illinois

In Canada: CRESSWELL-McINTOSH, Reg’d

270 Seigneurs St., Montreal, Que.
Which answer would you give?

Sixty-five architects were recently called upon and their opinion of Win-Dor Casement Hardware asked. Our purpose at the time was merely to convince hardware dealers in California that there is a real market there and a real preference for our line.

But the answers we received were so outspokenly gratifying that we feel certain you will find them interesting.

26 architects promise to use Win-Dor in future.
22 say Win-Dor is the best they have seen and promise to use it.
3 promise to submit Win-Dor to their clients.
14 have accepted literature, sample specifications, etc., but make no definite promise.
65
48 enthusiastic, 3 favorable
14 non-committal

We would like to call on every architect in the country. We would like to demonstrate Win-Dor equipment in every specification writer's office. But that is impossible.

However, we believe that the above figures prove conclusively that we have produced a better kind of casement hardware, a kind worth a few minutes of your time to investigate.

We, therefore, ask that you let us send you complete information and specification data on wood and metal casements.

There is no obligation whatsoever and we believe you owe it to your clients to learn fully about anything which is so widely endorsed as Win-Dor. Why not drop us a line today?

Win-Dor
CASEMENT HARDWARE
THE CASEMENT HARDWARE COMPANY
404-A North Wood Street, Chicago

CASEMENT HARDWARE HEADQUARTERS
The low cost of these high-grade windows permits you to use them throughout your client's house for very little money.

Lupton Steel Casements

Buy Lupton Casements, Basement Windows and Pivoted Sash from Local Dealers Stocks

David Lupton's Sons Co., Philadelphia
Montgomery Ward Memorial Bldg.,
Medical and Dental Schools,
Northwestern University,
McKinlock Campus,
Chicago, Illinois.

James Gamble Rogers, Architect,
New York City.
Childs & Smith, Associate Archi-
tects, Chicago, Ill.
W. L. Fergus, Heating Engineer,
Chicago, Ill.
Wm. A. Pope, Heating Contrac-
tor, Chicago, Ill.

Arco Packless Valves for
steam, water or vapor, are
made in angle, corner and
globe patterns.

The 1500 valves
in this famous building
will need no attention

IN THIS newest addition at Northwestern University where Arco Packless Valves are installed on all of the 1500 radiators, there will be no trouble calls to stop leaks. And there will be no annual repacking to increase maintenance expense.

Arco Packless Valves were selected because they bring to every building these four advantages:

1. Arco Packless Valves are good looking. They add a finishing touch of smartness to a radiator.

2. They prevent leaks—one of which may cost more than all the valves in the building.

3. They pay for themselves by saving the annual expense of repacking.

4. They add to the comfort of the owner or his tenants. Arco Packless Valves open with one smooth turn.

A heating plant deserves accessories that insure perfect performance. Every radiator deserves an Arco Packless Valve.

The Arco Packless Valve is one of many heating accessories made and guaranteed by

AMERICAN RADIATOR COMPANY

816 So. Michigan Ave. Specialties Department Chicago, Ill.

ARCO Packless Valves
CHICAGO too favors AERO — The Radiator Vogue

In these two apartments, among the finest in Chicago, Aero Radiators were given the preference.

This merely points the way and strengthens the contention that Aero, the most approved of all new style radiation, has become The Radiator Vogue.

Manufacturers, throughout the country, are scrapping millions of dollars worth of equipment in an effort to produce a radiator similar in type. In fact, so popular has the Aero Radiator proven, its name has become synonymous of all so-called new style radiators.

If you want a radiator you can use on every job and stand back of—if you want a beautiful, graceful, slender radiator that has a tremendous sales appeal and is readily acceptable everywhere—if you want a radiator that sells at the same standard sheet price as the old radiator types—if you want a radiator approved by Architects, Engineers and Heating Contractors alike—you want a genuine AERO RADIATOR; not an Aero type radiator.

Literature mailed free upon request.

NATIONAL RADIATOR COMPANY
JOHNSTOWN, PA.
New York Philadelphia Baltimore Washington Richmond Pittsburgh Cincinnati Cleveland Chicago

At top—Apartment, 1130 Lake Shore Drive, Chicago, Illinois.
The beautiful, graceful, slender and pleasingly proportioned Aero Radiator is used throughout on both of these buildings.

Above is shown the newest unit—4 column pattern—of the first and only complete line of new style radiators, which were introduced more than four years ago. Like the rest of the complete Line of Aero Radiators, this pattern is top and bottom push-nipple connected, which makes it not only leak proof but suitable to any method of heating, whether it be a steam, vapor or hot water job. Four patterns and eighteen heights comprise the Aero Line, from which you can pick a pattern and height to exactly suit your requirements.

BEAUTY and WARMTH with AERO RADITORS
THE "GLOBE" SKYLIGHT
A New Line Added to the "Globe" Ventilators

ARCHITECTS, builders and owners will effect a material saving in cost by using stock size skylights. The above illustration shows various types of "Globe" skylights which can be furnished in standard sizes.

"Globe" skylights are made of 24 gauge galvanized Armco Iron with ½ in. rough wire glass, equipped with double condensation gutters, and are ventilated by "Globe" ventilators of the proper sizes, which are also made of heavy galvanized Armco Iron.

We shall be glad to furnish full information upon request and also to send Detail Sheet of the "Globe" ventilator which has back of it years of proved efficiency in the ventilation of buildings.

DEPT. F
GLOBE VENTILATOR COMPANY
TROY, N. Y.

HCESS CABINETS
and MIRRORS
Snow-White Steel

STYLE E
to recess with open pocket below.

HCESS Cabinets and Mirrors are matchless in their satiny snow-white coats—hand rubbed in the manner the finest furniture is finished. Best polished plate glass mirrors, brass handles and hinges, heavily nickel plated.

They are suitable for the finest bathrooms,—low enough in price for the moderate price builder.

Specify them and please your client; See Sweet's Catalogue.

HESS WARMING & VENTILATING CO.
Makers of Hess Welded Steel Furnaces.
1216 S. Western Avenue, Chicago

VENTADOOR
A ventilating panel for doors

Ventadoors give thorough Ventilation in the modern way and add to the harmonious beauty of the door.

VAN ZILE VENTILATING CORPORATION
155 EAST 42nd ST.
NEW YORK CITY
The Dunham Differential Vacuum Heating System

A System of Heating which heats a building with coal—gas—or oil fuel, without the fuel and heat-waste of over-heating in mild weather.

Several years of intensive research work with analytical operative tests in the company’s research laboratories, are back of this announcement of the Dunham Differential Vacuum Heating System. The practicability and fuel-saving efficiency of this new system of heating is further proved by its actual operation in several commercial installations. Performance, not guess work, is therefore the foundation of this announcement.

The Dunham Differential Vacuum Heating System provides a fixed differential that permits circulation of steam at all pressures and temperatures. Circulation is more uniformly distributed than possible heretofore, because the pressure (absolute) in the supply main is always slightly greater than that in the return main.

Outstanding features of this 1926 Dunham Contribution to the science of heating are (1) a much greater fuel economy when firing with coal; (2) a practical and economical use of gas and oil in all types of buildings.

The generation of steam, when starting a cold boiler begins at a much lower temperature than under atmospheric pressure because of the vacuum produced by the pump. The steam expands under the vacuum condition and fills the radiator with the result that substantially the entire radiator surface is working at either a high or low temperature.

In mild weather the differential controller on the vacuum pump maintains the condition in the return mains at a pressure less, or vacuum greater, than in the supply mains. Circulation is therefore maintained irrespective of supply pipe pressure or vacuum. The system fills with steam at pressures below atmosphere and the Dunham Traps on the radiators function to pass all air and water and to close against steam under this wide range of conditions.

In severe weather the pressure can be regulated to supply steam at such a rate that the supply piping and radiators will have a pressure greater than atmosphere.

It will be recognized that the Dunham Differential Vacuum Heating System achieves a goal of fuel-saving and temperature-comfort long sought in steam heating. We believe that this announcement marks an epoch-making advance over present types of steam heating systems, even the most modern. We shall be glad to send descriptive literature to those interested. A request on your business letterhead will bring it to you.

The Dunham Differential Vacuum Heating System is fully covered by patents and pending applications for patents in the United States, Canada and foreign countries. Any infringements will be vigorously prosecuted.

C. A. DUNHAM CO.
DUNHAM BUILDING
450 East Ohio Street  Chicago
In Your Client's Best Interests

Specifying the International Carton Self Cleaning Furnace, to be installed in accordance with the Standard Code, is surely working in your client's best interests—and in your own—

For the Carton will warm the home most efficiently—and for many years. There are Cartons still in active use which were installed sixty years ago.

ALWAYS FREE OF SOOT

Scientifically correct design and enduring construction are the reasons. First, a radiator that is always free of soot means constantly maintained efficiency.

Then, a combustion dome or mixing chamber that insures correct combustion.

And finally such details of sturdy, enduring construction as an ashpit and a feed chute without joints, preventing dust and gas leaks; a firepot that will not crack, cast in two sections with a deep cup joint, herringbone, triangular grates which mean a cleaner fire; and a double casing!

Architects, heating engineers, write for catalog 1818-F, describing the Carton in detail. We will also send a copy of the Standard Code.

International Heater Company
Utica, N.Y.
Cleveland Chicago Detroit
New York City Philadelphia
Nashua, N. H.
Specialists in school construction
select Ideal Boilers for model school

This new high school was planned by architects who have made a great success of schoolhouse construction.

The heating installation was made by heating contractors who have made a great reputation for themselves in heating and ventilating for school work.

Their selection of Ideal Boilers and American Radiators for this model school was a stamp of approval which should mean a great deal to architects in every part of the country.

Three 79" Ideal Water Tube Boilers have been installed with 7900 square feet of American Radiators.

The many interesting points of construction of the new Ideal Water Tube and Smokeless Boilers have been described and illustrated in attractive catalogues which every architect should have. Simply write for catalogues on Ideal Water Tube and Smokeless Boilers.
The colder the weather, the more Johnson Oil Burners are appreciated! The thermostat of the Johnson Automatic Burner is actuated by a change of one degree in room temperature! Delivery of fuel is simple; there is no worry concerning coal strikes and shortages. In bungalows and skyscrapers, hotels, apartments, schools, factories and hospitals... all over the world, Johnson Oil Burners are providing comfort and security... 

**HOTEL ASTOR,**
Milwaukee, heated safely, economically and conveniently with Johnson Oil Burners

**JOHNSON**
**OIL BURNERS**

For 21 years... famous for simplicity, economy & ruggedness. There is a Johnson Burner for every heating & power purpose.

--write for Illustrated BOOKLET--

S. T. JOHNSON CO.

OIL BURNERS

--- Distributors and Dealers throughout the United States and in Foreign Countries ---
Color is ground into WIFCO at the mill and is therefore an integral part of it. The ingredients of each sack of WIFCO Super-Mortar are identical with, and are mixed in the same proportions as, those of every other sack containing the same color. The colors will not fade. Neither will they stain masonry.

Thus at one stroke the hazards of deviating from the color sample are avoided—the waste in time, labor and materials is done away with—and the danger of weakening a wall by the dilution which often occurs through the use of colored mortar is entirely eliminated.

No longer will it be necessary to mix color with mortar on the job. WIFCO Super-Mortar comes with the color already in it, scientifically and exactly proportioned.

A colored super-mortar—stronger in every way—one that improves with the years—this is what WIFCO Super-Mortar is. It costs less than ordinary mortar and coloring materials. It costs less to mix. There is no waste—mortar left on the mortar board can be used the next day.

Both the compressive and the tensile strengths of WIFCO Super-Mortar are far above all requirements. There is no mortar made anywhere that proves as high as WIFCO.

WIFCO Super-Mortar is strong, like Superior Portland Cement, and is manufactured at the same plant. WIFCO is a plastic mortar. Bricklayers find it works better than any mortar they have ever used.

Write for the facts today. Immediate shipments can be taken care of within a radius of about five hundred miles from Cincinnati.
Two "King Coal" automatic mechanical stokers under two 250 hp. Kroeschell Boilers at the Riverside Brookfield High School, Riverside, Illinois.

Public buildings should lead in smoke prevention

Schools and other public buildings ought to point the way for private owners in the matter of smokeless combustion, not only to be consistent with public smoke regulations, but also to secure the obvious fuel and labor economies which result.

But often the small size of boiler plants in these public buildings makes smokeless operation difficult. The new "King Coal" automatic mechanical stoker designed especially for boilers of 40 to 250 hp. meets this need exactly. It is the product of the twenty-five years' experience of Mr. Joseph Harrington with stokers and other coal burning equipment. It is daily demonstrating its simplicity and economy in dozens of plants.

May we send a list of users and full details for your file?

JOSEPH HARRINGTON COMPANY
(Subsidiary of Whiting Corporation)
HARVEY, ILLINOIS (Chicago Suburb)
Not only the boiler
but also heating-comfort
—GUARANTEED

Most guarantees are only promises to replace defective parts. Good, as far as they go.

But Capitol guaranteed heating is a remarkable, new-type guarantee; a definite, non-quibbling guarantee of results. It guarantees not only parts, but performance. It is a complete and broad warrant of heating satisfaction and comfort—in writing. For if any Capitol boiler under stated conditions fails to heat satisfactorily its full published amount of cast iron radiation, the necessary additional capacity is supplied without charge.

Thus, you completely safeguard the heating comfort of your clients when you specify Capitol guaranteed heating. More, they will appreciate your thoughtfulness and care, because they have likely seen the consistent, national advertising campaign of big, full-color pages. May we send you the interesting facts and data for your files?

UNITED STATES RADIATOR CORPORATION
DETROIT, MICHIGAN
6 FACTORIES AND 28 ASSEMBLING PLANTS SERVE THE COUNTRY
For 36 years, builders of dependable heating equipment

Capitol Boilers
and
UNITED STATES RADIATORS

SUPPLIED AND INSTALLED NATIONALLY BY ESTABLISHED HEATING CONTRACTORS
Forever out of the way

THE Herman Nelson Invisible Radiator eliminates exposed radiators, does away with makeshift radiator covers, ornamental boxes and screens, and makes every inch of floor and wall space usable.

It is only 1/8 the size and 1/10 the weight of a cast-iron radiator of equal capacity, and is specially designed to be installed in any 4" wall or partition. Constructed without a single soldered, welded or brazed joint, it cannot rust or wear out, and even the most extreme expansion and contraction strains cannot make it leak.

The Herman Nelson Invisible Radiator is a thoroughly tested product. Its acceptance for all advanced building is inevitable. Full information about the Herman Nelson Invisible Radiator with its unlimited possibilities for added beauty and comfort in the home will be mailed you upon request.

THE HERMAN NELSON CORPORATION, Moline, Ill.

Also builders of Univent Ventilation

sales and Service

BURLINGTON, IA.

NEW YORK CITY
SYRACUSE
PHILADELPHIA
SCRANTON

PITTSBURGH
GRAND RAPIDS
DETOIT
CLEVELAND

COLUMBUS
TOLEDO
INDIANAPOLIS
CHICAGO

DES MOINES
MILWAUKEE
MINNEAPOLIS
ST. LOUIS

SAN FRANCISCO
EMPORTA
OMAHA
KANSAS CITY

DENVER
SALT LAKE CITY
SPokane
PORTLAND

SEATTLE
VANCOUVER
TORONTO
A HOUSE so prominent in the public eye, and sponsored by such arbiters of good taste, must bear the closest scrutiny.

How futile to lay out spacious, lovely rooms that might be chilly in winter. To design great expanses of windows calling for draperies too fine to be soiled by the grime of coal dust.

How futile, indeed, to plan a house for a family accustomed to every modern convenience and then subject them to the uncertainties of old-fashioned methods of heating!

The editors of Country Life magazine appreciated this. And in their desire to make their house perfect as regards architectural beauty, quality of construction, and selection of materials, they included in their specifications Williams Oil-O-Matic.

They knew that for seven years Oil-O-Matic has shown how perfect oil heat can be. That today it is the most widely enjoyed oil burner in the world.


WILLIAMS
OIL-O-MATIC
HEATING
WORLD'S LARGEST PRODUCER OF AUTOMATIC OIL BURNERS

Oil-O-Matic is adapted to buildings of any size and in any good heating plant.
What Kind of Oil Does it Burn?

Be sure you know the answer to that question when you select an Oil Burner.

The Hart Oil Burner is especially designed to use efficiently the lower gravity fuels which contain more heat units, which are always plentiful and relatively low priced.

That's one reason why the Hart is preferred by so many architects and engineers.

Other good reasons are its simple sturdiness of design, its completely automatic action, its supreme dependability. All the owner needs to do is set the thermostat.

For your information, we offer without cost a crisp booklet giving brief mechanical specifications and other basic facts of the Hart Oil Burner. Write for it today.

HART OIL BURNER
Manufactured by
W. B. WILDE COMPANY
For 36 years makers of precision machinery
2158 North Adams Street, Peoria, Illinois

Listed as standard by Underwriters' Laboratories, Inc.

The Hart Dealer in your city will be glad to give full information without placing you under the least obligation.

W. B. WILDE CO.
2158 North Adams Street, Peoria, Illinois
You may send me, without cost or obligation:
☐ Latest booklet on Oil Heating.
☐ Booklet on the Hart Electric Icer.

Name

Street

City    State
These photographs were taken exactly 3 minutes apart!

AMERICAN BLOWER COMPANY
Detroit, USA

Above—Dye house with American Blower Ventilation turned off.

Below—Same room exactly 3 minutes after starting American Blower Ventilating Equipment. Your ventilation can be cared for as easily, quickly, and efficiently as this with American Blower Equipment. Write for complete information.
Spencer
steam, vapor or hot water
Heaters

A size and type for every heating purpose and every kind of building

SPENCER HEATER COMPANY
WILLIAMSPORT, PA.

General Offices:
New York City Boston Philadelphia Baltimore Buffalo Rochester
Hartford Washington Detroit Albany Syracuse Harrisburg Scranton

Spencer Junior Hot Water Heater—capacity in direct cast iron radiation equivalent, water, 300 to 600 square feet.

Spencer No. 1 Single Grate Heater, capacity in direct cast iron radiation equivalent, water, 800 to 1450 square feet; steam or vapor, 500 to 900 square feet.

Spencer No. 2 Double Grate Heater, capacity in direct cast iron radiation equivalent, water, 1750 to 3800 square feet; steam, 1100 to 2350 square feet.

Spencer Tubular Steam Heater—15 to 21 Series—capacity in direct cast iron radiation equivalent—1900 to 3600 square feet.

Spencer Tubular Steam Heater—50 Series—capacity in direct cast iron radiation equivalent 4500 to 7000 square feet.

Left—Spencer Tubular Steam Heater—100 Series—capacity in direct cast iron radiation equivalent 7500 to 15000 square feet.

Right—Interior view showing construction principle.

All Spencer Heaters may be hooked up in battery where a flexible supply of heat is needed, or where the total radiation tax is greater than the capacity of a single boiler.
The original plans for the Metropolitan Utilities Service Building at Omaha called for a structural steel building at a cost of $288,500.00. A redesign of the structural frame resulted in the expenditure of $228,366.00, making a saving of $60,134.00.

This is one of the everyday examples of the economy of reinforced concrete construction for fireproof buildings. It is also another example where Ceco warehousing and fabrication facilities have again proved their efficiency.

Large stocks of Ceco Reinforcing Bars and other Reinforcing and Fireproofing materials are regularly carried at our warehouses.

Ceco Reinforcing Bars are furnished in deformed rounds and squares. The deformations are at right angles to the main axis of the bar (see illustration) and this provides the most positive kind of mechanical bond to aid the adhesion of the concrete to the steel in resisting bond stresses existing in reinforced concrete members.

All Ceco Reinforcing Bars are inspected and tested by Robt. W. Hunt & Co., Engineers, to conform to the specifications of the American Society of Testing Materials. Thus the customer receives a guarantee of quality with every bar shipped. Test reports will be furnished upon request.

Send for our Handbook of Fireproof Construction. It contains many valuable tables, etc. Address our Omaha Office, Dept. 35.

CONCRETE ENGINEERING CO.
Offices and Warehouses:
OMAHA DETROIT KANSAS CITY CHICAGO
DALLAS HOUSTON DES MOINES ST. LOUIS
MINNEAPOLIS MILWAUKEE DALLAS
Fairbanks-Morse centrifugal pumps were selected for booster service in the Hamilton County Court House, Cincinnati, Ohio. At the left, the F-M installation in this large public building.

A typical motor-pump combination, ball-bearing throughout of high efficiency and exceptionally fine balance, unit-built by Fairbanks-Morse.
24-hour-a-day pumping service

F-M unit-built equipment has proved equal to this responsibility

Among the many Fairbanks-Morse pumping units built for meeting the responsibility of 24-hour-a-day service, F-M centrifugal pump-and-motor combinations offer numerous advantages.

Both the pump and the motor are designed and built together, perfectly balanced, with complete responsibility for satisfactory, uninterrupted operation in the hands of one manufacturer. This is a distinctive F-M advantage that appeals to experienced pump users and is an important factor in selection.

Moreover, these units incorporate the famous F-M ball-bearing construction in both motor and pump. Shafts are carried on permanently true centers with all journal wear eliminated. Dependability is insured because the usual sources of friction and wear have been designed out. Attendance is reduced to a minimum.

In qualities of precise, durable, full-measure construction, these pump-motor units are representative of the entire F-M line, which embraces centrifugal, steam and power pumps for building service.

Write for Bulletin H301—a treatise on the factors governing the selection of pumps for buildings.

FAIRBANKS, MORSE & CO., Chicago
28 branches in principal cities throughout the United States

Fairbanks-Morse pumping equipment provides dependable and efficient operation for the following kinds of pumping service:

- General water service
- Hot-water supply
- Ice-water supply
- Boiler-feed service
- Heating and condensation
- Air washing
- Fire protection
- Hydraulic elevators
- Refrigeration
- Sump pumping

Fairbanks-Morse engineers will gladly give information on capacities, pressures, speeds, performance, etc., of the different types and sizes of pumps, and make recommendations based on your needs.
Midwest Is the Leading Air Filter In New York

Most buildings in New York that have air filters are equipped with Midwest installations, and practically every mechanically ventilated building now being constructed in the city will be supplied with clean air through Midwest Air Filters. The Midwest-equipped buildings shown to the left are only two of those now in the course of construction, or recently completed, in New York. Among the others are:

Drake Hotel, E. Candela, Architect.


New York University, W. S. Gregory, Architect.

Royal Insurance Building, Sturtevant & Van Vleck, Architects.

Columbia-Presbyterian Medical Center, Jas. Gamble Rogers, Architect.


Engineers:}

The Smith Plan assures prompt disbursements on architects' certificates as construction progresses. It provides both construction and permanent financing at one time, and thus there is no uncertainty about the renewal of short-term loans.

If you are planning the erection of an income-producing building that requires first mortgage financing of $200,000 to $1,000,000 or more, we shall be glad to have you communicate with us.

The F. H. Smith Co.
SMITH BUILDING, WASHINGTON, D. C.
Insuring Permanent Attractiveness

in the finest of modern homes

HERE is proof that sinks can be beautiful. In years gone by, the average sink was unpleasant to look at because of the materials of which it was made. But now-a-days, because it can be made of Monel Metal, a sink may become a thing of silvery beauty—actually, an ornament to any kitchen.

Here is pictured a typical Monel Metal sink. It not only looks clean and attractive now—it will retain that cleanly attractiveness.

For Monel Metal always looks new and bright. It is easily cleaned, durable and strong, rust-proof and corrosion-resisting.

The kitchen is only one place where Monel Metal may be used to advantage. Let us give you complete information about Monel Metal so that your data files may be complete.

SEND FOR “LIST B” OF MONEL METAL AND NICKEL LITERATURE

Monel Metal is a technically controlled Nickel-Copper alloy of high nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company. The name “Monel Metal” is a registered trade mark.
Swimming Pool Chlorination Is The Most Satisfactory Method Of Disinfection

 FROM all available information the addition of chlorine . . . . by the use of proper apparatus, is today the most satisfactory method of pool disinfection"—so states the report of the Joint Committee of State Sanitary Engineers and American Public Health Association after five years careful study.—And the report goes on to tell why—because of the residual sterilizing action of chlorine.

Higher endorsement could not be had.

We will be glad to send a copy of this report on request.

Liquid chlorine and W&T apparatus sterilizes over five billion gallons of drinking water every day.

"SWIM IN DRINKING WATER"

"The only safe water is a sterilized water"

WALLACE & TIERNAN

COMPANY, INCORPORATED

Manufacturers of Chlorine Control Apparatus

NEWARK - NEW JERSEY

NEW YORK CHICAGO KNOXVILLE SAN FRANCISCO MINNEAPOLIS PITTSBURGH DALLAS KANSAS CITY

LOS ANGELES SEATTLE ST. LOUIS BUFFALO HARRISBURG INDIANAPOLIS DETROIT

WALLACE & TIERNAN, LTD., TORONTO, CANADA

WALLACE & TIERNAN, LTD., LONDON, ENGLAND
Standard Conveyors Help to Sell Machinery, Tools and Shop Supplies

It will be admitted that prompt service to customers does make and hold them.

A little better discount from list, a neater package, and various other details serve to impress the customer with the high standard of the firm he buys from.

Here is shown a Standard Spiral Chute working for C. A. Strelinger, Detroit, Michigan, dealers in machinery, tools and shop supplies. There is no power used, save gravity, to operate it. Strelingers, therefore, can divide this saving with their customers. No elevator operator is needed to bring merchandise down to the shipping or delivery department. Strelingers can divide this saving with their customers.

No power used, save gravity, to operate it. Strelingers, therefore, can divide this saving with their customers.

There is no delay in filling an order. Repair parts, tools, or supplies that are located somewhere above come promptly and directly to the exact spot when and where wanted. Strelingers can offer this service to their customers.

The man on floor three who fills orders, keeps stock and has charge of Dept. A or D receives an order, fills it—puts it on the spiral and forgets it. At the other end of the spiral it is taken off and despatched by mail, express, truck, or freight without loss of time. Neither the man at the top of the spiral nor the one at the bottom has lost a bit of time by waiting, walking unnecessarily, or passing the time of day with the elevator man. This bit of prompt attention Strelingers can offer their customers.

Standard Spirals do help sell machinery, tools, and shop supplies. They also help sell hardware, automobiles, wholesale groceries, newspapers, coal, and a myriad of other things that are in bundles, packages, boxes or loose. What about your client? Gravity is the cheapest power known! Why not see if he has a place for it? An analysis of the Strelinger job will be sent on request to any architect who is interested.

Standard Gravity Roller Conveying Systems are especially adapted to solving conveying conditions in machine shops and plants. We would like to tell you about some of the conveying problems solved with Standard Roller Conveying Systems.
Mr. George B. Hopper,  
President, 
Ven Guilder System, 
15 East 40th Street, 
New York City. 

Dear Mr. Hopper:—

I am glad indeed to advise you of the success that we had in using Van Guilder double-wall forms in the construction of the change-room at our Cement Mill, New Village, New Jersey.

This building is one story, 60 ft. by 30 ft., by 12 ft. high, concrete building, built for the purpose of providing the workmen with lockers, shower-baths, toilets, etc., and was constructed by our own men without any previous experience in using your forms. Each of the double walls are 6" thick, leaving the usual air space of 2 1/2" and the roof was poured with concrete using metal forms, and covered with tar and paper.

The cost of building the walls, as far as I can determine, was approximately two-thirds the cost of constructing monolithic concrete by our own forces. The windows and doors were framed and cast right into the walls as they were being poured, and we find that the building is exceedingly cool in summer time, and while we have not yet used it in winter, we believe it will be very easily heated.

Our management at the mill likes the method of construction so well that practically all of our wall construction in the future for buildings and curtain walls will be done with your forms.

The writer also built a two-car garage for himself at his home in South Orange, 20 x 20 ft., inside walls being 10 ft. high and having walls 6" thick. This work was done by two Italian boys who have had some little experience in concrete work, but they had no difficulty whatever in putting up the walls in about a day without shelf-walls, again casting the windows and doors into the well that practically all of our wall construction in the future for buildings and curtain walls, will be done with your forms.

The writer also built a two-car garage for himself at his home in South Orange, 20 x 20 ft., inside walls being 10 ft. high and having walls 6" thick. This work was done by two Italian boys who have had some little experience in concrete work, but they had no difficulty whatever in putting up the walls in about a day without shelf-walls, again casting the windows and doors into the well that practically all of our wall construction in the future for buildings and curtain walls, will be done with your forms.

Van Guilder System Concrete Building  
17 East 40th Street 
New York 

The Van Guilder Wall-builder shown in place on walls is filled with semi-wet concrete and tamped. Lever indicated by arrow is then lifted, which collapses the center core and expands the outside plates, thereby freeing the concrete on all sides. The wall-builder is then instantly slid forward.

Very truly yours,

Read This Expert's Opinion On Wallbuilder Construction

Double, monolithic, concrete walls are answering the architect's demand for integral insulation. They are providing the most practical insulating medium known—a 2 1/2" continuous air space—at a cost no greater than that of ordinary masonry construction. Furring, lathing and scratch coat plaster are eliminated, so thoroughly damp-proof are these walls.

Van Guilder System Concrete Building  
17 East 40th Street 
New York 

The Van Guilder Wall-builder shown in place on walls is filled with semi-wet concrete and tamped. Lever indicated by arrow is then lifted, which collapses the center core and expands the outside plates, thereby freeing the concrete on all sides. The wall-builder is then instantly slid forward.

Since the capitol of a great state is built but once, it is absolutely necessary that it embody every detail of the latest and most advanced equipment. Because of this, the architect of the Nebraska State Capitol specified The Spencer Central Cleaning System, already installed and in successful operation in public buildings of every sort—in Independence Hall; the State Capitols of Connecticut, Utah, Missouri, Texas, Oklahoma and others; Hospitals, Libraries, Municipal Buildings, Hotels, Theatres, Churches, Large Residences, Schools, Office Buildings, Department Stores;—in structures of every possible type where it is necessary that absolute cleanliness be maintained by use of apparatus which is strong, reliable, noiseless and economical, qualities among others belonging to The Spencer Central Cleaning System.

The Spencer Turbine Company 
Hartford, Conn.

See Our Page in the Fall Edition of Sweet's Catalogue
Above: The well-known Stroh Building in Detroit. At left: View of the motor-driven Jennings Pump and Returns Tank on the return line of the heating system.

Jennings in Stroh Building, Detroit

In the Stroh Building, Detroit, as in most other fine office buildings in the country, a Jennings Vacuum Heating Pump is depended on for removing the condensation and air from the return line heating system. For the exacting service customarily encountered in buildings of this character, Jennings Pumps are a logical choice. They give to the heating system a flexibility which makes it capable of delivering the heat where and when it is wanted. Jennings-equipped systems start up quickly in the morning. They can supply heat to the farthest radiator as easily as to the one nearest the boiler.

Bulletins, prices and recommendations on request.

NASH ENGINEERING COMPANY
SO. NORWALK CONNECTICUT


Jennings Pumps
RETURN LINE AND AIR LINE VACUUM PUMPS
CONDENSATION AND CIRCULATING PUMPS
Visualize a STERILIZING Room Free From Hissing Steam

More than 100 Hospitals have been equipped completely with SUPER-KNY PRESSURE STERILIZING APPARATUS and RECESSED CABINETS during the past year.

THERE IS A REASON.

More than thirty-five years of satisfactory service has earned for our apparatus a reputation for unexcelled supremacy.

The Super-Kny Automatic Controls for the Electric Current, High Pressure Steam lines and gas, make possible the Sterilizing Room free from hissing steam and vapor.

Our EJECTORS eliminate the necessity for a vapor vent to roof.

Catalogues and Roughing-in cheerfully furnished gratis. A. I. A. No. 35-K.

The KNY-SCHEERER Corp.
OF AMERICA
America’s largest Manufacturer of Hospital Equipment

119-125 Seventh Avenue (Dept. 30) New York, N. Y.

These savers of space will appeal to your sound judgment.

Many newly built schools have entirely omitted separate cloakrooms and depend solely on Wilson Hygienic Wardrobes. Others have abandoned the out of sight, poorly ventilated cloak rooms and now use the Hygienic Wardrobe because of the space saved.

One that is perfectly ventilated and sanitary and that can be enlarged when necessary.

If one of you would like to talk wardrobes one of us would like to talk with you. Or we will send you catalog No. 3.

The J. G. WILSON Corporation
11 East 38th Street, New York City
Offices in all Principal Cities
IN THE WORLD'S LARGEST OFFICE BUILDING
STALLS AND WAINCOTING IN ALL WASHROOMS OF THE
GRAYBAR BUILDING A MASTERPIECE IN MODERN
ARCHITECTURE ARE OF
VITROLITE
THE MODERN SANITARY SLAB MATERIAL
SLOAN & ROBERTSON ARCHITECTS

WRITE FOR BOOKLET SHOWING NEW VITROLITE TOILET CONSTRUCTION

THE VITROLITE COMPANY
SALES REPRESENTATIVES

ATLANTA CLEVELAND LOS ANGELES PHILADELPHIA SPRINGFIELD MASS. HONOLULU MONTREAL
Baltimore COLUMBUS MIAMI PITTSBURGH ST. LOUIS JOMANNESBURG OSAKA
Boston DALLAS MINNEAPOLIS PORTLAND TAMPA LONDON
Brooklyn DENVER NEW ORLEANS PROVIDENCE WASHINGTON SAN JUAN
Buffalo DETROIT NEW YORK SAN FRANCISCO MELBOURNE SHANGHAI
Cincinnati KANSAS CITY OMAHA SEATTLE MEXICO CITY

133 W. WASHINGTON ST. CHICAGO

THE VITROLITE COMPANY
FACTORY PARKERSBURG, W.V.A.

BUFFALO DENVER PROVIDENCE SPRINGFIELD TORONTO
Like a bit of Normandy
is DUBOIS ~ ~ so quaint,
so picturesque.

The architect of this lovely home on
the New Jersey coast has carried out
the thought and feeling of the original
Norman type clear through to service
wing and garage. To have used an
ordinary fence for screening purposes
would have introduced an incongruous
note. So he chose Dubois, the charm-
ing and very practical fence that has
been used for centuries in France, and
got privacy and authenticity.

Dubois is made of straight, live, chestnut sap-
lings, woven closely together. Comes in two
heights, 4ft. 11in. and 6ft. 6in. Easy to erect.

DUBOIS
Woven Wood Fence
Imported from France solely by
ROBERT C. REEVES CO., 187 Water Street, New York

Cottages, Farmhouses and Other Minor Buildings
In England of the 16th, 17th and 18th Centuries
By LOUIS CONRAD ROSENBERG

Of all the architectural types,
that most appropriate
for American domestic
use is often thought to be
that of the old English
cottage or farmhouse.
It can be easily
developed in materials
of almost every kind;
it possesses wide flexi-
bility as to scale, and
the character of its
fenestration provides
the ample wall spaces
which many designers
highly value for their
architectural effect.
Its interior is readily
developed to provide
the rambling type of plan which is popular for country or
suburban domestic buildings, and all in all, the English
farmhouse or cottage answers every demand made by the
modern home builder in the search for a practical type.

There are also given countless detailed working drawings of
doorways; oriel windows; gables; chimneys, singly or
grouped in stacks; decorated plaster; half-timber work;
fireplaces and cornices. A book invaluable to the architect.

ROGERS & MANSON COMPANY 383 Madison Avenue, New York
The Garbage Problem is settled forever in ALDEN Park Manors

The Alden Park Manors of Brookline, Mass., and Philadelphia, Pa., are noteworthy contributions to American apartment house architecture. Every detail of interior finish and equipment is in keeping with the best modern practice. The garbage nuisance was banished once and for all—and a big step taken thereby in assuring tenant satisfaction. The sanitary, convenient Kernerator was installed to displace foul smelling, inconvenient garbage cans.

No operating expense

All waste is dropped into handy hopper doors on floors above and falls to the brick combustion chamber in the basement. An occasional lighting (a match does it) ignites the air-dried accumulation. No gas, coal or other fuel is necessary.

All new homes and apartment buildings deserve this modern time-tried convenience. Your clients will welcome the suggestion.


KERNER INCINERATOR COMPANY
715 EAST WATER ST. MILWAUKEE, WIS.

KERNERATOR
THE CHIMNEY-FED INCINERATOR
"Garbage and Waste Disposal" without Leaving the Kitchen.
Let a “Chicago Flush-Kleen” Do That Disagreeable Task

The distasteful task of cleaning a strainer basket on a Sewage Ejector is no longer necessary. Illustration shows the Chicago “Flush-Kleen” Dry Basin Sewage Ejector unit. The “Flush-Kleen” entirely eliminates the old-fashioned strainer basket.

Let our Bulletin No. 126 tell you more about this splendid new unit based upon the “Flow-Reversal” method.

“Flush-Kleen” Dry Basin Sewage Ejectors are now in use in the Saenger Theatre, New Orleans; The Rome School, Rome, New York; and the Merchants and Manufacturers Building, New York City. Simplicity in construction of the “Flush-Kleen” strainer has been proven in the above installations where not a moment’s trouble has been experienced.

Ask for Bulletin 126 — Gladly furnished upon request

CHICAGO PUMP COMPANY

SEWAGE-CONDENSATION-CIRCULATING
BILGE-FIRE-HOUSE-VACUUM

OFFICE AND WORKS: 2316 WOLFRAM STREET :: :: CHICAGO, ILLINOIS

Italian Origin, with the convenience of double-hung sash

Windows must be useful. The utility of double-hung sash depends upon the quality of the sash cord. Architects are meeting this requirement by specifying

SAMSON SPOT SASH CORD

SAMSON CORDAGE WORKS
88 BROAD STREET Boston, Mass.
In the new
St. Rita School for the Deaf


(Left to right) American Underdriven Extractor, Automatic Thermo-Vento Dryer and Prim Presses

American 6-Roll Flat Work Ironer and Cascade Washer

ABOVE is another example of a satisfied user of "American" laundry equipment — another institution to add to our long list.

Regularly in the laundry of the St. Rita School, you’ll find great bundles of bedding, linens, and clothes being washed spotlessly clean in the American Cascade Washer, dried in the Automatic Thermo-Vento, and ironed on the Prim Presses or the 6-Roll Flat Work Ironer.

And because this work is quickly handled, fewer sheets, fewer linens, and fewer clothes are needed. Always a ready supply on hand, for all the laundry of the institution is done in the institution.

The St. Rita laundry was entirely designed and installed by "American" engineers.

If you have a laundry problem, we shall be glad to give you the benefit of our wide experience. Just drop us a post card, and we’ll do the worrying.

At Your Service... a corps of laundry specialists

The American Laundry Machinery Company maintains a corps of engineers who have gained wide experience in planning and equipping most of the country’s hotel, commercial, and institutional laundries. If you have any questions pertaining to modern laundry practice, you will find consultation with these specialists advantageous. This service is gladly offered you without any obligation whatever.

THE AMERICAN LAUNDRY MACHINERY COMPANY
Norwood Station, Cincinnati, Ohio

THE CANADIAN LAUNDRY MACHINERY CO., LTD.
47-93 Sterling Road, Toronto 3, Ont., Canada

Agents: BRITISH-AMERICAN LAUNDRY MACHINERY CO., LTD.
Underhill St., Camden Town, London, N.W. 1, England
KALMAN Screed Chairs make striking off concrete slabs a fast, accurate, and easy job. The chairs open to specified slab thickness and are quickly set at proper intervals on the forms. Then the leveling pipes are laid across them. After the concrete is poured the job is finished by pulling the screed boards across the leveling pipes. The resulting slab is of specified thickness and uniform level throughout. The leveling pipes are easily withdrawn without displacing any of the concrete. And the Kalman Screed Chairs stay in. There is no time lost—no unnecessary labor—no unnecessary costs.

It will be easier to see for yourself how Kalman Screed Chairs can insure accurate thickness and uniform level with fewer hands. Just mail us your name and address. We will send you a sample without obligating you in any way.

KALMAN STEEL COMPANY, 1462 Wrigley Bldg., Chicago
STRENGTH AND ECONOMY FROM CLINTON WELDED FABRIC

Clinton Welded Fabric will contribute to the strength and permanence of Langner & Baer's beautiful 31 story Park Central Apartment Hotel being erected at 56th Street and 7th Avenue, New York City.

The Melrose Concrete Co., that laid the flooring, know that both economy and strength would result from the use of Clinton Welded Fabric. And this is why:

It comes in rolls of sufficient length to be laid quickly and accurately in unbroken strips through all spans of the building from one side to the other. No laborious and costly respacing of loose members is necessary.

The intersections are electrically welded in a union as strong or stronger than the original wire. There are no clips, loops or twistings to interfere with the even flow of the concrete. Each group of wires is in line with the principal stresses and a homogeneous unit of tremendous strength results.

The Wickwire Spencer Steel Company itself mines the ore and makes the steel from which it manufactures Clinton Welded Fabric. High quality is safeguarded at every step.

Send for our catalog containing useful information.

WICKWIRE SPENCER STEEL COMPANY
41 East Forty-second Street    New York City

WICKWIRE SPENCER PRODUCTS
SAVOY HOTEL
Under Construction in Detroit

Owners
R. L. SPITZLEY and PAUL KAMPER
Architect, LOUIS KAMPER
Associate Architect, PAUL KAMPER
Plumbing Jobbers, MURRAY W. SALES CO.

Plumbing Contractors
R. L. SPITZLEY HEATING CO.

Being equipped throughout with the

Watrous
Flush Valve

THE Watrous Flush Valve promotes
correct sanitation and
prevents water waste
by delivering the exact
quantity of water re-
quired by the bowl with
which it is used. A
thorough flush is assured without expending more
water than is necessary. The regulating port which
determines the flow is very easy to adjust, and is
prevented from clogging by automatic, self-cleans-
ing mechanism which clears itself of foreign matter
in the water whenever a flush takes place.

When the Watrous Flush Valve is installed in
combination with the Watrous Duojet Closet, the
water-saving is much augmented, as the latter
requires only a very limited supply of water for
a thorough flush and refill. Also, its design avoids
the danger of clogging.

Write for full details on the
Watrous Flush Valve and Duojet Closets to

PLUMBING DIVISION
Watrous Flush Valves—Duojet Closets—Self-Clos-
ing Basin Clocks—Combination Lavatory Fixtures
—Pop-Up Wastes—Liquid Soap Fixtures—etc.

THE IMPERIAL BRASS MFG. CO.
1238 West Harrison Street
Chicago

BRANCH SALES OFFICES
W. E. Blair, Jr., care Coronado Hotel, St. Louis, Mo.
R. J. Shank, 724 Grand Ave., Des Moines, Ia.
Continental Sales Co., 924 Metropolitan Life Bldg.,
Minneapolis, Minn.
Charles S. Anderson, 6614 Mine Lusa Ave., Omaha, Neb.
Wm. P. Horn Co., 237 Rialto Bldg., San Francisco, Cal.
L. C. Coombs, Rm. 506, 110 W. 11th St., Los Angeles, Cal.

ANNOUNCING

THE PFAUDLER
ALUMINUM
LAUNDRY CHUTE

Supplementing the glass-lined laundry chute and the steel
dust chute, The Pfaudler Company now offers an Aluminum
Chute that will meet every financial consideration.

Built under the same careful supervision you are assured the
same high quality workmanship. This chute is constructed
of 1/16" aluminum shell with 3/4" throat cylindrically rolled
and riveted with counter sunk aluminum rivets. Flanged ends
are joined by aluminum bolts, securely packed with
"Pfaudlerite" gaskets, which makes a watertight connection.

To provide additional strength and durability a glass-lined
steel elbow is furnished for the bottom of the chute that
will withstand the severest jobs caused by falling linen.

Detailed specifications furnished
upon request

THE PFAUDLER COMPANY
Laundry Chute Division, ROCHESTER, N. Y.

THE PFAUDLER ALUMINUM LAUNDRY CHUTE

G. To provide additional strength and durability a glass-lined
steel elbow is furnished for the bottom of the chute that
will withstand the severest jobs caused by falling linen.

Detailed specifications furnished
upon request

THE PFAUDLER COMPANY
Laundry Chute Division, ROCHESTER, N. Y.

G. To provide additional strength and durability a glass-lined
steel elbow is furnished for the bottom of the chute that
will withstand the severest jobs caused by falling linen.

Detailed specifications furnished
upon request

THE PFAUDLER COMPANY
Laundry Chute Division, ROCHESTER, N. Y.
McKinley High School
CANTON, OHIO

February 12, 1926.

The Duriron Company,
Dayton, Ohio,

Gentlemen:

We very much appreciate your letter of February 9th, and the way you have cooperated with us. The literature will be of great deal of value to the department.

It isn’t necessary to remind us that we have Duriron traps and fittings in our laboratory desks.

Before we had them about a third of my time was spent in calling the janitor to mop up the floor and moving my students to desks that did not leak. For the last two years, while I have had the Duriron, there has been no trouble, and we are not looking forward to any. It is a great relief.

The solution for which you asked is Mr. Carl E. Bow. I’m not nearly the master to him, now that we have Duriron, that I used to be.

Sincerely,

James B. Clark
McKinley High School
Chemistry Department

A new argument for Duriron acid-proof drain pipe and laboratory equipment.

It increases teaching efficiency!

The DURIRON COMPANY
DAYTON, OHIO
MAY IT BE THE HAPPIEST YOU AND YOURS HAVE EVER KNOWN AND MAY THE COMING YEAR BRING ABUNDANT PROSPERITY.
THE home of National Metal Molding Company is Economy, Pennsylvania, near Ambridge, where an entire town is actively interested in the production of National Wiring Products.

All National men take this opportunity to extend hearty Holiday Greetings and to wish you a most successful New Year.
A wise Investment—A well placed Trust!

WHAT structures require better equipment than buildings such as these—built, as they were, to serve for years and years as monuments to civic interest and civic pride?

Far famed architects and engineers, schooled in the selection of quality equipment, specified only dependable materials—for civic pride and the necessity of endurance allowed little opportunity for the consideration of any other factor than quality of the highest degree. These masters of their art specified "NATIONAL" Pipe along with the other dependable equipment—because they considered it a wise investment—a well placed trust.

To those interested in the advantages and use of "NATIONAL" Pipe in fine buildings, we offer Bulletin No. 25—"NATIONAL" Pipe in Large Buildings.

NATIONAL TUBE COMPANY, PITTSBURGH, PA.
District Sales Offices in The Larger Cities
How Reuben N. Trane's Vision Revolutionized Heating

—the story of today's outstanding success in the heating industry

Less than a year ago, the announcement by Reuben N. Trane of a new type of heating unit, created a sensation in the heating field. The trade was waiting for this achievement and quickly responded. Over 1200 orders poured in almost over night—before a single sample had been sent out.

The overwhelming success of Trane Heat Cabinets is founded on simple principles, known to all heating men and now applied by Reuben N. Trane in a practical way to produce better, quicker heating and more beautiful rooms.

Write today, let us send complete information regarding this revolutionary change in heating methods.

THE TRANE COMPANY
ESTABLISHED 1885
LA CROSSE WISCONSIN

TRANE HEAT CABINETS
Successors to the Radiator
First Choice for the Big Heating Installations

The Baker Building, Minneapolis, is typical of large modern buildings in which Trane Bellows Traps and Trane Bellows Packless Valves are specified by leading architects and engineers. Here, 527 Trane Traps and 495 Trane Valves were used in the main building, together with 43 Trane Traps and 42 Trane Valves in the garage shown at the left of the picture.

Long experience has taught the heating world that Trane equipment can be depended upon for continuous, efficient operation on the largest projects. A Trane job is right—or Trane makes it right. Every unit is fully guaranteed.

Write for Bulletin 14.
What Makes a Good Swimming Pool?

A swimming pool may be beautifully designed and built. It may have all of the lure of blue water and sparkling white tile. But the real determining factor of its success is the water.

If the water in a pool is not properly sterilized, sickness and infections may result. And if it is sterilized with biting chemical germicidals the users run the chance of smarting eyes and similar discomforts.

Here is a way to assure the success of the pools you design and also do away with the unpleasantness of biting chemicals: Specify R-U-V Ultra Violet Ray Sterilizers on the water inlets or recirculating systems.

By this method, powerful ultra violet rays, produced by quartz mercury vapor lamps, penetrate each drop of water that enters the sterilizers — and instantly kill all harmful bacteria. In addition these rays set up a residual germicidal action that keeps water pure after it is in the pool.

And the R-U-V Sterilizer is easy to operate, because the action is practically automatic. There is no dosage to regulate. The bactericidal action is always positive and unavoidable. And the chemical composition isn't changed in the least.

If you are interested in providing such water for your pools — water that feels just like Nature intended it to feel and is pure enough to drink — write for our latest swimming pool booklet. It contains a number of illustrations and descriptions of typical R-U-V installations.

James B. Clow & Sons
201-299 No. Talman Ave.
Chicago, Ill.
A heating boiler may be of approved design, the piping layout correct, the radiation ample, but still the comfort and convenience to be derived from the system can be marred by an unreliable or poorly constructed valve.

The design of the Jenkins Fig. 700 Modulating Valve combines several features that aid in keeping good heating at its best.

It is a valve for low-pressure steam, vapor, and vacuum heating, differing from present-day modulating valves in principle of design, affording improvements that make it the most efficient valve for heating radiators.

These are some of its advantages:

Has a Jenkins Rubber Composition Disc and always seats perfectly; scale and core sand cannot lodge on seat, because the seat is vertical, not horizontal.

No water-hammer, gurgling, or shock, because steam entering radiator is not retarded by returning condensation.

Vacuum is under disc, not on top of it, with no loss of vacuum when valve is closed.

No hexagons, but beads or ribs instead which conform closely to grip of pipe wrench, thereby preventing marring of valve when it is being installed.

Special bonnet construction to prevent leakage around spindle.

The valve is made of bronze, nickel plated. \( \frac{3}{8} \) -inch size, suitable for 100 square feet of radiation.

We shall be pleased to have a Jenkins Service Representative submit a sample for your inspection. You incur no obligation in making this request.
December, 1926

Everlasting Hard Rubber Seats

A hinge that holds forever!

Molded in one lasting piece, an Evernu Hard Rubber Seat will last forever—there's practically no wear-out to it.

But what of the hinge? That, too, will last forever without the slightest loosening of its vice-like grip. The pure hard rubber takes a steel-like thread. Even after a lifetime of service the hinge will be as firm as the day it was installed—will get tighter as the steel lugs "freeze" into rubber. This is a bar hinge of the concealed type and is extra heavy. A check is provided on seats without lids to prevent the seat from falling back against the valve, wall or tank. There is no metal on the top or bottom of the seat.

The regular equipment is nickel plated, cast brass. However, architects may, if they wish, specify white metal hinges. On all Evernu Hard Rubber Seats without a cover a check hinge is used unless otherwise specified.

The Evernu Guarantee is unconditional. The hard rubber is impervious to acids and cleansers and is unaffected by steam and low temperature. There is a model for every type of bowl.

In public lavatories, where use and abuse are hardest, the Evernu is proving its greater durability and greater economy.

Write today for a catalog and cross section of an Evernu Seat.

NEVER SPLIT SEAT COMPANY
Dept. 1212, Evansville, Indiana, U.S.A.

THE LARGEST MANUFACTURERS OF TOILET SEATS IN THE WORLD!
Santa likes a quiet house

Santa cares about quiet on Christmas Eve. But the home owner and his family insist upon it the year 'round. Noisy plumbing is out of date. Leaking, gurgling, sleep-destroying faucets are taboo. Hundreds of modern-minded architects and builders specify Mueller Faucets, for they know that Muellers give the kind of service home owners desire. Sixty-nine years of quality manufacturing methods are behind Mueller dependability.


MUeller Faucets
faucets without a fault
Battery of Excelso Water Heaters Connected to Steel Type Heating Boiler

Typical installation for large apartment houses and other larger types of buildings where large amounts of hot water are required.

Excelso Water Heater Connected to Square Type of Heating Boiler

Storage tank can be installed in a horizontal or vertical position either in the basement or floor above.

Excels-Heater Used to Pre-heat Fuel Oil

Typical installation for oil burning apparatus. Reduces carbon and noise, and assures better combustion.

Battery of Excelso Water Heaters Connected Up for Larger Requirements

The Excelso Water Heaters are shown cross connected with coal water heater so that either or both may be used.

Heating Water with Live Steam

The Excelso Water Heater is used very extensively for heating water and other liquids by means of steam either with or without thermostatic control. Connect steam into the shell and circulate water through the copper coil. Suitable for steam pressure up to 50 lb. Reducing valve is used where pressure is higher.

Installation for Heating a Garage by Means of Hot Water from a Steam or Vapor Boiler Located in Residence

This method of heating a radiator in a garage or other place is very successful. Consult us on any special installation and send complete details.

Typical Installations

Tear this page out
For Your File

EXCELSO SPECIALTY WORKS, INC.
6g Clyde Ave., Buffalo, N. Y.
The "Te-pe-co" Integral China Mixing Chamber with the Single-stream Integral Nozzle eliminates exposed metal above the slab.

The water enters from both sides of the overflow into the Te-pe-co Integral China Mixing Chamber before discharging through the Integral Nozzle.

### TE-PE-CO

**Integral Supply Lavatory**

The Te-pe-co Integral China Mixing Chamber with Single-stream Integral Nozzle is the most sanitary supply fixture that can be furnished. It makes it possible to wash in running water thoroughly tempered in the mixing. This Integral China Mixing Chamber is exclusively Te-pe-co. It is what makes our integral nozzle lavatory superior to others, since its construction checks the flow of water and thoroughly mixes hot and cold. The result is a splashless stream of water of ample volume and properly tempered.

Many of our country's finest hotels and other buildings have installed this type of Te-pe-co Lavatory along with our other All-Clay Plumbing Fixtures. Every natural, mechanical, chemical and financial resource available is utilized to build one unvarying quality—the best—into this Te-pe-co Ware.

THE TRENTON POTTERIES COMPANY

Trenton, New Jersey, U.S.A.

New York  Boston  Philadelphia  San Francisco


Rickley Memorial Hospital  Springfield, Ohio  Langdon-Hobbs & Cram, Archt.

For millions of monotonous, work-filled, worry-ridden lives, the doors of the motion picture theater swing open into a land of no-matter-how-impossible dreams. Into the unfettered thrill of bold adventuring, the silken couches of languorous luxury, the soft music of love in spring, the elusive light of beauty, and the lure of far romance.

To create a setting worthy of the dream, architects who specialize in theater building, prosaically plan. An exterior promising unaccustomed delight; foyer, auditorium, and retiring rooms worthy of princess and hero on holiday; nothing anywhere dismaying the precious, fugitive illusion.

To such planning, Crane plumbing fixtures, valves and fittings have been found to be exceptionally well adapted. Graceful lines of fixtures fitting harmoniously into the decorative scheme; valves and fittings mechanically perfect and trouble free; leave no flaw to break the delicate thread.
The Madbury Lavatory—a type for each particular bathroom

The Maddock "Madbury" Lavatory of Durock is the last word in beauty, convenience, cleanliness and durability.

The larger illustration shows the pedestal style; the smaller, the leg style. Both are identical in every detail except the method of support. Because the leg style costs less to manufacture, it may be furnished at a somewhat lower price than the pedestal style; also it may be supplied, if desired, in a smaller size.

Both styles are made of all white Durock, including trimmings. Durock will not chip, crack, craze nor discolor.

The "Madbury" is the only lavatory made with a self-cleansing overflow, insuring complete sanitation. Hot and cold water, mixed to any desired temperature, is directed to the center of bowl in a single stream. There is a large square bowl with anti-splash rim.

Durock lavatories remain new indefinitely. They can always be kept spotlessly clean by merely wiping with a damp cloth.

Write us for as many copies as you can use of our booklet, "Maddock Bathrooms". They will help you "sell" clients on quality fixtures, and make them more appreciative of such fixtures when recommended. There will be no charge for the booklets.

THOMAS MADDOCK'S SONS COMPANY
Oldest Sanitary Potters in America
Trenton, N. J.

DUROCK
the perfect material for bathroom equipment
is stain proof

IODINE is often dropped on the lavatory basin. It will leave an indelible stain on ordinary coated ware but can be readily wiped off of a Durock lavatory.

Durock cannot be stained.
All details of various types of shower installations are shown in this catalog

You really should have this Speakman catalog in your files. It is made up especially to give you the information you need most when planning the bathroom. Not only are various types of Speakman Showers illustrated and described in detail, but illustrations of Speakman bath and lavatory fixtures are included as well. In sending for the Speakman loose-leaf catalog, use the coupon if more convenient.

SPEAKMAN COMPANY, Wilmington, Delaware

SPEAKMAN SHOWERS and FIXTURES

SPEAKMAN COMPANY. Wilmington, Del.
Please send me your catalog H in loose-leaf form; also reprints of your eleven pages in Sweet's Architectural Catalog, 1925-26 edition.

Name:

Address:

Firm:

In this folder data are given regarding "Bishopric Sunfast Finish," which is being widely used throughout America with good results. Used for the finishing coat of a new house or for renovating a one already built, it gives the color which adds to the interest and attractiveness of any building. "Sunfast" is practical because it can be applied quickly over any exterior brick, cement, concrete or stucco wall. It mixes readily and easily, spreads quickly and forms a permanent coating. Dampness in the air serves to increase the setting and adhesive powers of "Sunfast," instead of retarding them as in the case of oil finishes. "Sunfast" is a permanent, dampproof coating of great bonding power. It comes as a dry powder in an air-tight metal drum, and is mixed only with water at the building site. This folder gives illustrations of many buildings stucco coated.


One extremely important detail of the work of public health departments is to have with the purifying of the water supplies. Securing water for a large city is likely to involve far more of a problem than is usually supposed. Few cities can draw their water from a fresh water lake, as is done by Chicago, and generally a vast area is required for the collecting of water, and the water when secured must be treated before it is put into the homes where it is used. This brochure is one of a series issued by the Wallace & Tiernan Co., Inc. in which various phases of public health engineering are discussed. The booklet deals with the sterilization of water supplies, the disinfecting of sewage and the proper care of bathing pools, and the relation of all these to public health. The work is a valuable treatise on water supply.


During the early days of the use of "concrete masonry" the complaint was often made that buildings so constructed were wanting in grace of design. They sometimes seemed to possess a certain awkwardness which was not found in structures built of other materials—of brick or wood, for example. That this disadvantage has been overcome and that architects have learned to use the material is abundantly proved by the illustrations in this brochure devoted to building by these methods. It presents illustrations of houses, chiefly of small or medium sizes, from almost every section of the country, built of concrete blocks, brick, stone and stucco, with interesting textures by the stucco applied to the concrete masonry walls. Many of these houses are extremely good, as to both design and plan, and with several of them (particularly with those most strongly marked as to style) there are given small illustrations of the textures used upon them for surfacing walls.


This folder describes the well-known "Clinton Colors," specified by architects and used by builders and contractors since 1887. With them an almost unlimited variety of effects can be obtained in colored stucco, colors used singly or in various pleasing combinations. Their use involves no real difficulty or disappointments if specifications furnished by the manufacturers are followed with care. Color combinations harmonizing with various surroundings can be had all the way from tones of a soft and subdued warmth, appropriate for a home, up to rich and vivid hues suitable for use where the advertising value of striking novelty is sought. Irregularity effects multi-colored effects in stucco work are becoming increasingly popular, evidenced by the large number of cases where the sweep of the trowel is emphasized and its traces lend an added interest. Houses built in a Spanish type of architecture, theaters, pavilions, stores and other buildings, all provide interesting and practical subjects for the use of single or multi-colored stucco, as is being found in many parts of the country.
That important new fixture
—the KOHLER ELECTRIC SINK

Not since Kohler introduced the "Viceroy" built-in bath have architects been given the opportunity to work with a new plumbing fixture so important in its possibilities as the Kohler Electric Sink.

Here is, at last, the modern sink, incorporating the perfected electrical dishwasher. It is a fixture as beautiful as it is efficient—with a well-nigh irresistible aesthetic and practical appeal for every woman.

The Kohler Electric Sink is made in models suitable for all home and apartment installations. You are invited to write for full particulars.

KOHLER CO., Founded 1873, KOHLER, WIS.
Shipping Point, Sheboygan, Wis. • Branches in Principal Cities

KOHLER of KOHLER
Plumbing Fixtures
LEHIGH PORTLAND CEMENT CO., Allentown, Pa., and Chicago. "Building Better Homes."

The publications of the Lehigh Portland Cement Co. are useful and valuable to architects and builders largely because they deal in a practical way with the fundamentals of the use of concrete masonry. In this brochure they are reviewed some of the results of the competition held in the fall of 1925 for designs of moderate cost, fire-safe houses of Portland cement concrete masonry, the designs received being published in the booklet "Twenty-eight Better Homes." Four of the prize-winning designs have been actually built by the Lehigh Portland Cement Co., in New York, Chicago, Kansas City, and Birmingham, Ala., and the purpose in issuing this brochure is to illustrate to those interested the methods used in these instances and the excellent results obtained. The booklet is lavishly illustrated with views,—of the sites before the buildings were begun; views taken at different stages of building; views of the completed houses, showing their different elevations; and views also of the interiors, fully furnished. There are also given the specifications used for the houses, the quantities of materials used for at least one house, and the actual costs of the houses built in Chicago, Kansas City and Birmingham, all being useful data.

RODDIS LUMBER AND VENEER CO., Marshfield, Wis. "Roddis Doors for Hospitals." An important work on doors.

Architects who build hospitals and convalescent homes know that doors for such buildings differ in certain respects from those used in structures of other types. This booklet is designed to show which had its beginning in hospital uses. Disinfectants, scientific ventilation, proper dieting, clean and sanitary rooms, and other contributions to the betterment of public health and living conditions had their first employment by hospitals; so did flush doors. Although now used extensively in buildings of other natures, the flush door remains primarily a hospital door. The Roddis X-ray Door is a specialized contribution to hospital equipment. To the eye, the door has the same beauty of appearance as the standard Roddis door, but in the center of the door is placed a thick, continuous sheet of lead. This is bolted in place securely with lead-covered bolts. On the outside are the usual two layers of veneer, the surface veneer being finished as wanted. This X-ray door was designed by an architect of long experience in hospital designing, who desired to get away from the customary heavy, awkward and unsightly lead door used for X-ray rooms. It can be furnished in any desired size and finish, and with lead armament sufficient for any situation.


In this brochure there are explained and illustrated the most recent developments reached by this concern in its sewage ejector pumps. The booklet is devoted to the "Flush-Kleen," regarding which it says: "The strainer itself consists of a cast iron screen 18 inches in diameter. This screen is of l-inch mesh and is enclosed in a special cast iron housing. The screen is of a different type than has been heretofore used on centrifugal ejectors, and it operates upon a unique principle. This principle is the reversal of flow of water through the screen. The strainer chamber is placed in the ejector pit between the inlet and the pump casing. This means that all sewage entering the wet basin must first pass through this strainer, then through the pump and into the basin. When the water rises in the wet basin to a predetermined height, the switch is closed. The pump starts and reverses the flow of water, pumping the water out of the wet basin, through the strainer and into the sewer. All solids and foreign matter collected by the screen are carried into the sewer by this outflow of water. The velocity of the water flowing out of the pump and through the screen is great. It is from four, to five times the velocity of the water entering the wet basin."


The building in practically every new house of at least one wood-burning fireplace and the extensive re-fitting for use of many old fireplaces which years ago were "bricked up" have brought a demand for a substitute when a fireplace does not exist. Happily an excellent substitute is not difficult to obtain, for the "Franklin stove," named after its inventor in 1742 and widely used during colonial and post-colonial times, is being well reproduced. It adds to the comfort and cheer given by an open fire the practical heating advantages of a stove, which of course gives to the room where it stands the heat which the actual fireplace would send up the chimney. This particular folder lists and illustrates a few of the fine Franklin stoves offered by this well known firm,—old examples carefully reproduced, together with the andirons, fire irons, etc., which go with them.

Harkness & Lockyer announce the opening of new offices for the practice of architecture at Gulfport, Miss.

C. L. Hutchisson announces his removal from 400 State Office Building to 209 Staples-Powell Building, Mobile.

Louis G. Lestremp, architect, Borden Block, Fall River, Mass., wishes to secure the services of a draftsman who has had five or six years' experience.

C. William Swanson would appreciate the catalogs and other publications issued by manufacturers, mailed to him at 21 High Street, Pawtucket, R. I., where he has opened an office for the practice of architecture.

The Builders' Association, Railway Exchange Annex, Kansas City, desires the catalogs and other publications issued by manufacturers of building materials. The Association maintains a service bureau for the use of architects, engineers, contractors, builders, and others interested.

Wanted: A man to call on the architects in the interests of a nationally known manufacturer of high quality enamels, wall coatings and varnishes. An acquaintance with architects and their problems and also an acquaintance with the materials used in building construction are required. Address, giving full particulars, Pratt & Lambert, Inc., 393 Freeman Avenue, Long Island City, N. Y.

The librarian of the Alabama Polytechnic Institute is anxious to secure copies of THE ARCHITECTURAL FORUM for December, 1925 and March, 1926, to complete his files. He would appreciate hearing from anyone having these copies for disposal. Communications should be addressed to Frederic Child Biggin, Head Professor of Architecture, Alabama Polytechnic Institute, Auburn, Ala.

VAN RENSSELAER P. Saxe, C.E.
Consulting Engineer

STRUCTURAL STEEL
CONCRETE CONSTRUCTION

Knickerbocker Building
Baltimore
Permanent!

The concrete floors of this Washington Country Club will never dust or wear

There will never be any dusty, worn-out concrete floors in the Congressional Country Club in Washington. Mr. M. Serretto, the Washington contractor, recently treated all the concrete floors in this building with Lapidolith. He knew that this floor hardener would permanently guarantee floors that are dustproof, water-proof, and wearproof.

Lapidolith is a liquid chemical. This compound can be applied as easily as water, and dries overnight. It is remarkable how quickly Lapidolith penetrates the porous cement, fills in the voids and binds the concrete particles together. It changes even an old concrete floor surface into a dense, smooth structure that is as wear-resisting as granite.

Lapidolith has been used by leading architects and contractors for more than fifteen years. Lapidolith is used by the Campbell Soup Company, Fisher Body Company, Ford Motor Company, Standard Oil Companies, Swift and Company, Kresge Stores, McCrory Stores and many others that are equally well known. We will gladly send you samples and literature that will give you more complete information about this product.

Other Sonneborn Products

CEMCOAT—A paint that stays white longer than any similar paint; can be washed again and again; sticks to brick or concrete as easily as to wood; and usually requires one less coat. Made for both interiors and exteriors in white and colors, and in gloss, eggshell, or flat enamel finish.

STORMTIGHT—The famous semi-liquid compound for mending and preserving roofs. This thick, adhesive, rubberlike material can be applied by anyone, over any kind of roof, and it gives a tight new surface that lasts for years. Mends one leak or waterproofs an entire roof surface.

HYDROCIDE—A complete line of water-proofing and damp-proofing products for walls, copings, foundations, etc. There is a special Hydrocide for each class of use. For instance, on exterior walls Hydrocide Colorless retains the natural beauty of the wall.

LIGNOPHOL—A preservative dressing for wood floors that penetrates and restores the natural oil and gum of the wood. Lignophol prevents rotting, drying out, and splintering; it is not sticky; it can easily be washed; and does away with ordinary floor oils.

Send for free sample of any of these products

L. Sonneborn Sons, Inc.

114 Fifth Ave., New York City
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acme Brick Company</td>
<td>8</td>
</tr>
<tr>
<td>Adam Electric Company, Frank</td>
<td>120</td>
</tr>
<tr>
<td>ABKadesale Chandelier Mfg. Co.</td>
<td>8</td>
</tr>
<tr>
<td>Aluminum Co. of America</td>
<td>92</td>
</tr>
<tr>
<td>American Blower Company</td>
<td>173</td>
</tr>
<tr>
<td>American Cement Tile Mfg. Co., 4th Cover</td>
<td>25</td>
</tr>
<tr>
<td>American Clay and Brick Tile Co.</td>
<td>24</td>
</tr>
<tr>
<td>American Face Brick Association</td>
<td>24</td>
</tr>
<tr>
<td>American Laundry Machinery Co.</td>
<td>191</td>
</tr>
<tr>
<td>American Radiator Company, 21, 160, 165</td>
<td>15</td>
</tr>
<tr>
<td>American Seating Company</td>
<td>81</td>
</tr>
<tr>
<td>American Sheet and Tin Plate Co.</td>
<td>110</td>
</tr>
<tr>
<td>American Stove Company</td>
<td>126</td>
</tr>
<tr>
<td>American Walnut Mfrs. Ass’n</td>
<td>72</td>
</tr>
<tr>
<td>Anchor Post Iron Works</td>
<td>102</td>
</tr>
<tr>
<td>Appalachian Marble Company</td>
<td>2</td>
</tr>
<tr>
<td>Armor Metal Construction Company</td>
<td>156</td>
</tr>
<tr>
<td>Artistic Lighting Equipment Ass’n</td>
<td>48</td>
</tr>
<tr>
<td>Atley Company</td>
<td>157</td>
</tr>
<tr>
<td>Atlantic Insulated Wire &amp; Cable Co.</td>
<td>128</td>
</tr>
<tr>
<td>Austral Window Co.</td>
<td>159</td>
</tr>
<tr>
<td>Automatic Electric Company</td>
<td>151</td>
</tr>
<tr>
<td>Bakelite Corporation</td>
<td>1</td>
</tr>
<tr>
<td>Barber Asphalt Co.</td>
<td>150</td>
</tr>
<tr>
<td>Barrett Company, The</td>
<td>109</td>
</tr>
<tr>
<td>Bearladesale Chandelier Mfg. Co.</td>
<td>8</td>
</tr>
<tr>
<td>Beaver Products Co., Inc.</td>
<td>5</td>
</tr>
<tr>
<td>Billings-Chapin Co., The</td>
<td>38</td>
</tr>
<tr>
<td>Bird and Son, Inc.</td>
<td>82</td>
</tr>
<tr>
<td>Black Co., The George W</td>
<td>73</td>
</tr>
<tr>
<td>Bonded Floors Company</td>
<td>73</td>
</tr>
<tr>
<td>Brasco Manufacturing Co.</td>
<td>121</td>
</tr>
<tr>
<td>Bull Dog Floor Clip Co.</td>
<td>190</td>
</tr>
<tr>
<td>California White and Sugar Pine Mfrs. Ass’n</td>
<td>149</td>
</tr>
<tr>
<td>Carver Company, The Philip</td>
<td>145</td>
</tr>
<tr>
<td>Carney Company</td>
<td>145</td>
</tr>
<tr>
<td>Carter-Bloxonend Flooring Company</td>
<td>31</td>
</tr>
<tr>
<td>Chase Metal Construction Company</td>
<td>156</td>
</tr>
<tr>
<td>Coltex Company, The</td>
<td>137</td>
</tr>
<tr>
<td>Chamberlin Metal Weather Strip Co</td>
<td>155</td>
</tr>
<tr>
<td>Chicago Pipe Co.</td>
<td>25</td>
</tr>
<tr>
<td>Chromium Corp. of America</td>
<td>23</td>
</tr>
<tr>
<td>Circle A Products Corporation</td>
<td>58</td>
</tr>
<tr>
<td>Clinton Metallic Paint Co</td>
<td>44</td>
</tr>
<tr>
<td>Clay &amp; Sons, James B</td>
<td>143</td>
</tr>
<tr>
<td>Coldak Corporation</td>
<td>32, 33</td>
</tr>
<tr>
<td>Columbus Mills, Inc.</td>
<td>63</td>
</tr>
<tr>
<td>Common Brick Mfrs. Ass’n</td>
<td>10</td>
</tr>
<tr>
<td>Compound &amp; Pyromo Door Co. The</td>
<td>22</td>
</tr>
<tr>
<td>Concrete Engineering Co., The</td>
<td>177</td>
</tr>
<tr>
<td>Congress-Nairn, Inc.</td>
<td>19, 28</td>
</tr>
<tr>
<td>Corbin, P. &amp; F.</td>
<td>55</td>
</tr>
<tr>
<td>Cornell Iron Works, Inc.</td>
<td>106</td>
</tr>
<tr>
<td>Crane Company</td>
<td>207</td>
</tr>
<tr>
<td>Crittall Casement Window Company</td>
<td>154</td>
</tr>
<tr>
<td>Curtis Companies</td>
<td>98</td>
</tr>
<tr>
<td>Cutler Mail Chute Co.</td>
<td>110</td>
</tr>
<tr>
<td>De Long Furniture Co.</td>
<td>79</td>
</tr>
<tr>
<td>Dixon Cruleich Co., Joseph</td>
<td>113</td>
</tr>
<tr>
<td>Dunham Company, C. A.</td>
<td>163</td>
</tr>
<tr>
<td>Durston Co., The</td>
<td>195</td>
</tr>
<tr>
<td>Egyptian Lacquer Mfg. Co.</td>
<td>90</td>
</tr>
<tr>
<td>Elder Company Mfrs. Ass’n</td>
<td>216</td>
</tr>
<tr>
<td>Excelso Specialty Works</td>
<td>205</td>
</tr>
<tr>
<td>Fairbanks, Morse &amp; Co.</td>
<td>178, 179</td>
</tr>
<tr>
<td>Federal Cement Tile Company</td>
<td>42</td>
</tr>
<tr>
<td>Flexlume Corporation</td>
<td>35</td>
</tr>
<tr>
<td>Flink Co., Inc., The</td>
<td>130</td>
</tr>
<tr>
<td>Fulton Company, The</td>
<td>169</td>
</tr>
<tr>
<td>Georgia Marble Company, The</td>
<td>36</td>
</tr>
<tr>
<td>Gillis &amp; Geoghegan</td>
<td>116</td>
</tr>
<tr>
<td>Glidden Company, The</td>
<td>86</td>
</tr>
<tr>
<td>Globe Ventilator Company</td>
<td>162</td>
</tr>
<tr>
<td>Goder Incoercional Company</td>
<td>44</td>
</tr>
<tr>
<td>Gorham Company, The</td>
<td>120</td>
</tr>
<tr>
<td>Grauer, Albert &amp; Co.</td>
<td>107</td>
</tr>
<tr>
<td>Graybar Electric Company</td>
<td>37</td>
</tr>
<tr>
<td>Gustavino Company, R.</td>
<td>72</td>
</tr>
<tr>
<td>Guth Company, Edwin F</td>
<td>129</td>
</tr>
<tr>
<td>Hanley Company, Inc.</td>
<td>9</td>
</tr>
<tr>
<td>Harrington Company, Joseph</td>
<td>168</td>
</tr>
<tr>
<td>Hart &amp; Hegeman</td>
<td>123</td>
</tr>
<tr>
<td>Hartmann Sanders Co.</td>
<td>98</td>
</tr>
<tr>
<td>Hassell Co., John</td>
<td>56</td>
</tr>
<tr>
<td>Houseman Co., The E. F.</td>
<td>57</td>
</tr>
<tr>
<td>Heas Warming &amp; Ventilating Co.</td>
<td>162</td>
</tr>
<tr>
<td>Hillig Mfg. Co</td>
<td>112</td>
</tr>
<tr>
<td>Hockenbury System, Inc., The</td>
<td>148</td>
</tr>
<tr>
<td>Hocking Valley Products Co.</td>
<td>26</td>
</tr>
<tr>
<td>Hope &amp; Sons, Henry</td>
<td>158</td>
</tr>
<tr>
<td>Illinois Engineering Company</td>
<td>215</td>
</tr>
<tr>
<td>Imperial Brass Mfg. Co., The</td>
<td>194</td>
</tr>
<tr>
<td>Improved Office Partition Company</td>
<td>68</td>
</tr>
<tr>
<td>Indiana Limestone Quarryman’s Ass’n</td>
<td>100, 101</td>
</tr>
<tr>
<td>International Heater Co.</td>
<td>164</td>
</tr>
<tr>
<td>International Nickel Co</td>
<td>181</td>
</tr>
<tr>
<td>Jacobson Mantel &amp; Ornament Co</td>
<td>82</td>
</tr>
<tr>
<td>Jacobsen and Company</td>
<td>82</td>
</tr>
<tr>
<td>Jenkins Bros</td>
<td>202</td>
</tr>
<tr>
<td>Johnson Service Company</td>
<td>117</td>
</tr>
<tr>
<td>Johnson Co., S. T.</td>
<td>166</td>
</tr>
<tr>
<td>Kalman Steel Company</td>
<td>192</td>
</tr>
<tr>
<td>Kaeowner Co., The</td>
<td>120</td>
</tr>
<tr>
<td>Kelsey Heating Company, The</td>
<td>176</td>
</tr>
<tr>
<td>Kensington Mfg. Co., The</td>
<td>189</td>
</tr>
<tr>
<td>Kerner Incinerator Co., The</td>
<td>189</td>
</tr>
<tr>
<td>Kewanee Boiler Company</td>
<td>71</td>
</tr>
<tr>
<td>Kewanee Private Utilities Co</td>
<td>110</td>
</tr>
<tr>
<td>Kewanee Mfg. Co</td>
<td>176</td>
</tr>
<tr>
<td>Keystone Roofing Mfg. Co</td>
<td>111</td>
</tr>
<tr>
<td>Kay-Scheerer Corporation of America</td>
<td>186</td>
</tr>
<tr>
<td>Kohler Company</td>
<td>211</td>
</tr>
<tr>
<td>Lehigh Portland Cement Company</td>
<td>50, 51</td>
</tr>
<tr>
<td>Long Bell Lumber Co., The</td>
<td>95</td>
</tr>
<tr>
<td>Louisville Cement Co</td>
<td>41</td>
</tr>
<tr>
<td>Ludowici-Celadon Company, The</td>
<td>108</td>
</tr>
<tr>
<td>Lupton’s Sons Co., David</td>
<td>159</td>
</tr>
<tr>
<td>Macbeth-Evans Glass Co</td>
<td>132</td>
</tr>
<tr>
<td>Maddock’s Sons Co., Thomas</td>
<td>208</td>
</tr>
<tr>
<td>Maple Flooring Manufacturers’ Ass’n</td>
<td>96</td>
</tr>
<tr>
<td>Martin Varnish Co.</td>
<td>94</td>
</tr>
<tr>
<td>Mason Fibre Company</td>
<td>43</td>
</tr>
<tr>
<td>McKinney Mfg. Company</td>
<td>53</td>
</tr>
<tr>
<td>Midwest Air Filters, Inc.</td>
<td>180</td>
</tr>
<tr>
<td>Milwaukee Corrugating Co.</td>
<td>6</td>
</tr>
<tr>
<td>Mississippi Wire Glass Co</td>
<td>102</td>
</tr>
<tr>
<td>Moulding Brick Co., Thos.</td>
<td>28</td>
</tr>
<tr>
<td>Mount &amp; Robertson, Inc.</td>
<td>56</td>
</tr>
<tr>
<td>Mueller Company</td>
<td>204</td>
</tr>
<tr>
<td>Murphy Door Bed Co., The</td>
<td>80</td>
</tr>
<tr>
<td>Murphy Varnish Company</td>
<td>89</td>
</tr>
<tr>
<td>National Company for Better Plastering, The</td>
<td>25</td>
</tr>
<tr>
<td>National Lead Company</td>
<td>91</td>
</tr>
<tr>
<td>National Metal Molding Co.</td>
<td>196, 197</td>
</tr>
<tr>
<td>National-Mortar &amp; Supply Co., 12, 13</td>
<td>12</td>
</tr>
<tr>
<td>National Radiator Company</td>
<td>161</td>
</tr>
<tr>
<td>National Steel Fabric Co.</td>
<td>46</td>
</tr>
<tr>
<td>National Terra Cotta Company</td>
<td>18</td>
</tr>
<tr>
<td>National Tube Co.</td>
<td>198</td>
</tr>
<tr>
<td>Nelson Corp., The H. W.</td>
<td>170</td>
</tr>
<tr>
<td>Never Split Seat Coating</td>
<td>203</td>
</tr>
<tr>
<td>North Western Expanded Metal Co.</td>
<td>5</td>
</tr>
<tr>
<td>Norton Company</td>
<td>105</td>
</tr>
<tr>
<td>Otis Elevator Company</td>
<td>44</td>
</tr>
<tr>
<td>Paine Lumber Co., Ltd.</td>
<td>98</td>
</tr>
<tr>
<td>Palmer Lime &amp; Cement Company</td>
<td>34</td>
</tr>
<tr>
<td>Peck Paint Company</td>
<td>83</td>
</tr>
<tr>
<td>Peerless Unit Ventilation Co., Inc.</td>
<td>175</td>
</tr>
<tr>
<td>Pfeudler, Co., The</td>
<td>194</td>
</tr>
<tr>
<td>Pick &amp; Company, Albert, J. E.</td>
<td>24</td>
</tr>
<tr>
<td>Pratt &amp; Lambert, Inc.</td>
<td>93</td>
</tr>
<tr>
<td>Ramp Buildings Corporation</td>
<td>11</td>
</tr>
<tr>
<td>Raymond Concrete Pile Company</td>
<td>3</td>
</tr>
<tr>
<td>Reeves Company, Robert C.</td>
<td>188</td>
</tr>
<tr>
<td>Reichmann &amp; Sons, M.</td>
<td>83</td>
</tr>
<tr>
<td>Richards Wilcox Mfg. Co., 2nd Cover</td>
<td>96</td>
</tr>
<tr>
<td>Ritter Lumber Co., W. M.</td>
<td>96</td>
</tr>
<tr>
<td>Rookwood Pottery Company, The</td>
<td>102</td>
</tr>
<tr>
<td>Ruberoid Co., The</td>
<td>106</td>
</tr>
<tr>
<td>R. U. V. Co., Inc., The</td>
<td>201</td>
</tr>
<tr>
<td>Samson Cordage Works</td>
<td>190</td>
</tr>
<tr>
<td>Sandusky Cement Company, 3rd Cover</td>
<td>56</td>
</tr>
<tr>
<td>Sanyang Products Co., The</td>
<td>56</td>
</tr>
<tr>
<td>Sargent &amp; Company</td>
<td>75</td>
</tr>
<tr>
<td>Schumacher &amp; Co., F.</td>
<td>133</td>
</tr>
<tr>
<td>Sellers &amp; Sons Company, G. I.</td>
<td>77</td>
</tr>
<tr>
<td>Sherwin-Williams Company, The</td>
<td>119</td>
</tr>
<tr>
<td>Sloan, W. &amp; J.</td>
<td>74</td>
</tr>
<tr>
<td>Smith Co., The F. H.</td>
<td>180</td>
</tr>
<tr>
<td>Smith &amp; Egge Mfg. Co., The</td>
<td>176</td>
</tr>
<tr>
<td>Sonseborn Sons, Inc., L.</td>
<td>63</td>
</tr>
<tr>
<td>Speikman Company</td>
<td>209</td>
</tr>
<tr>
<td>Spencer Heater Company</td>
<td>174</td>
</tr>
<tr>
<td>Spencer Turbine Company, The</td>
<td>184</td>
</tr>
<tr>
<td>Standard Conveyor Co.</td>
<td>183</td>
</tr>
<tr>
<td>Stanley Works, The</td>
<td>54</td>
</tr>
<tr>
<td>Straus &amp; Co., S. W.</td>
<td>134</td>
</tr>
<tr>
<td>Toch Brothers</td>
<td>92</td>
</tr>
<tr>
<td>Todhunter, Arthur</td>
<td>82</td>
</tr>
<tr>
<td>Trans Company, The</td>
<td>199, 200</td>
</tr>
<tr>
<td>Trenton Pottery Company, The</td>
<td>206</td>
</tr>
<tr>
<td>Tri-Lok Company, The</td>
<td>39</td>
</tr>
<tr>
<td>Turner Construction Company</td>
<td>76</td>
</tr>
<tr>
<td>Tuttle &amp; Bailey Mfg. Co.</td>
<td>76</td>
</tr>
<tr>
<td>United States Gutta Percha Paint Co</td>
<td>87</td>
</tr>
<tr>
<td>United States Gypsum Company</td>
<td>45</td>
</tr>
<tr>
<td>United States Radiator Corp.</td>
<td>169</td>
</tr>
<tr>
<td>United States Rubber Co.</td>
<td>192</td>
</tr>
<tr>
<td>Universal Portland Cement Co.</td>
<td>66</td>
</tr>
<tr>
<td>Van Guilder System Concrete Bldg., Inc.</td>
<td>184</td>
</tr>
<tr>
<td>Valentine &amp; Company</td>
<td>85</td>
</tr>
<tr>
<td>Van Range Co., John</td>
<td>127</td>
</tr>
<tr>
<td>Van Zile Ventilating Co.</td>
<td>162</td>
</tr>
<tr>
<td>Vitrolite Company, The</td>
<td>187</td>
</tr>
<tr>
<td>Vortex Mfg. Company</td>
<td>40</td>
</tr>
<tr>
<td>Wallace &amp; Tierman, Inc.</td>
<td>182</td>
</tr>
<tr>
<td>Warmen-Cook</td>
<td>84</td>
</tr>
<tr>
<td>Warren Webster &amp; Co.</td>
<td>47</td>
</tr>
<tr>
<td>Wasmuth-Endicott Company</td>
<td>84</td>
</tr>
<tr>
<td>Wellston Iron Furnace Company, The</td>
<td>167</td>
</tr>
<tr>
<td>Western Pine Mfg. Association</td>
<td>96</td>
</tr>
<tr>
<td>Wickwire Spencer Steel Co</td>
<td>191</td>
</tr>
<tr>
<td>Wilde Company, W. B.</td>
<td>172</td>
</tr>
<tr>
<td>Williams Oil-O-Matic Manufacturing Co.</td>
<td>49</td>
</tr>
<tr>
<td>Wilmot Castle Co.</td>
<td>49</td>
</tr>
<tr>
<td>Wilson Engineering Co., The</td>
<td>46</td>
</tr>
<tr>
<td>Woodville Lime Products Co.</td>
<td>30</td>
</tr>
<tr>
<td>Young Pump Company</td>
<td>122</td>
</tr>
<tr>
<td>Zapon Company, The</td>
<td>88</td>
</tr>
<tr>
<td>Zentherm Company</td>
<td>78</td>
</tr>
<tr>
<td>Zouri Drawn Metals</td>
<td>15</td>
</tr>
</tbody>
</table>
"A Concern is known by the Companies it keeps"

ILLINOIS ENGINEERING CO.
Inter-Office Correspondence

Chicago, Nov. 1, 1926.

Gentlemen:

Among October sales, we note orders from or for the following Corporations:

- American Can Co.
- American Express Co.
- American Shipbuilding Co.
- American Fork and Hoe Co.
- Armour & Company,
- Swift & Company,
- Standard Oil Co. of California,
- Standard Oil Co. of Ohio,
- Pure Oil Company,
- Sinclair Oil Company,
- Dupont Company,
- E. I. Du Pont de Nemours Co.
- Corn Products Refining Co.
- National Biscuit Company,
- A. G. Spaulding & Bros.,
- National Lead Company,
- National Fireproofing Co.,
- Wurlitzer Company,
- Battle Creek Sanitarium,
- Libbey Glass Company,
- Barber Asphalt Company,
- New Jersey Zinc Company,
- Simonds Saw Company,
- Dodge Mfg. Company,
- Central Mfg. Company,
- City of Cleveland,
- Cook County, Illinois,
- City and County of San Francisco,
- Crane Company,
- Walworth Company,
- Pacific Telephone and Telegraph Co.,
- General Fire Extinguisher Company,
- Rockwood Sprinkler Company,
- B. F. Sturtevant Company,
- Minnesota Steel Company,
- C. R. I & P. Ry.,
- I. C. R. R.,
- C. M. & St. P. R. R.,
- C. St. P. W. & O. Ry.,
- New York Central R. R.,
- Bessemer and Lake Erie R. R.,
- A. T. & S. F. R. R.,
- Reading R. R.,
- Pullman Company,
- Nash Motors,
- Packard Motor Car Company,
- Willard Storage Battery,
- Electric Storage Battery,
- Atwater Kent Company,
- Delco Light Company,
- Fisher Body Company,
- Great Western Power Co.,
- So. Indiana Gas and Electric Co.,
- No. Indiana Power Company,
- Commonwealth Edison Company,
- Interstate Power Co.,
- Va. Western Power Co.,
- New York Steam Co.,
- Ohio Edison Company,
- Florida East Coast Hotels Co.

This list made up from a single month's business, reads like a selection of the New York Stock Exchange list, and it is very gratifying to know that the merit of our products is so generally recognized by such Corporations.

The above is tangible evidence of our unusual success, our products not only stay sold, without service, but one sale nearly always leads to repeat orders.

Yours very truly,

ILLINOIS ENGINEERING COMPANY.

By

RLG-S

REPRESENTATIVES IN 40 CITIES OF U.S.A.

ILLINOIS ENGINEERING COMPANY
ROBT. L. GIFFORD President
INCORPORATED 1900
CHICAGO
And each with its own set of Problems

When space limitations placed on the size of the bathroom present a problem of arrangement and choice of fixtures, the answer will be found in an Eljer catalog.

Among a number of special designs to fit such a condition is The Franklin Lavatory, No. 197, with a 17" x 22" slab. This beautiful fixture of vitreous china (as fine as that used in French table china) provides the same size bowl usually found with a 24" slab. It not only saves space but pocket-books as well, for it costs no more than ordinary ware of the same bowl size.

Familiarity with Eljer fixtures in their various special as well as staple designs, will often prove both a time and money-saver. A catalog will be gladly forwarded at once.

Plants at Ford City, Pa.
and Cameron, W. Va.

Eljer China is similar in texture to the finest French Table China—but with the added toughness necessary to withstand rough usage. Acid-proof and rust-proof.
It's So Easy to Specify Medusa

TURN to Sweet's and use the Medusa Catalogs there. Medusa White Cement, Pages 341 to 349; Medusa Waterproofing, Pages 118 to 121.

You'll find these to be accurate, time saving aids to you or your specifications writer.

Specifying Medusa becomes an easy task and your work will receive the protection of permanence in its final form.

We will gladly supplement the information in Sweet's with our own catalogs. The Medusa Pool Book and the Medusa Concrete Products Book would prove of interest to you. May we send copies?

THE SANDUSKY CEMENT COMPANY
The Engineers' Building CLEVELAND, OHIO
Manufacturers of Medusa White Portland Cement, (Plain and Waterproofed); Medusa Waterproofing (Powder or Paste); Medusa Gray Cement (Plain and Waterproofed); and Medusa Cement Paint.
"CEMENTILE" comes in three types; Red Interlocking for pitched roofs; Flat and Channel for flat or pitched roofs where it is desired to waterproof with a composition covering. "CEMENTILE" is laid directly on the roof purlins.

"CEMENTILE" Roofs on Ten Different Ford Plants

Certainly this is a record which speaks well for Cementile—as anyone will recognize who is familiar with the rigid standards which the Ford Motor Company insist upon. These installations called for a total of 2,000,000 square feet of this permanent, fire-safe roofing.

Cementile was specified on these ten Ford plants because experience has proven Cementile safe, permanent, and economical—Cementile takes the maintenance out of roofing.

Leading architects know the value of Cementile. Careful buyers like the Ford Motor Company are sold on Cementile for permanent low-cost roofing. You should know the facts about Cementile, too. Write for the Cementile Catalog—today.

American Cement Tile Manufacturing Company

1201 Oliver Building
PITTSBURGH, PENNA.

OFFICES: Pittsburgh ~ New York ~ Philadelphia ~ Birmingham ~ Atlanta