Few of us realize that the Parthenon, the Odeum, the Propylaea of the Acropolis, the Sanctuary of the Mysteries, and many other great buildings of ancient Athens with their masterpieces of sculpture and decorative arts which have set the standard of classic perfection down to the present generation, were created and fully completed in the heyday of a single administration of forty years' duration. Down to the time of the Caesars the great work of the Periclean age had a preeminence over all Rome's attempts at splendor, both in conception and grandeur, which precludes comparison.

Once the Romans were in full sway, however, the gigantic scale of their construction enterprises surpassed in magnitude of plan and engineering skill the remotest dream of Ancient Greece. In engineering skill alone, aside from any aesthetic consideration, the noble proportions of the great Roman baths with their scientifically controlled rooms of varying temperatures, the huge aqueducts, roadways, and stadia for the multitude reach a state of organized development comparable with the present age of activity.

The Greeks were masters of detail, while the Romans were masters of organization. Both civilizations have left an indelible mark in their work.

No doubt we excel the ancients in the speed with which we build, but we must go back to Imperial Rome with its engineering skill and organized effort to find a parallel to our own active time, when individual effort and exactness of expression must either keep abreast with the schedule of construction or fall by the wayside. Speed and organization has become a mania with us, and in the pursuit of this one aim we are often apt to forget that the lasting works of man which have lived through the ages, expressing the highest aspirations and beauty of a people, their customs and their time, are the efforts and results of the individual.

Fortunate, indeed, is the architect of ability who has time to devote to study and development of his work before actual construction is begun. For it is a
View from Grant Park

THE STRAUS BUILDING, CHICAGO, ILL.
Graham, Anderson, Probst & White, Architects
well founded precept that deftness and speed in working do not impart to the work an abiding weight of influence nor an exactness of beauty, whereas the time that is put out to loan in laboriously creating pays a large and generous interest in the preservation of the creation.

Once actual construction is begun it is too late to meditate. Then it is a case of creating in haste or falling back for deliverance into the merciful arms of precedent—which offers the line of least resistance—and playing the game safe for all that is in it.

Our one truly American contribution to architecture is the skyscraper with its romance of steel, elevators, and great heights. Here is a modern problem offering something new far removed from the cry of Ancient Greece or Rome. Will the future generation look back with approval at our solution of this all-inspiring opportunity?

The Straus Building, Chicago, recently completed at a cost of approximately $12,000,000, sets a high standard in building construction, adhering to an established uniformity of design and frankly acknowledging the accepted classic forms in the architectural expression of practical requirement. This structure, which calls for the extensive use of fine marbles, stone, and bronze—richly carved and wrought from well prepared drawings and models, provides opportunity for the arts which elaborate and work up these materials.

It does not aspire toward originality—it remains a symbol of force and power proclaiming aloud its costliness and solidarity of purpose. The net result is assurance of permanence with “Chicago scale,” bearing all the attributes of a vigorous city of affairs successfully wooed by the ancient glory of Imperial Rome.

Its broad architectural form is decidedly Roman in character, although here and there one finds a touch of Greek detail or Renaissance ornament.

Following the Aristotelian precept of a beginning, middle, and end in its design, the exterior treatment begins with the circular arched banking room windows acting as a base for the super-imposed shaft of office floor space above, crowned by a colonnade for the top stories. The tower portion extends through in like theme, stepping back in the shape of a pyramid which culminates in a huge beehive.

Entrance to the office part of the building is frankly subordinated to the monumental banking room entrance occupying the central arch of the Michigan Avenue front. Richly carved bas-reliefs flank the subdued marble portal which, with its beautifully modelled and executed bronze doors, framed in the deep set limestone archway rising from the sidewalk some forty feet to its crown, presents a striking example of contrasts effectively arrayed. Indiana Limestone is used for the entire exterior.

The store fronts with wide expansive display windows are set in delicately ornamented bronze frames with a rich cresting, purposely ignoring the supporting structural columns of the super-structure by an independent treatment giving maximum show space for rental purposes. A wide belt course carved with a Greek fret acts as a solid lintel above the glass window between the central arch and the corner piers, which alone are carried down in stone to the sidewalk. Nowhere is the importance of the banking room made secondary in consideration. Even the floor height of the stores is purposely kept low to avoid too great a rise to the main floor above.

The tower portion, rising to a height of 475 feet, contains the first office space in Chicago used for rental occupancy above the building height limit of 264 feet, thus making practical application of the new zoning ordinance, based on volume, which provides for additional space above the height limit not to exceed twenty-five per cent of the area of the premises and one-sixth the volume with a setback of one foot in ten from all lines of adjacent property.

Above the thirty-second story at the base of the beehive, 450 feet above the ground, are installed a complete set of cathedral chimes which sound the “Cambridge Quarters”; an exact counterpart of the Metropolitan Tower bells in New
Main Stairway

THE STRAUS BUILDING, CHICAGO, ILL.

Graham, Anderson, Probst & White, Architects

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THE STRAUS BUILDING, CHICAGO, ILL.
Graham, Anderson, Probst & White, Architects

[View Across Banking Room]
Bronze Door, Main Entrance

THE STRAUS BUILDING, CHICAGO, ILL.
Graham, Anderson, Probst & White, Architects
York City. The largest bell weighs three and one-half tons. The other bells weigh 3,000, 2,000 and 1,500 pounds respectively, graduated in size proportionately with the following dimensions:

<table>
<thead>
<tr>
<th>Bells</th>
<th>Diam. at Base</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1</td>
<td>5'10&quot;</td>
<td>4'8&quot;</td>
</tr>
<tr>
<td>No. 2</td>
<td>4' 5&quot;</td>
<td>3'8&quot;</td>
</tr>
<tr>
<td>No. 3</td>
<td>3'11&quot;</td>
<td>3'3&quot;</td>
</tr>
<tr>
<td>No. 4</td>
<td>3' 6&quot;1/2</td>
<td>2'1&quot;</td>
</tr>
</tbody>
</table>

These bells chiming the “Quarter” are automatically driven by an electric control master clock located directly beneath, which, in addition to playing a few bars of the famous Handel melody every fifteen minutes, sounds the full hours. While soft and rich in tone, the penetrating resonance of the bells is sufficient to be heard for miles under favorable conditions, achieving in this subtle manner valuable advertising.

At night the beehive is a beacon of light. Its external skin of heavy translucent glass reflects a gold tinge by day but at night it is illuminated from within by multicolored electric lights and flashes.

Modern building demands present ever increasing opportunity for giving play to the architect’s imagination and ingenuity, and call for the incorporation of mechanical devices at a costly outlay, the sole purpose being to attract public attention.

Every effort in this regard opens up a vein of creative endeavor which, if properly taken advantage of, will eventually reach the realm of art. Therefore, we pass by with tolerance the many attempts which leave our aesthetic sense cold for the sake of that surging idea pregnant with future promise which combines utility with the highest architectural art and skill.

The Straus Building was built primarily
to house a great financial institution dependent largely on the general public good will for support. Those entrusted with the design and execution of this huge structure were never once swayed by the emotion of the creative mind. They followed along the smooth path of accepted precedent, content to achieve a bigger, better, and more striking effect than the other fellow. The result is massive impressiveness, surpassing in grandeur and costliness any work of like character in Chicago. This impressiveness reaches its keynote in the grand banking room located on the second floor on the Michigan Avenue axis. A single revolving door separates the outside from the broad marble stairway leading by degrees to the sanctuary of finance above. Starting with a wide flight of six steps across the full width between side walls up to a landing, the main stairway divided by a polished bronze railing of Spanish-Italian influence gracefully rises to another landing about four feet below the main floor, where it divides into two short flights leading to the right and left. Hauteville walls, Tennessee marble floor and risers with touches of Belgian black are the materials employed. Suspended above this stairway is an immense lantern-like lamp finished in antique gold with crystalline panels suggestive of the opulence of a Doge's palace.

Upon reaching the top of the stairs one is suddenly struck by the orderly spaciousness of the huge Basilica-shaped banking room with symmetry, stateliness, and vigorous simplicity expressed in all the grand manner of Augustan Rome.
This room measures one hundred and seventy feet in length by one hundred and sixty feet in width, towering to a height of forty-five feet through three normal stories. Sixteen columns of the Corinthian order forty feet in height and four feet in diameter, support an ornamental coffered ceiling decorated in bronze and gold, with touches of Italian iridescent blue, reds, and greens. From the ceiling are suspended two chandeliers finished in antique gilt and bronze, each containing one hundred and thirty-two amber colored bulbs which shed a mellow light over the entire room. Beyond the lateral sides of the Colonnade, vaulted arches of massive proportions furnish a fitting background for the central treatment. These arches extend the full width of the room to the north, forming about the exterior windows, and are interrupted on the opposite side by a mezzanine serving offices and conference rooms against the elevator side. The ceiling between columns and arches is decorated with panels of a deep shade of blue bordered with a stenciled design in gold. Decorative cast bronze bracket lights of Italian design are placed on each of the piers supporting the arches.

On the center axis of the room seen through a vista of vaulted ceiling and flanking columns a large stained glass window measuring twenty-four feet in height by fourteen feet in width is set in the rear wall above the cages. This window, done in the Florentine style, shows a full-rigged ship of the sixteenth century at the center, with figures representing Art and Justice at either side, and a small scroll near the top bearing dates of the founding of S. W. Straus & Company, beginning of erection, and completion of the building. Large keys in the picture represent the keys to the vault. Pale amber tones predominate in the color scheme, with reds, blues and greens softly blended. Toward the end of day when daylight fails, special electric flood lights set back of the window bring out in subdued fashion the full coloring, figures, and design.

The principal materials used in the finish of the room are Hauteville marble, Travertine stone and Belgian black marble for the base lines and other trimmings. Railings on the bank floor and on the mezzanine balcony are of wrought and cast iron covered with gold leaf and then painted to give an antique effect.

The walls are treated in Travertine stone while the columns and the pilasters at the end
are of Hauteville marble. Column capitals are of Art marble and the central coffered ceiling is of pre-cast plaster imitation Travertine. The vaulted ceiling on the Jackson Boulevard side is in bas-relief depicting various phases of American history and development. Gold medallions placed above the arches along the north and south sides of the room represent the following coins from various cities of Ancient Greece.

I. Coin of the City of Thurium, showing the head of Pallas Athene, wearing a crested Athenian helmet.

II. Greek Tetradrachm, showing head of the youthful Heracles in lion skin.

III. Coin of the city of Naxos, showing a bearded man, with band around head.

IV. Coin of the city of Syracuse, the capital of the Greek colony in Sicily, showing head of Persephone surrounded by dolphins. She wears a wreath of corn leaves.

V. Coin showing the Lyre of Chalcidice. This coin of the Chalcidean League was struck at Olympus after B.C. 392 and before the time of Philip of Macedonia.

Centered on the bank floor is a platform for the use of salesmen, measuring forty-one feet by twenty-seven feet, slightly raised, and enclosed with railings of Travertine marble. This floor, carried out in polished Belgian black marble, presents a striking contrast to the light marble used in the main floor spaces. Just back of the salesmen’s island are the banking cages. Highly polished black Belgian marble is used up to the counter level of these cages, and the posts of the screens are of black and gold over metal.

Careful handling of material and uniformity of design are maintained throughout the whole of the building.

[For additional illustrations, see pages 417-423.]
HAVE you ever wanted a bit of iron work forged and desired to give your personal instruction to the craftsman? Perhaps you were fortunate enough to know or have someone recommend one of the older journeymen in a country village, or maybe a shop off the main highway, yet conveniently located to a well settled farming neighborhood, such as the one pictured on the following page.

There you found large doors swung wide, revealing a dimly lighted, smoky and dusty interior with cobweb rafters. From the cross beams hung row on row of iron shoes; odd parts of wagons and other farm implements stood propped along the walls; a wheel in the process of making or mending lay on the floor, the blacksmith meanwhile being fully occupied with the shoeing of a horse. His customer stood watching the fitting of the shoe, at the same time exchanging neighborhood gossip with the smith and other locals who had dropped in to pass the time of day.

In just such an atmosphere those old iron hinges and latches of Colonial days were made. No doubt a Jones, a Van Deusen or a Schuyler of that period went personally to the smithy to make known his wants much the same as is done today in our rural districts.

The blacksmith of olden days was an important personage and has been lauded in both Poetry and Song. In the early days of our America a village that did not boast a master of this craft was indeed sadly lacking. For not only was the smith’s work concerned with the shoeing of horse and ox, but with the repair of wagons and various implements of farm and mill; often, indeed, it included the making of these tools. Thus one can easily see that the fashioning of hardware fitments for the house in no way took prior place in the smithy.

At this period, iron was rarely used in the framing together of buildings. Timbers were generally hand hewn, mortised, tenoned and fastened together with oak pins, including the frames for doors and windows; even floor boards were fastened with wooden pegs. Some of the hinges, latches and bolts were fashioned in wood, others in leather. This would seem to indicate not only the scarcity of blacksmiths at that time, but also the scarcity and high cost of iron. That the latter was none too plentiful, is proved by a record which exists of the burning of an old building in order to obtain its nails and spikes.

We find many a strap hinge forged from old worn tire irons, a fact easily discerned by examining such pieces. Other bits of iron were heated, welded together and forged into a great variety of hardware fitments and household utensils.

In this lighter branch of his trade the Colonial smith often delighted in showing his ingenuity and skill to which the form and finish of many examples of this old iron work can testify.

In the early settled parts of our country where it has been my fortune to visit and observe these wares, I have always found examples of hinges and latches with arrow head, spear point, heart or bean shaped ends. These seem to be the common forms used without regard as to
whether the settlement was by the Dutch,
French or English, thus showing the in-
fluence of a mother school.

Many houses built in what is called
Colonial style lack in minor but im­
portant Colonial detail. If you would re­
store a house in the spirit of the old or
rebuild after a certain style, surely it is
only reasonable that such details as the
doors, windows, trim and hardwood fit­
ments should be designed and made to
represent faithfully the style chosen. Yet
in this respect little attention seems to
have been paid heretofore to the applica­
tion of hand forged hardware.

This style of Colonial hardware is gen­
erally found in the village and country
house, a few types of which are illus­
trated here. (See Pages 397-399). The il­
lustration on Page 400 suggests a modern
type to which the hardware is adaptable.

Within these houses we find wide board
floors and batten doors, the doors of the
more important rooms being generally
paneled. The ceilings are low, formed of
the wide boards of the floor above and
supported with heavy hand hewn beams,
spaced several feet apart. The fire-places
are of generous width, with high lintels
of wood or brick, and broad hearths paved
in brick and stone; occasionally the open­
ing of an oven shows at one side, or it
may be in the splay of the fire-place jamb.
The mantels are simple and often of
quaint design, with cupboards tucked
away in unexpected places.

In this environment of hand hewn,
hand mortised, hand planed—in other
words, hand made—wood work the hand-
forged iron work of the Colonial black­
smith finds a most companionable setting,
such as in the old frame farm house at
Woodstock shown on Page 399.

Examples of this old work are fast
disappearing, and it is to be regretted that
in the plates or works of reference for
the student of architecture that exist so
little information is given on the subject
of the hardware of the Colonial period.
For those desirous of adopting this style,
it is hoped the illustrations and remarks given in this short article will be helpful in the preparation of details for the proper application of the hardware fittings.

In many old houses as we find them to-day, the hinges and latches have already been removed from the doors in the more important rooms and replaced with modern rim locks and mortise butts, the ear-marks of the old hand forged latches and hinges showing under the paint. Perhaps only parts of the service wing and outbuildings still claim the original iron work fashioned by the blacksmith.

Colonial hardware in general was made to apply over a flat surface, and if you will examine the doors and frames of a house built eighty or more years ago, or note the measured detail drawings of old Colonial work, you will invariably find the doors and shutters fitted flush with the frame they set in, that is, the face of the door and at least a portion of the frame or casing is on the same plane, as illustrated in Fig. 1 on Page 403. Most of the frames were built of solid timber, three to four inches thick and six to ten inches wide, mortised, tenoned and held together at the corners with wooden pins. On one inside edge a rebate was cut to receive the thickness of the door so that when set in, it finished flush with the frame or casing. The hinges and latches were applied directly on the surface of these, and the strap or H & L hinge and the bar of the latch and bolt could lap over as required without a bend or offset. The heavy frames afforded a substantial fastening for the hinge pins, and the latch and bolt keepers, which were usually driven into the solid wood.

The same hardware may be applied to the modern built up frames of to-day if care is taken to have a stud set close to the finished jambs when being fitted in
place as shown in Fig. 1. When the opening is framed, a double stud is set plumb on the hanging side of jamb leaving a rough opening 2½ inches larger than the overall width of the finished jambs. As soon as the jambs are set and trued up a 2 x 4-inch stud is fitted close against the other finished jamb, thus giving both sides a solid backing or post to receive the hinge pins and latch keepers. Hinge pins and latch keepers mounted on plates may also be used; these are applied with screws and nails. In either case the essential requirement is, that a portion of the casing, at least 2 inches wide, shall be flat and on the same plane with the door to receive the hinges and latches without requiring special offsets or bends.

THE BATTEN DOOR AND ITS HARDWARE. The inside batten doors were usually made up of two wide hand planed boards of varying width, with a third and narrower board in between to make up the required width of door. The edges of this middle board were tongued and beaded. These were nailed to cross battens placed near top and bottom. Occasionally a door was made of one marvelously wide board, though this was rare. Some were made of two boards, but in the great majority of cases the typical Colonial batten door consists of three boards as above described. (See Figs. 2 and 10). The edges of the battens were usually beveled or finished with a bead, sometimes with a rule joint mould. The boards were fastened to the battens with hand-made nails clinched on the batten side. On the wider doors a third batten was placed across the middle of the door, as shown here. This also served as a lock rail to receive the latch handle.

In many cases on outside doors and shutters vertical stiles were applied between the battens along the outer edge of door or shutter, thus forming panels. In Fig. 4, the shutters are built of one wide board with panels formed on one side in this manner. Again in Fig. 7, we have the shutters with narrow vertical boards on the edges and a wide panel board in between—thus a panel could be
Living Room

Dining Room

RESIDENCE OF W. ANDERSON CARL, KINGSTON, NEW YORK

May, 1925
Stair and Entrance Hall

RESIDENCE OF W. ANDERSON CARL, KINGSTON, NEW YORK

Living Room

RESIDENCE OF MRS. HARRY GORDON, KINGSTON, NEW YORK
(Formerly Tobias Van Buren House)

The Architectural Record

May, 1925

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formed without a joint showing on panel side.

Strap hinges are properly best suited to the batten door or shutter, as they help to reinforce these cross battens in holding the vertical boards together. The eye of the hinge is curled to fit easily over the hinge pin. In some examples the eye is formed by looping over and welding together. Holes are punched in the straps to receive the hand-made nails which are driven through and neatly clinched flush with the grain of the wood on the opposite side. Often we find a small square of leather placed under the head of the nails which make them hold snug to the strap when clinched.

In some cases we find the H L hinge used on inside batten doors as illustrated in Fig. 3, though more often they are used on the paneled doors and cupboards. Fig. 5 shows various forms of H and H L cupboard hinges. The catch or fast for cupboards was more often a wood button.

Fig. 6 shows a variety of old strap hinges. The third, fourth and fifth at left of plate are typical Dutch straps, found in Ulster County, New York. The sixth hinge is similar, but with refined tapered lines and edges neatly beveled. This hinge was found in Connecticut. The bottom hinge is a crude form made from old tire iron and probably taken from a barn door. The top hinge, 42 inches long, is probably from a barn door. The second on the right is interesting in the pinching at heel and denotes that a double strap eye or loop pin may have been used, though this was sometimes done to make the iron thicker at the point of curling over the pin. The third and fourth at the right are barn door hinges.
with an offset bend over the stile of door and not over the frame as holes in the strap prove. The two hinges at bottom are familiar types of door and shutter hinges found throughout the colonies with slight variations. Fig. 8D shows a form of Dutch strap with scroll and bracket pin. Figs. 8H, 8I, 8J show three forms of straps and hinge pins; the first a lag pin, the second a plate pin, the third a loop through eye often made of the two pieces of an old ox shoe.

The other hardware fitments were the latch with thumb lift handle shown on the doors illustrated. Fig. 9 shows a variety of latch handles used on the inside doors. They vary from seven to nine inches overall, except 9H and 9I, which are outside door handles and measure twelve to thirteen inches in height. In some handles the thumb lift pierces the flat plate at top; in others a square neck is formed just above the grip of the handle and the thumb lift passes through and is pinned. The latch consists of a bar of iron six to eight inches long with the end shaped similar to that of handles. The guide or guard is usually in the form of a staple with ends clinched through the door; occasionally this is curved or of segment shape. The keeper or catch pin was often formed with a bracket neatly twisted and with end finished to match the latch bar. Fig. 9, K to U, and Fig. 14, E and F, illustrate this in detail.

The hardware for the batten Dutch door is perhaps the least understood and more errors are made in fitting the hardware for this type than on other doors. In Fig. 10 the door at left shows the hardware as originally applied, which is typical for these doors. The clinching of nails will be seen in the battens. The hinge pins and the straps are secured as
before described. The upper half of the door opens first. The latch on the upper half is operated by a drop handle from the outside; to this a spindle is attached passing through the door with a cam fitted at the end. When the drop handle is turned this cam lifts the latch. The lower latch has no connection with the outside, and is operated from the inside only, or after the upper half is opened one may then reach over from the outside and free the lower latch from the catch pin and so enter. The door was usually locked by inserting a pin in a hole bored just above the latch bar on the upper door; this pin was hung on a leather thong at the side of the door. Additional throw bolts were also used. Fig. 15, M to Q, shows a detail of the assembly for the latch and a variety of the usual form of stirrup or drop handle found on these doors. Fig. 15, G to L, shows parts of the latch.

Little hardware showed on the outside of the Dutch door as will be seen in Fig. 7, which is also an interesting example of a Dutch door with butt and bead panels, in which the upper and lower half each have two vertical panels and one cross panel; the door is set with the flush side to the street. It is also interesting to note in this figure the heavy log frames of both door and window supporting the stone work above, the head piece of frame serving as the lintel.

PANELED DOORS. The five and six paneled butt and bead doors (called button-bead), are perhaps the most common type we find. The panels were sunk on one side of door, sometimes without
moulding, and on the other side they finished flush with the stiles and rails. The panels were tongued into the stiles and rails, and the edge of the long side of panel board was beaded to hide any shrinkage at joint. The end joints were fitted tight and smooth to the cross rails without beading. Figs. 11 and 12 show the two sides of a five-paneled door and Fig. 13 shows a six-paneled door, butt and bead type.

These doors were usually hung with H and H L hinges*, though we do find cases of strap hinges used on them, especially on the outside doors. We also find them fitted with types of latches, such as those illustrated, and again the spring latch with lever and knob handles as well as rim locks. However, these last more often replaced the earlier hand-wrought latches.

On the outside doors, whether batten or paneled, the strap hinge was favored. (See Fig. 13.) In some localities an angle hinge as in Fig. 8, A, B and C was used. Those illustrated are reproductions of old patterns.

The latches and handles for the outside doors were larger and usually heavier than for the inside doors, some measuring fifteen to twenty inches overall. It is in these we find the greater variety of fancy in design.

Fig. 16, J to O shows a number of old thumb latch handles. Fig. 16, A to E are recent reproductions modeled after old patterns, the first three from Connecticut—the last two from Pennsylvania. Fig. 14, C and F, also reproductions, are used on the front door of the Carl residence, (See Fig. 4.)

Fig. 14, B and E show another form with the latch guide and keeper mounted on plates, the ends of the plates being shaped like that of the latch bar. Fig. 14, A and D show a form of wrought iron

*There is a legend from the down East country that if one door in the house is fitted with an H hinge at the top and an H L hinge at the bottom the house is protected against evil spirits.
handle with thumb lift operating a modern mortise front door lock. The top plate is formed to combine the key escutcheon as part of the outside handle. The inside handle is of similar form, except that a separate turn knob on the plate is provided for turning the dead bolt. Fig. 16, F to I, shows another design of handle to be used in the same manner. Any form of thumb latch handle may be used to operate a mortise lock that is provided with a latch trip.

The thumb latches forged by the blacksmith on the anvil should not be confused with the thumb latch handles mounted on plates or other spring latches operated by lever handles and knobs. While some of these may have been made by a blacksmith, they are in the main the product of the tinker or locksmith for whom in more important centers there developed an opportunity to ply his trade of specializing in these later and modified forms of latches.

These spring and plate latches are found more in the city or town house, and occasionally in the more important rooms of the country manor house where the squire had means that permitted him to purchase such hardware, though in many cases they only replaced the older hand made latches. We also find the hand forged blacksmith latches and hinges in parts of the city and town house and so with judgment, both may be properly used together.

SHUTTER HARDWARE. The shutter hardware is found equally interesting. Hinges were of much the same shape as used on doors and hung in the same manner, on iron pins or thumbs driven into the solid frames. We also find the hinge pins used, mounted on a plate. Angle hinges are often found on paneled shutters. (See Fig. 15, A. to F.)

The shutters were fastened with a small hook to a pin driven in the sill and
locked together with a wood cross bar to drop in irons; later, slide bolts were used and a ring pull was placed on the shutter to be swung in last. Long hooks held the shutters open; these were fastened to the shutters or to the sill of frame as the builder or owner fancied best. (See Figs. 4 and 7.)

Other devices called shutter dogs or holdbacks were also used for holding the shutters open. These were of various forms. (See Fig. 17.)

There were many other pieces of hardware which the blacksmith was called upon to provide and show his handiwork, such as gutter hooks, chimney irons, wall anchors and weather vanes, which often recorded the date of building.

(See Fig. 17.) Of door knockers and mud scrapers a great variety of forms are still to be found in the older parts of early settled towns and cities. Examples of some Baltimore mud scrapers are shown in Fig. 18.

The fire-place afforded another outlet for the blacksmith to display his skill in fashioning the trammel irons, pot hooks, cranes, oven doors, fire tongs, fire dogs, slicing bars, trivets, toasters, etc. (Fig. 18). Even the cooking utensils such as skewer sets, forks, ladles, skimmers, skillets, etc., were made of iron, the handles often beautifully fashioned, all to be kept brightly scoured and hung in their appointed place along the edge of the mantel shelf. To de-
scribe adequately all these would require a good sized volume.

The examples illustrated here prove that there are today men of this craft with the ability to reproduce these wares and others who would learn if there were masters with patience to encourage and guide them in reproducing faithfully this style of hand forged iron work, the attraction of which lies not only in beauty of workmanship, but in the simple suggestion embodied of their use in the home.
Side Aisle and Colonnade
THE STRAUS BUILDING, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
(See page 385)
Ground Floor Plan

THE STRAUS BUILDING, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
One of the Officers' Rooms

THE STRAUS BUILDING, CHICAGO, ILLINOIS

Graham, Anderson, Probst & White, Architects

(See page 385)
THE STRAUS BUILDING, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
The Colonnade from Top of Main Stairway

THE STRAUSS BUILDING, CHICAGO, ILLINOIS

Graham, Anderson, Probst & White, Architects

(See page 385)
Fourteenth Floor Plan

THE STRAUS BUILDING, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
Lead Glass Window at End of Banking Room
THE STRAUSS BUILDING, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
(See page 355)
Tower Floor Plans

THE STRAUS BUILDING, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects

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CONVERTIBLE TYPE HOUSES FOR THE QUEENSBORO CORPORATION
C. F. & D. E. McAvoy, Architects
Leonard C. L. Smith, Engineer
Detail Showing Garage and Service Driveway

CONVERTIBLE TYPE HOUSE FOR THE QUEENSBORO CORPORATION

C. F. & D. E. McAvoy, Architects

Leonard C. L. Smith, Engineer
Detail Showing Garage Entrance

CONVERTIBLE TYPE HOUSES FOR THE QUEENSBORO CORPORATION

C. F. & D. E. McAvoy, Architects
Leonard C. L. Smith, Engineer
PLAN OF SECOND FLOOR

RESIDENCE OF JOHN A. BECKWITH AT PORTLAND, OREGON
Harold W. Doty, Architect
Detail Showing Terrace

HOUSE IN WOODMANSTERNE ROAD, CARshalTON, SURREY, ENGLAND

Robert Atkinson, F.R.I.B.A., Architect
HOUSE IN WOODMANSTERNE ROAD, CARshalTON, SURREY, ENGLAND
Robert Atkinson, F.R.I.B.A., Architect
Entrance Detail

RESIDENCE OF T. BEVERLEY KEIM, JR., LOS ANGELES, CALIFORNIA

T. Beverley Keim, Jr., Architect
Entrance Detail

JOHN L. SHEARER GRAMMAR SCHOOL, NAPA, CALIFORNIA

W. H. Weeks, Architect, San Francisco
COLOR in the OPERATING ROOM

By
Paluel J. Flagg, M.D

IN AN ARTICLE entitled “A Scientific Basis for the Use of Color in the Operating-room”* the author presented a review of the limited literature on the subject. The conclusions to be drawn from this review are as follows:

The exclusive use of white in operating-room decorations and draperies has become more and more impractical as the complexity of surgical intervention has increased. For delicate operations in the abdominal cavity, nose and throat and elsewhere necessitate increased illumination of this field of operation. Increased illumination gives rise to increased reflection and eye strain.

This difficulty has been widely recognized, and color in walls and draperies has been employed to relieve the situation. While black, grey, green, and even red has been used, grey and green have enjoyed the greatest popularity. The choice of a particular hue, and the intensity of this hue, however, was over such a wide range that no definite standard was offered. Dr. Sherman of California approached the goal when he suggested a green the color of the spinach leaf. But since the color of the blood varies with the amount of oxygen which it contains, and since the color of the spinach leaf varies with its age, the problem from a scientific point of view remained unsolved.

The situation appeared to the writer to present three clearcut difficulties each of which demands solution, namely, illumination, color fatigue and reflection.

ILLUMINATION

Personal observations extending over several years have convinced the author that daylight in the operating-room is not essential. A constant volume and quality of illumination, however, is essential to the standardization of color in the operating-room, since all color proceeding from a reflecting surface, walls, floors, furniture, draperies, etc., owes its hue to the light which falls upon it. We are familiar with this principle in stage lighting, but when the same principle is repeated in the so-called daylight bulbs or in a cluster of opal lamps, we do not recognize the distortion of the spectrum. The seriousness of this matter will be grasped from the following:

During the course of an operation the color of the blood and the tissues is an index of the amount of oxygen in the blood.* The variations of the oxygen content under a general anaesthetic are much wider than in the normal conscious state. If, therefore, the field of operation be illuminated by light from which the red and yellow have been largely filtered, the color of the patient is affected accordingly. The writer in the exercise of his duties as expert anaesthetist has frequently suffered much annoyance and anxiety while working under these conditions, as it was impossible to judge the existing degree of oxygenation. A check by ordinary lighting promptly proved and removed the difficulty.

Moreover, it has been suggested that instead of bothering with color on the walls, draperies, etc., why not employ a colored illumination? If this illumination could be restricted exclusively to that which we would color, the suggestion might be entertained, but this is not practical. Artificially colored illumination thrown upon the field of operation would immediately destroy the color value of the tissues, necessitating discontinuance of the operative procedure.

The ideal illumination is therefore one in which the spectrum of daylight is

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faithfully duplicated in an intensity corresponding to a North light. This illumination is now available at a cost of installation and maintenance in keeping with the relief which it affords.

COLOR FATIGUE

The problem of color fatigue while of much interest from a physiological point of view, engages our attention in the following practical application:

It will be recalled that white is the presence of all color—the full spectrum; black is the absence of color. Each color making up the spectrum possesses a complementary color, which, when mixed with it, results in a neutral grey, occupying a position between pure white and black.

The eye is constructed on the principle of a camera, light from without entering a small movable diaphragm, the pupil. It passes through a lens, across a chamber of clear fluid and impinges upon a perfectly black tissue surface, the choroid or film. This film surface is crowded with microscopic nerve endings which are sensitive to light and to color. Our exposure to brilliant light results in temporary or complete blindness, snow blindness or sun blindness. Our exposure to color results in color fatigue, or a rapidly diminished ability to appreciate the hue of the color gazed upon.

That normal color vision reacts to the full spectrum may easily be demonstrated by the classical experiment of gazing fixedly upon a red cross and then letting the eye fall upon a white space.

Gradually, a light green cross appears on the plain white surface. What does this mean? It means that the red has burned, as it were, an area of fatigue for green in the film of the eye. When the gaze was dropped to the white space, instead of a record of white, the full spectrum, being made, the red was eliminated by fatigue, leaving as its complementary the balance of the spectrum or green.

This experiment further proves that white may be split up into green and red, and that color fatigue for one color intensifies the appreciation of the complement. It may also be interpreted as proving that after exposure to red the eye chooses green as a color of rest. Scientifically stated, green or any complementary color is the most restful color because it is the only color which does not repeat the original. Upon the operating table this condition is exactly duplicated. The surgeon gazes intently upon a red field of blood; after a time his eyes seek rest from this color fatigue and gaze upon the draperies, walls, etc. If the draperies are white, no relief is obtained for the red of the wound is repeated in the full white spectrum. Green draperies, on the other hand are restful, because green being the complement is the only color which does not repeat the red. A complete rest from red is thereby obtained, and when the operator turns his eye again to the wound, he will be surprised and pleased to discover how the brilliancy of the color of the wound has increased. It may be added that this reaction is thoroughly proven in practice.

The problem presented by color fatigue is therefore met, first by determining the actual value of the color bringing about the fatigue, secondly by supplying its true complement. The author claims originality in discovering a means of instrumental measuration of the color of the field of operation. This has been accomplished by the Oxyhaemoglobinometer, a clinical measure of the oxygen content of the blood. Having arrived at the mean average color of the field of operation, it was possible to establish the peculiar complementary green called for by the red of this hue. This color has been obtained, is recorded, and available for use. (See color chart, "Full Light.") The problem then of color fatigue has been met with scientific accuracy.

REFLECTION

Having secured the true complementary color to the red of the blood and the tissues, draperies of this color were prepared and employed. It was immediately found that the brilliancy of the color was excessive. This defect brought out the following facts:

Namely, that the addition of white or black to the complementary color has
no effect upon its value as a complement; its hue remains unchanged. On the other hand, its reflective index is susceptible of complete control; the amount of reflection being determined by the amount of white or light permitted. It is therefore possible and perfectly practical to use the definite complementary color prescribed by the author in a range of intensity varying from a bright to a dark hue. The chart illustrates the intensities which have been selected in the preparation of the product *Eyerest Green*. The Full Light color represents the original complementary color. It was found in practice that this color was too dark for walls where a large surface was treated, and too light for draperies about a wound where overhead illumination was intense, and where it was desirable to reduce reflection.

The "Subdued Light" or "Full Light" Eyerest Green is recommended for the dado of the operating-room, and for the full walls of corridors, halls, sterilizing room, etc. The enamel is to be used for the wood or metal trim and for the operating-room furniture, operating tables, stools, instrument cabinets, etc. The wall above the dado should be treated in cream, and the ceiling in ivory.

While the task of arriving at the correct hue or color necessary did not present any great difficulty, it was found that fading in full light or sunlight occurred rapidly. Laboratory resources were then brought to bear upon this problem and the result is a preparation which maintains its hue in the presence of direct sunlight.

Draperies for the operating table, instruments, gowns, etc., are made of non-fading muslin, or Indian Head. A long period of experimentation has resulted in the production of fabric, *Eyerest Green*, which closely approximates the darkest color on the chart (enamel), and which is not only sunfast, but fast to repeated steam sterilization. Draperies are still in use showing full color after having been sterilized by steam between forty and fifty times. The use of these draperies affords the greatest possible relief to the color fatigue arising out of constant gazing into the operative wound. It is especially valuable in nose and throat work, laparotomies, obstetrics, etc.

Tiling, polished, and rubber are being prepared to correspond with the requirements above outlined.

The reader has doubtless observed that there is an inherent aesthetic beauty in the correct interpretation of the natural laws. We see a certain completion and perfection in the architecture of the vegetable world, and in the satisfying symmetry of the anatomical forms of man and beast. It has been pointed out quite recently that the symmetry of living things was more generally understood by the Egyptian girl dancer of Ptolemy's court where angular postures paid tribute to the root 5 rectangle, than it is today. We find the law of dynamic symmetry overshadowing the labors of the past. We find beauty, that which we instinctively grasp as true beauty, crowned and sanctified by law, and some there are who find it difficult to think of a law without a lawgiver. The Sphinx, the Pantheon, are beautiful but dead. The Italian and the Frank not only grasped the law, but acknowledging the Lawgiver, made of their labor a prayer. St. Peter's and Rheims are not only works of exquisite beauty, but they are alive. They are alive and perfumed with the spirit which spent itself in offering as a tribute to the Eternal Lawgiver, the beneficent result of the laws which He had decreed.

It is with no little pleasure then that we find the solution of the application of what we believe to be true laws of physiology and physics to result in what appears to the uninitiated as something beautiful. How restful! What a beautiful color! What a ravishing shade of green! has sprung to the lips of those who instinctively recognized the beautiful without knowing why.

Our claim, therefore, that a solution of the problem of color in the operating room has been arrived at, is not only established upon recognized laws, but the result, in which beauty is recognized, serves to confirm those laws upon which it is based.
SOME PLATES WITH DIRECTIONS FOR USE

By Japanese Student
Author of Arch's Handy Designer

"Architectural Record"

To Hon. Editor, who must be very sick from trying find out was building publish before.

Revered Sir:

Being Japanese Architect who has gone to school in U. S. and learned how they does it, U. S. seems to be mostly efficiency and standardization except for Hon. Architects who has only standardization. Japanese all efficiency so have wrote a book telling U. S. architect how to be efficient too.

But nobody wants poor Japanese architect's book called "Arch's Handy Designer" showing all standardization plans for buildings mostly alike, copied after plans which best U. S. arch's has copied, and if Hon. Editor would publish some plates with directions for use everybody would know right away he needs this book and I would make much more money every week as now in office drawing sweeping and etc.

Jap architect author has already buy library now used by U. S. arch's, this being by hon. Italian gent named Vignola; and "Arch's Handy Designer" is made to take place of all pictures cut out of magazines where now U. S. arch. finds designs, so U. S. arch. can now get design out of "Arch's Handy Designer" and choose columns out of Vignola like always, and be just as original as now. This book is most good for Hon. Arch. because

1st. He does not have to spend more money buying books hoping for new pictures to use for original designs.

2nd. He saves tracing paper because all pictures in "Arch's Handy designer" is made to cut out and fold up on dotted lines to show how different originalities looks. Maybe better buy extra book to cut up.

3rd. Hon. Arch has all standard designs in one little cheap book and can design in one minute (1 min.) what now takes everybody two hours (2 hrs.) and some very good arch's so much as two or three days (2-3 d'ys).

4th. Jap arch. tell with every picture how to use him so U. S. arch. can be original and not make bad design.

Now Hon. Ed. this very good for you too because every month you spend much money make plates and text which use pages where advertisem't could go, but after book is sold you dont make no more plates, just tell where building is built, which design from book is use, what page in Vignola book gives col's, and tell about materials in adv. page where somebody pays for chance to do it.

JAPANESE STUDENT
FOR A LARGE BANK ON A MONUMENTAL SITE

Instructions for Using Design No. 2

For narrow lot use order like corinthian for wide lot use doric. Columns can be squeezed together to dotted lines for narrower lot or outside column can be left out for narrowest lot. For saving bank use rusticated cols. On frieze use only appropriate ornaments suchlike:

- for saving bank use Bee Hives.
- for Nat'l Bank use U. S. shield.
- for trust company use money because money means Confidence and Confidence = Trust

FOR A SMALL BANK ON A PICTURESQUE SITE

Instructions for Using Design No. 2a

All instructions like design No. 2.
This design is used for all Good state capitals and fits every plan. Axle lines A.A.A. should be on street centers; if they don't fit, make capital bigger or change streets. It is mostly better to change streets because

If grade is not level it must be graded up or down anyway. This is done by all best U. S. architects.

Three kinds of domes is given so population can feel at home; Fig 1 (St Pauls) for english populated, Fig 2 (Frauenkirche) for German populated, Fig 3 for Italian populated.

No Japanese domes is given except for California by private letter to author (Very private letter requested)

Original architect uses Corinthian Grec column number L in Vignola book. Very original uses Mr. Palladio column but this is not conservative.

To make state capital more grand use more steps.
FOR A UPTO DATE ART GALLERY

Art Gallery
Design No. 6

Instructions for Using Design No. 6

If built in cool climate so some ventilation must be in boiling room, put heating coal sculpture and etc. in cellar. Use windows B.

All upper part can be in one high room light by skylight, or dark story can be put in on line A-A for cubical pictures if museum has some.

For columns use grec only in back of Vignola book.

For frieze put in from Parthenon; can get where advertising page says.

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FOR A HIGHLY STANDARD PUBLIC LIBRARY

Public Library
Design No. 7

Instructions for Using Design No. 7

Cut off ends if needed. No other instructions; every U. S. Arch. knows how to make this library.
Instructions for Using Design No. 13

This is very Standard Design.
To find out how many stories look, fold on dotted lines to make lower or cut apart and stick in some stories; Fig. 3 gives quite a lot. To make wider, you cannot do it without more drawings but it is wide enough.
If U. S. cigar stores is to be on ground floor use Fig 1.
If bank is on ground floor use very strong looking base Fig 2; with base Fig 2 should be only one window above on corners like dotted lines; except when Realtor objects; so use two mostly. That is why one is dotted.
For materials use ad. pages of Hon. Arch. Rec.

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FOR A FINE POST OFFICE ON A SLOPPING OR LEVEL SITE

POST OFFICE
DESIGN NO. 22

Instructions for Using Design No. 22

To make more Expensive use more steps.
To make less Expensive cannot do.
If lot is narrower fold up anywhere.
For slopping lot cut off steps on one side like dotted lines.
At A and B put in names of celebrated Postmen.
For short building use Inscription in Frieze
   "The more haste the less speed"
For long building use long Inscription like
   "Words were made to conceal thoughts"

FOR A RAILROAD STATION (TERMINAL, UNION, OR WAY)

RAILROAD STATION
DESIGN NO. 23

Instructions for Using Design No. 23

This design comes from Roman Baths very appropriate to Railroad Stations because most R. R. Travelers need Baths after getting off U. S. trains.
For Small Station leave out ends.
For Cheap Station leave out middle.
For Big Station use like drawn.
For single track R. R's put axle line on middle of track.

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ARNOLD W. BRUNNER
(1857-1925)
I often wonder if the older professional man who has attained a high level of accomplishment realizes the spirit in which the youth whose career has just begun to unfold looks upon him at first meeting.

The complexes of youth are very lasting. No age is more impressionable than that between twenty and thirty. The young man is then fresh for impressions, with all his tentacles out, so to speak, ready to grasp at every new and interesting phase of life. I was at exactly that impressionable age when I first met Arnold Brunner, and I have never lost the sense of his personal charm, vitality, and interest, nor of the power among men which he possessed to a marked degree. He had then, and he possessed to the end, the spirit of eternal youth. His interest in men and life as he met it and his enthusiasm never flagged.

It is a good many years ago that I first met Mr. Brunner—twenty-two, to be exact. I had happened to meet on a street here in New York, a former élève of the Paris school, and he asked me: “Want to work on a competition?” I accepted with alacrity. Such an invitation to a young man fresh from the Ecole was like a dinner invitation to a hungry tramp. We then went to the top of an office building on Union Square, then the “up-town” center of those far-strung architects who were pioneers in the movement of getting their offices away from Wall Street. It was there I met Arnold Brunner.

I do not remember now what the subject of the competition was, how long I worked on it, nor whether we were successful. But I have never forgotten my first impression upon meeting this man who was a dominating factor in the architectural world, who stood with the few, the very few leaders of the day, a man known to every aspiring young draughtsman as somebody well worth while, someone you might well envy the other fellow’s knowing.

Arnold Brunner retained the quick perceptions and reactions of youth. Of course one sensed the subtle personal force of the man that could appear before any gathering and carry his point, and his vision for great undertakings. Yet there could be no feeling that he dominated by any force other than that of intelligence. And with it all there was in him a certain indefinable charm which one felt at once and always perceived. It was, perhaps, Arnold Brunner’s most surprising characteristic. Every man who met him carried away this same delightful impression, and his friends were only limited by his capacity to meet people. These he retained always.

It is hardly necessary for me to enumerate his many and varied professional activities. His standards were of the highest. His code of ethics was that of the gentleman, the simple, natural instinct of fair play and courtesy.

Of course, that rare combination of vision, charm and the ability to think and speak clearly before his fellows, soon impelled him into a larger field of architectural activity. Governmental, institutional and city planning work commanded much of his effort. Many cities throughout the United States are benefiting today because of his vision, determination, and ability to put across his ideas—ideas that were in advance of the time and not fully appreciated when first promulgated. The great Post Office and Civic Center of Cleveland is perhaps his most conspicuous effort, but the plan, layout, and building of the great Mt. Sinai Hospital, the winning of the competition for the Department of State in Washington, the development of the accessory buildings and surroundings of Harrisburg Capitol were only a few of his many activities.

Naturally so fine a personality would be an important one among the professional group. No man was more ready and willing to give of his time, energy and exceptional executive ability to the
service of his chosen profession. A past president of the New York Chapter of the American Institute of Architects, a past president of the Architectural League, president of the Fine Arts Federation and numerous other activities along similar lines enjoyed his unstinted effort and enthusiasm.

In a city like New York—there are no other cities really like New York—we find ourselves more or less closely allied with certain of our professional brothers when some mutual professional interest brings us together. Then long periods may intervene when we scarcely meet, although our offices may be in the same neighborhood, our desires the same, and even our social relations similar. It is the penalty one pays for living in a great city. When Arnold Brunner was president of the New York Chapter of the American Institute of Architects I had committee work under him. But after that only an occasional interest brought us together until recently when we happened to find ourselves members of the same group of co-operating architects for the Plan of New York and its Environs. We had quite a bit of work together. I was personally very happy at the opportunity which it gave me to see more of him.

Again I had this very vivid impression of him. Arnold Brunner seemed to be one of those men who had drunk at the Fountain of Eternal Youth. Hardly a grey hair had been added to his always luxuriant growth. There was not a scintilla of evidence of slowing down; in fact, not a sign of growing old. And best of all, a mind more open to new ideas, more ready to grasp new conceptions, quicker to suggest new solutions than many a younger man.

Arnold Brunner was always a young man at heart, and retained to the end his keen appreciation of his friends, his work, and humanity.

Harvey Wiley Corbett

View of Hill with Approach
DENISON UNIVERSITY, GRANVILLE, OHIO
Arnold W. Brunner, Architect
LYCH GATE AT MIDDLE WOOLFORD, WILTSHIRE, ENGLAND

This gate is typical of the small entrance ways—lych gates, as they are called—to the church close which one frequently sees in the English countryside. The close in which the church stands is surrounded by a wall, at the openings of which these little gateways are placed, through which the people pass on their way to church. Usually they are of half timber, with a sloping roof, and sometimes a seat is provided where one may wait for a friend before going into the church. Very few of these old lych gates remain, and they are fast being rebuilt. Since the World War they are being erected as memorials to the men of the parish who did not return. Their construction is simple, with little or no ornamentation, and they are usually covered with a slate or field stone roof. They blend well with their surroundings and are in keeping with the church. The general dimensions of this lych gate are about 9'-3" by 10'-0", which is the usual size for these gateways.

LYCH GATE AT PAINSWICK, GLOUCESTERSHIRE, ENGLAND

In the towns and villages of rural England the lych gate, which breaks the monotony of the fence or wall surrounding the church close, may be either a simple iron gate, or a gate house beside the home of the keeper of the close, or (as in the case of Salisbury Cathedral) a gateway beside the home of the Dean of the Cathedral. In the smaller churches, such as the Parish Churches, it may be simply an archway built in half timber as a memorial. The lych gate as a memorial, however, is but a modern idea, for in the thirteenth and fourteenth centuries these gateways were built, as in the case of this gate at Painswick, simply as an entrance way to the church.

On the outside of the gate certain quotations from the Bible are carved, and over the entrance way is a room which adjoins the home of the lodge keeper or custodian of the church.

The lych gate is built of half timber and plaster, set on a concrete or sometimes on a
Stone base. The seat provided is of cement in this case, though generally one finds seats made of wood. The small windows in the upper room are of leaded glass, the dimension of the glass being approximately 2 1/2'' x 5 1/4'', with a small bit of carving in the upper corners.

LYCH GATE AT LONG MARSTON, WARWICKSHIRE, ENGLAND

This lych gate has been built since the war as a memorial to the men who left Long Marston and went to France. It shows how modern work can be built after the style of the old half timber. The work is perfectly sincere, that is, the half timber is real half timber, and it has been framed and pegged, after the manner of the old work.

Although modern, it has the true spirit of the old work and compares very favorably with the fourteenth and fifteenth century lych gates found in England. The floor is paved with brick. There is no seat in the inside. The material used is half timber oak, with cement plaster to fill the spaces between the half timber.
THE NEW ADMINISTRATION CENTER PLAN FOR LOS ANGELES

Los Angeles is keenly alive to the need for beauty in her public buildings, to the necessity for public parks and the restoration of her historic structures.

The Allied Architects' Association of this city recently submitted to her public officials plans which, if realized, will make Los Angeles the proud possessor of specimens of civic architecture comparable with some of the best in our great cities.

According to these plans the present slum section of the city, known as the Bunker Hill district (the deteriorated residence section of its early commercial prosperity) will become a vast park (Las Alturas). This will be intersected by a Mall nearly a mile long skirted on each side by buildings of a semi-public character. Roadways for pleasure vehicles will encircle this park, the heavy trucking traffic being diverted through tunnels cut under the hill.

Further, the administration buildings of the federal, state, county and municipal governments will be grouped around a great plaza, east of Las Alturas and easily accessible to county and city alike.

The historic Plaza and the Mission Church will remain unchanged and new buildings to be erected facing the Plaza will be of a type in keeping with the old world atmosphere of this section of the city.

The Allied Architects' Association of Los Angeles which comprises seventy of the most prominent architects of Southern California, was formed in 1921, and its aims, as stated in its by-laws, are "to advance the art of architecture, and by professional cooperation of all its members to secure for and provide municipal, county, state and national governments with the highest and best expression of the art of architecture in the designing, planning and construction of public buildings, structures and improvements, at the least possible cost."

In drawing up plans for the new Civic Center, the Association had undertaken a difficult task; many months of consideration, study, discussion with public officials were involved. If these plans are accepted, the new center will stand a perpetual monument to the courage shown by a public-spirited body of men in their endeavor to elevate civic architecture.

THE FINANCIAL VALUE OF A CONCEPT

It would be difficult to define the precise difference between a forecast and a prophecy; many will admit the validity of the former as involving wise precaution, who would spurn the latter with contumely. At the present time an intelligent and unbiased observation of controlling influences of an abstract nature is essential, in view of the astoundingly rapid growth of architectural activity during the last ten years, and the enhancement of quality in effort. This expansion affecting the higher phases of architectural design is not due to the demands of prosperity or the law of supply and demand—though after the period of enforced inactivity in war-time, those factors in production were naturally responsible for the majority of enterprises in building—but the purpose of structure and the character of architectural expression are attributable in many important examples to powerful abstract forces. Though we recognize the futility of prophecy in mundane matters, we have created a synthetic equivalent in the formulation of deductions procured through an analysis of impulses responsible for architectural schemes identified with the higher order of social requirements.

The colossal success attending the present financing of the Episcopal Cathedral of
New York is very enlightening. For some time past we have been aware of a tendency in the American people towards a Cult of the Monumental which rapidly approaches the state of a national obsession. This does not originate in that post-bellum enthusiasm which so rapidly petered out in our townships large and small, but in the consciousness that Colonial standards are outgrown, and if broader ideals are to flourish and mature they must be typified monumentally. In all the major activities of American life we note the aim to give structural expression to concepts, be they of Civic Government, Education, Finance or Commerce; the Fact is made to give precedence to the Concept in design. This signifies that, unconsciously and spontaneously, a great educational movement is under way, which will result in the transformation of our materialism into a capacity to think of mundane factors in abstract terms. As soon as the inhabitants of New York were informed that the Concept of Religion had no worthy shrine dedicated especially to that ideal, (or, to use the words of the slogan, no "House of Prayer for the People"), they showed their sympathy with the monumental expression of an idea by an avalanche of donations from individuals of all creeds and races. The project of a Cathedral is over twenty years old, and proved so deficient in appeal in its original form of presentation that the building commenced has been derelict for a decade through lack of funds. With brilliant psychology and profound knowledge of this unrecognized sympathy with monumental expression of the altruistic, the old subject was revitalized, and an idea sold to the public for the sum of fifteen millions of dollars. Already eight millions have been invested in this ideal in practically as many weeks, with good prospect of the balance being subscribed before the year is out. The incongruity of a House of Prayer presumably for all denominations, under the exclusive administration of the Episcopal Church, has apparently been passed over for the present, and we can only assume that a higher value is placed upon the monumental demonstration of the idea than upon the practicability of its application.

For the future of Architecture in America this bodes well, not merely from the human experience that we are more apt to be liberal in subsidizing our enthusiasm than in trading money for recognized values, but for the knowledge of the premium which is placed upon the structural statement of ideals. The inspirational content of a problem involving the architectonic statement of any great humanitarian concept is bound to stimulate imaginative effort to an unparalleled extent, as the successful solution must be so simple in its grandeur as to compel comprehension in the masses. It means the advent of a new order of poetry in architectonic idea, revealing the sublime in mass and proportion. This great popular movement resembles all its predecessors in the history of the art; they invariably sprang from some social source and establish their characteristics before contemporary sensibility fully records their direction or significance. A timely recognition of such movements fosters the gaining of impetus, and fixes the objective clearly in the imagination of artistic creators.

Leon V. Solon.

MISSION SAN JOSÉ DE TUMACACORI, NEAR TUBAC, ARIZONA

A score or more of miles north of the Mexican border the road from Nogales to Tucson passes the ruins of one of the few Spanish missions in Arizona that possessed architectural merit. San José de Tumacacori was erected late in the eighteenth century at about the same time as the more pretentious Mission San Xavier near Tucson; in fact, tradition says that the same builders were in charge of both undertakings, work being carried on at one, while the plaster was "curing" at the other.

The walls were built of adobe brick, part of which were baked while the rest were merely sun dried. The construction is excellent, the vault, arch and dome being handled with surprising skill. The vaulted roof of the nave has fallen, but the beautiful dome with its surmounting lantern still remains.

The ornamental façade, which was well preserved as late as 1880, is now practically ruined, remnants only of its engaged columns and mouldings remaining to indicate its former enrichment, while the semi-circular pediment which originally crowned it has disappeared with the vaulting.

A circular mortuary chapel stands at the rear of the church, and other structures are to be found in varying stages of decay.

The buildings at San Xavier were reclaimed in time to preserve them in all their beauty for the future, but Tumacacori has been less fortunate. The work of disintegration has progressed rapidly. The protecting coat of plaster has disappeared to a large extent and it is only because of the absence of frost and heavy rainfall that anything but a heap of mud remains.
View from Southwest
MISSION SAN JOSÉ DE TUMACACORI, TUBAC, ARIZONA

Mortuary Chapel and Rear of Church
MISSION SAN JOSÉ DE TUMACACORI, TUBAC, ARIZONA
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Somewhat tardy steps have at last been taken to prevent further destruction and the buildings have been placed under official care, so that two at least of the Arizona missions will be preserved as monuments to the architectural skill of the Spanish padres who first brought Christianity to the dwellers in the great deserts of the southwest.

I. T. Frary

Note—For some of the historical data the writer is indebted to "Mission Architecture as Exemplified in San Xavier del Bac" by Prent Duell.

THE INTERNATIONAL CONGRESS FOR CITY IMPROVEMENT AT PARIS, FRANCE

The International Congress for City Improvement announces its third session to be held at Paris, France, from September 28 to October 4, 1925.

Its first session met at Ghent in 1913 when it was arranged to hold a similar meeting at Paris in 1916. Fate, in the shape of the World War, ruled otherwise and it was not until 1924 that the second session met, Amsterdam being chosen as the place of Congress.

So successful was last year's meeting that it was decided to invite delegates representing all the municipalities of the world to a conference at Paris in 1925.

The reasons of its being and the aims of the Congress, briefly stated, are as follows: The rapid growth of cities during the past century and the fact that the city has become the center of all modern activity—trade, education, recreation—has rendered necessary the formation of institutions and services for the benefit of the individual. Again, the general progress of civilization and advance made by nations hitherto backward, have brought administrators of municipal affairs face to face with problems previously unknown. The successful organization of civic institutions or the successful solution of a civic problem in the case of one city may be of incalculable benefit in the case of other cities, hence earnest discussion of such matters among those in control of municipal affairs is bound to prove of value to the human race at large. A systematic study of city problems and the best way to meet them is to be the keynote of the Congress at Paris.

The ARCHITECT'S LIBRARY

EARLY DOMESTIC ARCHITECTURE OF CONNECTICUT

By J. Frederick Kelly. Yale University Press, New Haven. $15.

The appearance of this new book, "Early Domestic Architecture of Connecticut," by J. Frederick Kelly, is fortunately timed with the widespread intensification of interest in American Architecture. Within the last few years local museums have been established all through the Eastern States and the older ones have been rearranged. Among others that have collections of great interest are the old Gaol, at York, Maine, the Deerfield Museum, the Lorenzo de Medici Sweat House, at Portland; the Hartford Atheneum; the Council Hall at Kingston on the Hudson; the Wayside Inn, but recently endowed, and the new Early American Wing of the Metropolitan Museum in New York. From my own observation, I should say that this wing, at
PANELLING IN THE PARLOR CHAMBER OF THE WELLES HOUSE IN LEBANON
(Illustration from "Early Domestic Architecture of Connecticut")
the present writing, is attracting larger crowds and creating a more intense interest than any part of the entire rest of the museum. The idea was sponsored by Mr. Robert de Forrest and the collections housed and arranged by Mr. Grosvenor Atterbury, the architect, in collaboration with the authorities of the museum.

It is the beautiful way in which the collections are presented and the wide field covered, more than anything else, that has fired the interest of its visitors. These collections are arranged both according to sequence of time and to locality. From the earliest work of the settlers, to the first part of the Nineteenth Century, and from Maine to Virginia, one may see the furniture, pictures, household utensils, curtains and textiles in relation to their original settings. One gets the impression of a series of beautiful pictures and a realization of the purity and intrinsic beauty of color and form of the style, and a feeling of the adaptability to our modern needs more strongly than any other collection that I know of.

In Mr. Kelly's book I have found the same characteristics to a marked degree. The book is a fairly large one, of 207 pages and no less than 291 illustrations, consisting of photographs of exteriors and interiors, measured drawings of plans, details, doors, windows, panelling, cupboards, stairs, and hardware. The subject is distinctly limited, but it presents a complete picture of the style in Connecticut.

Each chapter deals with a separate subject, such as the development of the plan, or the construction of the house. In the chapters on doors and panelling, for instance, are given types of design from the earliest to the latest periods, and so completely, that making allowances for differences in time, due to local conditions, one may even fix dates for houses in adjoining states with reasonable accuracy. The book is so thorough and is, at the same time, written with such engaging enthusiasm and simplicity, that it makes a striking contrast to the usual learned tome on an archeological subject.

Mr. Kelly has made a very thorough study of the dates when the various houses were built, and from this has worked out a sequence of features, which clearly and logically shows the development of the plan, construction and decoration. Referring to one kind of house, he says:

"Houses of the added lean-to type are of very common occurrence; in fact, this is one of the most typical forms of the early Connecticut house. The Tyler house, near Branford (circa 1710), the Acadian house in Guilford (1670) and the Harrison-Linsley house in Branford (1690) all have lean-to additions. Originally each was of the two-room type of plan. An inspection of the lean-to attic in houses of this type generally furnishes the investigator with sufficient architectural evidence to decide conclusively whether or not the lean-to is a later addition or an integral part of the house itself. The existence of a separate set of roof rafters extending from the rear plate of the main house down to the rear plate of the lean-to does not always necessarily indicate that the rear part is of later date; nor does a difference in level between the floors of the front rooms and of the lean-to attic. The existence of clapboards, however, on the outside of the rear walls of the front rooms, beneath the lean-to roof, is incontrovertible proof that the rear portion of the house is a built-on addition. Old weathered clapboards are still in place on parts of the original rear walls of all three of the just-mentioned houses. In each they are of oak, riven out, and applied directly to the studs. Those in the lean-to attic of the Acadian house still bear traces

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THE ARCHITECTURAL RECORD.

of the original red paint with which they were covered."

The book as a whole is one of the most complete of its kind that I have seen and should be on the shelves of every architect, archeologist, and house owner interested in the Colonial style.

WILLIAM LAWRENCE BOTTOMLEY

FRENCH PROVINCIAL ARCHITECTURE

By PHILIP LIPPINCOTT GOODWIN and HENRY OTTOHUT MILLIKEN. Scribner's, New York. $20.

The purpose of this group of measured drawings and photographs is to present to the American public some examples of French provincial architecture, town and country houses, cottages, shops and public places, adaptable to American conditions. The buildings selected date mainly from the sixteenth to the early nineteenth century.

All good building is in some sense traditional, the adaptation of existing types to changing or changed conditions. Americans who go to Europe for examples are doing the natural and normal thing. For historical reasons the English influence has been, or was once, the chief one, but the French, Italian and Spanish influence has now become noticeable. The French influence has hitherto come largely perhaps through the Beaux Arts, at any rate from the châteaux and public and monumental buildings. There has been a lack of realization of the quality of charming, simple things to be found in France, in her old manors and farm houses and small towns. For the purpose of practical adaptation to American country houses, and of suggestions for American architects, this is one of the richest of fields. Moreover, there is this distinct reason for advocating the influence of French rural buildings; that, while a French and an English palace, castle, manor or farm house or shop front, may be equally charming, the charm of the French example will be apt to have in it more of the elements of design and proportion, the English more perhaps of impulse and accident, of nature and weather and the subleties of time.

Manor houses in Normandy, especially the early ones, show resemblances to the English, for which the proximity of Normandy to England is reason enough; but down to the middle of the fifteenth century that country and England had, besides, very definite political ties. There are the similar irregular lines and the half timber and cement, (Plates 1 and 92). But later building and that further to the south show increasing contrast. Except for those early Norman examples, French rural as well as urban architecture has more symmetry than the English. It is more calculated and less hit-or-miss. There is more stone and stucco combined with the half timber and more color variety. Where in England building materials are apt to be stone, brick and rubble, French building has felt the Mediterranean leaning toward cement and plaster. We find stucco, brick and stone all combined in the same building, where in England the materials would probably have been brick with stone trimmings. The roofs are noticeably steep, and of slate which takes variety of tone, with many dormer windows of various shapes. Practically all the windows are casement. In a climate less lush than the English, vines grow with more interesting patterns on the wall, (Plate

ENTRANCE MOTIVE, CHATEAU OF CAREL.
(Illustration from "French Provincial Architecture")
49) instead of in great masses of green. Lattice, too, is more used for the vines to grow on.

On the other hand there seems to be less charm in the gardens of these old French manors than in England. They look more neglected, and the kitchen and flower gardens are apt to be mixed together.

The two farm building groups from Normandy and the Cote d'Or (Plates 1 and 17) are peculiarly suggestive. Their unsymmetrical arrangement and irregular roof lines, their picturesqueness, their unexpected detail, perhaps fit in with the best American ideals of country life better than more formal examples. But even where the walls seem severe, the details are apt to be fine. Note the beautiful stone carving on the front of the Château of Carel (Plate 10); the double flight of steps in the Villa at Nievre (Plate XXXVI) and in the house at Autun (Plates 14 and 15); the fine iron work of the balustrade of the Château of Montjalins (Plate 70), and the delightful swags over the door and upper windows. Plate 68 is only the entrance to a shop in Paris, but it is a lovely combination of ironwork and stone.

As to interiors, the early houses have exposed timbers, crudely carved chimney pieces going to the ceiling, and rough plaster walls. At later periods the old manor house rooms were almost universally panelled, but more simply than in the great châteaux. The proportions seem to have greater breadth and less height. In the Manor near Honfleur (Plates V to XII and 18 to 26) the panelling and moulding show the work of ships' carpenters. This manor is owned by an American, the author of "Three Normandy Inns."

It may probably be hoped by others than the authors, that "this book may be of influence in the United States, where the pursuit of fashions in style has filled the land with curious sights." Fashion and style are not the same things at all, if the word style is used in its graver significance; in which sense it is one of the gravest and greatest things known to humanity. "There is a style on which the best of any country's design may be based, and that is good proportion, simplicity and suitability." The first and the last are more fundamental than the second, for not all good design is simple. "Order and movement" is perhaps the best definition of style in literature; in architecture "proportion and suitability" go a long way, and one is always safer when he is simple. The French architect tends to go rather directly and decisively at his object, and this may be illustrated by the landscape architecture of Place Vauban (Plates XVI, 41 to 46) "a long narrow promenade shaded by tall old lime trees and bounded by
plain stone walls—no elaborate pergolas or fountains”; only a dark vista with a statue at the end. —A modern landscape gardener would perhaps have peppered the site with shrubs and kiosks, and wound his mean little paths in and out of his shrubbery, and have been only indirect, indecisive and feeble. The rule seems to be something like the old dramatic canon of unity of action, and something like the old axioms of foot ball; “Keep your eye on the ball and tackle hard.” —Arthur W. Colton


In this book the author discusses some of the architectural problems connected with our modern towns. He compares them with our eighteenth century cities on the one hand and those of modern America on the other. He criticizes our buildings, such as our banks and railway stations, our factories, our houses and our religious structures, pointing out where they seem an inadequate expression of our civilization and where they fail. The book is written in a popular way for the general reader. Architecture is the Art from which none of us can escape. Every intelligent citizen, indeed everyone living in a house, must perform take an interest in it.

A Garden Book for Autumn and Winter, by Charles Downing Lay. New York: Duffield & Company, 1924. x, 303 pp., illus. 6½x9 in. Cloth. $4.00.

Not only an eminently practical book by a distinguished landscape and garden architect, but a charming, keen and witty literary adventure. This is the only book published which deals exclusively with the garden in Autumn and Winter.


“The directness, the simplicity of this book will refresh the reader. It is a sort of ‘first aid’ in garden books, and no pains have been spared to make it the practical guide that it is to the inexpensive garden.”

Planning of Small Community Hospitals, by B. Evan Parry, M.R.A.I.C. Ottawa, Canada: Department of Health, 1925. Publication No. 34. 100 pp. illus. 6½x9¾ in. paper.

A “succinct brochure,” as the author terms it. It treats of fundamental principles in estimating the cost and capacity of a projected hospital.


The Old-World House, Its Furniture and Decoration, by Herbert Cescinsky. New York: The MacMillan Co., 1924. 2 volumes. xvi, 678 pp., illus. 7½x10¼ in. Cloth. $17.50.

“The Old-World House” has been written to meet a general demand for a book dealing with decoration and antique furniture, written by a recognized expert on the subject, yet with such examples as the modest collector can acquire. Here will be found advice on the collecting of furniture, its arrangement, the decoration of rooms, and a hundred and one other subjects of interest to the home-lover. Examples are given of furniture and woodwork from Tudor days until the end of the eighteenth century, and practically every page is illustrated.


In “Sticks and Stones,” Mr. Lewis Mumford sums up in compact and concrete form the dominant forces of American civilization, as shown by its architecture. At the same time, he shows how the forms of architecture have persistently changed, in response to new forces—new traditions, new materials, new social habits and aesthetic interests. Perhaps no one has taken such a wide and significant view of our architecture and civilization before; and it is safe to say that Mr. Mumford has blazed a new trail in social criticism. The broad humanism of these essays lifts them high above any purely technical pre-occupation or interest; and yet their appeal to the architect is so close that the chapter on the Imperial Age has been published simultaneously in America, England, and Germany.


“In this extraordinary synthesis of the history and philosophy of art, a brilliant pageant of schools and personalities of all the arts, the author deploys, against a rich background of secular history, a brilliant and vivid expression of the development of art, of the changing aims and philosophies of the fine arts, of the changing philosophies of art, as certainly as the substance it clothes, as attractively and as consistently as the substance it clothes. The author’s style, in itself thoroughly personal and vibrant with enthusiasm, is as exceptionally attractive as the substance it clothes, as attractively and as consistently as the substance it clothes.”


Church Building, by Ralph Adams Cram, Litt.D., L.L.D., F.R.G.S. A Study
FAME AND FORTUNE

An old man receives a visitation from Fame and Fortune who are represented by two women. Fame is a furtive, pallid, yet beautiful figure, suggesting the transitory nature of her stay. She holds a gilded mummy mask toward the old man as though temptingly suggesting perpetuation. Fortune, a repulsive figure, plies him with false assurances and would carry him onward to disaster. The old man sensing the sham and danger in each and perhaps embittered by their previous neglect, "treats these two imposters just the same," as Kipling puts it. Younger men, less philosophically disposed, try frantically but vainly to attract the attention of the pair.

Eugene F. Savage.
Fame and Fortune
Eugene F. Savage