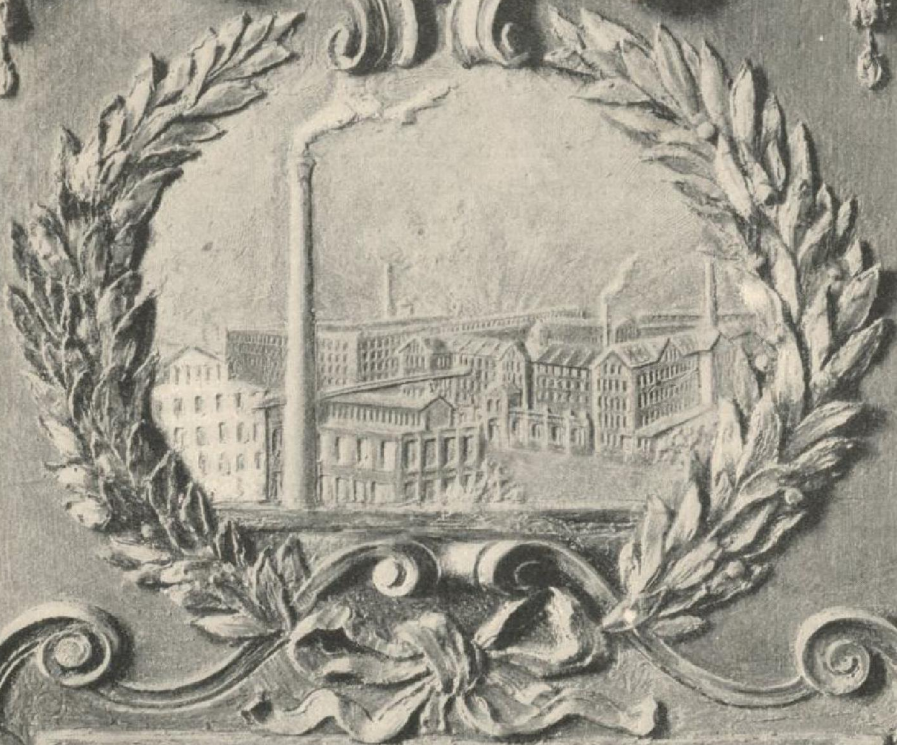


THE CORBIN



VOL. 1 NO. 10
FEBRUARY, 1903

"A certain man of Bagdad dreamed one night that in a certain house in a certain street in Cairo he should find a treasure. To Egypt he accordingly set forth, and met in the Desert with one who was on his way from Cairo to Bagdad, having dreamt that in a certain house in a certain street there he should find a treasure; and lo, each of these men had been directed to the other's house to find a treasure that only needed looking for in his own."

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The Corbin

A Monthly Chronicle of Things as we see them

147

VOL. I

FEBRUARY, 1903

No. 10

Ball Bearings

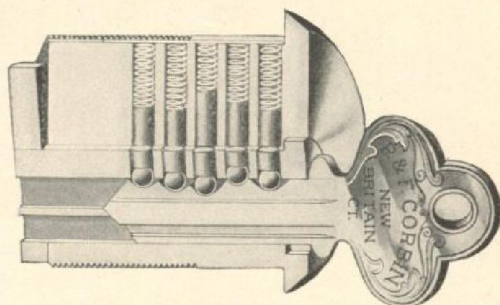
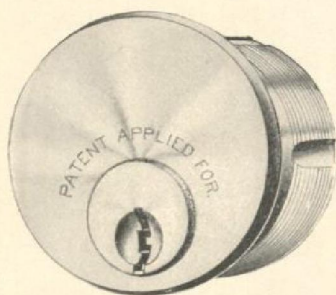
in the Corbin Cylinder Lock

BALL bearings in pin tumbler cylinders serve a double purpose, through the reduction of the friction caused by the insertion and withdrawal of the key,—first in increased ease of manipulation, and second in the length of life of the lock. In locks of this class without balls below the pins there is trouble experienced in

the sticking and binding of the key, particularly when it is withdrawn. When it is inserted the key lifts one tumbler after another, and only at the very end of the stroke when the key is under greatest motion does it lift all the tumblers; but when it is sought to withdraw the key each of the pins is pressed down into the bitt by the springs above it, and force enough must be exerted to overcome the pressure of the springs and the friction of the pins as they are pinched upward between the slanting bitt of the key and the vertical side of the pocket, by an

obliquely directed pressure. There is a very considerable amount of friction to overcome at the bottom of the pin because the pressure of the key is applied at an angle, and forces the pin against the side of the pocket as well as upward, and further because the greatest amount of friction is found at the beginning of the stroke with no impetus of motion.

In the Corbin cylinder only, this objection is entirely overcome by the introduction of balls at the bottom of the pockets to receive the impact of the key. It will be noticed that the center of each pin rests directly upon a ball, and when the key is thrust into the lock or withdrawn from it, the ball rolling easily up the bitt imparts a directly upward motion to the pin, and does away with the pinching, sidewise pressure so objectionable in other cylinders. As the friction is reduced the life of the lock is extended, and so little friction is there that a Corbin pin tumbler lock is practically everlasting. In making a test, a cylinder was fastened into a machine, and a key inserted and withdrawn for a million times with no perceptible effect except a bright spot on the bottom of each pin and a bright streak along the bitt of the key, the working of the lock being unimpaired.



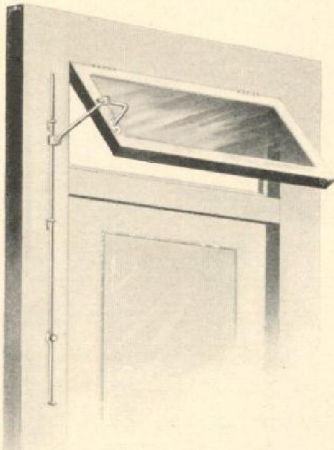
Corbin Transom Lifters

By L. W. H.

148

WE deem it wise to give to our readers our ideas regarding Corbin Sure Grip Lifters, and how to determine the kind and size necessary to successfully operate transoms.

Our No. 90 series lifters are for use on bottom-hung transoms, and horizontally pivoted transoms, opening in at top. Hanging transoms pivoted in this way are calculated to keep out rain and snow. The rule generally followed in determining length of lifter for transoms thus hung is to deduct $4\frac{1}{2}$ to 5 ft. from the combined height of door and transom.



A No. 80 Series Lifter Applied to a Transom Hinged at the Top

Our No. 80 series lifters are used on top-hung and horizontally pivoted transoms opening in at bottom. This method is almost universally used on transoms over interior doors in office buildings. The number of the room is generally painted on the transom glass, and as the top of transom opens out into the corridor, the number is in plain view from the corridor side. The length of No. 80 series lifter is best determined by deducting $4\frac{1}{2}$ to 5 ft. from the height of the door, plus $\frac{1}{3}$ the height of the transom.

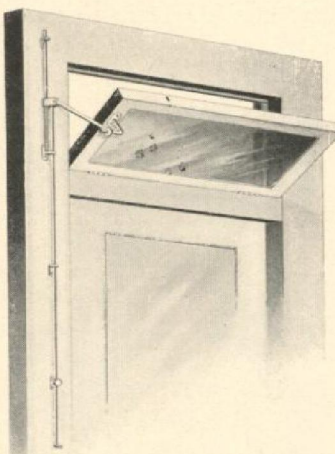
Transoms hung at top and bottom require

rods at least $\frac{1}{8}$ inch heavier than those hung on pivots. The weight of the latter, balanced on pivots, does not rest on the lifter as does the former.

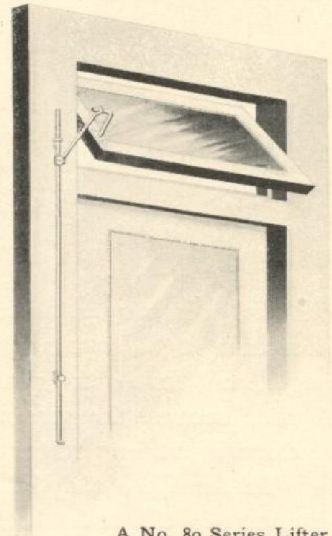
“Recess” is a technical term, applied to transoms which set back in the frame. Transoms having no recess are usually flush with the edge of jamb or plaster. If transoms be recessed, the distance from the edge of the jamb to the sash is the recess. Any

transom recessed more than $1\frac{1}{2}$ inches from the edge of the jamb will require a special bracket.

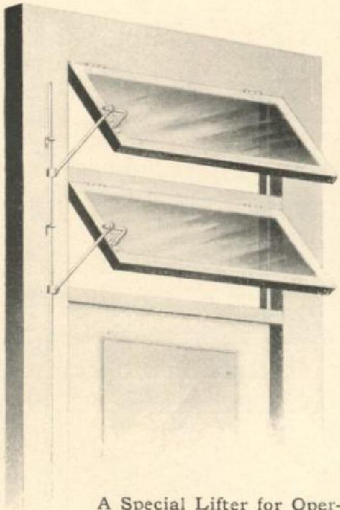
“Offset” is that distance between points on sash and casing, where the bracket and the lifter are attached. The offset of a regular bracket for a $\frac{3}{8}$ inch lifter is $2\frac{1}{2}$ inches. Hence, if the lifter be placed $3\frac{1}{2}$ inches to center back from edge of jamb, an extra offset of 2 inches will be required. To avoid confusion when ordering lifters, the extra offset only is requested.



A No. 90 Series Lifter Applied to a Transom Hinged at the Bottom



A No. 80 Series Lifter Applied to a Transom Hinged at the Center



A Special Lifter for Operating with a Single Bar Two Transoms, one above the other

When in doubt as to how transoms are to be hung, always use our No. 90 series, as these can be universally applied. When a lifter of this series is to be used on top-hung or pivoted transoms opening in at bottom, use the same method of determining the length of rod as applied to No. 80 series. Our No. 80 series lifters can also be universally applied, but not to such good advantage as the No. 90.

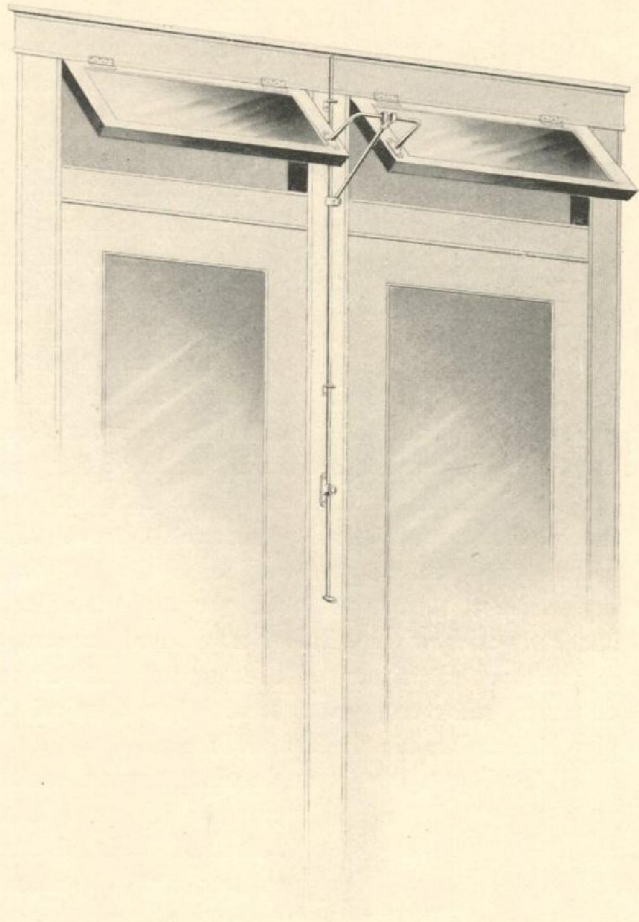
Mechanics should be advised to place the lifter on the casing adjacent to the lock.

Lifters require a space of $1\frac{1}{4}$ inches in addition to the trim on casing.

Accompanying illustrations will aid in determining the length of rod and series of regular lifters. Also a special double bracket series arranged for two transoms, hung on opposite sides of the mullion and successfully operated with one rod. The width of the mullion must be given with the order to determine the space of brackets.

We also call your attention to our manifold series, designed to operate with one rod two or more transoms placed one above the other. A sketch giving height of door and height of each transom and indicating type or series wanted, must accompany order. We contend that the ordinary transom lifter is not a thing of beauty, but a necessity, and would direct your attention to the July CORBIN for a description and illustrations of our new concealed transom opener, which is particularly adapted for high grade work. When the transom is closed, the only part of the device in view is a handsome disk with a T or lever handle attached to the casing or trim, the operating device being concealed in a groove cut in the frame back of the door stop.

A Recessed Transom with a No. 90 Series Lifter Applied



A No. 90 Double Transom Lifter Applied to Two Transoms, Hinged at the Top

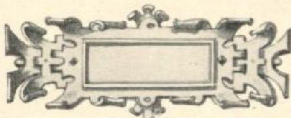
Ornament in its Relation to Builders' Hardware

By C. J. M.

IX. GERMAN RENAISSANCE



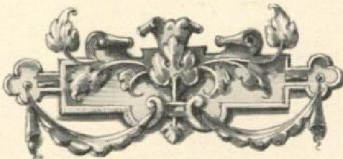
1



2



3



4. Cartouches

for strong and heavy forms, their radically different mode of living from that of the Italians and the consequent arrangement of buildings made the adaptation of the greater part of the classic features of Renaissance more or less impossible in the then prevailing German architecture. The rather unsymmetrical surface and outline of the half-timbered buildings with one story projecting beyond the other, with gables and bays everywhere, full of nooks and corners, and the immense steep roofs were altogether antagonistic to the use of columns, pilasters, panels and other classical detail, which give Italian Renaissance its signature.

The German artist and architect was therefore compelled



10. Band Scroll

HE introduction of Renaissance in Germany dates back to the end of the fifteenth and the earlier part of the sixteenth century. The foremost German artists of those days, such as Dürer, Kranach, the Holbeins and others, spent years of study in Italy, and after their return home invented and designed all sorts of art work in the then new Renaissance style and thus helped and fostered its introduction. Gothic, up to that time the dominating style in Germany, was now on the wane, yet it had taken root too deep in the mind and heart of the German and kindred nations as to discard its traditions at once and unconditionally. Thus the earlier productions of German Renaissance art work, especially in architecture and its allied branches, still show a decided leaning, in form and outline at least, toward the Gothic, and the terms "Late Gothic" and "Early German Renaissance" are almost synonyms.

The national character of the German people of those days with their decided love



5



6

Typical German Shield Forms



7. Dolphin



8. Grotesque

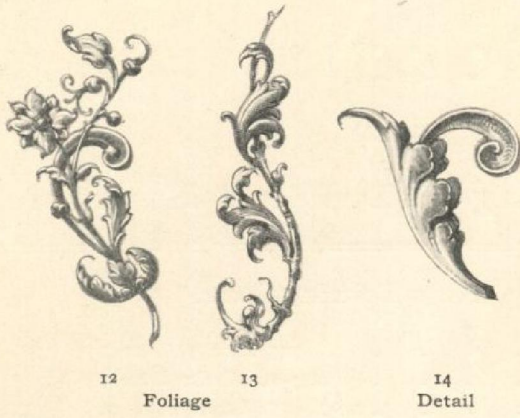


9. Grotesque



11. Cornucopia

to take up more the non-classic forms of Italian Renaissance such as cartouches, grotesques, scrollwork, etc., and in trying to bring them into harmony with his sur-



12 Foliage 13 14 Detail

roundings, he gave them a somewhat heavier character that made them more to the liking of his race, incidentally accentuating some particular features to such an extent as to make them almost the chief characteristics of the style. This refers to the unique and strong treatment of shields, cartouches, heraldic emblems, mottoes, flowing band-scrolls



15 Type of Hand Wrought Ornament

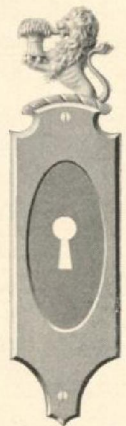
and the so-called strap-work, which German Renaissance has as a common feature with the Flemish-Dutch and the Elizabethan styles.



16. Strap-work

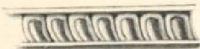
In the treatment of the foliage, Gothic influence is manifest in the round, broad modeling as in figs. 10, 12 and 4, and in the leaning toward rustic effects as in fig. 13.

The period of the German Renaissance is particularly distinguished for its celebrated productions in hand-wrought iron and in cast bronze, which came mostly from the famous shops of Nuremberg, Augsburg and some Rhenish cities. It was the age of the "Art Blacksmith par excellence" whose technique had become so popular that it influenced not only the workers in precious and other metals, but also the stone and wood carver, the leather worker, the potter, glass-blower and many others. This can be seen by the most general use in all German Renaissance work of the strap and stud ornamentation, which, strictly speaking, is a feature of wrought iron-work. A good German Renaissance hardware pattern ought to be decidedly solid, if not heavy, in general appearance, conveying the impression of strength and security rather than of delicacy and refinement. It ought to be free from classic detail and show cartouche, strap-work, heraldic emblems, heavy fruit and flower festoons, masks, etc., or if on the hand-forged order, ought to have a plainish surface and a rather cut-up outline. Hobnails and studs are desirable features wherever they can be conveniently incorporated in the design.



Special German Renaissance Cup Escutcheon

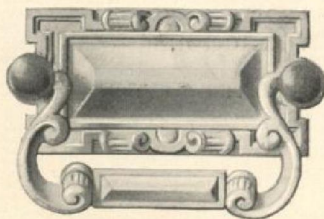
17. Obelisk, Generally Used as a Finial



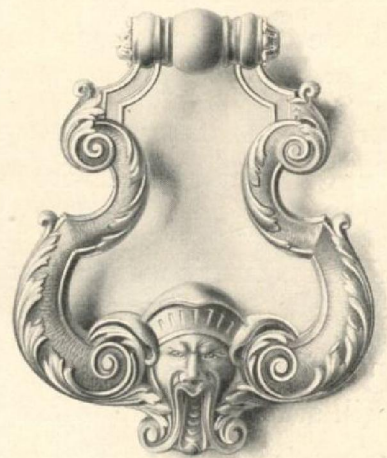
19. Border



20. Scale Border



Special German Renaissance Drawer Pull with Drop Handle



German Renaissance Knocker

The Corbin

Published by P. & F. CORBIN

152

Manufacturers of Everything in Builders' Hardware

Main Office and Factory, New Britain, Conn.

Philadelphia 925 Market Street
Chicago 104-106 Lake Street
P. & F. Corbin of New York 11-13-15 Murray Street

Agents in All the Principal Cities

All communications intended for this publication should be addressed to "THE CORBIN," in care of P. & F. Corbin, New Britain, Conn.

Special Goods vs Stock Goods

SPECIAL builders' hardware is a necessity when the conditions are such that regular stock patterns cannot be applied. Special designs or ornamentation have their use in giving an individuality in fine work, and in carrying out in the hardware the general decorative effect. There always will be special work required in this line and it is as legitimate a part of the business as that of furnishing regular stock goods.

But the salesman who would give the greatest satisfaction to the customer and his employers will furnish stock patterns where he can. Time can be saved and much annoyance thus avoided; the customer is given an equal grade of goods and the profit can be accurately figured—all things greatly to be desired and tending to smooth the rugged way of him who deals in builders' hardware.

With a line so varied as the Corbin, with the range in sizes and finishes furnished, the large number of locks with functions to suit all requirements and designs of ornamentation in all schools of art the need for special goods is reduced to its lowest point, and if salesmen will study the line with a view to furnishing just the best thing for the place from the regular goods he will find but little use for anything else in the most of his work. If one lock cannot be furnished regu-

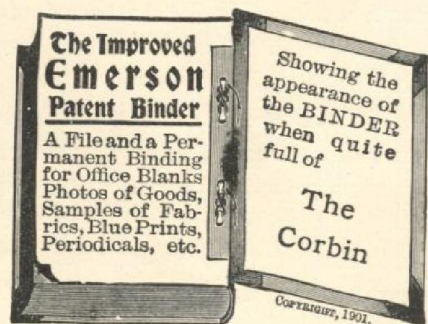
larly with the proper backset to bring the knob in the centre of the stile another can often be substituted. If the escutcheon in one design is not of the best proportions for a particular job perhaps another design in the same school will please the architect as well and be as appropriate, or if the architect's details are such that no regular hardware can be applied he can often make a change that will remove the difficulty, and will gladly do so when the case is plainly set before him, thus saving his client expense and delay and helping to make the job a satisfactory and a pleasing one to all.

It is not always easy for a man outside to know just what a change in the regular goods means in the factory. The alteration of a single dimension of a lock or bolt may necessitate an entire new set of patterns; a slight change in a design may require extra work from the artist down to the finisher, and no change can be made from the regular order of things, however slight, without extending the time required to deliver.

We have every facility for doing special work as expeditiously as it can be done and a force of men trained in this particular branch of our business, but no conditions can be evolved that will not require time and expense as compared with the production of regular goods. A little care and thought and a little effort directed to making conditions right for stock goods at the customers' end of the deal will be well expended.

The Corbin Binder

Every week brings us a fresh lot of addresses of purchasers of the CORBIN binder, and to the persons named we send copies of all back numbers that are in print, with holes punched in the back ready for insertion in the covers. We are pleased to note that a goodly proportion of the purchasers are architects, who evidently recognize the value of the information contained in the columns of THE CORBIN. Address orders to the Barrett Bindery Co., 180 Monroe Street, Chicago, and send them \$.53 for each cover ordered.



Just Between You and Me!

154 THIS IS THE EXPLANATION OF THE CAREER OF
WILLIAM HARDING

HE is greatly to be congratulated who can start in life with all of the advantages and none of the hindrances to a successful career. Most men have something to hold them back or a load to carry which impedes their progress, and it is a matter meet for reflection that the very things which, when self-earned, give the greatest help later, are often the greatest impediments at the beginning. If a load of mental, moral and material incumbrances could be shaken off at the start what records might be made!

The greater number of the successful men of today have in their youth had one great ambition,— to get ahead,— and a constant spur to effort in a healthy appetite and the necessity of keeping it satisfied. Four out of five of them have started with nothing to lose and hence could not well retrogress,— stripped for the race with all the world before them for a course. It is not a matter of accident that they have gained pre-eminence. Hardships and stern experience are the discipline which train a young man of the proper mettle for the responsibilities that come later and give him the keen insight that enables him to recognize opportunities. An early knowledge that life is one long struggle for greater things; that nothing is acquired without an effort and that the reward is proportioned to the labor expended is a great aid in the struggle for the highest place. And in no other condition can these facts be so thoroughly learned and appreciated as under the stress and privation of poverty where life is shorn of its fripperies and the possession of even the bare essentials is a matter for rejoicing.

AND THIS IS THE TALE OF WILLIAM HARDING

Taking all of these things into account, there is no reason why Billy Harding should not have gained advancement. When his father and mother died, and his uncle took him onto the farm to work in the summer and go to school in the winter his sole earthly possessions were an extra suit of clothes and his father's watch.

At twelve years, Billy did the work of a farm hand; at fifteen the work of a man, and at seventeen he found he had acquired a distaste for farm life, together with a self-reliant faith in his own ability to care for himself, and forty dollars made by following a thresher about the neighboring farms. Other boys had gone to town and made what seemed to him large wages,— in one instance as much as nine dollars a week. He felt that he could do as well as they, and doffing his farm clothes he put on his only other suit, pinned his little capital to the inside of his pocket and started for town.

When Billy had searched the town for two weeks without finding work he grew discouraged. Nobody seemed to need his services and the pocket containing his money was unpinned with distressing frequency, while his muscles ached from unaccustomed inactivity. He stood on a corner one morning and watched two men unloading kegs of nails from a wagon onto the sidewalk in front of a hardware store, which the sign proclaimed to be that of a James Grandison. When they had rolled the last keg out, he saw them clamber into the empty wagon and clatter

cheerfully down the street, and a sudden desire to share in their work seized him. Under its influence he walked into the store and approached the man at the desk.

“Do you want to hire a man?”

“No.”

“Can't you give me a job at storing away the nails outside?”

“No. The porters will roll them in when they finish loading wagons at the car.”

“See here,” said Billy, desperately, “I'm tired of standing about and if you will let me roll those kegs in I'll do it for nothing.” Then fearing a refusal, he added, “They'll be in the way when the wagon gets back.”

“Well,” said Mr. Grandison, “if it is a favor to you, you may pile the kegs up in the cellar, but you get no pay for it. Harry, show this man where to put the nails that are outside.”

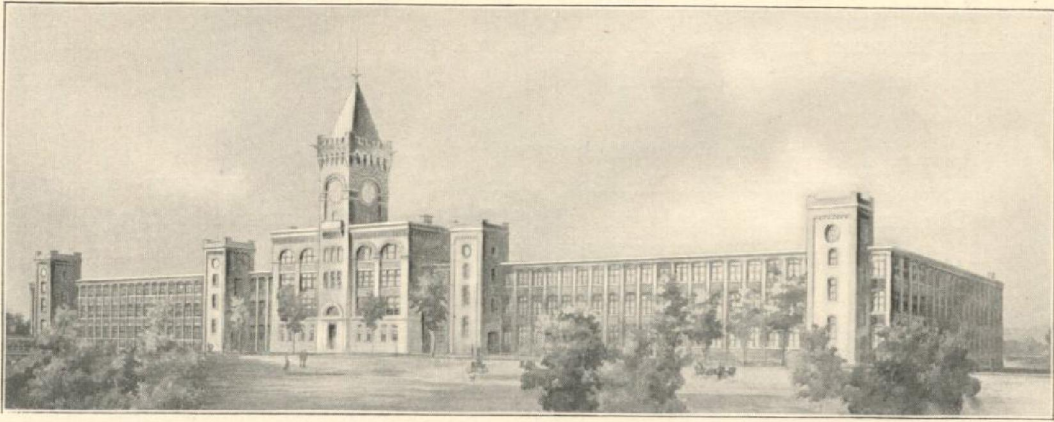
When Billy had the work done to his satisfaction, he called for Mr. Grandison to inspect it. After it had been duly approved, and just as he was turning away, the team returned with another load, and the advantage of having the walk cleared was so obvious that Billy was hired to store away the balance of the shipment. When this was finished, it was found that he was needed temporarily to help in the work that had accumulated while the nails were being unloaded. Before time for him to leave, the porters convinced Mr. Grandison that another man was needed, and Billy was retained permanently at a dollar a day and given permission to sleep in a little room back of the office, with instructions to have the store swept and dusted before seven o'clock each morning.

Thus Billy the farmer became Billy the porter, and began with every chance for advancement,—indeed, he had had two promotions since he began to work for nothing, and he already had reason to be proud of his progress. He really thought it no hardship to arise at five o'clock to sweep the store, for this was manifestly easier than getting up at four to milk as he had been wont to do, and a dollar a day was a more than sufficient income for a man whose wants were simple and whose work furnished him all the enjoyment he desired on week days. His Sunday mornings he passed at a big Methodist church down town, where the preacher had a faculty for getting at the heart of things in a pleasing, simple fashion. The afternoons he usually spent with a family from his old neighborhood, and some time in the day he managed to take a long walk into the country to fill his lungs with the fresh, pure air.

On the evening of the day that Billy made his first appearance Mr. Grandison related the incident at the dinner table in a way that excited the admiration of his son and awakened the sympathy of his wife. Jimmy Junior soon sought out this marvel of energy and with his mother's connivance invited him to the house for the evening. A genuine friendship developed between the lads, encouraged by Jimmy's mother, and if Billy profited by the companionship of young people and the city boy's ideas regarding clothing and deportment he gave in return of his own healthy, sturdy, country-bred nature to the growth and deepening of his friend's character. More than one night the little room behind the office sheltered the two lads, and on several Saturday nights (the store did not require sweeping Sunday morning) Billy shared Jimmy's bed and sat in the Grandison pew next day.

**NOW THE BALANCE OF WILLIAM HARDING'S LIFE WILL BE TOLD
IN THE MONTH OF MARCH.**

THE MAN IN THE CORNER.



Architects, Earle & Fisher, Worcester

Contractors, Norcross Bros., Worcester

Administration Building and Factory of the American Optical Company, at Southbridge, Mass.

ONE of the most complete and best appointed buildings ever erected for the office and administrative work of a manufacturing establishment is that shown in the central portion of the above illustration. It is four stories in height with a clock tower rising one hundred and fifty feet in the center. Among the features which indicate the style and completeness of the offices may be mentioned the revolving entrance doors; marble staircases and mantels; wrought balustrades; quartered oak, mahogany and bird's eye maple paneling; pneumatic tube service; exchange for local and long distance 'phones; laboratory, showroom, photographic studio, dining-room, kitchen with the most modern equipments; a hydraulic passenger elevator connecting all floors, and fireproof stairways connecting this building and factory proper.

The Standish design of hardware is used with Unit lock sets and ball-bearing butts, all in Verde antique finish. The weight and strength of the Unit lock makes it particularly well suited for factory use, while its excellence, close-fitting construction and modern improvements suit it for the very best of buildings of this class. The heavy butts with their easy action, and the locks, built with the accuracy of high-class machines, make an ideal combination. Factories and offices in factories need hardware that will stand every sort of hard usage without requiring any attention, and this the American Optical Co. have secured.

The Corbin system of master keys governs all locks in this factory. There are seven different divisions of buildings, each having its own master key, passing all the types of locks used,—mortise dead locks, padlocks, desk and drawer locks,—all of which have different changes. There is also a grand master key, passing every lock in all the divisions,—a manifest advantage. No other master cylinder will give as complete and secure a system as that of the Corbin. No other cylinder contains a separate double-locking mechanism in the same shell, operated by keys with different bittings through the same key way. No other system affords the same freedom from duplication and number of changes possible in a cylinder. It is unapproachable and unassailable, and readily appeals to the purchaser who wants the best to be had.

The Best Salesman

By W. P.

157

IT does not follow that the man who secures the greatest number of contracts in the line of Builders' Hardware, is the best posted salesman. It is possible to so furnish a building as to be no credit to the man and no advertisement or source of profit to the firm who employs him. The best salesman is the man who has the best practical knowledge of the business, and the thousand and one details connected with his work, and such a man will find himself consulted by architects, contractors and owners, as to the goods best adapted to work where the architect himself is in doubt. If he is not now among the best salesmen, so far as the amount of his sales make him the best, he soon will be. It is such a man as this with whom the architect placēs his work, knowing that on final inspection he will find it perfect in all its details.

It is the constant effort of the best salesman to educate his clients up and not down. Where called upon by the character of the work to furnish a low grade of hardware, he does it with the full knowledge of all concerned and has no kick coming at the end of the job, that he did not furnish the goods bargained for.

The best salesman is the man who best does his work, sells the most Unit locks and Corbin hardware and has no damaged or unsalable goods coming back at the end of the job.

There are few lines where true success depends more upon a thorough and practical knowledge of the business, a careful attention to detail, a perfect and correct schedule of goods required and a close supervision of the job until finished. The man who reaches this point will sooner or later find himself with all the work that one pair of hands, one brain and ten hours a day will enable him to accomplish. Those who are the best posted will tell you that they have still to learn and that none of us "know it all."

The Lightning Lunch

A Chicago man rattles ahead at a pace
At which a mere Londoner reels,
And, in proof of his taste
For an ill advised haste,
Has a habit of rushing his meals.
He esteems it bad form and old-fogyish, too,
To sit down at a table and munch;
In Chicago, you know,
It is quite *comme-il-faut*
To go in for the "Lightning Lunch."
There is nothing more chic,
Nor more Yankee-ly "slick"
Than an up-to-date "Lightning Lunch."

Their soup in the form of a capsule they bolt,
Their fish they suck from a quill;
Concentrated beefsteak
They're enabled to take
In the shape of a rather large pill;
Mutton chops are condensed into wafers with ease,
There is nothing to chew or to crunch;
And a lozenge completes,
If they're anxious for "sweets,"
What's comprised in a "Lightning Lunch."
And they're able to boast,
In a minute at most,
They can tackle the "Lightning Lunch."

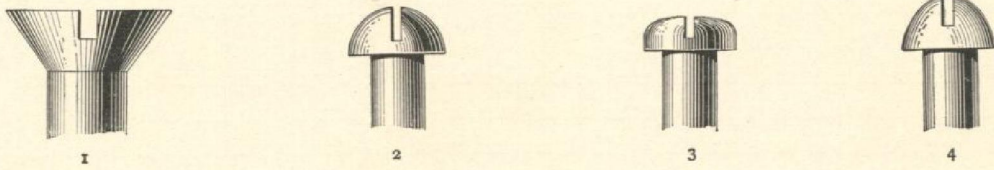
None the less let us hope that the plan will not spread,
For, whatever the Yankees may do,
We have not the least wish
To consume soup and fish
In the form of a pellet or two.
We should not be content with a tabloid for tea,
Though the notion seems funny to "Punch,"
And we firmly decline
Upon globules to dine,
Or to lozenges suck for our lunch.
If Chicago reveals
A desire for such meals,
Let her stick to her "Lightning Lunch!"

There is not the least doubt that some time may be saved
Where one's food in this way is obtained,
But admitting 'tis so,
We should much like to know
What is done with the leisure thus gained.
Because if it's spent in a sordid attempt
Further dollars together to bunch,
We can only deplore
"Filthy Lucre" should score
At the cost of the maltreated lunch;
And shall do all we can
To keep under a ban
The cult of the "Lightning Lunch!"

—London Truth.

Screw Heads

IN the division of screws into classes the head forms an important part, and the name of the head is in most instances the method of distinguishing between the different classes of the same kind, as *round head* wood screws or *flat head* machine screws. The most common kinds of heads are easily learned, but even these are often a source of confusion to the young man beginning the business, while the styles of head not commonly seen in the hardware stock are a mystery to all those who have not had especial reason to learn them. The following brief description of each may help to fix the differences in the minds of those not already acquainted with the different styles.

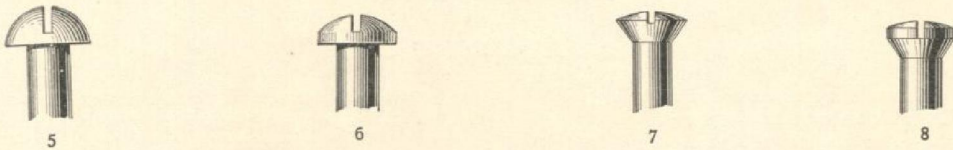


1. Flat or countersunk head, used on all flat head wood and machine screws, and on flat head stove bolts. The top of the head is flush with the surface when applied.

2. Regular round head, used on round head wood screws and stove bolts and on machine screws. The head rests upon the surface of the object to which it is applied.

3. Regular round head used on machine screws larger than $\frac{5}{16}$ inch diameter. This also is above the surface when applied.

4. Regular round head used on piano screws only. This differs from the round head used on wood and machine screws in the fact that it is higher.



5. A new round head used on piano screws only. This head has a larger base than the ordinary round head to give it a greater binding surface.

6. Fillister head used on piano screws. This head has also a large base to hold firmly to the surface upon which it rests. This screw is used in the piano action.

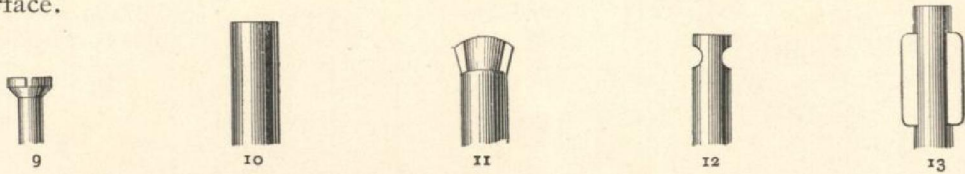
7. Regular oval head used on wood and machine screws. In application the edge of the head is flush with the surface, the slightly oval top rising above it, to give a better finish.

8. Oval head improved. Applied in the same manner as No. 7 and having the effect of giving a heavier or stockier head of the same diameter and surface contour as the regular oval. Used largely by gunmakers in attaching the plates to the locks of guns.

9. Head used on butt plate wood screws and damper block piano screws.

10. Headless, made with either wood or machine screw thread. These are used in castings where they are set into the piece cast with the screw protruding.

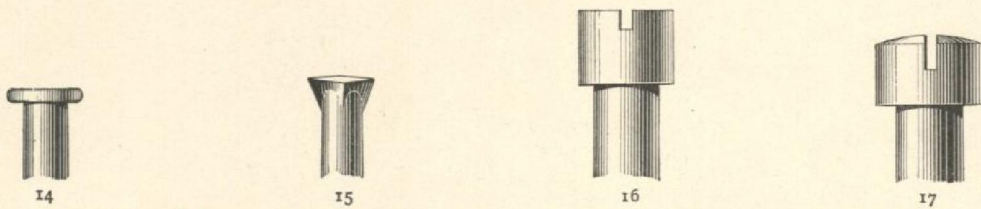
Customers also buy them in this way and fashion the head into any special shape desired. Often furnished with heads slotted, and in use driven with top below the surface.



11. Pinched head used in castings with either wood or machine screw thread. The shape of the head keeps the screw from turning in its place.

12. Grooved head used in castings with either wood or machine screw thread. The groove is formed by pinching the rod and holds the screw fast in the casting.

13. Winged head, either wood or machine screw. When this is used a hole is first bored into the wood to receive the head and it is then driven to place, with the screw protruding, as in base knobs. The hole is the same diameter as the body of the screw. The wings keep the screw from turning.

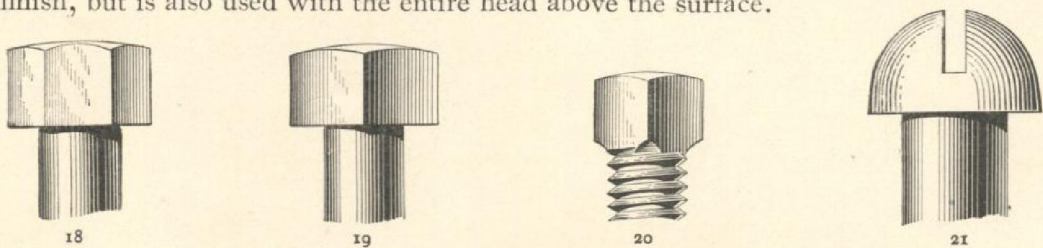


14. Round bung head, used with wood or machine screw thread. Screws with this head are used in various ways. Many of them are used in the balls of curtain pole fixtures, being soldered into the ball.

15. Square bung head, used with wood or machine screw thread, in castings.

16. Flat fillister head, used with machine and cap screws. Used in machinery, usually with the head set in flush with the surface, in places where one part of the machine slides upon or passes over another.

17. Oval fillister head used on machine and cap screws. This is often countersunk the same as the flat fillister head, leaving the round above the surface for the finish, but is also used with the entire head above the surface.

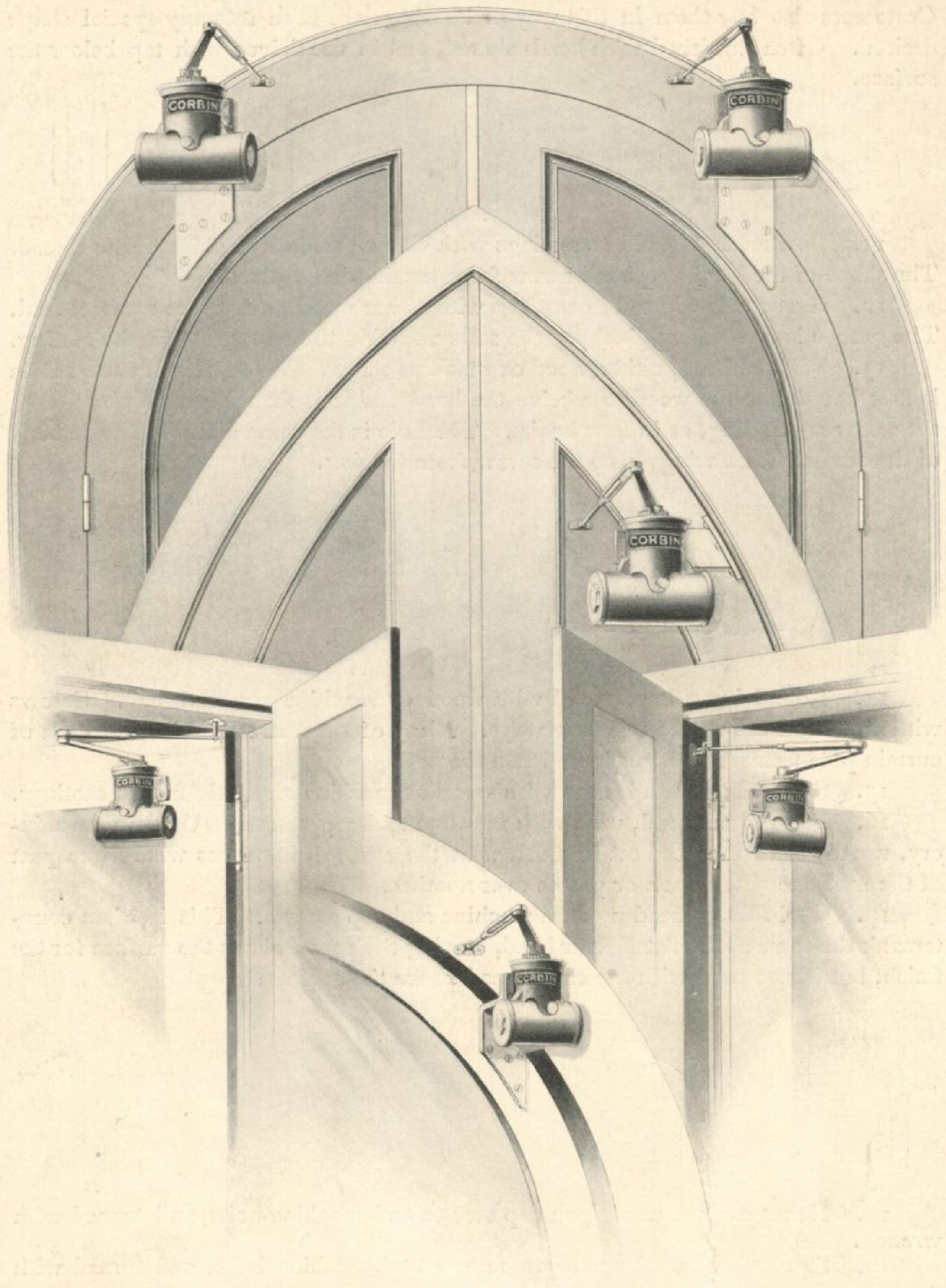


18. Hexagon head used upon cap screws and machine bolts, and turned with wrench.

19. Square head used upon cap screws and machine bolts, and turned with wrench.

20. Square head used on set screws. The head of a set screw is always of the same diameter as the body of the screw and the thread is cut to the head. These are made with a variety of points such as round, flat, cup, cone, hanger, pivot, flat pivot, round pivot, etc., all shown in the Screw Department catalogue.

21. Button head used upon cap screws. It is slightly higher than the regular round head used upon wood and machine screws.



THE CORBIN DOOR CHECK

SHOWING METHODS OF ATTACHING TO ROUND TOP AND GOTHIC DOORS
AND BETWEEN TWO DOORS ON OPPOSITE SIDES OF THE SAME CASING