

S. W. ROTHROCK.
POST CAP.
APPLICATION FILED DEC. 3, 1909.

1,037,996.

Patented Sept. 10, 1912.

Fig. 1

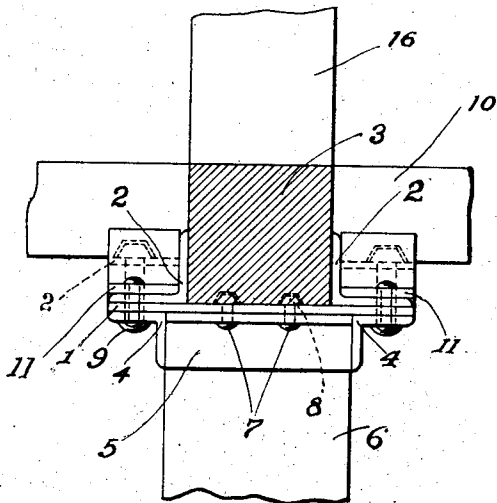


Fig. 2

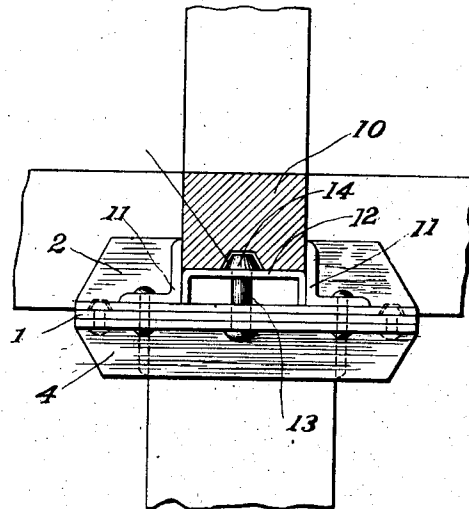
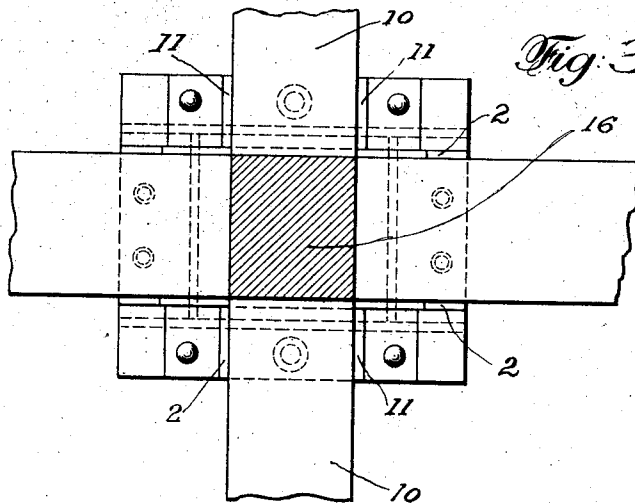


Fig. 3



Witnesses:
John O. Gumpel
A. Daly.

Samuel W. Rothrock,
Inventor,

By his Attorneys,
Kenyon & Kenyon

UNITED STATES PATENT OFFICE.

SAMUEL W. ROTHROCK, OF NEW YORK, N. Y., ASSIGNOR TO LINCOLN ARCHITECTURAL IRON COMPANY, A CORPORATION OF NEW JERSEY.

POST-CAP.

1,037,996.

Specification of Letters Patent.

Patented Sept. 10, 1912.

Application filed December 3, 1909. Serial No. 531,155.

To all whom it may concern:

Be it known that I, SAMUEL W. ROTHROCK, a citizen of the United States, and a resident of New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Post-Caps, of which the following is a specification.

My invention relates to post caps such as are used in wood building construction for securing together vertical posts or uprights and girders.

The object of my invention is to produce a staunch post cap which may be formed of stock-metal parts and so constructed that caps of many sizes may be quickly made up from a minimum number of standard commercial shapes and dimensions of rolled iron or steel. These commercial forms may be kept in stock and cut up in suitable lengths and drilled so as to be quickly assembled into a unitary post cap, which may be done by riveting, bolting or spot-welding.

By the use of my invention the amount of metal that has to be carried in stock for the manufacture of the caps may be greatly reduced since caps of many sizes may be made up, utilizing for all sizes, mostly commercial forms of the same dimensions; which may be drilled and stacked away ready for assembling; whereas in other post caps known to me and utilizing commercial iron or steel forms, it is necessary to carry forms of various dimensions for the manufacture of caps of different sizes, the larger size caps requiring commercial forms of greater dimensions which are more expensive to handle and cut.

Other advantages obtained by the manufacture of post caps in accordance with my invention will more fully appear from the following description taken in connection with the accompanying drawings, in which—

Figure 1 is an end view of one form of post-cap made in accordance with my invention, showing the timbers connected and supported thereby; Fig. 2 is a side view of the same; and Fig. 3 is a plan view thereof.

Referring to the drawings, the figures show by way of example a "four-way post-cap" utilized for securing four horizontal timbers to the uprights, and in which 1 is a floor member upon which are mounted two

angle irons 2—2 having their horizontal flanges facing out and resting upon the floor member to form a channel for receiving a horizontal timber 3. The timber is intended to rest squarely upon the floor member 1 between the vertical flanges of the angle irons 2—2. Beneath the floor member are two angle irons 4—4 substantially parallel with each other and with the upper angle irons; and transverse of the floor member and beneath the same, and between the angle irons 4—4 are two angle irons 5—5 having their horizontal flanges facing out and having their vertical flanges forming, with the vertical flanges of the angle irons 4—4, a cap fitting over an upright or post 6. The horizontal flanges of the angle irons 5—5 are bolted to the floor 1 by means of bolts 7 having projecting heads 8—8 adapted to fit into corresponding pockets in the timbers 3 to assist in holding the timbers in place. The horizontal outwardly facing flanges of the angle irons 2—2 and 4—4 are preferably secured to the floor member by means of bolts 9.

Where it is desired to use a four-way post-cap as herein illustrated, so that timbers 10—10 extending at right angles to the timbers 3 may be secured in position, I provide a pair of angle irons 11—11 on each of the outwardly facing horizontal flanges of the angle irons 2—2. These angle irons 11—11 have their horizontal flanges resting upon the horizontal flanges of the angle irons 2—2 to which they are bolted. The vertical flanges of the angle irons 11—11 thus form with each other and with the horizontal flange of the angle iron 11 upon which they rest, a channel or pocket at right angles to the angle iron 2, in which channel the timber 10 may be secured. Inasmuch as the cross pieces 10 are usually of less depth than the horizontal girders, it is necessary to provide means for elevating them above the floor level, and for this purpose I prefer to use a channel-iron 12 inverted and bolted to the floor member by a bolt 13 which preferably has an extended head or nut 14 for engaging in the recess 15 formed in the cross piece 10 for the purpose of assisting in securing the cross piece to the cap. It is obvious that in the construction of this type of post cap as in the construction of those heretofore described, the use of angle iron of

a given dimension may be utilized within proper limits to form post caps of various sizes.

The post caps may be formed by having the parts bolted or riveted together or welded as by spot-welding according to whichever form is considered most satisfactory for the particular purpose for which the post cap is intended. Also the stirrup or socket for the cross timber may be formed on one or both of the upper longitudinal angle irons, depending upon whether or not it is necessary to join three or four horizontal timbers to the upright; and instead of one or more of the bolts passing through the floor member, being provided with heads or nuts for engaging recesses in the horizontal girders, if desired the floor member may be provided with other projections for engaging in these recesses.

In construction work it is customary to have the upright above the cap, of smaller cross-section than the lower upright, and the difference in the relative sizes of the upper and lower uprights varies considerably with different constructions. In some cases the two uprights are of the same size, and in other constructions the relative dimensions of the two uprights varies so that it has been necessary in post-cap made up of commercial iron forms, to have forms of different dimensions for the different size caps, but by the use of a floor member upon which the angle irons are spaced and secured, it is possible to utilize angle irons of the same dimensions in making up post-caps of various sizes, since the angle irons may be spaced upon the floor member at any desired distance and then drilled and bolted or welded thereto; also, where caps are to be provided for lower uprights of different dimensions, it is only necessary with my improved post-cap to have flat sheets of iron or steel of different widths since the same size angle iron may be used with uprights of various cross-sections, it being only necessary to space the angle irons apart on the floor member 1 at suitable distances. By being able to utilize angle irons of a given cross-section for post-caps of various sizes, the expense of carrying different size angle irons in stock is done away with. The actual cost of making up the post-caps is also considerably lessened, since smaller angle iron may be used in the larger caps than has heretofore been possible, thus requiring less time in cutting and drilling.

It is obvious to those skilled in the art that various other modified forms of post-caps may be designed embodying my invention; and that other suitable metal shapes other than the commercial angle iron herein shown and described may be utilized in connection with the floor member, such for instance as angle pieces made up from metal

plates or other commercial metal forms, as for instance from split channel iron, and by the term "angle iron" as herein used I wish to be understood as meaning any iron shapes having a horizontal and a vertical flange; and while I have described the invention in connection with the form herein illustrated, I do not wish to be understood as limiting my invention other than as set forth in the appended claims.

I claim—

1. In a post cap, the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons substantially parallel with the upper angle irons and spaced apart upon the lower surfaces of the floor member with their horizontal flanges facing out, the upper and lower adjacent outwardly facing horizontal flanges of the angle irons being secured to the floor member to form therewith reinforced side flanges, and transverse end pieces secured beneath the floor member between the vertical flanges of the lower longitudinal angle irons.

2. In a post cap the combination of a floor member, two angle irons spaced apart upon said floor member, with their horizontal flanges facing out, two angle irons substantially parallel with the upper angle irons and spaced apart below the floor member with their horizontal flanges facing out, the spacing between said lower angle irons being greater than the spacing between the upper angle irons, and means for securing said angle irons to the floor member.

3. In a post cap the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and having their horizontal flanges facing out and narrower than the horizontal flanges of said upper angle irons, the spacing of said lower angle irons being greater than that of the upper angle irons, and means for securing said upper and lower angle irons to the floor member.

4. In a post cap the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and with their horizontal flanges facing out, two other angle irons having their horizontal flanges facing out and arranged transversely of and below the floor member and embraced between the vertical flanges of the lower longitudinal angle irons, and means for securing all of said angle irons to the floor member.

5. In a post cap the combination of a floor member, two angle irons spaced apart upon

the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and with their horizontal flanges facing out, two other angle irons having their horizontal flanges facing out and arranged transversely of and below the floor member and embraced between the vertical flanges of the lower longitudinal angle irons, means for securing the horizontal flanges of the upper and lower adjacent parallel angle irons to each other and to the floor member by passing through each, and separate means for securing said transverse lower angle irons to the floor member.

6. In a post cap the combination of a post, a floor member, two angle irons spaced apart upon the latter with their horizontal flanges facing out, two angle irons arranged upon the horizontal flange of one of said first angle irons, transverse to the same and forming with said angle iron a socket for the reception of a timber, and means below said floor member for securing the cap to the post.

7. In a post cap the combination of a post, a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, an inverted channel member secured to the horizontal flange of one of said angle irons, means secured to said floor member and forming with the upper surface of said inverted channel member and the vertical flange of said angle iron a socket for receiving a timber, and means below said floor member for securing the cap on said post.

8. In a post cap the combination of a post, a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, an inverted channel member mounted upon said floor member exterior of the angle irons, two angle irons arranged one on either side of said inverted channel member transverse to the first mentioned angle irons and forming with said channel member and one of said first angle irons a socket for receiving a timber, and means below said floor member for holding the cap to said post.

9. In a post cap, the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and with their horizontal flanges facing out, said outwardly facing upper and lower horizontal flanges of the angle irons forming with the floor member a reinforced flange or ledge for the support of a timber, and a projection from said ledge for entering the timber to hold it in place.

10. In a post cap, the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and with their horizontal flanges facing out, said outwardly facing upper and lower horizontal flanges of the angle irons forming with the floor member a reinforced flange or ledge for the support of a timber, and a socket on said ledge to receive and hold the timber in place thereon.

11. In a post cap, the combination of a floor member, two angle irons spaced apart upon the same with their horizontal flanges facing out, two angle irons spaced apart below the floor member substantially parallel with the upper angle irons and with their horizontal flanges facing out, said outwardly facing upper and lower horizontal flanges of the angle irons forming with the floor member a reinforced flange or ledge for the support of a timber, a socket on said ledge receiving the timber to prevent lateral movement thereof, and a projection from said socket entering the timber to hold it from longitudinal movement.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

SAMUEL W. ROTHROCK.

Witnesses:

EDWIN SEGER,
SAMUEL H. WARD, Jr.