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R. W. ROBINSON

BUILDER'S BRACKET

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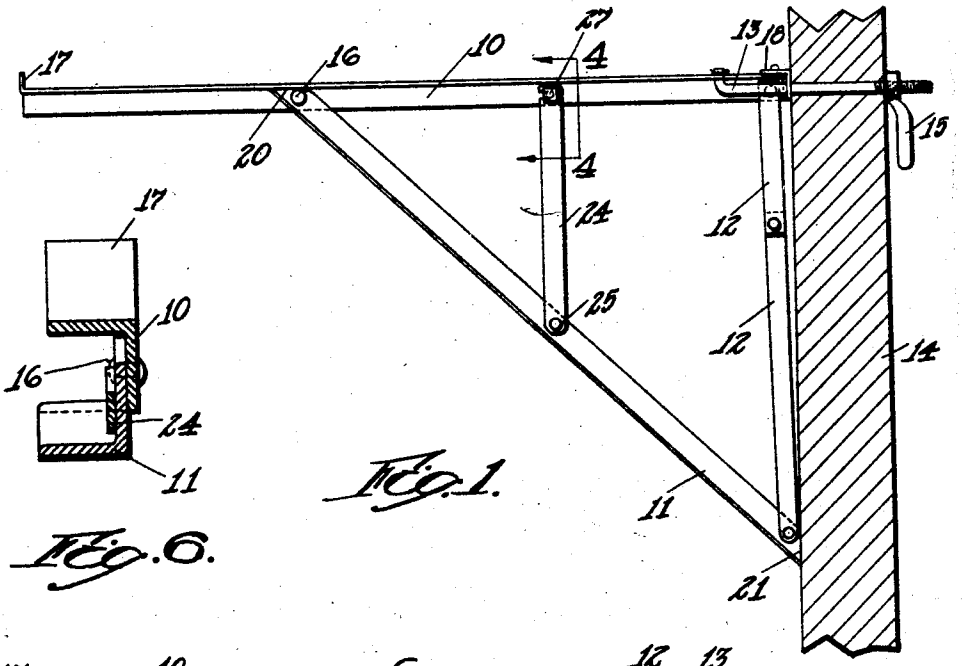


Fig. 1.

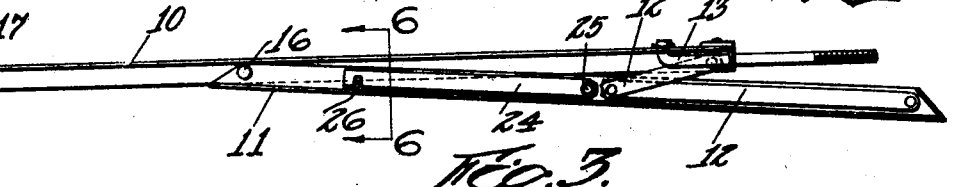


Fig. 3.

Fig. 6.

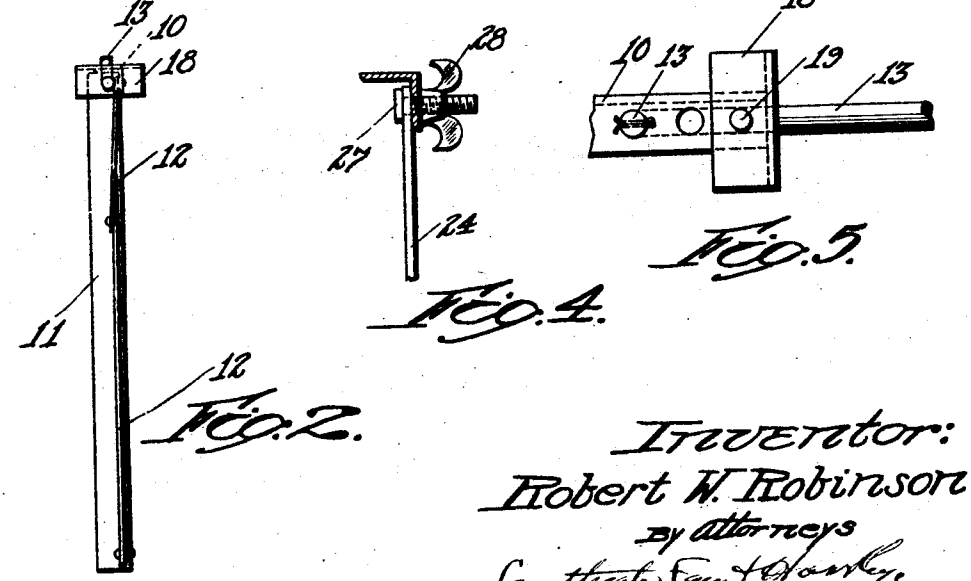


Fig. 2.

Fig. 4.

Fig. 5.

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BUILDER'S BRACKET.

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This invention relates to a folding bracket or support for attachment to a wall for holding planks or boards for workmen to stand on in performing building and repairing operations. There are brackets of this kind on the market in which the parts are made of structural iron shapes and are adapted to fold up when not in use for convenience in transportation and storage.

The principal objects of this invention are to provide a bracket of this kind which will be just as strong as those on the market and in fact stronger, on account of an intermediate brace, which I provide and yet can be made of lighter material and will be more compact and easier to handle and transport for that reason and will be less expensive to manufacture.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which

Fig. 1 is a side view of a bracket constructed in accordance with this invention shown in operative position;

Fig. 2 is an end elevation of the same;

Fig. 3 is a side view of the same bracket folded up;

Fig. 4 is a sectional view on the line 4—4 of Fig. 1;

Fig. 5 is a plan of one end on an enlarged scale, and

Fig. 6 is a sectional view on the line 6—6 of Fig. 3, enlarged.

This bracket, like those now on the market, has a main platform bar 10 which is arranged to be horizontal in practice and a strut 11 hinged to it at a distance from its outer end and extending downwardly at an angle of about 45° to support it. This strut is connected with the bar 10 by a folding brace 12 consisting of two flat pieces pivoted together and having their opposite ends pivoted to the ends of the other pieces mentioned. The top of the bar 10 is perforated and a rod 13 having an end at right angles to its length extends through the same and through the building. The rod 13 is screw threaded on the end and provided with a handle nut 15 for clamping it up against the wall.

These parts in some form or other are present in most of these brackets but in this case I make the bar 10 and the strut 11 of angle iron with their vertical walls pivoted together by a pivot rivet 16 so that when folded together their two vertical walls come close to each other and their two transverse walls extend outwardly in what would be nearly parallel planes when the device is all folded together. The bar 10 is provided with an integral projection 17 at the outer end extending upwardly and formed by the horizontal part of the angle iron. When a channel iron has been used, it has been necessary to rivet on a piece at this point for preventing the boards or planks slipping off the end. At the other end I provided a cross piece 18 also of angle iron fixedly riveted to the top flange of the bar 10 by a rivet 19 and extending across the same with its vertical flange projecting down and said vertical flange having a perforation for the bolt 13. This vertical flange constitutes the end of the bracket and rests against the wall 14, thus providing a flat broad surface for this purpose which will not dig into the wall as has been the case with those brackets in which the end of the platform bar is clamped up against the wall directly.

It will also be noticed that the folding brace 12 which is formed of pieces of flat iron is pivoted to the two vertical walls of the angle irons 10 and 11 and on the inner side of each as the device is viewed in Fig. 1. This is to provide that when folded up, as shown in Fig. 3, one of these parts folds in directly in contact with the vertical wall or flange of the strut 11 and the other one has to give a little to extend from the outside of this member to the surface of the flange of the other angle iron 10.

The strut 11 which, as stated, is in the form of an angle iron, is provided with 45° cuts at 20 and 21 to constitute its two ends. The one 20 at the top serves to limit its motion outwardly from the folded position and forms a top surface on which the horizontal wall of the angle iron 10 rests. The cut 21 at the bottom comes right up against the wall of the building and is an improvement over the ordinary forms in which the iron is bent over on an angle. It avoids the wabbling and turning of the bracket against this point where it is not secured in position. These are both shown as cut at 45° but some other convenient angle can be used, but the cut in both cases is directly through the horizontal and vertical flanges in a single plane.

An important feature of this invention consists in the provision of an extra brace

24. This is formed of a piece of flat metal hinged to the vertical wall of the strut 11 at 25 and having a notch 26 just short of its opposite end. On the angle iron bar 10 is a rivet or bolt 27 having a head spaced from the vertical flange of this angle iron. I have shown this bolt as having a thumb nut 28 on the opposite side. This bolt is located permanently in position and when the thumb nut is used the strut 24 is brought over from the position shown in Fig. 3 as the device is unfolded to the rear of the bolt 27 and then brought forward so that the notch 26 receives the bolt under the head. Then, if desired, the thumb nut can be tightened up to secure the parts in position but in use there is no force to dislodge the strut and it is not always necessary to tighten it up.

The use of the device has been described in connection with the above description of the construction. When it is not in use it is folded in the position shown in Fig. 3. The brace 24 is first swung to the right in Fig. 1 a little to loosen it from the bolt and then it is flexed enough to get it back over the head of the bolt and folded back into what is practically the interior of the strut 11. It rests against the inside of the vertical flange thereof where it takes up practically no room. Then the folding strut 12 is folded and one bar comes into the same plane as the brace 24 in contact with the flange of the angle iron 11, as shown in Fig. 3. The bolt 25 limits the length of one of these two parts of the folding strut. The other part which is considerably shorter has to have a little play so that it will not bind when brought into this position.

In this way the whole device is made out of angle iron and flat pieces, no channel irons being employed at all. The parts are all folded against the vertical walls of the angle irons and the interior parts when folded are all located very close to those walls. They do not need any protection of a side wall on what is the front side in Fig. 3 and they are way back behind the edges of the horizontal flanges of the two angle irons 10 and 11. They will not catch on anything in transportation nor project so as to interfere with packing and storage. The brace 24 is very important because it gives additional strength where it is needed and in fact, enables me to make the whole thing of lighter material than it has been made heretofore to secure the same results or to secure better results, if made of the same weight.

Although I have illustrated and described only a single form of the invention I am aware of the fact that modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore I do not wish to be limited in these respects but what I do claim is:—

1. In a builder's bracket, the combination of a platform bar of angle iron having a horizontal cross piece of angle iron secured to the top flange of the platform bar and extending crossways thereof at the end and having its vertical flange extending downwardly to cover the end of the angle iron and afford contact with the wall to which the bracket is applied, a bolt secured through the top flange of said bar and passing through the vertical flange of said cross piece and through the wall of the building and having a nut thereon for holding it in position, a single strut extending down from a point at a distance from the outer end of the bracket and pivoted thereto, a pair of bars pivoted together and constituting a folding brace with one end pivoted to the vertical flange of the platform bar, and the other pivoted to the bottom of said strut, and a vertical brace pivoted to the strut and detachably connected with said platform bar.

2. In a builder's bracket, the combination with a platform bar, a strut pivoted thereto, the bar and strut being pivoted together, a folding brace pivoted to both and consisting of two pieces pivoted together, one foldable directly in contact throughout its length with the first named brace, means for holding the bracket against a vertical wall, an additional brace pivoted to the strut and adapted to fold in contact with it throughout its length and having a notch in one side near the other end, a bolt on the bar having a head between which and the bar the end of the strut is adapted to engage, with the bolt extending through the notch, and means for tightening the bolt to hold this strut in position.

In testimony whereof I have hereunto affixed my signature.

ROBERT W. ROBINSON.