May 7, 1940. P. LAZARIDES 2,199,436

METHOD OF PRODUCING WALL BRACKETS OR HOLD-FASTS

Filed March 31, 1938

Fig. 1

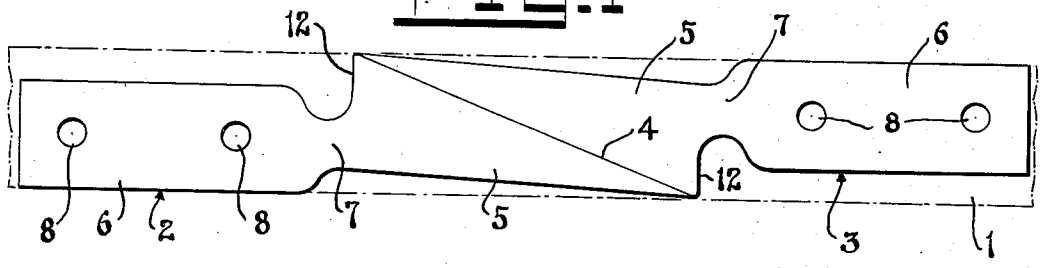


Fig. 2

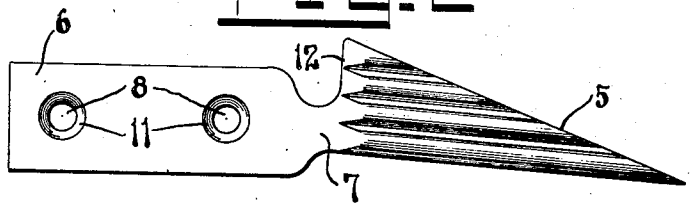


Fig. 3

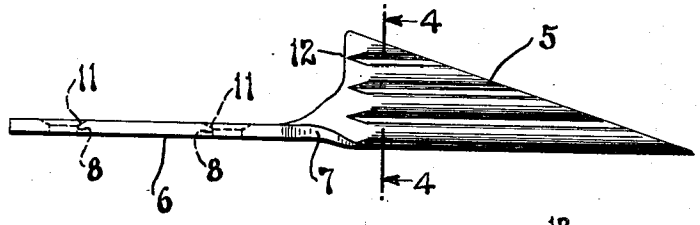
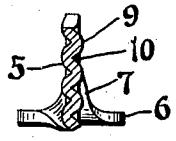


Fig. 4



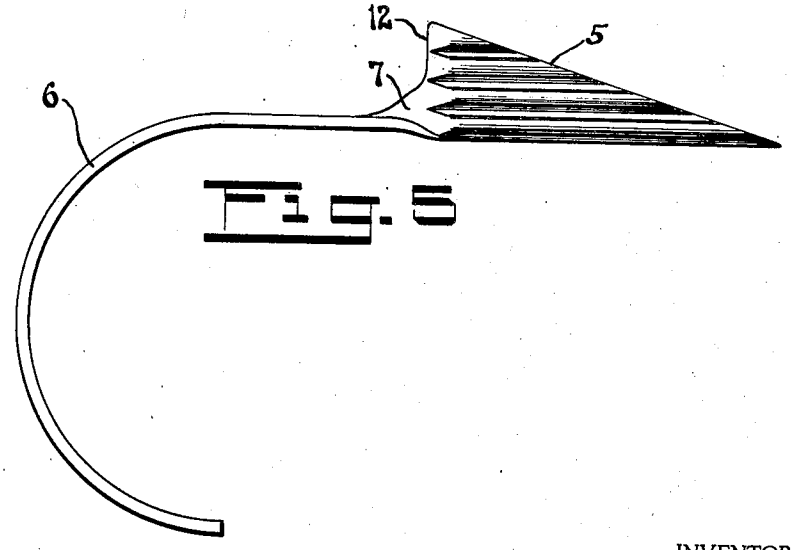


Fig. 5

INVENTOR.
Platon Lazarides
BY
Charles H. Tubin.
ATTORNEY.

Patented May 7, 1940 2,199,436

UNITED STATES PATENT OFFICE

2,199,436

METHOD OF PRODUCING WALL BRACKETS OR HOLD-FASTS

Platon Lazarides, New York, N. Y.

Application March 31, 1938, Serial No. 199,084

5 Claims. (Cl. 29—150)

This invention relates to wall brackets and hold-fasts and the process for manufacturing same, and one of the objects is to provide a new and improved process of manufacture whereby a better form of bracket or hold-fast is obtained, and which may be more readily driven and embodying greater holding characteristics, and which may be produced at lower cost than brackets and hold-fasts as heretofore manufactured.

Another object of the invention is to provide a wall bracket or hold-fast which has greater strength for a given amount of metal than brackets or hold-fasts as hitherto produced.

Another object of the invention is to provide a wall bracket or hold-fast which may be formed without heating the metal from which the bracket is produced.

Other objects and aims of the invention, more or less specific than those referred to above, will be in part obvious and in part pointed out in the course of the following description of the elements, combinations, arrangements of parts and applications of principles, constituting the invention and also in the several steps of the process hereinafter described and the relation of each step to the others thereof and the scope of protection contemplated will be indicated in the appended claims.

In the accompanying drawing wherein I have illustrated a preferred embodiment of my invention and wherein I have also ilustrated the steps of the method by which said bracket is produced.

Figure 1 illustrates in plan view the form in which a pair of brackets or hold-fasts are stamped from a strip of metal.

Figure 2 is an elevational view of my improved wall bracket showing the second step performed in the formation of my improved bracket,

Figure 3 is an elevational view of the completed bracket,

Figure 4 is a vertical sectional view taken through my improved bracket on the line 4—4 of Figure 3, and

Figure 5 is a view showing my invention embodied in a hold-fast for pipe.

Referring now to the drawing wherein similar reference characters refer to similar parts throughout the several views thereof, the reference numeral 1 denotes a strip of sheet metal, preferably wrought iron or steel, from which my improved bracket is cut out as by means of a suitably formed die.

The reference numerals 2 and 3 respectively show the blanks as they are cut out from the sheet 1. It will be noted that the blanks from which the brackets are to be formed are formed in pairs, the line 4 denoting the point of severance between neighboring blanks.

In the present instance, each blank, in the flat, is formed as illustrated in Figure 1.

This blank, it will be noted, consists of a blade portion 5, the shank portion 6 and the neck portion 7, which neck portion 7 is interposed between the blade portion 5 and the shank portion 6. As shown in Figure 1, the blank as stamped from the strip of metal 1, forms a shank, or preferably a pair of shanks 6 having substantially parallel edges, one of such edges being the edge of the strip 1, and this edge is cut inward with a curve to form one half of the neck 7, and from that point the upper edge of blade 5, as viewed in Figure 1, is formed with a slight upward slant toward the point of the blade 5 which terminates at the edge of the strip 1. The opposite edge of the shank 6 is formed with a similar inward curve to form the other half of the neck part, and then projects at right angles to the longitudinal center of the shank to the edge of the strip 1 to form the drive shoulder 12, and from that point the edge of the blade 5 slants upward at an angle to the shoulder to meet the upper edge of the blank and form the point of the blade. This latter slant extends obliquely across the full width of strip 1 from one shoulder 12 to the shoulder 12 of the second blank and constitutes the severing line 4 between the two blanks when stamped simultaneously from the strip. It also will be noted that the two curved sections forming the neck curve inwardly an equal extent toward the center line of the shank section 6 so that the neck section 7 is equally disposed on the center line of the shank section, and so that the shoulders 12 of each pair of blanks as stamped from the strip will project in opposite directions and beyond the adjacent edges of the shanks. During the stamping out of the blank, the apertures 8 have been punched from the stock.

The next step in my method consists in corrugating the blade part 5 in a longitudinal direection parallel to the straight edge of the blade as seen in Figure 2 so that the blade is given a convolute form as shown in Figures 2 and 4 of the drawing. This operation is performed by a suitable die with the metal in a cold condition.

Having accomplished this step of convoluting the blades to form the raised portions 9 and the depressions 10 forming diagonally opposite furrows 10 as illustrated in Figure 4 of the drawing, the blank in its then state of construction is placed in a suitable die which twists the metal of the neck portion 7 so that the blade portion 5 and the shank portion 6 lie in planes at right angles to each other as shown in Figure 3, and it will be noted that in twisting the blank the plane or flat side of the shank 6 is brought substantially in the plane of what now becomes the straight edge of the blade 5, so that the drive shoulder 12 at the slanting edge of the blade projects perpendicularly to the adjacent flat side of the shank 6 permitting hammer blows on the full length of

the shoulder for driving the blade. This last step of my method forms the completed bracket, except that the apertures 8 may be countersunk as at 11, if desired.

All of the above operations are performed with the metal in a cold condition.

Several advantages are derived from this mode of production. The neck or connecting web 7 between the blade and shank is relatively broad, and owing to the twist offers greater resistance to bending or breaking at that point. The longitudinal corrugations of the blade extending parallel to the straight edge impart stiffness to the blade and reduces the tendency to bend when driven into a hard material or in meeting obstructions. The corrugations at the oblique edge of the blade form cutting edges which facilitate penetration of the blade, and owing to the corrugations extending longitudinally of the blade, a greater gripping surface is obtained, and the material into which the blade is driven will become imbedded in the furrows 10, Figure 4, and retard loosening due to movement of the blade in a perpendicular plane.

Referring now to the embodiment of my invention in a hold-fast for pipe as shown in Figure 5 of the drawing, the shank portion 6 is cut much longer and bent into semi-circular form, as shown. In the formation of this form of my improved bracket, the same is accomplished by means of a suitable die.

One of the principal uses to which my improved bracket as shown in Figures 3 and 4 is to be used is in connection with shelving, the blade portion 5 being driven into the wall behind the shelving and the shank portion 6 being attached to one of the shelves as by means of screws (not shown) which pass through the apertures 8. The bracket therefore prevents the shelves from tipping or tilting forwardly away from the adjacent wall.

The embodiment of my invention shown in Figure 5 is particularly useful in connection with holding leaders in their proper place on buildings, the blade 5 being driven between the cement or mortar forming one of the sides of the building or through the wood if the buiding is of that type of construction. The curved shank 6, of course, braces the leader and holds the latter in its proper position with relation to the side of the building.

It will accordingly be seen that I have provided a construction adapted to attain, among others, all the ends and objects above enumerated in a most facile manner.

By carrying out my method as above described with a metal in a cold condition, the metal of the neck portion being formed by a twist and the flat metal from which the blank is formed is exceedingly strong.

As many changes could be made in this construction without departing from the scope of the following claims, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative only and not in a limiting sense.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. The herein described process of forming a hold-fast which consists in providing a strip of sheet metal, cutting from said strip a blank consisting of a shank portion, a blade portion and an intermediately disposed neck portion, corrugating said blade portion to form longitudinal furrows, and then twisting the neck portion of said blank with the metal in a cold condition so that the shank portion and the blade portion lie in planes at right angles with respect to each other and one face of the shank in the plane of the straight edge of the blade.

2. The herein described process of forming a hold-fast, which consists in first stamping from strip metal a blank to form in the same plane a shank, a wedge-shaped blade the short side of which forms a driving shoulder, and a web connecting the shank and blade, then corrugating the blade to form longitudinal furrows on both sides of the blade parallel to the straight edge and convolute cutting edges on the slanting edge thereof, and then twisting the web to set the shank at right angles to the blade and substantially in the plane of the straight edge thereof.

3. The herein described process of forming a hold-fast, which consists in first stamping from strip metal a blank to form in the same plane two hold-fasts, the blank comprising two end sections substantially rectangular in shape to form shanks having parallel longitudinal centers, an intervening rectangular section to form a pair of blades, the longitudinal center of which section is at an angle to the centers of the end sections, a relatively narrow web on the center line of each end section connecting the shank sections to the blade section, then severing the blade section on an oblique line to form wedge shaped blades with drive shoulders, then corrugating the blades to form longitudinal furrows on both sides of the blades parallel to the straight edges and convolute cutting edges on the slanting edges thereof, and then twisting the webs to set the shanks at right angles to the blades and substantially in the plane of the straight edges thereof.

4. The herein described process of forming a hold-fast, which consists in stamping from strip metal a blank to form shank, neck and blade sections, cutting the longitudinal edges of the shank section to curve inward toward the longitudinal center thereof to form the neck, extending one edge of the neck section outward at approximately a right angle and extending the other edge forward at an acute angle to the longitudinal center of the shank to form a right-angled triangular blade, and twisting the neck section to set the shank in a plane at a right angle to the blade and one face thereof in the plane of the long side of the right-angled triangular blade.

5. The herein described process of forming a hold-fast, which consists in stamping from strip metal a blank to form two hold-fasts by forming two shank and neck sections and one blade section intermediate the neck sections, cutting the longitudinal edges of the shank sections to curve inward toward the longitudinal center thereof to form the neck sections, extending diagonally opposite edges of the neck sections outward at approximately right angles to form drive shoulders, extending the other diagonally opposite edges forward at acute angles to the longitudinal centers of the two shank sections to form approximately a rectangular section, severing the rectangular section on an oblique line extending through the opposite angles formed at the drive shoulders, and then twisting the neck sections of the blanks to set the shanks at right angles to the blades and one face thereof in the plane of the long side of the right-angled triangular blades so formed.

PLATON LAZARIDES.