C. MAUNDERS.

DEVICE FOR SUPPORTING WASHERS WHILE UPSETTING THE COÖPERATING BOLTS OR RIVETS.

APPLICATION FILED JAN. 29, 1920.

1,398,268. **Patented Nov. 29, 1921.**

Fig. 1.

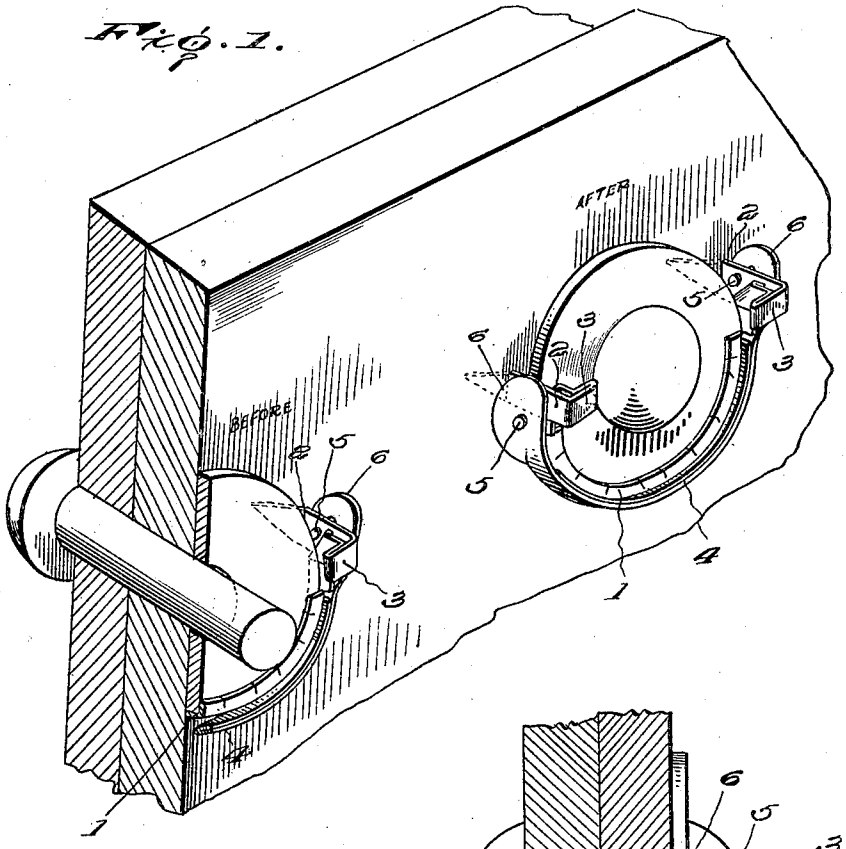
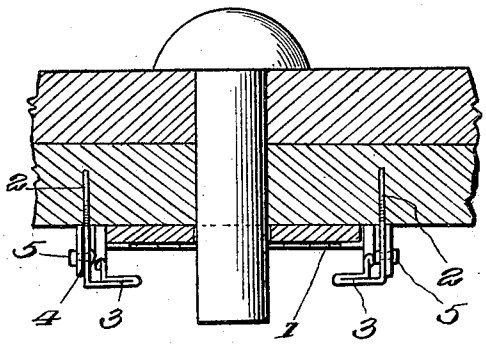


Fig. 2.



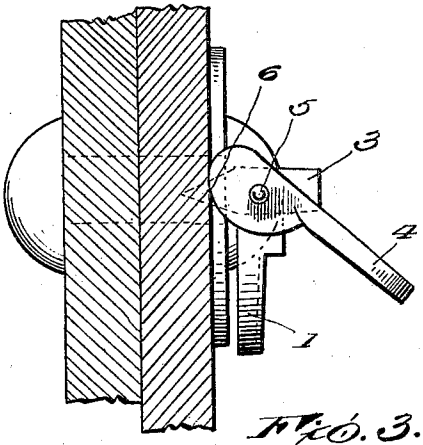
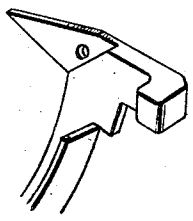


Fig. 3.

Fig. 4.



Inventor.
C. Maunders.

By Lacy & Lacy,
His Attys.

UNITED STATES PATENT OFFICE.

CHARLES MAUNDERS, OF CHILCO, BRITISH COLUMBIA, CANADA.

DEVICE FOR SUPPORTING WASHERS WHILE UPSETTING THE COÖPERATING BOLTS OR RIVETS.

1,398,268. Specification of Letters Patent. Patented Nov. 29, 1921.

Application filed January 29, 1920. Serial No. 355,003.

To all whom it may concern:

Be it known that I, CHARLES MAUNDERS, a subject of the King of Great Britain, residing at Chilco, in the Province of British Columbia and Dominion of Canada, have invented certain new and useful Improvements in Devices for Supporting Washers While Upsetting the Coöperating Bolts or Rivets, of which the following is a specification.

The object of this invention is to provide a simple and inexpensive device by which washers may be effectually held in place until the rivet used in connection therewith has been upset. A further object of the invention is to provide a device for the stated purpose which may be very easily placed in position to support a washer and which may be very easily and quickly withdrawn after the end of the rivet has been upset. One embodiment of my invention is illustrated in the accompanying drawings and will be hereinafter fully described, the novel features being subsequently pointed out in the appended claims.

In the drawings—

Figure 1 is a perspective view showing my improved holder in position to support a washer;

Fig. 2 is a view showing the washer in section and showing the holder or support in end elevation;

Fig. 3 is an edge view of the device in position and particularly showing the manner of removing the holder after the rivet has been upset.

Fig. 4 is a detail perspective view showing a slightly different form of the device.

In carrying out my invention, I employ a substantially semi-circular band 1 of metal, said band being angular in cross section whereby it will have one web adapted to bear against the edge of the washer and another web to project over the face of the washer at the edge of the same. At the ends of the semi-circular band are feet or securing prongs 2 which are preferably tapered or pointed so that they will readily enter timber without marring the same and at the outer ends of these feet or prongs are laterally disposed heads 3 which provide a striking surface to receive light blows from a hammer whereby the device may be readily secured in position to engage and support the washer. In Figs. 1, 2 and 3, I have shown the band, the feet and the heads as formed integrally by suitably bending a strip of sheet metal and this construction is light and cheap. I do not, however, restrict myself to this precise form of the invention as the device may be in the form of a light casting having a solid head to receive the blows of a hammer or other tool as indicated in Fig. 4. The device also comprises a withdrawing lever 4 which is illustrated in the form of a semi-circular bail having its ends pivoted, as at 5, upon the feet 2 at the outer sides of said feet and the extremities of this bail or withdrawing lever are eccentric to the pivots so as to present the cam edges 6 whereby if the lever be swung outwardly, as indicated in Fig. 3, a sufficient force will be exerted upon the timber to force the washer support away therefrom and withdraw the pointed ends of the feet 2.

So far as I am aware, there has been no tool provided heretofore which will support a washer in position upon a rivet until the rivet has been upset sufficiently to hold the washer and a workman is obliged to hold the washer in place with the fingers of one hand while he partly upsets the end of the rivet by using a hammer in the other hand. As the workman is frequently required to assume awkward and uncomfortable positions, especially in riveting the timbers of wooden ships it is difficult for him to hold the washer with any degree of certainty and when he releases his grip the washer will fly from the end of the rivet and injure him or a fellow-workman. Obviously, furthermore, the workman frequently strikes his own fingers with the hammer he is wielding and causes serious injury. My device overcomes these hazards and provides means whereby the workman will have one hand free and the washer will be effectually held until the rivet has been completely upset. In applying my device to a washer, the rivet is inserted through the timbers and the washer fitted over the end of the rivet in the usual manner. The holder is then brought into engagement with the washer as shown in Fig. 1, with one web fitting close to the edge of the washer and the other web overlying the face of the same. A few light taps of the hammer upon the heads 3 will drive the prongs or feet 2 into the timber sufficiently to bring the webs of the band 1 into contact with the washer so that the washer will be held closely to the timber and also supported

in proper position relative to the rivet. The riveting operation is then performed in the usual manner and when the end of the rivet has been completely upset the bail or releasing lever 4 is swung outwardly, as indicated in Fig. 3, and the cam or eccentric edge 6 will bear upon the face of the timbers so as to withdraw the prongs or feet 2 therefrom and release the holder from the washer.

My device will be made in sizes corresponding to standard sizes of washers so that all washers may be held in place by the use of my holder or clamp. The device is exceedingly simple in construction and may be consequently manufactured at a very low cost while it will be found highly efficient in use.

Having thus described the invention, what is claimed as new is:

1. A device for holding a washer on a bolt and close against the timbers which are to be secured by the bolt, while the bolt is being headed, comprising a substantially semi-circular band, means for securing said band in position to support a washer, and means for withdrawing the band from the washer.

2. A device for holding a washer on a bolt and close against the timbers which are to be secured by the bolt, while the bolt is being headed, comprising a substantially semi-circular band having a web adapted to bear against the edge of a washer and another web adapted to overlie the face of the washer, means for securing the band in engagement with a washer, and means for withdrawing the band.

3. A device for holding a washer on a bolt and close against the timbers which are to be secured by the bolt, while the bolt is being headed, comprising a substantially semi-circular band adapted to engage the edge and face of a washer, feet at the ends of the band to support the same, and means carried by the band to release the same from a washer.

4. A device for holding a washer on a bolt and close against the timbers which are to be secured by the bolt, while the bolt is being headed, comprising a band adapted to engage the edge and face of a washer, and means at the ends of the band for securing the same upon work and in engagement with a washer.

5. A device for holding a washer on a bolt and close against the timbers which are to be secured by the bolt, while the bolt is being headed, comprising a band adapted to engage the edge and face of a washer, securing points at the ends of the band, striking heads at the ends of the band to receive blows whereby the said securing points may be driven into timbers, and a releasing lever pivotally mounted upon the band to bear upon the timbers and force said points therefrom.

6. A device for holding a washer on a bolt and close against the timbers which are to be secured by the bolt, while the bolt is being headed, comprising a seat for a washer, securing points at the ends of said seat, and a releasing lever pivotally mounted upon the seat adjacent the said securing points and having cam faces to bear upon the timber whereby to withdraw the points therefrom.

In testimony whereof I affix my signature.

CHARLES MAUNDERS. [L. S.]