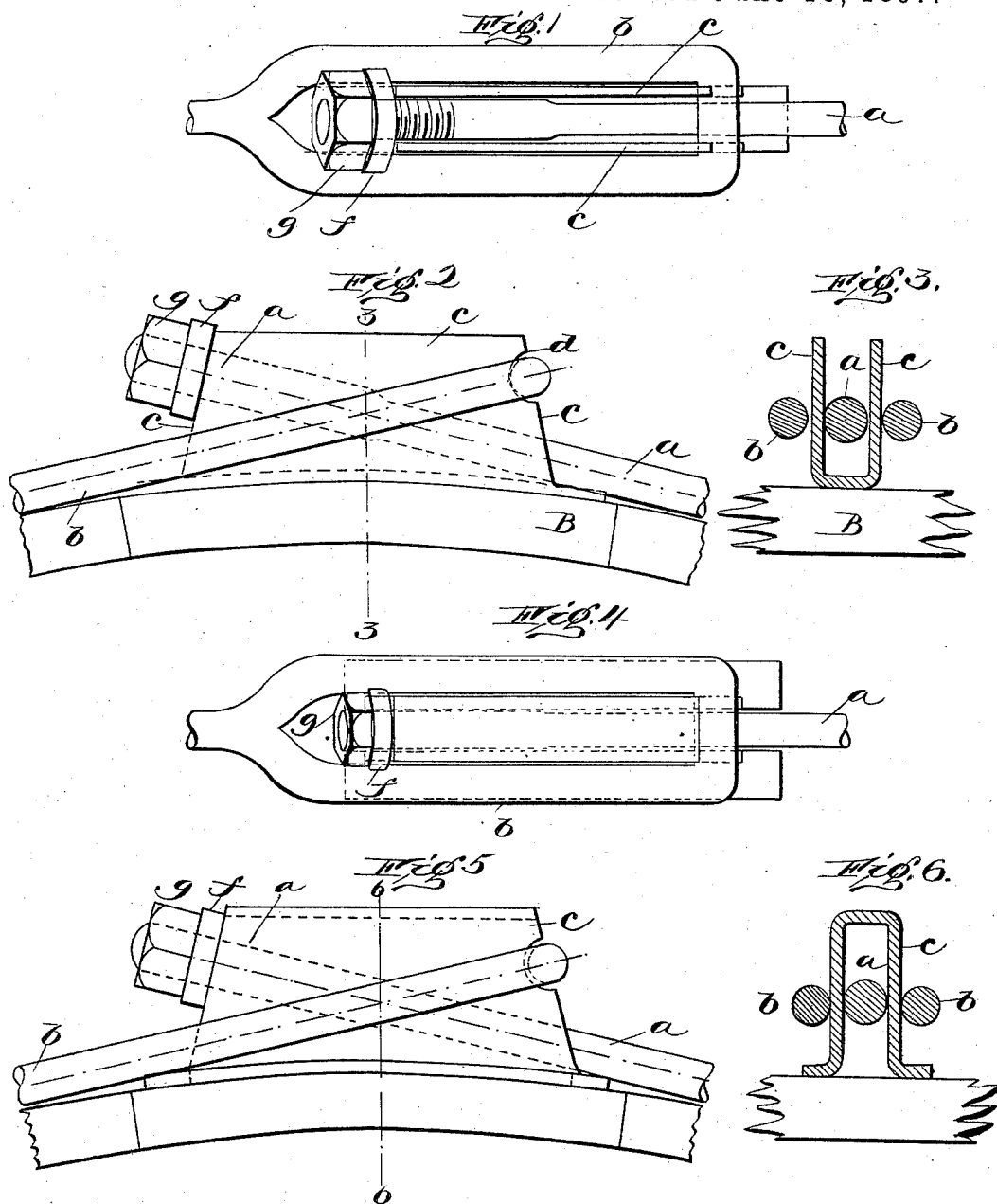


(No Model.)

J. C. O'MELVENY & C. D. VAIL.
COUPLING FOR METAL HOOPS.

No. 584,517.

Patented June 15, 1897.



witnesses:
J. M. Fowler Jr.
Grace Goodman

Inventors
J. C. O'Melveny
C. D. Vail
By C. S. Sturtevant,
Attorney

UNITED STATES PATENT OFFICE.

JOHN C. O'MELVENY AND CHARLES D. VAIL, OF OGDEN, UTAH, ASSIGNORS
TO JAMES F. DUNN, OF SALT LAKE CITY, UTAH.

COUPLING FOR METAL HOOPS.

SPECIFICATION forming part of Letters Patent No. 584,517, dated June 15, 1897.

Application filed October 15, 1896. Serial No. 609,016. (No model.)

To all whom it may concern:

Be it known that we, JOHN C. O'MELVENY and CHARLES D. VAIL, citizens of the United States, residing at Ogden, in the county of Weber, State of Utah, have invented certain new and useful Improvements in Couplings for Metal Hoops, of which the following is a description, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Our invention relates to an improvement in a coupling device for metallic hoops and shoes designed especially to be used around wooden pipes or sleeves or conduits, although of course not specifically limited thereto.

We are aware that it has heretofore been proposed to provide a metal hoop and coupling for surrounding a wooden pipe in which the hoop or strap-belt is threaded at one extremity and provided with an eye at the opposite extremity, the hoop extremities engaging a metal shoe centrally recessed to receive the eye of the hoop, the parts of the shoe on either side of the recess being provided with open grooves. The threaded extremity passes through the eye, and an apertured lug or washer is slipped over the threaded extremity engaging the eye of the opposite extremity, a nut being screwed upon the hoop in engagement with the washer and said lug or washer entering the eye of the hoop, but also overlapping the hook end thereof, thus forming a lock for the eye.

Our invention differs from the above in that the parts are so arranged as to permit the threaded end of the band to pass over the inside of the metal shoe to a bearing at one end, while the eye of the hoop engages around said metal shoe in such a manner as to transmit a compressing strain in said shoe and bring it to a full bearing or contact with the surface to be inclosed or surrounded by the said hoop.

The invention therefore consists in the matters hereinafter described, and referred to in the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view representing our invention; Fig. 2, a side elevation, and Fig. 3 a cross-section on the line 3 3 of Fig. 2. Figs.

4, 5, and 6 are similar views of a slightly-modified form of our invention.

In the drawings, A represents a metal hoop adapted to surround a pipe, sleeve, or conduit, having one extremity threaded, as shown at *a*, and at its opposite extremity provided with an elongated eye *b*.

B represents a metal shoe preferably curved on its lower face and having upwardly-extending flanges *c*, which at one end are preferably, but not necessarily, notched, as shown at *d*, and as shown is struck up, stamped, or otherwise pressed out of sheet metal, the flanges forming between them a U-shaped channel. The opposite faces of these flanges are preferably arranged at an incline, so that the bearing of the eye *b* and of the nut and washer *f* and *g* on the threaded end of the hoop will be perfectly square. The eye *b* is large enough to entirely embrace the metal shoe and is wide enough at one end to allow the nut and washer to slip through it. By this construction it will be seen that the eye surrounds the shoe, the threaded end passes through it, and there is a bearing at each end of the shoe, so that when the nut is screwed up only a compressive strain is transmitted in said shoe and the latter is brought to a full bearing in contact with the surface which is to be embraced by the hoop.

It will thus be seen that the present invention is simpler, more effective, and easier of application than the device heretofore referred to, for in said device the eye does not embrace the shoe, but rests in a groove therein, and is simply held in said groove by a washer which has to be of peculiar shape and in itself contains half of the groove in which the upper end of the eye rests.

In Figs. 4, 5, and 6 a modification is shown in which the metal shoe is closed at the top and has horizontal flanges at the bottom.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The herein-described shoe or coupling formed with two parallel longitudinal side flanges connected at one longitudinal edge thus forming an unobstructed channel from end to end of the shoe and said shoe having portions at each end extending beyond the

plane of the side flanges, the end edges of the flanges forming shoulders, and a nut and loop on the respective ends of a hoop for engaging the said shoulders, substantially as described.

5 2. The herein-described shoe or coupling having a base portion, upwardly-extending flanges forming between them an open recess; the base portion extending horizontally
10 beyond the plane of the flanges, and a strap-bolt resting at one end in said recess and upon the horizontal projection and at its other end provided with an eye embracing the shoe or
15 coupling, said eye at its lower end being narrower than the horizontal projection directly below it, substantially as described.

3. The combination with the U-shaped channel-iron forming a coupling or shoe, its longitudinal side flanges at one end being
20 provided with notches, of a hoop having on one end a nut to engage one end of said flanges and a hoop having an elongated eye of width sufficient to embrace the shoe from
25 end to end and to allow of the passage through it of the nut also, said eye engaging

with its outer cross-piece the notches formed in the end edges of the flanges, said shoe having horizontal extensions projecting beyond the end edges of the flanges, substantially as described.

30 4. The herein-described shoe or coupling struck up out of sheet metal and comprising a suitable base and parallel longitudinal side flanges, said flanges at one end being notched and forming between them a U-shaped chan-
35 nel and a hoop threaded at one end to receive a nut, said threaded end of the hoop fitting in the U-shaped channel and the nut bearing on the end edges of the flanges and the other end of said hoop being provided with a loop
40 embracing the flanges and fitting in the notches, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN C. O'MELVENY.
CHARLES D. VAIL.

Witnesses:

FRANK R. NICHOLAS,
DEANE C. DE GROFF.