(No Model.)

H. C. SWAN.

METAL JOINT.

No. 591,303. Patented Oct. 5, 1897.

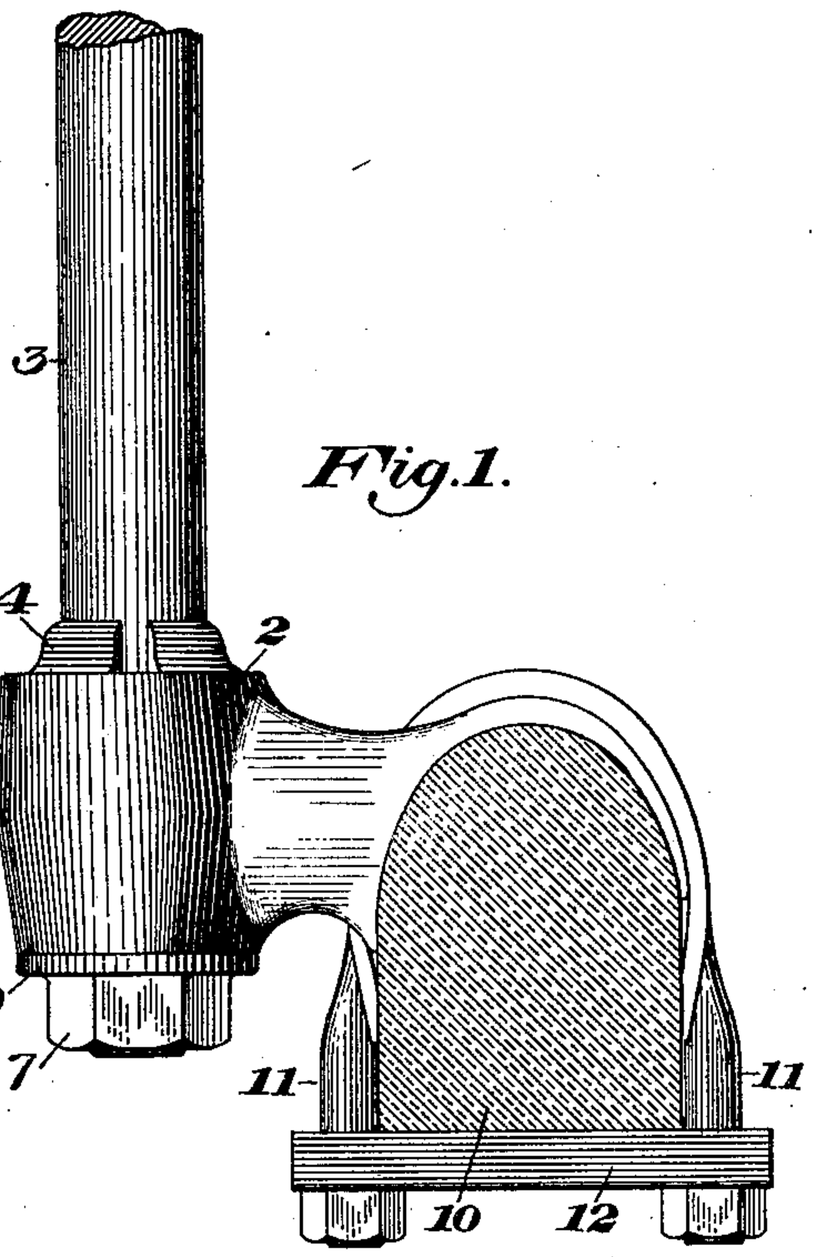


Fig. 1.

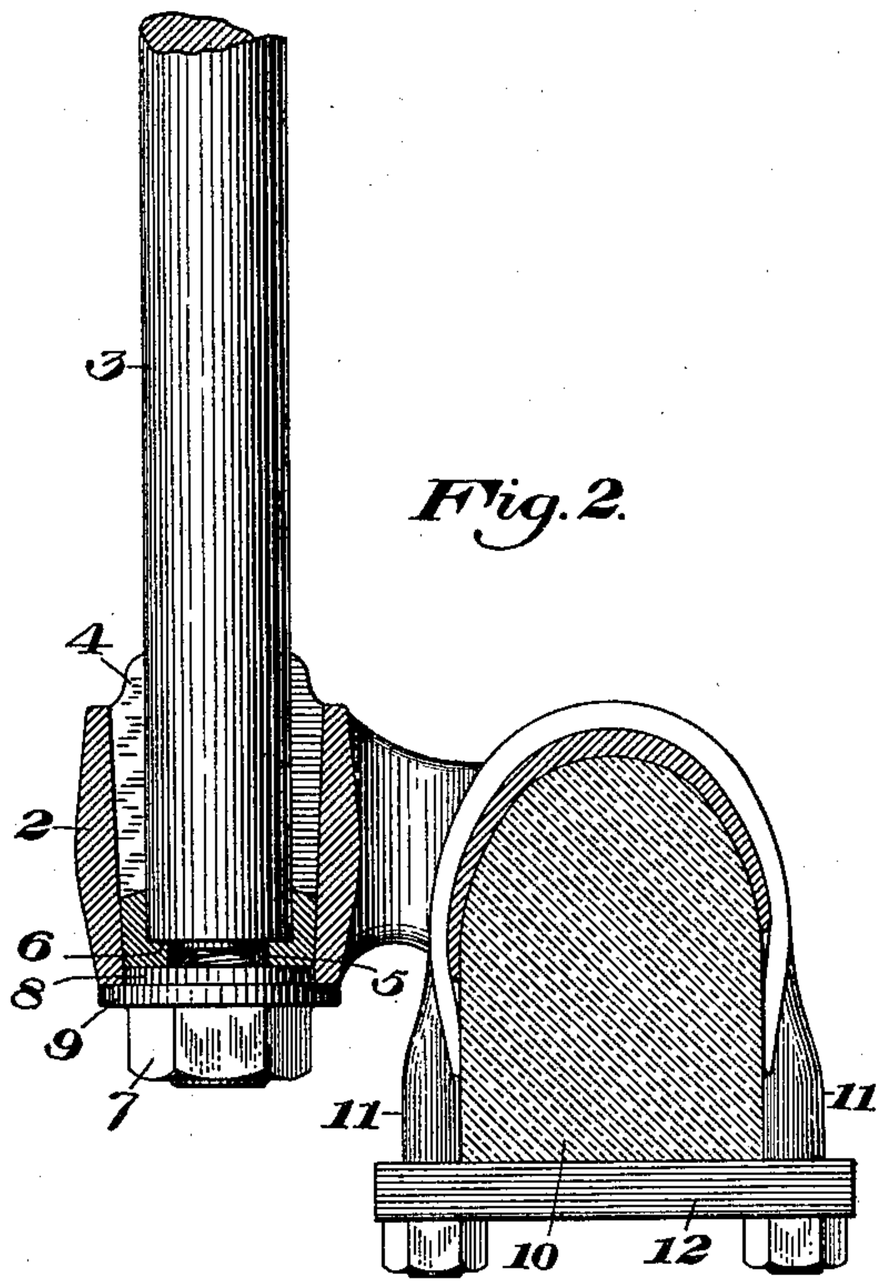


Fig. 2.

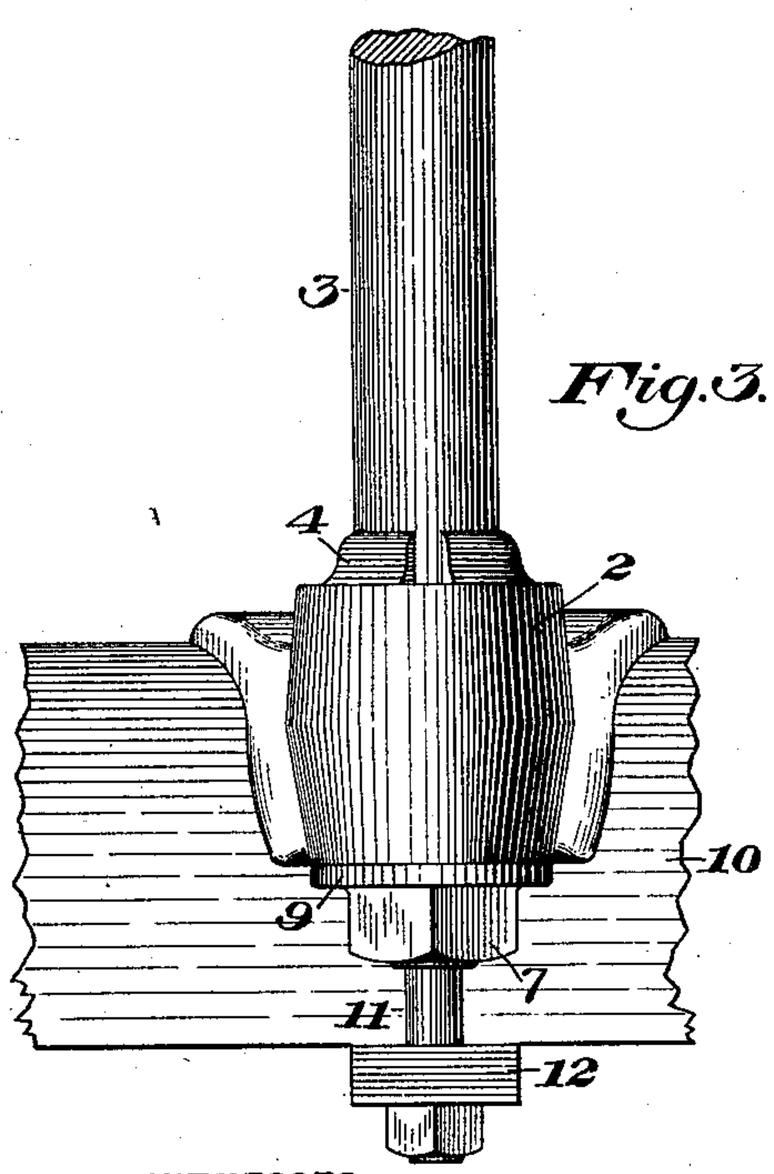


Fig. 3.

Fig. 4.

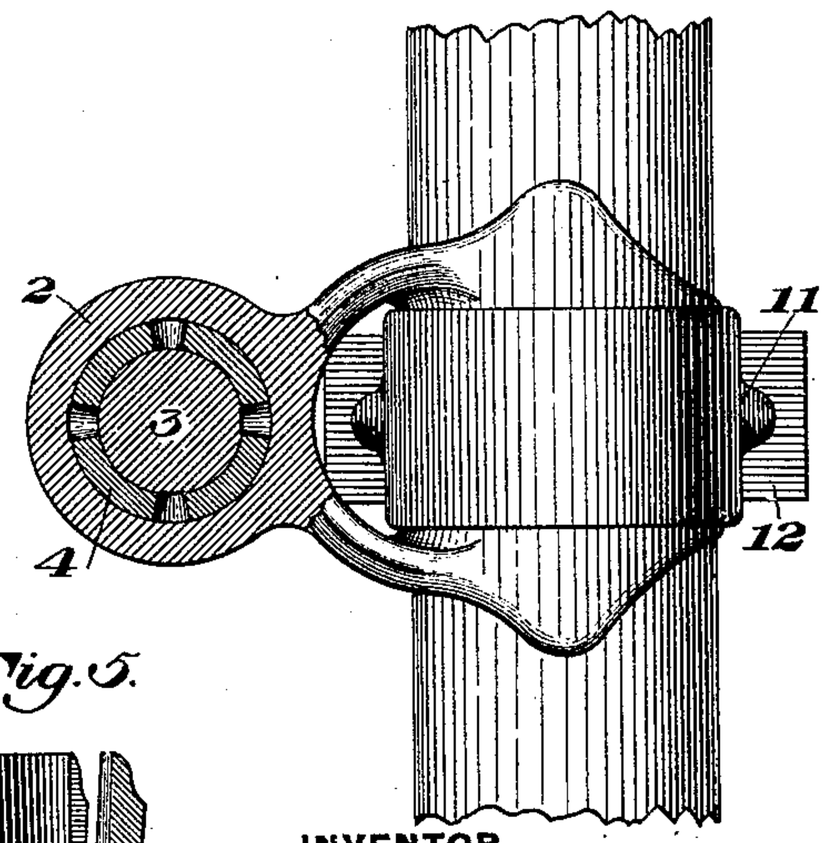
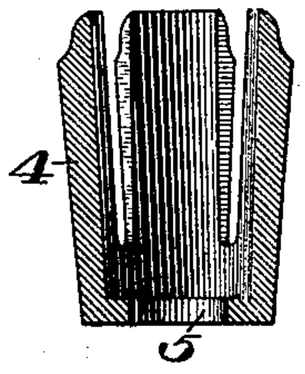


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY C. SWAN, OF OSHKOSH, WISCONSIN.

METAL JOINT.

SPECIFICATION forming part of Letters Patent No. 591,303, dated October 5, 1897.

Application filed May 25, 1897. Serial No. 638,018. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. SWAN, of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented a new and useful Improvement in Metal Joints, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved socket secured to the spring-bar of a vehicle. Fig. 2 is a similar view partly broken away. Fig. 3 is a front elevation, and Fig. 4 a sectional plan view, of the same; and Fig. 5 is a detail view of the slotted thimble I employ.

My invention relates to the class of metal sockets or joints, and especially canopy-top sockets, and is designed to overcome the difficulty which has been heretofore experienced of the breaking of the canopy-top post below the shoulder or collar of the post at the point where the greatest strain is brought upon it.

To that end it consists in a socket having a tapered inner surface in combination with a slotted thimble fitting therein and having a correspondingly-tapered outer surface, the post extending through this thimble and being provided with means for drawing the thimble into the socket, thereby making a strong and secure joint.

In the drawings, 2 represents the canopy-top socket, having its inner surface tapered upwardly, as shown in Fig. 2. Within this socket fits the slotted thimble 4, which is open at its upper end, and at its lower end is provided with a hole 5, through which extends the reduced and screw-threaded portion of the post 3. A shoulder or offset is thus formed around the hole 5 in the end of the thimble, against which shoulder abuts the annular shoulder 6, formed by reducing the end portion of the post.

7 is a nut of suitable size to engage the screw-threaded end portion of the post, this nut preferably having an annular boss 8 arranged to enter the lower end of the socket, the ring portion 9 beneath the boss closing the lower end of the socket and giving a neat appearance thereto.

In assembling the parts the canopy-top post is placed in the thimble, which is then inserted in the socket. The nut is then engaged with the lower screw-threaded end of the post and, being tightened, draws the thimble downwardly and gives a very firm and secure fastening.

I have shown my improved socket as arranged to be secured to the spring-bar 10 of a vehicle by means of ordinary axle-clips 11 and a lower clip-tie 12. The socket may, however, be applied to the end of a seat-iron or to any other part, as desired, as this does not constitute a part of my invention.

The advantages of the socket will be apparent to those skilled in the art, since the full size and strength of the post is obtained at the point where the greatest strain is brought to bear, thus preventing liability of breakage, while a secure and neatly-finished joint is obtained.

I have shown my invention as applied to a canopy-top socket; but I intend to cover the same whether used in this connection or with any metal socket or joint.

Many changes may be made in the form and arrangement of the parts without departure from my invention, since

What I claim is—

1. The combination with a socket having a tapered inner surface, of a slotted thimble having a correspondingly-tapered outer surface arranged to fit therein, a post extending through the thimble and having a shoulder engaging therewith, and a nut engaging the end of the post and arranged to draw the thimble into the socket.

2. The combination with a socket having a tapered inner surface, of a slotted thimble having a tapered outer surface arranged to fit therein, a hole in the lower end of the thimble, a post extending within the thimble and having a reduced and screw-threaded portion

extending through said hole, and a nut arranged to close the lower end of the socket and draw the socket and post into place.

3. The combination with a socket having a tapered inner surface, of a thimble having a correspondingly-tapered outer surface arranged to fit therein, a post extending within the thimble, and a nut at the end of the post and out of contact with the thimble, said nut being arranged to draw the thimble into the socket.

In testimony whereof I have hereunto set my hand.

HENRY C. SWAN.

Witnesses:
MILFORD LEWIS,
MARTIN O. SENSENY.