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T. H. PATENALL.

RING AND POUCH FOR HIGH SPEED TRAIN STAFF SYSTEMS.

APPLICATION FILED APR. 18, 1902.

NO MODEL.

Fig. 1.

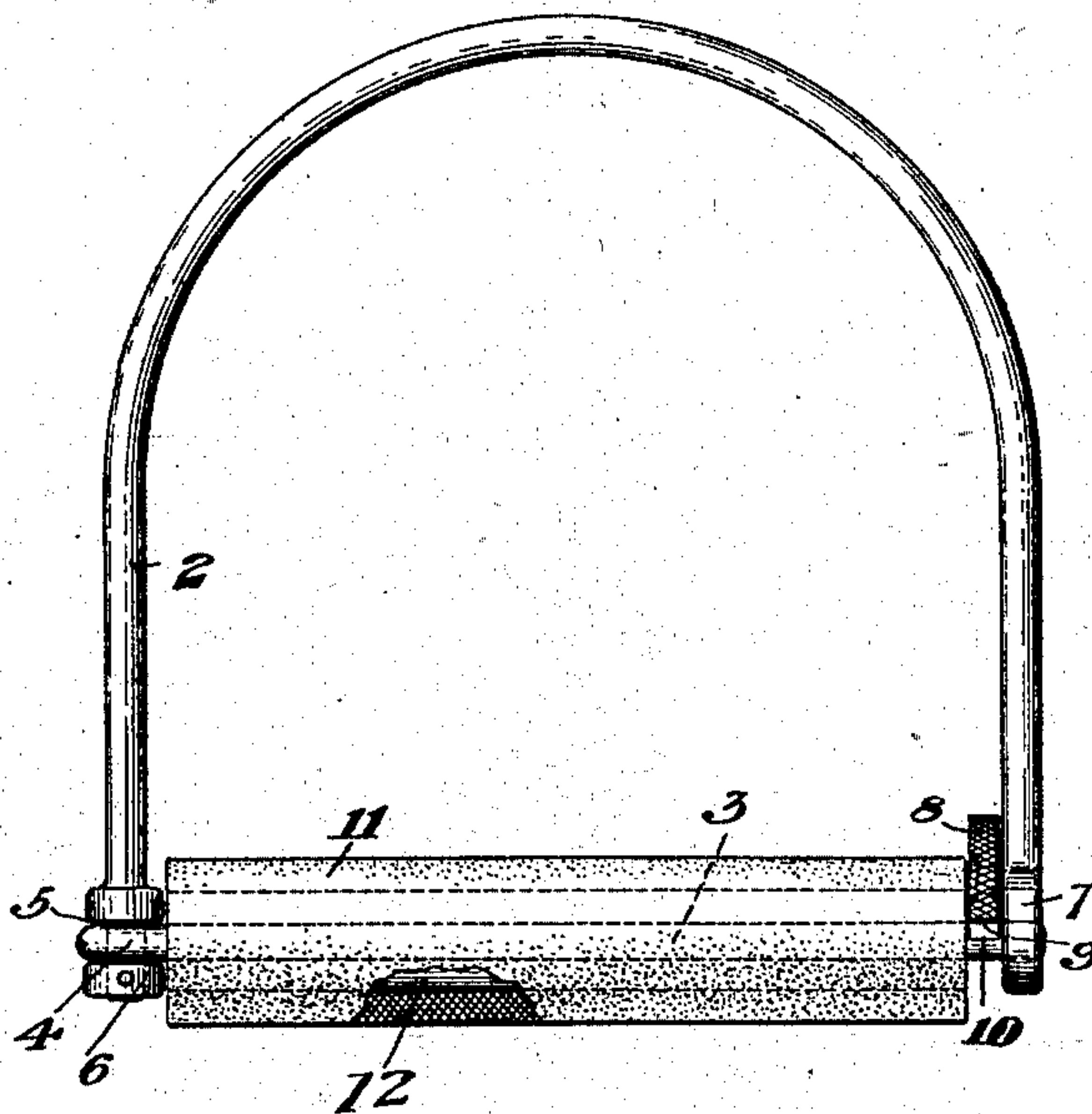
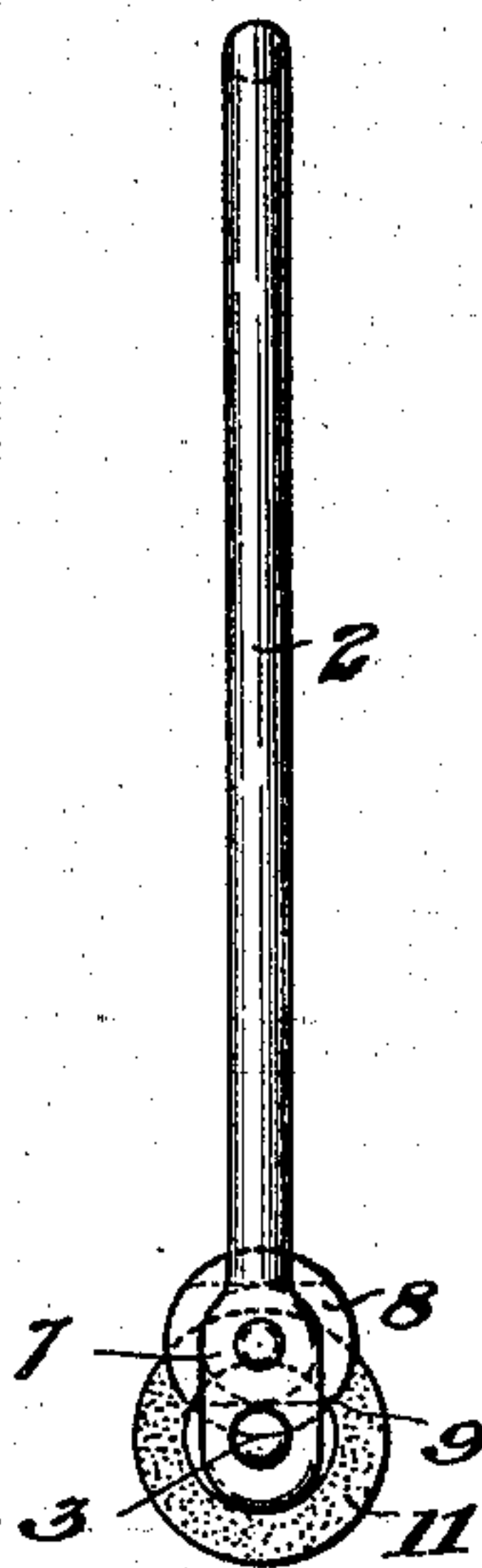


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS H. PATENALL, OF WILKINSBURG, PENNSYLVANIA, ASSIGNOR TO
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RING AND POUCH FOR HIGH-SPEED-TRAIN STAFF SYSTEMS.

SPECIFICATION forming part of Letters Patent No. 720,057, dated February 10, 1903.

Application filed April 18, 1902. Serial No. 103,536. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. PATENALL, of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Ring and Pouch for High-Speed-Train Staff Systems, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of my device, partly in section; and Fig. 2 is an edge view of the same.

My invention relates to devices for holding a staff used in high-speed-train staff systems, this system being that in which a staff is taken from a locking device and is delivered to the engineer of a train and in which another staff cannot be taken out of the locking devices until the one already taken out has been replaced in one of the locking devices controlling this section of track. The staff, ring, and pouch are received by moving trains from cranes provided with means for holding the same, the cranes being placed adjacent to the track at block-stations. The ring, pouch, and staff are delivered by devices on the engines to catchers on cranes at block-stations. My invention is designed to afford complete protection to the staff, so as to prevent its injury and at the same time enable it to be picked up by the rapidly-moving train without damage to the staff and be delivered with equal facility by the train to a suitable catcher on a crane conveniently located at the side of the track for the purpose of receiving the ring, pouch, and staff. The crane with its catching and delivering arms and the device upon the train for receiving and delivering the ring and pouch are not described and claimed herein, but are made the subject of my copending applications, Serial No. 103,537, filed April 18, 1902, and Serial No. 103,538, filed April 18, 1902. These objects are attained in a simple and efficient manner by providing a ring portion having a staff-holder, which comprises a spindle or other support by which the staff is held in proper position and a protecting-sheath within which the staff is incased when on the spindle.

My invention further consists in certain

features of construction and combination of parts more fully hereinafter described, and pointed out in the claims.

In the drawings, 2 represents a preferably U-shaped frame. The frame 2 is provided with a rod or spindle 3, and this rod or spindle has an eye 4, which surrounds a stud 5, formed on one branch of the U-shaped frame, which frame, together with the spindle, constitutes a ring. This frame 2 is also provided with a retaining-collar 6, which holds the eye of the spindle 4 upon the stud 5. The opposite branch of the U-shaped frame 2 has an eye 7 formed upon it, within which the other end of the spindle 3 fits. Pivoted to this branch of the U-shaped frame 2 is a locking-piece 8, which is preferably a disk-shaped piece which is cut away at 9 on one side, so as to permit the insertion of the end of the spindle 3 into the eye 7. A notch 10 near the end of the spindle 3 is provided for the purpose of receiving the locking-piece 8 when turned so as to bring the curved portion of the same within the notch 10. The U-shaped frame of the ring is sufficiently elastic to allow it to be sprung over the end of the spindle 3. A sheath 11, of rubber or other suitable material, is placed around the spindle 3 and forms the necessary protection to the staff 12 to prevent its being injured when the device is in use.

The operation of my device is simple. A staff 12 is placed upon the spindle 3, one end of which is permanently secured to one branch of the frame 2, and the sheath or casing 11 is placed over the staff 12, so as to protect it. The opposite end of the spindle 3 is then inserted in the eye 7 of the U-shaped frame, the branches of the frame being sprung apart for this purpose. After the spindle 3 is in place the locking-piece 8 is turned, so as to enter the notch 10 in spindle 3, thereby securing the parts in position ready to be delivered by or to the moving train by suitable devices arranged to hold the ring, staff, and pouch.

The advantages of my invention will be appreciated by those skilled in the art, since it is simple and durable and affords a holder for the staff which permits the staff to be de-

livered and received at high speed without danger of injury to the staff or of missing the catching or delivering mechanism provided at suitable stations along the railroad or
5 placed upon the train itself.

Many changes may be made in the form or arrangement of parts by the skilled mechanic without departing from the spirit and scope of my invention, since

10 What I claim is—

1. In high-speed-train staff apparatus, a staff-holder, comprising a staff-holding member, and a second member engaging said staff-holding portion and retaining the staff placed
15 thereon, said members when united forming a ring; substantially as described.

2. In high-speed-train staff apparatus, a staff-holder, comprising a staff-holding member, a sheath or pouch adapted to fit around
20 said member and the staff when placed thereon, and a second member engaging said staff-holding portion and retaining the staff and sheath thereon, said members, when united, forming a ring and pouch; substantially as
25 described.

3. In high-speed-train staff apparatus, a staff-holder, comprising a spindle forming one section of a ring, a second ring-section to

which said spindle is pivoted at one end, and engaging the free end of said spindle at the
30 other, said parts when united forming a staff-holding ring; substantially as described.

4. In high-speed-train staff apparatus, a staff, ring and pouch, comprising a staff-holding spindle, a sheath or pouch surrounding
35 said spindle, and adapted to incase the staff, a U-shaped member to which said spindle is secured at one side, and by which it is engaged by the other side, and a lock secured to said U-shaped member, engaging said staff-
40 carrying spindle; substantially as described.

5. In a high-speed-train staff apparatus, the combination of a staff and ring, or yoke, secured thereto; substantially as described.

6. In high-speed-train staff apparatus, a
45 staff-holder, comprising a staff-holding member, and a second member engaging said staff-holding portion and retaining the staff placed thereon; substantially as described.

In testimony whereof I have hereunto set
50 my hand.

THOMAS H. PATENALL.

Witnesses:

W. L. MCDANIEL,
JNO. M. LINDSAY.