

No. 720,540.

PATENTED FEB. 10, 1903.

H. WEBER.
WRIST PLATE LOCK.
APPLICATION FILED SEPT. 23, 1902.

NO MODEL.

Fig. 1.

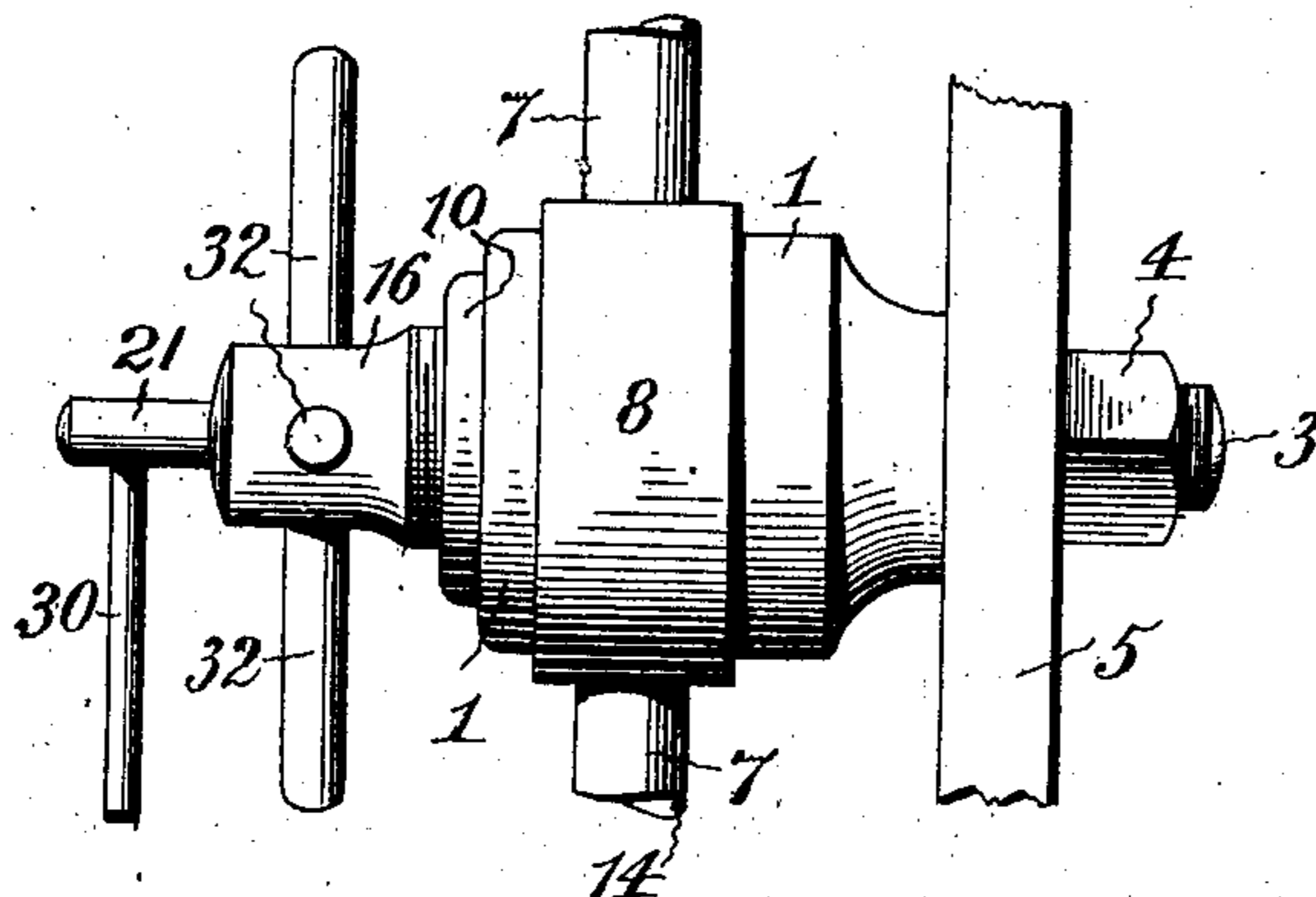


Fig. 2.

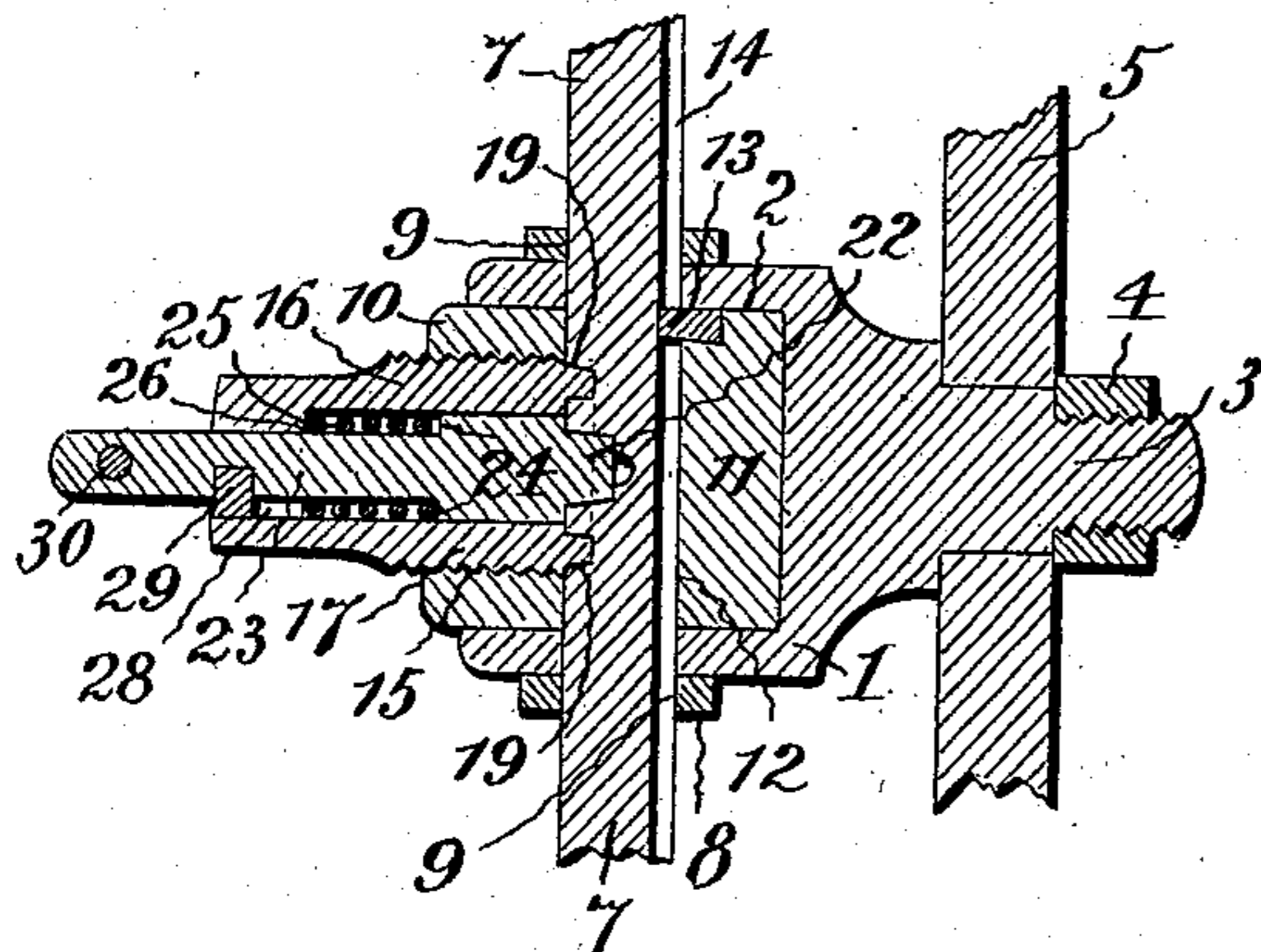
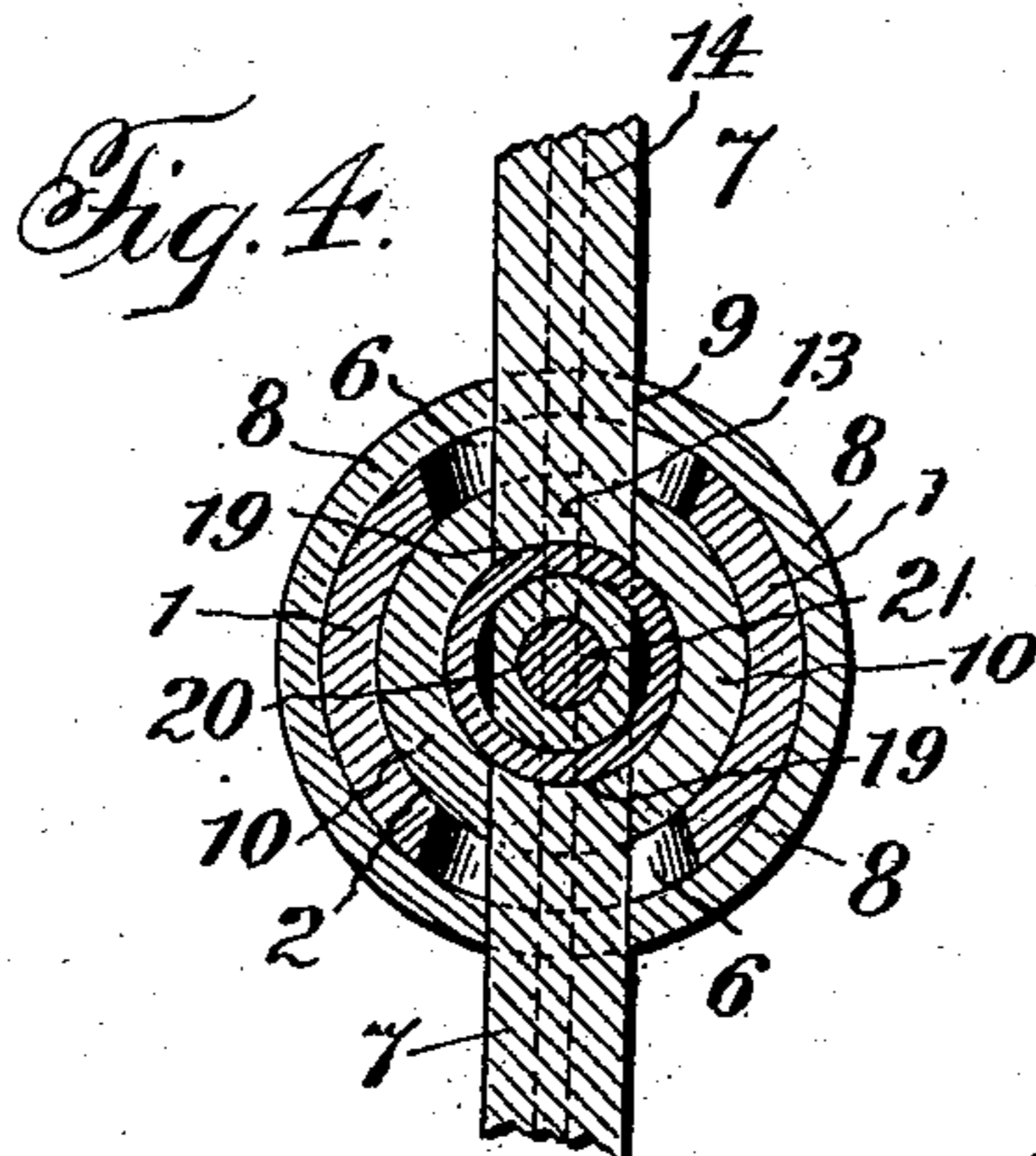
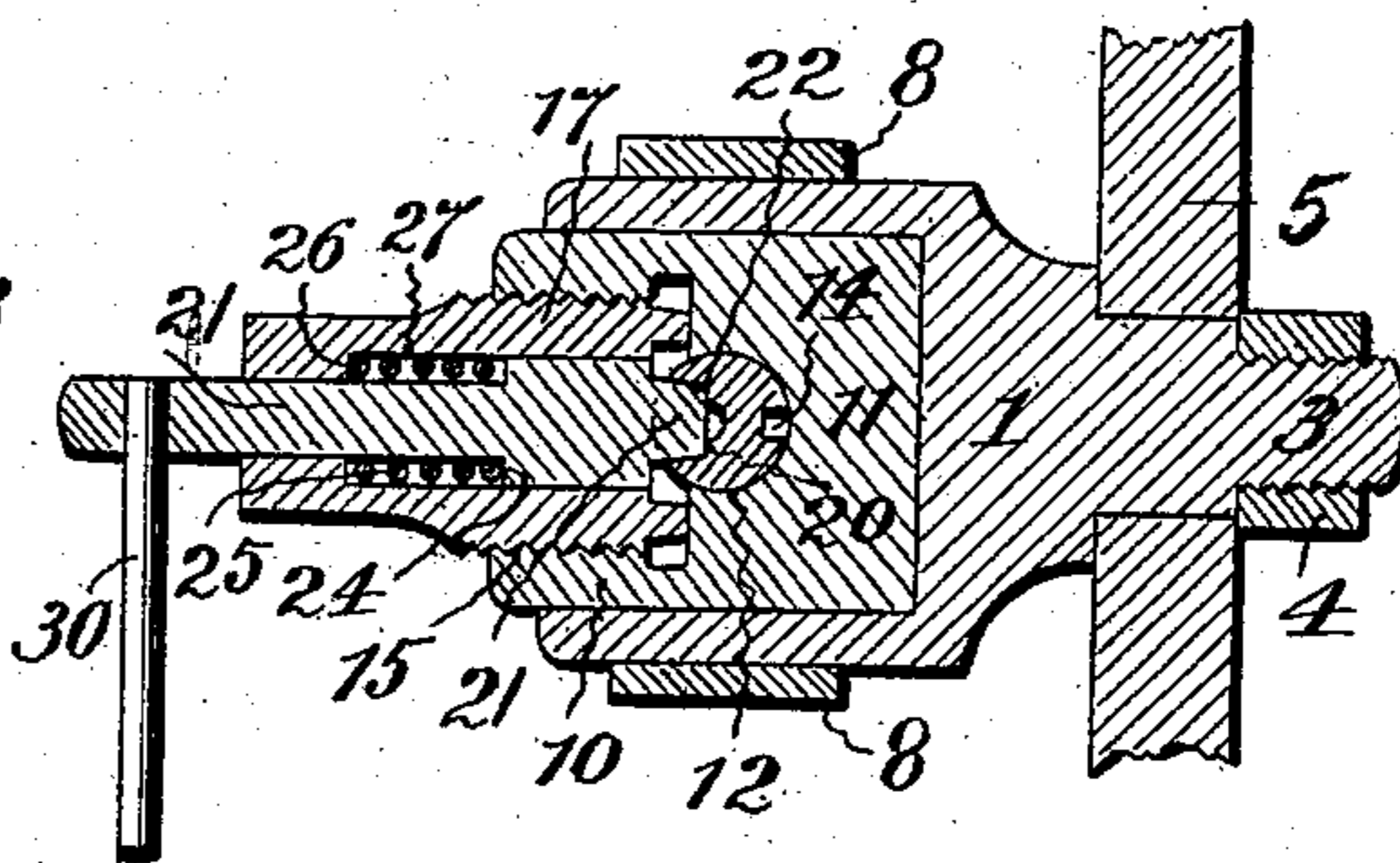


Fig. 3.



WITNESSES.

Jas. Hutchinson
H. A. Farrham.

INVENTOR

Henry Weber,
by Swift & Co., Attorneys

UNITED STATES PATENT OFFICE.

HENRY WEBER, OF MOUNT VERNON, OHIO, ASSIGNOR OF ONE-HALF TO
EDWARD T. BERRY, OF MOUNT VERNON, OHIO.

WRIST-PLATE LOCK.

SPECIFICATION forming part of Letters Patent No. 720,540, dated February 10, 1903.

Application filed September 23, 1902. Serial No. 124,525. (No model.)

To all whom it may concern:

Be it known that I, HENRY WEBER, a citizen of the United States, residing at Mount Vernon, in the county of Knox and State of Ohio, have invented a new and useful Wrist-Plate Lock; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to steam-engines, more particularly to the "Corliss" type; and it has for its object to improve the construction for locking the wrist-plate to the eccentric-rod and to enable the wrist-plate to be readily connected with and disconnected from the same and to increase the holding power of such devices.

The invention consists in the novel construction and arrangement of parts hereinafter described and shown, and particularly pointed out in the claims hereto appended.

In the drawings forming part of this specification, and in which like numerals of reference designate corresponding parts, Figure 1 is a side elevation of a wrist-plate lock constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a similar view taken at right angles to Fig. 2. Fig. 4 is a transverse sectional view.

Referring to the drawings, 1 designates a bearing having a socket 2 and provided with an integral threaded shank 3, which is secured by a nut 4 to a wrist-plate 5, and the said bearing is provided with opposite slots 6 for the reception of an eccentric-rod 7 and to permit the necessary oscillatory movement of the same. These slots 6 are covered by a band 8, which is adapted to oscillate on the bearing 1 and which is provided with oppositely-disposed circular openings 9, through which passes the eccentric-rod, and the said band is thereby rigidly connected with the eccentric-rod and is adapted to move with the same. Within the socket of the bearing is arranged a sleeve or cup 10, having a solid closed inner end 11 and provided with a transverse opening 12, which communicates with the bore or interior of the cup and which re-

ceives the eccentric-rod and conforms to the configuration of the same. The opening 12 is round or cylindrical, and at one end of the same is arranged an interior spline or projection 13, which fits in a longitudinal groove 14 of the eccentric-rod. The interior or socket of the cup is threaded at 15 to receive a hollow clamping-screw 16, having a threaded inner portion 17 and provided with a beveled inner end to engage oppositely-disposed curved grooves 19 of the eccentric-rod, which is also provided with a depression or cavity 20, arranged concentric with the grooves 19 and adapted to be engaged by a spring-actuated stem 21. The spring-actuated stem, which has a reduced inner end or stud 22 for engaging the depression or cavity 20 of the eccentric-rod, is provided with a reduced outer portion 23, forming a shoulder 24 and receiving a coiled spring 25, interposed between the shoulder 24 and a shoulder 26, formed by a reduction of the bore 27 of the hollow clamping-screw.

The hollow clamping-screw is provided in its outer portion with a groove for the reception of a lug 29 of the reduced outer portion of the stem 21, which is provided at its outer end with a handle 30, consisting of a rod or pin arranged in a transverse perforation of the said stem 21. The hollow screw is also provided with a handle 32, arranged parallel with the eccentric-rod when the hollow screw is screwed home. When it is desired to free the wrist-plate, the spring-actuated stem is drawn outward to carry the lug beyond the clamping-screw, and it is partially rotated to carry the lug away from the groove 28 and to engage it with the outer end of the screw. The screw is then rotated to disengage its beveled end from the groove of the eccentric-rod. This releases the wrist-plate, and when it is desired to lock the same the spring-actuated stem is rotated to return the lug thereof to the groove 28, and the parts are then adjusted until the stud at the inner end of the spring-actuated stem snaps into the depression or cavity of the eccentric-rod. The clamping-screw is then screwed home, thereby firmly locking the wrist-plate to the eccentric-rod.

It will be seen that the wrist-plate lock is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that the holding power of the device is greatly increased by engaging both the screw and the spring-actuated stem with the eccentric-rod, thereby firmly locking the latter and the wrist-plate together.

What I claim is—

1. In a device of the class described, the combination of a bearing designed to be secured to a wrist-plate and provided with a socket, a cup arranged within the socket of the bearing and provided with interior screw-threads, an eccentric-rod extending through the cup and the bearing, a clamping-screw fitting the threaded cup and interlocked with the eccentric-rod, and a spring-actuated stem mounted in the clamping-screw and also engaging the eccentric-rod, substantially as described.
2. In a device of the class described, the combination of a bearing designed to be secured to a wrist-plate and provided with a socket, a cup arranged within the socket and having interior screw-threads, an eccentric-rod passing through the bearing and the cup and provided with a cavity and having concentric grooves, a clamping-screw fitting in the cup and engaging the grooves and a spring-actuated stem mounted in the clamping-screw

and engaging the cavity of the eccentric-rod, substantially as described.

3. In a device of the class described, the combination of a bearing designed to be secured to a wrist-plate and an interiorly-threaded cup fitted within the bearing and provided with an opening and having a projection therein, an eccentric-rod passing through the cup and the bearing and provided with a groove receiving the projection, and a clamping-screw fitting within the cup, and provided with a spring-actuated stem, substantially as described.

4. In a device of the class described, the combination of a bearing designed to be secured to a wrist-plate and having a socket and provided with opposite slots, a cup fitted within the socket, an eccentric-rod passing through the cup and the bearing, a band arranged on the bearing and covering the slots and connected with the eccentric-rod, and a clamping-screw mounted in the cup and provided with a spring-actuated stem, substantially as described.

In testimony whereof I have hereto affixed my signature in the presence of two witnesses.

HENRY WEBER.

Witnesses:

S. R. GOTSHALL,
JAMES L. LEONARD.