

No. 621,626.

Patented Mar. 21, 1899.

H. B. WEIPER.  
POLE OR THILL COUPLING.

(Application filed Dec. 18, 1897.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1

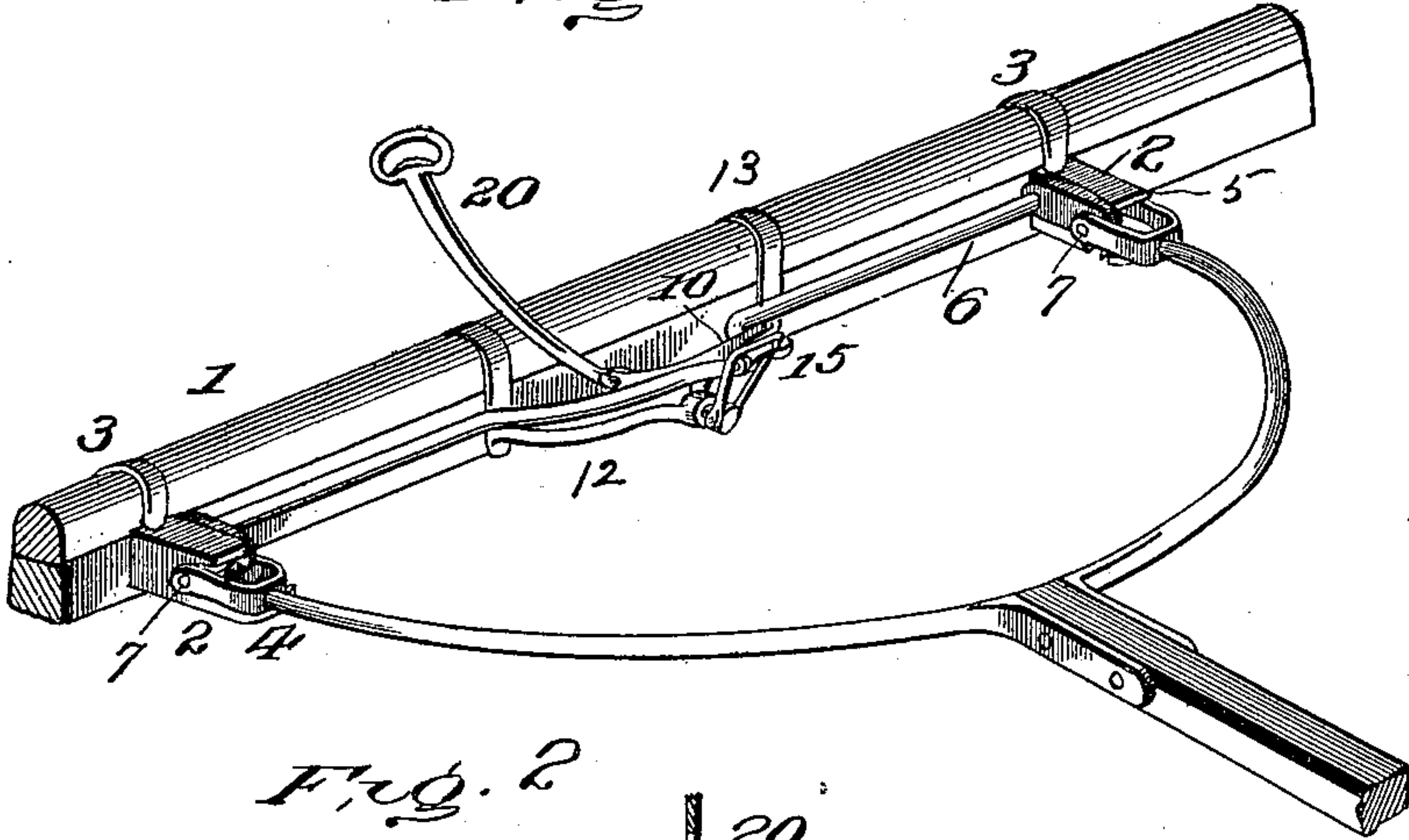


Fig. 2

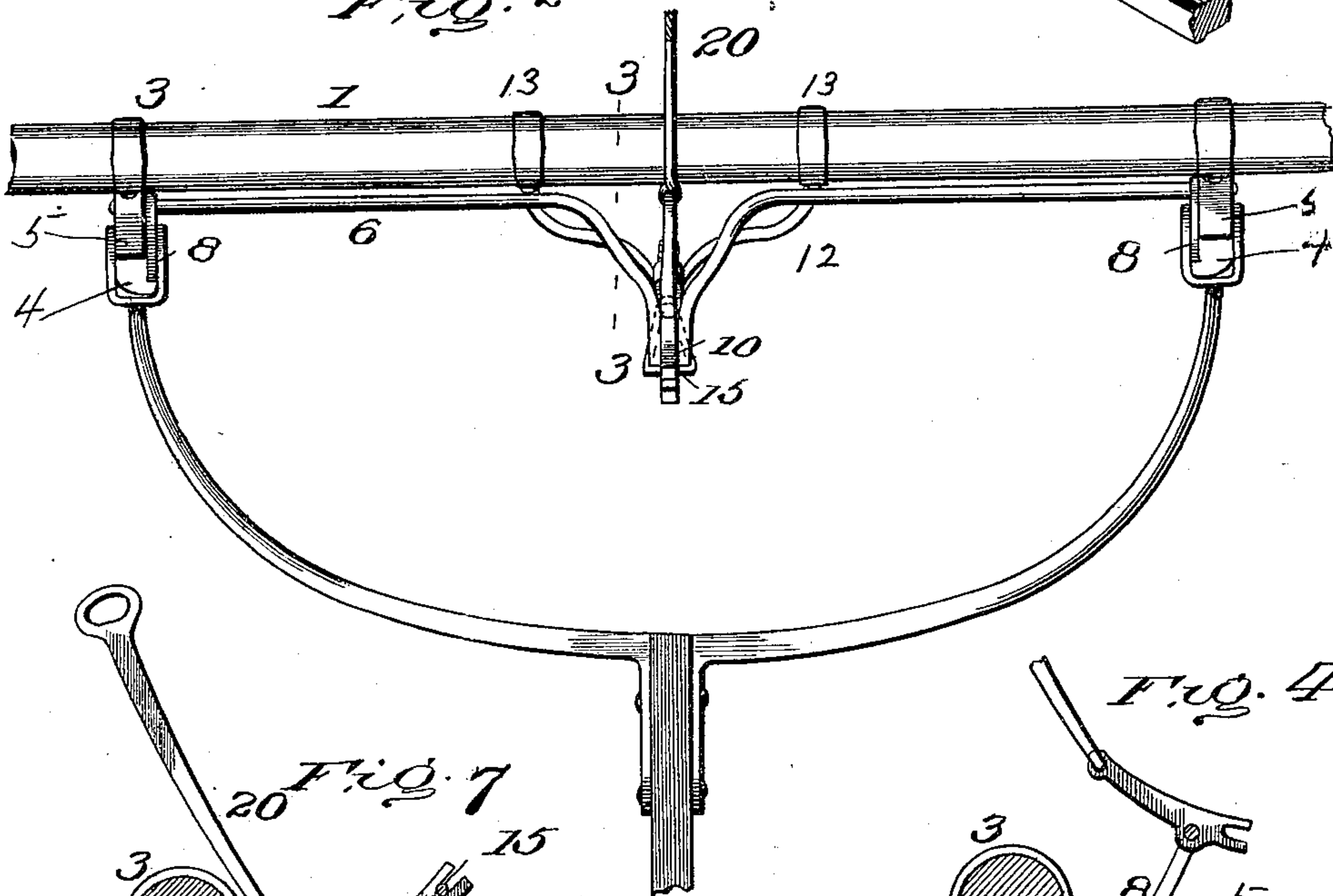


Fig. 7

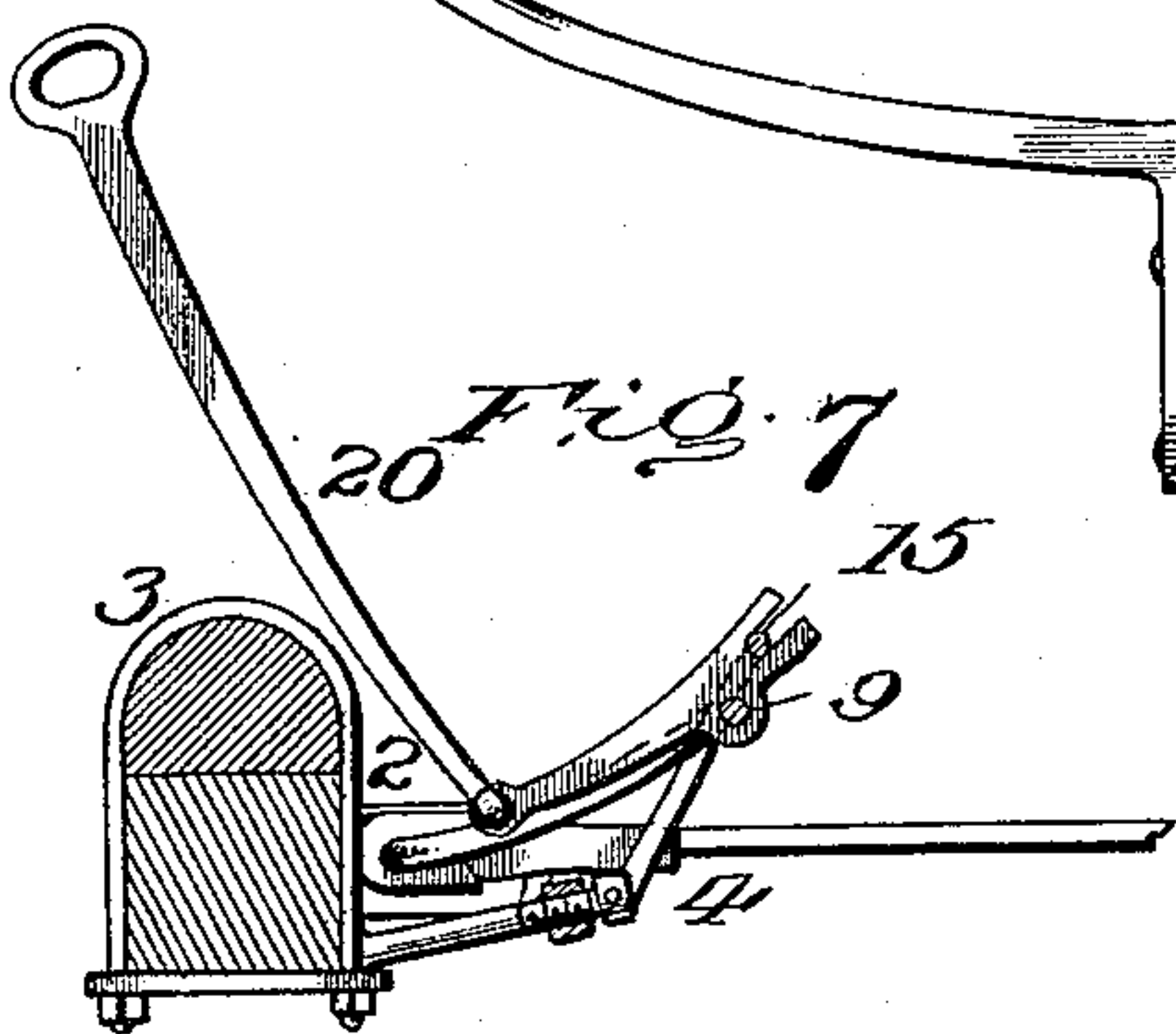


Fig. 4

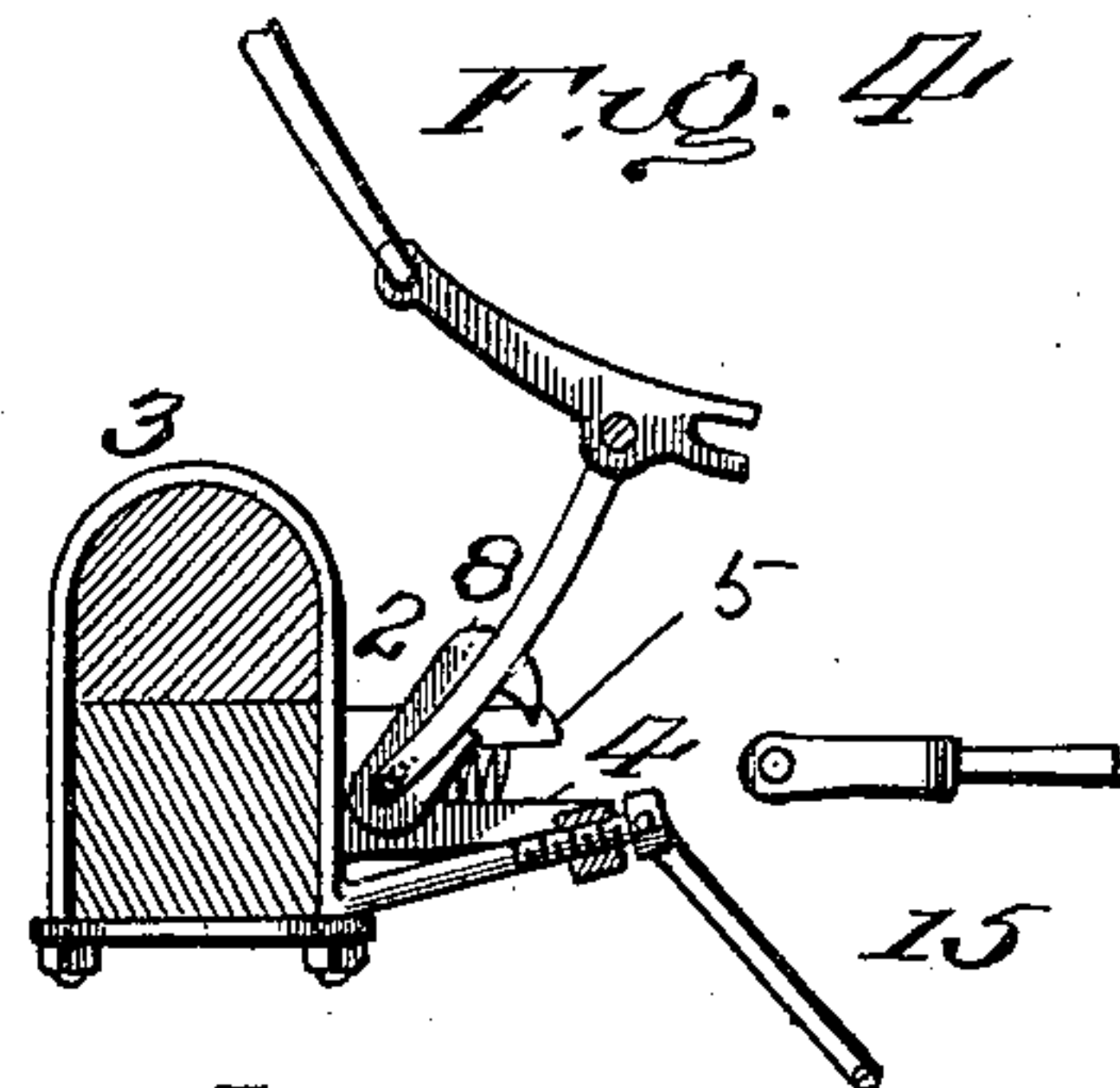
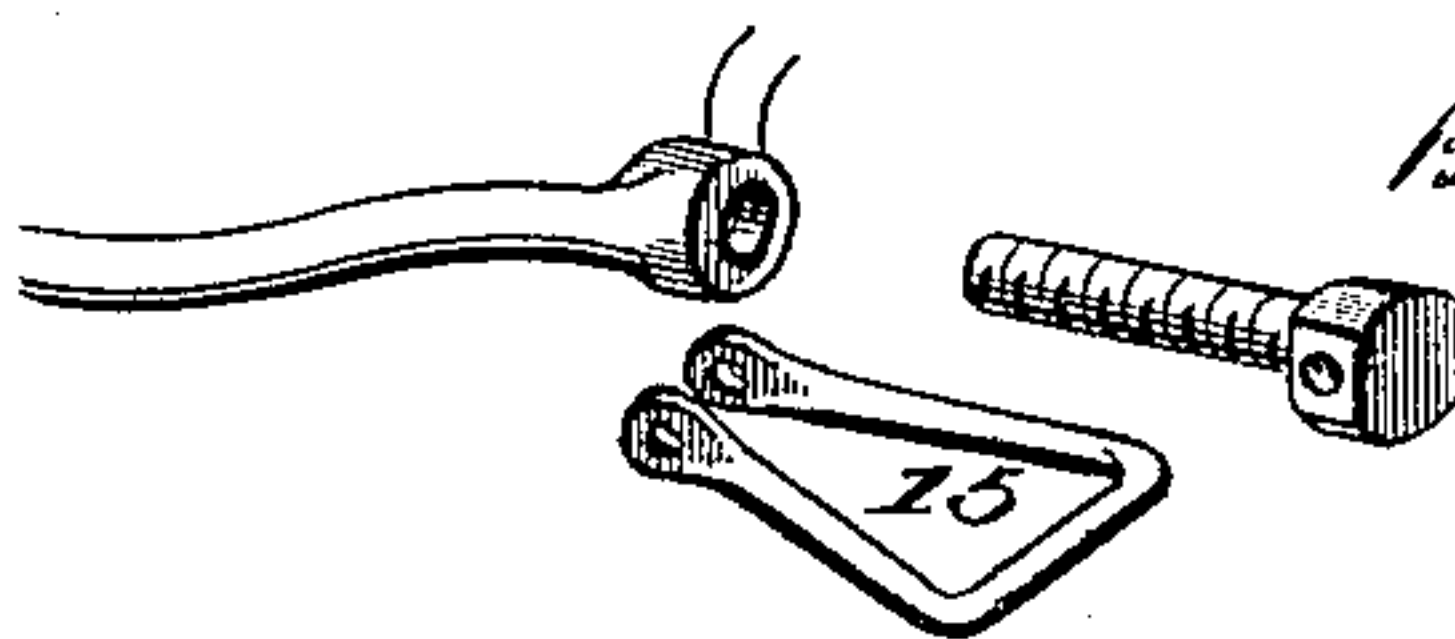


Fig. 5



Witnesses

*Joe Lane*  
*Chas. H. Davis*

Inventor

*H. B. Weiper*

By

*W. H. Bartlett*

Attorney

No. 621,626.

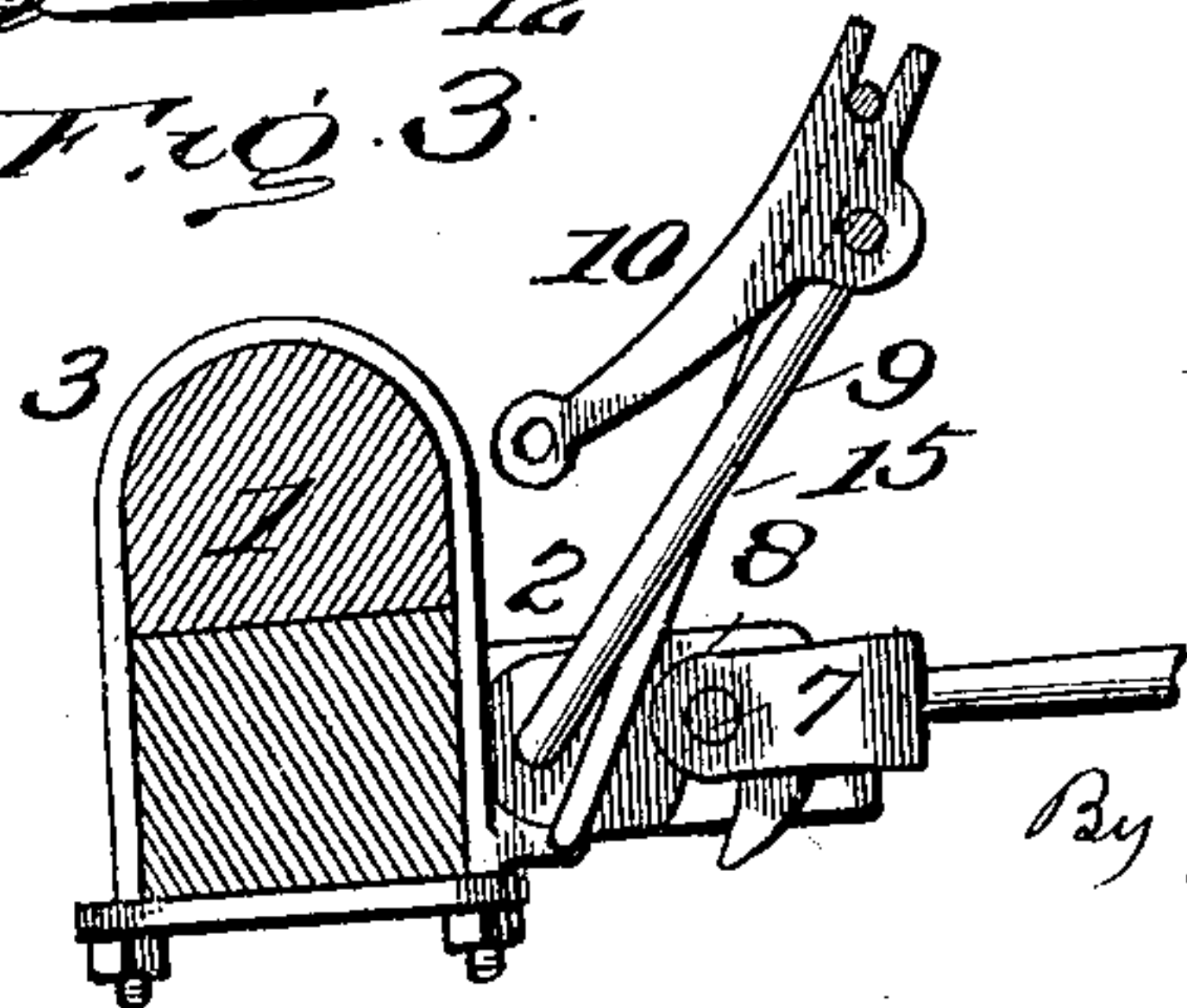
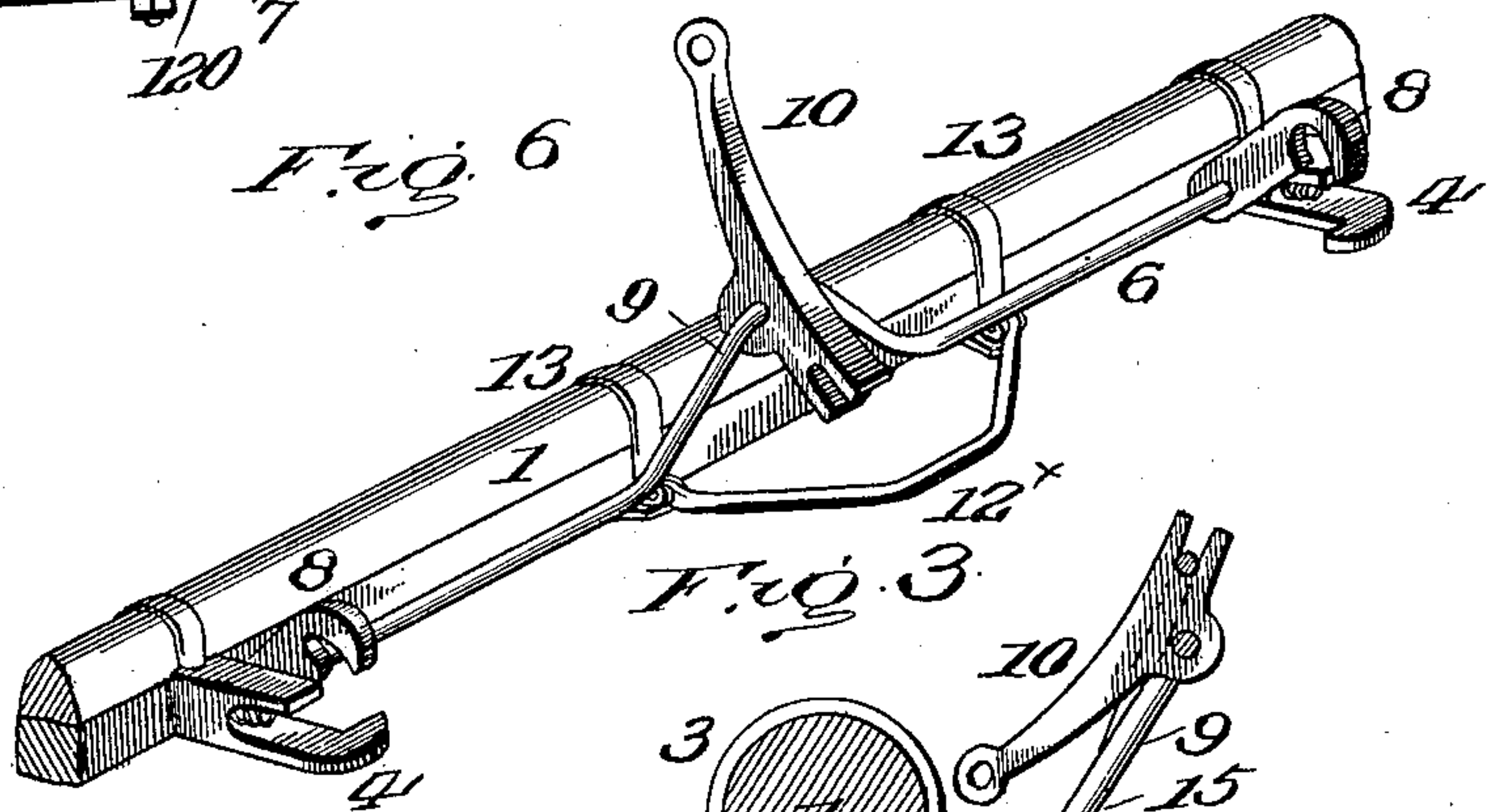
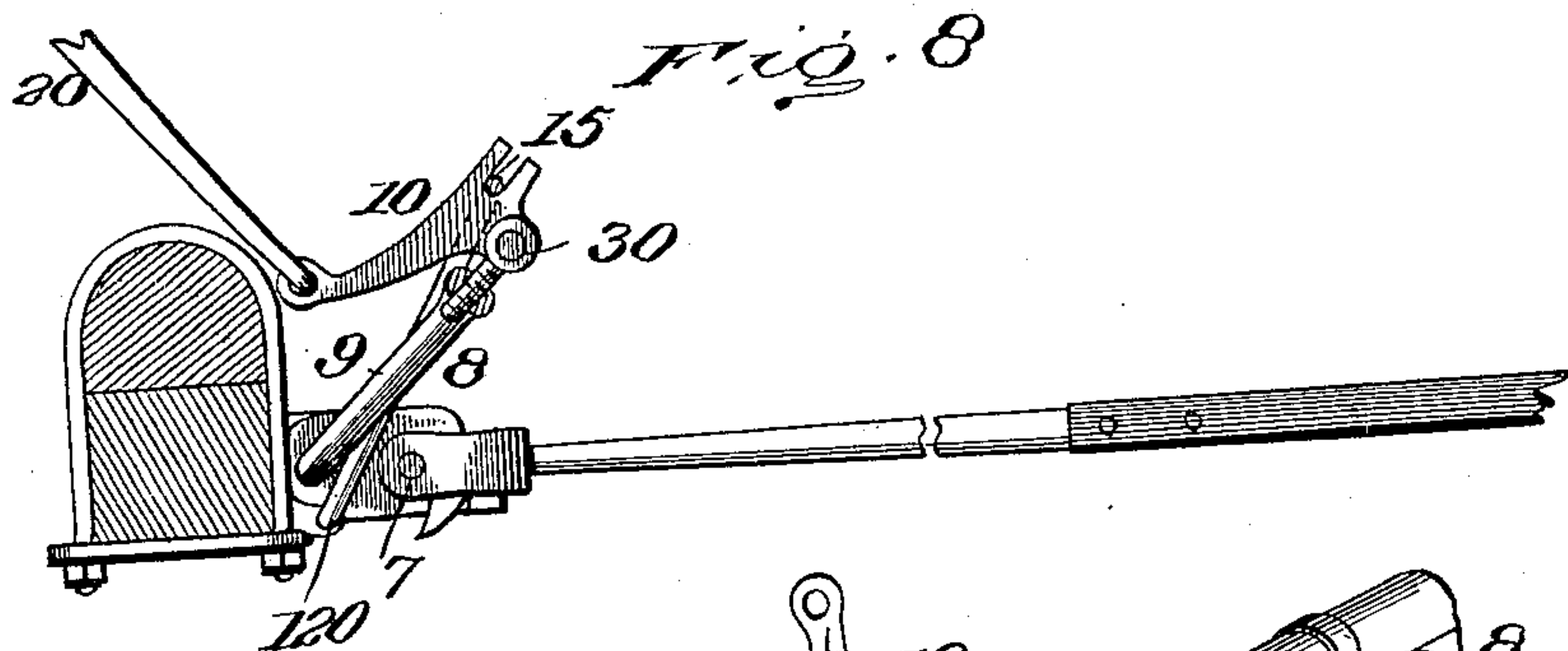
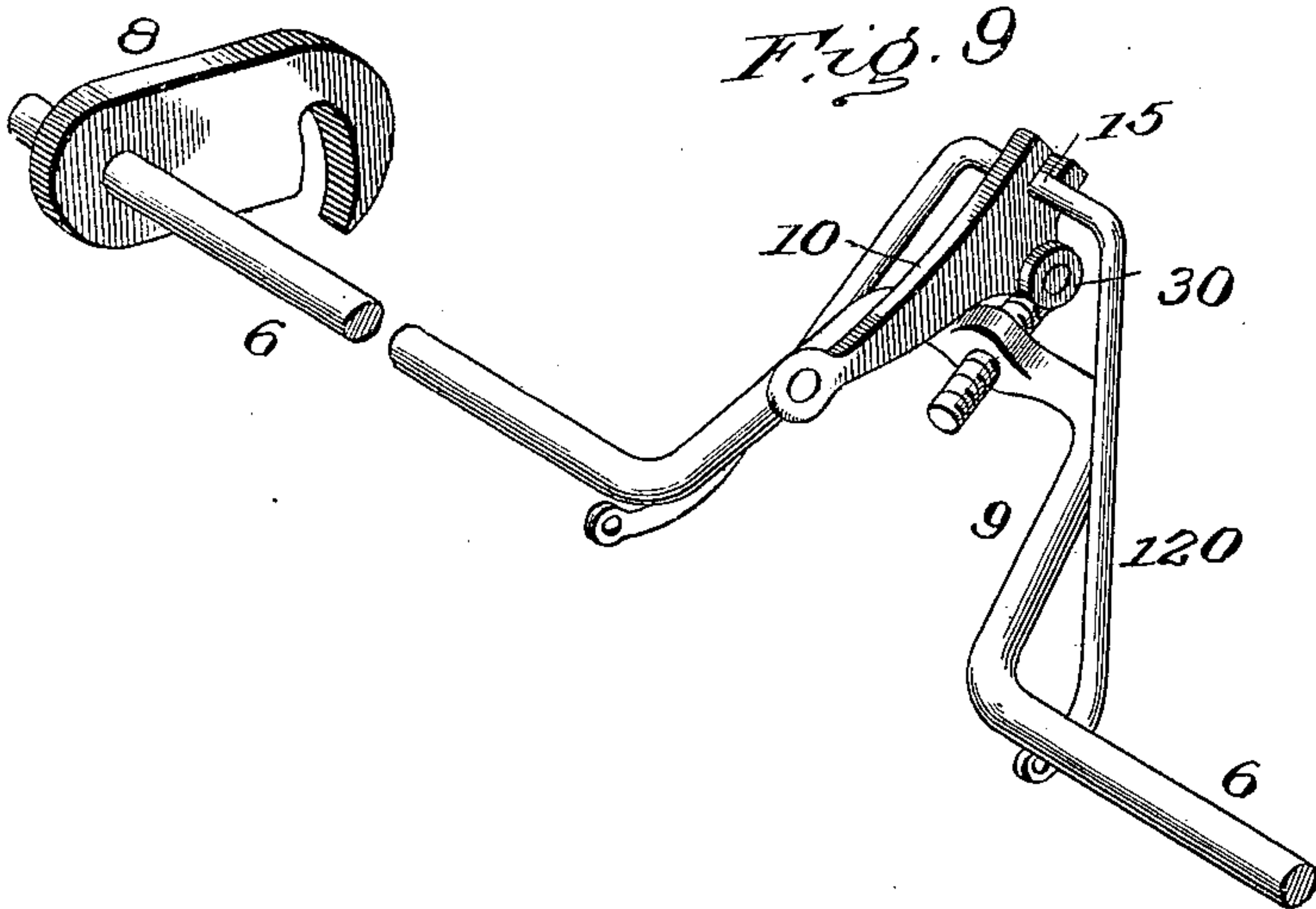
Patented Mar. 21, 1899.

H. B. WEIPER.  
POLE OR THILL COUPLING.

(Application filed Dec. 18, 1897.)

2 Sheets—Sheet 2.

(No Model.)



Witnesses

*Geo. Minie*  
*Chas. H. Davies*

Inventor

*H. B. Weiper*

By *W. A. Bartlett*

Attorney



# UNITED STATES PATENT OFFICE.

HENRY B. WEIPER, OF DURAND, WISCONSIN.

## POLE OR THILL COUPLING.

SPECIFICATION forming part of Letters Patent No. 621,626, dated March 21, 1899.

Application filed December 18, 1897. Serial No. 662,414. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY B. WEIPER, residing at Durand, in the county of Pepin and State of Wisconsin, have invented certain new and useful Improvements in Pole or Thill Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a thill or shaft coupling by which the thills or a pole can be quickly attached to or detached from the front axle of a vehicle.

The object of the invention is to produce a coupling or attaching and detaching device by which a pole may be quickly exchanged for thills, or vice versa, and which can be quickly detached from the vehicle in case of a runaway.

The special constructions and combinations of parts provide for an absolute lock of the pole or shafts to the vehicle and at the same time permit a ready detachment.

Figure 1 is a broken perspective showing part of front axle, pole-coupling, and attaching devices. Fig. 2 is a plan of the same. Fig. 3 is a section on line 3, showing parts coupled. Fig. 4 is a similar section showing parts uncoupled. Fig. 5 is a perspective detail showing locking-loop holder and supports detached. Fig. 6 is a perspective of part of the axle and the parts connected thereto, showing modified link. Fig. 7 is a section through the axle, showing coupling. Fig. 8 is a section of the parts Fig. 9, showing thill-coupling. Fig. 9 is a broken perspective of the mechanism of Fig. 8.

As shown in my Patent No. 553,440, dated January 21, 1896, thills or a shaft may be quickly detached from a vehicle in case of a runaway, and the detached part may have means for curbing the team, while the act of detaching may apply a brake to the vehicle. These or similar attachments may be applied to the present coupling, which is an improvement in that I dispense with springs, make a strong coupling which is self-locking, and by the act of locking the mechanism is held in such a position that a rattling of the parts is prevented.

The numeral 1 indicates the front axle, of any approved construction, to which the shackles 2 2 are secured in any approved way,

as by clips 3. The shackles 2 have sockets open at the front, the floor 4 of the socket extending, preferably, farther forward than the cover 5. The shackles also afford bearings for a rock-shaft 6, which rock-shaft extends from shackle to shackle and may rock therein.

The pole or thills has pintles 7, one pintle at each side of the pole or thill base, said pintles in position to slip readily into the sockets of the shackles and in the same general way as in the patent referred to.

The rock-shaft 6 has arms provided with hooks 8 8 in close proximity to the shackle and rigidly attached to the rock-shaft, so that the rocking of said shaft rocks the arms or their hooks into or out of engagement with the pintles 7 of the carriage pole or shafts, thus coupling the parts together when assembled, or releasing them, by merely rocking the rock-shaft on its axis. Even should the pintles not enter the shackles, the arms or hooks may hold them under certain circumstances and in certain positions.

The central part of the rock-shaft 6 has a bow or crank 9, which bow, bending out of the direct line between the bearings, forms a crank-lever, by which the rock-shaft may be rocked. This bow or crank also forms a pivot for locking lever 10, which lever is preferably forked at its outer or forward end.

The central part of the axle has a link or loop support 12, which is connected to the axle by clips 13 or in other suitable manner. The loop or link 15 is swiveled to its support so that it may swing upward. When swung up and engaged with the fork of the lever 10, this lever may be rocked on its fulcrum, thus forcing down the crank or lever portion of the rock-shaft and producing a toggle connection or holding-catch, whereby the link or loop, lever, and rock-shaft are firmly held in place and the rock-shaft cannot be rocked in its bearings, save by lifting the long arm of lever 10.

An operating-handle on a bar or strap 20 may be connected to the long arm of lever 10 and may extend up into the vehicle under the dashboard or in other convenient position. A pull on the handle of this piece 20 rocks lever 10, and thereby rocks the rock-shaft. As soon as the parts have passed the line of binding engagement the link or loop 15 falls



out of the fork of the lever 10, and the further movement of said lever rocks shaft 6 and uncouples the hooks 8 from pintles 7, when the shaft or pole will be drawn from the shackles by a forward pull.

As a very strong leverage can be applied to the rock-shaft, so as to bind all parts firmly together, so as to prevent rattling or yielding of parts, the hooks may be so formed as to draw the parts more firmly together the further the rock-shaft is rocked.

In the modification Fig. 6 the lever 10 engages directly with loop 12<sup>x</sup>, which projects rigidly from the axle, and the lever 10 may be swung down below said engaging loop.

In the modifications Figs. 8 and 9 the lever 10 is pivoted to a supporting-knuckle 30, which knuckle screws into a socket at the central part of the crank 9 on the rock-shaft 6. The engagement with the loop or bow 120 is apparent.

I claim—

1. The combination with the shackles and pintles of the pole or shaft, of a rock-shaft connected to the axle and having arms engaging said pintles, a lever connected to said rock-shaft, and a link or loop engaging said lever and forming a toggle to hold the rock-shaft, substantially as described.

2. In a pole or shaft coupling device, the combination of the shackles and pintles, the

rock-shaft having arms engaging said pintles, the lever on said rock-shaft, and a holding-catch engaging said lever, whereby the lever is held and the rock-shaft thereby retained against rotation, all combined substantially as described.

3. In a pole or shaft coupling device, the combination of the pintles, the rock-shaft having hooks engaging therewith, the forked lever on said rock-shaft, and a link engaging the fork of said lever, substantially as described.

4. In a pole or thill coupling device, the shackles, pintles, and the retaining-hooks hung on a crank rock-shaft, the forked lever pivoted to the crank of said rock-shaft, and the pivoted link connected to the axle in position to engage the fork of said lever, all combined substantially as described.

5. In a pole or thill coupling device, the pintles and the engaging hooks hung on a rock-shaft, the lever pivoted on said rock-shaft, the link or loop having a toggle engagement with said lever, and the handle pivoted to said lever, all combined.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY B. WEIPER.

Witnesses:

FRANK POERCHL,  
FRANK ENDL.