

(No Model.)

2 Sheets—Sheet 1.

P. McENTEE.  
CAR COUPLING.

No. 505,803.

Patented Sept. 26, 1893.

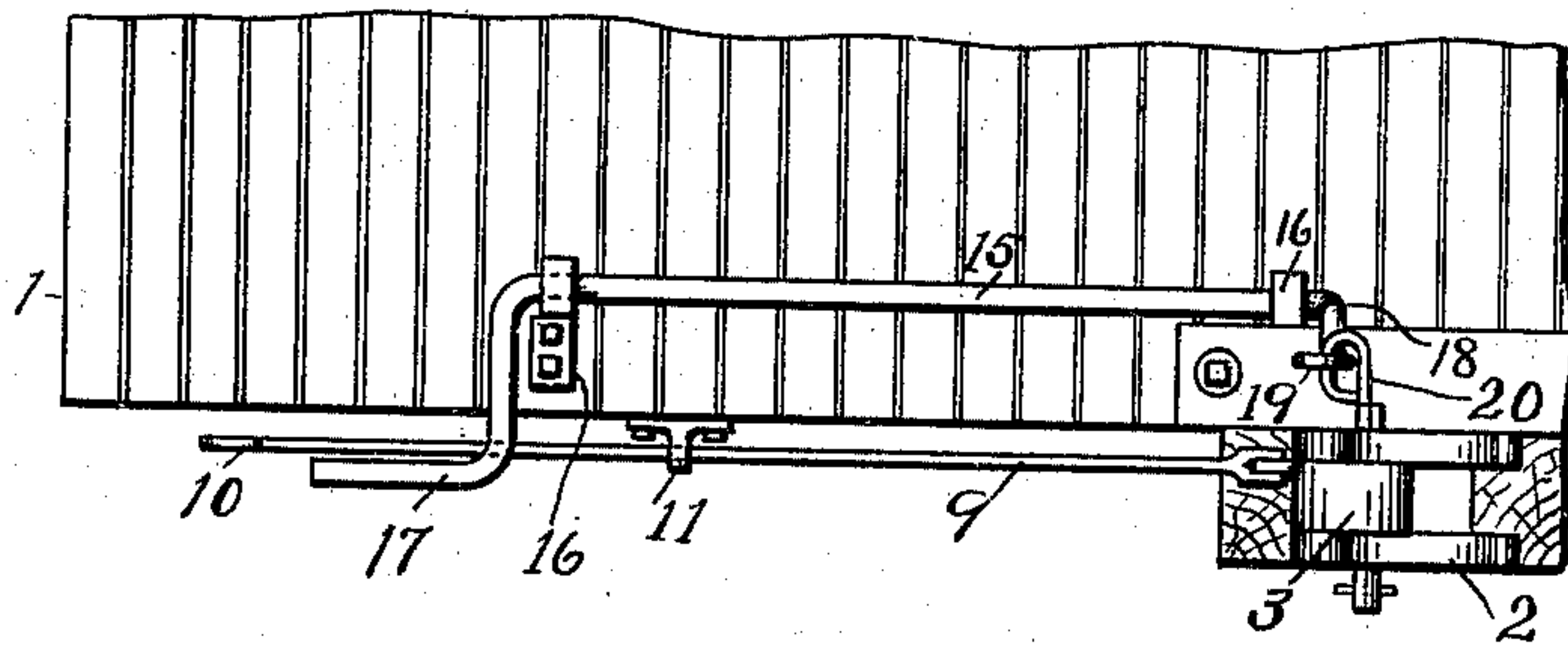


Fig. 1.

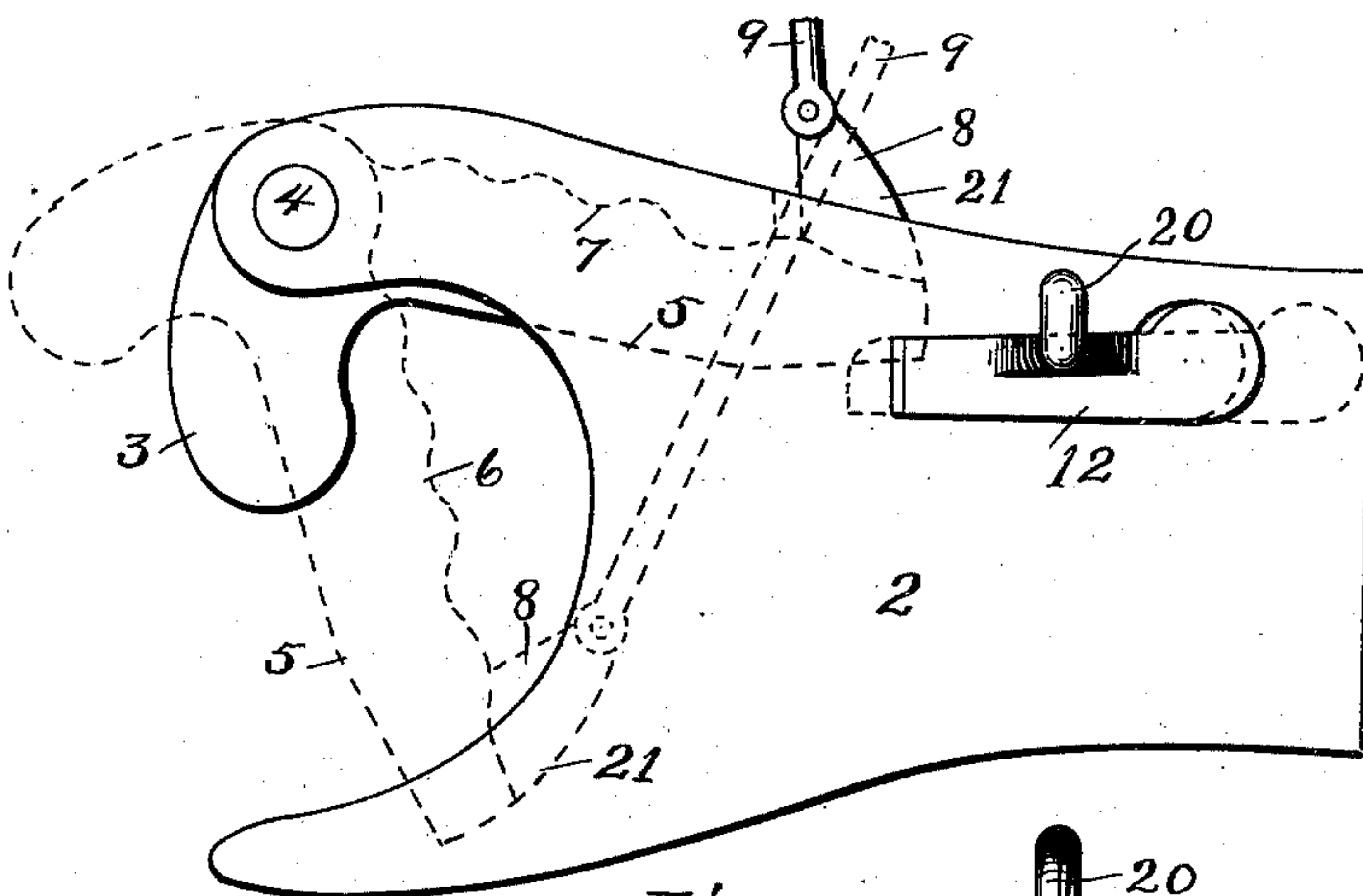


Fig. 2.

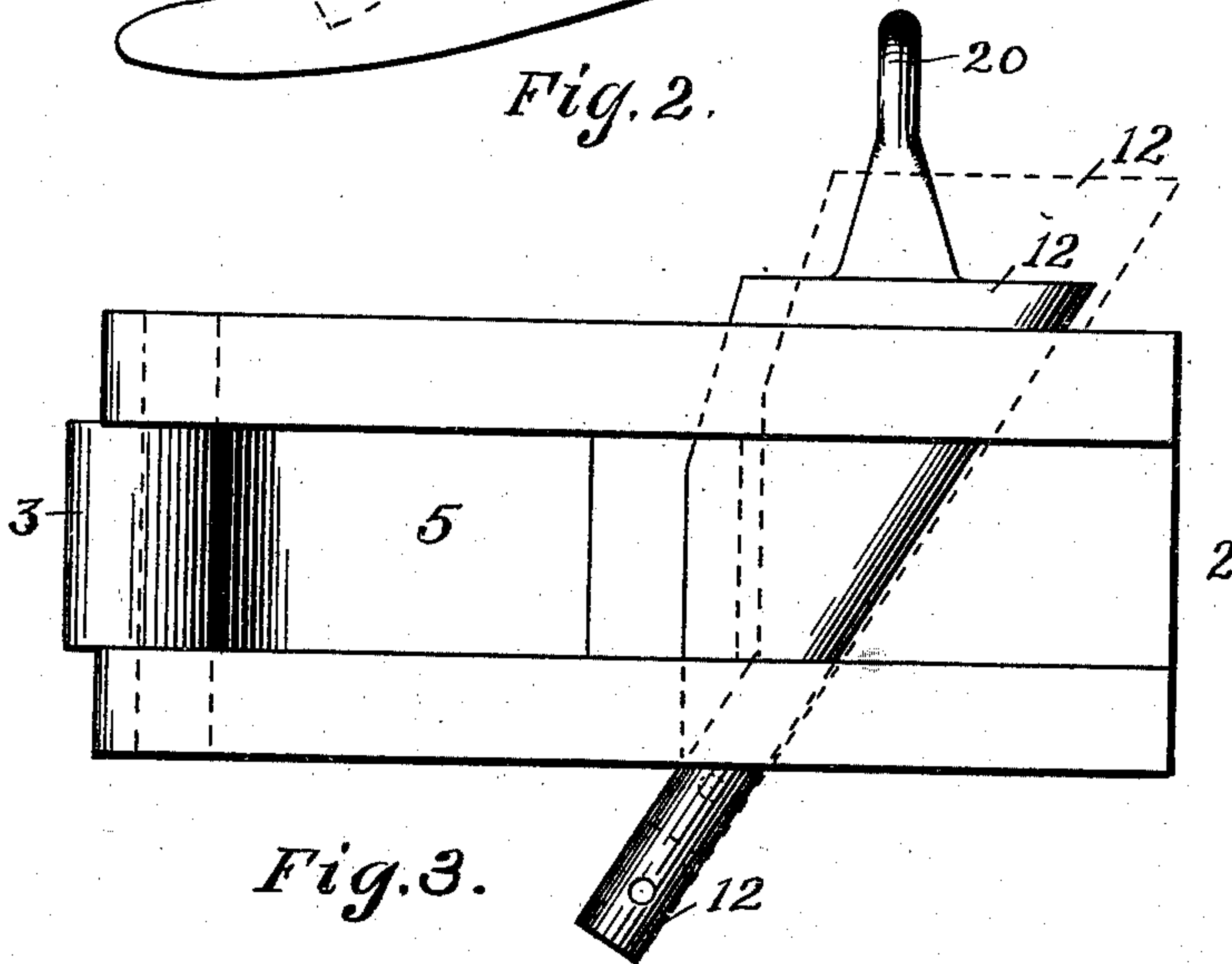


Fig. 3.

Witnesses  
Cami Patchin  
A. Blume

Inventor  
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(No Model.)

2 Sheets—Sheet 2.

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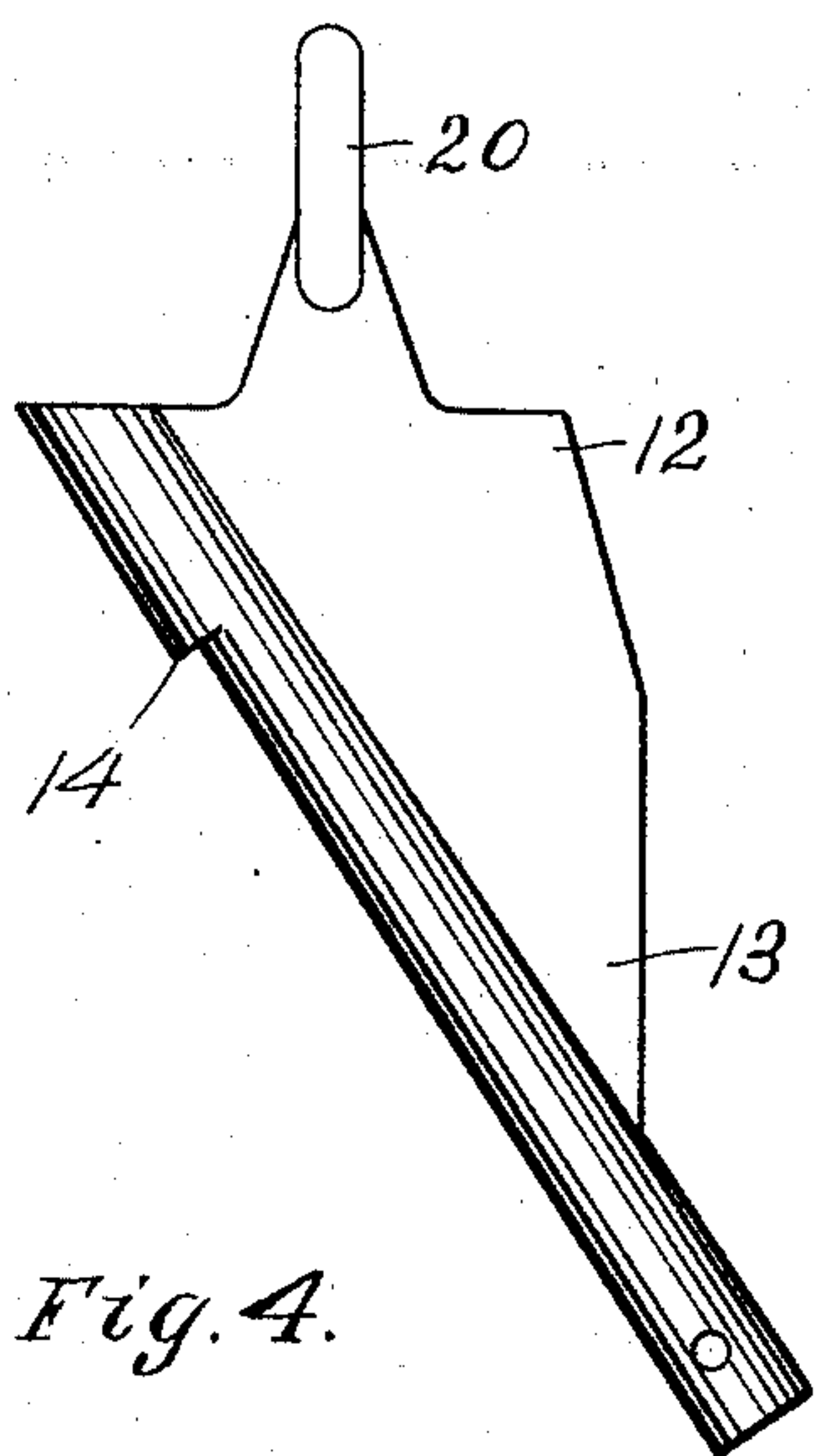


Fig. 4.

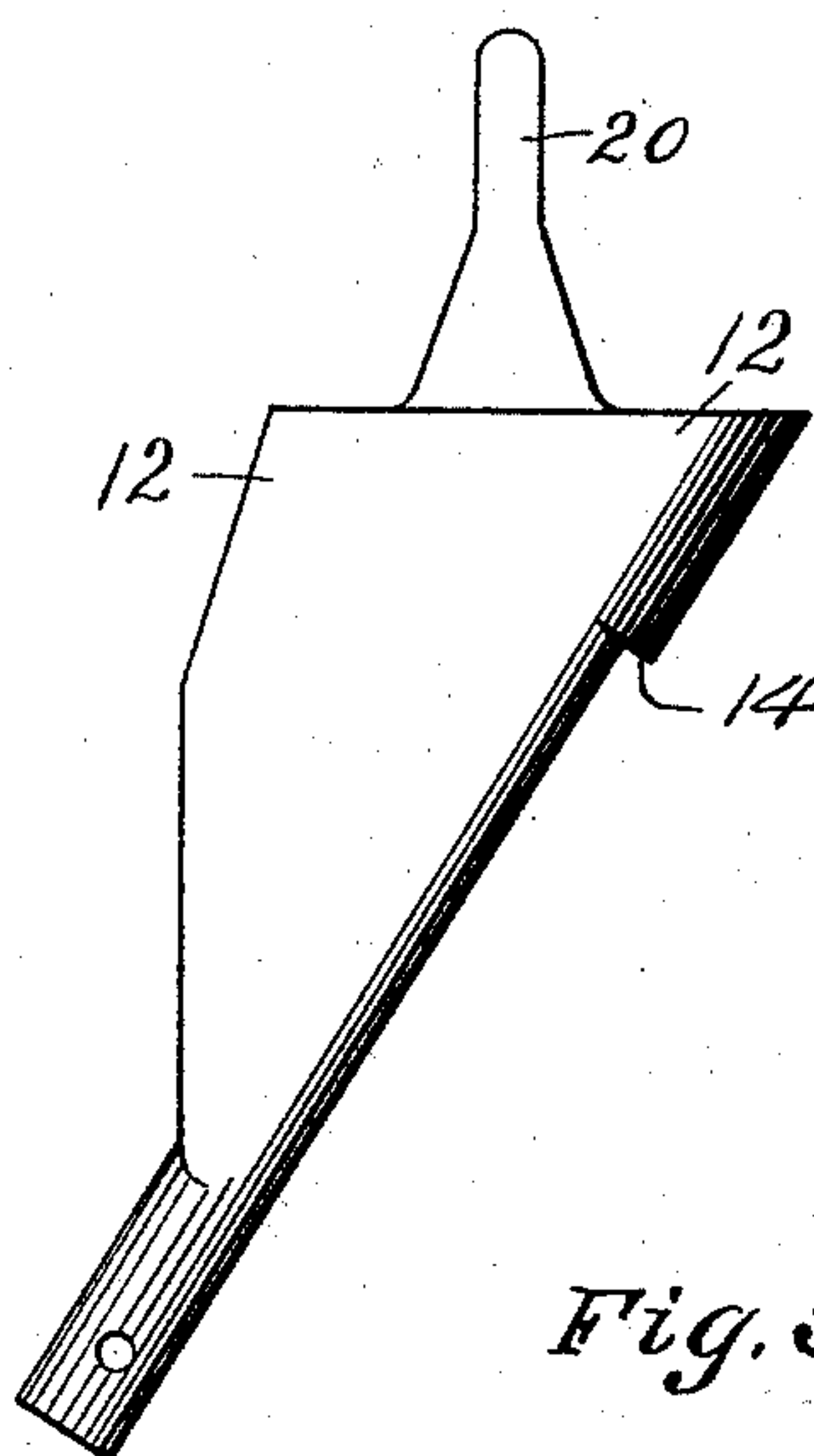


Fig. 5.

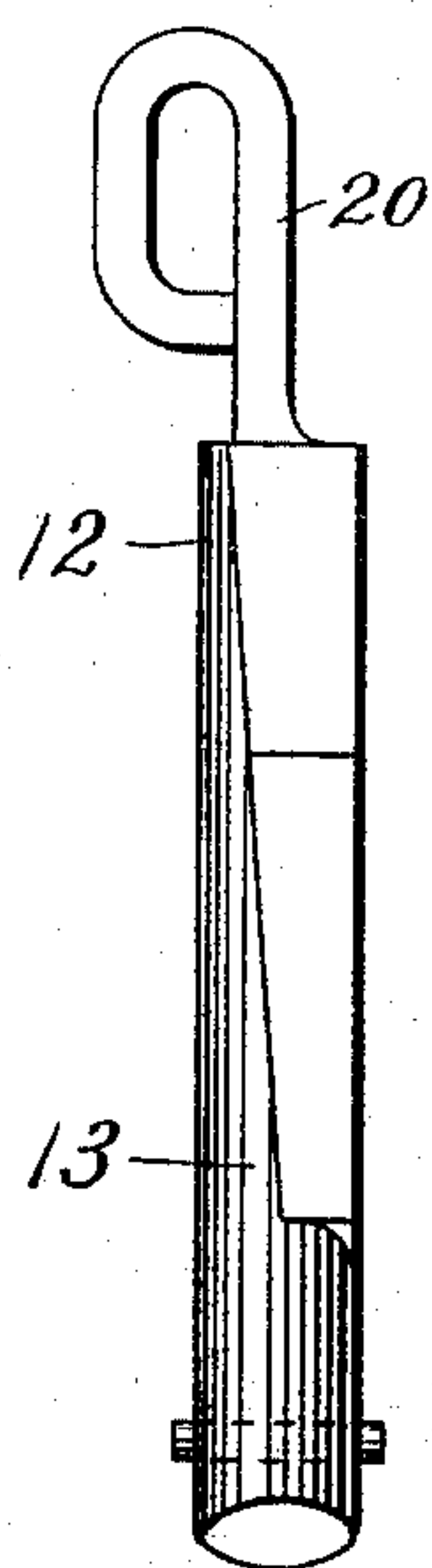


Fig. 6.

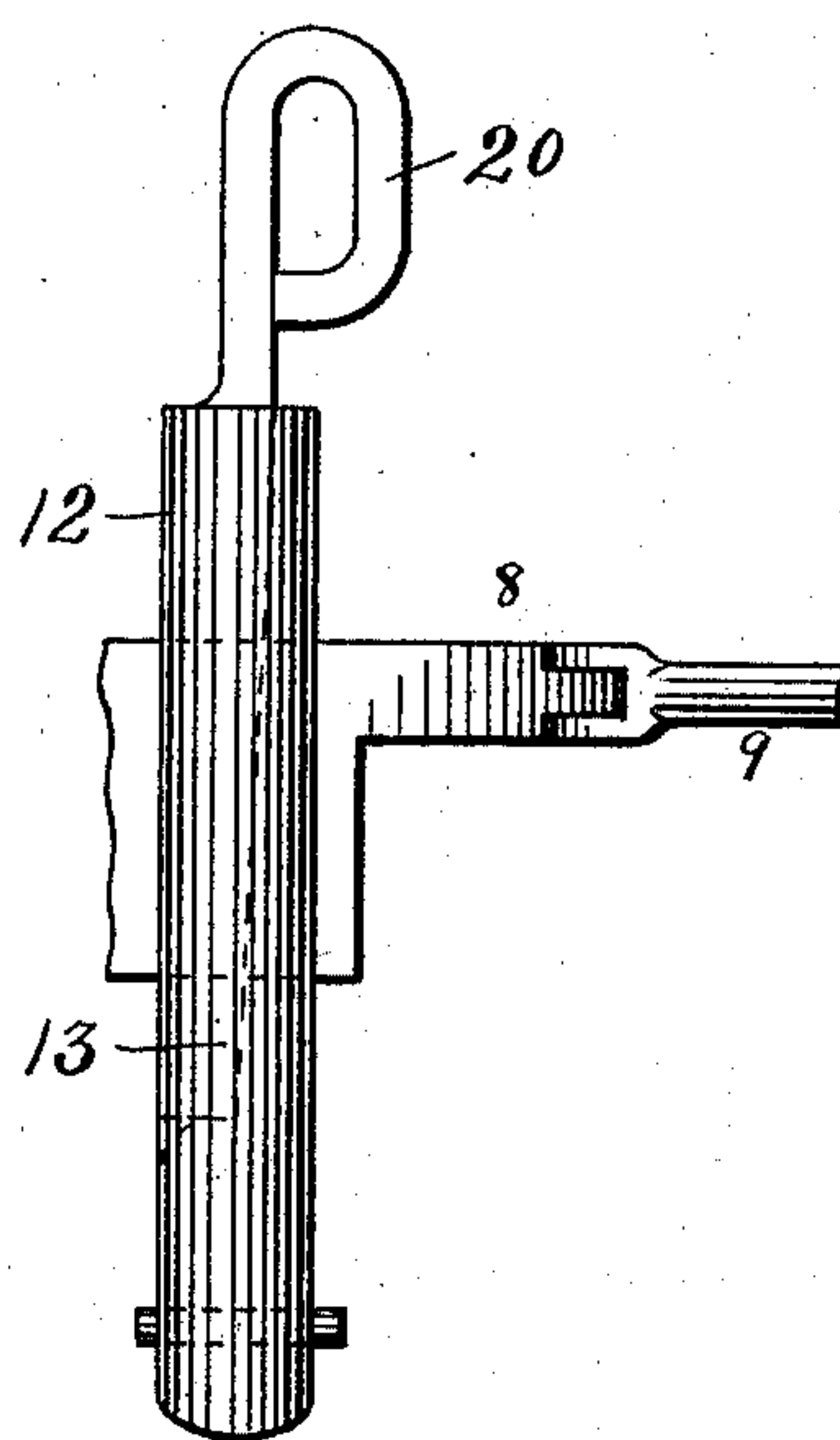


Fig. 7.

Witnesses.

Carrie Patchin  
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# UNITED STATES PATENT OFFICE.

PATRICK MCENTEE, OF MONTGOMERY, MINNESOTA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 505,803, dated September 26, 1893.

Application filed February 8, 1892. Serial No. 420,680. (No model.)

*To all whom it may concern:*

Be it known that I, PATRICK MCENTEE, a citizen of the United States, residing at Montgomery, in the county of Le Sueur and State of Minnesota, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to the class of car-couplings in which interlocking jaws, provided on opposite draw-heads, are used.

The principal objects of the invention are, to provide means for lessening the strain on the pivots of the jaws; to provide improved means for holding the jaws in place when interlocked; and for operating them from the sides of the cars for coupling and uncoupling.

The improvements are illustrated in the accompanying drawings, in which—

Figure 1 is an end view of a portion of a freight car provided with the improvements. Fig. 2 is a top view of a draw-head containing the improvement. Fig. 3 is a side view of the same; and Figs. 4 to 7 are detail views of a locking-key used in the device.

In such drawings 1 designates an end portion of a car, and 2 a draw-head. In the forward end of the draw-head is a jaw or knuckle 3 connected to a side portion of the draw-head by a pivot-pin 4. The jaw, as will be readily understood, is designed to co-operate with a similar jaw on an opposite draw-head, to constitute the interlocking coupling. The shank 5 of the jaw or knuckle has its surface adjacent the side wall of the draw-bar corrugated, as at 6, to fit corresponding corrugations, 7, formed on the wall, so that when a thrust is made on the knuckle 3 the engagement of the corrugations 6 and 7 will, in part, relieve the strain upon the pivot-pin 4, because the force exerted upon the knuckle tends to press the two corrugated surfaces together. It is preferable to make these corrugations of curved form with the arcs trending toward the front.

The shank 5 has an outward extension 8, projecting laterally from the draw-head through a slot in its side. And to this extension is connected a rod 9 that extends to the side of the car and has a hand-hole 10 formed on its end. The rod is hung in a bracket 11 which has an elongated slot through which the rod passes, so that the latter may accom-

modate itself to the movements of the jaw-shank to which it is connected. In this way the knuckle can be turned on its pivot, whenever necessary, from the side of the car. The position of the jaw and its connections, when interlocked with a twin-coupling, is shown by the full lines Fig. 2, and the positions to which the parts are moved when the jaws are uncoupled are indicated by the dotted lines in the same figure.

To securely lock the jaw in position, when two jaws are coupled, a key 12 is provided. This key is arranged to descend in a suitable slot extending through the top and bottom of the draw-head, and its surface 13 which engages the jaw-shank to hold it in place, is of inclined or wedge shape; so that its sloping surface will bear on the side of the jaw-shank and, the key being loose in its slot, will adjust itself to the proper extent to hold the jaw-shank in engagement with the wall of the draw-head; and, furthermore, will compensate for wear occasioned by use. On the rear edge of the key, which edge is preferably half-round as shown, is a shoulder 14 for engaging the upper surface of the draw-head to hold the key in suspension preliminary to making a coupling. For the purpose of providing means for lifting the key to this position a rod 15 is supported in suitable hangers or brackets 16, and has a crank 17 at or near the side of the car, and a second crank 18 connected by an eye 19 to an eye 20 formed on or attached to the top of the key. By turning the crank 17 the key can be lifted to position to be supported by its shoulder 14, in position to fall by gravity when the draw-head is jarred, as by the concussion of a second draw-head in coupling cars. If when the knuckle is turned from the position shown by dotted lines to that shown by full lines—Fig. 2—the key is not in elevated position (dotted lines Fig. 3) but is in locking position (full lines Fig. 3) the curved surface 21 of the arm 8 will engage the front edge of the key and by frictional contact lift the key by sliding it on its inclined rear bearing to permit the parts to assume proper locking positions.

The shape and position of the key should be such that the constant tendency is to descend by gravity and lock the jaw-shank firmly to the wall of the draw-head. For this

purpose it is preferable to make the key of about the shape shown and place it in a slot having about the inclination shown.

Having described my invention, what I  
5 claim is—

1. The combination with a draw-bar having a corrugated interior wall of a jaw having a portion fitting said corrugations, and a key for locking them when in engagement, sub-  
10 stantially as set forth.

2. In a car-coupling, a jaw pivoted to a draw-head, and having a lateral arm, a connection therewith for operating it from the side of a car, and a gravitating key having a shoulder

engaging the draw-head to hold it in suspen- 15  
sion until a coupling is made, substantially as set forth.

3. The combination with a draw-bar having a corrugated interior side wall, of a jaw having a portion fitting said corrugations and a 20  
gravitating key of wedge shape in an inclined slot and adapted to lock the jaw in place and compensate for wear, substantially as set forth.

PATRICK MCENTEE.

Witnesses:

R. BLUME,

P. H. GUNCKEL.