

(No Model.)

C. F. FLOWERS.  
CAR COUPLING.

No. 581,906.

Patented May 4, 1897.

Fig. 1.

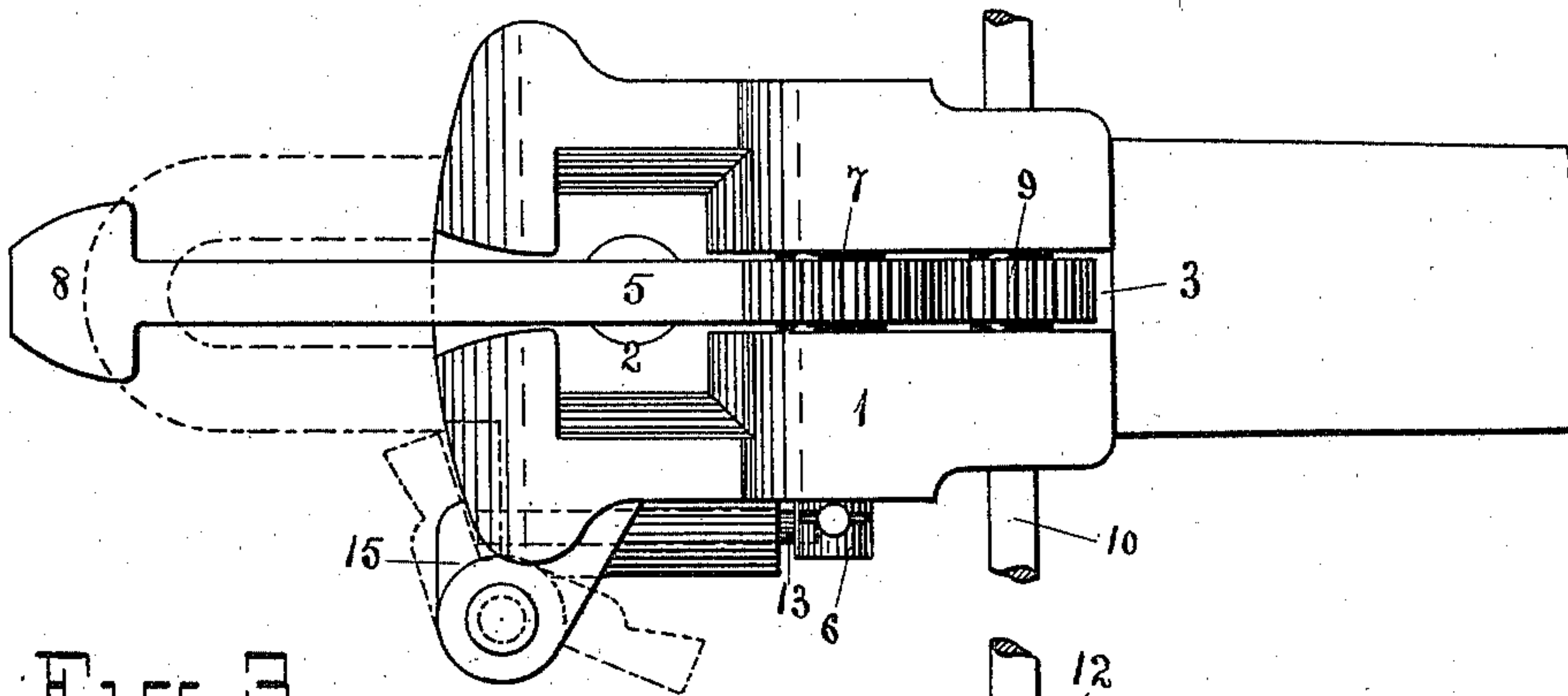


Fig. 3.

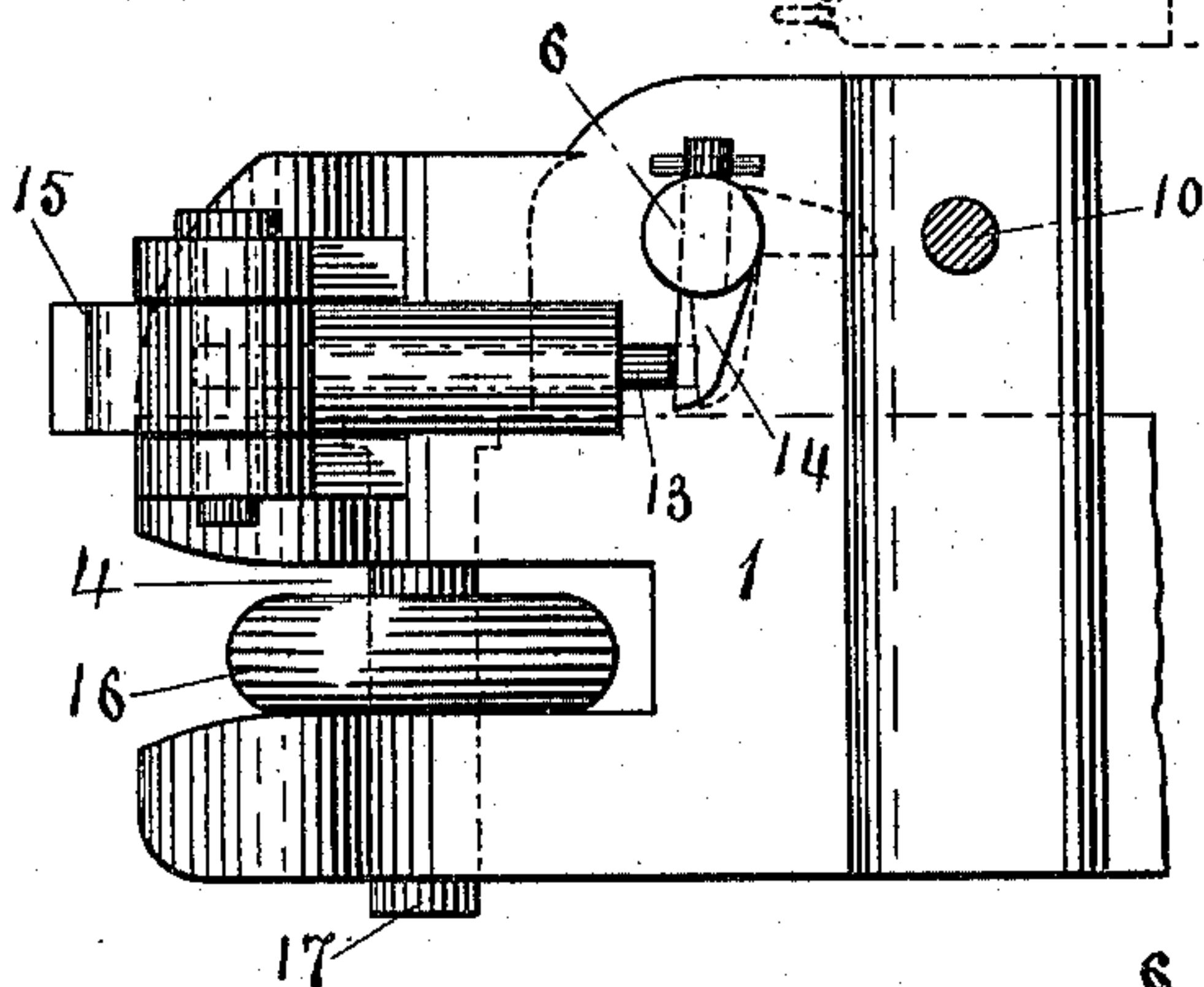
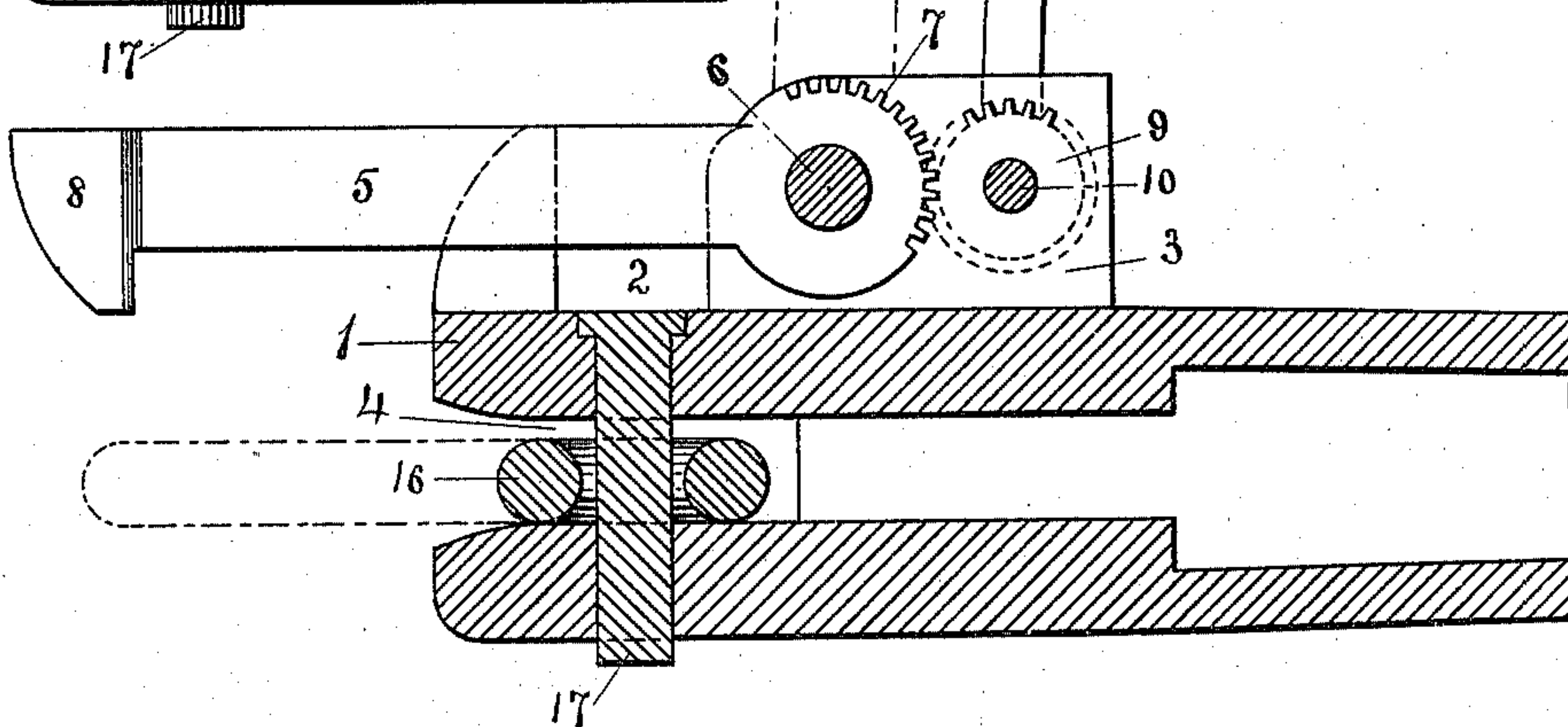


Fig. 2.



Witnesses

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By his Attorney J. Byrne



# UNITED STATES PATENT OFFICE.

CHARLES FRANKLIN FLOWERS, OF TALLADEGA, ALABAMA, ASSIGNOR OF ONE-HALF TO RINALDO W. HAWLEY, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 581,906, dated May 4, 1897.

Application filed September 2, 1896. Serial No. 604,680. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES FRANKLIN FLOWERS, a citizen of the United States, residing at Talladega, in the county of Talladega and State of Alabama, have invented certain new and useful Improvements in Car-Couplings; 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.

My invention relates to improvements in a novel and automatic form of car-coupling; and the objects of my improvement are, first, to provide a car-coupling which will be automatic in its operation to couple cars when pushed together and adapted to be uncoupled without going between the cars; second, to provide a draw-head having a partly-rotatable link journaled therein, the link having a head formed on its forward end, the head adapted to engage in a recess to make the coupling; third, to provide a tripping-pin to operate against a spur formed on the link-shaft, the pin operated by a hinged jaw pivoted in the head, the pin partly rotating the link when the cars come together for coupling. I attain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of my improved draw-head. Fig. 2 is a vertical sectional view of the same through the center. Fig. 3 is a vertical side view of the forward part of the head.

Similar numerals refer to similar parts throughout the several views.

The draw-head 1 is made of any suitable metallic material. It comprises a forward part or head having a rectangular body. (Partly shown.) The body is made of the usual form and adapted to be attached to a car by any of the usual methods in use for that purpose. There is a square recess 2 formed in the top of the forward part of the head, the recess extending downward to about the center thereof. The longitudinal slot 3 extends on both sides of the recess from front to rear of the head. The slot 4 is formed transversely in the head below the recess, extending backward from the transverse slot through the rectangular body in the usual manner.

The coupling-link 5 is made of flat bar-steel or other suitable metallic material. The link is rigidly mounted on a shaft 6. The shaft is journaled in suitable bearings provided in the head, the rear end of the link having a series of gear-wheel teeth 7 cut thereon. A head 8 is formed on the forward end of the link. The head is adapted to engage a similar recess in the opposite draw-head to the recess 2. (Shown and described in Fig. 1.)

The gear-wheel 9 is rigidly mounted on the shaft 10. The shaft is journaled in suitable bearings provided in the head. The shaft can be extended transversely on the car end to bring the ends of the shaft to the outside of the car. The hand-lever 11 is rigidly mounted on the ends of the shaft. The hand-lever when turned rotates the gear-wheel, which partly rotates the journaled link in the direction desired, a ring 10 being provided in the lever to attach an operating-chain, if desired, from the car-top.

The tripping-pin 13 is inclosed to slide in a circular chamber formed in the head. The pin operates to partly rotate the link 5 by forcing back the spur 14, rigidly mounted on the end of the link-shaft. A hinged jaw 15 is pivoted in the draw-head to operate the tripping-pin. The jaw 15 is formed as shown by dotted lines, Fig. 1. A recess is formed in the head to receive the jaw-tail, as shown by dotted lines. The jaw when pressed back partly enters the recess. A small portion thereof, as shown by a full line only, shows outside the head.

The link 5 when uncoupled stands in the nearly vertical position shown by dotted lines in Fig. 2, which brings the spur 14 on the end of the link-shaft to a nearly vertical position, as shown in full lines, Fig. 3. The spur forcing the tripping-pin forward also forces the hinged jaw forward, as shown in full lines, Fig. 3, and in dotted lines, Fig. 1. The cars if pressed together force the hinged jaw back to place in the recess, and operating the tripping-pin against the spur on the link-shaft partly rotates the link-head forward and past a vertical line, from which position it falls by gravity to make the coupling. If not desired to couple, the jaw can be turned back, as shown by dotted lines, Fig. 1.

The link 16 is made in the usual form of car-links and connected to the head with a pin 17 in the usual manner. The link is carried to form couplings with a linked draw-head in the usual manner. The link when not in use is turned transversely in the slot and carried as shown in full lines, Fig. 1.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a car-coupling, the combination of the gear-wheel 9 mounted on the shaft 10 journaled in the draw-head, the latch-link 5 jour-

naled in the head, the gear 7 formed on the rear end of the link and connecting with the gear 9, the spur 14 attached to the link-shaft, the tripping-bolt 13 to operate the spur, and the pivoted jaw 15 to operate the tripping-bolt, substantially as and for the purpose described.

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

CHARLES FRANKLIN FLOWERS.

Witnesses:

J. N. THORNTON,

J. E. STONE.