

(No Model.)

T. M. GALLAGHER.
CAR COUPLING.

No. 605,055.

Patented May 31, 1898.

Fig. I.

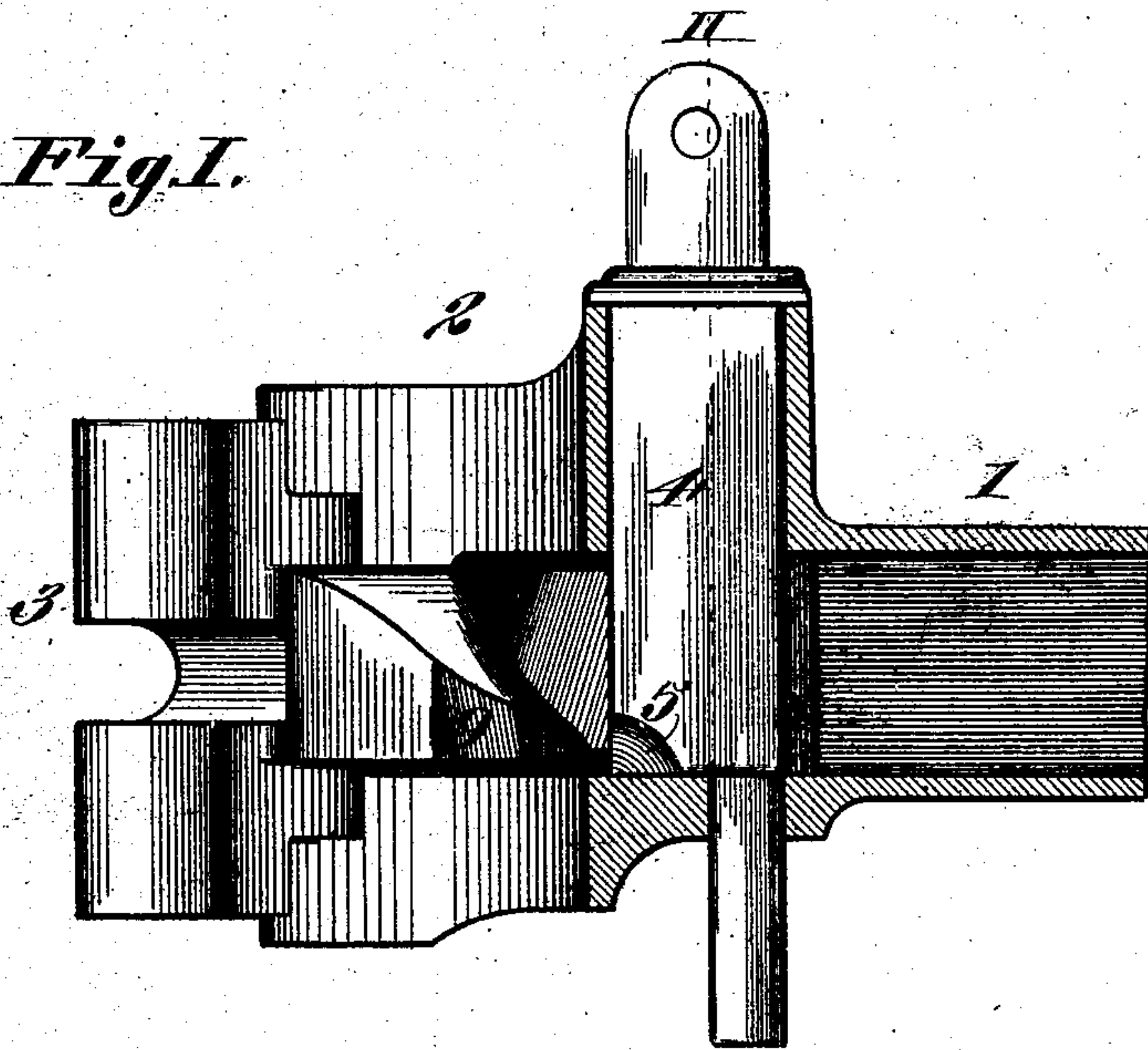


Fig. II.

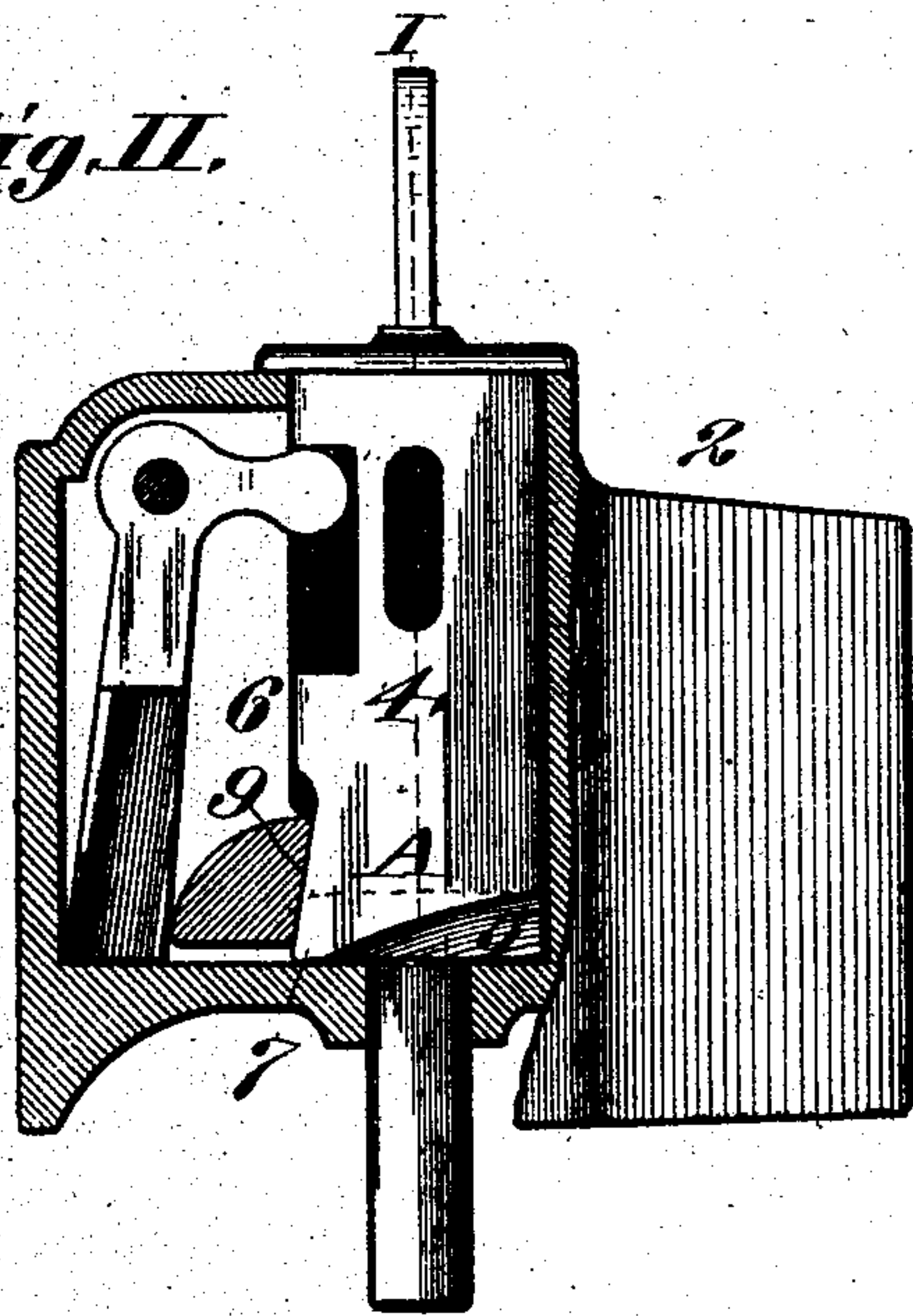
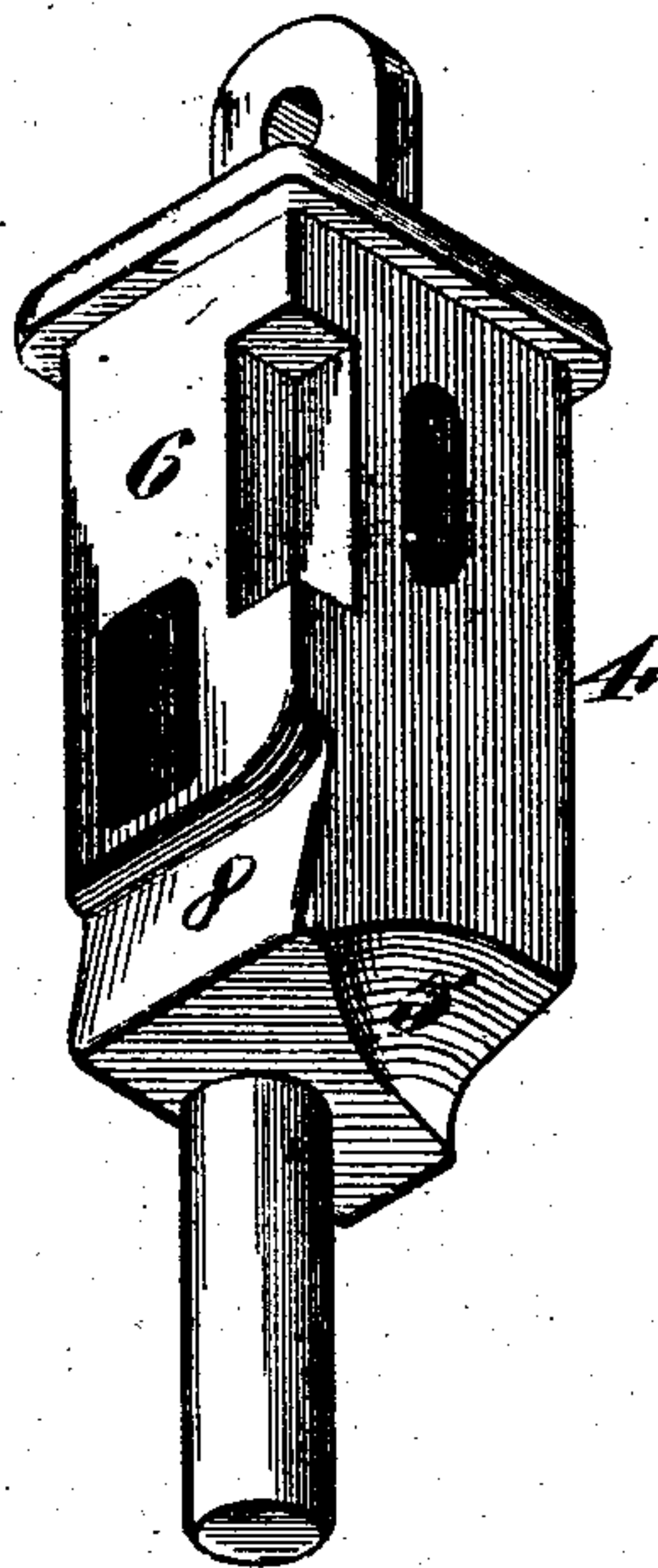


Fig. III.



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THOMAS M. GALLAGHER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 605,055, dated May 31, 1898.

Application filed January 3, 1898. Serial No. 665,321. (No model.)

To all whom it may concern:

Be it known that I, THOMAS M. GALLAGHER, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention relates to certain improvements in the "vertical-plane" type of car-couplers, and to the particular kind of such couplers wherein the knuckle is locked in its closed position by a vertically-moving pin—as, for instance, such a coupler as is shown and described in Patent No. 538,581, issued April 30, 1895, to the Shickle, Harrison & Howard Iron Company. In this kind of a coupler much difficulty and annoyance have been experienced by the creeping of the locking-pin when the train is in motion and the couplers are under strain. The difficulty does not occur when the train is slack, as the weight of the locking-pin at such time keeps it in its lower position; but when the engine is pulling a load and the couplers are under strain or tension the locking-pins have a tendency to creep up until they are above the tails of the knuckles, and the couplers thus become uncoupled.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is a vertical section through the head and part of the shank of a draw-bar, the section being taken on line I I, Fig. II, the knuckle or coupling-head being shown in elevation and in its open position. Fig. II is a section taken on line II II, Fig. I, with the knuckle closed. Fig. III is a perspective view of the locking-pin.

1 represents the draw-bar, having a head 2. 3 is the knuckle or coupling-head, and 4 the locking-pin. These parts operate and are constructed and arranged, except so far as they are modified by my present invention, as hereinafter explained, the same as in the patent above referred to. Instead of forming the incline 6 on the lower forward corner of the locking-pin, as in said patent, there is substituted a curved recess 5, that permits the tail of the knuckle to enter beneath the locking-pin to raise the latter as the coupling is being made. By providing this recess the

tail of the knuckle is permitted to enter beneath the locking-pin, while at the same time the side 6 of the pin is of full length and rests against the bottom wall of the opening in the draw-head, as shown at 7, Fig. II, so as to give a full bearing or contact between the tail of the knuckle and the locking-pin. If this corner of the locking-pin were inclined, as shown in the patent referred to, or if it were straight across, as shown by the dotted line A, Fig. II, the tail of the knuckle would be permitted to enter beneath the locking-pin, but there would not be a full bearing between the tail and the pin, and the strength of the parts would be thus far detracted from.

To provide against the vertical creeping of the locking-pin when the coupler is under tension, the lower end of the side 6 of the locking-pin is provided with an inclined surface 8 to receive the inclined face 9 on the inner end of the tail of the knuckle, as illustrated in Figs. II and III. By thus providing the contact-surfaces of the pin and tail respectively with inclines the locking-pin is held by wedge-like action from creeping upward, and this lock is provided without materially adding to the cost of the coupler, and by so constructing the pin that the side 6 will rest upon the bottom wall of the opening in the draw-head the length of the incline is such that should the pin creep slightly still there will be plenty of bearing for the tail of the knuckle against the pin, and it will be impossible for the pin to creep sufficiently to effect a separation of the cars.

I claim as my invention—

The combination of a draw-head having an opening, a knuckle having a tail formed with a downwardly and inwardly inclined surface at its inner end, and a pin formed with a curved recess at the lower end of the body, so formed as to permit the lower end of the body of the pin at the side where the tail bears, to rest on the bottom wall of the opening in the draw-head, and also with an upwardly and inwardly inclined surface extending from the lower end of the body of the pin and receiving the inclined surface of the tail of the knuckle; substantially as described.

THOMAS M. GALLAGHER.

In presence of—

E. S. KNIGHT,

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