

No. 816,038.

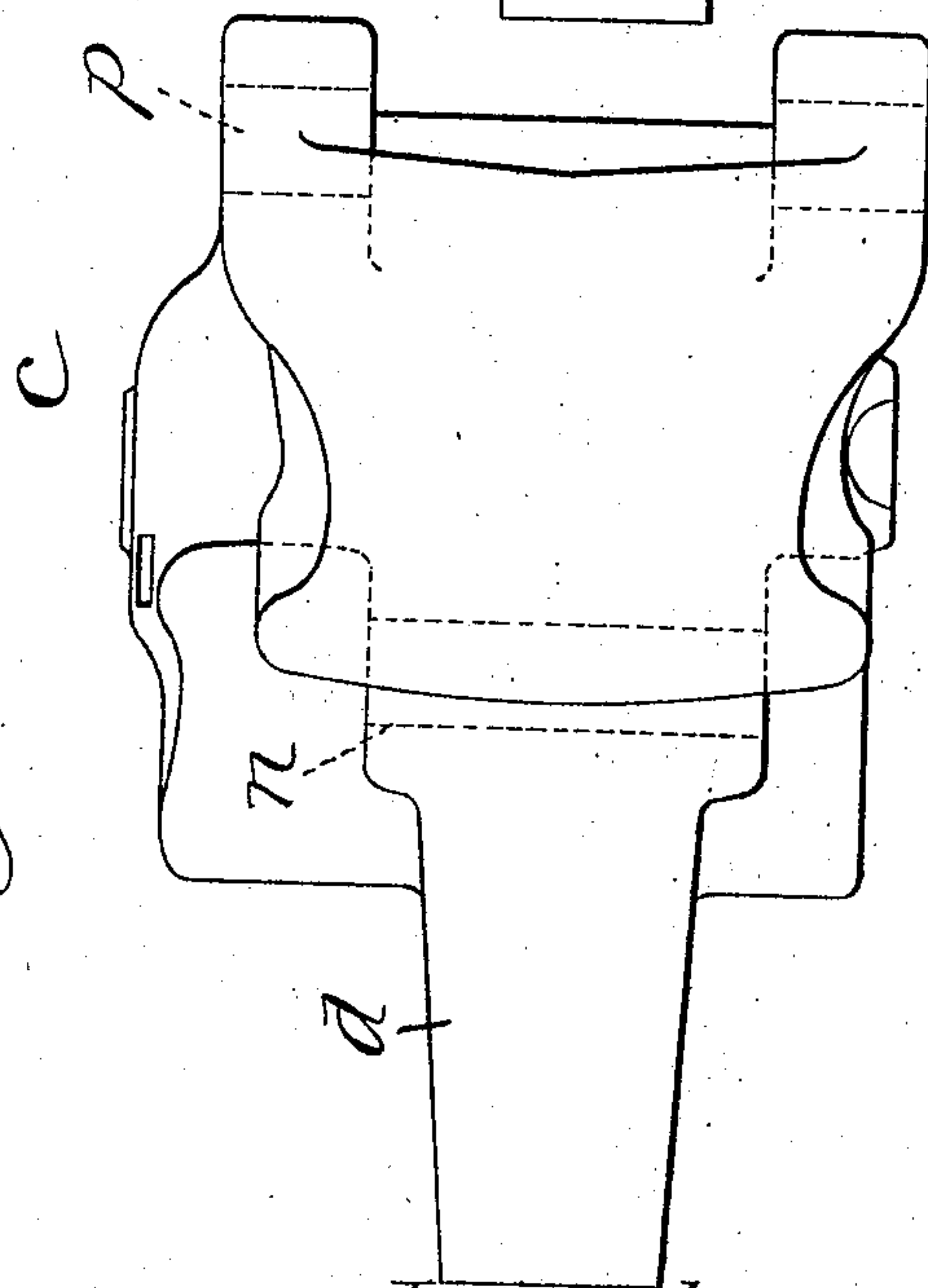
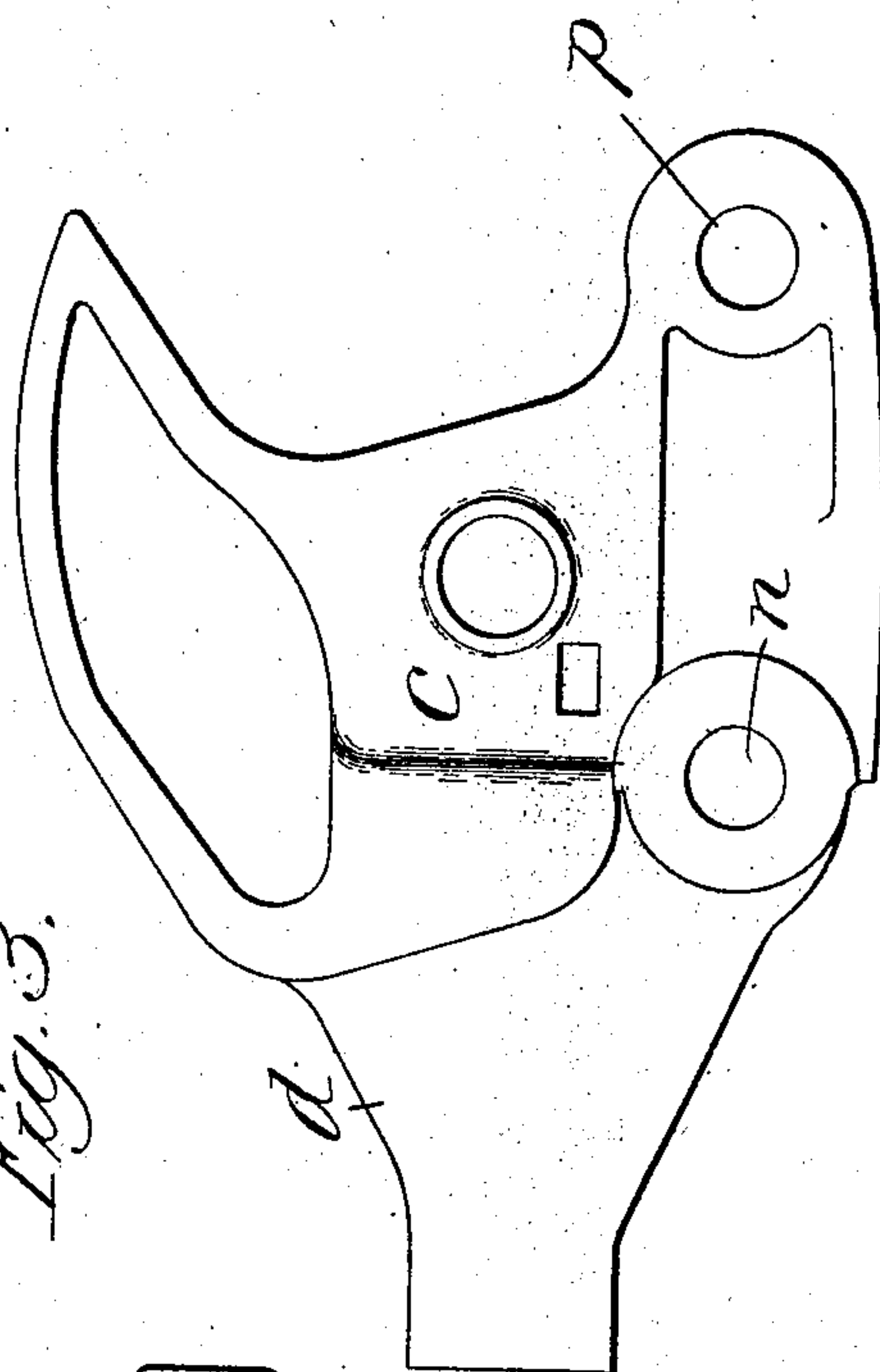
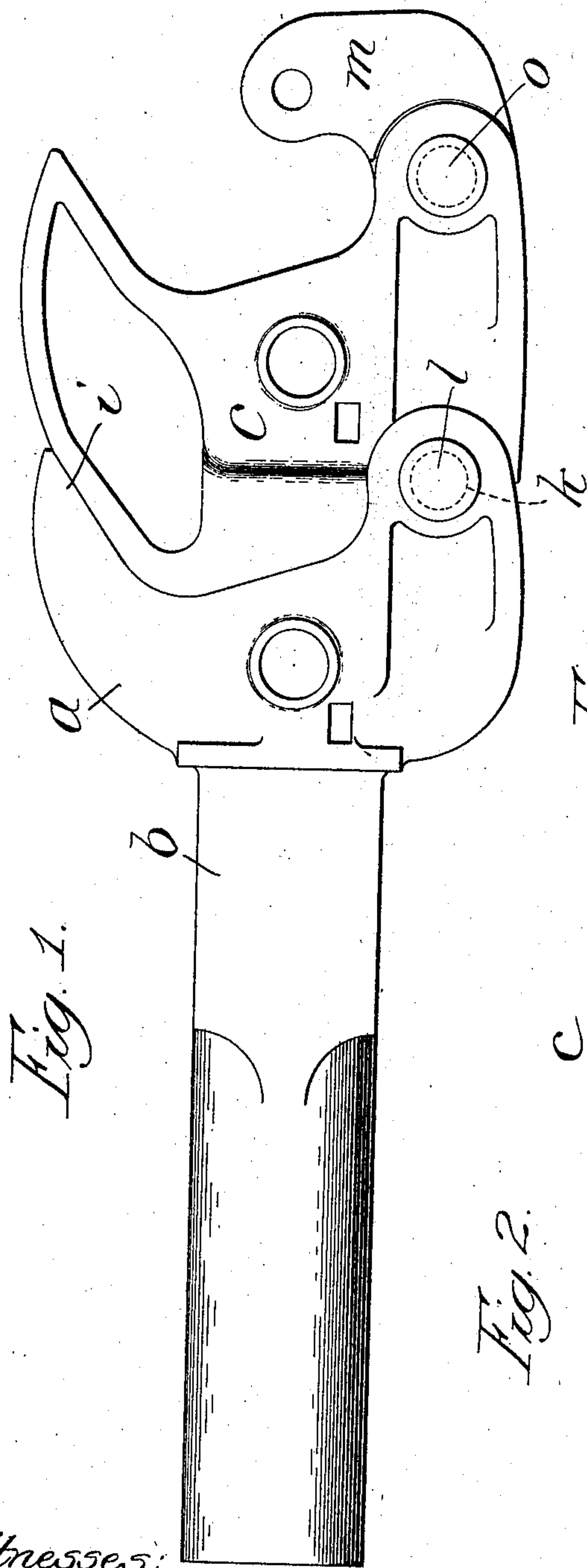
PATENTED MAR. 27, 1906.

E. POSSON.

COUPLING FOR RAILWAY ENGINES AND CARS.

APPLICATION FILED JUNE 2, 1905.

2 SHEETS—SHEET 1.



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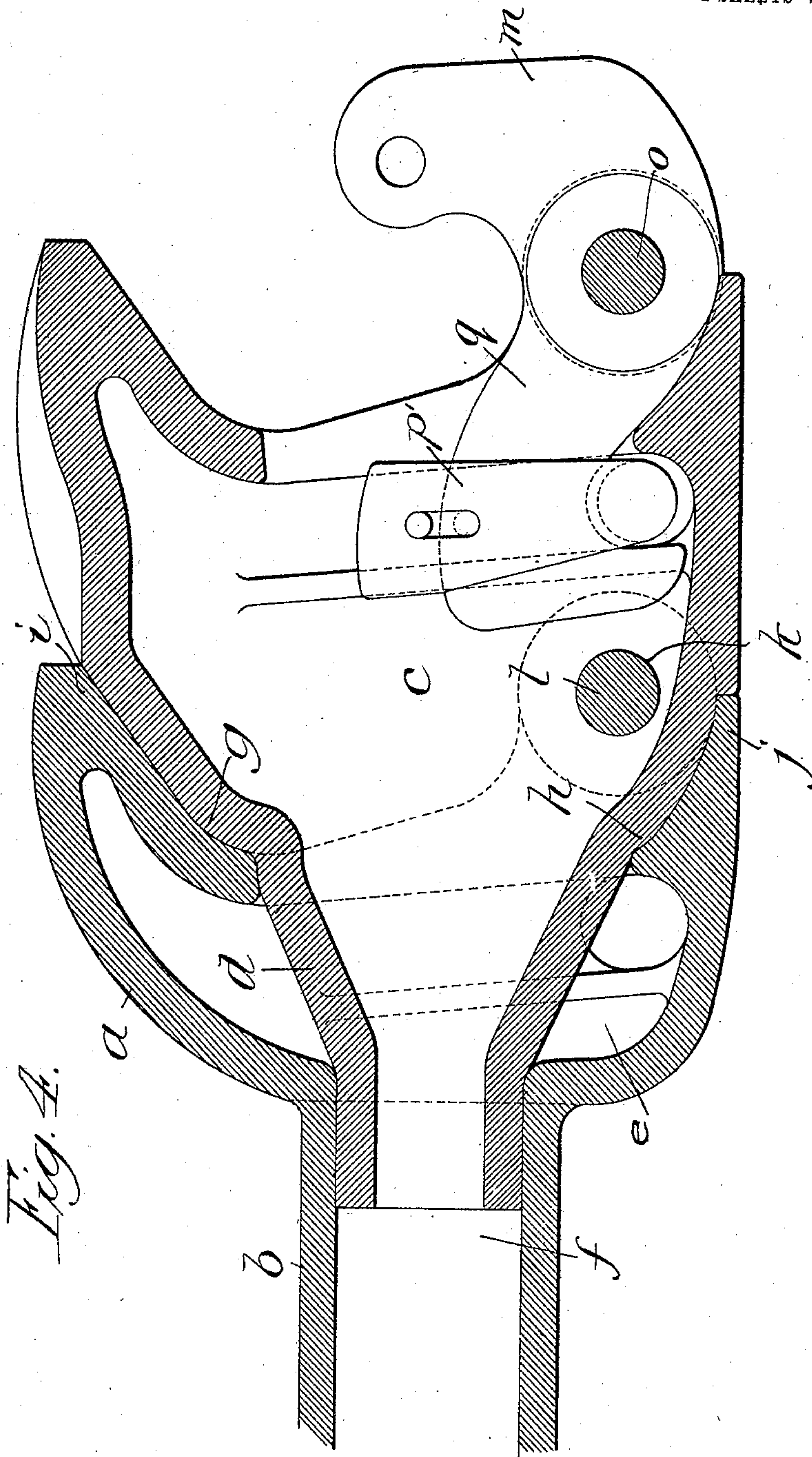


Fig. 4.

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UNITED STATES PATENT OFFICE.

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COUPLING FOR RAILWAY ENGINES AND CARS.

No. 816,038.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed June 2, 1905. Serial No. 263,382.

To all whom it may concern:

Be it known that I, EDWARD POSSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Couplers for Railway Engines and Cars, of which the following is a specification.

My invention relates to that class of couplers for railway engines and cars adapted to form a close coupling with the car with which it is to be connected when desired and provided with means for increasing the space between the tender and the connected car when the engine is being used for switching.

The principal object of my invention is to provide a simple, economical, and efficient coupler for railway-engines.

A further object of the invention is to provide a coupler for railway-engines adapted to form a close coupling between the engine or tender and the car with which it is connected when desired and to provide a sufficient space between the engine-tender and car to permit the operator to safely stand between the tender and car when passing around curves, particularly when a road-engine is being used as a switch-engine, and therefore frequently obliged to pass and repass around the sharp curves of switch-yards.

Other and further objects of the invention will appear from an examination of the drawings and the following description and claims.

The invention consists in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of my improved coupler, showing the supplementary coupler-head removably secured to the main or permanent coupler-head; Fig. 2, a view in elevation of the same; Fig. 3, a plan view of the supplementary coupler-head with the knuckle removed, and Fig. 4 an enlarged sectional plan view of the permanent and supplementary coupler-heads in operative position with the knuckle in operative position in the supplementary coupler-head.

In constructing a coupler for railway-engines in accordance with my improvements I provide a permanent coupler-head *a*, having a coupler-neck or tailpiece *b* and a removable coupler-knuckle *m* and the usual locking-pin. (Not shown.) Mechanism for operating the locking-pin may be of any ordinary and well-known type. A supplementary coupler-

head *c* is also provided, having a stem *d* adapted to enter the socket *e*, formed by the permanent coupler-head, the rear end of such stem being adapted to enter the hollow portion *f* of the coupler-neck, such supplementary coupler-head being provided with rear body or heel portions *g* and *h* of a contour corresponding with the contour of the inner engaging-surface portions of the jaws *i* and *j* of the permanent head. The permanent coupler-head is provided with perforations *k* for receiving a connecting-pin *l*, which when the permanent coupler-head is in use without the supplementary coupler-head serves to hold the coupling-knuckle in operative position. When the supplementary coupler-head is in use, the pin *l* serves to hold it in position in the socket formed by the permanent coupler-head and to removably secure the permanent and supplementary coupler-heads together. By this arrangement it will be readily seen that when the neck of the supplementary coupler-head and its rear body portion or heel portion are in position in the socket formed by the permanent coupler-head with the pin *l* in place a connection is formed adapted to retain the parts rigidly in operative position, notwithstanding the great stresses and strains to which they are subjected in use, and that the supplementary coupler-head may be readily removed and the coupler-knuckle *m* secured to the permanent coupler-head so as to form a close coupling, such as is best adapted to the requirements of hauling trains on main tracks or from station to station.

When it is desirable to use the engine for switching purposes or to increase the space between the engine-tender and the car for any reason, the supplementary head is secured to the permanent coupler-head by first removing the coupling-knuckle and locking-pin from the permanent coupler-head and then inserting the pin *l* through the perforation *k* in the permanent coupler-head and through the perforation *n* in the supplementary coupler-head. The knuckle *m* is mounted in the supplementary coupler-head by means of a pin *o*, which extends through the perforations *p* in the supplementary coupler-head and through the perforation (not shown) in the coupler-knuckle which registers therewith. The same coupler-knuckle which is used in the permanent coupler-head may be employed in the supplementary coupler-head, if desired, and the coupling or locking pin *p'*

for the supplementary coupler-head adapted to be moved into and out of locking engagement with the tailpiece *g* of the coupling-knuckle to hold the coupler-knuckle locked in coupling position and permit it to be swung to open position as desired. The locking-pin and the mechanism employed for operating it may be of any ordinary and well-known form, though I prefer to use the same type of knuckle and locking-pin in the supplementary head that is employed in connection with the supplementary coupler-head in ordinary use. By this means the coupler-knuckle and locking-pin mechanism may be used interchangeably in both the supplementary and permanent coupler-heads.

By the above arrangement it will be seen that means is provided whereby the engine may be coupled closely to the car with which it is connected by using the permanent coupler-head without the supplementary head, and that a coupling is thus provided which is best adapted for use upon the main tracks or for hauling heavy trains from station to station. It will also be seen that by mounting the supplementary coupler-head in the socket formed by the permanent head after first removing the coupler-knuckle and locking-pin an extension is formed which without any detrimental effect provides an increased and sufficient space between the engine-tender and the car to which it is coupled to enable the engine and car or cars to pass around the sharp curves common in switch-yards without danger of crushing the operator, who is thus enabled to safely stand between the tender and car, notwithstanding the sharp curves of the tracks. It will also be readily appreciated by those skilled in the art that the supplementary coupler-head being provided with a neck or stem portion to form a snug connection with and extend into the socket formed by the permanent coupler-head, the parts being removably secured together by means of the pin *l* in the manner described, an exceedingly rigid and efficient connection is formed between the permanent and supplementary heads, and the latter is adapted to be readily removed and replaced.

I claim—

1. In a mechanism of the class described, the combination of a main coupler-head having a socket, a supplementary coupler-head removably secured in the socket, and a coupler-knuckle mounted in the supplementary coupler-head.

2. In a mechanism of the class described, the combination of a main coupler-head having a socket, a supplementary coupler-head having a stem entering the socket and provided with perforations for receiving a knuckle-holding pin, a knuckle provided with a perforation registering with the perforations in such supplementary coupler-head, a pin for holding such knuckle in position, and means for securing the supplementary coupler-head to the main coupler-head.

3. In a mechanism of the class described, the combination of a main coupler-head provided with a removable coupler-knuckle and forming a socket for receiving and holding a supplementary coupler-head in operative position, a supplementary coupler-head having its rear portion mounted in the socket formed by the main coupler-head, and means for securing such supplementary coupler-head to the main coupler-head.

4. In a mechanism of the class described, the combination of a supplementary coupler-head provided with perforations for receiving a pin adapted to connect such supplementary coupler-head with a permanent coupler-head, and having perforations for receiving a knuckle-holding pin, a knuckle provided with a perforation for receiving a knuckle-holding pin, and a knuckle-holding pin mounted in the supplementary coupler-head and connecting the coupler-knuckle therewith.

5. In a mechanism of the class described, the combination of a main coupler-head, a supplementary coupler-head removably secured thereto, a coupler-knuckle, and means for securing such coupler-knuckle to the main and supplementary coupler-heads respectively, as desired.

6. In a mechanism of the class described, the combination of a main coupler-head provided with perforations for receiving a pin for holding a coupler-knuckle and a supplementary coupler-head alternately in position in the main coupler-head, a supplementary coupler-head provided with a perforation adapted to register with such perforations in the main coupler-head, and a pin for securing such coupler-knuckle and supplementary coupler-head alternately in position upon the main coupler-head.

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Witnesses:

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