

No. 612,042.

Patented Oct. 11, 1898.

C. JOHNSON.

THILL COUPLING PIN AND ANTIRATTLE COMBINED.

(Application filed June 3, 1898.)

(No Model.)

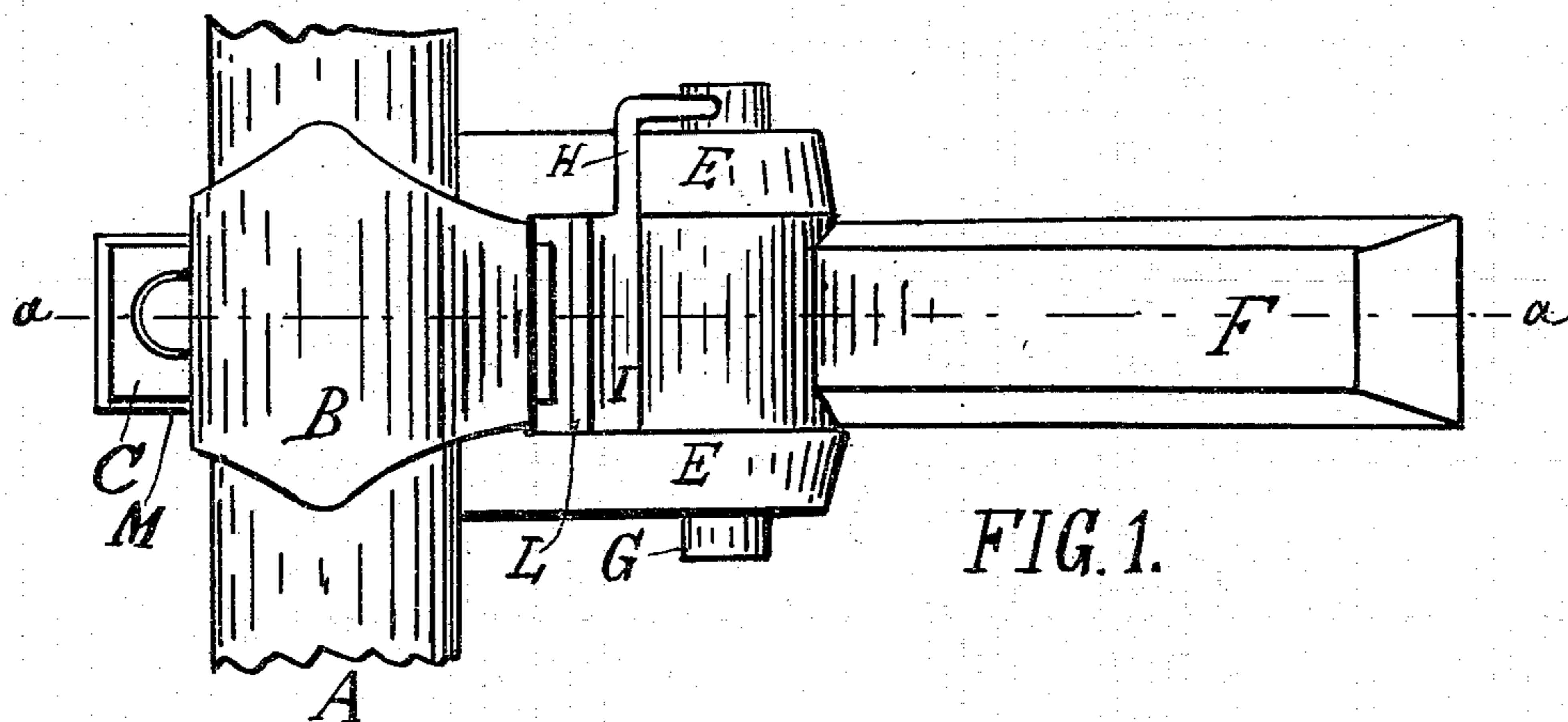


FIG. 1.

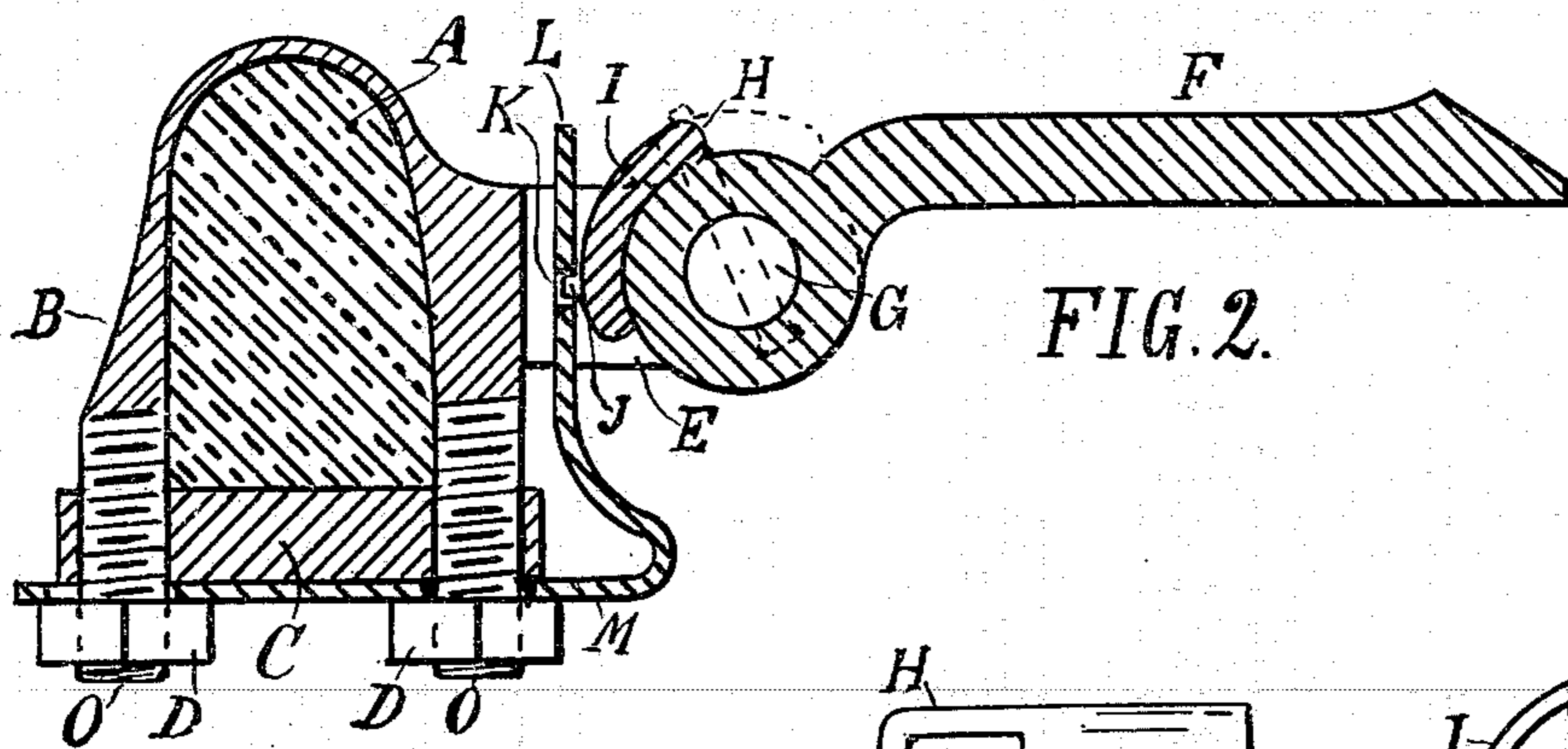


FIG. 2.

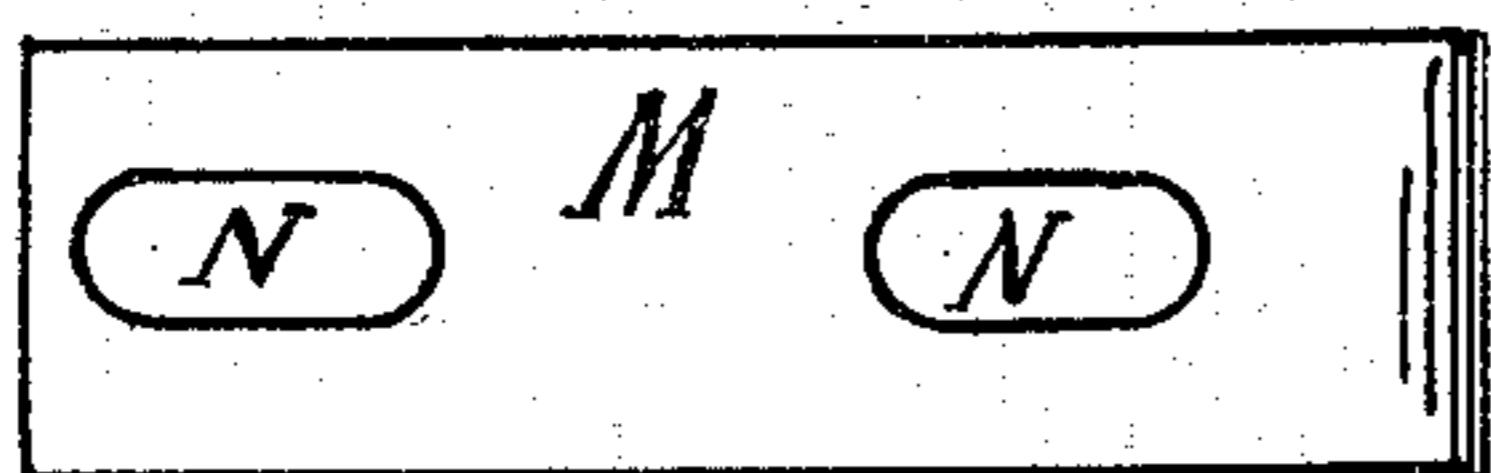


FIG. 3.

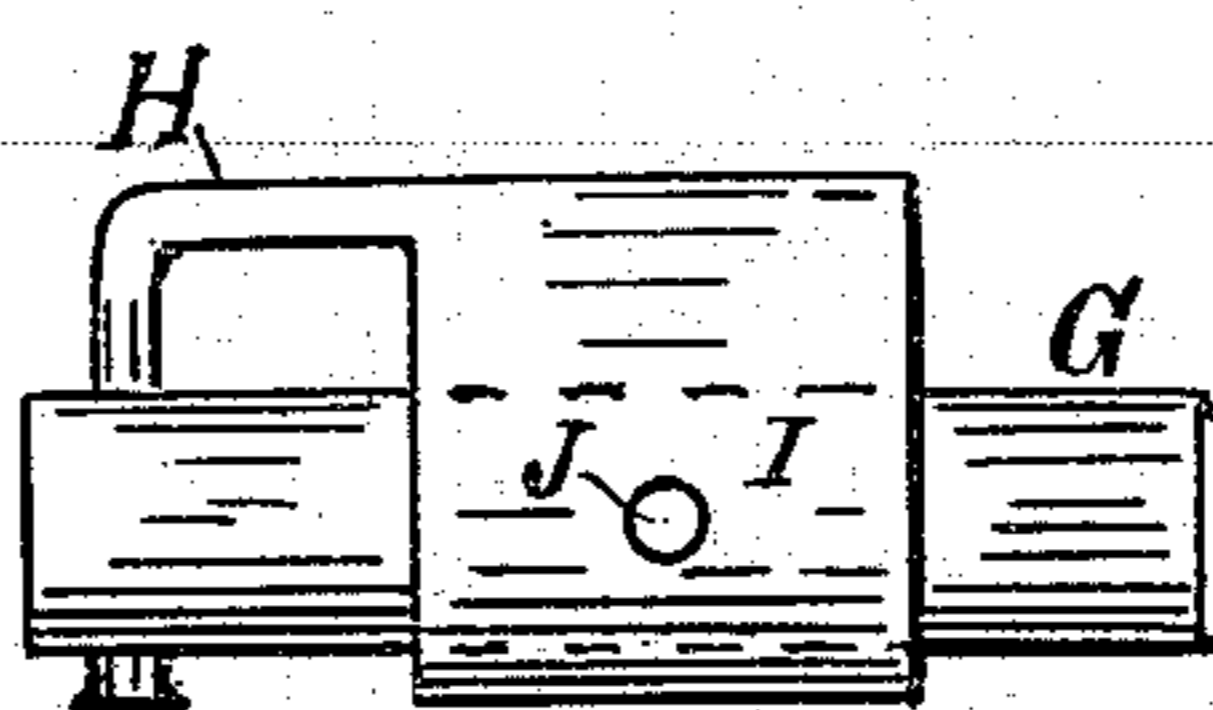


FIG. 4.

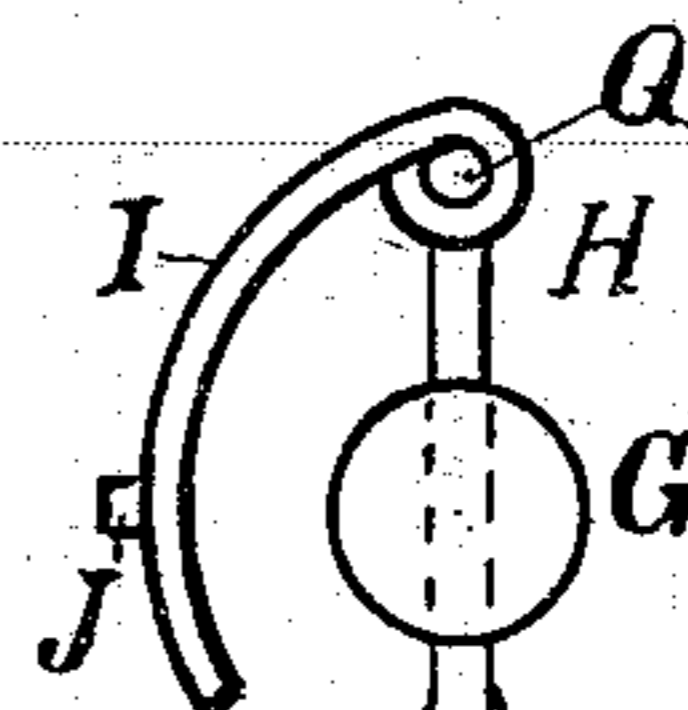


FIG. 5.

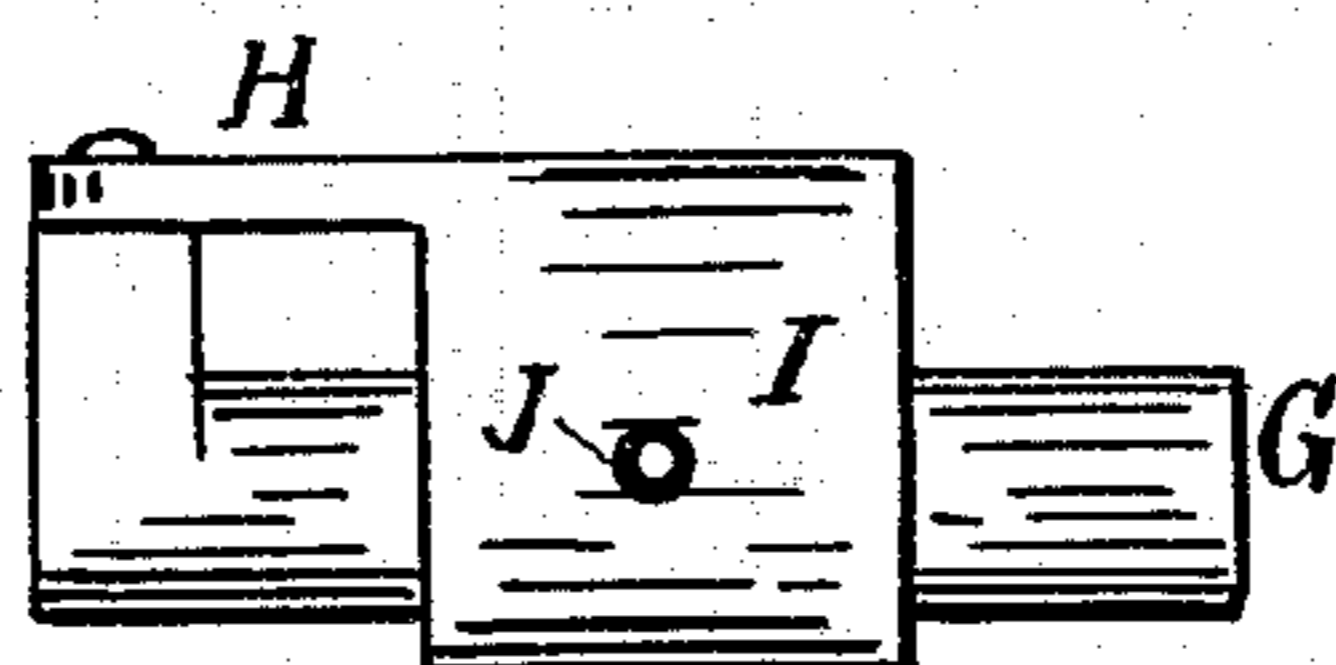


FIG. 6.

WITNESSES.

J. E. Carlsen,
D. E. Carlsen.

INVENTOR.

Curtis Johnson.
BY his ATTORNEY.
A. M. Carlsen.

UNITED STATES PATENT OFFICE.

CURTIS JOHNSON, OF RIVER FALLS, WISCONSIN.

THILL-COUPLING PIN AND ANTIRATTLER COMBINED.

SPECIFICATION forming part of Letters Patent No. 612,042, dated October 11, 1898.

Application filed June 3, 1898. Serial No. 682,479. (No model.)

To all whom it may concern:

Be it known that I, CURTIS JOHNSON, a citizen of the United States, residing at River Falls, in the county of Pierce and State of Wisconsin, have invented certain new and useful Improvements in a Thill-Coupling Pin and Antirattler Combined; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in thill-couplings; and the object of my invention is to provide a cheap, simple, and effective thill-coupling pin and antirattler combined. This object I attain by the novel construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of a thill-coupling with my improvements applied. Fig. 2 is a longitudinal vertical section through the thill-coupling about as on the line *a a* in Fig. 1. Fig. 3 is a bottom view of the spring of the antirattler. Fig. 4 is a rear side view of the coupling-pin and the arm whereby it combines with and is held by the spring of the antirattler. Fig. 5 is a right-hand end view of Fig. 4 slightly modified. Fig. 6 is another modification of Fig. 4.

Referring to the various parts in the drawing by letters of reference, A designates the axle of a buggy or other vehicle.

B is the clip, fastened upon the axle by the strap C and the nuts D. From this clip extend forward the cheeks E E, between which is inserted the rear end of the shank F, adapted to be secured to the rear end of the wooden thill, shaft, or pole of a vehicle, all of which is of old and well-known construction.

The coupling-pin G, which occupies the usual place and position, I make without head or nut; but to one of its ends I secure the up and inwardly bent arm H, which on its free end is provided with a curved leaf-shaped catch I, adapted to be inserted downward between and be guided by the cheeks E of the coupling, thereby keeping the pin G in its place.

The catch I is locked in its normal position

by the engagement of the pin or projection J at the back of it with the hole or indenture K in the upwardly-extending end or arm L of the antirattling-spring L M, of which the lower and horizontal portion M is provided with slotted holes N, placed upon the screw-threaded ends O of the clip and there adjustably held by friction between the strap C and the nuts D.

The arm H may, at the manufacturers' option, be made flexible or jointed to the pin either as in Figs. 4 or 6, and the leaf I may be drop-forged integral with the arm H or secured upon it in the manner indicated at Q in Fig. 5.

The pin is made long enough to fit the ordinary variation in sizes of thill-couplings, so that my improvements may readily be applied to any thill-coupling already made, as well as to new ones.

In operation the pin is inserted with the catch I in the position shown in dotted lines in Fig. 2, and then the pin is turned until the catch I passes down between the jaws or cheeks E, forcing the spring-arm L rearward enough to give it proper tension and bringing the hole or indenture K and the pin *j* to register and interlock. To remove the pin, the operator takes hold of the upper end of the spring-arm L and forces it backward till it disengages from the pin J. The catch is then turned upward and the pin and catch removed. Should the spring-arm L accidentally break, the weight of the leaf I and arm H will keep the catch engaged between the cheeks E until repair can be had.

It is obvious that the pin G and the arm H may be secured together in a great many various ways and other modifications made without diverging from the spirit of my invention.

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

1. A thill-coupling comprising a clip having two cheeks, a thill-iron pivoted by a pin between the cheeks, a yielding arm or catch, extending from one end of the pin and in between the cheeks, a spring secured to the clip and engaging the catch, so as to prevent its accidental disengagement from between the cheeks, substantially as and for the purpose set forth.

2. In a thill-coupling, the combination with a clip and a pair of cheeks or flanges projecting forward therefrom, of a thill-iron pivoted with a pin between the cheeks, a swinging
5 arm, or catch, extending from one end of the pin and entering down between the cheeks, a spring secured to the clip and pressing the catch against the rear end of the thill-iron, and interlocking with the catch, to guard
10 against its accidental disengagement by jarring of the vehicle, substantially as shown and described.

3. In a thill-coupling, the combination with the clip B, having the cheeks E, strap C and
15 nuts D D, for securing it on the axle; the thill-iron F, pivotally secured by the pin G between the said cheeks, said pin having a catch extending from one of its ends in be-

tween the cheeks, and provided with a tooth or the like means upon its rear side; the anti- 20 rattler-spring having slotted holes placed upon the bolt ends of the clip and an arm extending from one of its ends, forward and up between the cheeks, so as to press forward against the catch and thereby also upon the 25 thill-iron, and means for interlocking the spring-arm with the catch, to prevent accidental raising of the latter, substantially as and for the purpose set forth.

In testimony whereof I affix my signature 30 in presence of two witnesses.

CURTIS JOHNSON.

Witnesses:

ABBIE CHURCHILL,
N. P. HAUGER.