

(No Model.)

2 Sheets—Sheet 1.

J. H. PEARSON.
CAR COUPLING.

No. 528,798.

Patented Nov. 6, 1894.

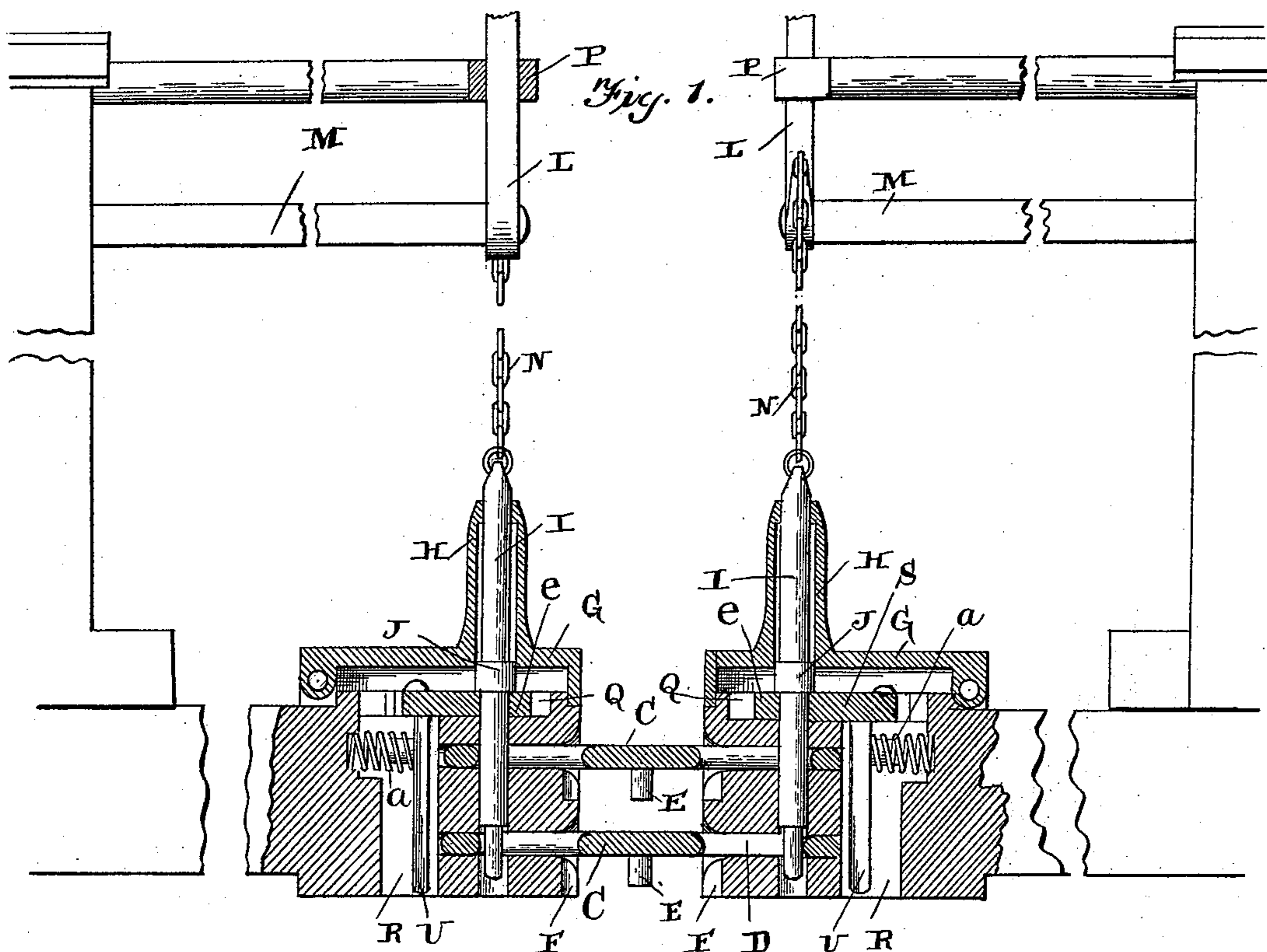


Fig. 3.

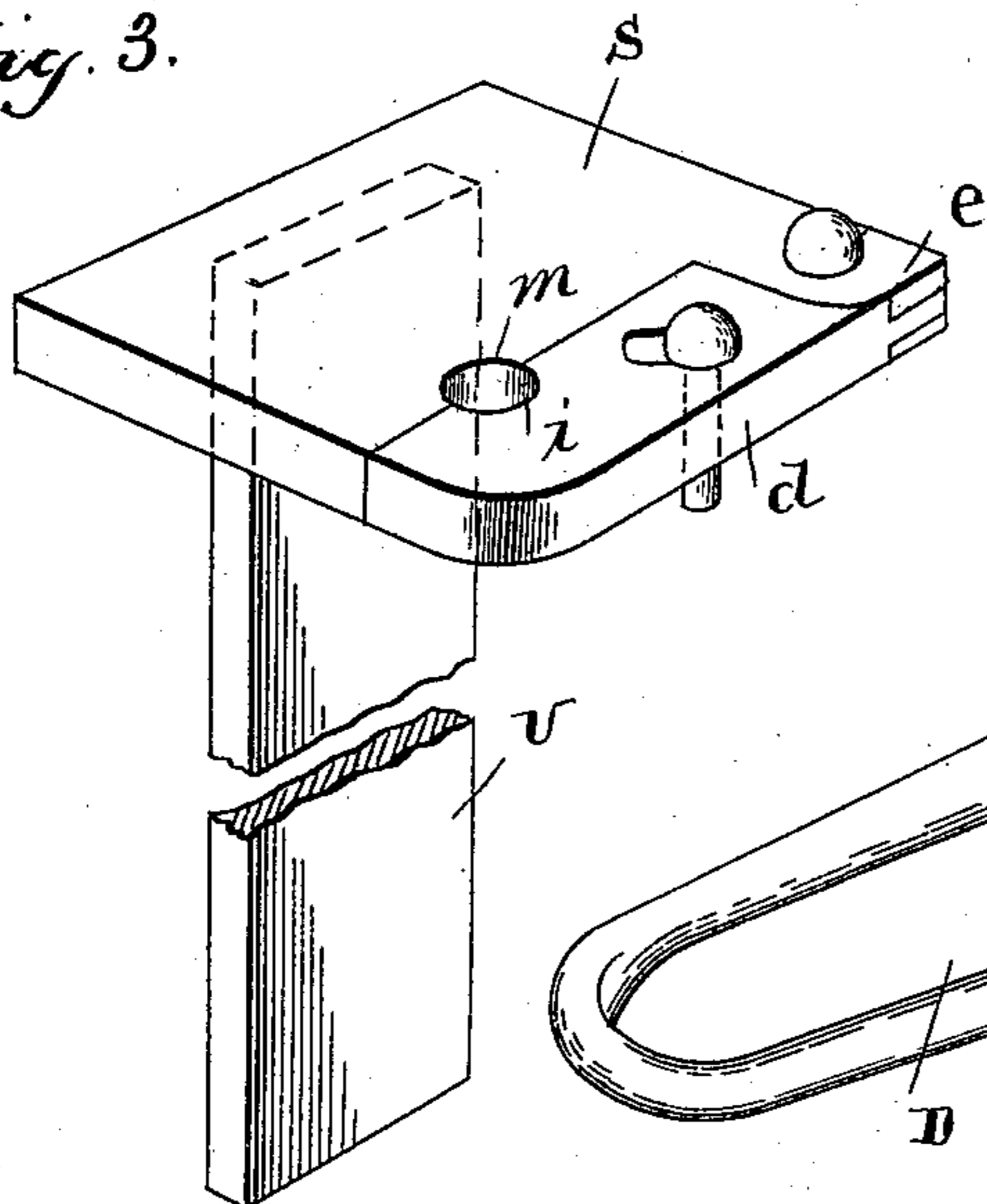
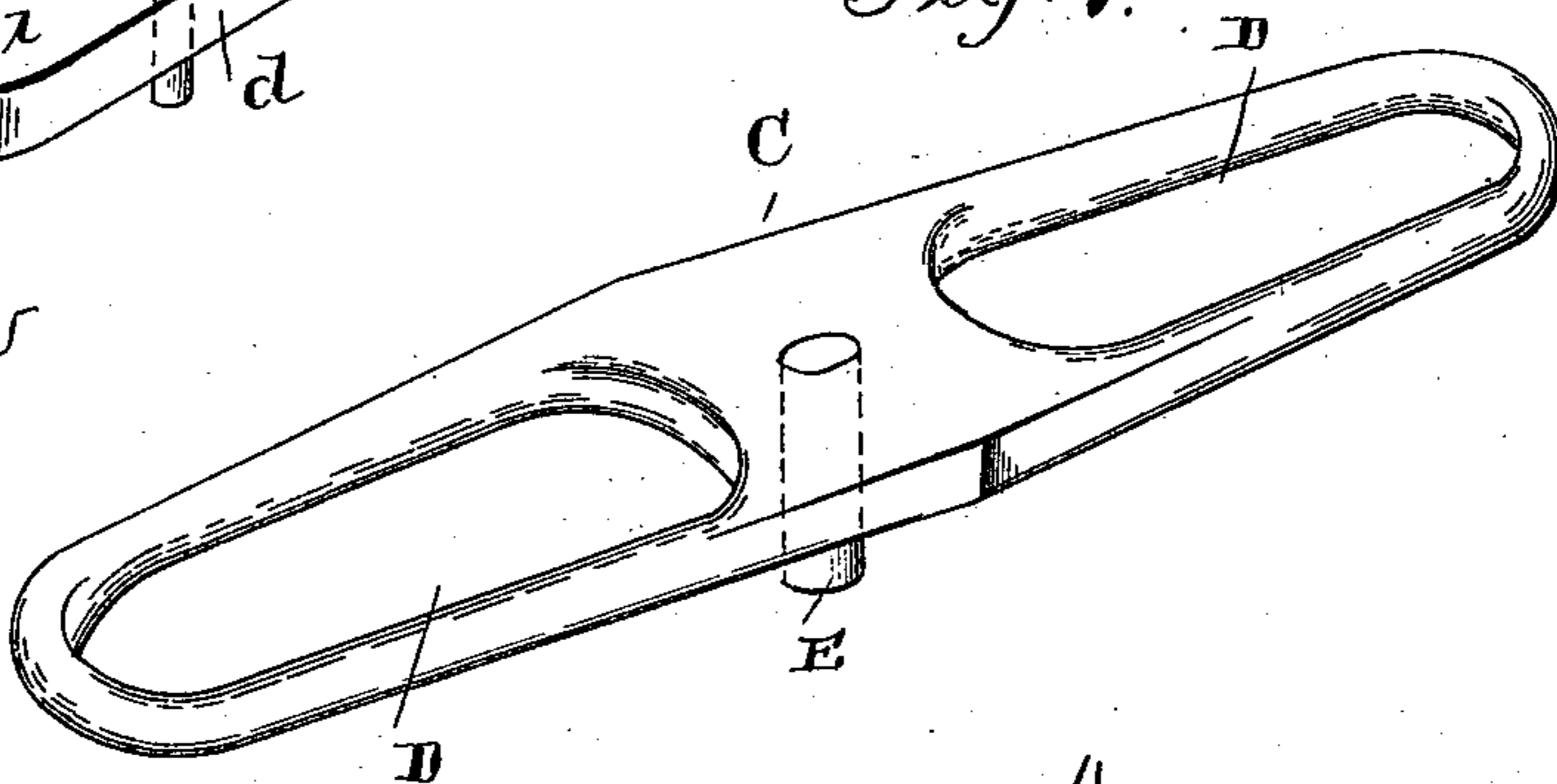


Fig. 4.



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2 Sheets—Sheet 2.

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Fig. 2.

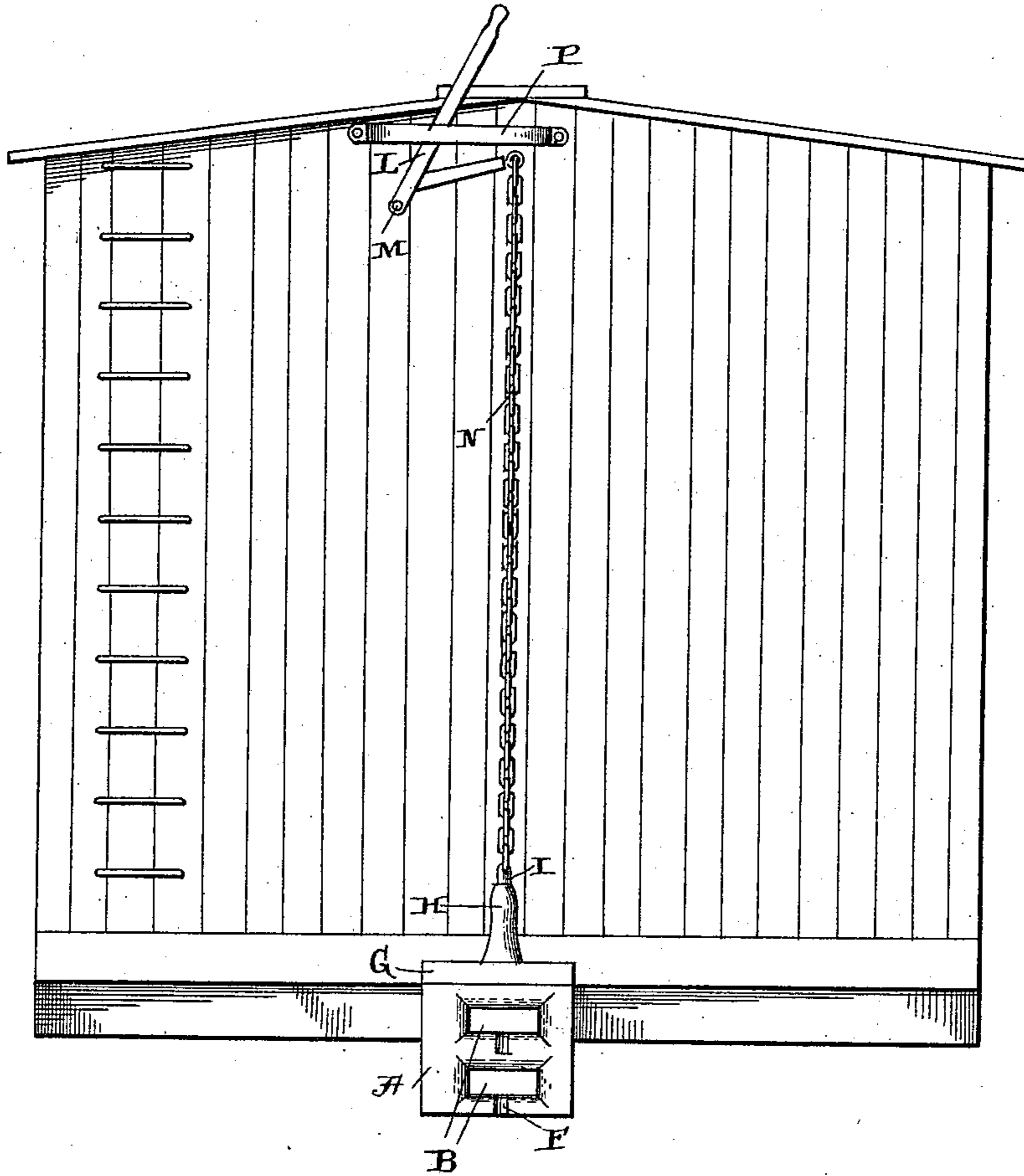
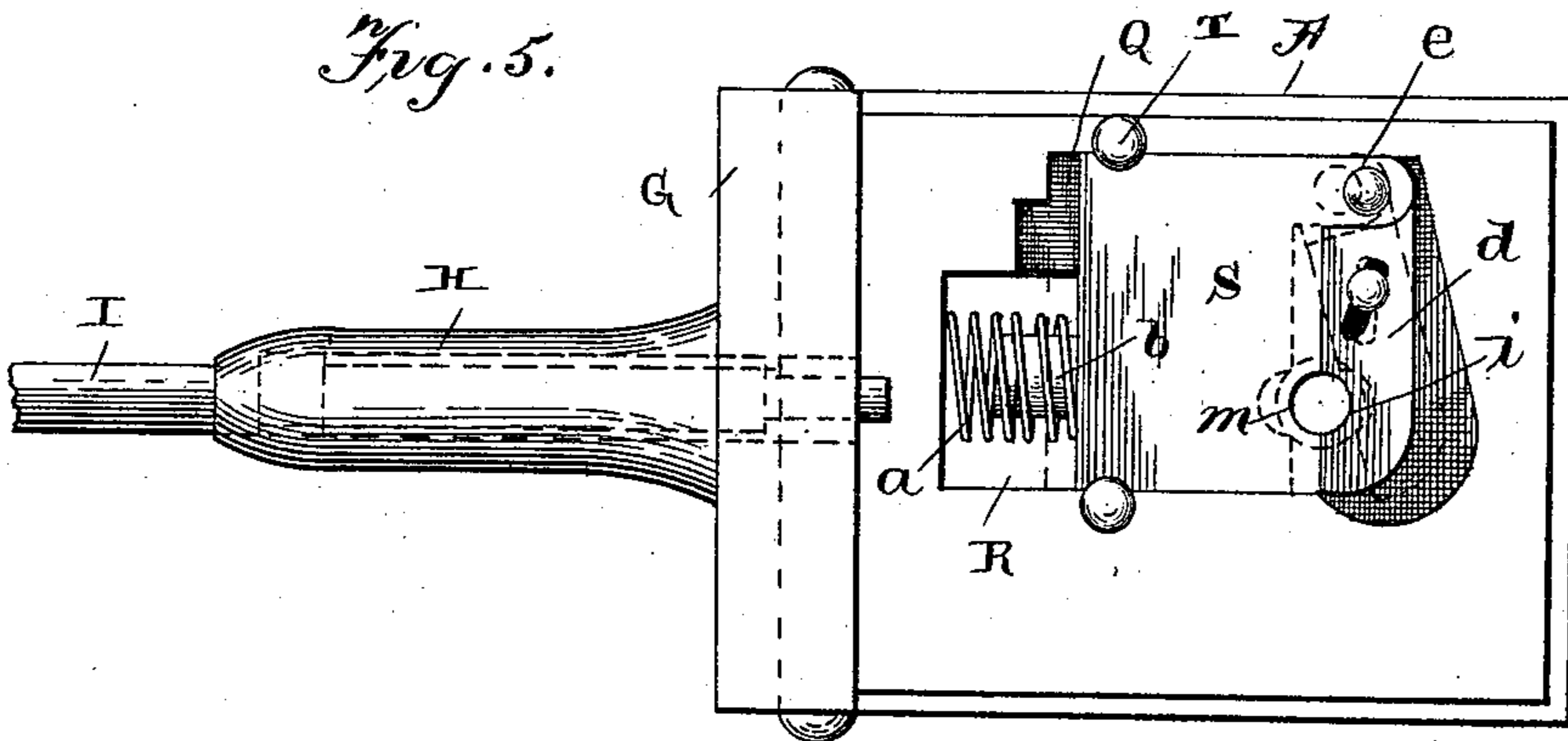


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOSIAH H. PEARSON, OF ALUM BANK, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 528,798, dated November 6, 1894.

Application filed May 21, 1894. Serial No. 512,004. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH H. PEARSON, of Alum Bank, in the county of Bedford and State of Pennsylvania, have invented certain new and useful Improvements in Automatic 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in automatic car couplings, and it consists in the construction and arrangement of parts which will be fully described hereinafter and particularly pointed out in the claims.

The object of my invention is to provide an automatic coupling having a pin support adapted to be operated by the link of the adjacent car when they run together so that the pin is automatically released and permitted to drop through the link for coupling the cars; the said coupling provided with two links whereby it is adapted to couple with high or low cars, and also with a means for raising the pin from the top of the car, all of which will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of two couplings having my invention applied thereto. Fig. 2 is an end view of one of the couplings. Fig. 3 is a detached perspective view of the pin support. Fig. 4 is a detached perspective view of one of the links. Fig. 5 is a top plan view of one of the couplings with the top raised and exhibiting the pin support in position therein.

A indicates a drawhead which is provided with the two link openings or cavities B, one above the other, to adapt the coupling to be used in connection with either high or low cars.

The links C consist of flat bars slightly tapered from their centers toward their ends and provided with the elongated openings D for the pins, and at their under sides with the pins E depending from the centers thereof, for the purpose of limiting the inward movement of the links into either of the drawheads, and the under sides of the drawheads are provided with vertical cavities F to receive them, though these cavities are not essential.

The tops of the drawheads are provided with hinged covers G, by means of which access can be had at any time to the interior thereof and to the pin support to be fully described presently. Extending upward from these covers at the centers thereof are the tubular extensions H through which the pins I pass, and these pins are provided with the shoulders J to prevent them from being entirely pulled from the said tubular extensions H, and with the shoulders K near their lower ends to act in conjunction with the pin support, though the shoulder is not necessary, but preferred.

A bell-crank lever L is pivoted upon a support M at the inner side of the end of the car and near the top thereof, one end of the said bell crank lever being attached by means of a chain or cord N to the upper end of the pin I, and by means of which the pin is raised from the top of the car as will be readily understood. Also supported at the inner side of the end of the car is a slotted bar P, through which the said bell crank lever passes, and which forms a guide therefor.

The upper end of each of the drawheads is provided with a cavity Q, and at the rear end of this cavity with a vertical opening R which extends to the bottom of the said drawhead. Placed and supported within this cavity Q of each draw head is a block S, held therein by means of the headed pins or screws T, which have their heads to project inward over the top of said block, and secured to the under side of this block at or near its inner end is a depending arm U, which passes downward across the inner ends of each of the link openings in the said drawhead to be engaged by the inner ends of the links when they are forced inward in the act of coupling. This block S forms a part of the pin support, and is normally held outward by means of a spiral spring *a*, which is placed around an inwardly extending pin *b*, the inner end of said spring resting in a cavity made in the inner wall of the said drawhead. An arm *d*, has its outer end pivoted to a projection *e*, of the said block S, and is provided intermediate its ends with a slot, through which a pin or screw passes into the drawhead, and which pin forms a pivotal point for said arm *d*. The inner edge of this arm is provided with a cavity *i*, registering with a cavity *m*, in the adjacent edge

of the block, which together form an opening through which the lower end of the coupling pin passes as shown.

From this description it will be seen that
 5 as the block is normally held outward by means of the spiral spring, the pivoted arm *d*, is turned upon its pivotal pin and made to normally engage the adjacent edge of the horizontally sliding block S, so that the lower
 10 end of the said pin is either grasped by the block and arm, or supported on their upper ends according to the vertical position of the pin. When the cars run together the links project into the drawhead of the uncoupled
 15 drawhead, and engage the depending arm and force the horizontally sliding block S rearward, turning the arm *d*, upon its pivotal pin which separates it from the block S and permits the pin to drop which couples the cars.
 20 By means of the bell crank lever the pin is drawn upward and normally held by the pin support or clasp just described, so that when the cars run together the pin is automatically released and the cars coupled without the ne-
 25 cessity of going between the cars, thus saving life and limb.

From the above description it will be seen that I have produced a very durable, simple and positive acting automatic car coupling.

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

1. An automatic car coupling comprising a
 35 drawhead, a horizontally sliding block, a pivoted arm coacting therewith for supporting a pin, and a depending arm from the block extending across the link opening, substantially as described.

2. An automatic car coupling comprising a draw head, a horizontally sliding block at its 40 upper end above the link opening, an arm pivoted at one end to the said block, a pivotal pin extending through the pivotal arm into the draw head, and a depending arm from the said block extending across the rear 45 end of the link opening, substantially as set forth.

3. A car coupling comprising a drawhead, a horizontally sliding block in its upper end above the link opening, said block having a 50 downward extension extending across the rear end of the said link opening, a spring for normally holding the said block outward, an intermediately pivoted arm or lever at the outer end of the said block and having one 55 end pivoted to said block and coacting therewith to form a pin support, substantially as described.

4. An automatic car coupling comprising a drawhead having a horizontal cavity in its 60 upper side, a vertical opening at the rear end of said cavity and making communication between it and the link opening, a horizontal block in said cavity with an extension into the said vertical opening, said extension hav- 65 ing a rearwardly extending pin, a spiral spring around said pin, and a pivoted lever co-acting with the outer end of said horizontally sliding block, the parts operating substantially as described. 70

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

J. H. PEARSON.

Witnesses:

W. H. LING,
 G. G. WALKER.