

(No Model.)

J. H. WEAVER.

CAR COUPLING.

No. 390,827.

Patented Oct. 9, 1888.

Fig: 4.

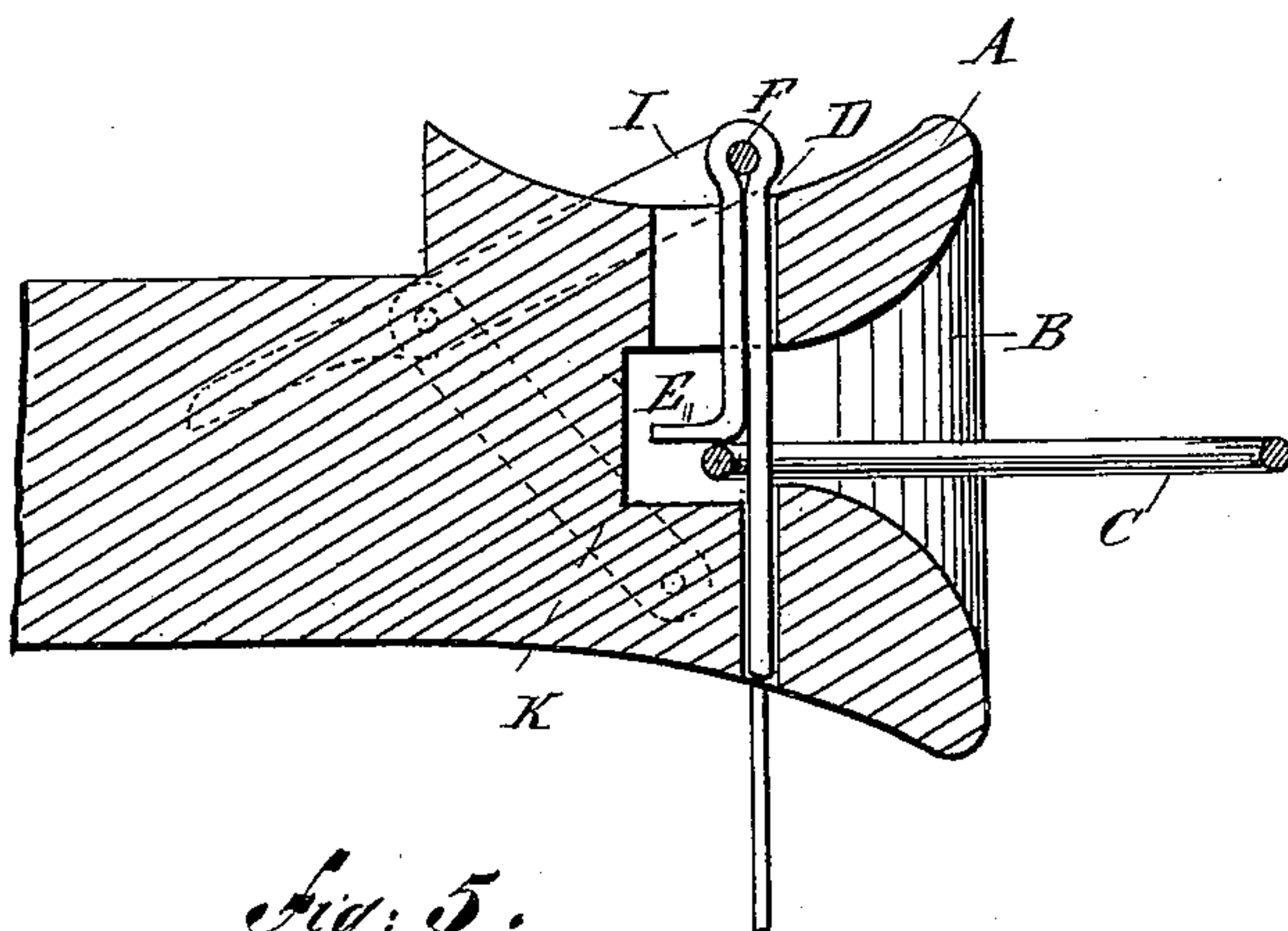


Fig: 1.

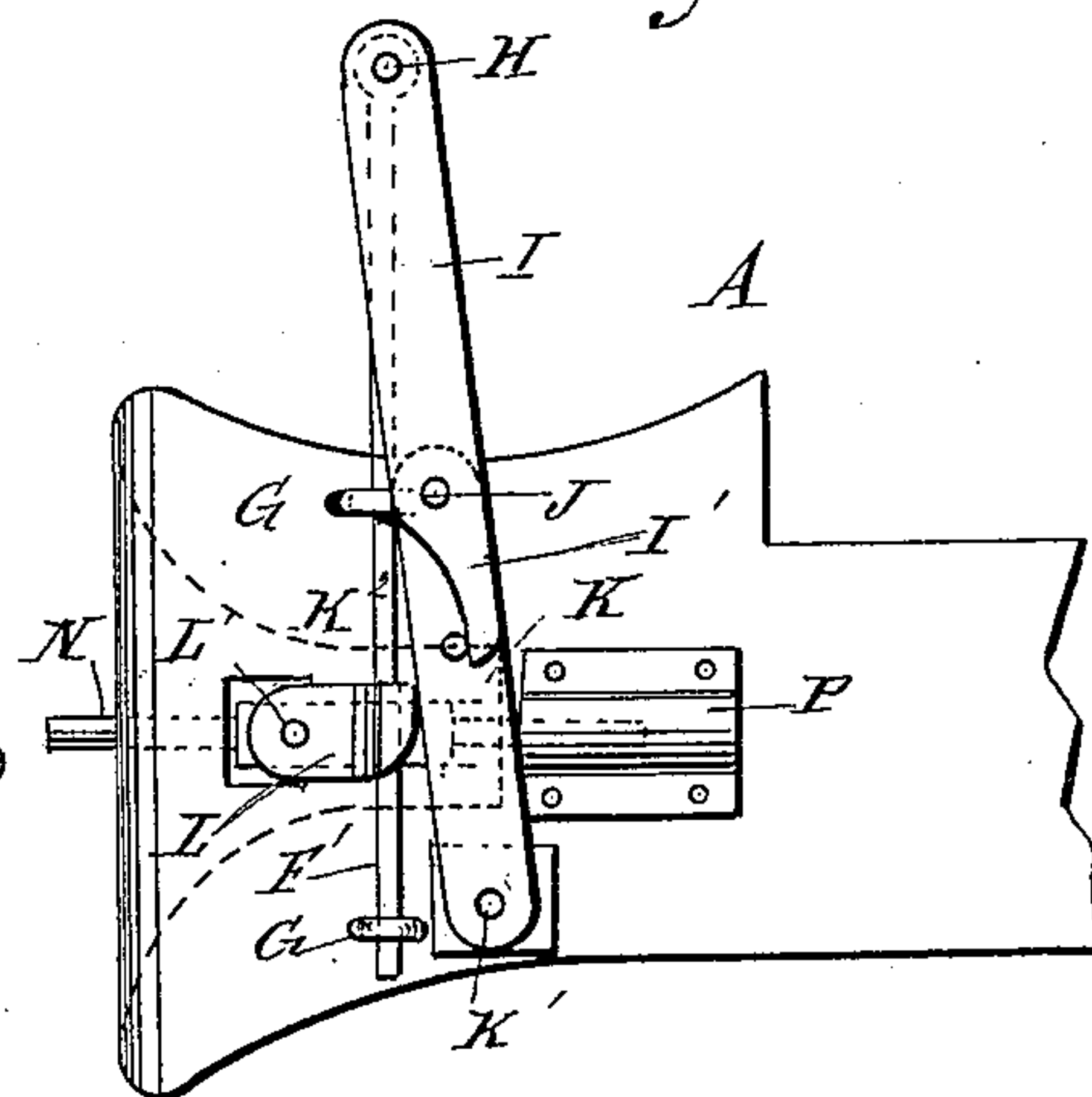


Fig: 5.

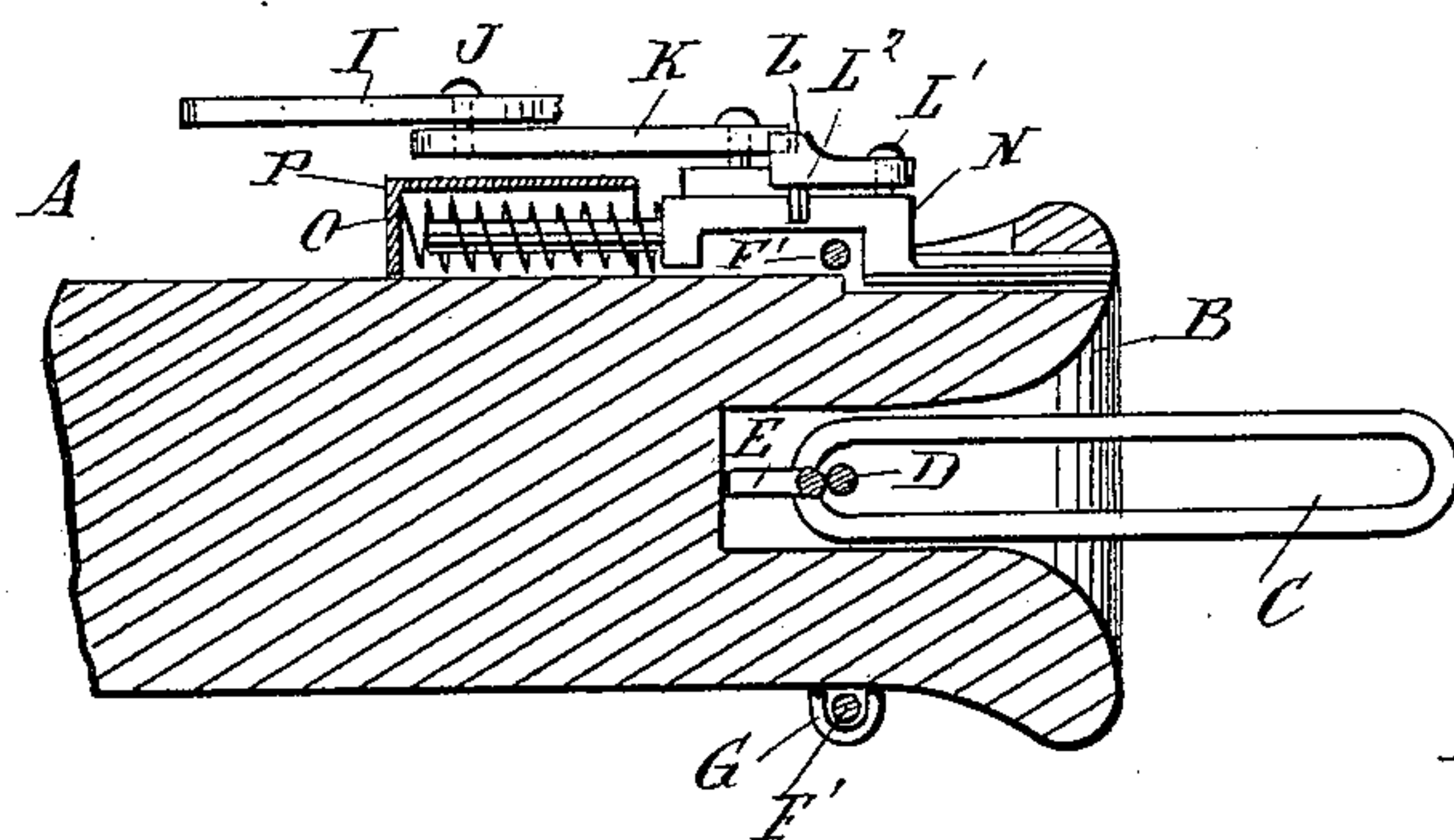


Fig: 2.

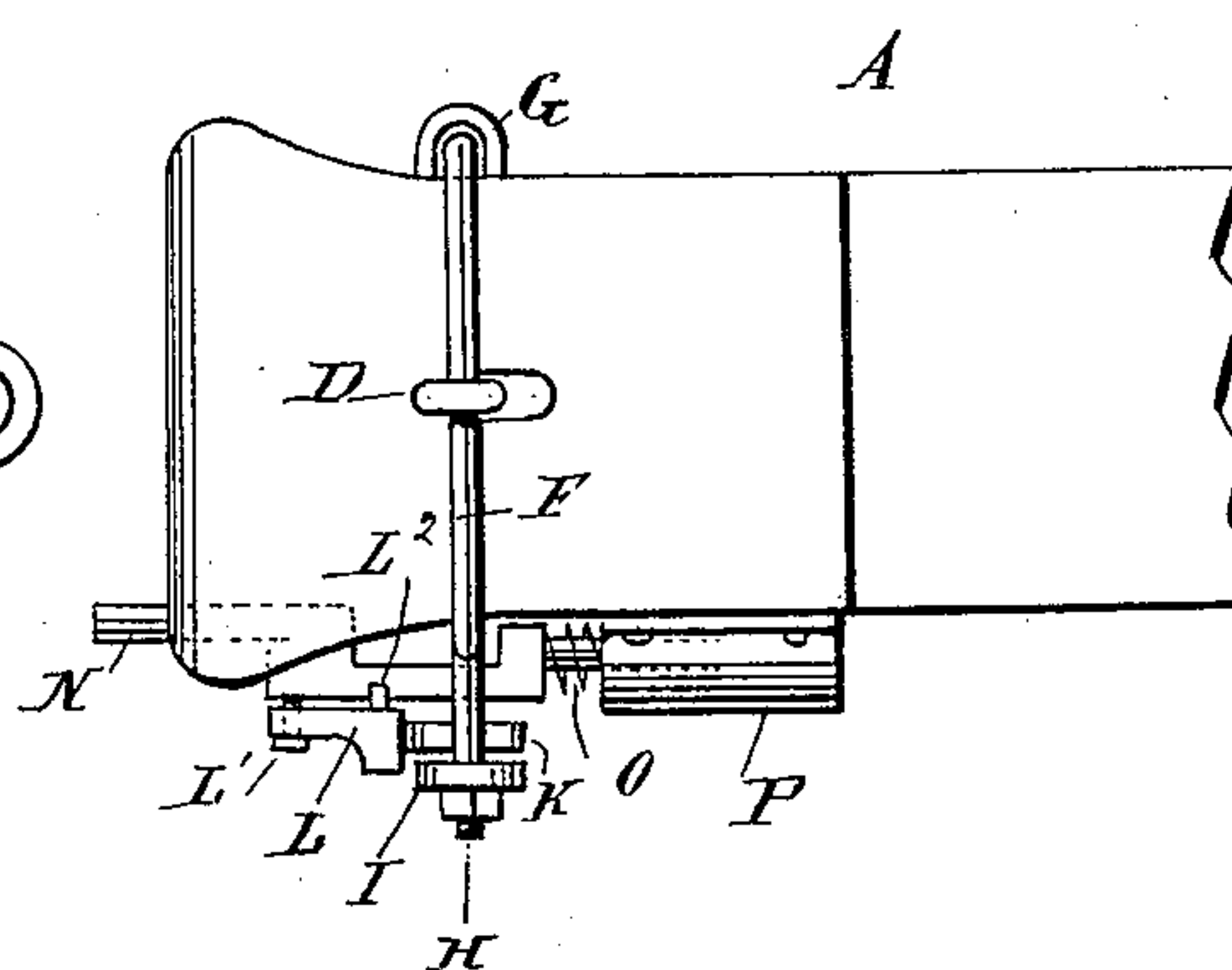
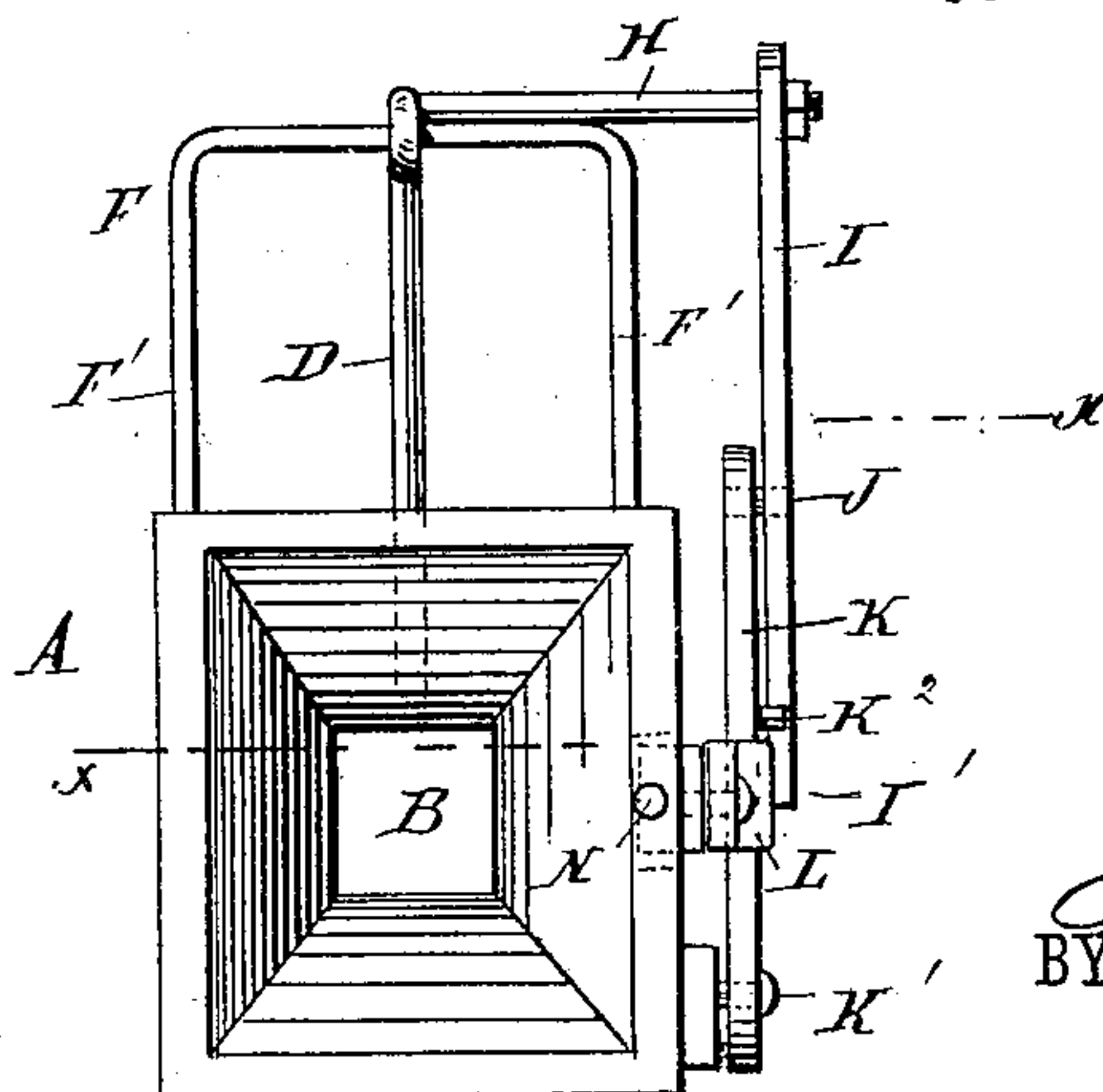


Fig: 3.



WITNESSES:

Cnas. Nica
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UNITED STATES PATENT OFFICE.

JOSEPH HENRY WEAVER, OF GRANGE, ASSIGNOR TO HIMSELF, AND SOLOMON WASHINGTON HAMILTON, OF HENDERSONVILLE, NORTH CAROLINA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 390,827, dated October 9, 1888.

Application filed March 2, 1888. Serial No. 265,913. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HENRY WEAVER, of Grange, in the county of Transylvania and State of North Carolina, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved car-coupling which is simple and durable in construction and automatic in coupling.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is a plan view of the same. Fig. 3 is an end elevation of the same. Fig. 4 is a longitudinal sectional elevation of the same, and Fig. 5 is a sectional plan view of the same on the line *xx* of Fig. 3.

The draw-head A, of any approved construction, is secured in the usual manner to the car, and is provided at its front end with the opening B, into which enters the coupling-link C, adapted to be engaged by the coupling-pin D, provided with a rearwardly-extending foot or arm, E, adapted to rest on the inner end of the coupling-link C, so as to hold the latter in a horizontal position, in order to enter the opposite draw-head easily.

The coupling-pin D is held to slide vertically in suitable bearings in the draw-head A, and the upper outer end of the said coupling-pin D is supported by a U-shaped frame, F, having its side arms, F', engaged by the eyes G, secured to the sides of the draw-head A, whereby the said frame F is perfectly guided in its up-and-down movement on the said draw-head A. From the frame F projects on one side a pin, H, on which is fulcrumed an arm, I, pivotally connected at J to a second arm, K, pivoted at its lower end at K' to one side of the draw-head A. From the second arm, K, projects a pin, K², against which rests the inner reduced edge of a projecting end, I',

secured to the lower end of the arm I. When the two arms I and K are in the position shown in Fig. 1, the pivots K', J, and H and the pin K² are in line with each other.

The front edge of the arm K is adapted to be engaged by a dog, L, pivoted at L' to a bar, N, held to slide horizontally on the side of the draw-head A. The pivoted dog L is provided with a pin, L², which rests on the top edge of the said bar N, whereby the said dog L is supported in a horizontal position. The free end of the said dog L is slightly beveled off or rounded, as is plainly shown in Fig. 1, so as to yield slightly when suddenly thrown in contact with the front edge of the arm K, before mentioned. The front end of the bar N projects a short distance beyond the front edge of the draw-head A, as is plainly shown in Figs. 1 and 2, and on the rear end of the said bar N is coiled a spring, O, inclosed in a casing, P, secured to the side of the draw-head A.

The operation is as follows: When the car-coupling is in the position shown in Fig. 1, the coupling-pin D is supported in its uppermost position, so that the opening B is entirely free. The opposite draw-head A supports the coupling-link C by the foot or arm E, resting on the rear end of the said coupling-link C, and the coupling-pin D, passing through the said coupling-link, as shown in Figs. 4 and 5. When the coupling is in this position, the arms I and K do not stand in line with each other, and the coupling-pin D is consequently in its lowermost position, securely holding the coupling-link in place. When the latter now enters the opposite opening, D, in the draw-head A, the two draw-heads come together, whereby the projecting end of the bar N is struck by the opposite draw-head A, so that the entire bar is moved toward the rear, whereby the dog L throws the arm K toward the rear and out of line with the arm I. The weight of the frame F and the pin D causes the downward movement of the same, so that the coupling-pin D slides downward and passes through the link C until its arm E rests at the inner end of the coupling-link C. The arms I and K then assume the same inclined relative positions, as shown in Fig. 4. The bar N on being moved inward, as above described, compresses its

spring O, and when the cars coupled together are pulled forward the two draw-heads move apart slightly, whereby the spring again exerts its pressure and forces the bar N to its former outermost position.

It is understood that when the two draw-heads come together the bar N is moved toward the rear, thus throwing the arms K and I out of line, whereby the frame F becomes unlocked and is free to slide downward by its own weight.

When the operator desires to uncouple the cars, he moves the frame F upward until the arms I and K are in line with each other, as shown in Fig. 1. The coupling-link C is then disengaged from the coupling-pin D and can be moved out of the opening B of the respective draw-head. The coupling-pin D is thus again reset and is ready to be coupled, as above described.

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

1. In a car coupling, the combination, with a draw-head, of a frame held to slide on the draw-head, a coupling pin carried by sliding frame, a downwardly-projecting arm pivotally connected to the sliding frame, and an upwardly-projecting arm pivoted to the draw-head and to the downwardly-projecting arm a short distance from its free end, and provided with a stop, with which the end of the downwardly-projecting arm engages, substantially as herein shown and described.

2. In a car-coupling, the combination, with a draw-head, of a frame held to slide on the draw-head, a coupling-pin carried by the sliding frame, a downwardly-projecting arm pivotally connected to the sliding frame, an upwardly-projecting arm pivoted to the draw-head and to the downwardly-projecting arm a short distance from the free end thereof, and provided with a stop, with which the end of the downwardly-projecting arm engages, a sliding bar on the side of the draw-head, with its end projecting beyond the front edge of the same, and a dog pivoted on the said sliding bar and engaging the upwardly-projecting arm, substantially as herein shown and described.

3. In a car-coupling, the combination, with the draw-head A, of the sliding frame F, provided with the pin H, the coupling pin D, carried by said sliding frame, the arm I, pivoted on the pin H and having the reduced end I', the arm K, pivoted to the draw-head and to the arm I a short distance from the end thereof, and provided with the stop K², the sliding and spring-actuated bar N on the side of the draw-head, with its end projecting beyond the front edge of the draw-head, and the dog L, pivoted to the bar N and engaging the bar K, substantially as herein shown and described.

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Witnesses:

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