

(No Model.)

L. A. HOUGHTALING.

CAR COUPLING.

No. 271,850.

Patented Feb. 6, 1883.

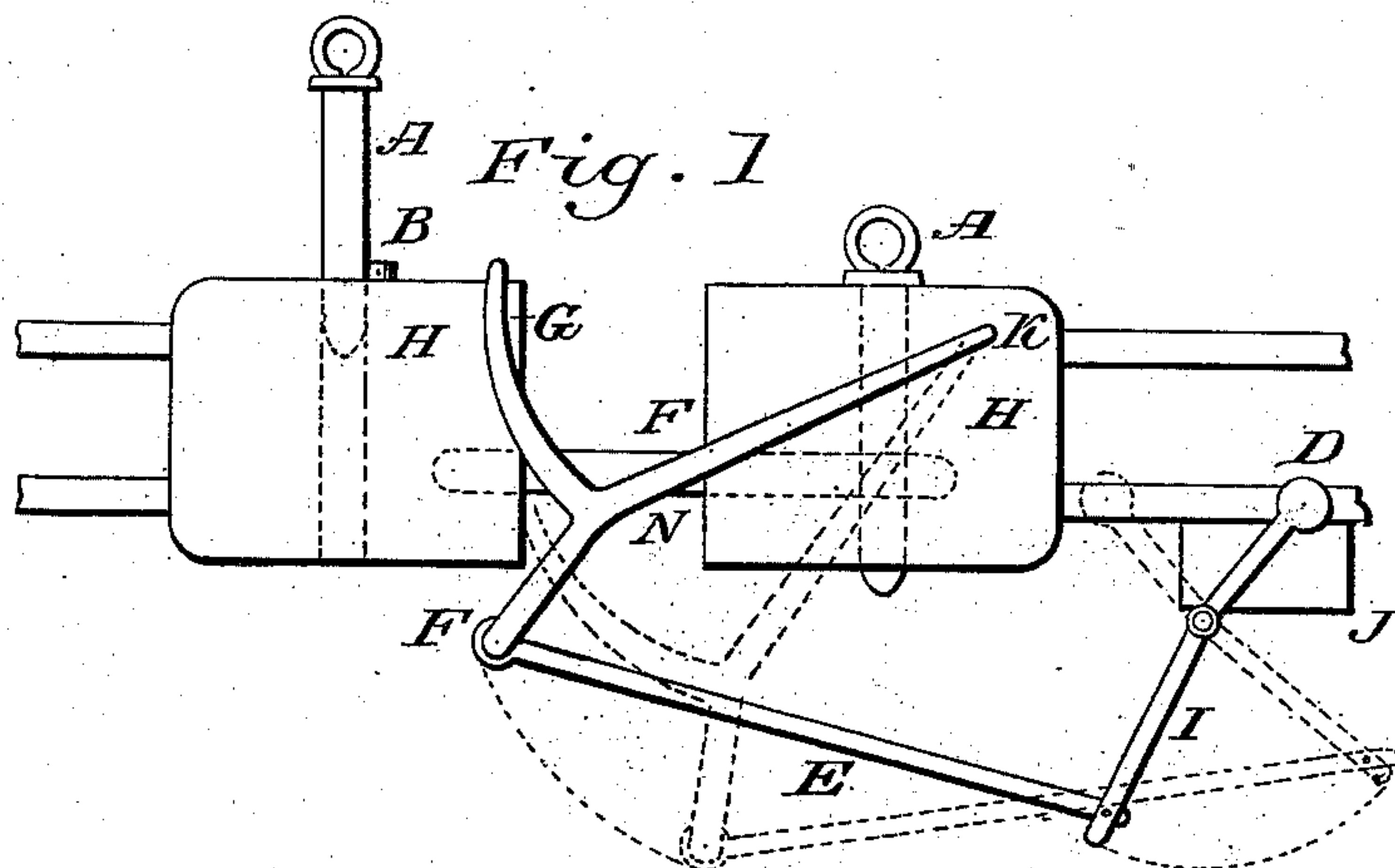


Fig. 2.

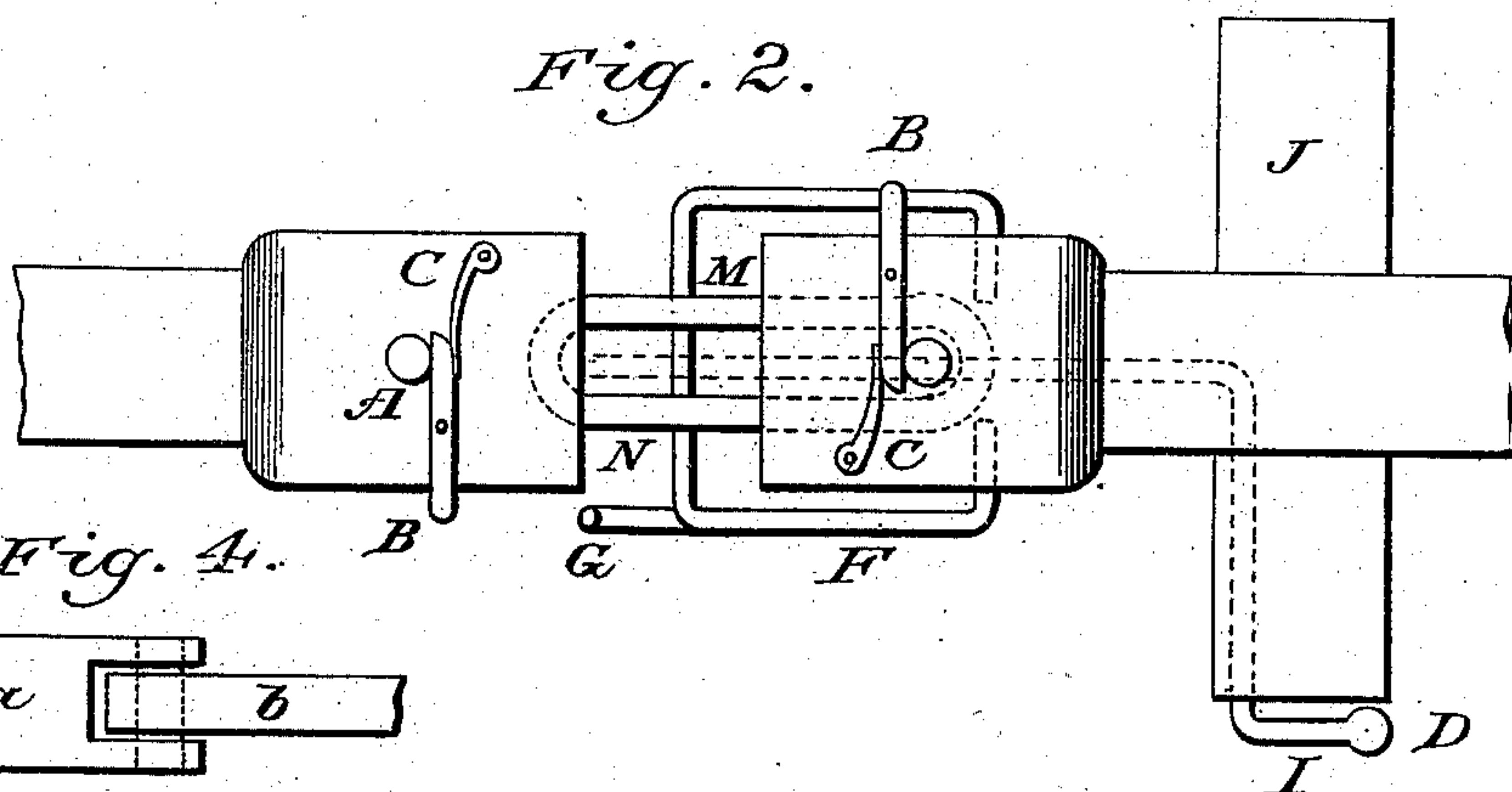


Fig. 4.



Fig. 5.



Fig. 3.

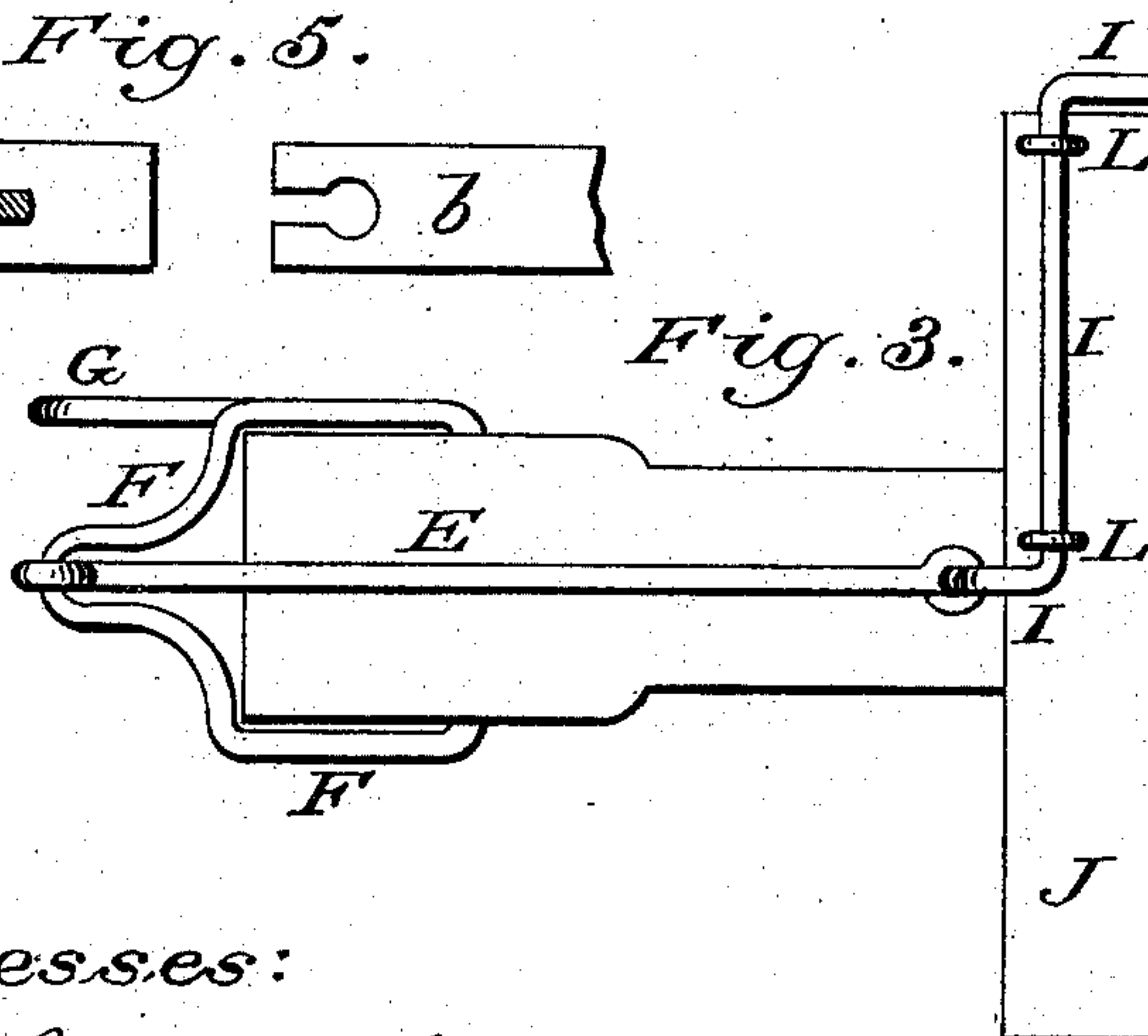
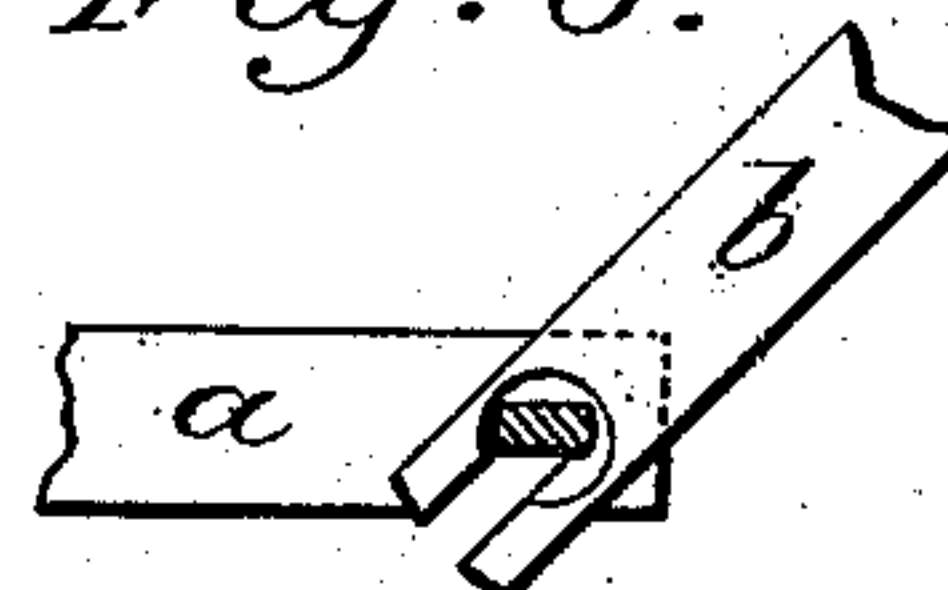


Fig. 6.



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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 271,850, dated February 6, 1883.

Application filed October 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, LLEWELLYN A. HOUGHTALING, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention consists in a device which, when combined with the frame-work of a car and the buffer-head of the same, enables an attendant to couple cars without going between them. I attain this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the entire machine, with dotted lines showing a second position of the iron frame-work, which is attached both to the car-frame and also to the buffer-head, (not the draw-bar.) Fig. 2 is the plan of the mechanism as seen from above. Fig. 3 is a plan of the mechanism as seen from underneath. Fig. 4 is a plan of the joint in the rods I and E. Fig. 5 is a view of the two parts when separated. Fig. 6 is another view of them combined.

Similar letters refer to the same part of the device in the several figures.

In the drawings, B is a lever securely pivoted to the top of the buffer-head.

C is a spring, so fastened to the buffer-head as to press B firmly against the side of coupling-pin for the purpose of holding it up when lifted.

G is an arm rigidly fastened to the jointed iron frame-work in such manner that when in the act of coupling the heads come together G is forced against the projecting end of the lever B and removes the pressure of the opposite end from the pin, which then drops by its own weight and secures the link.

A A are the coupling-pins.

J is the beam of the car-frame, over which the draw-arm is extended, and is the same to which the operating-lever of my device is attached by means of the cockeyes L L, as seen in Fig. 3.

D is a weight or lug attached to the end of said lever, which by its weight holds the rod E and the iron frame-work F F forward when D is thrown back of the vertical point, as drawn in Fig. 1, or back, as indicated by dotted lines.

E is the connecting-arm between the lever I and the frame F F, and is connected with lever I by means of a hinge of peculiar construction, as exhibited in Figs. 4, 5, and 6.

F F G is an iron frame, pivoted into the two sides of the buffer-head at k, and is lifted and lowered at will by simply moving the ball D backward or forward. When the ball end of the lever I is thrown backward the frame F F is lifted into a position for lifting the link to the proper level for entering the next draw-head, and also for the projecting arm G to come in contact with the end of lever B in a manner to liberate the pin A simultaneously with the entering in of the link by which the coupling is accomplished. I have contemplated connecting a wheel and crank to the ball-arm of the operating-lever I I as a matter of convenience, and have indeed constructed them with the wheel attached; but as it is not really essential to the device I have not shown it in the drawings. The frame F F is simply a round rod of metal bent into the shape shown, which is easily understood by looking at its side view in Fig. 1 and the under side of it, as shown in Fig. 3. It may or may not have a cross-bar, as shown at m in Fig. 2. It is immaterial which. The narrowed extension of this frame is hidden by the link in Fig. 2, but is plainly shown in Fig. 3. In practice the narrowed extension is bent at an angle, as seen in Fig. 1, so that the lower edge of the approaching draw-head strikes it just after the link has entered, and by pressing against it throws the whole frame down out of the way, by which movement the lug on the lever I is thrown forward of the vertical point, where, by its weight, it holds the device in the position shown by the dotted lines in Fig. 1.

The object attained in the use of the peculiar hinge shown in Figs. 4, 5, and 6 is this: It is not an unfrequent occurrence for a draw-bar to be broken and detached from the car. In such an event, my lever being securely fastened to the frame-work of the car, and the iron frame F F being attached to the buffer-head of the draw-bar, the coupling device would inevitably be broken unless provided with some means for the separation of the parts; and this means is provided for in my device by the hinge in question, which will be understood by

examining Figs. 4, 5, and 6, particularly the latter, where it will be seen that if *b* were held at the top, like *I* in Fig. 1, and *a*, representing *E* in Fig. 1, were drawn forward till the two bars become level with each other, then the flattened pivot would be in the right position to slip out of the open slot in the end of *b*. By this illustration it is easy to understand that in the case above cited, when the buffer-head *H* is drawn forward sufficiently to bring *E* and *I* into line with each other, the two are separated.

I am aware of the principle of lifting the link by means of a lifter other than the hand of the operator—as a stick held in the hand, a crooked rod attached to the car-frame, a simple bail attached also to the car-frame, &c.—so that I cannot claim this principle, broadly, but only that application of it which I have shown and described as follows:

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination of the metal frame *F*, having a projecting arm, *G*, with the buffer-head *H* and the arm or rod *E*, lever *I*, car-frame *J*, and the coacting lever *B*, spring *C*, pin *A*, and link *N*, substantially as and for the purpose set forth.

2. The combination of the rod or arm *E* with the lever *I* by means of the open hinge *a b*, substantially as and for the purpose set forth.

3. The combination of the lever *B* and the coacting spring *C* with the buffer-head *H*, pin *A*, and the operating-arm *G*.

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Witnesses:

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