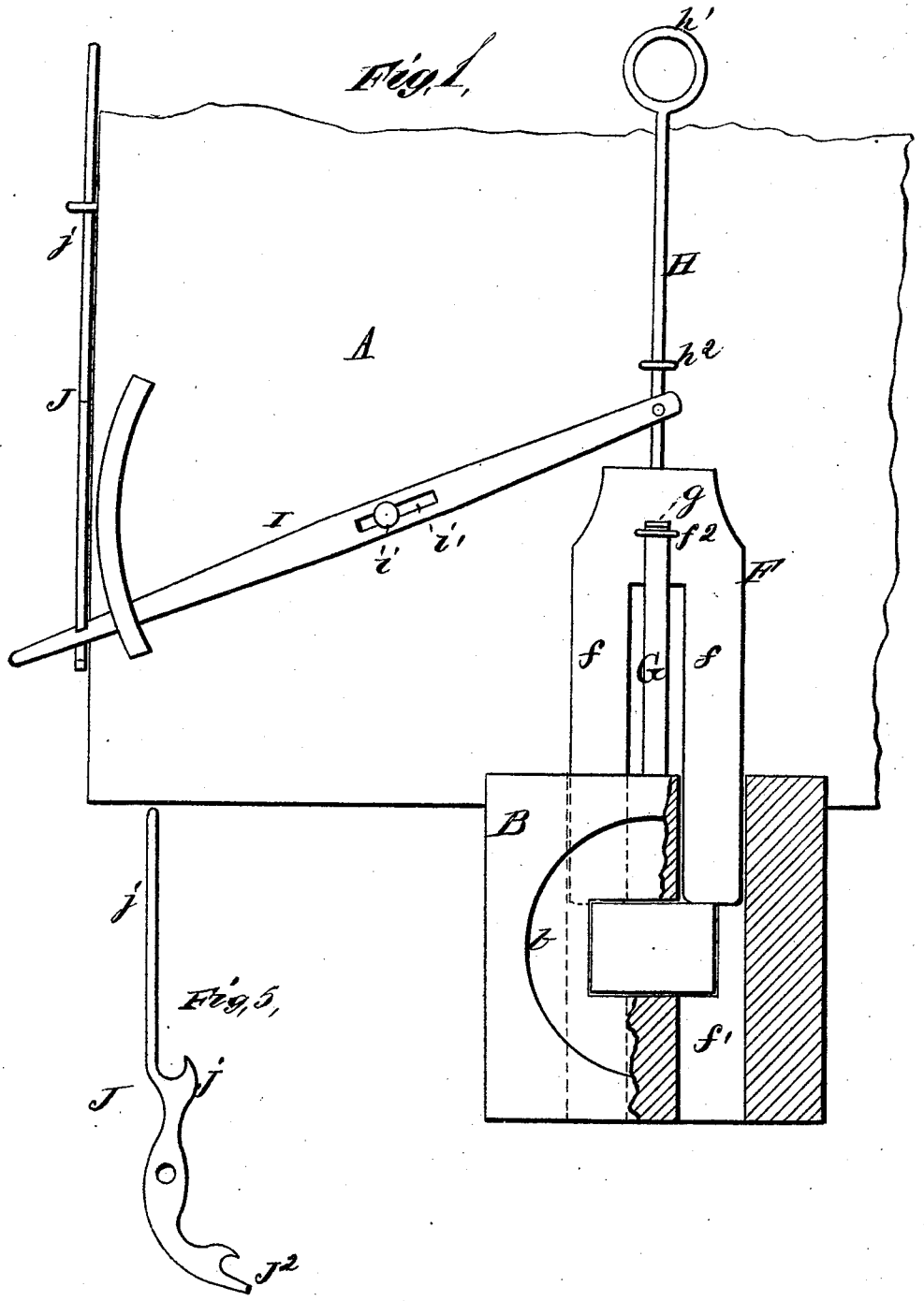
2 Sheets—Sheet 1.

G. F. JACKSON.

CAR-COUPLING.

No. 184,383. Patented Nov. 14, 1876.

Fig. 1.



WITNESSES

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George F. Jackson.

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ATTORNEYS

2 Sheets—Sheet 2.

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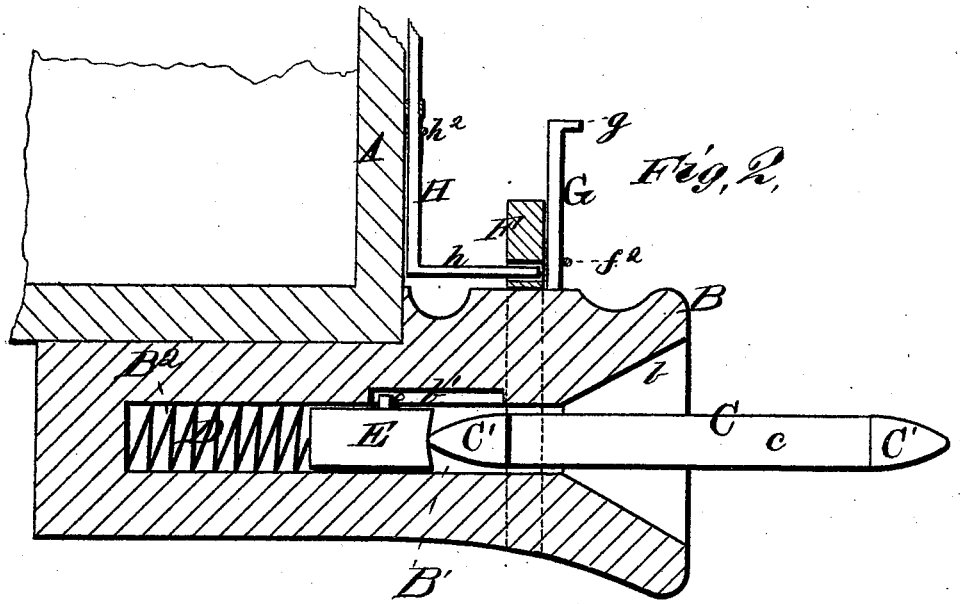

Fig. 2.

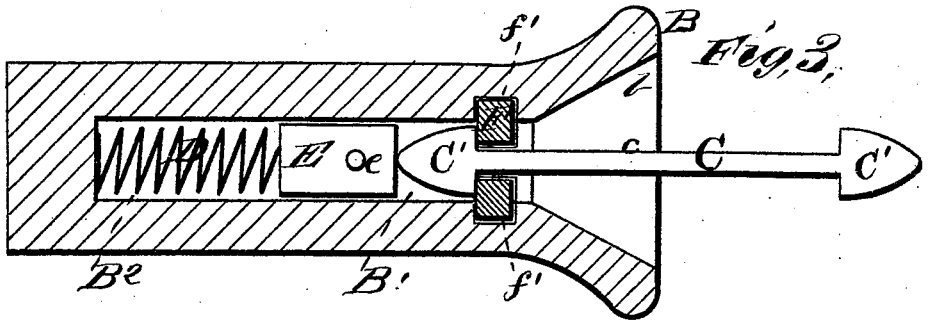

Fig. 3.

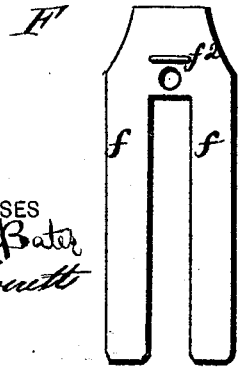

Fig. 4.

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UNITED STATES PATENT OFFICE.

GEORGE F. JACKSON, OF OSCEOLA, IOWA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **184,383**, dated November 14, 1876; application filed September 16, 1876.

To all whom it may concern:

Be it known that I, GEORGE FRANK JACKSON, of Osceola, in the county of Clark and State of Iowa, have invented a new and valuable Improvement in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front elevation, part sectional, of my car-coupling. Fig. 2 is a longitudinal vertical sectional view, and Fig. 3 is a horizontal sectional view, of the same. Figs. 4 and 5 are detail views thereof.

This invention relates to car-couplings; and it consists in the devices hereinafter particularly set forth and claimed.

In the annexed drawings, A designates the end of a railroad-car, and B a draw-head secured thereto. Said draw-head is provided with the usual flaring mouth *b*, which communicates with the inner cylindrical chamber B^1, that receives one end of the coupling-link or coupling-bar C. Said chamber B^1 is provided with a rearward extension, B^2, in which is a helical spring, D, that operates to force forward a sliding block, E, against the inner end of coupling link or bar C. Said sliding block is constructed with a guide-stud or guide-pin, *e*, on its upper side, which guide-pin sets into a longitudinal recess, *b'*, on the inside of said draw-head, and communicating with the upper part of chamber B^1. The said longitudinal recess and guide-pin operate to prevent said sliding block from turning as it moves backward and forward. Coupling bar or link C is constructed with a long straight shank, *c*, and two arrow-head-shaped ends, C' C'. F designates a bifurcated coupling-pin, the forked lower ends *f f* of which rise and fall vertically through two pin-holes, f^1 f^1, extending from the top to the bottom of draw-head B. Said coupling-pin F is provided, near its upper end, with a guide loop or staple, f^2, which slides vertically upon a standard or upright rod, G, that is secured to the top of said draw-head. Said standard is provided, at the top, with a lug, *g*, which prevents said locking-pin F from being separated from the said draw-head and lost. Said standard guides said bifurcated coupling-pin, and also braces it. Said coupling-pin is shown in detail in Fig. 4. When one of the heads C' of coupling link or bar C enters mouth *b* and chamber B^1 of draw-head B, it presses against sliding block E and forces it back into extension B^2 of said chamber B^1, overcoming the resistance of said spring D, and causing said bifurcated coupling-pin F to drop. The forked ends *f f* of said coupling-pin then fall on both sides of coupling link or bar C, beyond said head C', so as to prevent said bar or link from being withdrawn, and thereby to complete the coupling. The draft is transmitted, through said arrow-head-shaped end C' and said bifurcated coupling-pin, to said car A. When the pressure is withdrawn from the outer end of said link, the outward pressure of said spring D, in combination with the resistance of said bifurcated coupling-pin F, operates to keep the said link in a horizontal position, so as to enter, if desired, an opposite draw-head. Said coupling bar or link may be held by either end for coupling. When said bifurcated coupling-pin F is withdrawn from said draw-head, the force of spring D will expel said coupling link or bar therefrom. An easy method of removal for cleansing or other purposes is thus provided. This withdrawal of said bifurcated coupling-pin is accomplished by means of a vertical rod, H, provided with a rigid horizontal arm, *h*, at or near its bottom, said arm being secured to said bifurcated coupling-pin. Said rod H extends to the top of the car, or as high as may be desired, is provided at the top with a handle, h^1, and is adapted to move vertically in guide-staples h^2 h^2, which are secured to said car end A. Said vertical rod is also operated by means of a transverse lever, (pivotally connected to said rod,) I, which lever is pivoted by stud or pin *i* to the said end A of the car-body, and is provided with a longitudinal slot, *i'*, (in which said stud or pin *i* sets,) to allow said transverse lever to accommodate its movements to those of vertical rod H without straining or binding. Said lever I may be operated from the side of the car, as

it is extended a little beyond said side. J designates a locking-bar, pivoted to said car end A at the side thereof. Said locking-bar is provided with an upper handle, *j*, by which it is operated, also with an upward-turned hook, J^1, a little above its pivotal point, and a downward-turned hook, J^2, at its lower end. Hook J^1 operates to hold locking-pin F within the draw-bar by catching under transverse lever I, and hook J^2, by catching above said lever, operates to hold said pin out of said draw-head. Said bifurcated pin rests upon the top of slide E until said slide is forced back so as to let it fall, as described.

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

The combination of the bifurcated coupling-pin F, coupling-bar C, draw-head B, sliding block E, spring D, vertical rod H, and levers I J, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE FRANK JACKSON.

Witnesses:

JAMES RICE,

J. M. FENN.