

(No Model.)

H. SOMMERFELD.
CAR COUPLING.

No. 415,225.

Patented Nov. 19, 1889.

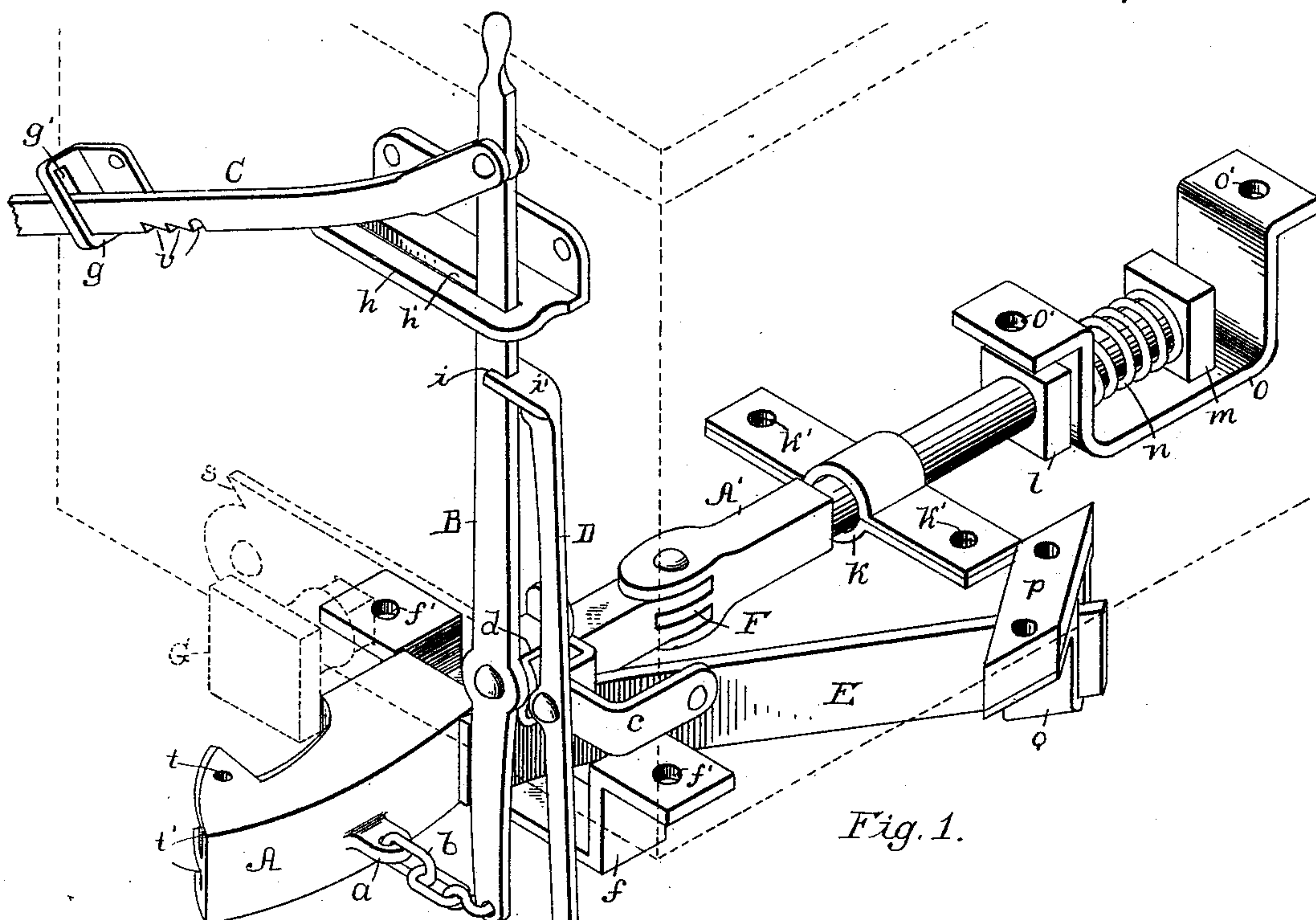


Fig. 1.

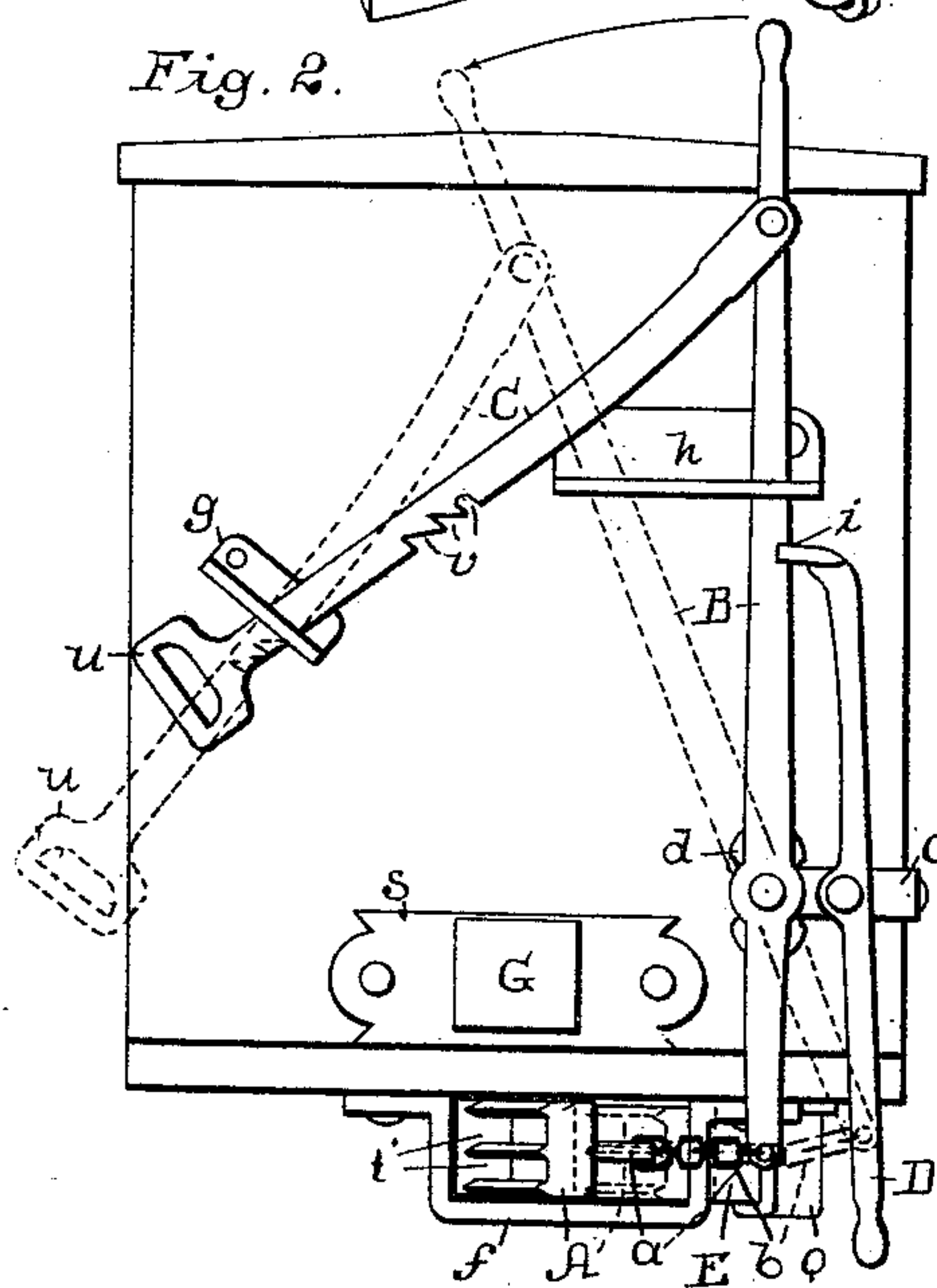


Fig. 2.

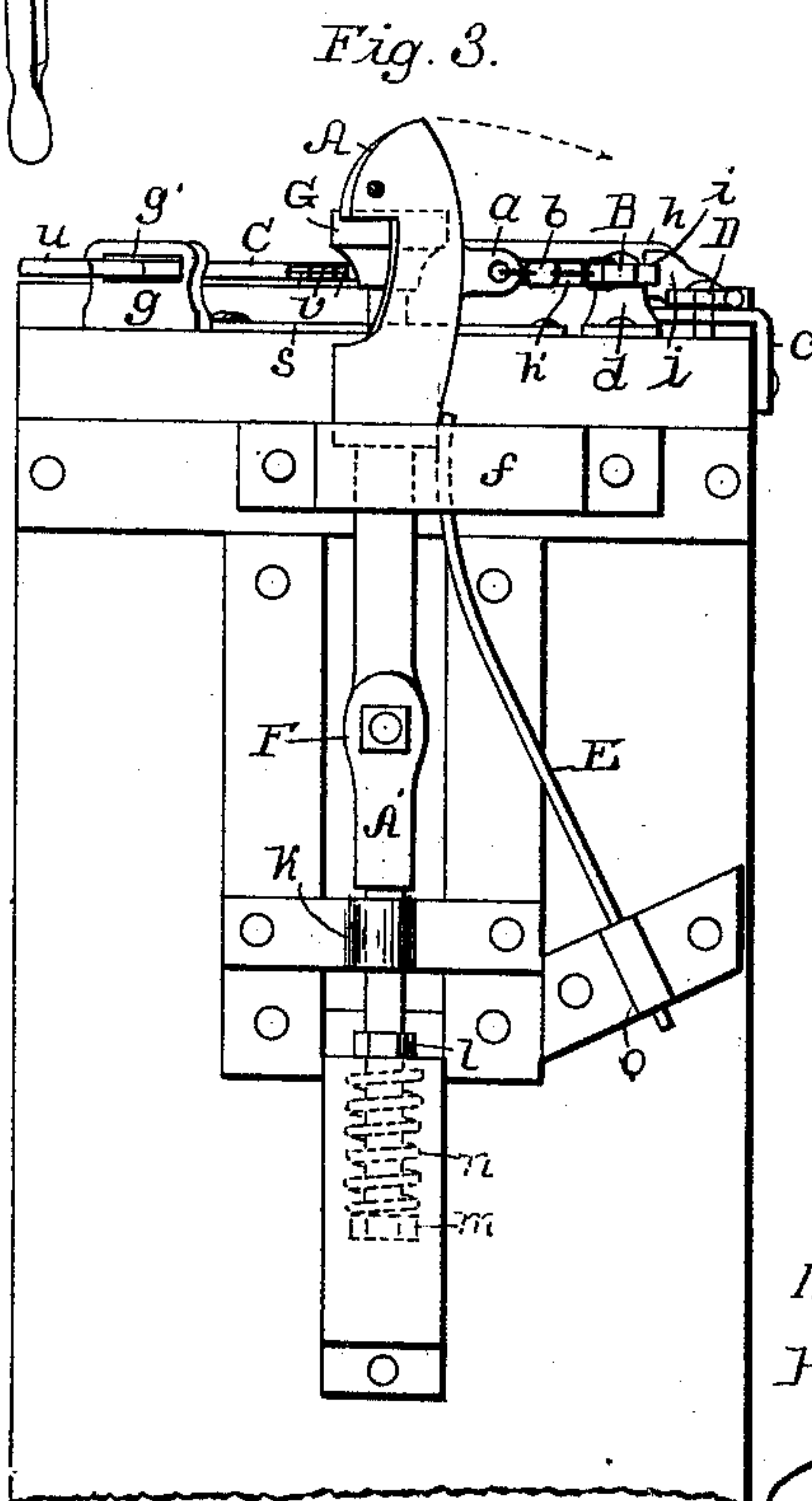


Fig. 3.

WITNESSES:

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HEINRICH SOMMERFELD, OF CANTON, KANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 415,225, dated November 19, 1889.

Application filed May 6, 1889. Serial No. 303,799. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH SOMMERFELD, of Canton, McPherson county, Kansas, have invented certain new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to certain improvements in car-couplings which automatically couple and are readily uncoupled; and it consists of the novel combination of parts and their construction, as will fully appear from the following description and accompanying illustration, in which—

Figure 1 is a perspective view of my improved car-coupling, the same also showing the car in broken-away dotted outline. Fig. 2 is an end elevation of the same, the car being in full lines; and Fig. 3 is an inverted plan view thereof, a portion of the car being broken away.

In the embodiment of my invention I employ a draw-head A, which is provided in its face or forward end with a series of grooves and ribs *t*, which grooves receive an ordinary link, when such happens to be in use on the opposite car, the link being held therein by an ordinary pin (not shown) inserted through the vertical aperture or passage *t'* in the draw-head.

The draw-head A is of the hook-shaped type or class, and is supported bodily and so as to have lateral movement in a keeper-like casting or bracket *f*, bolted, as at *f'*, to the under side of the car at its forward edge.

The draw-head A is articulated or pivoted at its rear end to a bar A', which has a rearward cylindric extension passing through and supported in a sleeve K and a keeper-like bracket *o*, which sleeve and bracket are bolted, as at K' and *o'*, respectively, to the under side of the bottom of the car. The portion of the said extension within the bracket *o* is encircled by a spring *n* to permit the draw-head to have the required limited longitudinal movement to counteract concussions when the cars meet in effecting the coupling operation. The spring is held on said extension between the inner end of the bracket *o* and a nut *m*, applied to the outer or rear end of the extension, the latter also

having applied to it upon the front side of the bracket *o* a nut *l*, which limits the rearward or inward movement of the draw-head. It is obvious that the articulation or pivoting of the draw-head to the extension A' permits of its lateral movement, as required in effecting the coupling and uncoupling of the cars.

E is a stout, broad, flat spring suitably held at its inner or rear end in a proximately-U-shaped bracket Q, flanges or arms upon the upper ends of the vertical portions of which fit flush against the under side of a plate *p*, which is bolted to the car-bottom upon its lower side, the bolts also passing through said arms of the bracket Q. The inner end of the spring E bears against the draw-head near its forward or outer end and holds the latter normally in its coupling position.

B is a lever pivoted upon the bracket *d*, secured to the end of the car. The lower end of the lever B is connected to the draw-head A by a chain *b*, connecting with said end of the lever and an eye *a* upon the back of the draw-head.

The lever B passes up through and is guided in its movement by a guide or bracket *h*, having a slot *h'*, and which is bolted or fastened to the end of the car near the top. The upper end of the lever B is within convenient reach of a person standing upon the top of the car for its manipulation and the uncoupling of the cars from that point.

C and D are supplemental levers for actuating the lever B and uncoupling the cars at different heights. The lever C is pivoted or connected to the lever B near its upper end and reaches downward and outward diagonally along the end of the car through a keeper or guide *g*, having a slot *g'* for the passage of the lever. The lever C has a series of notches or teeth *v*, which engage one edge of said keeper or guide to retain the draw-head in an uncoupled position, when required.

The lever C has a hand-hold for its convenient manipulation. By means of this lever the coupling and uncoupling operation can be effected from a point at one side of the draw-head and when standing on the end sill or platform of the car, avoiding going to the top of the car for that purpose, as would otherwise be necessary.

The lever D is fulcrumed upon the bracket c, preferably right-angular, and secured to the end and side of the car. The upper end *i'* of the lever D has a notch *i*, which receives the lever B, and which prevents the accidental disengagement or slipping therefrom of the lever D. The lower end of the lever D is within convenient reach to be grasped or operated from the ground at one side of the car, and thus permit of the uncoupling of the cars from that point, an outward pull upon the lever D actuating the lever B so as to uncouple the draw-heads.

I prefer to use in this coupling a single buffer G, arranged directly above the draw-head, said buffer having connection with the end of the car through a plate s, bolted thereto.

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

1. The combination of the articulated or pivoted draw-head, the spring, the main lever, and the supplemental side levers oper-

ated from different heights, substantially as specified.

2. The combination, with the main draw-head-operating lever, of the supplemental lever within convenient reach for manipulation from the ground and having its upper end provided with a notch receiving the main lever, substantially as specified.

3. The combination of the main draw-head-operating lever, of the slotted keeper or guide, the notched supplemental lever having a hand-hold, the guide through which said supplemental lever passes and with which it engages, and the additional lever having a notch in its upper end engaging said main lever, said supplemental lever being operated from different heights, substantially as specified.

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

HEINRICH SOMMERFELD.

Witnesses:

F. G. FISCHER,
A. A. HIGDON.