

(No Model.)

B. A. FISHER.

CAR COUPLING.

No. 305,912.

Patented Sept. 30, 1884.

Fig. 1.

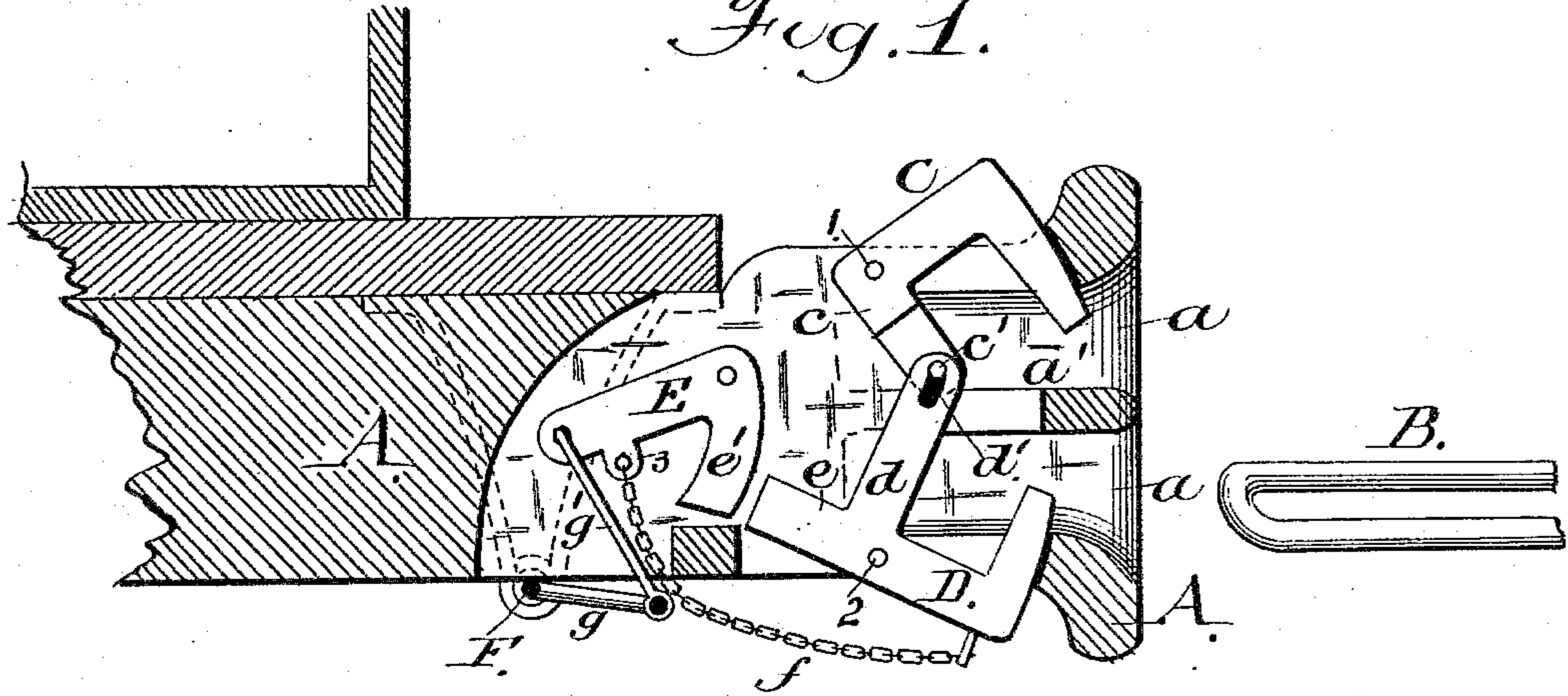


Fig. 2.

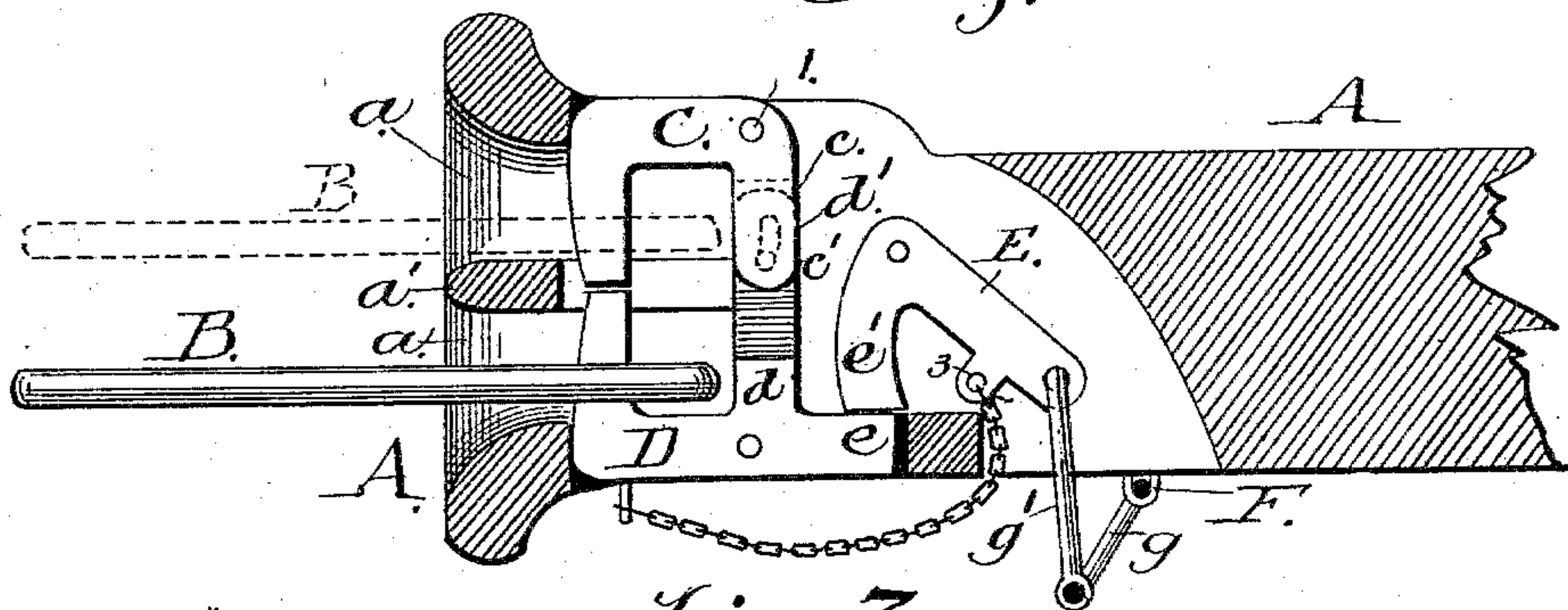
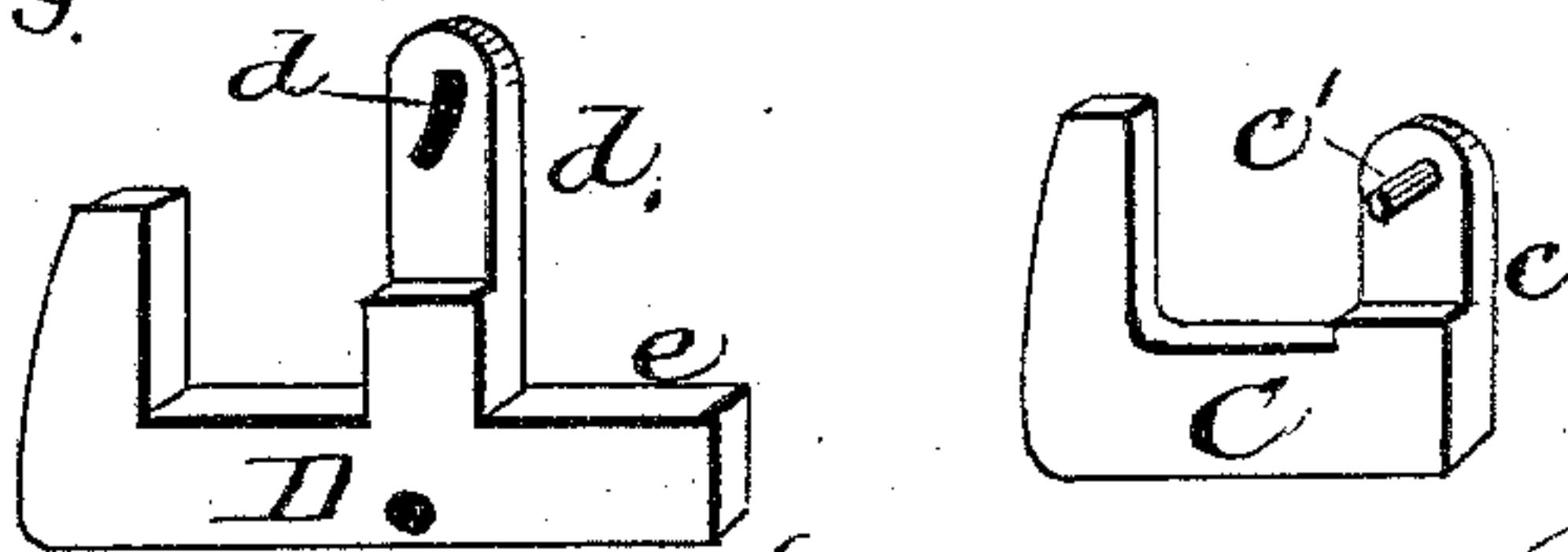
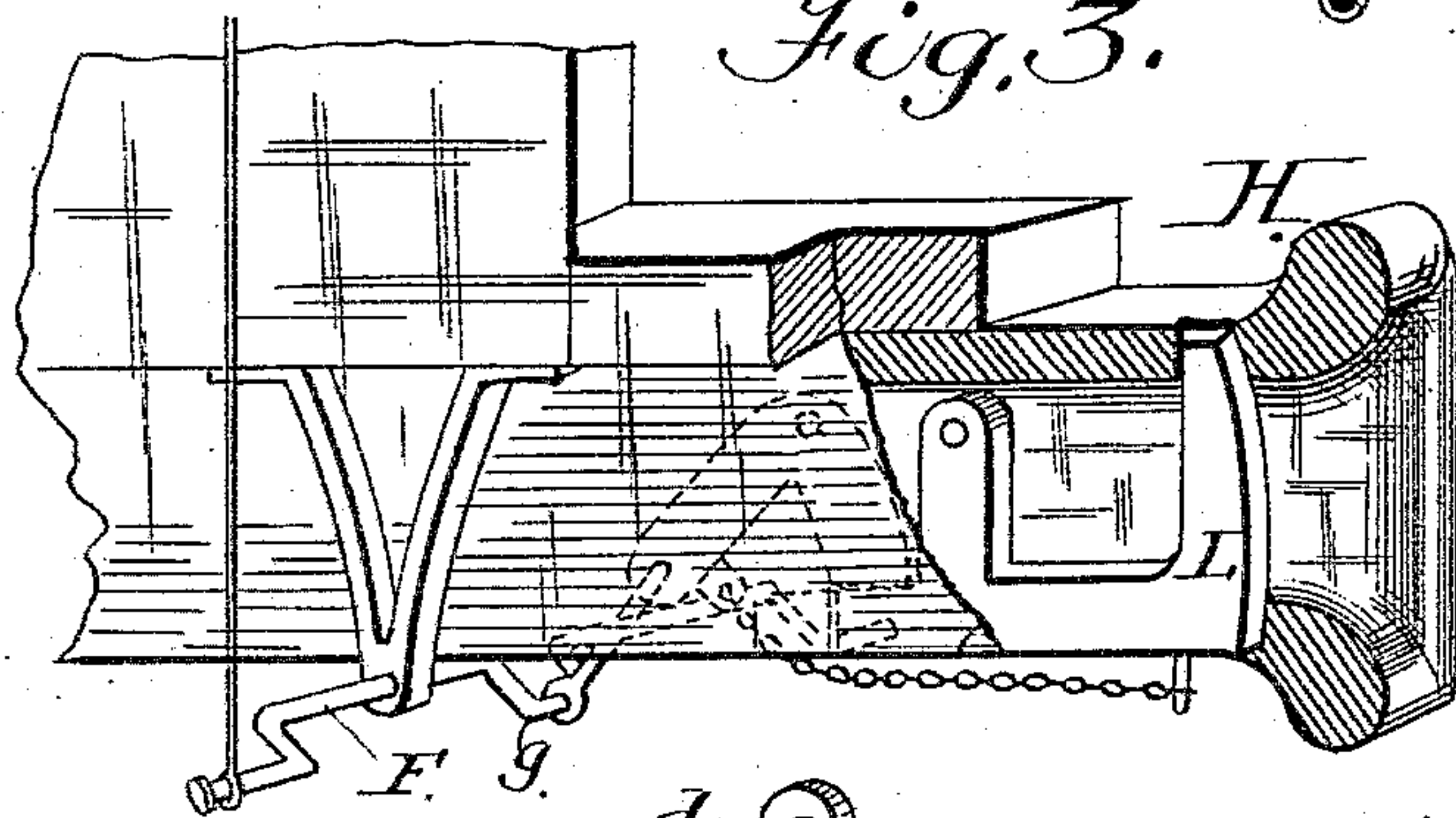


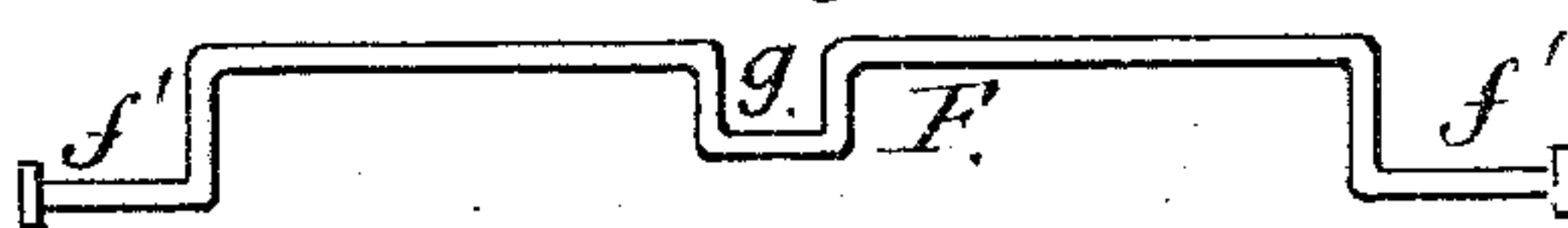
Fig. 3.



Attest:

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Fig. 4.



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UNITED STATES PATENT OFFICE.

BEVLY ALLEN FISHER, OF ST. JAMES, MISSOURI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 305,912, dated September 30, 1884.

Application filed March 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, BEVLY A. FISHER, of St. James, in the county of Phelps and State of Missouri, have invented a new and useful Improvement in Self-Couplers for Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts.

Figure 1 is a section of a double draw-head with my improvements attached, and showing the parts uncoupled. Fig. 2 is a vertical sectional view of the same with the coupling-link in position. Fig. 3 is a modification showing a single draw-head and coupling-pin. Fig. 4 are details of the coupling-pins and crank-rod.

My invention relates to that class of self-couplers in which the cars are speedily and effectively uncoupled from the side of the platform without placing one's life in danger by going in between the cars, and is an improvement on Letters Patent No. 285,247, granted to me September 18, 1883, for improvements in car-couplings.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the said drawings, A represents a double draw-head, which is used in coupling cars of different heights, and provided with the ordinary openings, *a a*, which are separated from each other by a partition, *a'*, as shown in Fig. 1, and B is the coupling-link.

Located in the draw-head, and pivoted in the rear of the center of gravity, are the coupling-pins C D, which are constructed substantially as shown in the drawings—that is to say, the coupling-pin C, which is pivotally secured to the draw-head at the point 1, is constructed with the curved hooked end, and at the rear with the downwardly-projecting arm *c*, which is cut away at a point immediately below the pivot to form a recess, in which fits the upwardly-projecting arm of the lower coupling-link, and is also provided on its projecting arm with a pin, *c'*, as will be hereinafter more fully set forth. The lower coupling-pin, D, is pivoted within the draw-head at a point, 2, and is constructed with the up-

wardly-projecting arm *d*, which has a portion of its surface cut away in a manner similar to the upper coupling-pin, C. The upwardly-projecting arm *d* of coupling-pin D is formed with a curved slot, *d'*, in its upper end, in which works the pin *c'*, formed on the lower end of the projecting arm C, as shown in Fig. 1. The coupling-pin D is also formed on the rear of the arm *d* with a flat step, *e*, and in the rear of the coupling-pins C and D is pivotally secured a tumbler, E, so arranged that its short arm *e'* will rest upon the flat step formed on the coupling-pin D, thereby holding the coupling-link in its proper position within the draw-head. A chain or cord, *f*, secured at a point, 3, to the tumbler E, passes through an opening in the bottom of the draw-head, and is carried forward and secured to the coupling-pin D, thereby securing a simultaneous movement between the coupling-pins and the tumbler.

Journaled in suitable bearings beneath the platform of the car is a crank shaft or rod, F, which, after passing under the draw-head, is extended beyond the sides of the platform, and on the ends of the rod may be formed cranks or handles *f' f'*, for operating the tumbler and coupling-pins. Near the center of this rod, and directly beneath the draw-head, is formed a bend or crank, *g*, to which is secured one end of a connecting-rod, *g'*, the opposite end (after passing through the opening) being secured to the lower end or long arm of the tumbler E.

If desired, the cranks *f' f'* can be connected by rods or chains to the top of the cars, so that the coupling or uncoupling may be readily effected without descending from the car, which is specially desired in freight-cars.

I do not wish to limit myself to the exact construction above referred to, for I have shown in Fig. 3 a single draw-head, H, provided with a coupling-pin, L, which is constructed in a manner substantially the same as that described above, and shown in Figs. 1 and 2.

The operation of my automatic coupler is as follows: The coupling-pins being in the position shown in Fig. 1, the coupling-link attached to an approaching car is caused to enter one of the openings formed in the draw-head, and is forced back until it strikes or

comes in contact with the projecting arms of the coupling-pins, which will cause the forward ends of the said pins to approach each other by means of the pin and slot formed in the arms *c* and *d*, thereby securing the link within the draw-head. To uncouple the cars the operator has only to draw upon the rod *l*, which will immediately release the coupling-pins from their contact with the coupling-link and permit the cars to separate.

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

1. In an automatic railway-coupling, and in combination with a double draw-head, the coupling-pins C and D, constructed substantially as shown, and a tumbler, E, all constructed to operate substantially as herein set forth.

2. In an automatic car-coupler, the coupling-pin C, having a portion of its surface cut away, and having a projecting pin, *c'*, in combination with the coupling-pin D and the herein-described means for locking the said parts together, substantially as and for the purpose set forth.

3. In an automatic car-coupling, and in combination with a double draw-head, the coupling-pin D, having a portion of its surface cut away, and provided with a flat step and a projecting arm formed with a slot adapted to engage a pin formed on the projecting arm of the coupling-pin C, and a tumbler, E, all constructed to operate substantially as and for the purpose herein set forth.

4. In an automatic railway-coupler, the tumbler E, constructed substantially as shown, in combination with coupling-pins D and C, and a crank-shaft and connecting-rod for operating said tumbler, substantially as and for the purpose set forth.

5. In a car-coupler, a crank-shaft, F, located beneath the draw-head, in combination with a connecting-rod, *g*, tumbler E, and coupling-pins C D, all arranged to operate substantially as and for the purpose set forth.

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Witnesses:

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JOSEPH MCMAHAN.