

(No Model.)

H. J. COLE.
CAR COUPLING.

No. 457,848.

Patented Aug. 18, 1891.

Fig. 1.

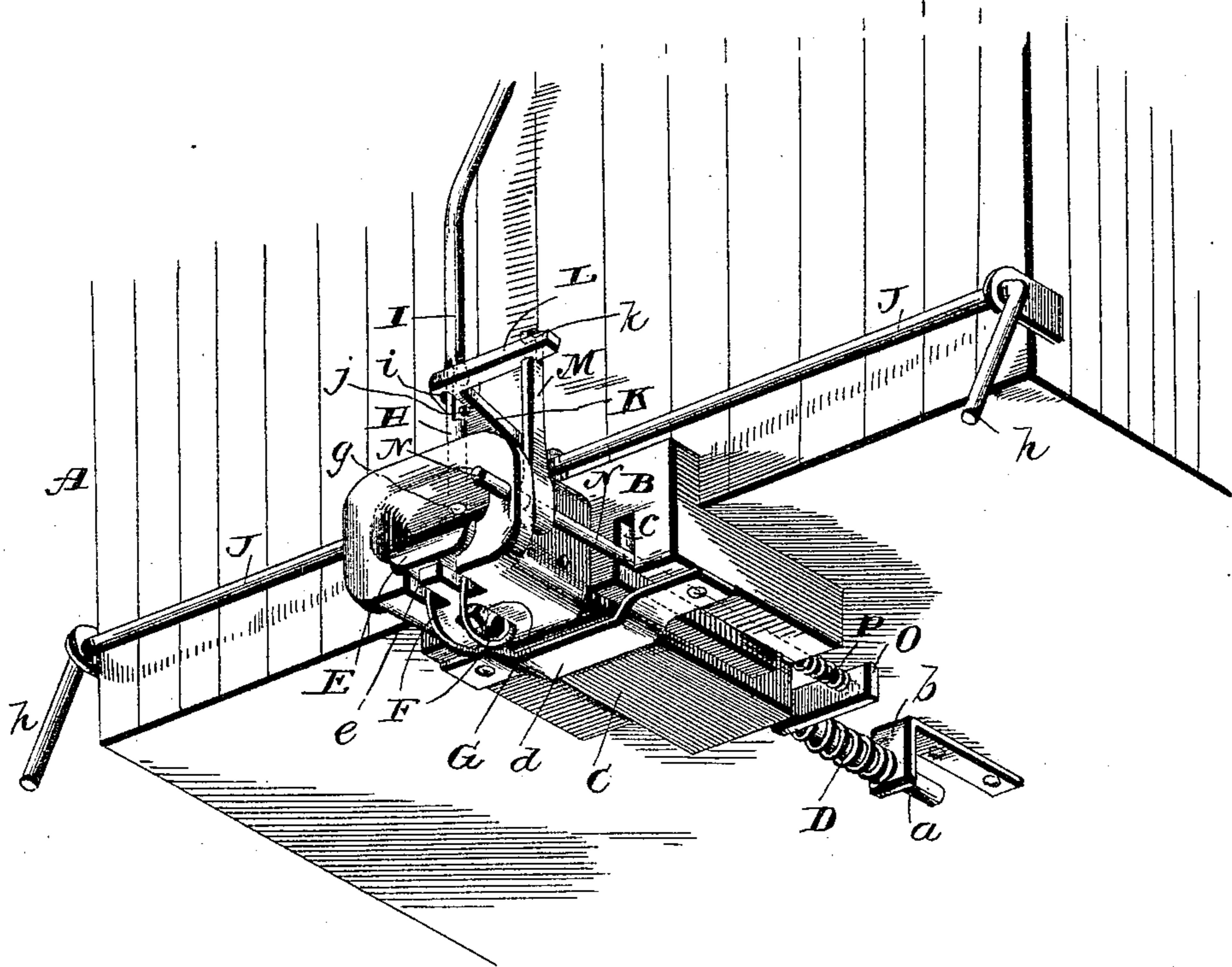


Fig. 2.

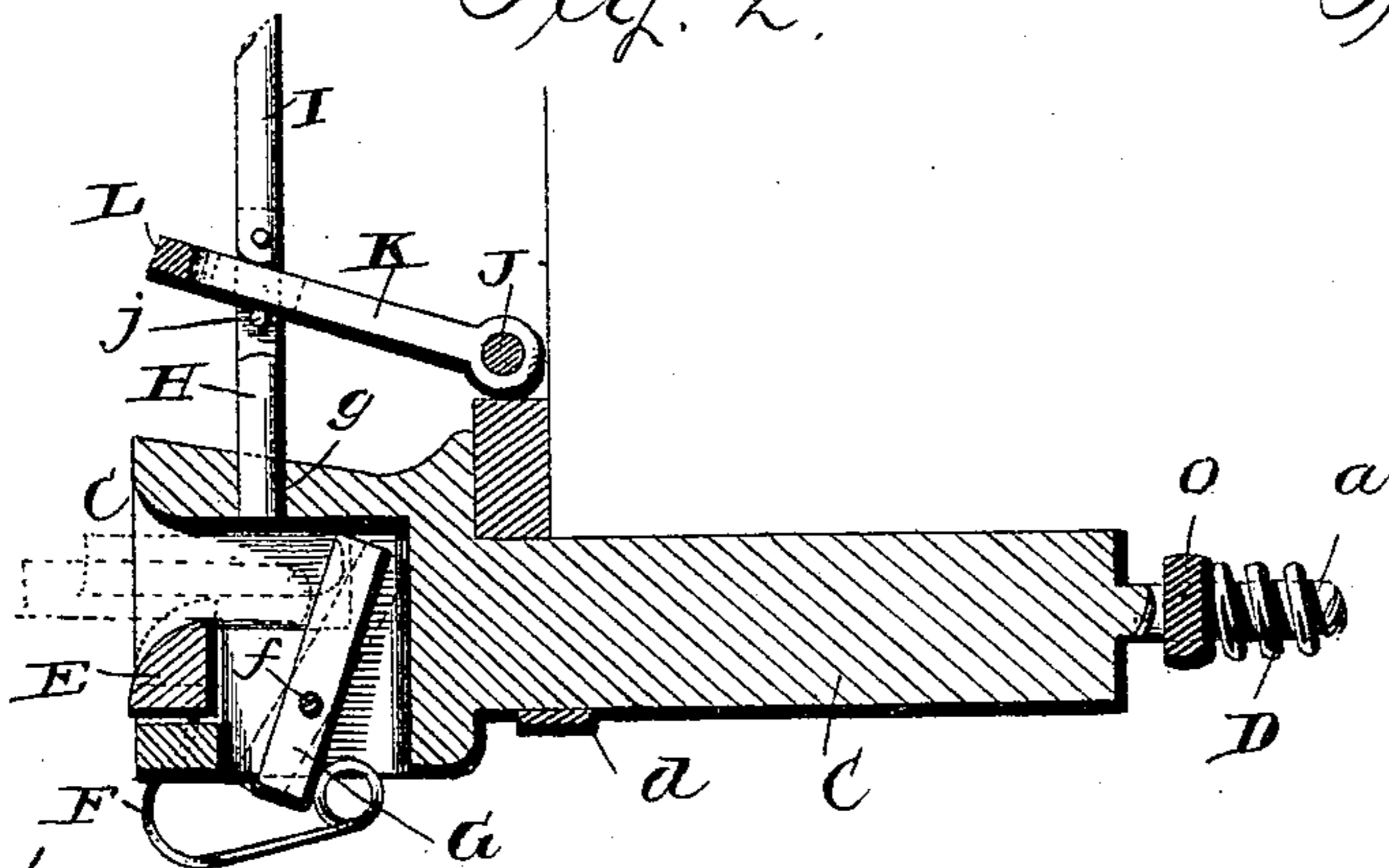
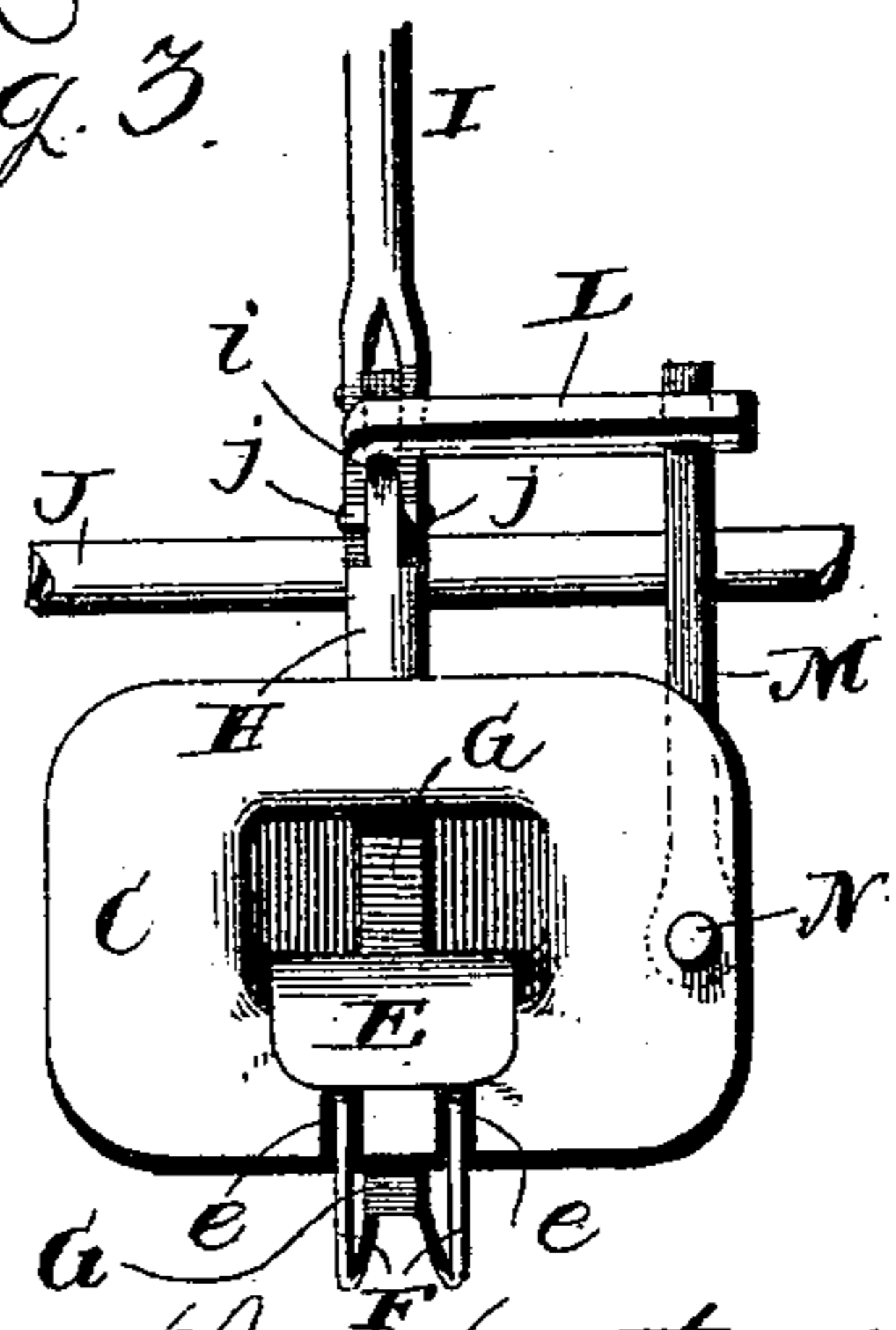


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY J. COLE, OF MOSSVILLE, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 457,848, dated August 18, 1891.

Application filed May 12, 1891. Serial No. 392,450. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. COLE, a citizen of the United States, residing at Mossville, in the county of Cooke and State of Texas, have invented certain new and useful Improvements in Car-Couplers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in car-couplings of that class known as "automatic;" and it has for its objects, among others, to provide an improved car-coupler of this character which shall be simple in its construction, easy in its operation, not liable to get out of order, and most efficient for the purpose for which it is intended. I provide means actuated by the contact of the cars in coming together which throws the pin downward and locks the link in a horizontal position. I provide novel means for uncoupling from either the top or either side of the car. I provide a spring-actuated device for keeping the link in a horizontal position with a yielding force. I provide means for holding the pin in its elevated position, which means is withdrawn by the contact of the cars and the pin released.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The novelty in the present instance resides in the peculiar combinations, and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a portion of a car with my improved coupler applied thereto. Fig. 2 is a vertical section through the draw-head. Fig. 3 is an end view looking at the mouth of the draw-head.

Like letters of reference indicate like parts throughout the several views in which they occur.

Referring now to the details of the drawings by letter, A designates a portion of a car, to the under side of which is secured a block B, which is recessed longitudinally for the reception of the draw-head C, from the rear end of which extends the rod *a*, which is free to play through the bearings *b*, and around which rod is arranged the coiled spring D, designed to be compressed as the draw-head is pulled outward and to normally keep it outward. This block is also provided with a longitudinal groove *c*, which extends parallel with the draw-head, as shown, and in which groove is designed to work the rod, hereinafter described. A suitable supporting and guide plate *d* is secured to the under face of this block beneath the draw-head and rod, as shown.

The mouth of the draw-head is recessed or chambered, as shown, and in this chamber is arranged a lip E, which is carried by a coiled spring F, which has its ends secured to a short arm G, which extends vertically through a vertical opening in the draw-head, as shown, the arms of the spring working in slots *e* in the mouth of the draw-head. The arm G is pivoted on a horizontal pivot *f*, held in the walls of the mouth of the draw-head.

The mouth of the draw-head is provided with the usual vertical pin-opening *g*.

The pin H is carried by a vertical rod I, which extends through a suitable guide or guides to the top of the car, so that the pin may be raised to uncouple from the top of the car, when desired. The connection between this rod and pin is a pivotal connection to permit easier movement of the parts.

J is a rod journaled in any suitable manner on the end of the car and at one or both ends provided with a suitable handle *h*, by which it may be moved in its bearings to elevate the coupling-pin, when desired. This rod carries at the center of its length a forwardly-extending arm K, which is provided with a longitudinal slot *i*, through which the upper end of the coupling-pin passes, the said pin being secured therein by means of the pin *j*, passed through the pin beneath the said arm K. This arm has its forward end turned at a right

angle parallel with the end of the car, as shown at L, and this lateral portion is designed to engage the vertical arm M, which is provided at its front edge with a notch *k* to receive the lateral portion and hold the pin in its elevated position. This arm M is carried by the horizontal longitudinal rod N, which passes through a hole in the side of the draw-head at its mouth and passes rearward in the groove *c* of the block B, and through a hole in the lateral arm O, carried by the rearwardly-extending rod of the draw-head, and is provided with a spring P, which serves to normally keep the rod N forced to the front.

The operation will be readily understood. Normally the pin is elevated, and there held by the engagement of the arm M with the lateral portion L of the arm K, the end of the rod N being extended beyond the end of the draw-head, where it will be engaged by the opposing draw-head. As the cars come together this rod is forced inward and the vertical arm M disengaged from the lateral portion L of the rod or arm K, and the pin drops into the link and couples the cars. The lip E serves to keep the link horizontal.

What I claim as new is—

1. In a car-coupler, the combination, with the draw-head having a chambered mouth, of the spring-held lip within the chamber thereof at the bottom, as set forth.

2. In a car-coupler, the combination, with the chambered draw-head, of the spring-held lip within the chamber, and the vertical arm

within the chamber carried by the spring, as set forth.

3. In a car-coupler, the combination, with the chambered draw-head, of the lip within the chamber at the bottom thereof, the pivoted vertical arm within the chamber, and the spring secured to said arm coiled and secured to the said lip, substantially as specified.

4. In a car-coupler, the combination, with the draw-head, of the spring-actuated longitudinal rod projecting through the front end of the draw-head, the vertical arm carried thereby, the pin, and the arm carrying the pin and having lateral portion engaging the said vertical arm, as set forth.

5. In a car-coupler, the combination, with the block beneath the car, the draw-head, and the spring-actuated longitudinal rod working in a groove in the said block and projecting through the forward end of the draw-head, of the vertical coupling-pin, the vertical rod connected thereto, the rod journaled on the front end of the car, the arm carried thereby and connected to the pin and having lateral portion, and the vertical arm on the longitudinal rod provided with a notch to engage the said lateral portion, substantially as shown and described.

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

HENRY J. COLE.

Witnesses:

E. G. GIDDENS,

R. E. MORGESON.