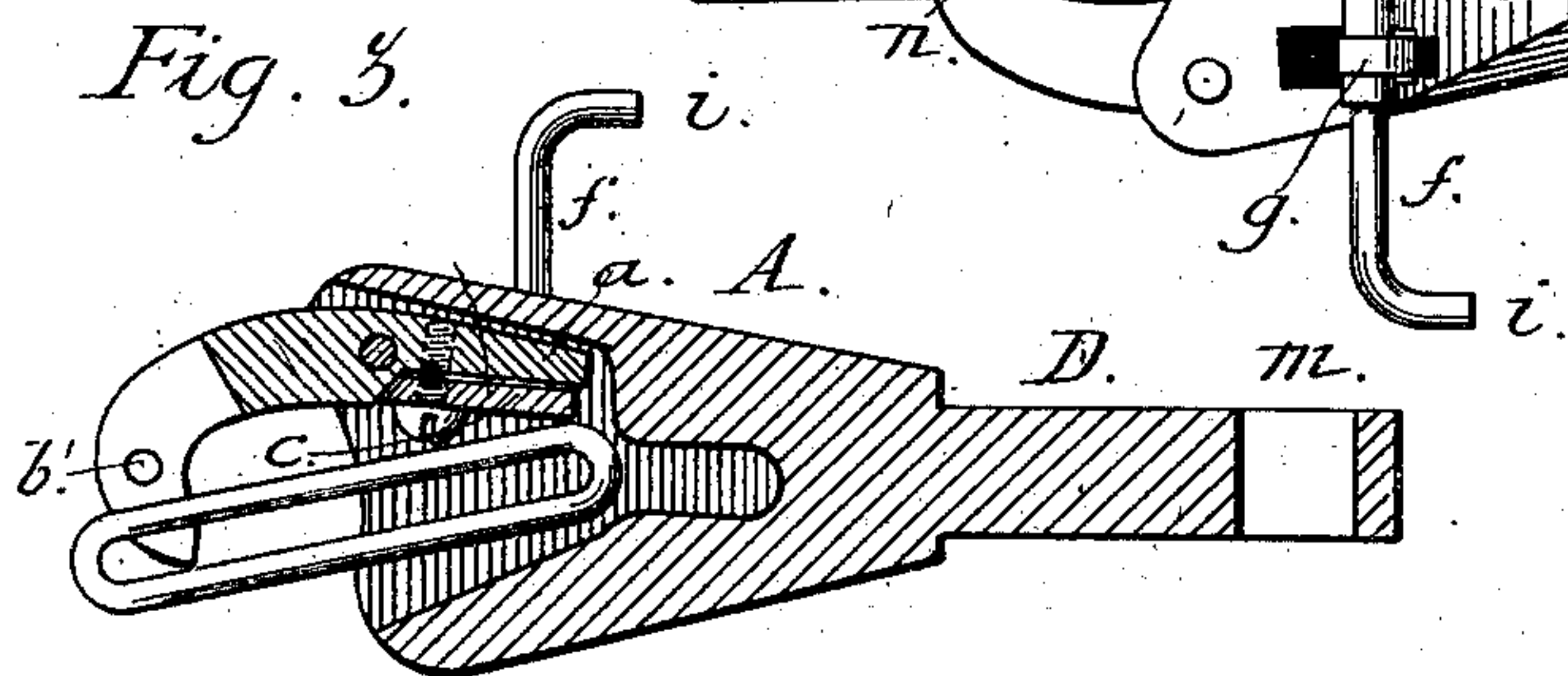
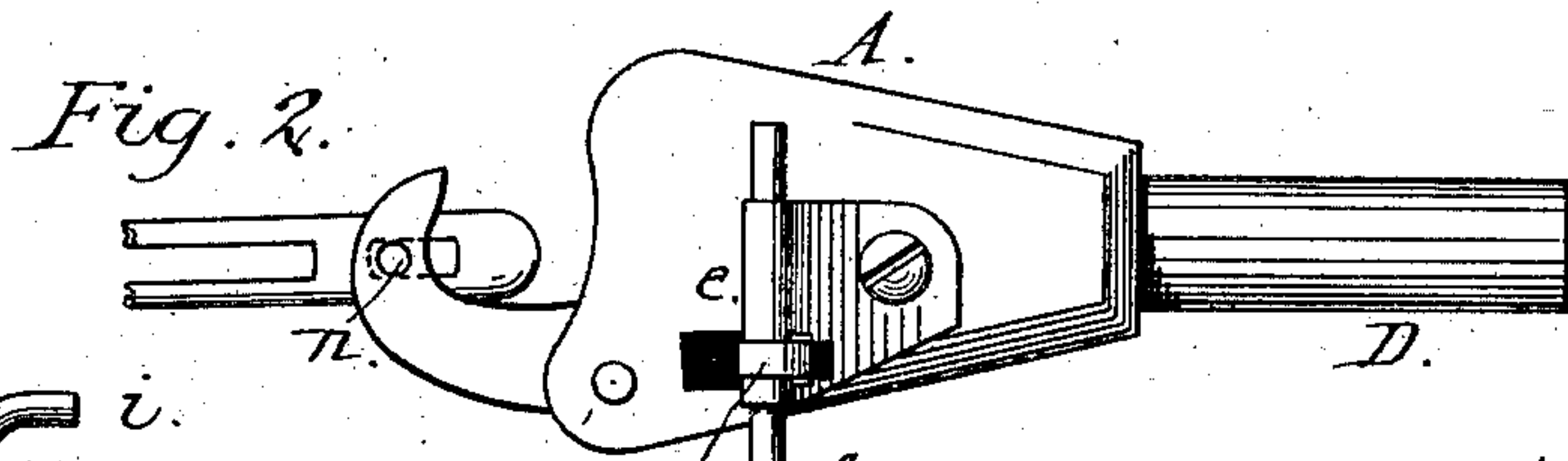
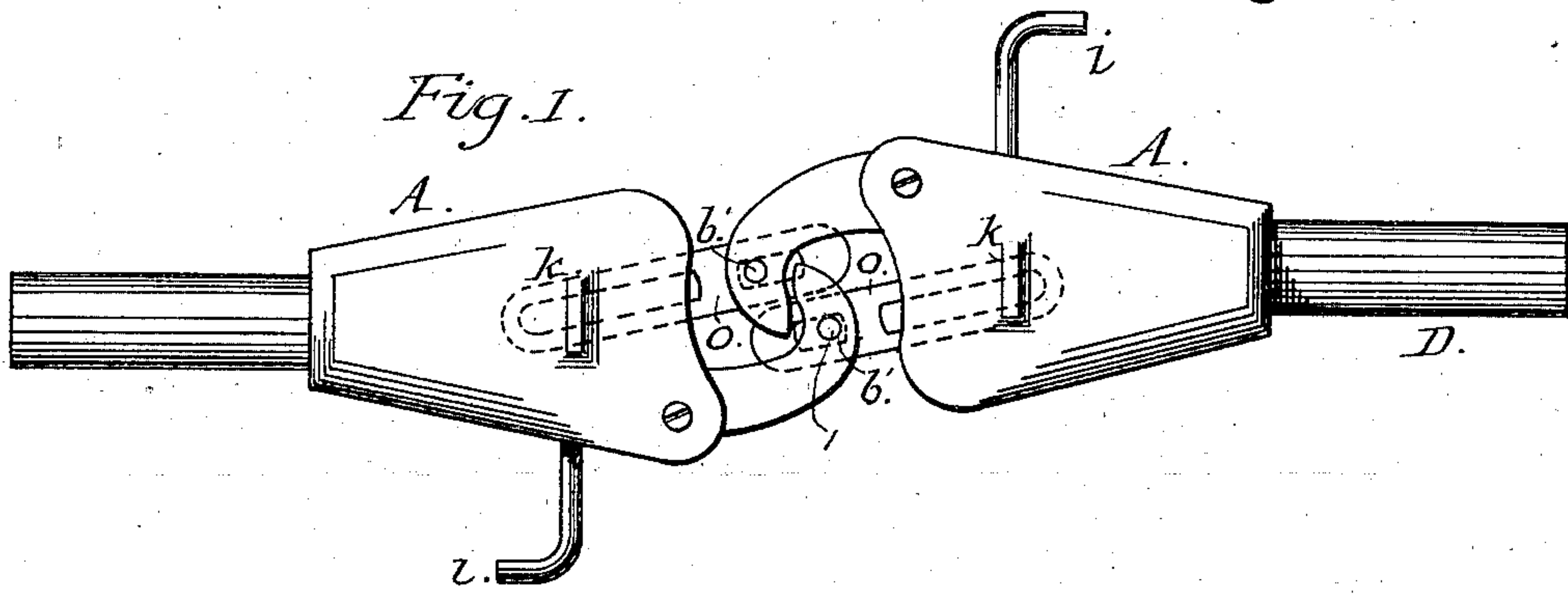


(No Model.)

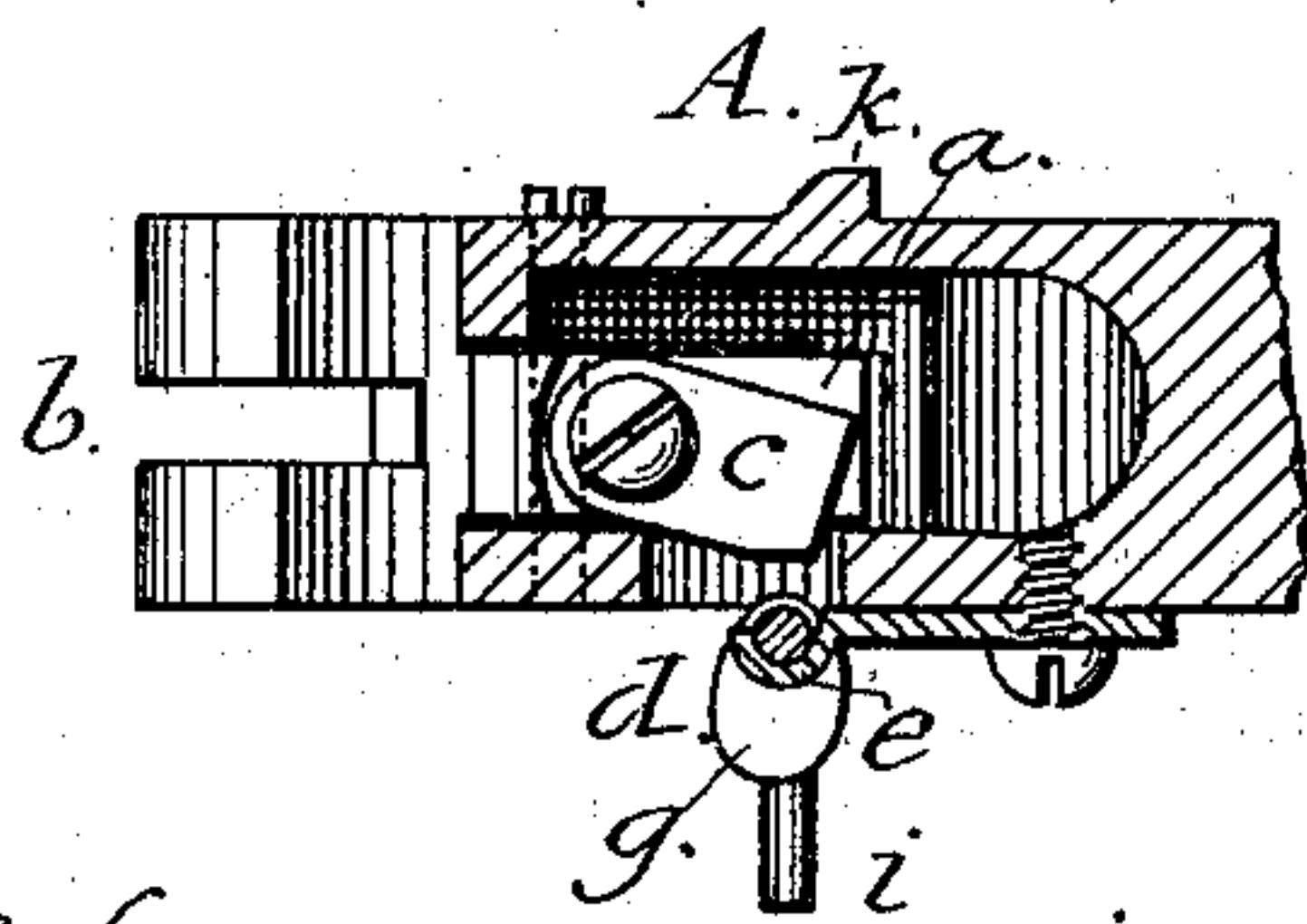
C. S. PARK.  
CAR COUPLING.

No. 503,615.

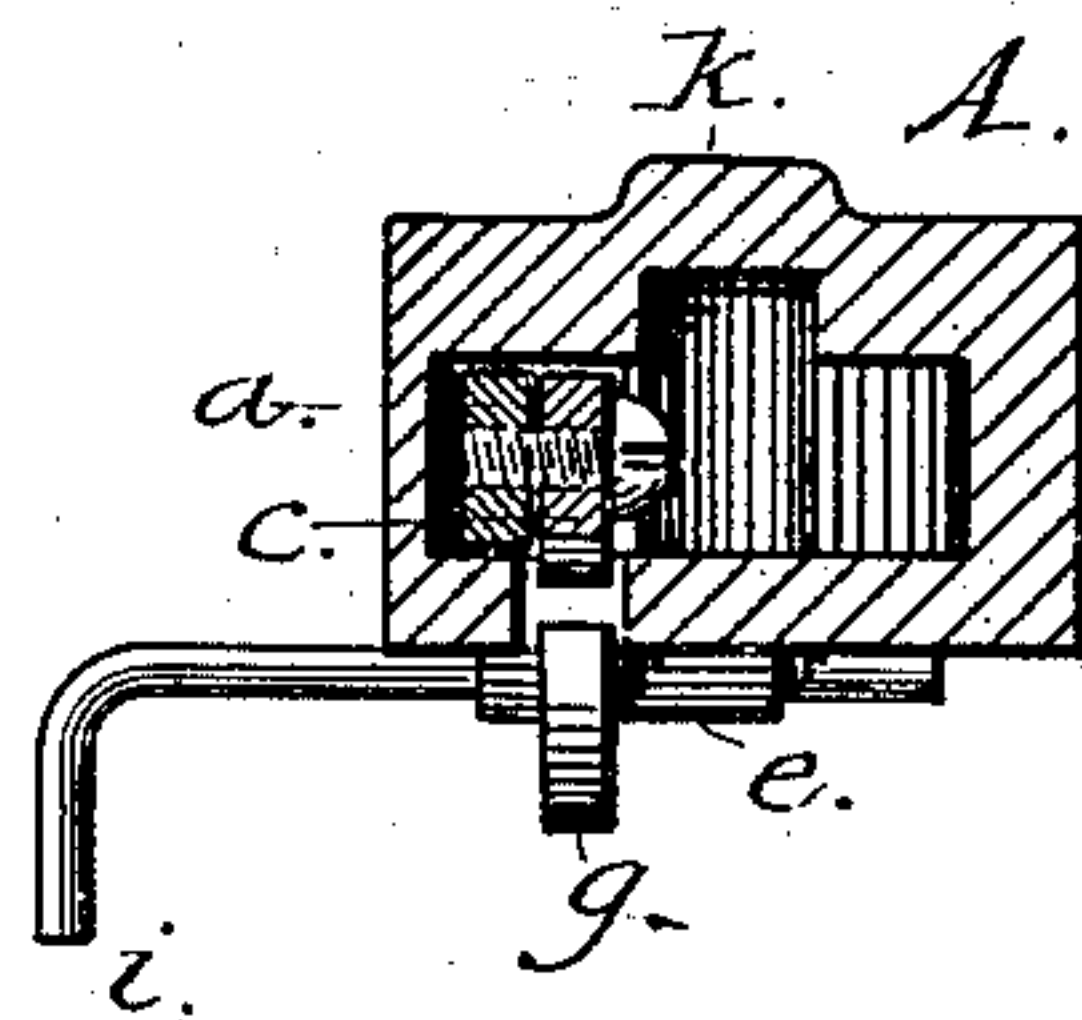
Patented Aug. 22, 1893.



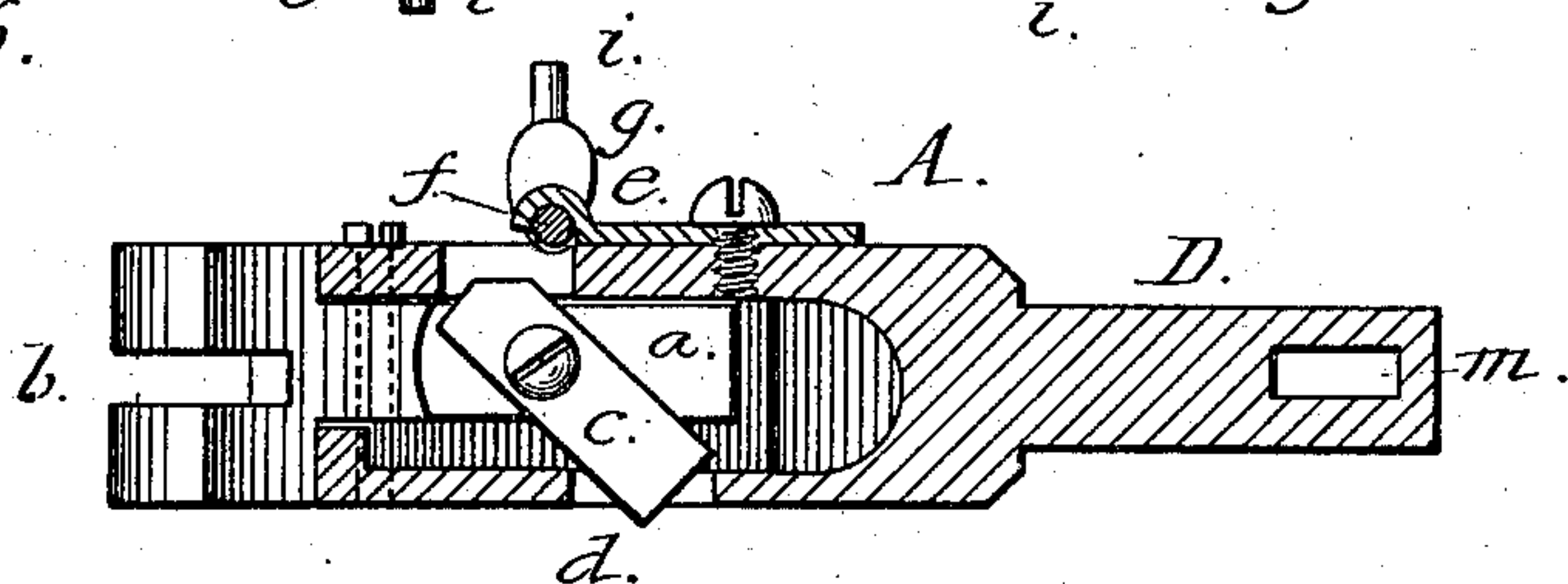
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



Witnesses:  
Chas. Rhodes.  
K. Carson

Inventor:  
Charles S. Park.  
per E. W. Down & Co.  
Attys.



# UNITED STATES PATENT OFFICE.

CHARLES S. PARK, OF MONTAGUE, MASSACHUSETTS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 503,615, dated August 22, 1893.

Application filed May 12, 1893. Serial No. 473,924. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES S. PARK, a citizen of the United States, residing at Montague, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Car-Couplings; and I do hereby 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.

My invention is an improvement in car couplers, and it has for its object to provide a car coupling device, automatic in its action with reference to the cars to be united, so that danger to life may to a large degree be avoided.

It consists essentially of a draw-head, secured to a car body, with a suitable arrangement of spring or cushion contact, and, pivoted to said draw-head, a hook shaped catch or hold, provided with an arm extending within a cavity of said draw-head, provided with a pawl pivoted thereto, which is arranged to drop into a slot provided for it, when said slot is open, but which is kept free from said slot by a cam operated by a lever arm when it is desirable to have the cars separated.

In the drawings illustrating my invention, Figure 1— is a top or plan view of a pair of my draw-head band couplers. Fig. 2— is a plan or bottom view of one of the couplings. Fig. 3— is a horizontal section of one of the couplers. Fig. 4— is a vertical section of the same. Fig. 5— is a sectional elevation of one of the couplers looking into the draw-head. Fig. 6 is a section of a modification.

Similar reference letters in the drawings indicate like parts in all of the views.

Referring to the drawings, A is the draw-head, hollowed out to allow of free play for the tail part of the hooked jaw of the coupling, and curved out in its face to receive the pivoted hooked jaw of a corresponding coupling.

B is the jaw of the coupling, which is pivoted in the draw-head, a tongue or tail portion *a*, of which enters the cavity of the draw-head, the opposite end of said jaw being hooked shaped and provided with a horizon-

tal slot *b* and lateral to this slot a hole *b'* provided for a pin. The tongue or tail portion of the jaw B has pivoted to it a pawl *c*, which drops into a slot *d* of the draw-head.

On the under or upper side of the draw-head A, is a bifurcated tubular socket *e* and secured in this socket, hinge-like, is a spindle *f* provided with a cam *g* adapted to move when said spindle is revolved into the slot *d* of the draw-head. A lever arm *i*, a part of the spindle *f*, gives to said spindle the function of a crank. When the said crank is turned down the cam contacts with the pawl *c* and pushes the latter up out of the slot *d* and unlocks the jaw. On top of the draw-head is an offset *k*, which bears normally against a fixed portion of the car platform and serves as a stop against the recoil of a spring.

D is a spindle, an integral part of the draw-head, provided with an oblong slot *m*, through which, and a pin the draw-head is secured to the car. The spring suggested abuts between a shoulder formed at the junction of the spindle D and the draw-head A, and the pin passing through the slot *m*. The spring, when the cars come together, serves to modify the shock or impact in the movement to couple. In the horizontal slot *b* of jaw B is loosely secured, by a pin *n*, a link *o*, which is provided to open a corresponding pivoted jaw attached to a draw-head of another car.

The operation of my automatic coupling is as follows: I have been describing one of my couplers, but it is of course to be understood that a complete coupling will consist of two of these. In the jaw of either of the couplers is loosely secured the link, which fits loosely in the horizontal slot *b*, held by the pin *n*. When one car moves toward another to be coupled with it, one of the hooked jaws being unlocked, the other locked, the ends of the links will enter the cavities of the draw-heads and striking the tongue or tail portions of the jaw of the unlocked one will close the jaw of the unlocked one and the crank of the draw-head holding the unlocked jaw being now turned the locking pawl drops in the slot in the bottom or top, or both, of the draw-head, and locks it and the coupling is com-



plete. To unlock the coupling, the crank of the coupling is turned to throw the cam into the slot and lift the pawl out of said slot.

Having thus described my invention, what I claim is—

1. In a car coupler, the combination with the draw-head, provided with a slot in its bottom as described, of a hook-jaw pivoted in the draw bar having a tongue or tail piece extending well into the cavity of said draw head and a pawl thereto pivoted, as described, adapted, when said slot is open, to drop into it and lock the said jaw against lateral movement, as and for the purpose set forth.

2. The combination with the draw-head described, provided with a slot, a cam for unlocking the jaw fixed on a crank rod pivoted to said draw-head, and the pivoted jaw pro-

vided with the pawl pivoted thereto, as and for the purpose set forth.

3. The combination with the draw-head, formed as described, the jaw and the pawl pivoted thereto, of a link confined to said jaw, with suitable play, whereby when said jaw, locked to position, and link are approaching a corresponding jaw, said link may perform the function of closing said corresponding jaw by engaging the tongue or tail piece of said jaw, substantially as set forth.

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

CHARLES S. PARK.

Witnesses:

M. E. PARK,

E. L. GRAVES.