

(No Model.)

M. P. CRAWFORD.  
CAR FENDER.

No. 575,676.

Patented Jan. 19, 1897.

Fig. 1.

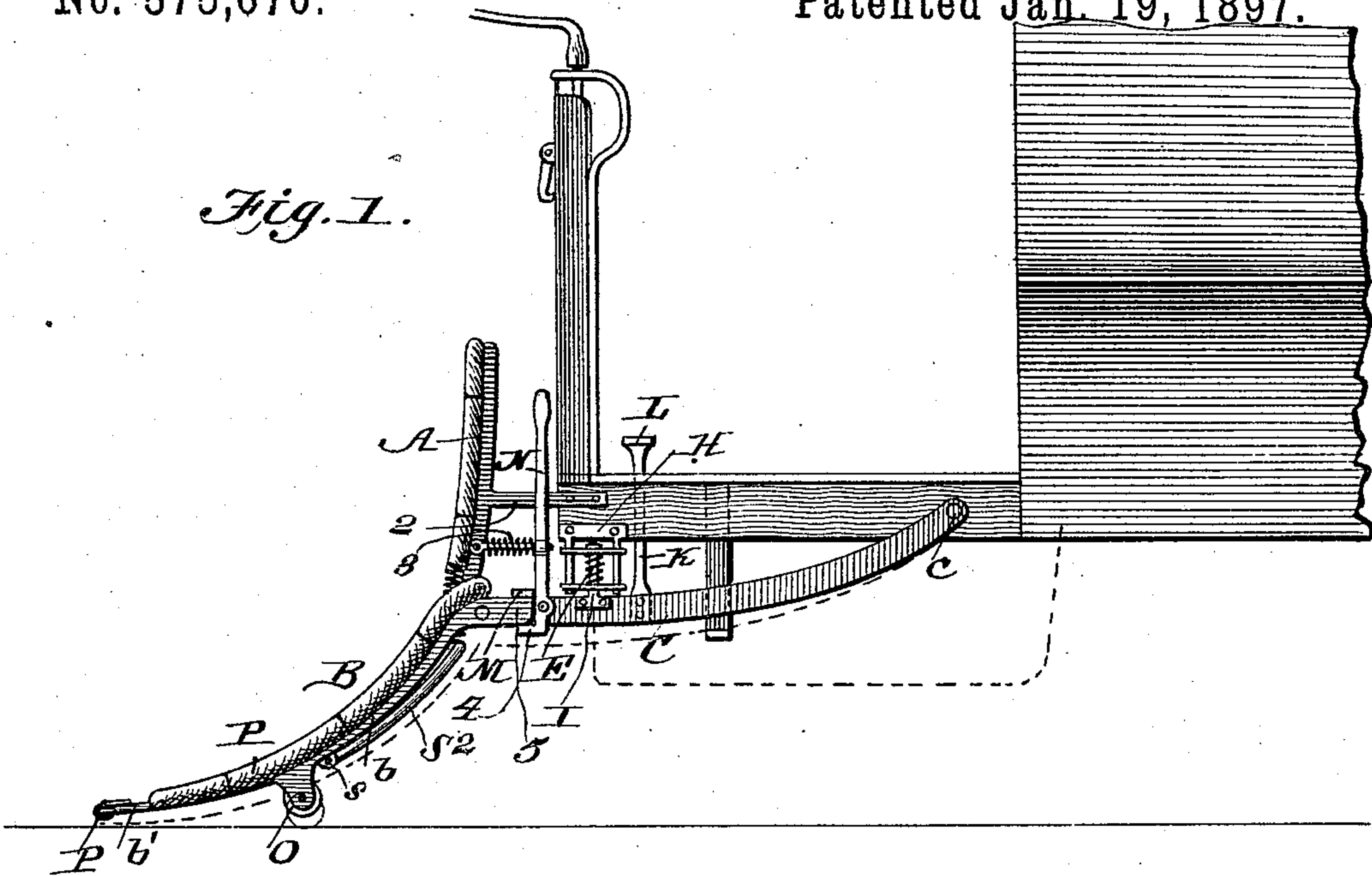


Fig. 3.

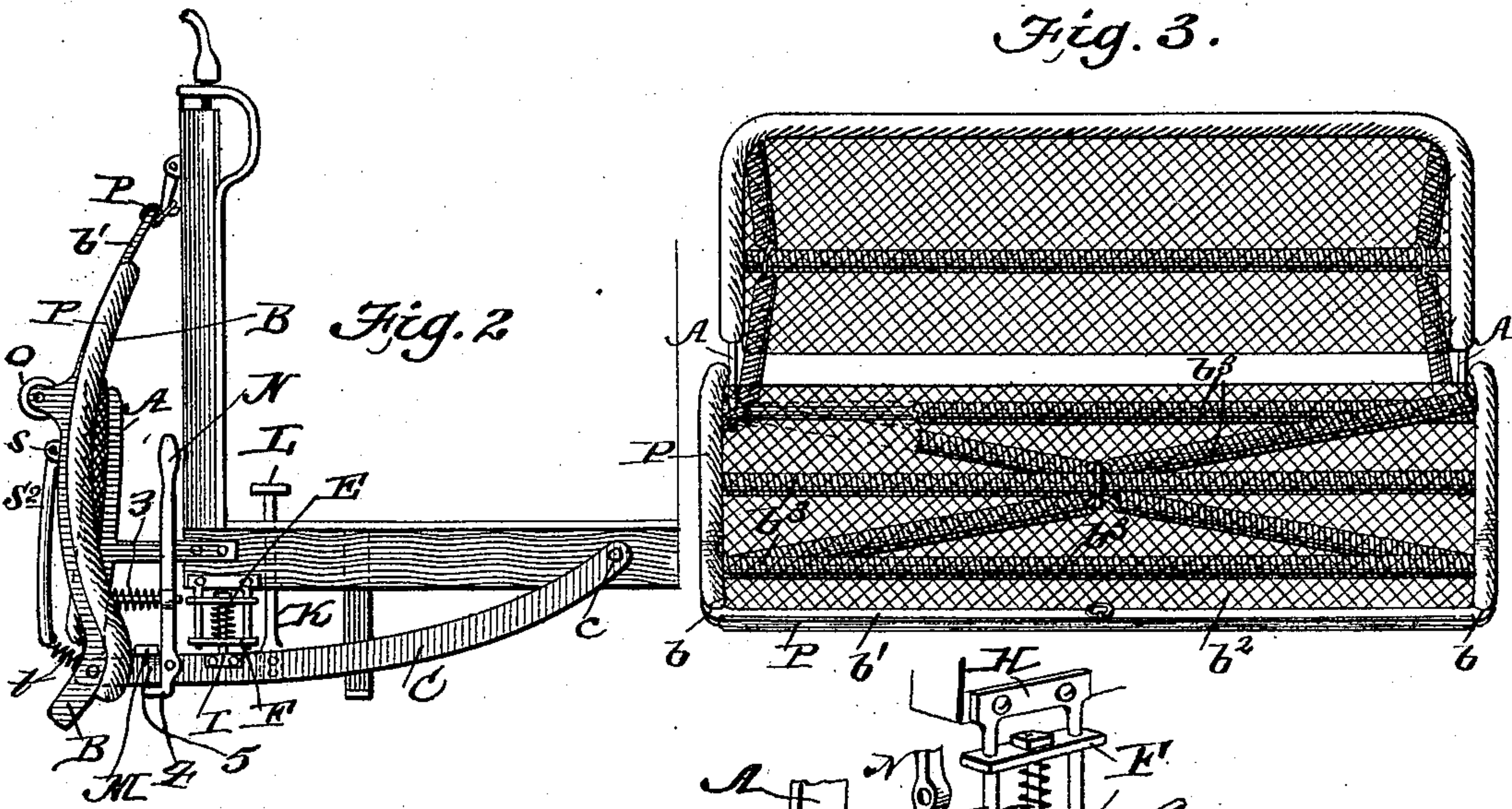
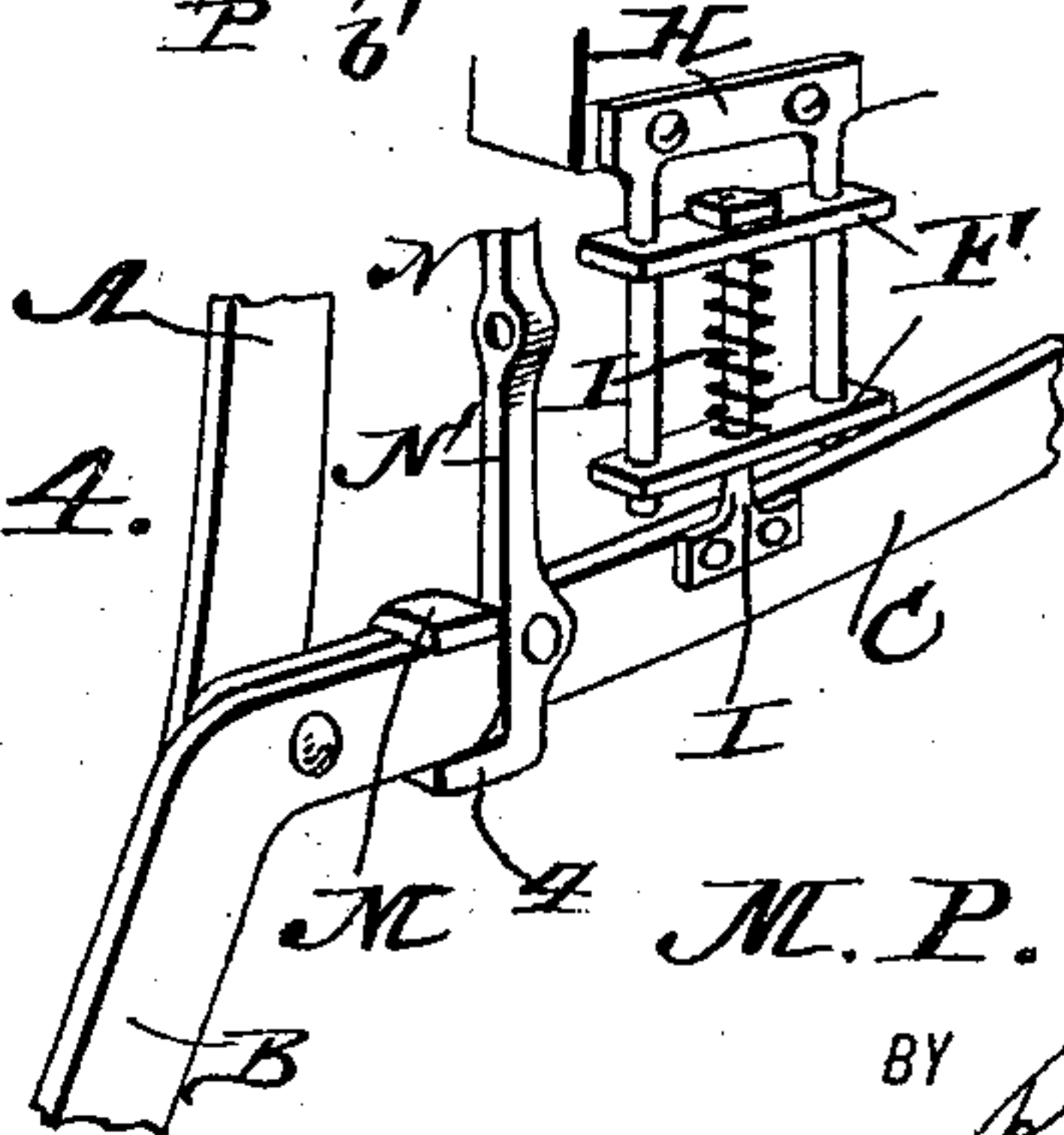


Fig. 4.



WITNESSES:

*W. D. Cloudes,*  
*Chas. Brock*

INVENTOR

*M. P. Crawford.*

BY

*R. W. Lacy*

ATTORNEY.



# UNITED STATES PATENT OFFICE.

MILEY P. CRAWFORD, OF ROANOKE, VIRGINIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE ROANOKE CAR FENDER COMPANY, OF SAME PLACE.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 575,676, dated January 19, 1897.

Application filed January 29, 1896. Serial No. 577,296. (No model.)

*To all whom it may concern:*

Be it known that I, MILEY P. CRAWFORD, of Roanoke, in the county of Roanoke and State of Virginia, have invented an Improved Car-Fender, of which the following is a specification.

This invention relates generally to a car-fender, and particularly to one which is of such construction that its normal position when in front of a car is a sufficient distance above the track to escape small objects, as stones and the like, but said fender can be readily lowered by the motorman to project or come into contact with the track, so as to pick up a person, be it ever so small.

In addition to the object of providing a fender of this construction it is also my object to provide a fender which can be folded up against the dash when not in use and when it is desired to couple two cars together or when said fender is upon the back dash and therefore not in use.

With these objects in view my invention consists in a peculiar construction of the various parts and in the novel combination and arrangement, all of which will be fully described and then pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a view showing my fender in use. Fig. 2 is a view showing said fender folded when not in use. Fig. 3 is a front view. Fig. 4 shows details of construction.

In constructing my improved car-fender I make the scoop or fender proper into two sections, namely, the upper or fixed section A and the lower or hinged section B. The upper or fixed section A is held firmly in position by means of the T-shaped brace 2, which is secured to the said section A and to the car-platform. The scoop or fender is supported upon the bottom of the car by means of forwardly-projecting arms or levers C, which are pivoted at their rear ends at c and carry the fender at their forward ends, said arms or levers being supported by means of springs E, held between plates F, which plates are arranged upon plates H, depending from the bottom of the car. The top plate is connected to a bolt I, which is connected at its lower end to one of the arms or levers C. By

means of this construction the arms or levers, and therefore the fender, will be supported a slight distance above the track, as shown in Fig. 1.

Presser-bars K are attached to the arms or levers just rear of their spring-support, said bars extending upward through the bottom of the car and carrying a step L at their upper ends, which the motorman presses in order to force the fender downward into contact with the track, and the hanger before referred to is to prevent the arms or levers being forced too far downward.

When the motorman sees an object upon the track, such as a person or animal, he instantly presses upon the step or foot-piece, thus throwing the fender flush with the track. As soon as pressure is removed from this step or foot-piece the spring-support will immediately raise the arms or levers and likewise the fender or scoop.

The upper portion of the fender consists of an essentially rectangular framework covered by a netting of wire or rope and having the frame thereof provided with a suitable cushion of rubber or other material.

The lower portion of the frame consists of the side pieces *b*, the front piece *b'*, the wire or rope netting *b<sup>2</sup>*, and the spiral springs *b<sup>3</sup>*, arranged beneath the netting of wire or rope.

The side bars of the frame are pivoted at their upper or rear ends to the forward ends of the arms or levers and project a short distance rearward beyond the pivot, and are limited against upward movement by means of a lug M, attached to the side or top of the arm or lever C, thus preventing the frame from dropping too low.

Beneath the lower portion of the frame is arranged what I term a "rebounding rod" *S<sup>2</sup>*, which aids in throwing the lower portion of frame downward and yet hold the same in its normal position a slight distance above the railway-track. The said rebounding rod *S<sup>2</sup>* is pivoted at its forward end at *s* and extends rearwardly and is situated on the under side of the hinged section B. The rear end thereof is connected to the spiral spring *t*, which is attached to the fixed section A, the object of this rod being to hold the lower portion of



the frame in its normal position, that is, a short distance from the tracks, which it readily does, the spiral spring *t* being very stiff. It also aids in throwing the said frame downward through the media of the said spring *t*, which acts upon the said frame as the frame passes the center in its downward course.

When the fender or scoop is folded up, it is locked in such position by means of a suitable catch on the top of the dash. In order to prevent the fender or scoop folding up except when desired, I provide a suitable spring-catch N. The said spring-catch N consists of a lever N', pivoted at its bottom to the forward end of the lever C and has a spiral spring 3, connected to the said lever and the T-brace 2. The lower end of the said lever has a forwardly-projecting foot 4, upon which the rear end 5 of the side piece *b* rests when it is in its normal position, thus preventing the folding up of the fender or scoop B. When it is desired to fold up the said fender, the lever N is pushed forward, which releases end 5 of the side piece *b*.

Rollers or wheels O are arranged upon the bottom of the side parts of the lower portion of the frame, and upon the upper sides of said parts and also across the front part is arranged a suitable cushion P, to prevent injury to a person who may be struck by the fender.

It will thus be seen that I provide a fender which is normally in a partially-lowered position ready to be thrown into instant operative position by simply pressing the foot upon the step or foot-piece, and it will also be seen

that I provide a cheap and simple fender which can be folded up when not in use.

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

1. In a car-fender, the combination with the scoop or fender proper, of the supporting arms or levers, and the upper fixed sections and the lower hinged section, the spring-supports for said arms or levers, the presser-bar and foot-piece, all arranged substantially as shown and described.

2. The combination with the scoop or fender proper composed of the upper fixed section, and the lower hinged section, and the rebounding rod arranged upon the bottom of said section, and depending rods attached to the car, substantially as shown and set forth.

3. In a car-fender the combination with the depending rods, said rods attached to the car, the rod or bolt projecting upward from the arms or levers, the plates mounted upon the depending rod, the coil-spring arranged between said plates, the presser-bars, the foot-piece, the fender and hanging brackets, the lug for limiting the movement of the lower section of the frame, the rebounding rod, and the spring-latch, all arranged substantially as shown.

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

MILEY P. CRAWFORD.

Witnesses:

M. J. JENNELLE,  
GEO. T. ELLIS.