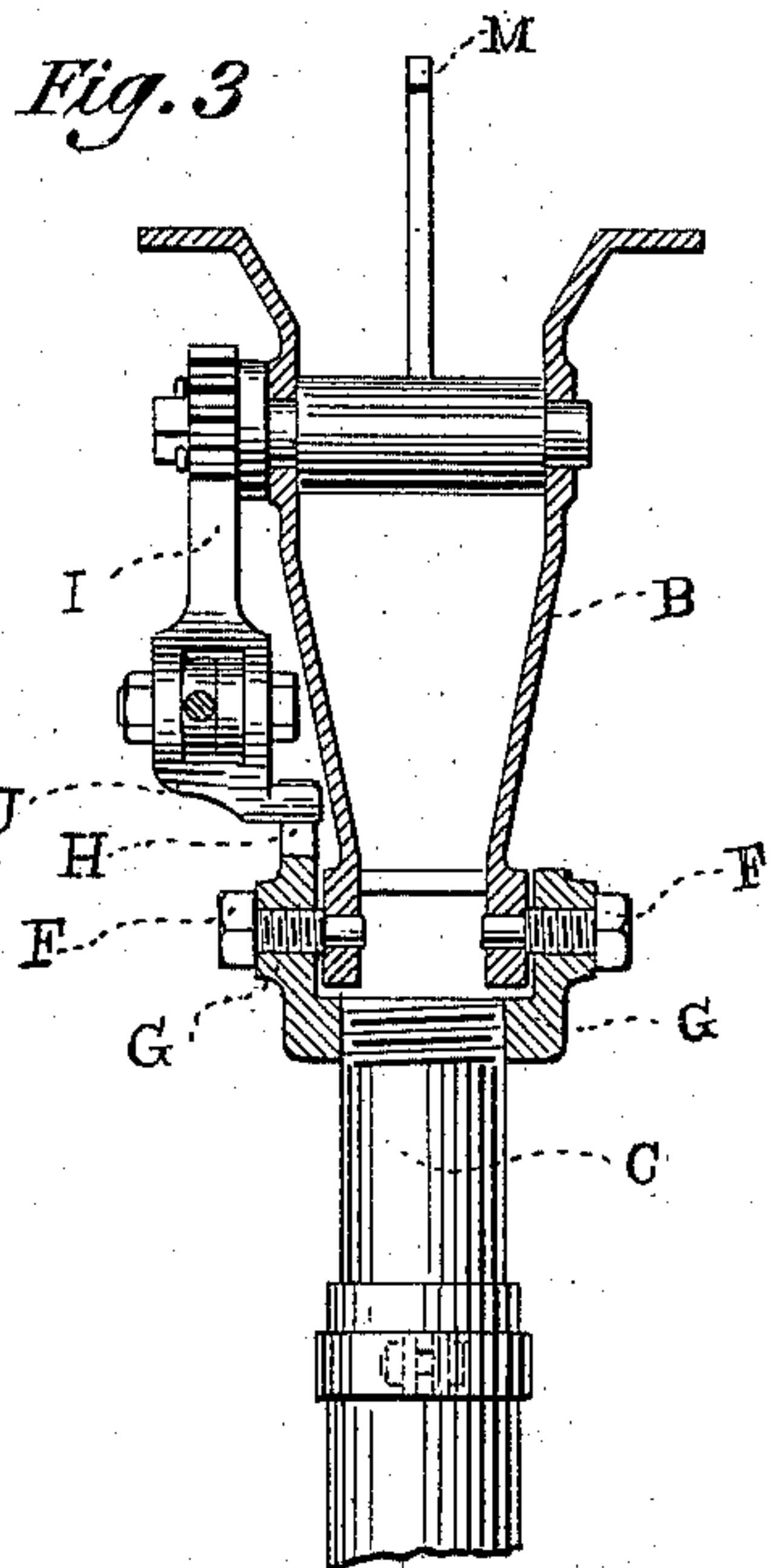
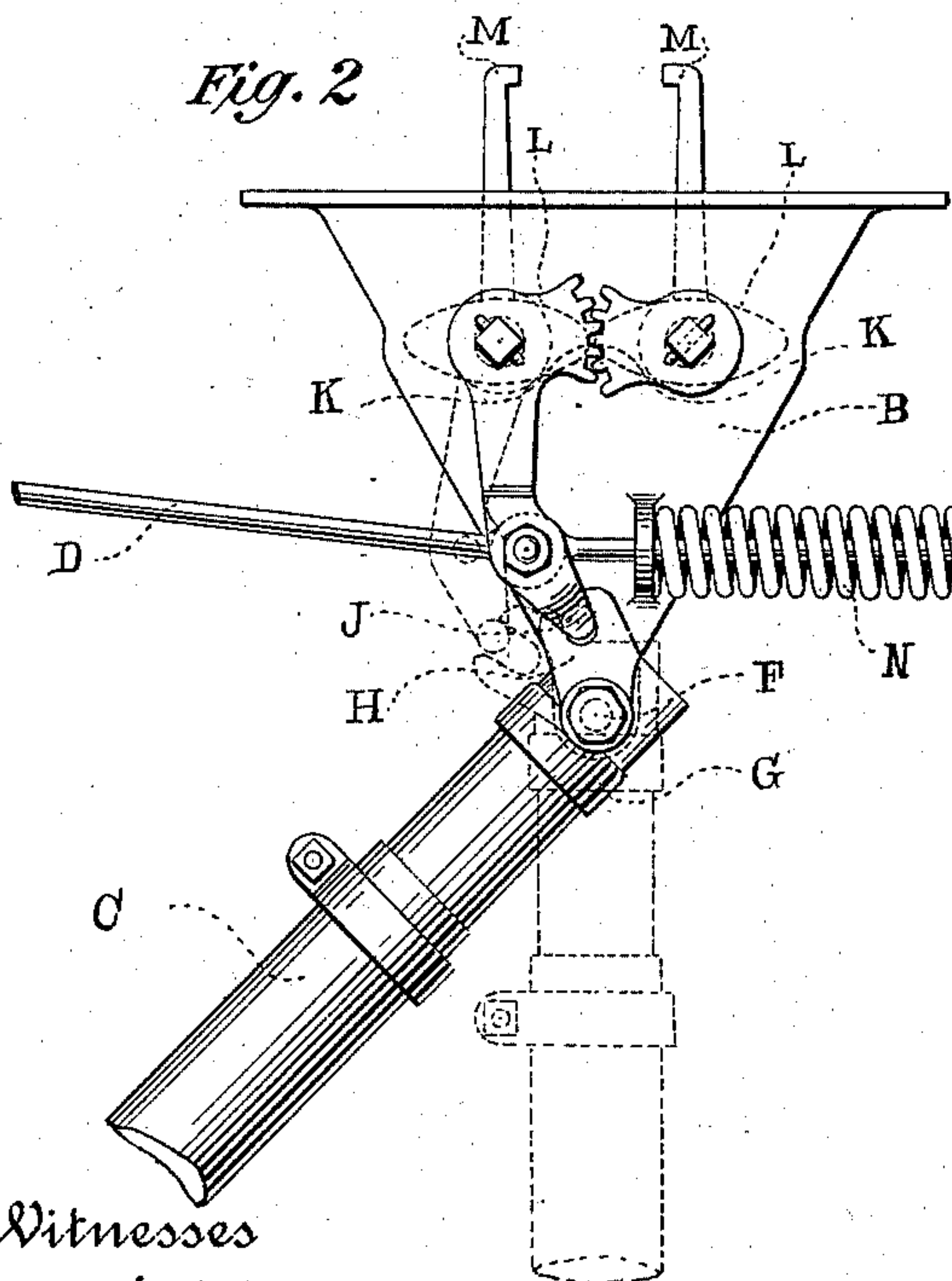
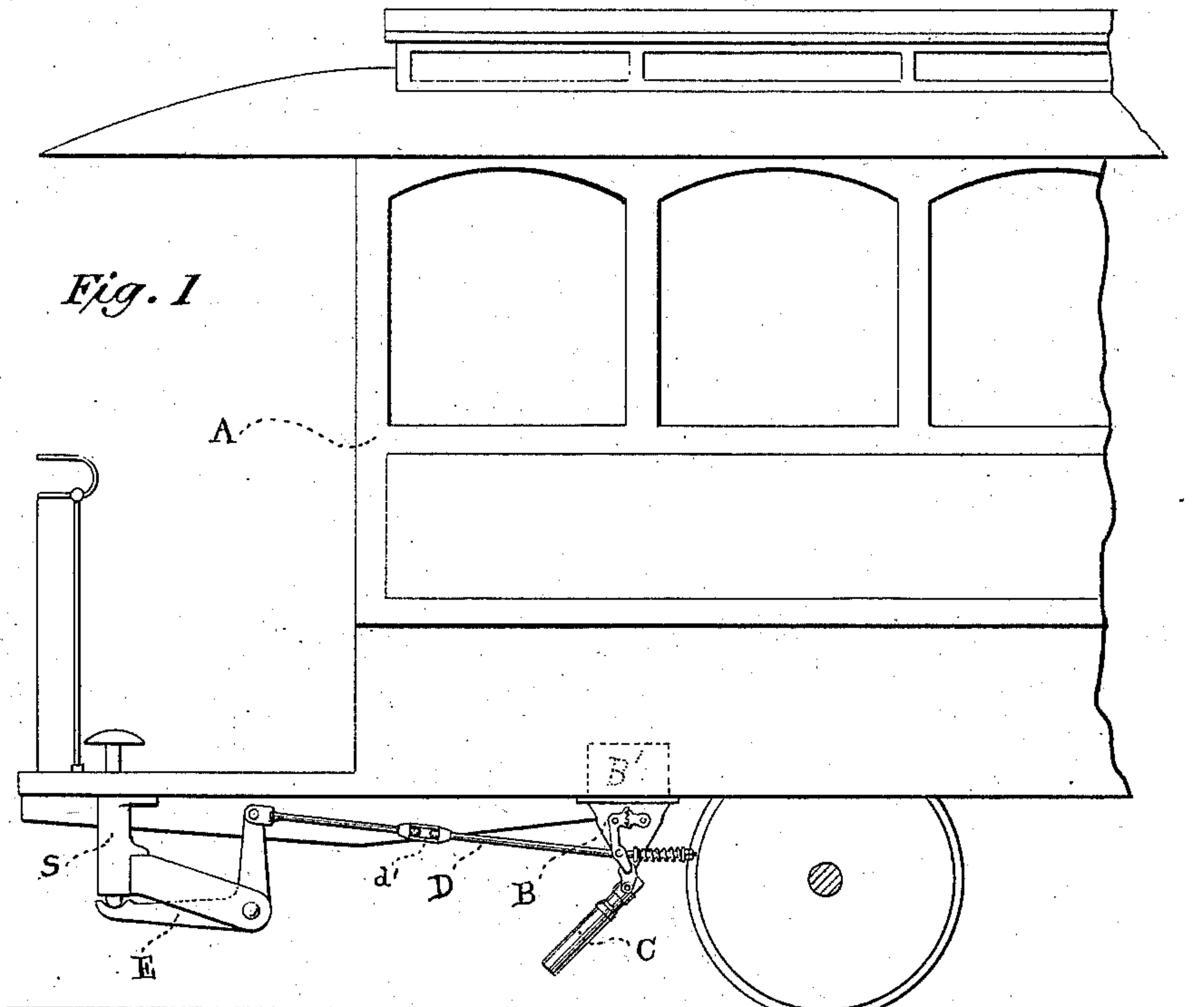


(No Model.)

G. D. HISCOX.  
SANDING BOX FOR CARS.

No. 558,688.

Patented Apr. 21, 1896.



Witnesses  
Wm. Tallyman,  
*James H. Cogrove*

By

Inventor  
*Gardner D. Hiscox*  
Attorneys  
*Beets Atterbury Hyde & Beets*



# UNITED STATES PATENT OFFICE.

GARDNER D. HISCOX, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE  
STERLING SUPPLY COMPANY, OF NEW JERSEY.

## SANDING-BOX FOR CARS.

SPECIFICATION forming part of Letters Patent No. 558,688, dated April 21, 1896.

Application filed August 18, 1893. Serial No. 483,455. (No model.)

*To all whom it may concern:*

Be it known that I, GARDNER D. HISCOX, a citizen of the United States, and a resident of Brooklyn, in the county of Kings, State of New York, have invented a certain new and useful Improvement in Sanding-Boxes for Cars and other Vehicles, of which the following is a specification.

My invention relates to improvements in sanding-boxes for cars on railway-lines, whether propelled by electricity, compressed air, cable, or otherwise, and used to prevent the slipping of the wheels on the rails in frosty, sleety, or snowy weather.

The special object of my invention is to provide a device for guiding the sand to the rails by such means that the said device, or the delivery part of the same, shall be automatically brought to a position near to and just above the rails when it is desirable to sand the track, but shall be automatically withdrawn, when not in use, from a position near the rails, so as to prevent the collection of snow, slush, mud, dirt, &c., on or in such delivery pipe or mechanism.

I prefer to employ my invention in connection with that form of sanding-box in which the loosening and delivery of the sand is accomplished by pressure upon a lever placed within easy reach of the hand or foot of the driver, motorman, or other attendant.

In the accompanying drawings, illustrating the device, similar letters refer to similar parts throughout the several figures.

Figure 1 is a representation of the device applied to a street-car. Fig. 2 is an enlarged side view of the sand-box and delivery-pipe. Fig. 3 is a cross-sectional view of the box and part of the pipe shown in Fig. 2.

The car A is of any of the usual kinds and preferably has two of my sanding devices, one of these being placed in front of the diagonally opposite wheel of each pair of wheels.

The sanding-box B is secured to the bottom of the car in front of its proper wheel, as seen in Fig. 1, and the upper part B' may be raised above the floor nearly to the seats, so as to increase the holding capacity.

C is a pipe, tube, or chute for delivering the sand.

D is a rod (which may be shortened or

lengthened, as desired) which operates the sand-box and its mechanism and which raises and lowers the delivery-pipe by means of the elbow-lever and treadle S.

The particular combination which is illustrated in the drawings is the following: B is the box for holding the sand, and C is the pipe for guiding the sand to the track. This pipe C is preferably pivoted to the lower open end of the box B (so as to receive the sand discharged therefrom) by the bolts F F, passing through the collar G, which supports the pipe C, the adjustment of the parts permitting the pipe C to move freely back and forth through part of an arc of a circle. One side of the collar G terminates in a fork H. Upon the lower end of the arm I for communicating motion to the mechanism for loosening and delivering the sand is the lug J. (Particularly shown in Fig. 3.) This particular form of sand loosening and delivering mechanism consists of the arm I, communicating motion to the sectors K K, and the bottoms L L, which bottoms L L are provided with the sand-loosening pickers M M.

N is a spring, which is contracted by the drawing of the rod D and serves to restore the parts of my improved mechanism to their initial positions when the operating-rod and lever are released. The tension of this spring may be regulated by means of the nuts *n n*, holding the washer *n'*. The length of the rod D, connecting the sand-delivery devices with the tread or with a hand-lever, may be regulated by means of the turnbuckle *d'*.

The operation is as follows: If it be desired to sand the track, the tread S (placed on the platform of the car in Fig. 1) is pressed, and motion is communicated to the sand-delivery mechanism by means of the rod D. The rod D also causes the delivery-pipe C to be lowered at the same time by means of the lug J on the lower end of the arm I engaging with the fork H of the collar G. When pressure is removed from the tread, the spring N returns the rod D to its normal position, and thereby shuts off the supply of sand and at the same time raises the delivery-pipe C away from the track.

The object of my invention, which is to lower the delivery-pipe to the track only



when it is necessary to sand the same and to withdraw it therefrom when not to be used, so as to prevent the accumulation of snow, slush, stones, or dirt therein, is thus effectually and easily accomplished by the combination of parts shown in the drawings.

While I have described and represented one form of my invention which is well adapted for practical purposes, it is to be understood that the particular form and arrangement of the parts may be modified in many respects, which will be suggested by the judgment and experience of the skilled mechanic, without changing the general mode of action or departing from the limits of my invention.

What I claim, and desire to secure by Letters Patent, is—

1. In sanding-boxes, a sand-box, a movable guiding device therefor an arm for actuating

the sand-delivery mechanism of the sand-box, said arm bearing on its lower end a lug which engages with a fork attached to the sand-guiding device, whereby the guiding device is moved to and from the track substantially as described.

2. In sanding-boxes, a sand-box provided with sand loosening and delivery means, a movable guiding device therefor, an arm for actuating the sand loosening and delivery means, said arm bearing on its lower end a lug which engages with a fork attached to the sand-guiding device, whereby the guiding device is moved to and from the track, substantially as described.

GARDNER D. HISCOX.

Witnesses:

CHRISTOPHER MYERS,  
J. HENRY CARVER.