

(No Model.)

2 Sheets—Sheet 1.

A. MOHN & A. J. BOTHUR.
CAR FENDER.

No. 532,683.

Patented Jan. 15, 1895.

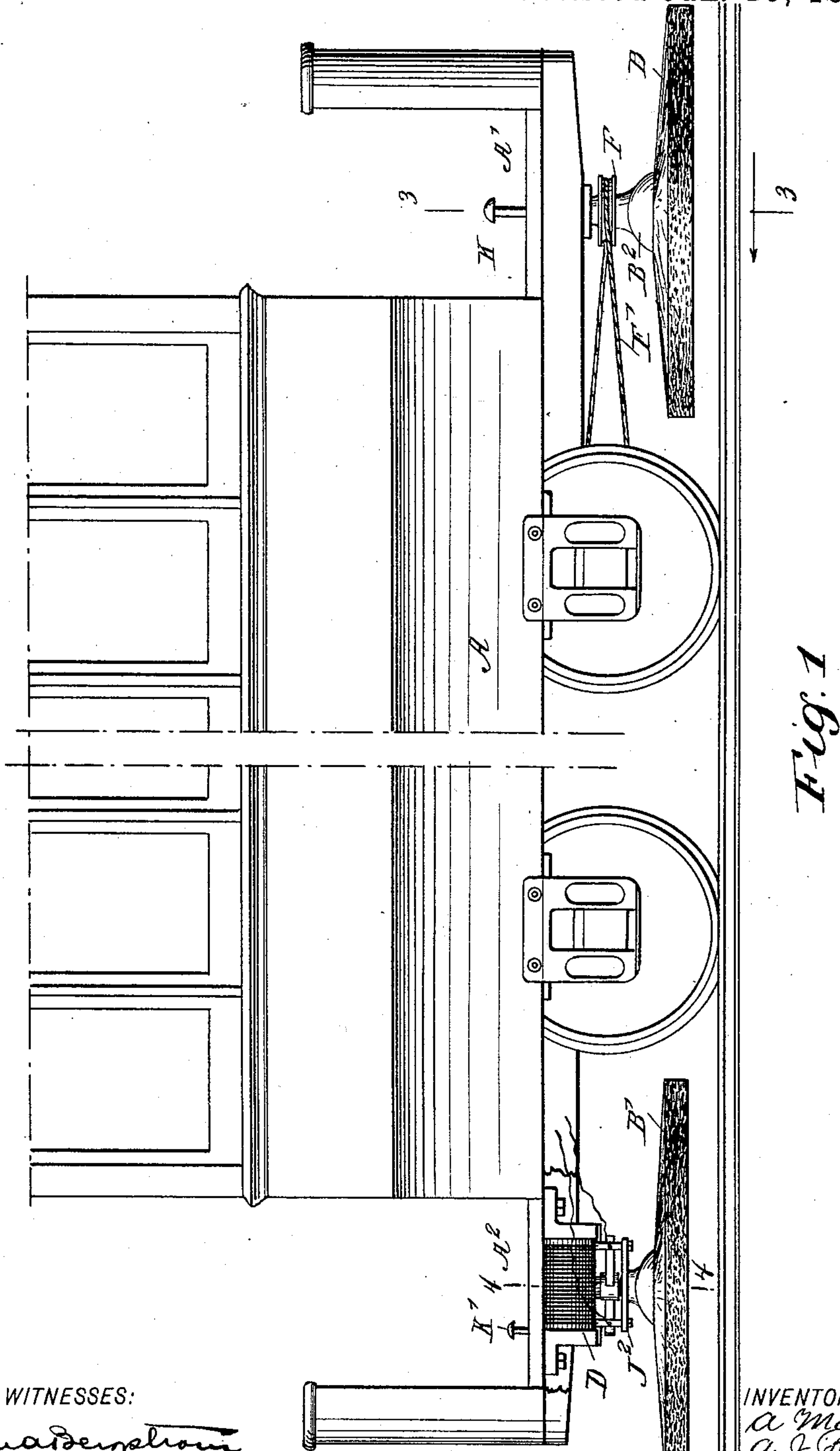


Fig. 1

WITNESSES:

John Anderson
Thos. J. Bothur

INVENTORS:

A. Mohn
A. J. Bothur

BY,

Munn & Co

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

A. MOHN & A. J. BOTHUR.
CAR FENDER.

No. 532,683.

Patented Jan. 15, 1895.

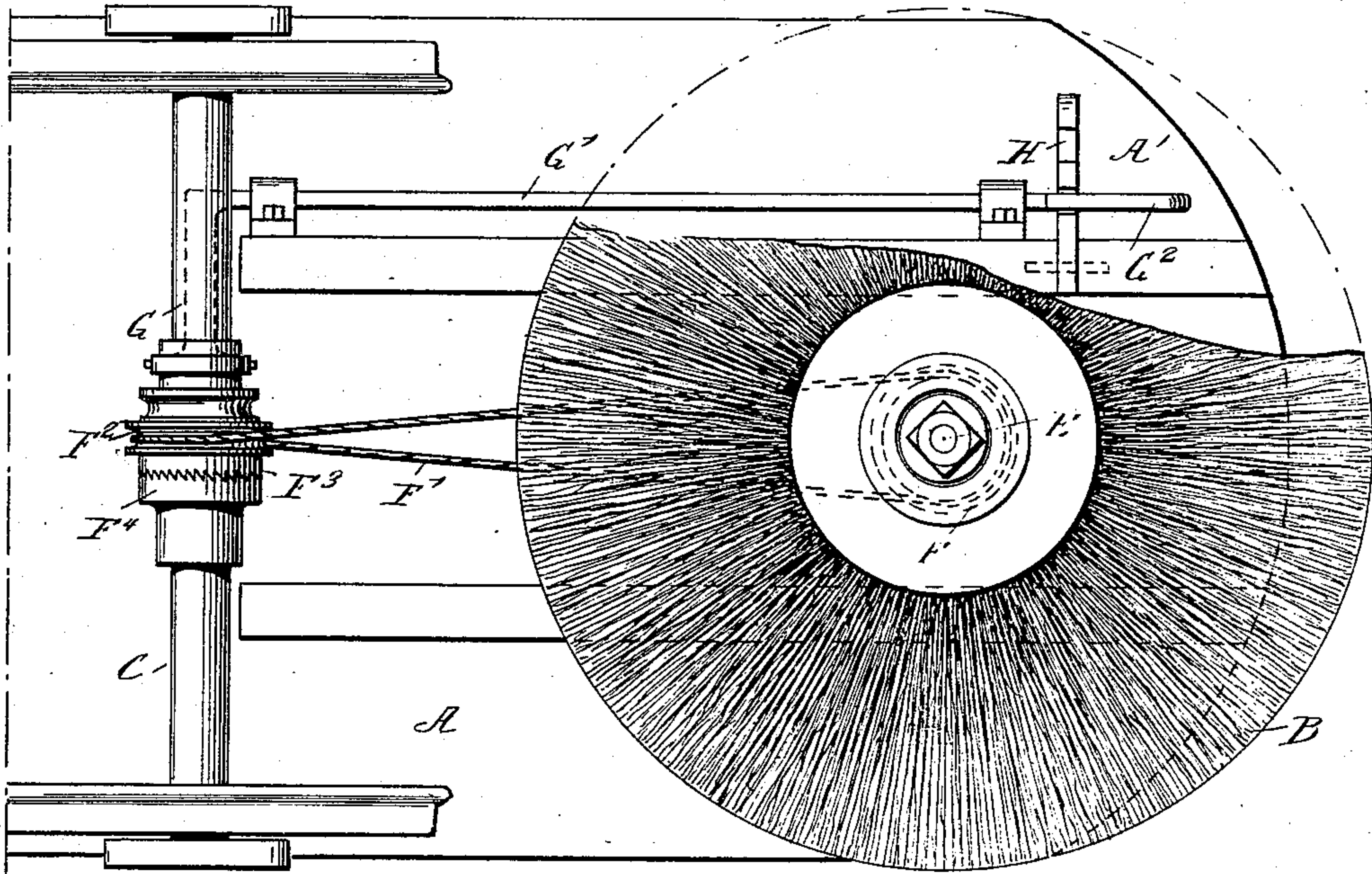


Fig. 2

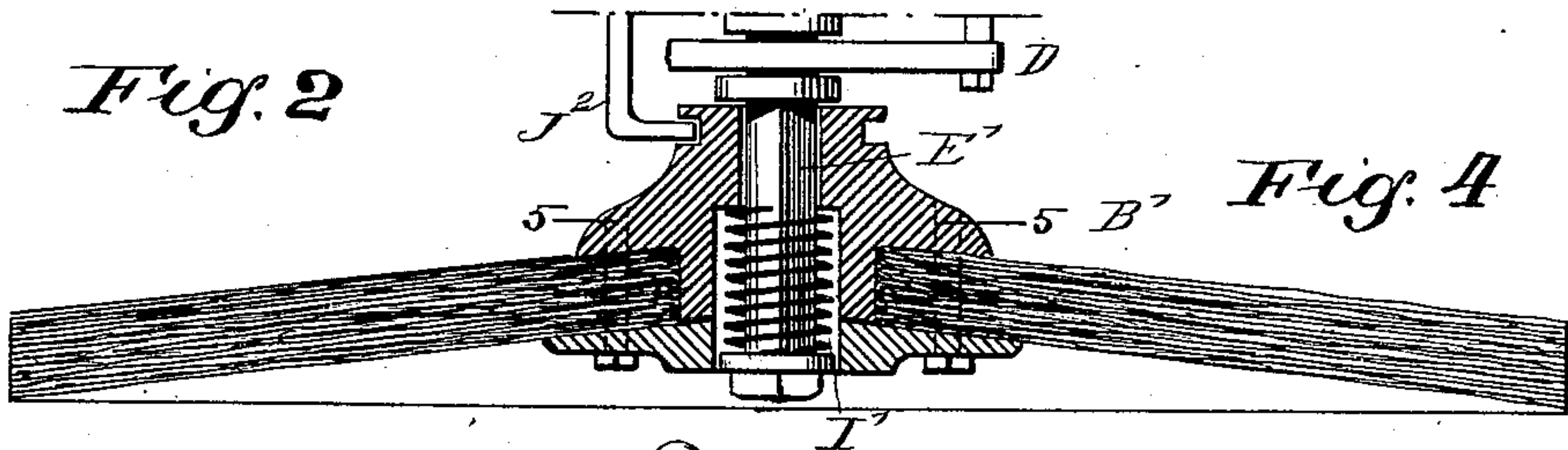


Fig. 4

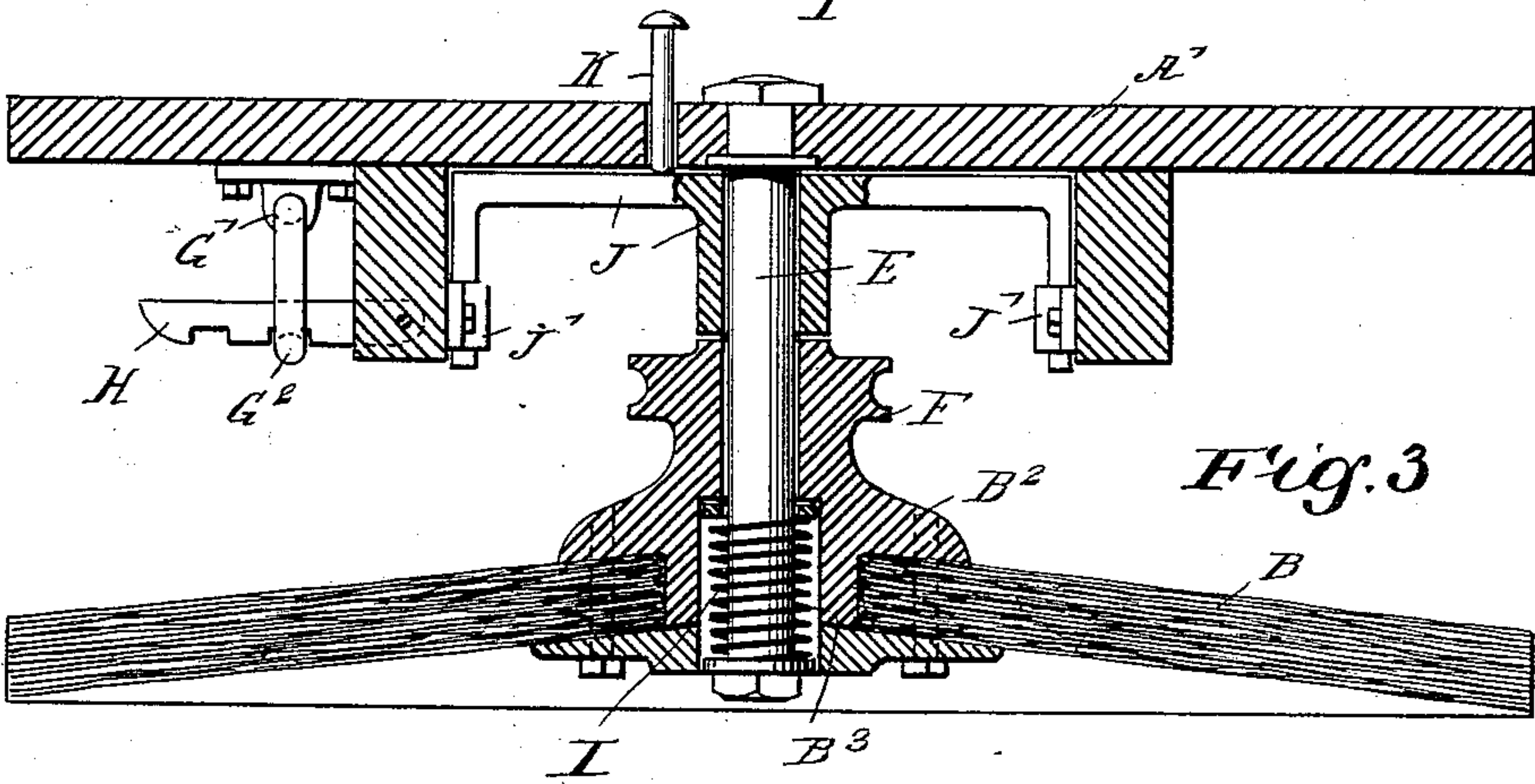


Fig. 3

WITNESSES:
John A. B. Thompson
Thos. G. H. H. H. H.

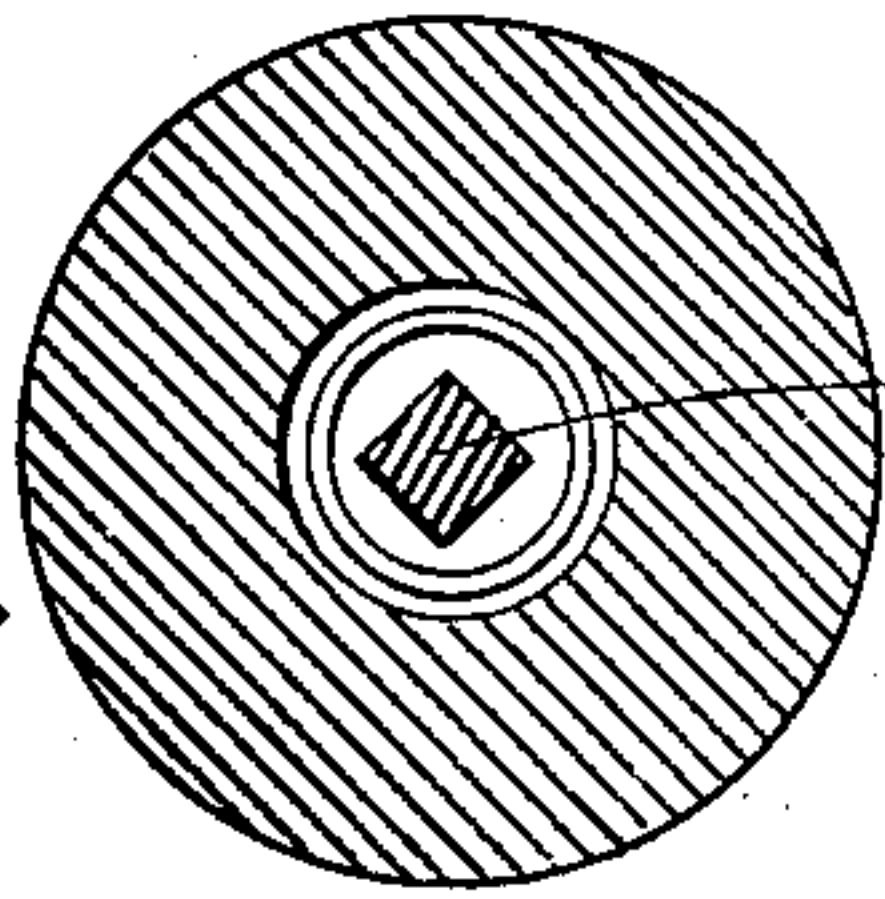


Fig. 5

INVENTORS
A. Mohn
A. J. Bothur
BY *Munn & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ANDREW MOHN AND AUGUST JULIUS BOTHUR, OF HOBOKEN, NEW JERSEY.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 532,683, dated January 15, 1895.

Application filed August 30, 1894. Serial No. 521,664. (No model.)

To all whom it may concern:

Be it known that we, ANDREW MOHN and AUGUST JULIUS BOTHUR, both of Hoboken, in the county of Hudson, State of New Jersey, have invented a new and Improved Car-Fender, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved car fender which is comparatively simple and durable in construction, very effective in operation, and arranged to remove persons to one side of the track without much danger of injuring them.

The invention consists principally of a revolvable brush under the end of the car and disposed horizontally over the track.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied. Fig. 2 is an enlarged inverted plan view of the same with part broken out. Fig. 3 is a transverse section of the same on the line 3—3 of Fig. 1. Fig. 4 is a similar view of the same on the line 4—4 of Fig. 1; and Fig. 5 is a sectional plan view of part of the same on the line 5—5 of Fig. 4.

The car A on which the improvement is applied, is provided under its platforms A' and A², with revoluble brushes, B and B' respectively, arranged normally, a suitable distance above the track and extending approximately the width of the track, so that the brushes in revolving, remove any obstructions in front of the car to one side of the track. The brushes B and B' may be revolved by a mechanism actuated from one of the axles C of the car A, as shown at the right in Fig. 1, or as shown at the left in Fig. 1, from a separate electric motor D of any approved construction and connected with a suitable source of electricity, the said motor being used on trolley cars, so that electricity from the trolley wire can be transmitted to the motor to actuate the same.

The revoluble brush B, as illustrated in detail in Figs. 2 and 3, is constructed with a cen-

tral hub B² journaled on a vertically disposed stud or shaft E, secured to the platform A'. On the hub B² is formed or secured a pulley F, connected by a belt F' with a pulley F², held loosely on the axle C of the car, and adapted to be locked thereto by suitable clutch mechanism, to cause the pulley to rotate with the axle, so as to drive the brush B. The clutch mechanism is preferably of the construction shown in Fig. 2 of the drawings, and consists of clutch teeth F³ held on the pulley F² and adapted to engage clutch teeth F⁴ fastened on the axle C. A shifting lever G connected with the pulley F² serves to move the clutch teeth of the latter into or out of mesh with the teeth F⁴, so as to connect the pulley with the axle C or disconnect it from the same.

The shifting lever G is held on a longitudinally extending shaft G', journaled in suitable bearings held on the under side of the platform A', the forward end of the said shaft being provided with a crank arm G² adapted to be locked in place by a notched catch H, so as to lock the pulley F² in engagement with the fixed clutch on the axle, or to hold the said pulley out of engagement to prevent the brush B from being revolved.

We do not limit ourselves to any especial construction of clutch, as the same may be varied to accomplish the same result.

As previously mentioned, the revoluble brush B is held a suitable distance above the track, but the said brush may be moved downward in contact with the top surface of the track whenever desired, and for this purpose the under side of the hub B² of the brush is formed with a recess B³, containing a spring I, coiled on the lower end of the stud or shaft E, and pressing against a washer held in the hub B² and resting on a washer secured on the stud or shaft E. By this arrangement the brush B can be readily pressed down, as the spring I will yield sufficiently to move the brush in contact with the top surface of the track, it being understood, however, that this contact only takes place at or near the periphery of the brush, as the bristles or splints thereof are inclined from the central hub B² to which they are secured downward so that the brush has a dished appearance at the under side, as will be readily understood by reference to Figs. 3 and 4.

In order to conveniently press the brush B downward, a frame J is provided, having oppositely arranged arms fitted to slide vertically in suitable bearings J' held under the platform of the car A', and having a central tubular boss encircling the upper end of shaft B and engaging the upper end of the hub B² as is plainly shown in Fig. 3. A pin K fitted to slide in the platform A' presses on the frame J and is under the control of the operator in charge of the car, so that when the said operator presses the pin K, a downward sliding motion is given to the frame J, and consequently the brush B is pressed downward to move in contact with the track as previously explained. As soon as the operator releases the pressure from the pin K, then the spring I will force the brush B into its uppermost position, together with the frame J and the pin K.

When the motor D is employed for driving the brush B, the stud or shaft E is replaced by a rotative shaft E' which is rotated from the motor, the said shaft E' being preferably square in cross section, to engage a square aperture in the hub of the brush. The frame J² after moving the brush downward on the shaft E' engages the hub of the brush, as indicated in Fig. 4, the said frame being under the control of the operator by means of the pin K' projecting slightly above the top surface of the platform A² as indicated in Fig. 1.

It will be seen that by the arrangement described, the brush is rotated under the forward end of the car, while the brush on the rear end is not rotated; and the revolving brush readily moves the persons or other objects in front of the car to one side of the track, it being understood that the brush revolves in such a direction as to move the person or object to the outside of the track and not to the inside thereof and into the way of cars approaching on the other track. It will further be understood that by making the brush movable up and down the operator in

charge of the car is enabled to remove small obstacles lying on the track.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination in a car fender, or the like, of a shaft, a brush on said shaft, a spring connected to said brush and adapted to hold the same normally above one end of the shaft, means for revolving said brush, and means for depressing said brush, substantially as set forth.

2. The combination, in a car fender or the like, of a shaft, a revoluble brush having a central hub mounted on said shaft and provided with a central recess in its side, a spring arranged in said recess with one end connected to the shaft and the other end connected to the hub, and means for moving said brush longitudinally on the shaft, substantially as set forth.

3. A car fender comprising a revoluble brush mounted to rotate loosely on a stud, a spring for holding the brush in position on the stud, a frame adapted to engage the said brush to press the latter downward against the tension of the spring, and a pin engaging the said frame and under the control of the operator, substantially as shown and described.

4. The combination, in a car fender or the like, of a shaft a revoluble, spring supported brush mounted on said shaft, a frame having a central boss encircling said shaft and adapted to bear on the hub of the brush, and having oppositely arranged arms, provided with vertical guides, and a pin, arranged in the car platform with its lower end engaging said frame, substantially as set forth.

ANDREW MOHN.

AUGUST JULIUS BOTHUR.

Witnesses:

THEO. G. HOSTER,
JNO. M. RITTER.