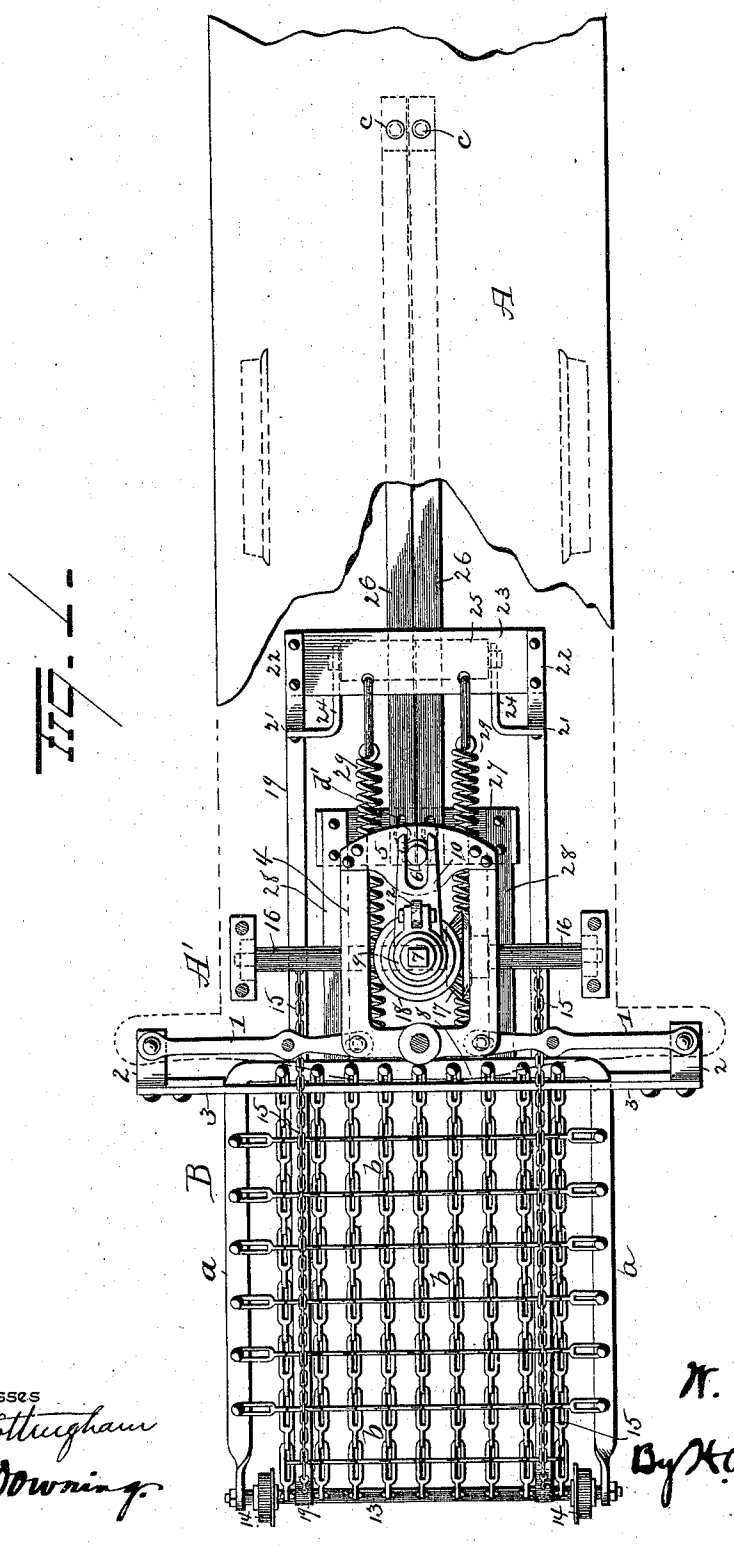
(No Model.) 2 Sheets—Sheet 1.

W. B. GEORGE.

CAR FENDER.

No. 574,029. Patented Dec. 29, 1896.



Witnesses
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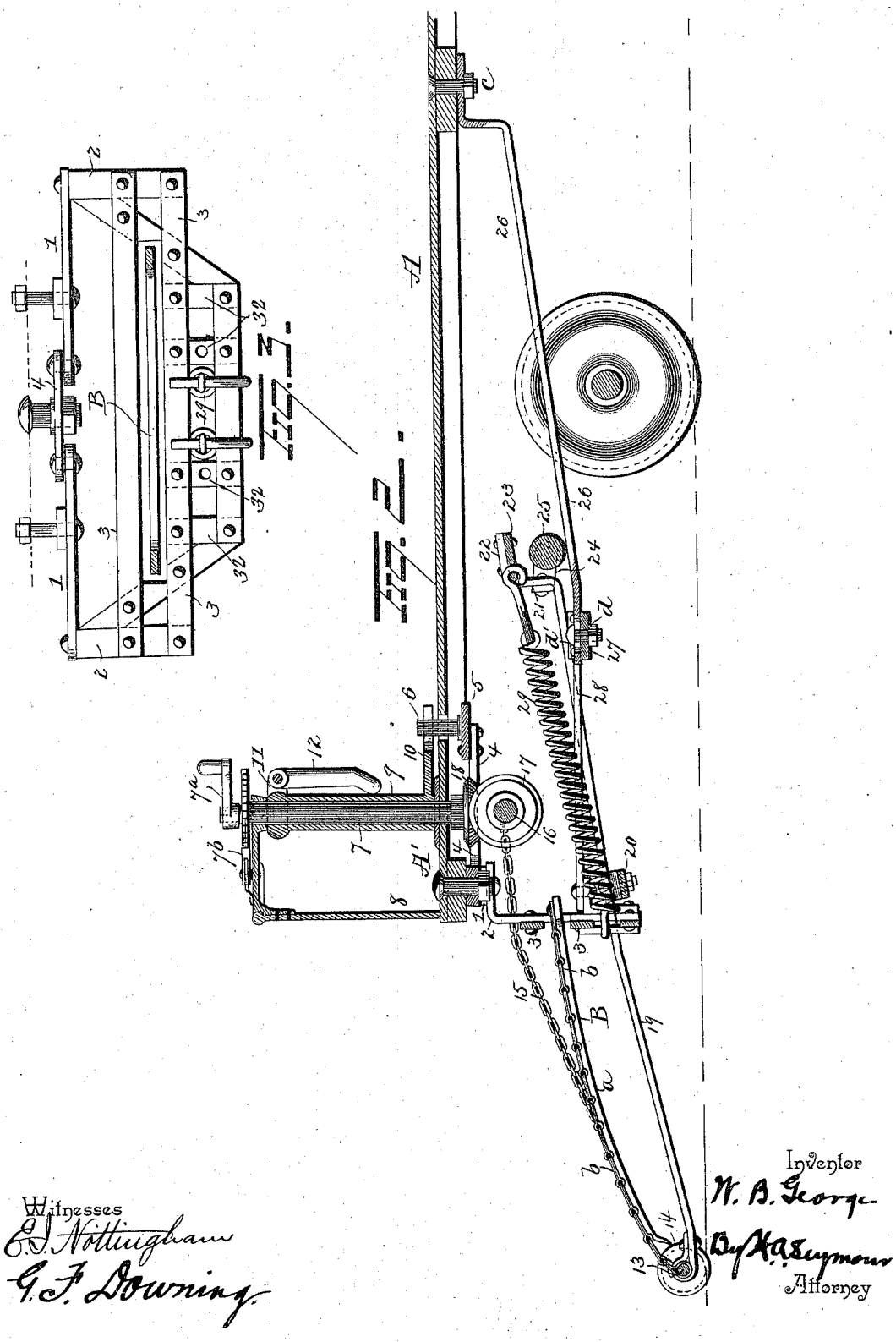

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UNITED STATES PATENT OFFICE.

WILLIAM B. GEORGE, OF COLUMBUS, OHIO.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 574,029, dated December 29, 1896.

Application filed September 30, 1895. Renewed September 22, 1896. Serial No. 606,680. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. GEORGE, a resident of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-Fenders; 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 relates to an improvement in car-fenders, its object being to produce a car-fender which shall be comparatively simple in construction, easy to manipulate, sure in operation, and effectual in all respects in the performance of its functions.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a portion of a car having my improvements applied thereto. Fig. 2 is a longitudinal sectional view illustrating my improvements. Fig. 3 is a detail view.

A represents a portion of a car-bottom, and A′ the platform of the car. To the under side of the platform, at the front end thereof, two bars or levers 1 1 are pivotally connected at points between their ends. Brackets or hangers 2 2 are pivotally connected to the outer ends of the respective bars or levers 1, and carry two parallel bars 3 3, which constitute a guiding-frame for the fender B, the latter being adapted, in a manner hereinafter explained, to be drawn rearwardly between said bars 3 3 and under the car. A U-shaped plate or yoke 4 is pivotally connected to the platform of the car between the inner ends of the bars or levers 1, and the latter are pivotally connected to said plate or yoke at opposite sides of the pivotal connection of said plate or yoke with the car. A horizontal plate 5 is secured to the rearwardly-extending arms of the plate or yoke 4, and from said plate 5 a pin 6 projects upwardly. A shaft 7 is mounted in suitable bearings on the platform and the dashboard 8, and on said shaft a sleeve 9 is loosely mounted, said sleeve carrying a slotted arm 10, adapted to engage the pin 6. At its upper end the sleeve 9 is made with ears 11, between which an operating handle or lever 12 is pivoted. From this construction and arrangement of parts it will be seen that by operating the handle 12 the vertical sleeve 9 can be oscillated and motion thus transmitted to the guide-frame of the fender, whereby to properly adjust the latter to the track over which the car is running, and also to adjust said fender for curved tracks, if necessary.

The fender B comprises a U-shaped frame *a*, in the free ends of the parallel arms of which a shaft or cross-bar 13 is secured, and a series of chains *b*, matted or linked together and secured to the U-shaped frame *a* and the shaft 13. On the shaft or cross-bar 13 of the fender-frame, between the ends thereof, small wheels 14 are mounted and adapted to run on the track-rails.

Chains 15 15 are secured at their forward ends to the shaft or cross-bar 13 at points inwardly removed from the wheels 14, and extend rearward in substantially straight lines to a transverse shaft 16, mounted in suitable brackets under the platform of the car, to which shaft said chains are secured and upon which they are adapted to be wound. The shaft 16 is provided centrally between its ends with a bevel-pinion 17, adapted to receive motion from a similar pinion 18, secured to the lower end of the vertical shaft 7. The upper end of the shaft 7 is provided with a handle 7^a, by means of which to operate it, and with a suitable locking device 7^b to prevent it from turning when the fender is disposed under the car. The function of this mechanism is to return the fender to its retracted position preparatory to being projected, when the exigency therefor may arise, by the mechanism which will be hereinafter described.

Depending from the lower bar 3 of the guiding-frame are guides 32, which form a portion of said guide-frame. Through the guides 32 guide-bars 19 are passed and connected at their forward ends to the shaft or cross-bar 13 of the fender at points coincident with the connection of the chains 15 therewith.

In rear of the guide-frame the guide-bars are preferably connected together by means of a cross-bar or link 20. At their rear ends the guide-bars are bent upwardly to form

arms 21 and then rearwardly to form arms 22, and the latter are connected together by a plate or cross-bar 23. Rearwardly-projecting arms 24 are secured to the upwardly-extending arms 21 of the guide-bars 19, and in their free ends a roller 25 is mounted, said roller being thus disposed under the plate or cross-bar 23 and is adapted to run on two parallel bars 26. The rear ends of the bars 26 are connected to the bottom, as at *c*, and at their forward ends are attached to a transverse plate 27, the pins *d* passing through elongated slots *d'* in said bars 26. The object of the elongated slots *d' d'* is to allow for the lateral play of the fender as it is swung to the right or left in adjusting it to the track. The transverse plate 27 is connected with the guide-frame by means of bars or links 28.

Springs 29 are attached at one end to the plate or cross-bar 23 and at the other end to the guide-frame, said springs thus tending to force the fender outwardly. Thus it will be seen that when the fender is under the car and it is desired to project it it is simply necessary to release the vertical shaft 7, whereupon the springs 29 will cause the fender to be quickly projected forwardly and made to assume its proper operative position.

My improvements are simple in construction and are effectual in all respects in the performance of their functions.

Various slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope, and hence I do not wish to limit myself to the precise details of construction herein set forth; but,

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

1. The combination with a car and a guide-frame attached thereto, of a fender adapted to pass through said guide-frame, guide-bars attached to the forward end of the fender and extending through said guide-frame, upwardly-bent arms at the rear ends of the guide-bars, a plate connecting said arms, bars connected to the car and guide-frame, arms or brackets secured to the guide-bars, a roller mounted in said arms or brackets and adapted to run on the bars connected to the car and guide-frame, and means for moving said fender forwardly and rearwardly, substantially as set forth.

2. The combination with a car, of two bars or levers pivotally connected between their ends to said car, a guide-frame connected with the outer ends of said bars or levers, a fender adapted to pass through said guide-frame, wheels carried by the fender to run on the track, and devices connected with said pivoted bars or levers, whereby to adjust the guide-frame and fender laterally, substantially as set forth.

3. The combination with a car, of two bars or levers pivotally connected between their ends to the front end of the car, a guide-frame connected with the outer ends of said bars or levers, a U-shaped plate or yoke pivoted to the car and pivotally connected with the inner ends of said pivoted bars or levers, a plate secured to said yoke or U-shaped plate and provided with a pin, a shaft carrying a slotted arm to engage said pin, and means for turning said shaft, substantially as set forth.

4. The combination with a car-body, a laterally-movable guide-frame, and a fender having sliding connection therewith, of bars connected at one end to the bottom of the body and having a loose sliding connection at the other end with the laterally-movable guide-frame, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM B. GEORGE.

Witnesses:
J. B. KIRK,
H. A. THOMPSON.