

No. 610,822.

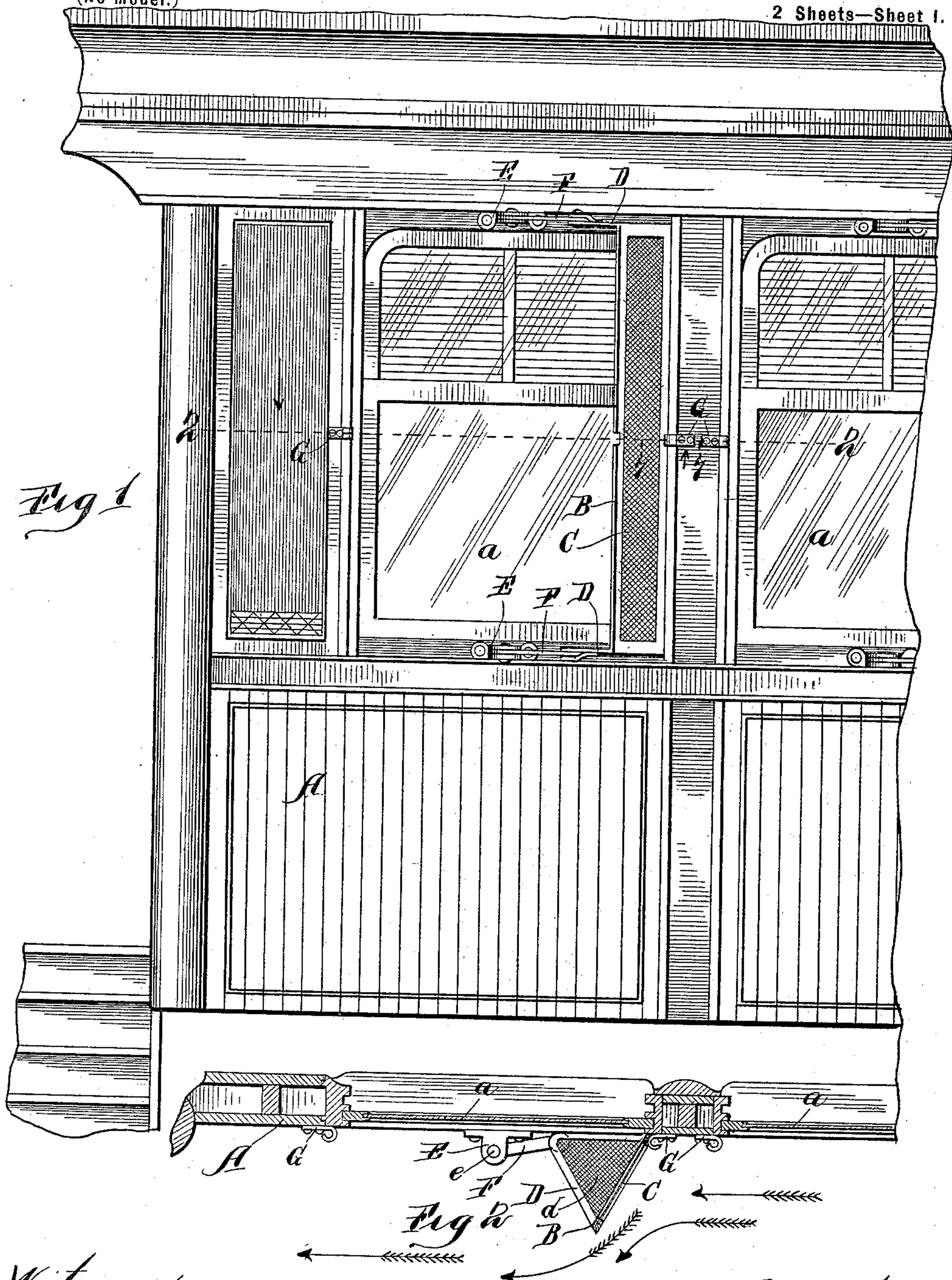
Patented Sept. 13, 1898.

M. C. NEWMAN & L. Z. MARKS.  
WINDOW GUARD.

(Application filed Sept. 7, 1897.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
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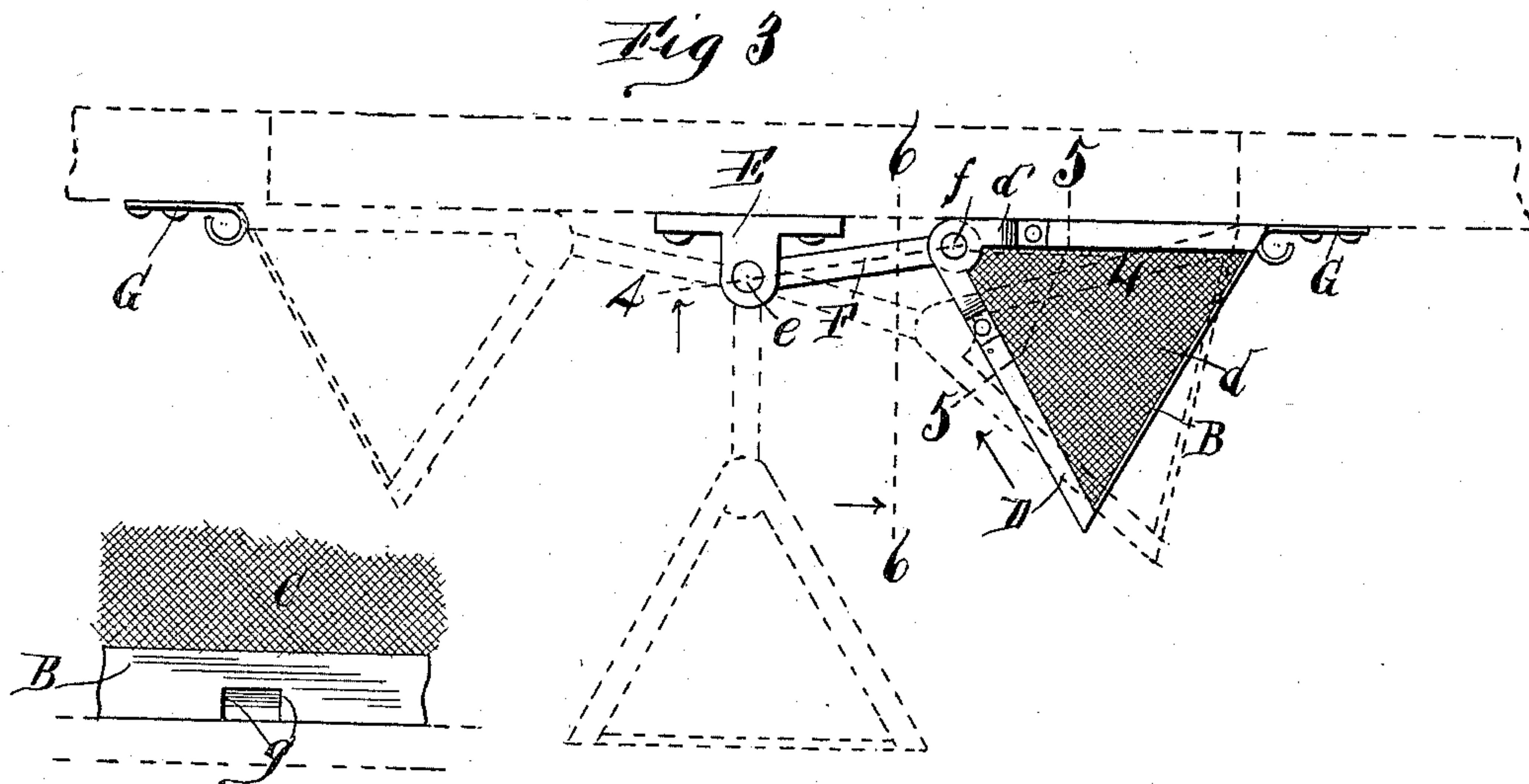
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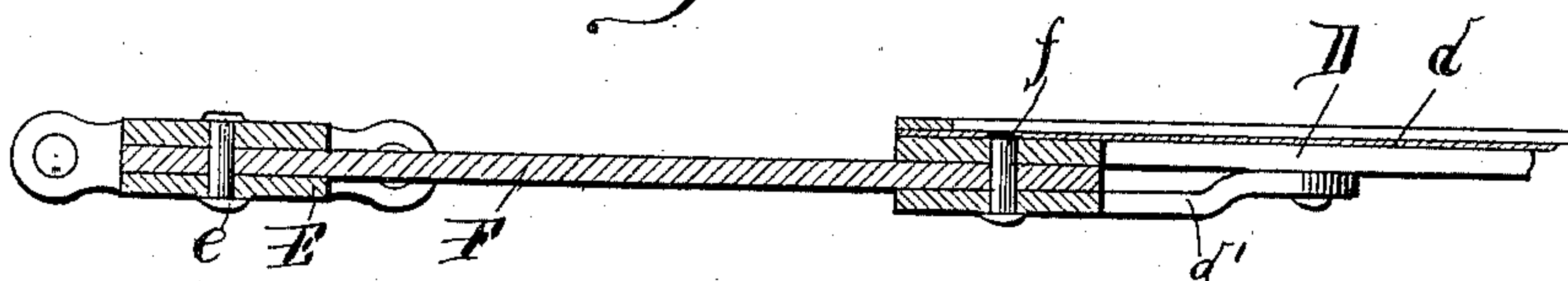
(No Model.)

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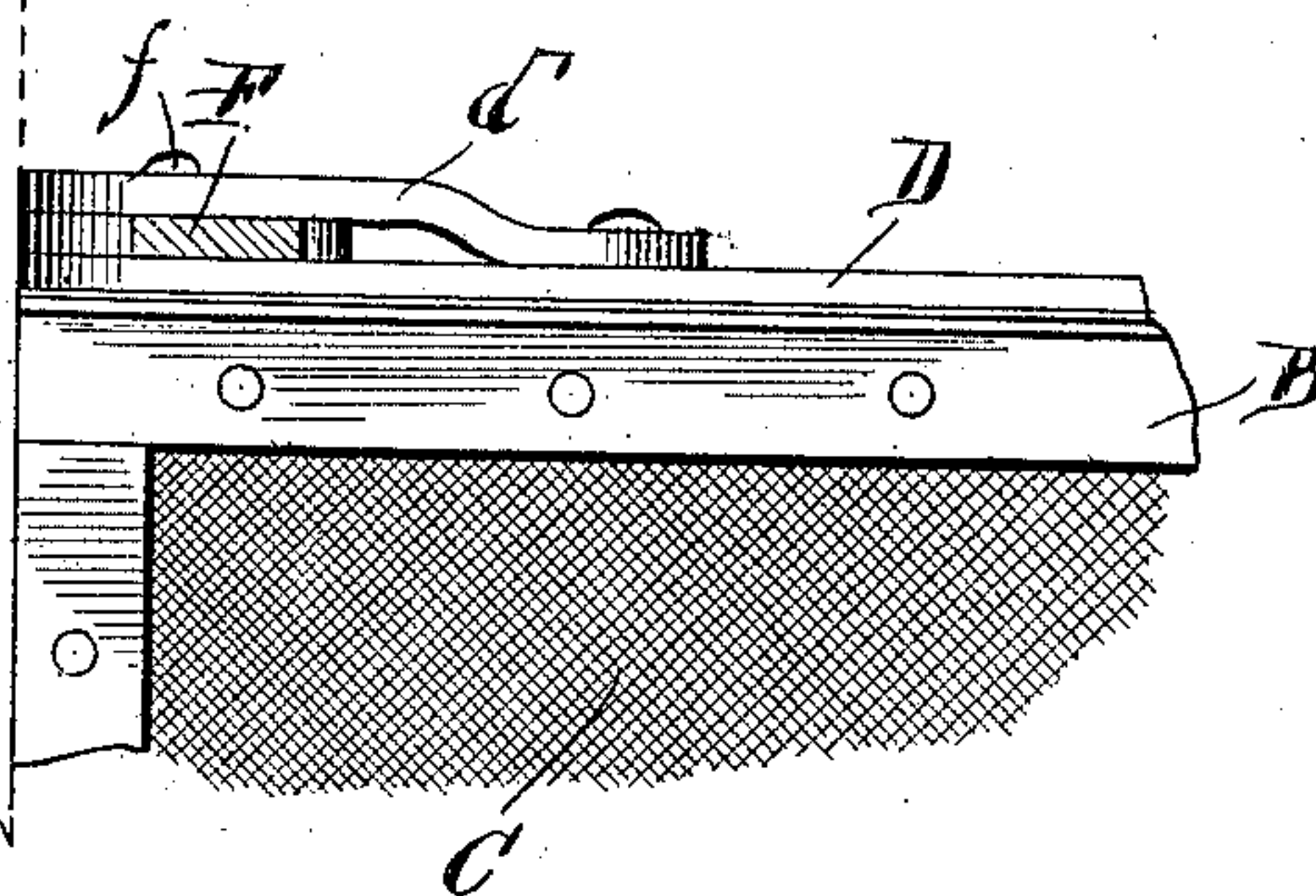


*Fig 8*

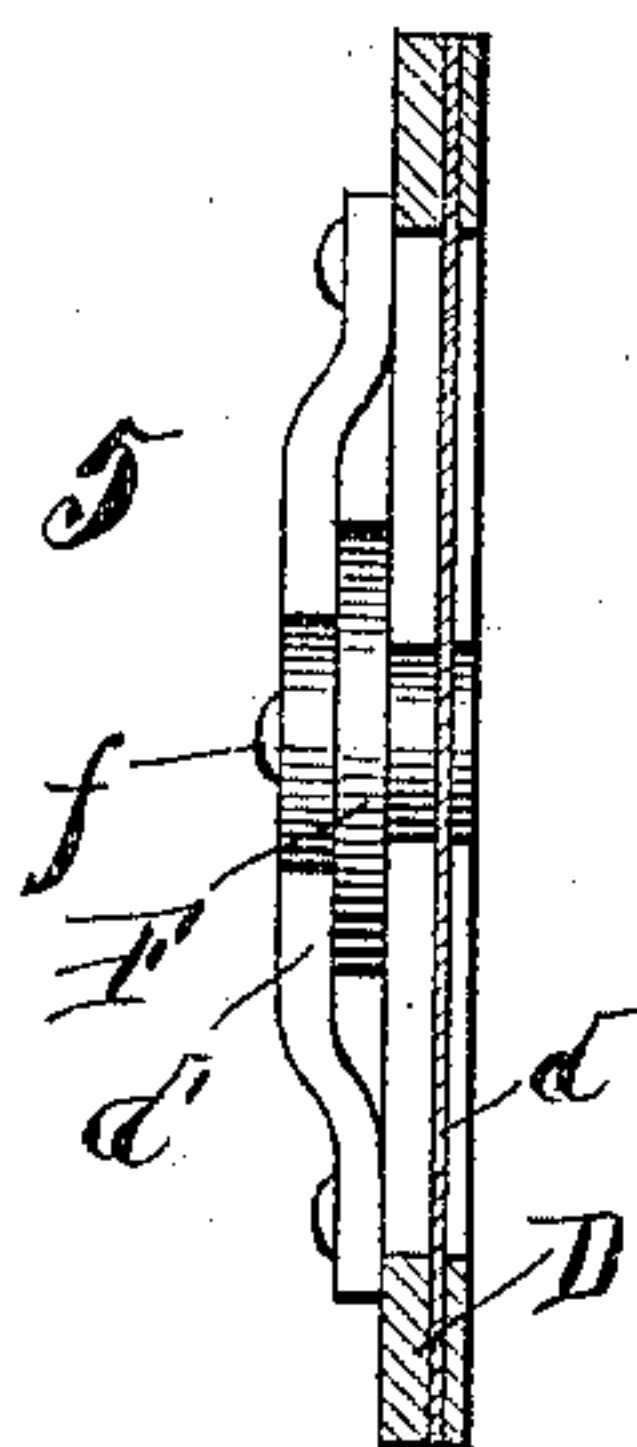
*Fig 4*



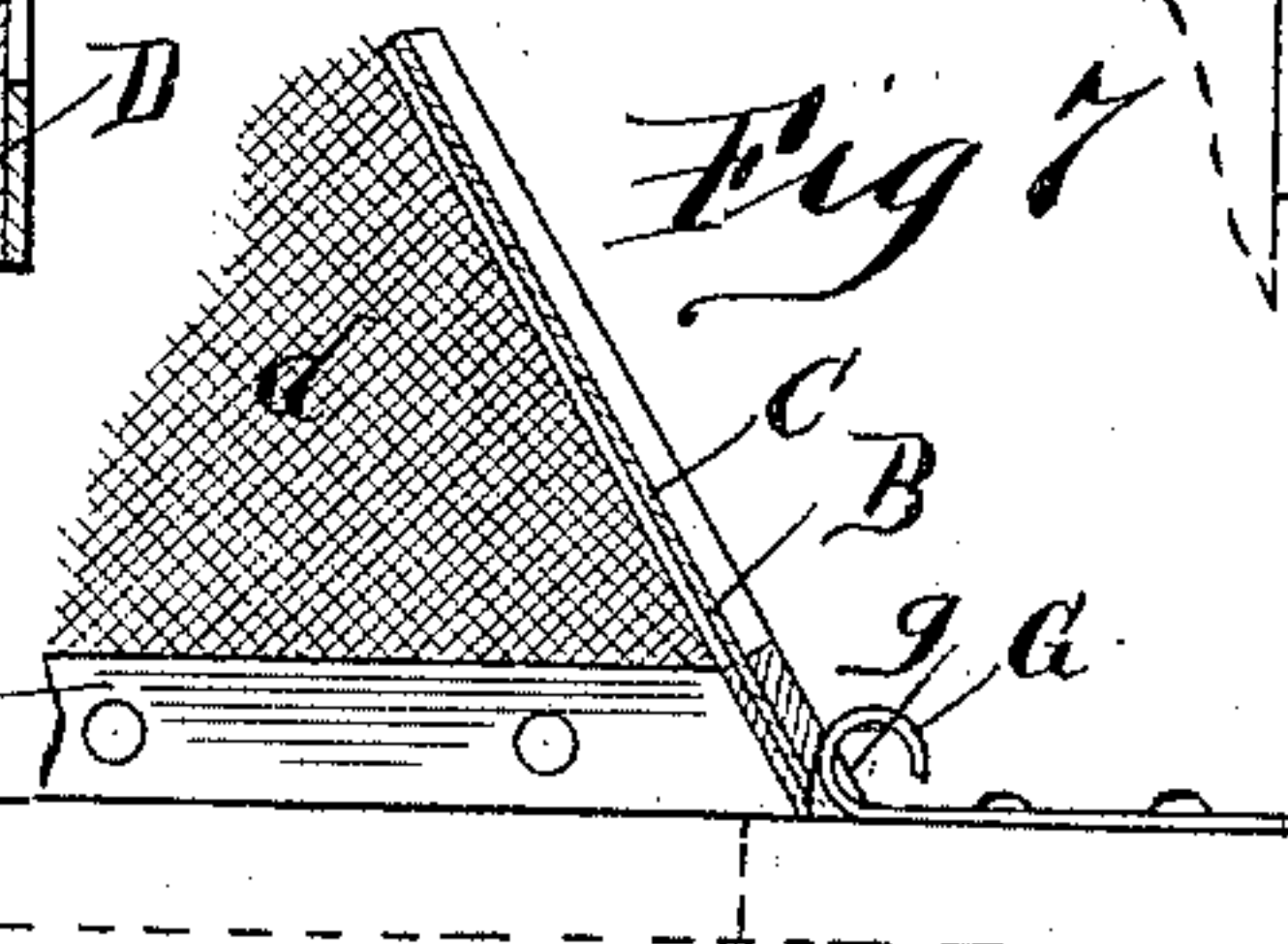
*Fig 6*



*Fig 5*



*Fig 7*



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# UNITED STATES PATENT OFFICE.

MORRIS C. NEWMAN AND LOUIS Z. MARKS, OF CHICAGO, ILLINOIS,  
ASSIGNORS OF ONE-THIRD TO CHARLES MAY, OF SAME PLACE.

## WINDOW-GUARD.

SPECIFICATION forming part of Letters Patent No. 610,822, dated September 13, 1898.

Application filed September 7, 1897. Serial No. 650,744. (No model.)

*To all whom it may concern:*

Be it known that we, MORRIS C. NEWMAN and LOUIS Z. MARKS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Window-Guards; and we do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to guards for car-windows for the purpose of deflecting cinders and dust.

Its object is to provide a permanent guard for each window so mounted that it may be shifted from one side of the window to the other and will be oblique to the side of the car.

The invention consists of a plate or screen oblong rectangular in form and having lateral triangular end pieces or arms, to which link-bars are pivotally attached, these link-bars being pivoted to attaching-brackets adapted to be secured to the top and bottom of a car-window, catches or detents being provided for securing the guard in its adjusted position.

In the drawings, Figure 1 is a side elevation of a portion of a car. Fig. 2 is a detail section on the line 2 2 of Fig. 1. Fig. 3 is a diagrammatic view showing movements of the car. Figs. 4, 5, and 6 are sectional details taken on the lines 4 4, 5 5, and 6 6, respectively, of Fig. 3. Fig. 7 is a sectional detail on the line 7 7 of Fig. 1, and Fig. 8 is detail elevation of a portion of the frame of the plate or screen.

The car-body is marked in the drawings A, and two windows *a a* are shown. The deflecting-plate may be either a solid panel or a screen carried by a suitable frame. We prefer the latter construction for the reason that it does not obstruct either the view or the air, while as effectually deflecting the dust and cinders. The frame of a deflecting-plate is shown at B and is oblong rectangular in form, its length being as great as the height of the window and its width being such that it

will not project beyond the side of the car to an objectionable distance. This frame is preferably of metal and carries a panel C of woven-wire fabric sufficiently fine to sift out and deflect fine particles of dust and small cinders, but allowing the air to pass through it with a suitable degree of freedom. The plate is provided with laterally-projecting end pieces or arms, each being in the form of an isosceles triangle the base of which is adjacent to the plate. Each of the end pieces comprises a frame D, carrying a piece of woven-wire fabric *d*.

A pair of brackets E are provided, which are adapted to be attached the one to the top and the other to the bottom of the window-frame, these brackets providing support for a pair of link-bars F F, secured thereto by pivot-pins *e*, so as to swing in a horizontal plane. The outer end of these link-bars are secured by pivot-pins *f* to the apexes of the end pieces of the window-guard. The combined length of each of the link-bars F and either side of the end pieces of the deflector is as great as one-half the width of the window, so that the deflector may be swung to either side of the window, and the outer end of the arms F being forced inwardly against the window-frame the side of the end piece of the deflector is also brought snugly against the window-frame, so that dust is prevented from falling over the top of the deflector, and, furthermore, the body of the deflector is brought to an oblique position with reference to the side of the car, being inclined backwardly, so that dust and smoke will be deflected outwardly away from the car, as indicated by the arrows in Fig. 2. The deflector may be held in place by any suitable catch or locking device. We have shown a simple spring-catch G and prefer to form in the edge of the frame B a recess, as more plainly shown in Fig. 8, for the reception of this catch, thereby providing shoulders *g*, which prevent vertical vibration of the deflector and throw upon the catch G a portion of the duty of supporting the deflector, thereby relieving the joints at *e f* of a portion of the strain which would otherwise fall upon them. The joints forming the attachment of the link-bars F to the bracket and to the end pieces or arms of the deflector



are made with extended double bearings for the purpose of securing strength and rigidity. The bearings at the outer ends of the link-bars consist in part of the frame D and in part of a plate *d'*, secured to this frame.

By placing the catch or detent G nearer to the center of movement than the combined length of the link-bars F and the end pieces D, as shown, it will be seen that in order to bring the deflecting-plates into engagement with it the link-bars must be first thrown inwardly to the body of the car. In other words, the link-bars F and the end pieces D together constitute jointed arms of greater length when straight than the distance from the pivot-points *e* to the catch G, and in order to bring the deflecting-plate into engagement with the catch these jointed arms must be flexed. This of course implies the more secure locking of the deflector in position, as the link-bars cannot swing upon the pivots *e* until the plate is first disengaged from the catch, as such movement would tend to straighten the jointed arms and thus increase their length. The size and inclination of the deflector may be varied at pleasure. The inclination is controlled by the length of the end pieces of the deflector. It will be readily seen that by making these end pieces shorter than is shown and correspondingly lengthening the link-bars F the body portion of the deflector will be inclined backwardly to a greater degree than shown in the drawings.

An additional advantage arising from the use of perforated material for the deflector is found in the fact that by permitting air to pass somewhat freely through it an eddy is prevented, which in the case of solid deflectors is apt to draw into the window some of the dust.

We claim as our invention—

1. In a window-guard the combination with a deflecting-plate having at each end a laterally-projecting U-shaped arm, of two link-bars pivoted one to the apex of each arm, a pair of brackets for attachment to a car-body or the like and to which the link-bars are pivotally attached, and a catch for attachment to a car-body or the like for securing the deflecting-plate.

2. In a window-guard the combination with a deflecting-plate having at each end a laterally-projecting arm, of two link-bars pivoted one to the free end of each arm, a pair of brackets for attachment to a car-body or the like and to which the link-bars are pivotally attached, and a catch for attachment to a car-body or the like for securing the deflecting-plate.

In testimony whereof we affix our signatures in presence of two witnesses.

MORRIS C. NEWMAN.  
LOUIS Z. MARKS.

Witnesses:

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CHARLES MAY.