

(No Model.)

W. L. ROBINSON.
SAFETY DEVICE FOR CARS.

No. 312,167.

Patented Feb. 10. 1885.

FIG. 1.

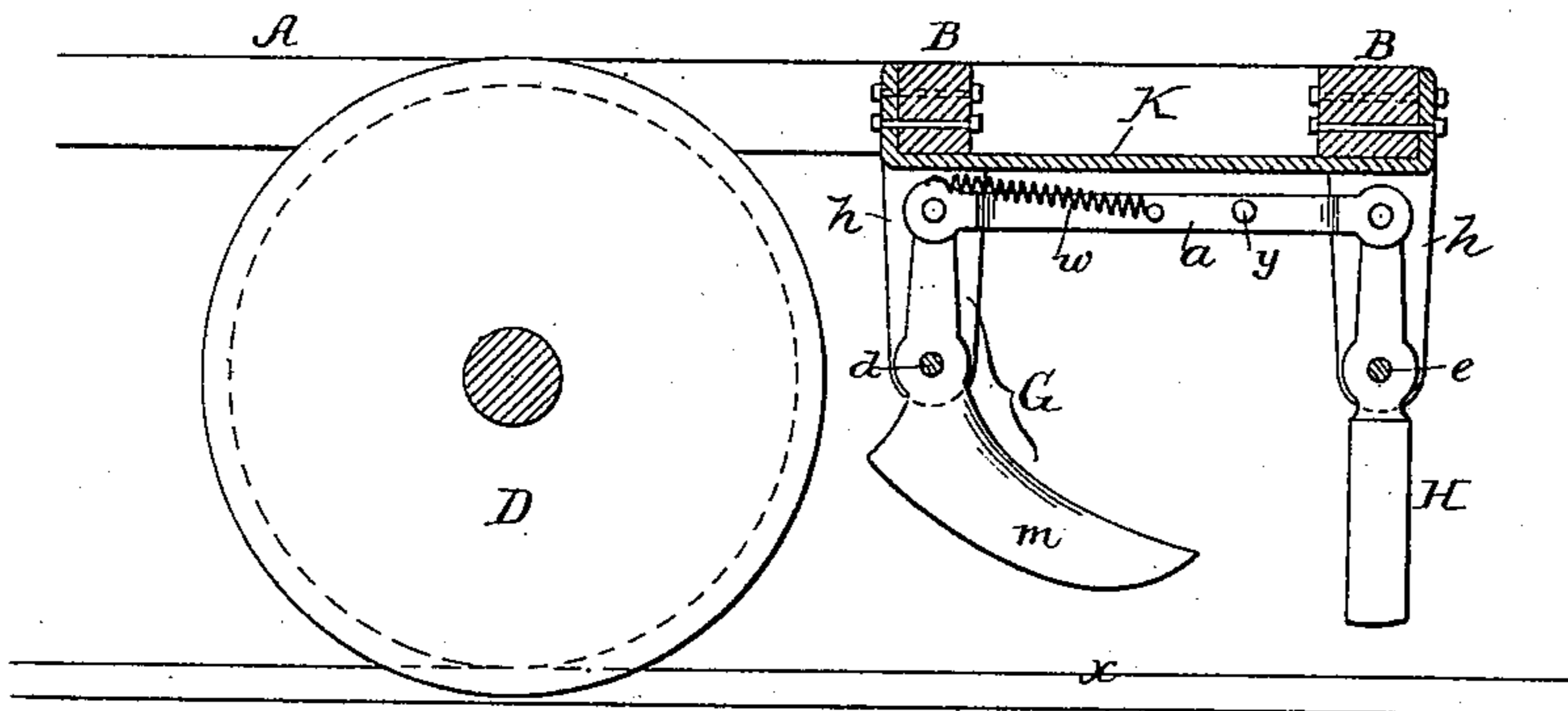


FIG. 2.

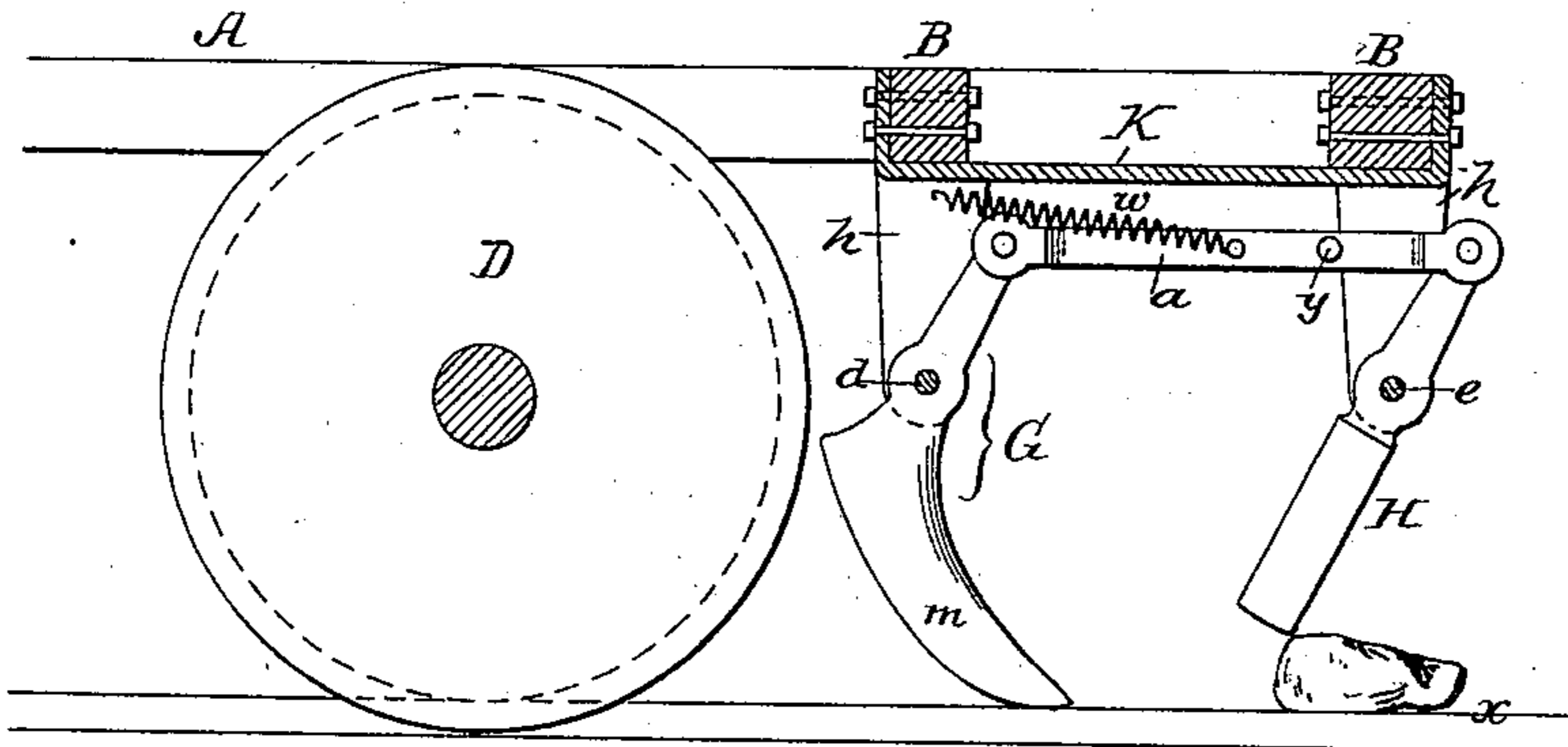


FIG. 3.

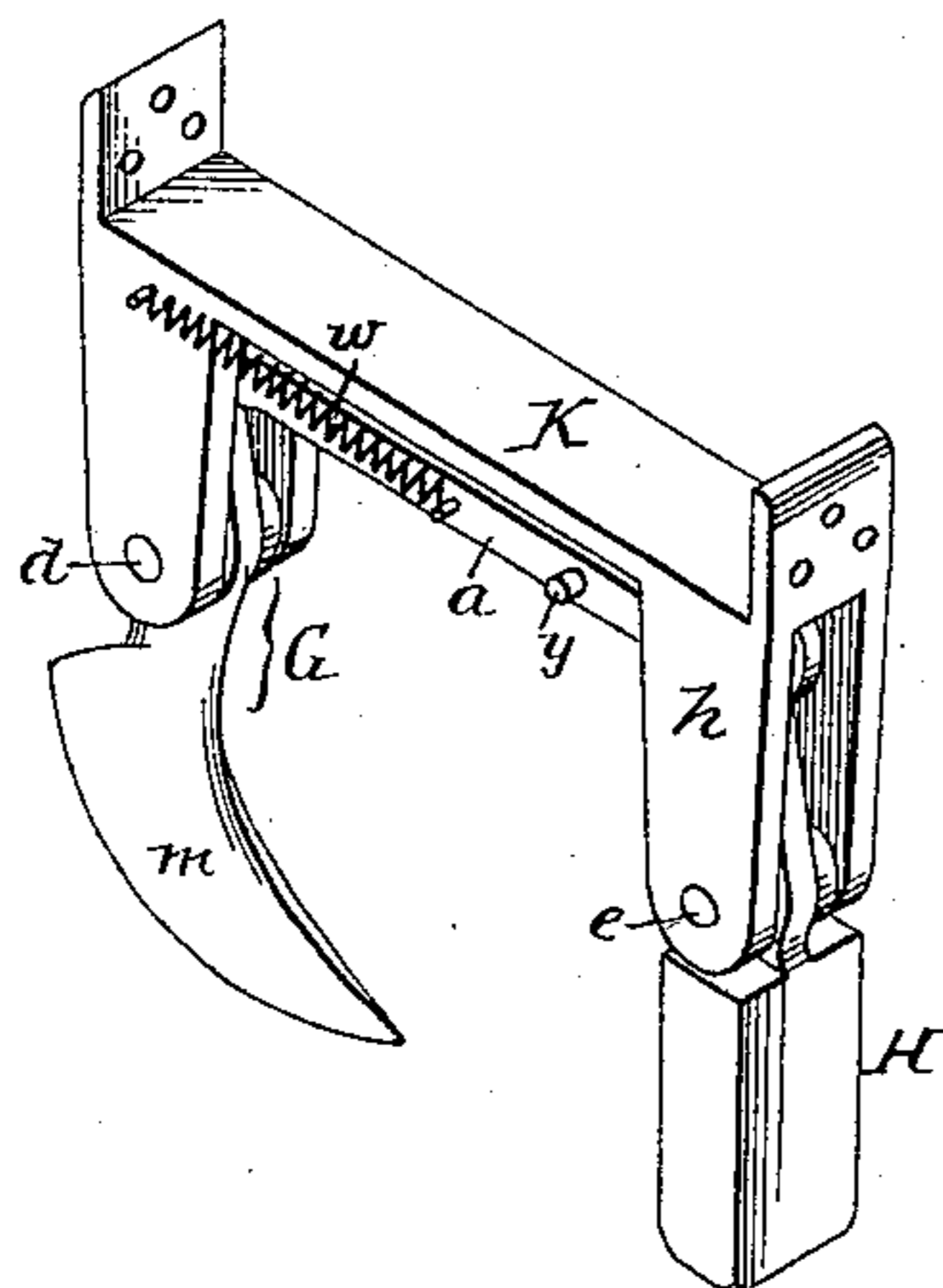
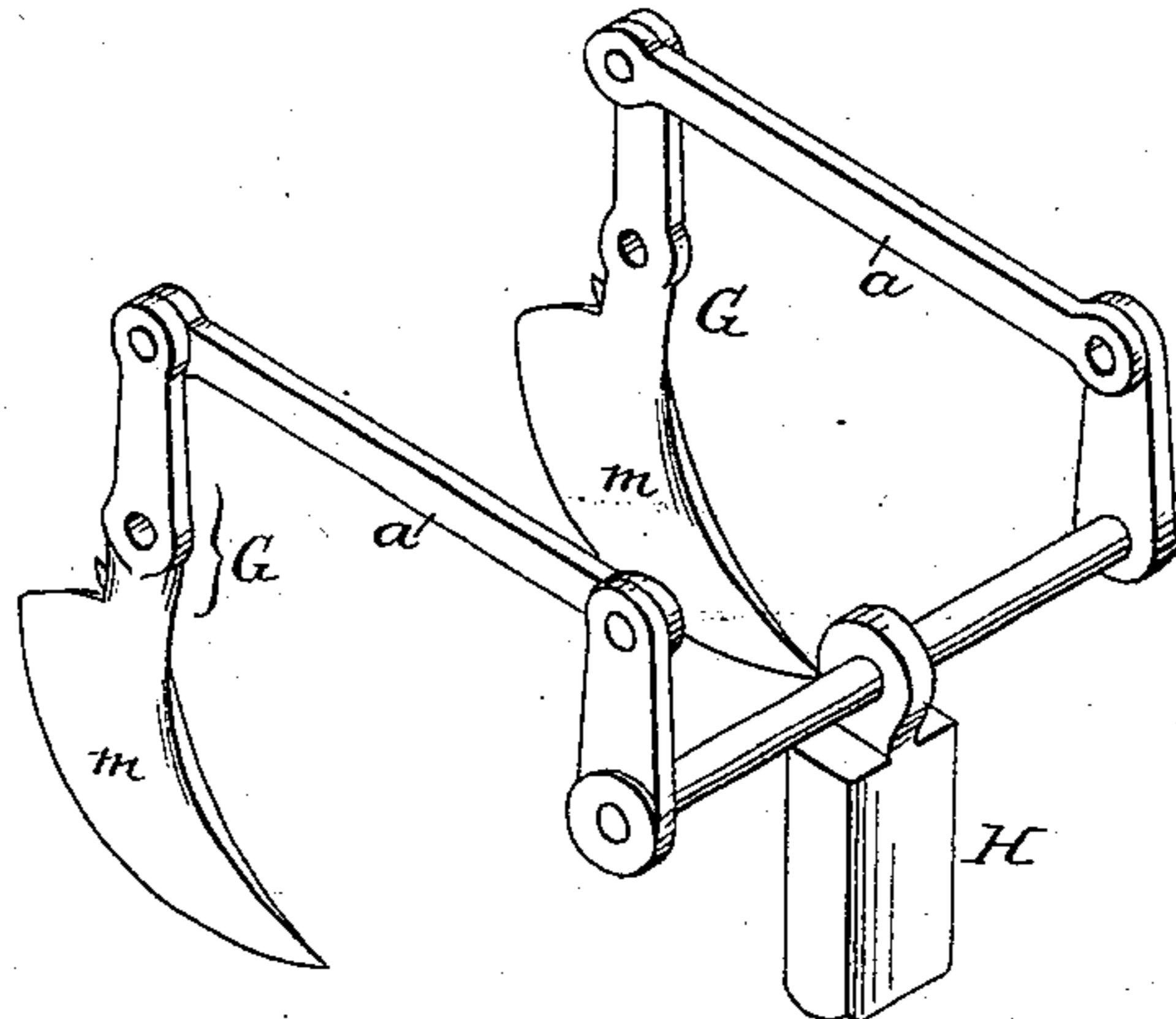


FIG. 4.



Witnesses:-
Alexander Barkoff
James J. Johns

Inventor
William L. Robinson,
by his Attys.
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UNITED STATES PATENT OFFICE.

WILLIAM L. ROBINSON, OF PHILADELPHIA, PENNSYLVANIA.

SAFETY DEVICE FOR CARS.

SPECIFICATION forming part of Letters Patent No. 312,167, dated February 10, 1885.

Application filed May 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. ROBINSON, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Safety Devices for Cars, of which the following is a specification.

My invention consists of certain safety mechanism constructed and combined with a street-car, substantially as described and claimed
10 hereinafter, the object being to prevent the limbs of children or passengers who may fall on the track from remaining within range of the wheels.

In the accompanying drawings, Figures 1
15 and 2 are vertical sections of part of a street-car, showing my improved safety device; Fig. 3, a perspective view of the device detached from the car, and Fig. 4 a perspective view illustrating a modification.

20 A is one of the two longitudinal beams of the car-frame; B B, transverse beams, and D one of the front wheels of the car.

To any suitable attachment on the car-frame, and in front of each wheel D, are hung two
25 levers—namely, the lever G, pivoted at *d*, and the lever H, pivoted at *e*, the upper arms of the two levers being connected together by the rod *a*. When there is no obstruction on the rail *x* of the track, the two levers are in the
30 relative position shown in Fig. 1, and are retained in that position by the weighted lower arm of the lever H, or by a spring, *w*, connecting the rod *a*, or the upper arm of either of the levers, to the car-frame, or to any attach-
35 ment thereto. When the lower arm of the lever H, however, comes in contact with an obstruction on the rail *x* of the track, the levers will be moved to the position shown in Fig. 2, and the lower arm of the lever G will be
40 very nearly in contact with the rail *x*, absolute contact therewith being prevented by any suitable stop. A pin, *y*, for instance, on the rod *a*, may, by coming into contact with the attachment on the frame, serve to limit the movement

of the lever G. The lower arm, *m*, of the lever G, which is directly in front of the wheel D, is preferably made of the shape shown in Fig. 3, so as to form an efficient safety-guard for laterally deflecting from the wheel any obstruction with which the guard may come in contact.

It will be seen on reference to Fig. 1 that the lower arm of the lever H is a short distance above the rail *x* of the track, for it is not intended that the device shall remove from the rail any small obstructions, such as the wheel will readily dispose of, but to prevent the limbs of children or passengers who may fall on the track from remaining within range of the wheels. In the present instance the levers G and H are pivoted to hangers *h h* on a plate, K, which is secured to the beams B B of the car-frame.

It will be understood that safety mechanism as above described is placed in front of each front wheel of the car, or both before and behind the wheels when the car has to run in both directions.

A device similar to that described may be used in place of the ordinary cow-catcher on a locomotive, and in this case a single lever, H, centrally located, may be connected to two levers, G, one in front of each wheel, as shown in Fig. 4, for instance.

I claim as my invention—

The combination of a car frame and wheel, D, with the two connected levers G and H, pivoted to any suitable attachment on the frame, the lower arm, *m*, of the lever G serving as a shield or guard in front of the said wheel, all substantially as set forth.

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

WILLIAM L. ROBINSON.

Witnesses:

HARRY SMITH,
HENRY HOWSON, Jr.