

No. 768,134.

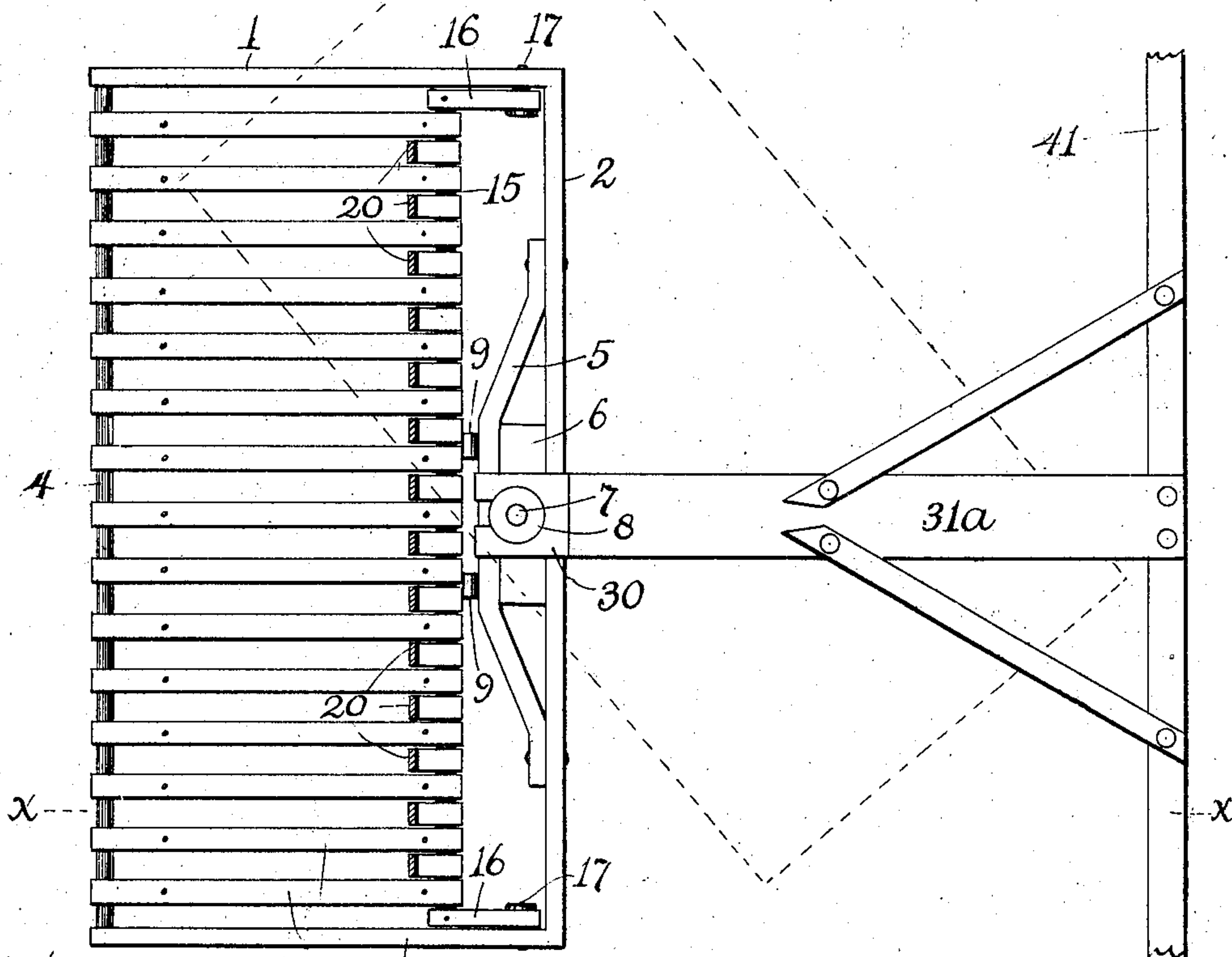
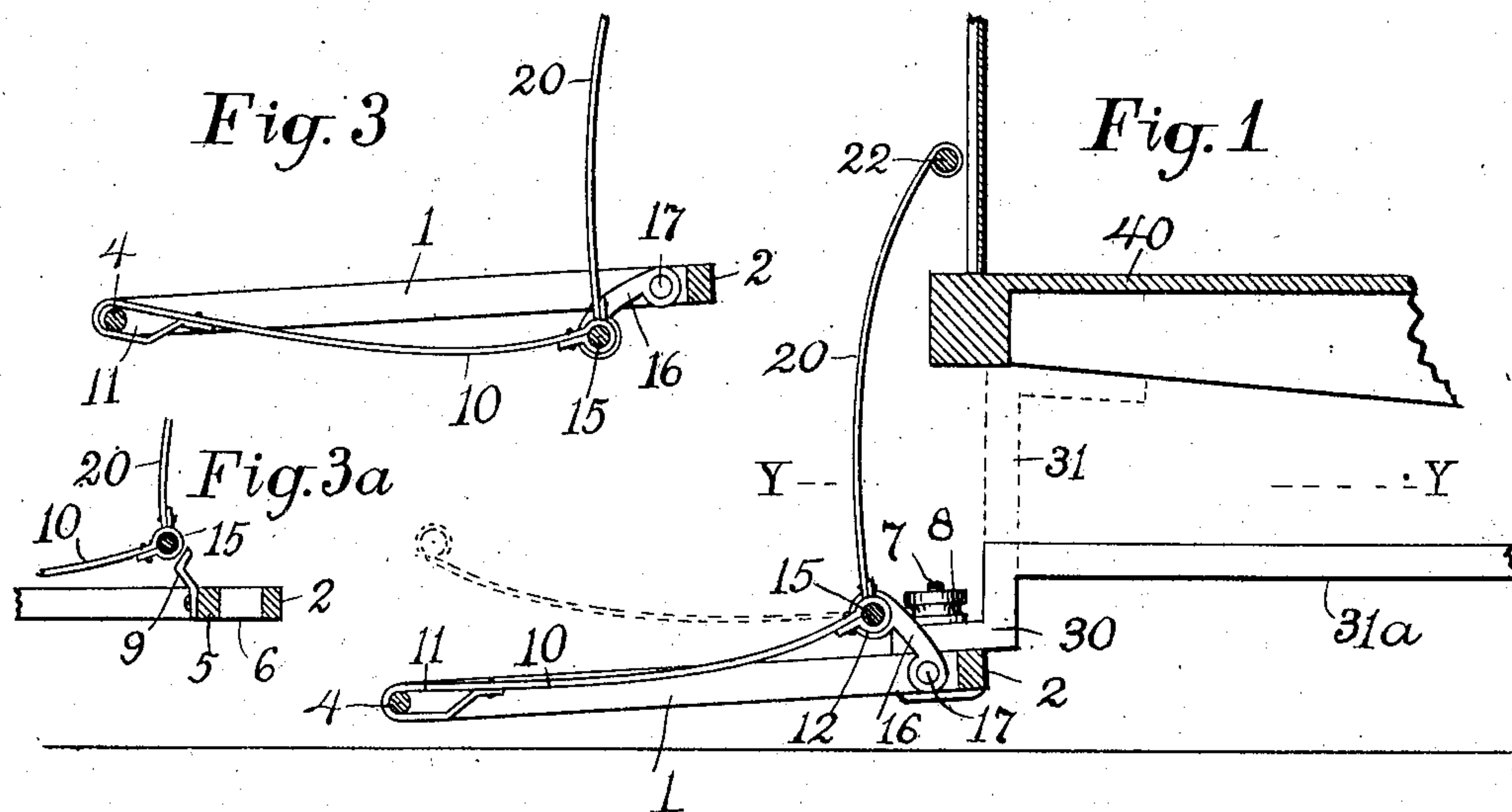
PATENTED AUG. 23, 1904.

L. M. MAXHAM.
CAR FENDER.

APPLICATION FILED DEC. 12, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses;

Edward C. Bates
Mary L. Holt.

Fig. 2

Inventor,

Lowell M. Maxham;

By *A. B. Bligham*
His Attorney.

No. 768,134.

PATENTED AUG. 23, 1904.

L. M. MAXHAM.
CAR FENDER.

APPLICATION FILED DEC. 12, 1903.

2 SHEETS—SHEET 2.

NO MODEL.

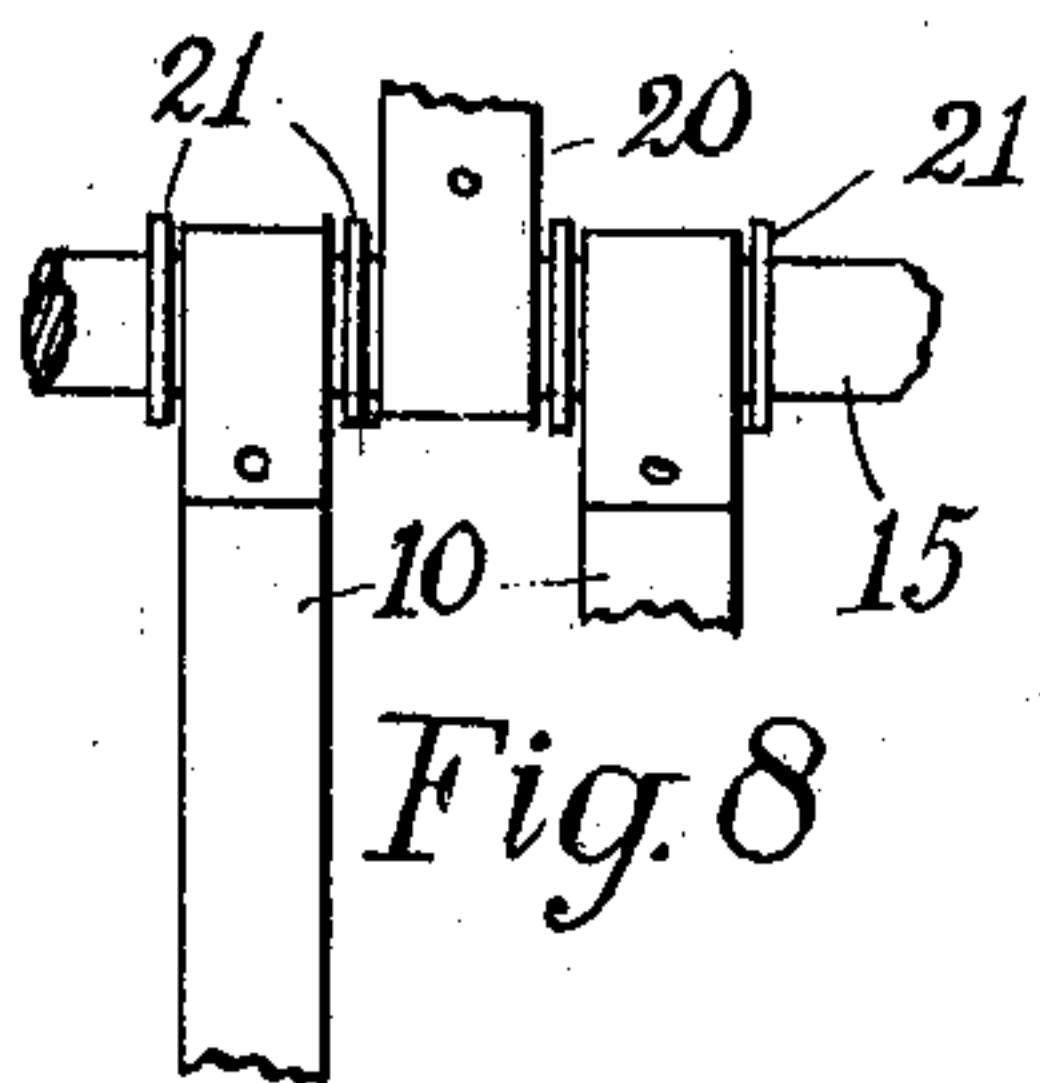


Fig. 8

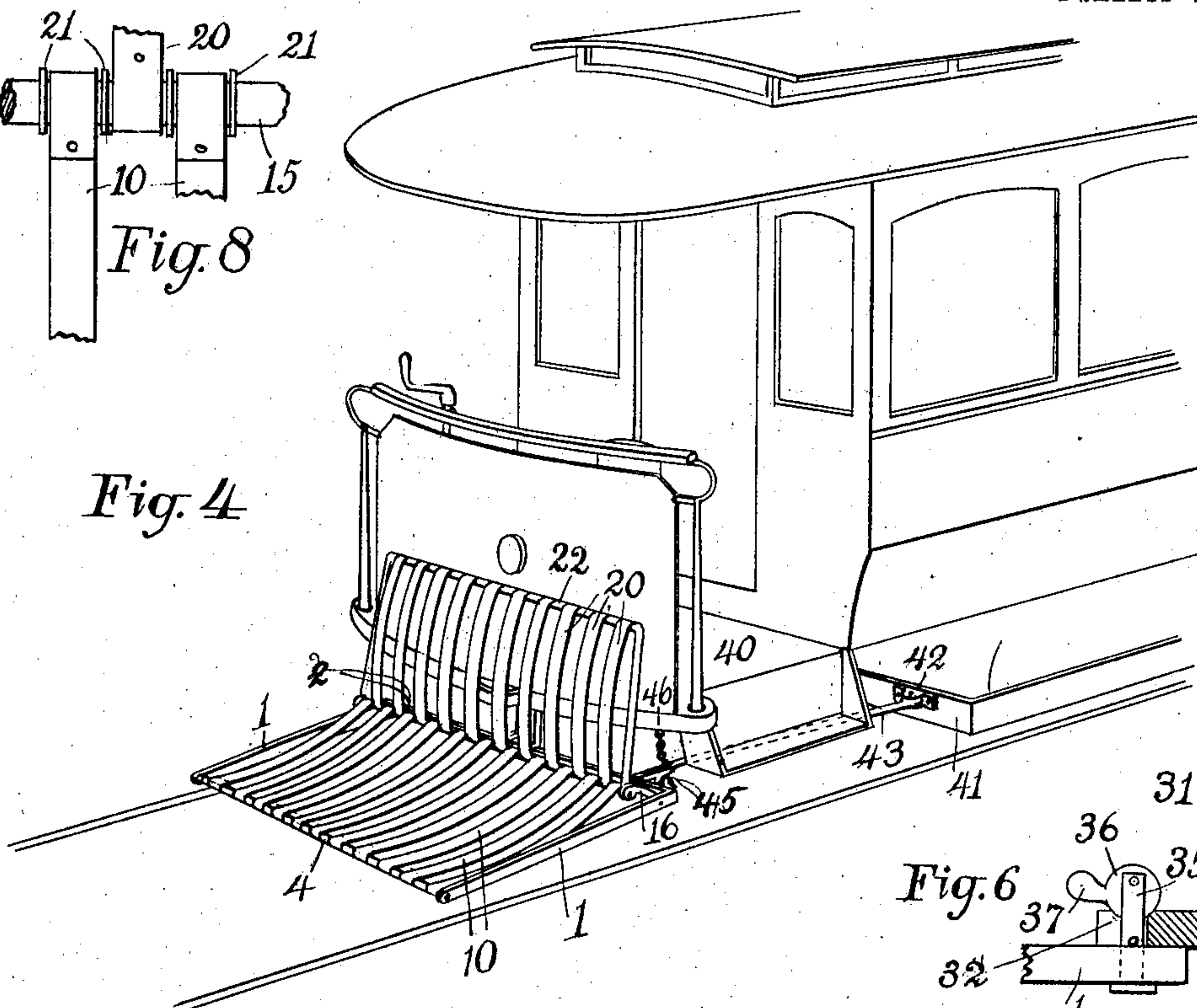


Fig. 4

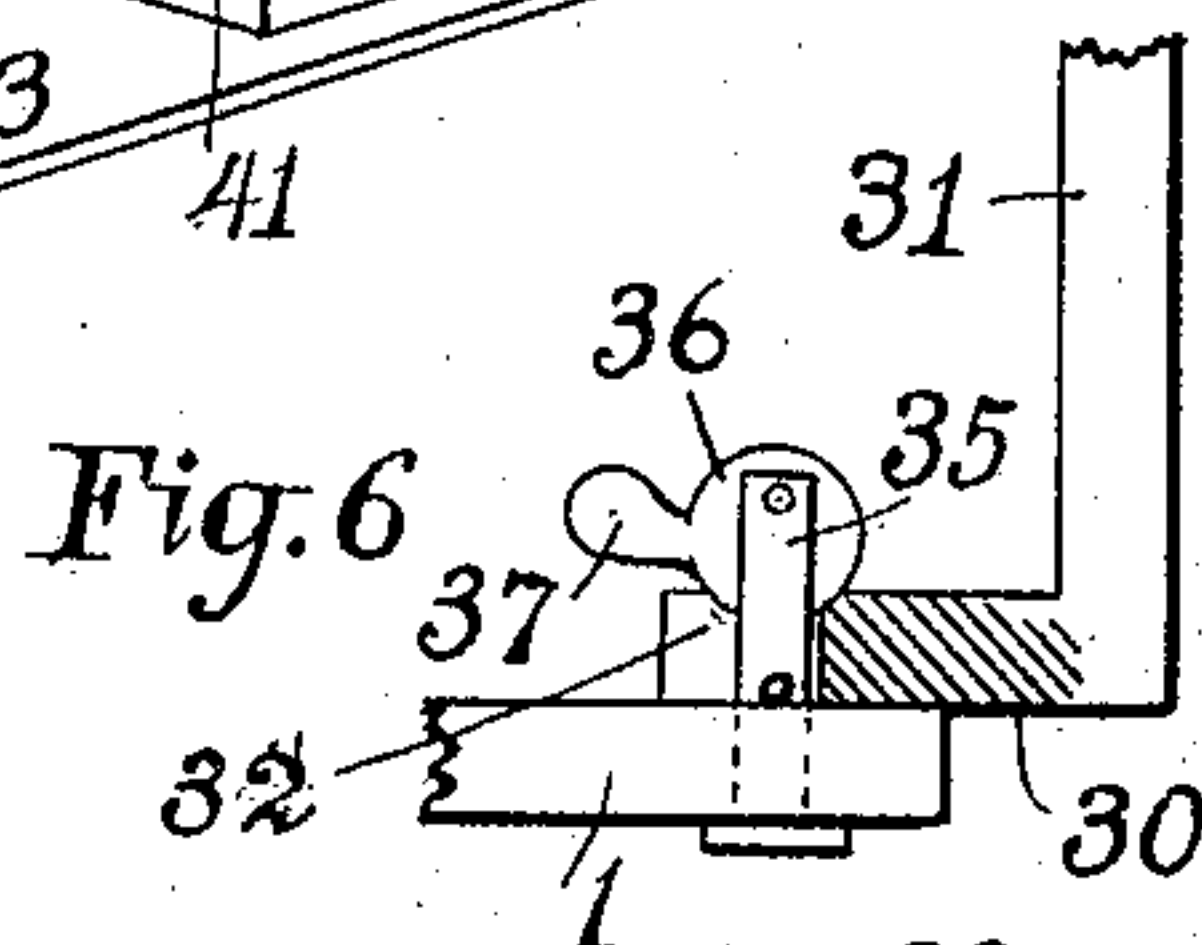


Fig. 6

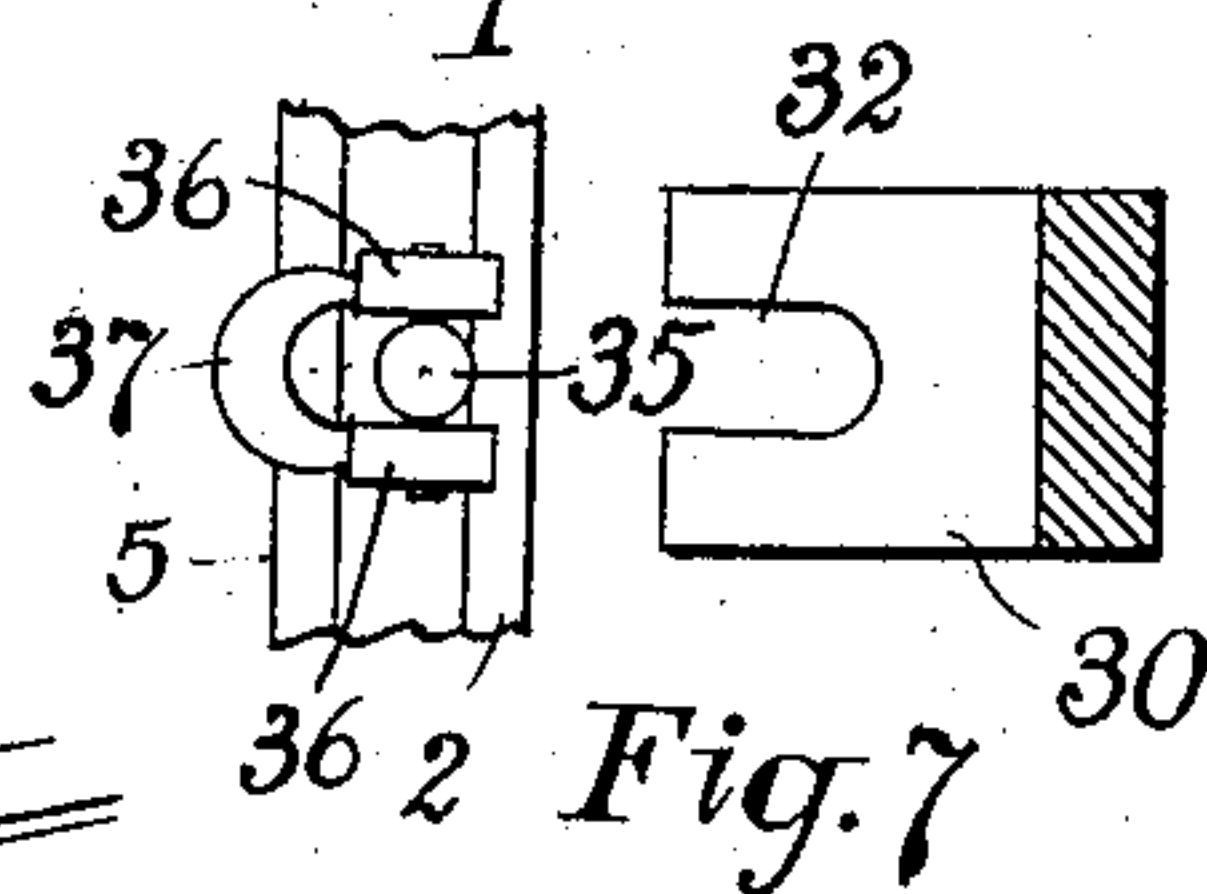
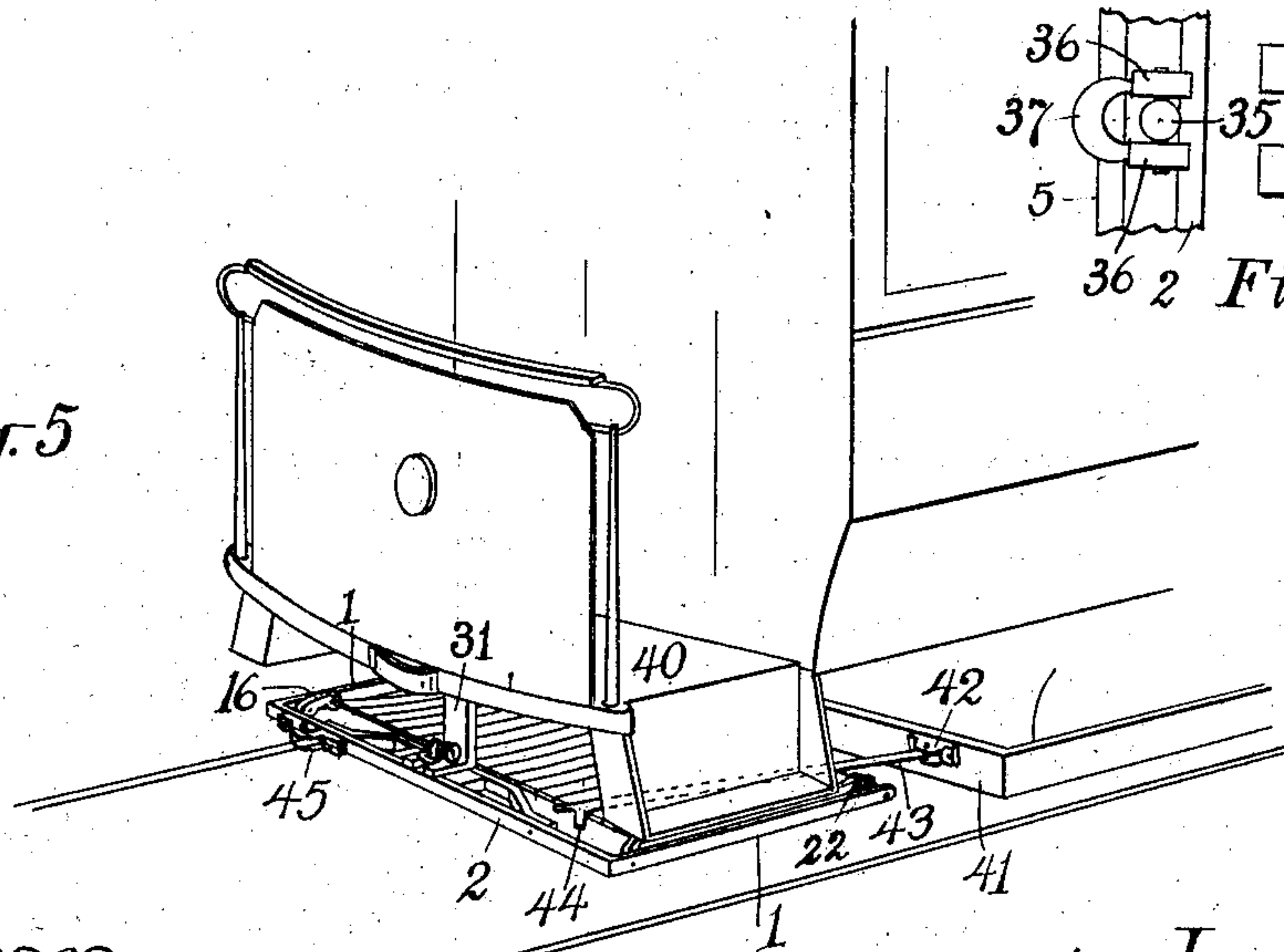


Fig. 7

Fig. 5



Witnesses;

Edward C. Bates
Mary L. Holt.

Inventor,

Lowell M. Maxham;

By

A. B. Maxham,
His Attorney.

UNITED STATES PATENT OFFICE.

LOWELL M. MAXHAM, OF BOSTON, MASSACHUSETTS.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 768,134, dated August 23, 1904.

Application filed December 12, 1903. Serial No. 184,997. (No model.)

To all whom it may concern:

Be it known that I, LOWELL M. MAXHAM, a citizen of the United States, and a resident of Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Car-Fenders, of which the following is a full, clear, and exact description.

Referring to the drawings forming part of this specification, Figure 1 is a sectional side elevation of my fender on the line X X in Fig. 2, showing one form of device for connecting it with the car. Fig. 2 is a sectional plan view of the same on the line Y Y in Fig. 1. Fig. 3 is a sectional side view of the fender, showing the receiving-bed in its depressed position. Fig. 3^a is a detail view showing the device for holding said bed in its normally elevated position. Fig. 4 is a perspective view of my fender, showing it attached to a car with my preferred means of connection. Fig. 5 is a similar perspective view, but showing the fender housed. Fig. 6 is a detail sectional view of the locking device by which the fender is locked to its supporting-bracket. Fig. 7 is a plan detail view of the parts shown in Fig. 6, and Fig. 8 is a detail view of a part of the fender.

The supporting-bracket 30, by which the fender is connected to the car, may be made as a part of a forwardly-projecting bar 31^a, held by the car-truck, as illustrated in Figs. 1 and 2, or it may be made the lower end of an arm 31, depending from the under side of the car-platform 40, as indicated in dotted lines in Fig. 1 and also shown by Fig. 5. While the former arrangement has certain advantages, the latter is my preferable construction.

The receiving-bed of my fender consists of the slats 10, terminally supported by the transverse rods 4 and 15. Said rod 4 comprises, with the bar 1 2 1, the main frame of the fender, as shown most clearly in Fig. 2. The rod 15 is terminally held by the links 16, pivoted at 17 to the frame-bar 1 2 1. Normally the slats 10 are held in the position shown in Figs. 1, 3^a, and 4, said links being upwardly inclined; but when any heavy weight falls thereon, such as a child or grown person, the

links and slats descend to the other position illustrated, thereby lessening the shock to the person falling upon the receiving-bed and also preventing any rebound that might tend to throw them off therefrom. To more gradually absorb the impact on the slats the rod 15 is fixed in the links 16, and the said slats grip said rod friction-tight, as at 12, Fig. 1. I also provide a seat or two, 9, (shown in Figs. 3^a and 2,) by which the rod 15 is held up until its slats have received the impact of a sufficient weight to overcome such temporary support. It is immaterial whether these seats be resilient or rigid, inasmuch as the rod 15 will itself yield sufficiently to pass the said seats when a person falls into the cradle-slats 10 and to permit the latter to be manually raised to its normal position after such person has been removed. The forward ends of the slats 10 do not clasp the rod 4 snugly; but their loops 11 are elongated to permit the slats to yield to the movement given to them by the swing of the links 16. On the same rod 15 are clasped the lower ends of the slats 20, composing the cushion-buffer for protecting the car victims from injury against the bunter of the car. As shown in Figs. 2 and 4, the slats 20 come between the slats 10, and they are made to clasp said rod with an equal degree of friction-grip in order that they shall remain in their vertical position without other fastening means. The upper ends of the slats 20 are fixed upon the rod 22, whose ends are preferably bent downward into contact with the rod 15, as shown in Fig. 4.

The supporting-bracket 30 is slotted or notched for the reception of a bolt 7 or of a pin 35, Figs. 1 and 2 and 6 and 7, by which the rear edge of the fender is held and upon which bolt or pin the fender can be swung back beneath the car-platform for the purpose of housing it, while the open slot or notch is used instead of a simple bolt-hole to permit the fender to be bodily removed and transferred to the opposite end of the car should it be so desired.

In Figs. 1 and 2 a bolt 7 and nut 8 are employed; but as the constant shocks received by a car tend to loosen all nuts and bolts I prefer the device shown in Figs. 4 to 7, inclu-

sive. Here the pin 35 rises from the fender-frame through the open slot 32 of the bracket 30 and carries at its upper end a pair of cams 36, united by a common operating-handle 37.

5 The upper face of this bracket is recessed somewhat to form a seat for said cams and to thereby keep the fender from accidentally being withdrawn from its support, while said pin is preferably loose in the fender-frame to
10 permit the latter to be swung around in being housed.

To remove the fender, all that is necessary to be done is to raise the cam-handle 37 and then pull the fender forward and away, while
15 the application of the fender consists simply in engaging the pin with the slot and pressing it backward and then turning the cam-handle down.

To hold the fender in its normal position, I
20 provide the rod 43, pivoted at 42 to the truck, and having a finger 44 at its front end engaging a socket 45 on the fender-frame. By means of this not only is the fender held in position, but it is in addition made to turn
25 sidewise in parallel with the car-truck when passing about curves, and so kept more nearly over the track-rails. When it is wished to house the fender, this rod 43 is raised to disengage its finger from the socket 45, and then
30 the fender is swung around. To support said rod when the fender is bodily removed, I provide a supporting device, as a chain 46. (Shown in Fig. 4.) Before housing this fender the cushion-buffer 20 is first swung down upon
35 the receiving-bed 10, an action indicated by the dotted lines in Fig. 1. When down flat, the whole buffer and fender can be freely turned about and housed.

As shown in Fig. 8, I prefer to introduce a
40 washer between the adjacent slats 10 and 20, as 21, to prevent their interfering with each other.

To more strongly support the pin 35 or bolt
45 I strengthen the rear section 2 of the fender-frame by means of the bent bar 5, riveted or otherwise fixed thereto and carrying between said parts the block 6, from which said pin or bolt rises.

What I claim as my invention, and for which
50 I desire Letters Patent, is as follows, to wit:

1. In a car-fender, the combination with the rectangular frame suitably supported, of a series of slats attached at their front ends to the front rod of said frame, a rod holding the rear
55 ends of said slats, and a yielding support for the last-named rod; the yielding support being constructed with friction devices normally sustaining the rear ends of said slats in an elevated position but permitting the descent
60 thereof under the weight of a body falling thereon; thereby providing a non-rebounding cradle to receive such body, substantially as described.

2. The combination with a car, of a fender

supported at its rear edge by said car and constructed to be swung horizontally through a
65 semicircle to a housed position beneath the car-platform, substantially as described.

3. The combination with a car, of a fender comprising a horizontal cradle portion and a
70 vertically-swinging buffer-section, and a vertical pivot supported by the car and connected with the rear edge of the fender; whereby the buffer-section can be folded down flush with the cradle-section and the whole swung
75 around to a housed position beneath the car-platform, substantially as described.

4. The combination with a car, of a fender, a bracket rigidly connected with the car-platform and having a horizontal, forwardly-extended section pivoted to the rear edge of said
80 fender; the fender being below said section, the axis of the pivot being vertical, and the fender being constructed to be swung about through a semicircle and be thereby housed
85 beneath the car-platform, substantially as described.

5. The combination with a car, of a bracket rigidly connected with the car-platform and having a horizontal, forwardly-extended section longitudinally slotted, a fender, a pin rev-
90 olubly held by said fender and rising vertically through said slot, and means for locking said pin in said slot, substantially as described.

6. The combination with a car, of a bracket
95 rigidly connected therewith and having a forwardly-extended longitudinally-slotted section, a fender, a pin revolvably held by said fender and rising vertically through said slot, and a cam-lock carried by said pin, substan-
100 tially as described.

7. The combination with a car, of a bracket connected therewith, a fender, a vertical pin loosely held by said fender and having a head
105 supporting the fender, and means for locking the said pin in said bracket, substantially as described.

8. The combination with a car, and a horizontal fender, of a vertical pin projecting above the rear edge of said fender, and a sup-
110 porting device connected with the car for removably sustaining said pin, substantially as described.

9. The combination with a car, and a horizontal fender, of a vertical pin projecting from
115 the fender, and devices connected with the car for receiving said pin horizontally and permitting it to be removably locked therein, substantially as described.

10. The combination with a car, and a slot-
120 ted bracket connected with the car, of a fender having a pin loosely rising therefrom into said slot, and a pair of cams revolvably held by said pin, and an operating-handle for said
125 cams, substantially as described.

11. The combination with a car, of a fender secured at its rear edge thereto by a vertical pivot to permit of its swinging horizontally,

a swiveled car-truck, and connections between said truck and fender to maintain parallelism thereof, substantially as described.

12. The combination with a car, a swiveled truck therefor, a fender secured to the car by a vertical pivot, a rod pivoted to said truck at its rear end and having a vertical finger at its front end, and a socket formed in said fender for the reception of said finger, substantially as described.

13. In a fender, the combination with a frame, of a rod, links pivoted to said frame and terminally supporting said rod, and slats held at their front ends by said frame and at their rear ends by said rod, substantially as described.

14. In a fender, the combination with a frame, of a rod, links pivoted to said frame and terminally supporting said rod, and slats secured at their rear ends by said rod, and held at their front ends to the frame by a longitudinally-slidable connection, substantially as described.

15. In a fender, the combination with a frame, of a rod, links pivoted to said frame and terminally supporting said rod, slats composing a receiving-bed held at their front ends by said frame and at their rear ends by said rod, and slats composing a cushion-buffer secured at their lower ends to said rod, substantially as described.

16. The combination with a car, of a fender-frame supported thereby on a vertical pivot, a receiving-bed held by said frame, and a cushion-buffer pivotally rising from said frame, substantially as described.

17. In a fender, the combination with a frame, of two short links pivoted thereto, a rod terminally fixed to the free ends of said links, slats supported at their front ends by said frame, and at their rear ends clasping said rod friction-tight, slats similarly clasping said rod in alternation with the first-named slats and rising vertically therefrom, and a rod uniting the upper ends of the last-named slats, substantially as described.

18. In a fender, the combination with a frame, of a series of upwardly-concave par-

allel slats supported at suitable distances from one another and constituting the cradle-section; and another series of correspondingly curved and spaced slats pivoted at one end between the first-named slats to lie in substantially the same plane when swung downward, but when swung to a vertical position constituting a buffer cushion or protector, substantially as described.

19. A fender comprising a frame, a rod having its ends connected with said frame to permit of its oscillation about a line between the points of connection, a series of slats clasping said rod at one end and having their opposite ends formed into elongated loops, and a rod located within said loops and forming a part of said frame, substantially as described.

20. A fender comprising a frame consisting of side, rear and front sections, slats supported between the same, the bent bar fixed to the rear frame-section, the block fixed within said bent bar, the pin loosely held by said block and rising vertically therefrom, and a support engaging the upper part of said pin, substantially as described.

21. In a fender, the combination with the frame, of the links pivoted thereto, the rod terminally supported by said links, the slats clasping said rod, a part of the slats composing the receiving-bed and the others the cushion-buffer, and washers located on said rod, one between each two slats, substantially as described.

22. A fender comprising a frame, a cradle pivoted at its front edge to said frame, a rod at the rear edge of said cradle, and seats supporting the said rear edge in an elevated position, but constructed to release the same under the depressing effect of a sufficient weight in said cradle, substantially as described.

In testimony that I claim the foregoing invention I have hereunto set my hand this 8th day of December, 1903.

LOWELL M. MAXHAM.

Witnesses:

EDWARD C. BATES,
MARY L. HOLT.