

No. 771,329.

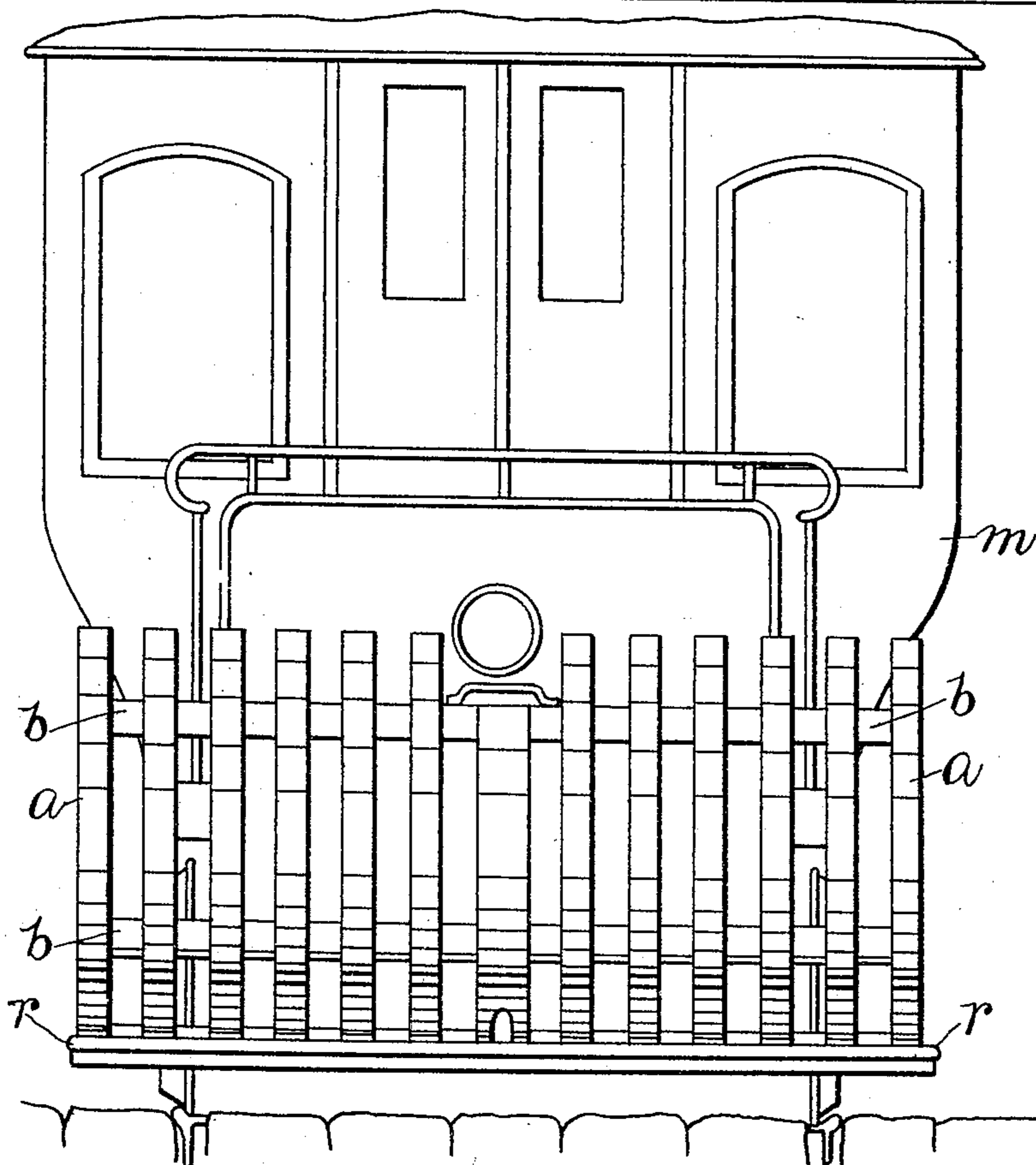
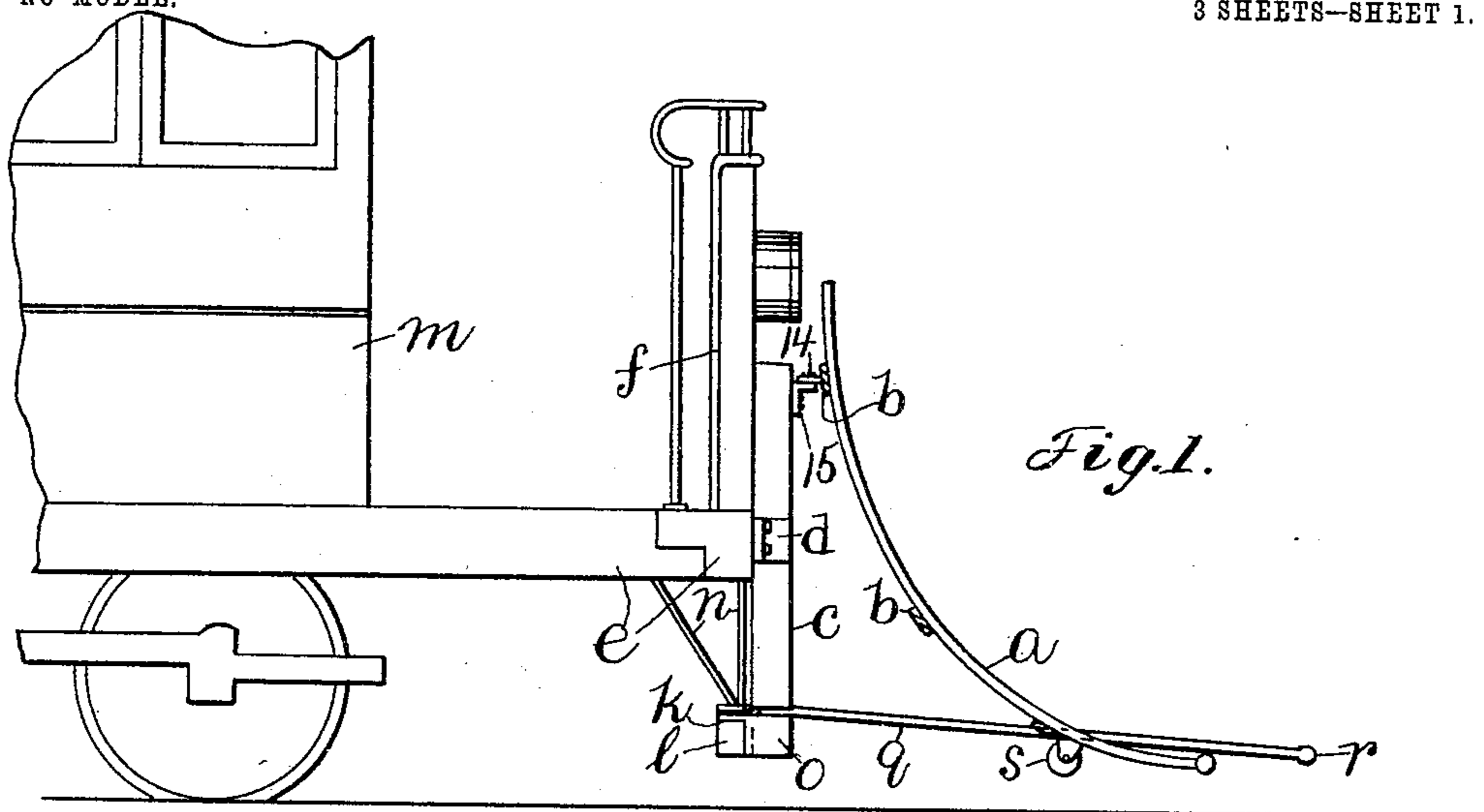
PATENTED OCT. 4, 1904.

F. H. SEAVEY.
FENDER OR GUARD.

APPLICATION FILED MAR. 7, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses.
C. H. Gannett
J. Murphy.

Fig. 2.

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by
Jas. H. Churchill
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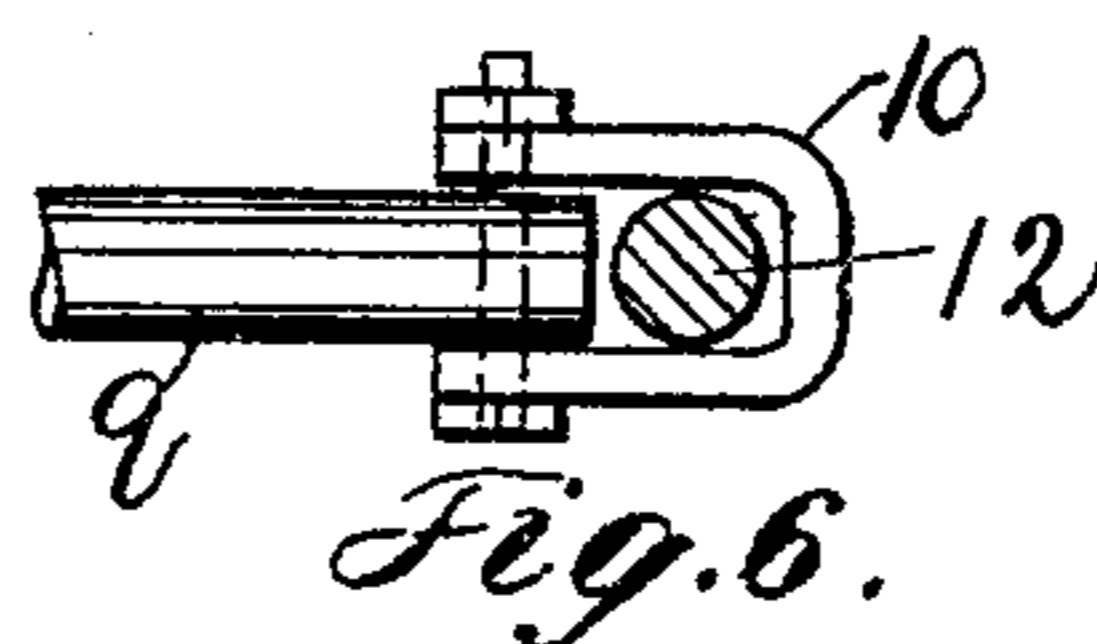
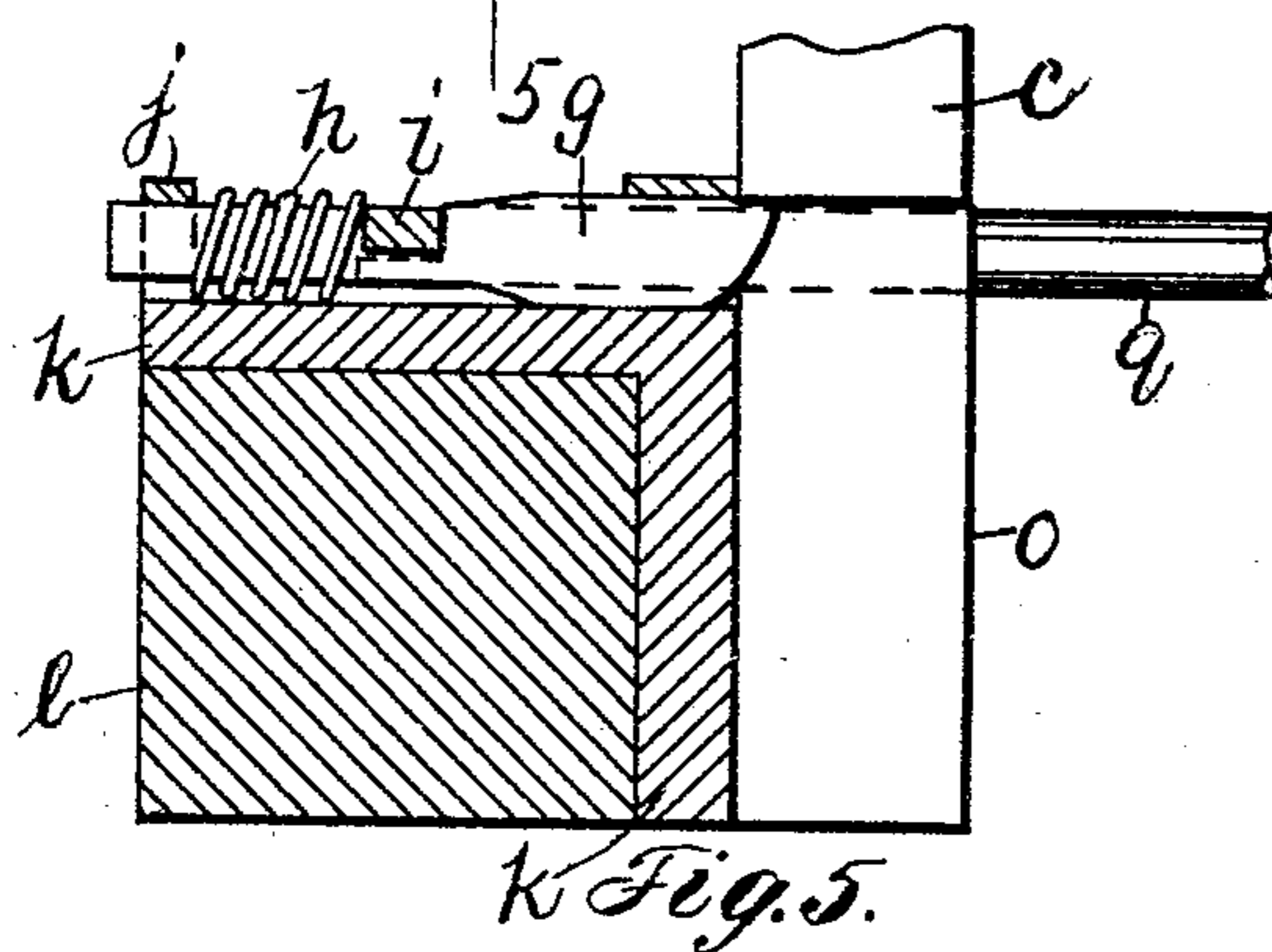
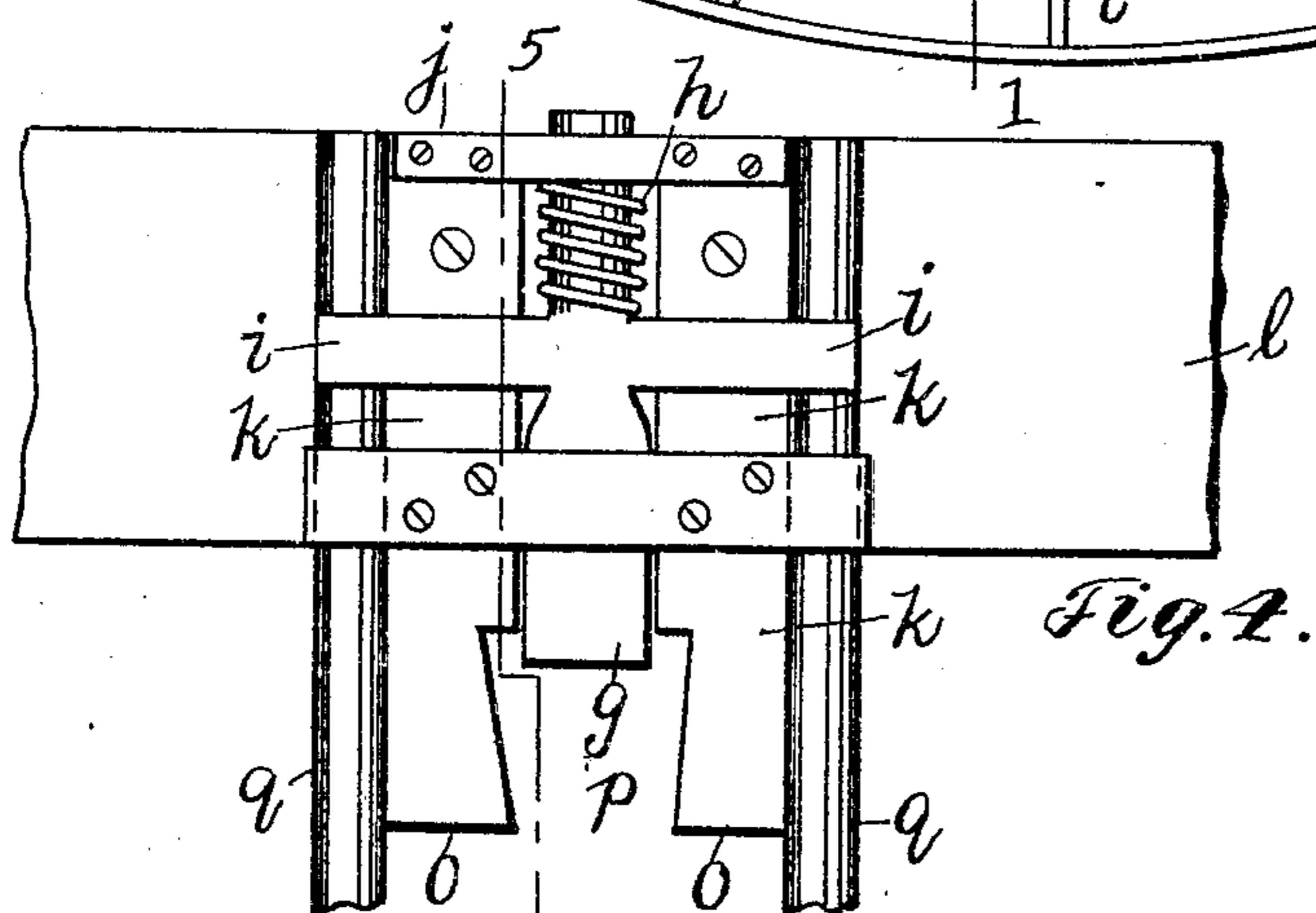
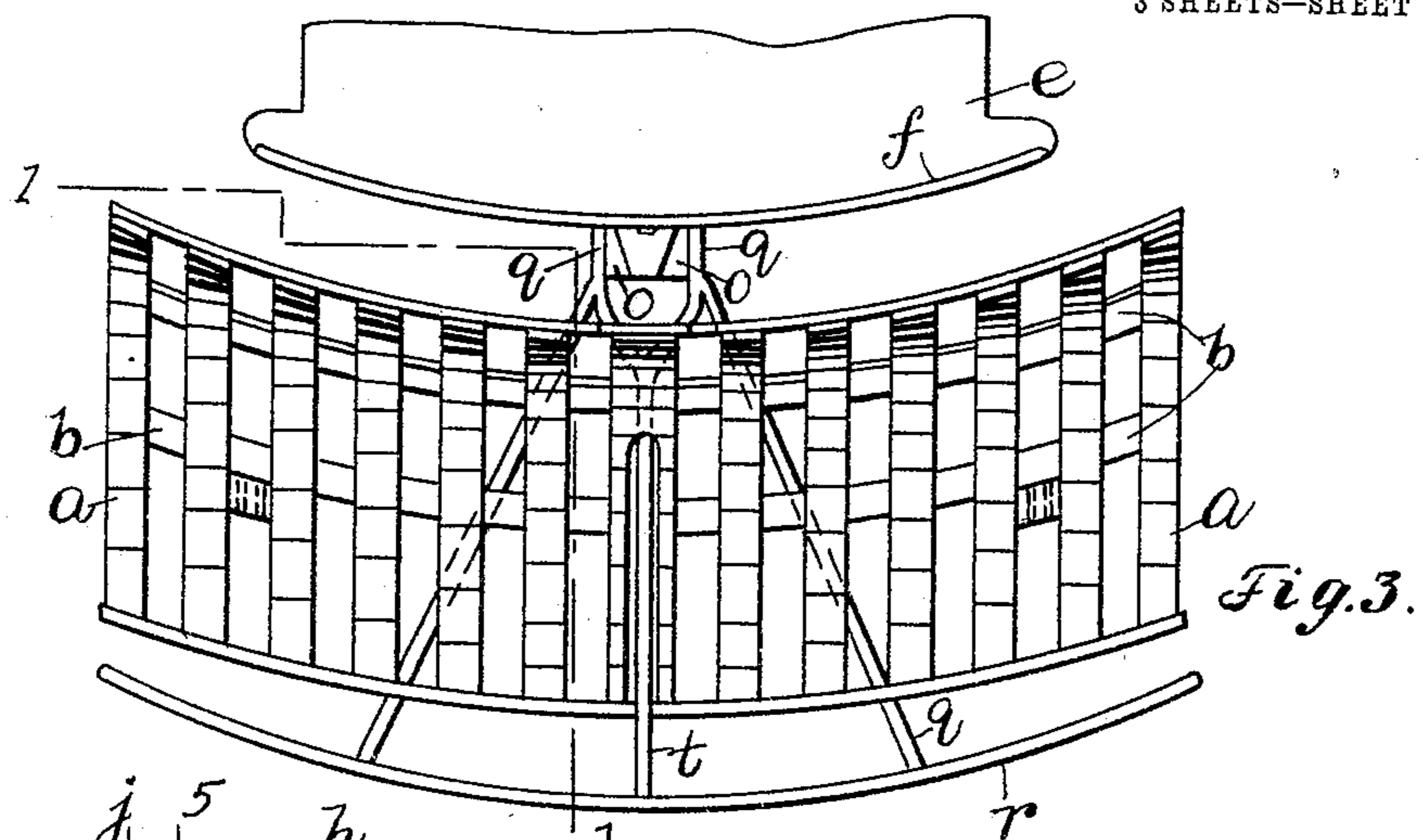
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F. H. SEAVEY.
FENDER OR GUARD.

APPLICATION FILED MAR. 7, 1903.

NO MODEL.

3 SHEETS—SHEET 2.



Witnesses.
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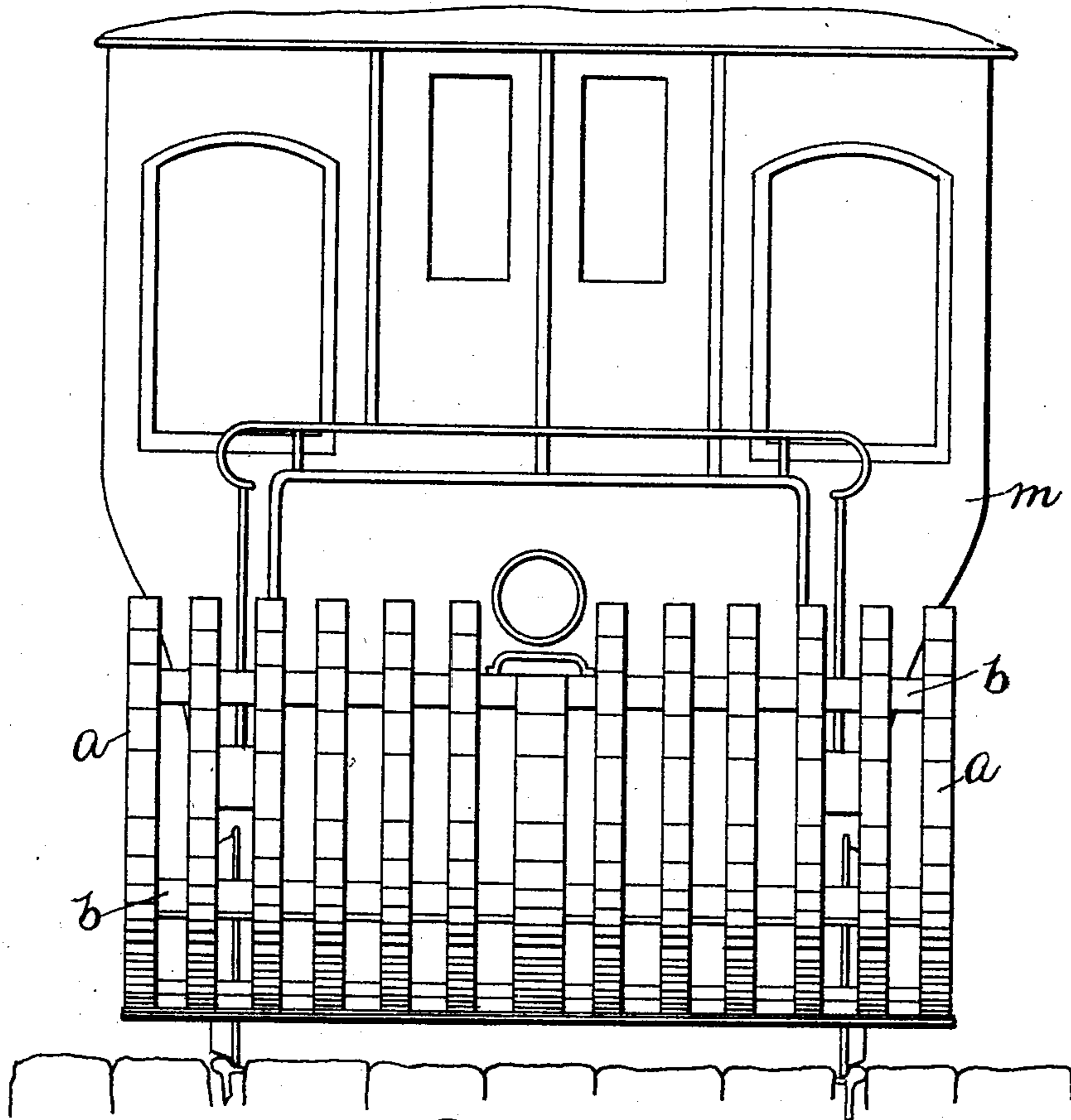
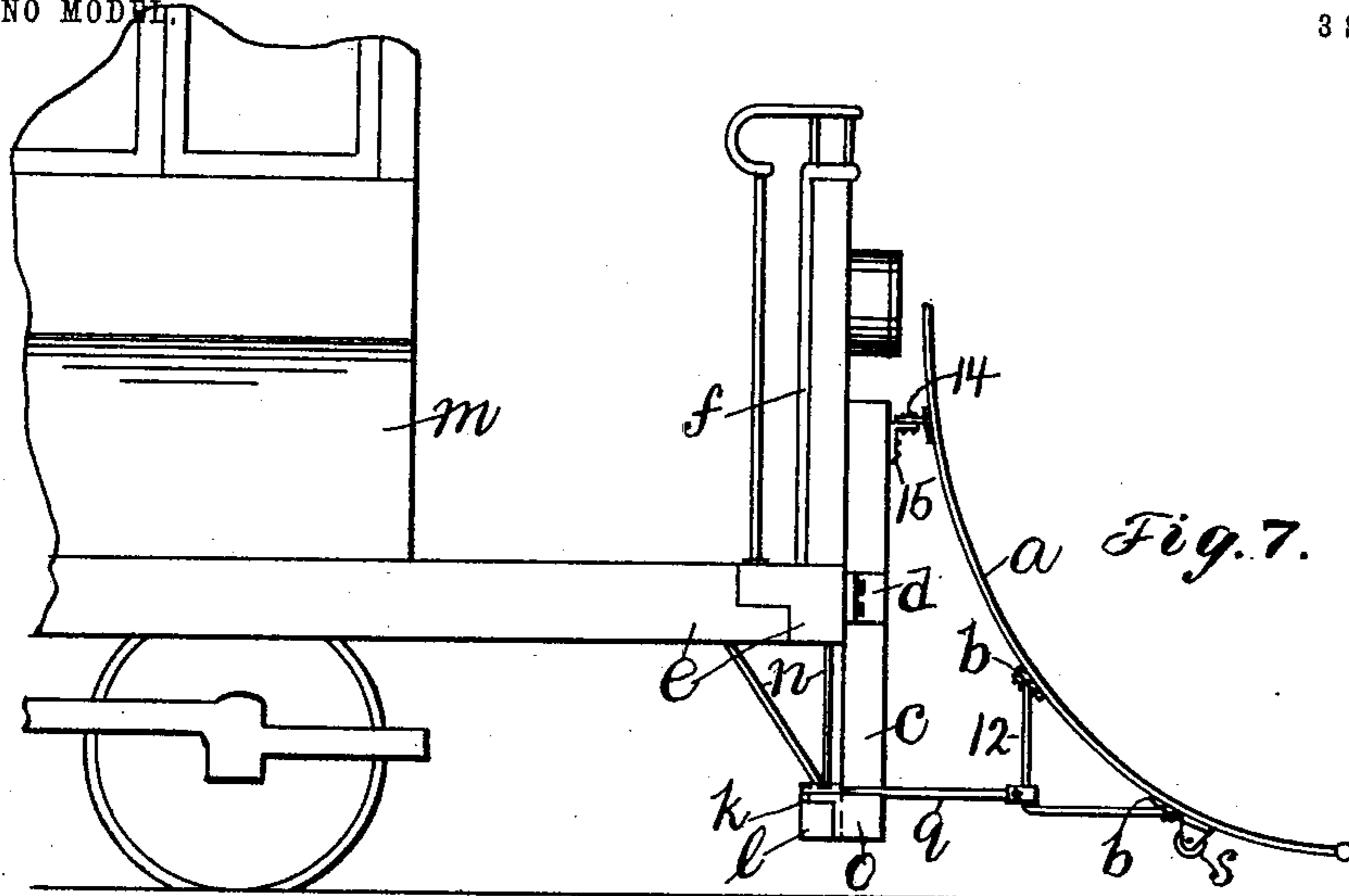
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NO MODEL.

3 SHEETS—SHEET 3.



Witnesses.
C. H. Larnett
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Fig. 8.

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UNITED STATES PATENT OFFICE.

FRANK H. SEAVEY, OF MEDFORD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO T. RAYMOND PIERCE, OF WELLESLEY, MASSACHUSETTS.

FENDER OR GUARD.

SPECIFICATION forming part of Letters Patent No. 771,329, dated October 4, 1904.

Application filed March 7, 1903. Serial No. 146,628. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. SEAVEY, a citizen of the United States, residing in Medford, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Fenders or Guards, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to a guard or fender for vehicles, and especially electric cars, and has for its object to provide a simple and efficient fender which is adapted to be automatically operated by an obstruction on the roadway or which can be manually operated and which, further, can be applied to the cars at a minimum expense. For this purpose I employ a guard or fender which is normally elevated above the roadway or tracks a predetermined distance, but which is moved bodily toward said roadway or tracks when it meets an obstruction. These and other features of this invention will be pointed out in the claim at the end of this specification.

Figure 1 is a side elevation and vertical section of a sufficient portion of an electric-railway car provided with a fender or guard embodying this invention to enable it to be understood, the section being taken on the line 1 1, Fig. 3; Fig. 2, a front elevation of the car and fender shown in Fig. 1; Fig. 3, a detail in plan view to be referred to; Fig. 4, a detail in plan view of the latch or holding device to be referred to; Fig. 5, a detail in vertical section to be referred to, the section being taken on the line 5 5, Fig. 4; Fig. 6, a detail to be referred to; Fig. 7, a side elevation and vertical section of a modification to be referred to, and Fig. 8 a front elevation of the car and fender shown in Fig. 7.

Referring to the drawings, the guard proper may be of any suitable construction and consists, as herein shown, of a series of curved slats or bars *a*, vertically arranged and connected together by transverse tie-bars or pieces *b*, to which the bars *a* may be riveted or otherwise suitably secured. The guard proper is secured to a vertically-movable back

piece, herein shown as a bar *c* of substantially wedge shape in cross-section and movable in a guide *d*, attached to the platform *e* in front of the dasher *f*. The back piece *c* is normally held in its elevated position by a device, herein shown as a bolt or latch *g*, (see Fig. 4,) which is normally pressed forward into the path of movement of the back piece *c* by a spring *h*, encircling the rear portion of the bolt or latch, between a cross-bar *i*, attached to the bolt or latch, and a guide-bar *j*, secured to metal pieces or angle-irons *k*, attached to a beam or bar *l*, extended transversely of the car *m* below the platform *e*, from which it is supported by the hangers or rods *n*. The angle-irons *k* are provided on their front faces with vertically-arranged ribs *o*, forming a preferably dovetailed slot *p* in line with the back piece *c* of the guard. (See Fig. 4.) The latch *g* serves to hold the guard in its elevated position, and, as herein shown, the said latch projects into the slot *p* and the back piece *c* rests thereon. The latch or bolt *g* may be disengaged from the back piece *c* by suitable means operated by an obstruction on the track. In the present instance the ends of the cross-bar *i*, attached to the latch *g*, are engaged by rods or bars *q*, which may be connected with the guard proper, as represented in Figs. 7 and 8, but which preferably project through the guard proper and are connected with a cross piece or bar *r*, constituting a buffer or auxiliary guard, which when it meets an obstacle on the track is moved backward, thereby forcing the bolt or latch *g* backward and releasing the back piece *c*, which with its attached guard immediately drops by gravity until arrested by the guard striking the track or roadway or, as is preferred, until the rollers or wheels *s* engage the rails of the track, at which time the front end of the fender or guard is in close proximity to the track and is in position to pick up the obstacle or brush it aside. When the latch *g* is withdrawn, the back piece *c* passes into the slot *p* and its lower end is guided thereby.

The side bars or rods *q* of the releasing device move in suitable grooves or guideways

in the sides of the angle-irons *k*, and, as shown in Fig. 3, said side bars are joined together at their front end into the form of a yoke, from which extends a central rod or bar *z*,
 5 which is attached to the buffer *r*.

The guard may be restored to its normal position by the motorman in any suitable manner—as, for instance, by a chain or cord, (not shown,) which may be attached to the
 10 back piece *c* and to the dasher, if desired, and as soon as the back piece *c* has been raised sufficiently to clear the latch *g* the latter is restored to its normal position in the path of movement of the back piece *c* by the spring *k*.

15 While I may prefer to use a releasing device which is separate from the guard or fender, I do not desire to limit my invention in this respect, as the releasing device may be connected to the guard as shown in Figs. 6,
 20 7, and 8, wherein the rods *q* are shown as provided at their outer ends with eyes or yokes 10, which encircle the vertical portion of angle-rods 12, secured at their ends to the guard and preferably to the cross-bars *b*, at-
 25 tached to the strips or slats *a*. With the construction shown in Figs. 7 and 8 the rods *q* are pushed backward by the guard, which is

moved backward and downward by the obstacle struck by it until the latch *g* has been released, whereupon the guard drops bodily 30 until its front end meets the tracks or is arrested by the rollers *s* striking upon the rails.

In the present instance the guard proper is shown as provided with a lug or projection 14, which is riveted or otherwise secured to 35 an angle-iron 15, attached to the back piece or bar *c*.

I claim—

The combination with a car, of a fender or guard projecting in front thereof and secured 40 thereto to move bodily toward the tracks, a device to hold the guard or fender in its elevated position, an auxiliary guard in front of the main guard, and rods or bars secured to said auxiliary guard and extended through 45 the main guard to engage said holding device, substantially as described.

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

FRANK H. SEAVEY.

Witnesses:

JAS. H. CHURCHILL,
 J. MURPHY.