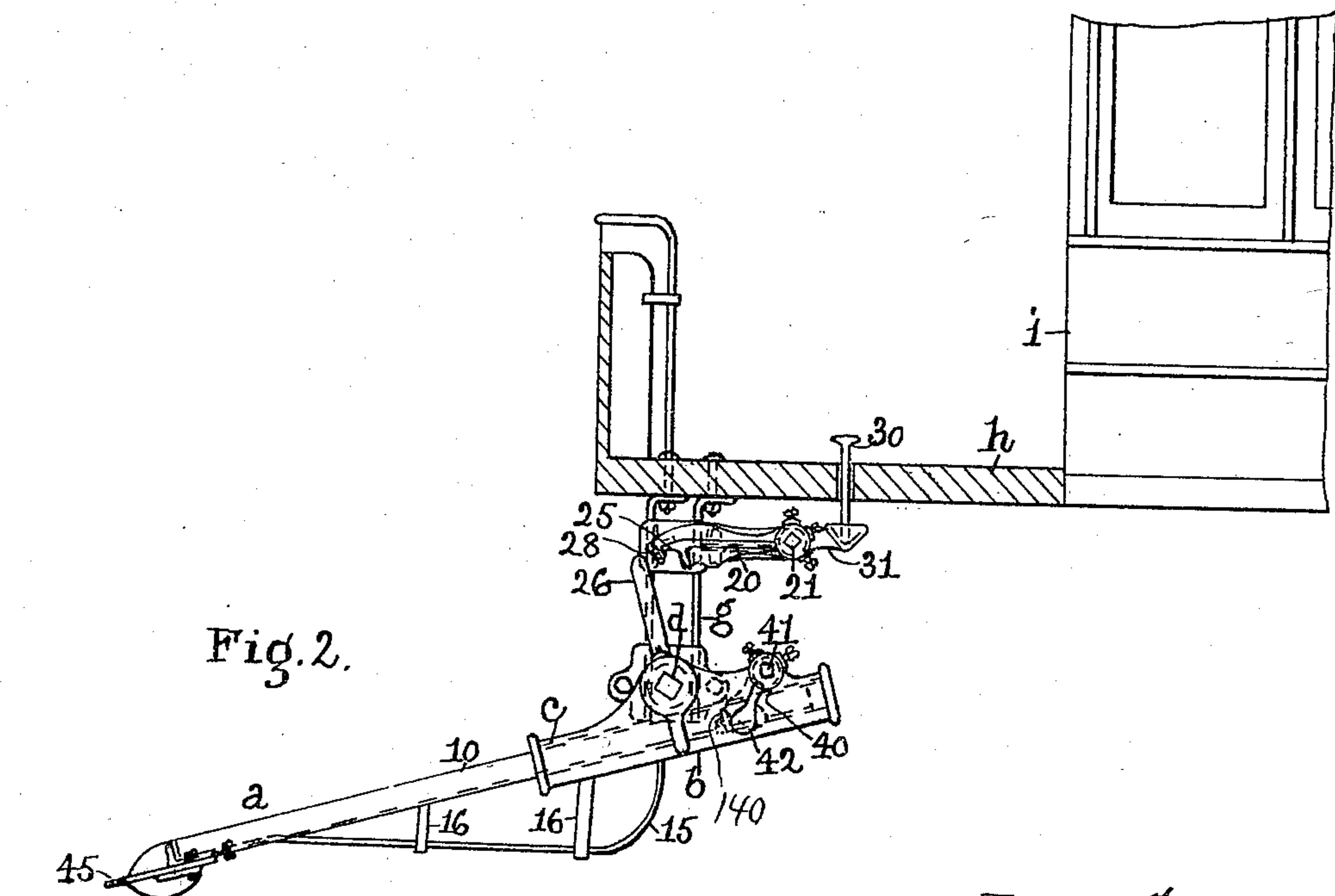
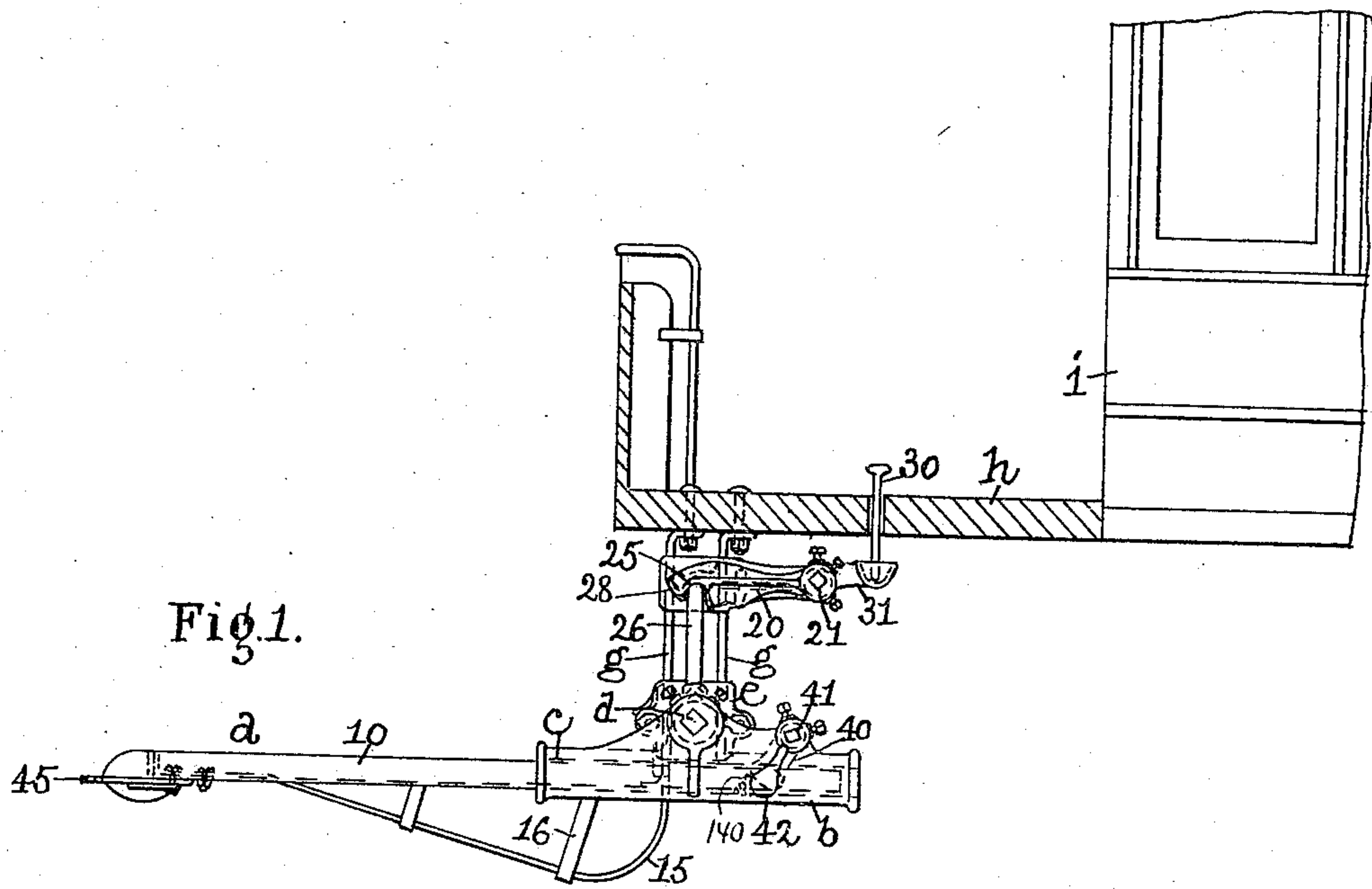


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L. PFINGST, DEC'D.
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CAR FENDER.
APPLICATION FILED APR. 3, 1909.

Patented Aug. 2, 1910.
4 SHEETS—SHEET 1.



Witnesses:
C. H. Gammett
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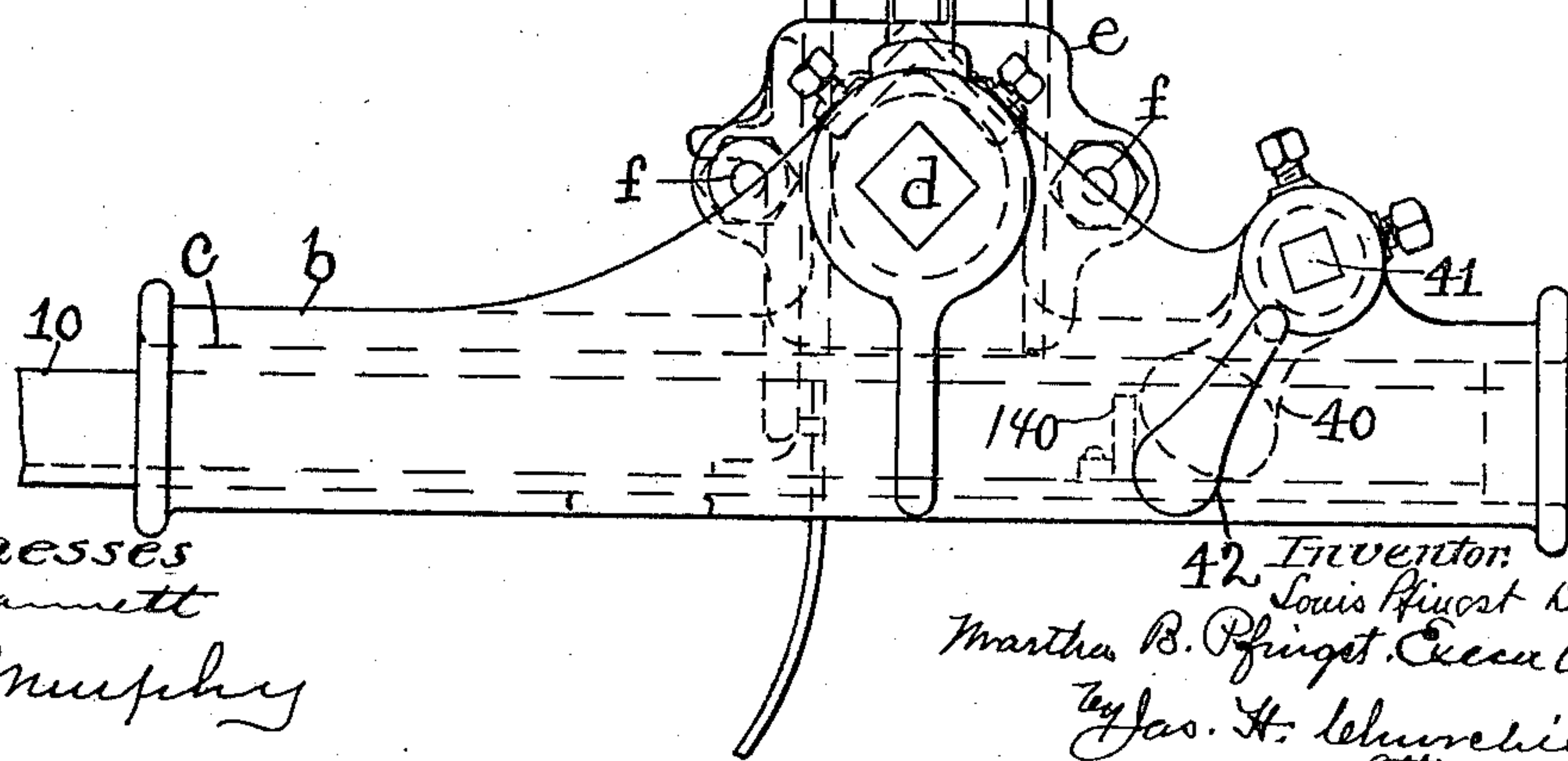
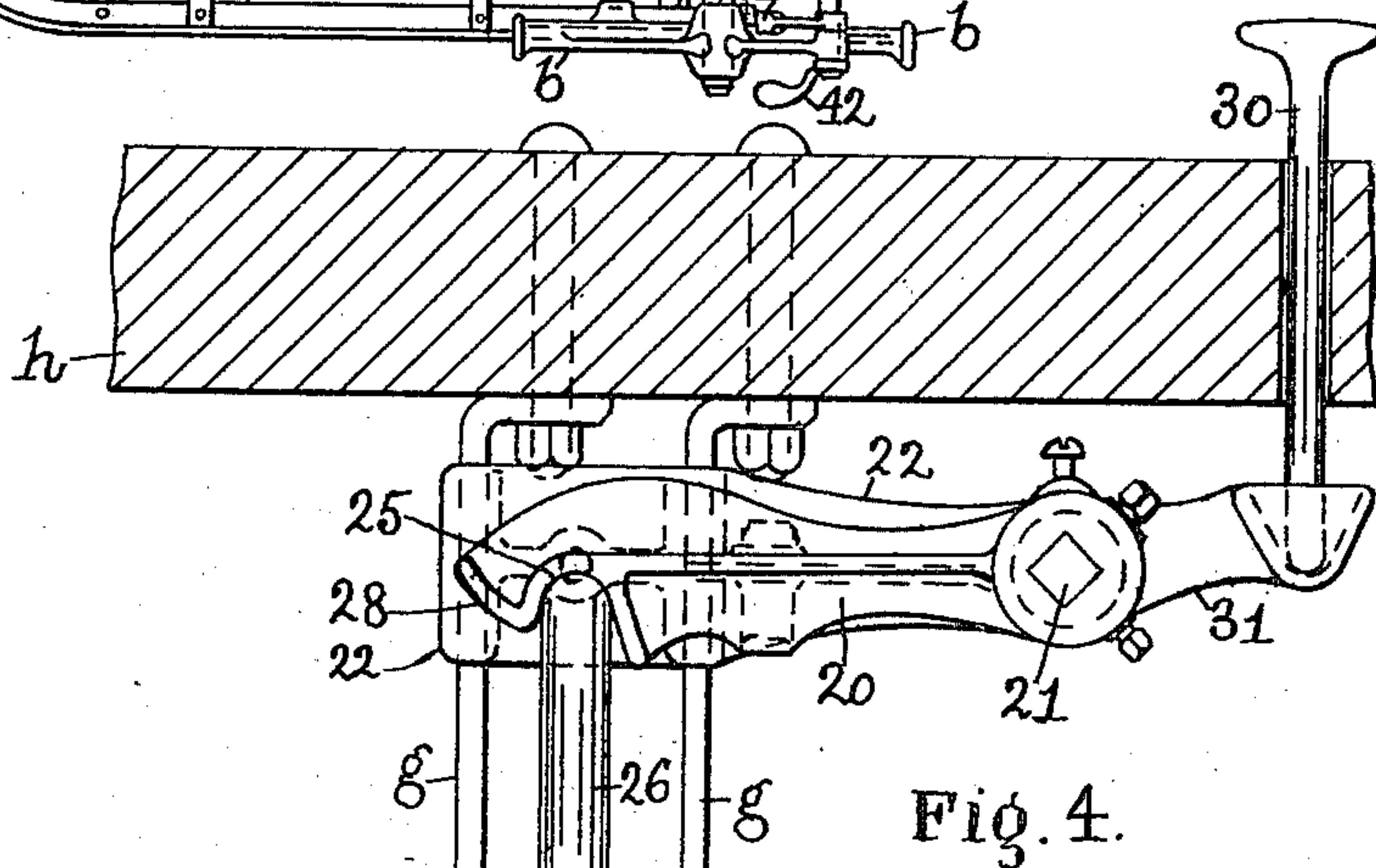
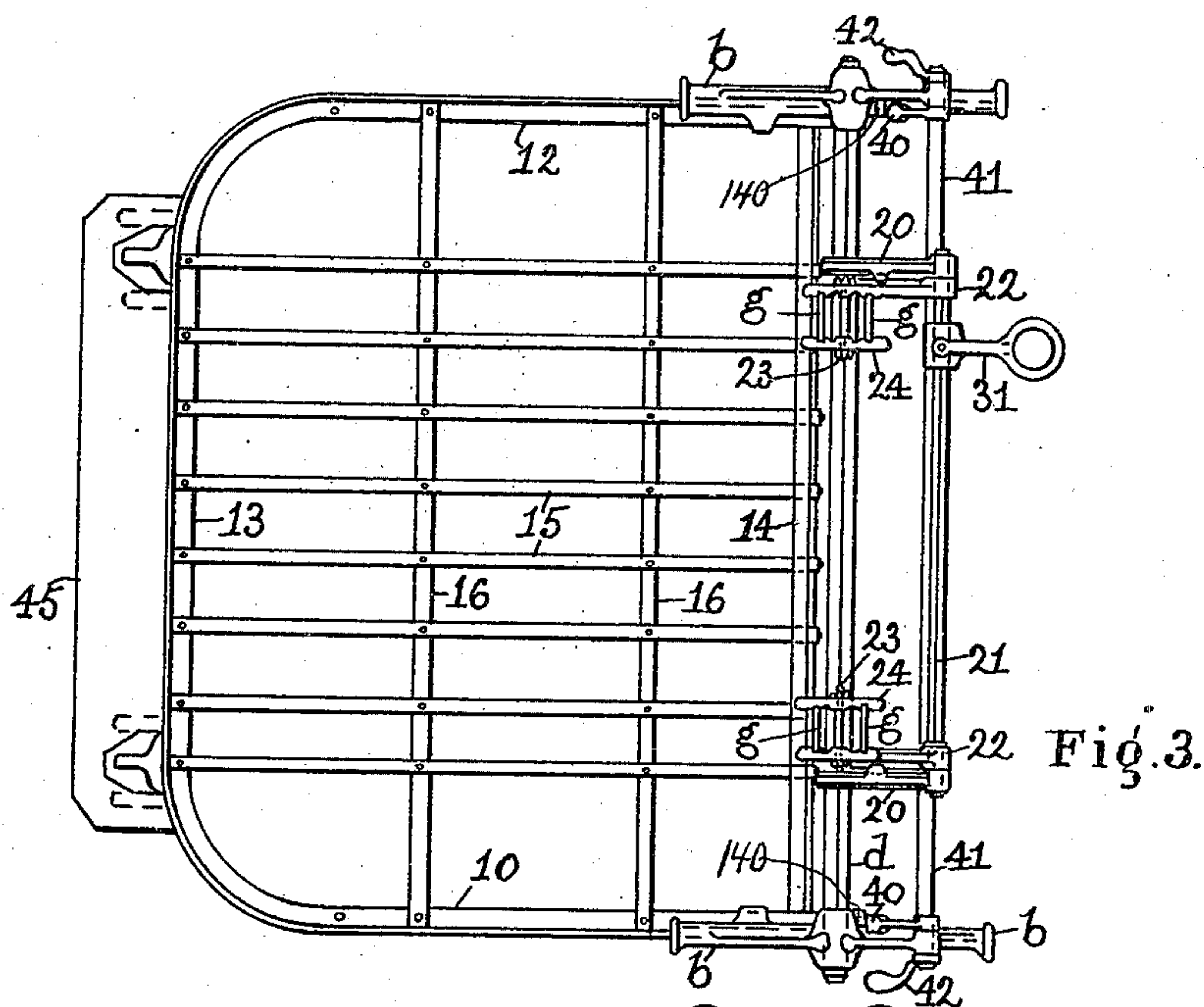
Inventor:
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4 SHEETS—SHEET 2.



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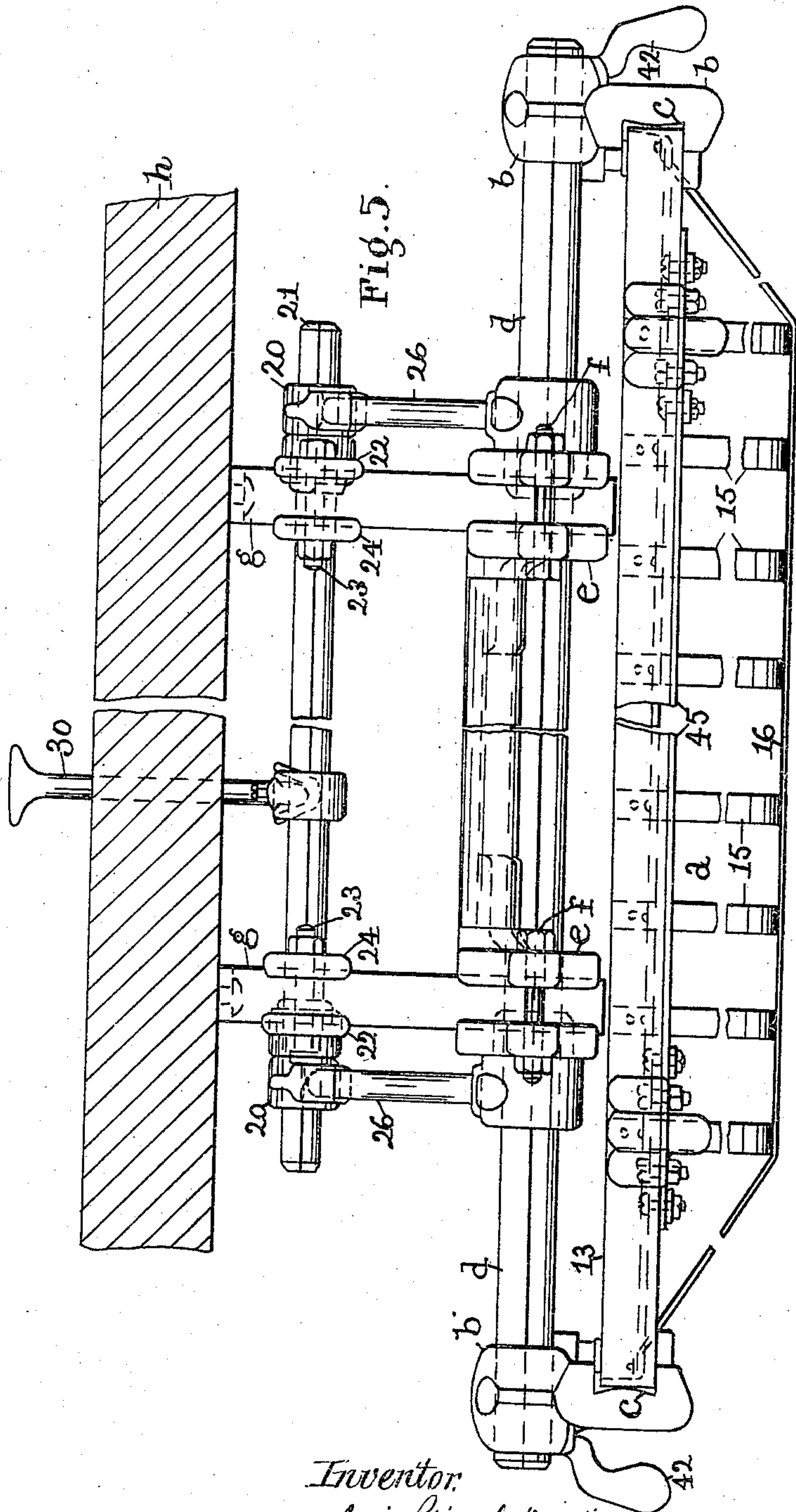
by Jas. H. Leitchhill

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4 SHEETS—SHEET 3.



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4 SHEETS—SHEET 4.

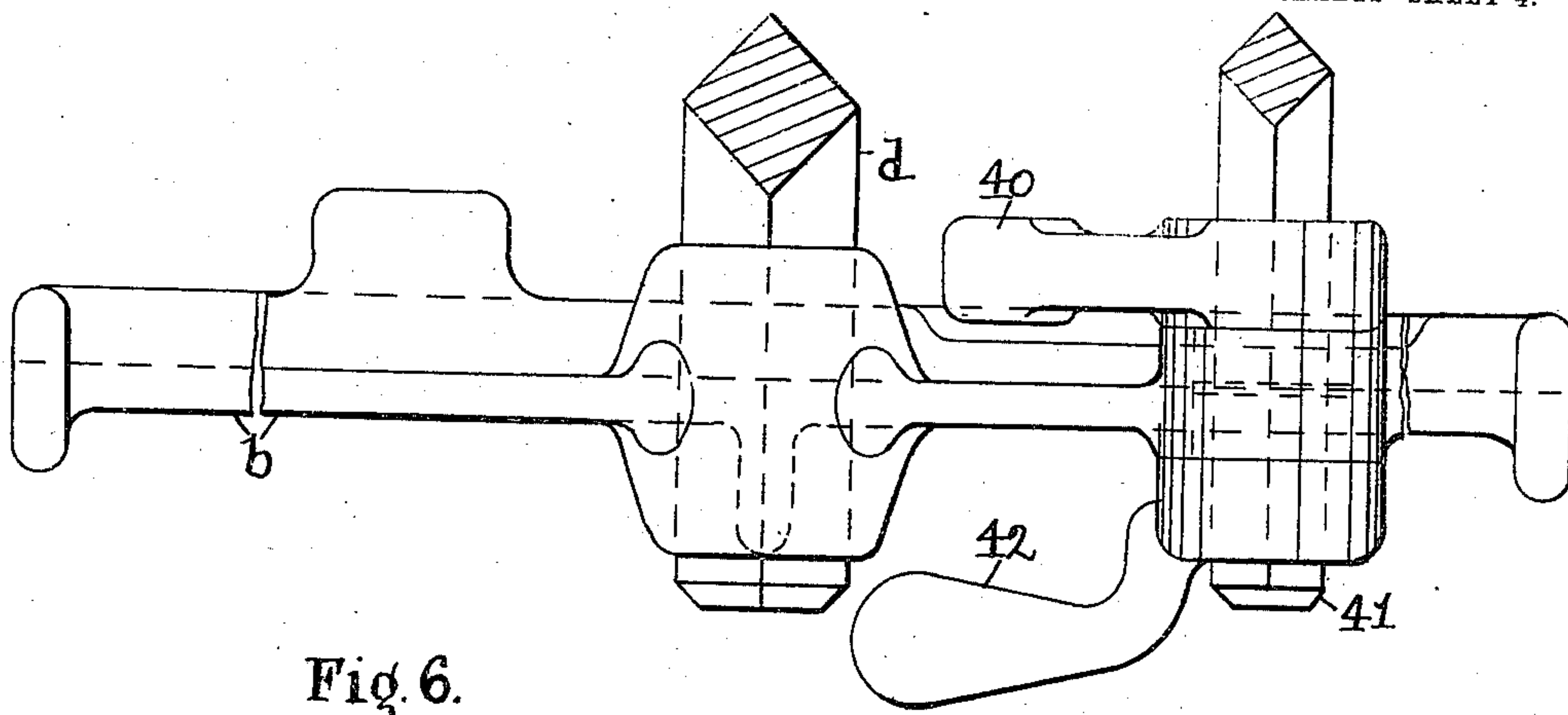


Fig. 6.

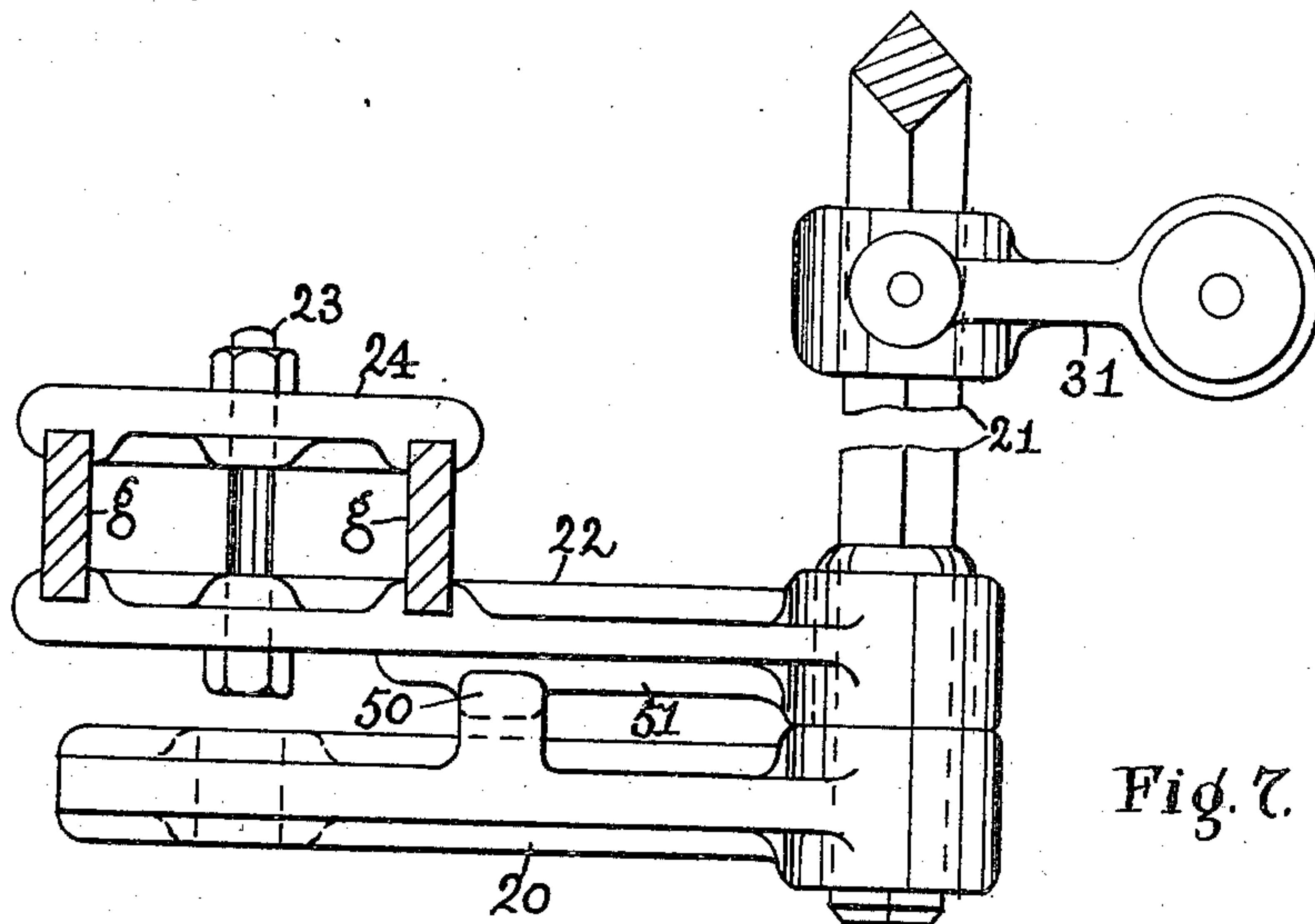


Fig. 7.

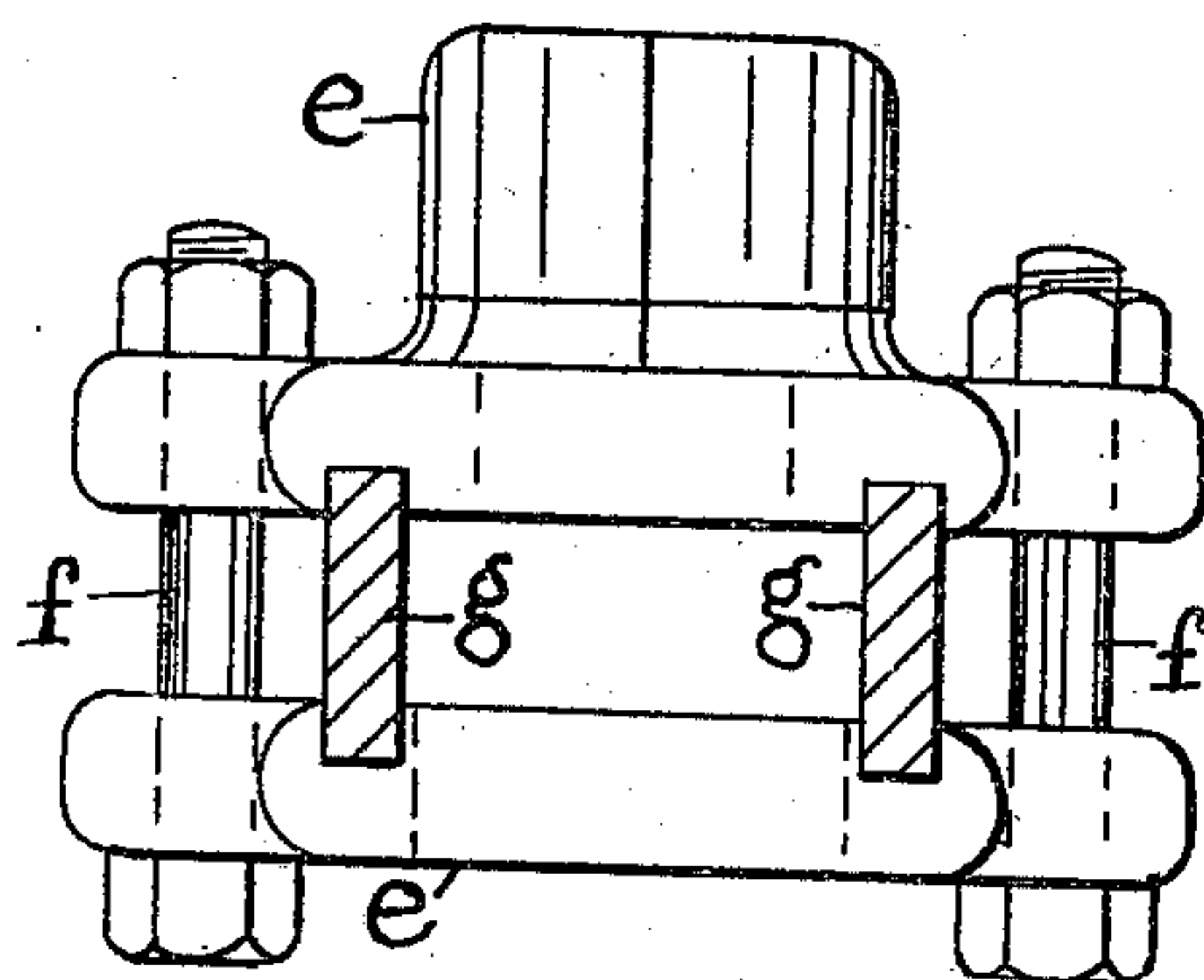


Fig. 8

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UNITED STATES PATENT OFFICE.

MARTHA B. PFINGST, OF DORCHESTER, MASSACHUSETTS, EXECUTRIX OF LOUIS PFINGST, DECEASED.

CAR-FENDER.

966,354.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed April 3, 1909. Serial No. 487,691.

To all whom it may concern:

Be it known that I, MARTHA B. PFINGST, a citizen of the United States, residing in Dorchester, county of Suffolk, and State of Massachusetts, executrix of the estate of Louis Pfingst, who invented an Improvement in Car-Fenders, 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 car fenders especially designed and adapted for use on the cars of electric street railways, and has for its object to provide a simple and efficient fender, which is capable of being bodily moved with relation to the car so as to project in front of the same when in use, and to be slid under the car platform when not in use, and which in its projected position is normally held elevated above the tracks but is adapted to be released to drop down with its front end in close proximity to the tracks. For this purpose, the fender proper is mounted to slide in a pivoted support which has cooperating with it a locking device for holding the fender normally elevated above the tracks. The locking device may be under the control of the motorman to release the said support and permit it to be automatically turned to lower the fender into its operative position, and said locking device may be constructed so as to automatically lock the support by the operator merely lifting the front end of the fender. These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a side elevation and section of a portion of a car provided with a fender embodying this invention. Fig. 2, a view like Fig. 1, with the fender in its operative position. Fig. 3, a plan view of the fender shown in Fig. 1. Fig. 4, a detail on an enlarged scale of the fender in its normal or inoperative position. Fig. 5, a front elevation of the fender shown in Fig. 1, and Figs. 6, 7 and 8, enlarged details to be referred to.

Referring to the drawings *a* represents the fender proper which comprises as herein shown (see Fig. 3) an open frame provided

with side bars 10, 12, end bars 13, 14, longitudinally extended intermediate bars 15, preferably curved at their rear ends to form a basket, and cross bars 16 secured to and reinforcing the said longitudinal bars.

The fender proper is mounted to slide in pivoted supports herein shown as castings or bars *b* having on their inner sides longitudinally extended slots *c* in which the side bars 10, 12, of the fender frame are inserted so as to slide therein, said castings or bars being mounted upon a rock-shaft *d* located above the slots *c* and journaled in bearing blocks *e* secured as by bolts *f* (see Figs. 1 and 8) to hangers or straps *g* from the underside of the platform *h* of the car *i* (see Figs. 1 and 5).

The rock-shaft *d* is normally held from turning by locking devices, which may be made as herein shown and consists of cooperating members, one member being shown as levers or latches 20 fast on a rock-shaft 21, which is supported by arms 22 secured to the straps or hangers *g* by bolts 23 and clamping block 24 (see Figs. 3 and 7). The arms 22 extend rearwardly from the hangers *g*, and the levers or arms 20 extend from the rock-shaft 21 toward the said hangers, and are provided at their free ends with notches or recesses 25 on their under sides to receive the upper ends of upright arms or dogs 26 fast on the rock-shaft *d* and constituting the other member of the locking device.

The locking levers or arms 20 are provided at their ends with curved or cam shaped under surfaces 28, for a purpose as will be described.

The locking dogs 26 enter the recesses 25 in the locking levers 20 when the fender and its pivoted supports are in a substantially horizontal position as represented in Fig. 1, which position may be termed the elevated or inoperative position of the fender, and the locking levers may be disengaged from the locking dogs as herein shown by means of a foot rod or pedal bar 30, which is extended down through the platform *h* and engages a crank or arm 31 on the rock-shaft 21.

By reference to Figs. 1 and 4, it will be seen that depression of the rod 30 by the

foot of the motorman or other operator rocks the shaft 21 so as to lift the front end of the locking levers 20 and disengage them from the locking dogs 26, thereby leaving
 5 the rock-shaft *d* free to be turned by the weight of the fender *a*, so that the latter is lowered or dropped into its operative or inclined position shown in Fig. 2.

After the fender has performed its function of picking up an object or preventing
 10 it from passing under the car, it can be restored to its elevated position by the operator lifting its front end up into the horizontal position shown in Fig. 1. As the
 15 front end of the fender is elevated, the shaft *d* is rocked so as to bring the locking dogs 26 into engagement with the cam surfaces 28 of the levers 20, and on the continued lifting of the fender, the locking levers 20
 20 are lifted by the dogs 26 until the latter have been brought under the recesses 25, whereupon the said levers drop and automatically lock the fender and its rocking support with the fender in its normal position shown in Fig. 1.

I have herein shown the latches or locking devices as manually operated, but it is not desired to limit the invention in this respect. When it is not desired to use the
 30 fender, as for instance the one at the rear end of the car, it can be slid or pushed in under the rear platform by the operator, the side bars 10, 12, of the frame sliding in the channels or slots *c* on the inner sides of the
 35 pivoted supports *b*.

If desired, the weight of the fender proper may be depended upon to prevent its backward movement in the pivoted supports when the fender in its lowered or operative
 40 position strikes the object on the track, but if desired positive stops may be provided for this purpose. In the present instance, such stops are shown as cranks or arms 40 on a rock-shaft 41 supported by the castings or
 45 bars *b* and provided with handles 42 by which said rock-shaft can be turned from either side of the car so as to lower the cranks 40 into the path of movement of lugs or projections 140 on the side bars of the
 50 fender proper. When it is desired to push the fender under the platform, the handles 42 may be turned so as to lift the cranks 40 clear of the side bars of the fender and when the fender is in its forward or operative
 55 position, the cranks 40 are lowered into the path of movement of the side bars of the fender and prevent backward movement of the said fender.

The fender may if desired be provided at
 60 its front end with a buffer 45 of wood, rubber or other suitable material.

When the fender has been lowered into its inclined or operative position, the motorman can release the pedal 30 and allow the
 65 levers 20 to drop into position to have their

cam surfaces 28 engaged by the dogs 26, which position may be determined by lugs 50 on the levers 20 engaging ribs or projections 51 on the arms 22 (see Fig. 7).

Claims.

1. The combination of a railway car, of a fender therefor comprising an open frame, supports for said frame with which the latter is in sliding engagement to permit the
 70 fender to be slid under the platform of the car when not in use, a rock-shaft on which said supports are mounted, bearings for said rock-shaft suspended from said car, locking dogs on said rock-shaft, latches coöperating
 75 with said locking dogs to hold the fender in its elevated position, a rock-shaft on which said latches are mounted, a crank or arm on said second rock-shaft and a rod extended down through the car platform and engaging the crank or arm on said second rock-
 80 shaft, substantially as described. 85

2. The combination with a railway car, of a fender therefor comprising an open frame, supports for said frame with which the latter is in sliding engagement to permit
 90 the fender to be slid under the platform of the car when not in use, a rock-shaft on which said supports are mounted, bearings for said rock-shaft suspended from said car, locking dogs on said rock-shaft, latches co-
 95 operating with said locking dogs to hold the fender in its elevated position, and means to effect the disengagement of said latches from said locking dogs, substantially as described. 100

3. The combination with a railway car, of a fender therefor comprising a frame, a rocking support with which said frame is in sliding engagement to permit the said frame
 105 to be slid under the car platform when not in use, means to lock said support in a position to sustain the said frame in an elevated position, and means to unlock said support and permit it to be rocked so as to lower the said frame into its operative position,
 110 substantially as described.

4. The combination with a railway car, of a fender therefor comprising a frame, a rocking support with which said frame is in sliding engagement to permit the said frame
 115 to be slid under the car platform when not in use, a locking device coöperating with said support for automatically locking the latter when the said frame is lifted, and means for unlocking said support to permit
 120 the said frame to drop toward the tracks, substantially as described.

5. In a fender for railway cars, in combination, a fender proper, a pivoted support with which said fender proper is in sliding
 125 engagement, means for locking the pivoted support against movement under the influence of the weight of the fender proper, and means for unlocking said support to permit
 130 it to be turned and the fender to be lowered

into its operative position under the influence of the weight of the latter, substantially as described.

6. In a fender for railway cars, in combination, a fender proper, a pivoted support for the same with which said fender is in sliding engagement, a locking device for said support automatically rendered effective when the fender proper is lifted to rock said support, and means for releasing said locking device, substantially as described.

7. In a fender for railway cars, in combination, a fender proper, a pivoted support for the same with which said fender is in sliding engagement, means for locking said support comprising a member movable with the support, and a cooperating member supported by the car to which the fender is attached, and means for releasing the said cooperating member from the member movable with the pivoted support, substantially as described.

8. In a fender for railway cars, in combination, a fender proper, pivoted supports for said fender proper having longitudinally extended slots in which said fender proper is bodily movable, means for locking said pivoted supports in a fixed position with the fender proper in an elevated position, and means for unlocking said supports to permit them to turn to lower the free end of the fender proper in proximity to the tracks, substantially as described.

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

MARTHA B. PFINGST,
Executrix.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.