

(No Model.)

2 Sheets—Sheet 1.

G. P. WALKER.

TRACK FOR CASH AND PARCEL CARRIERS.

No. 282,418.

Patented July 31, 1883.

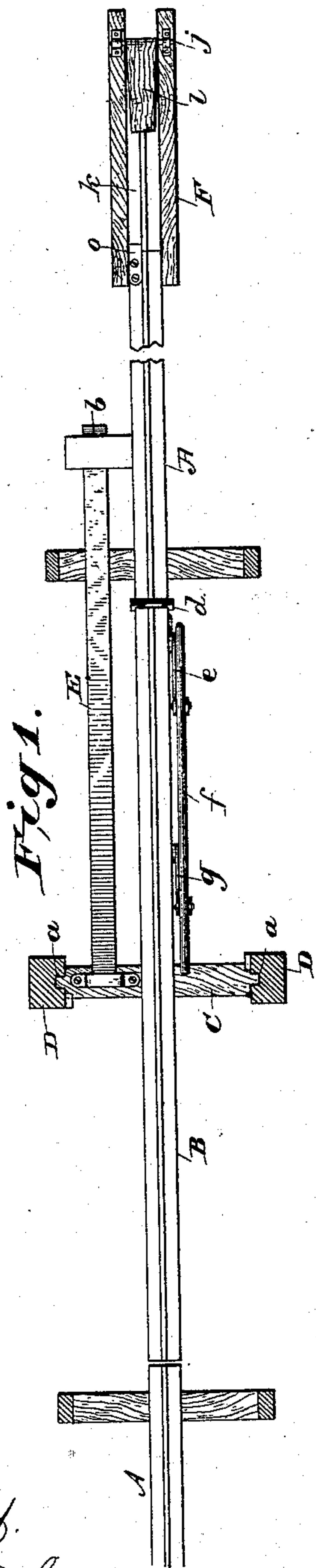


Fig 1.

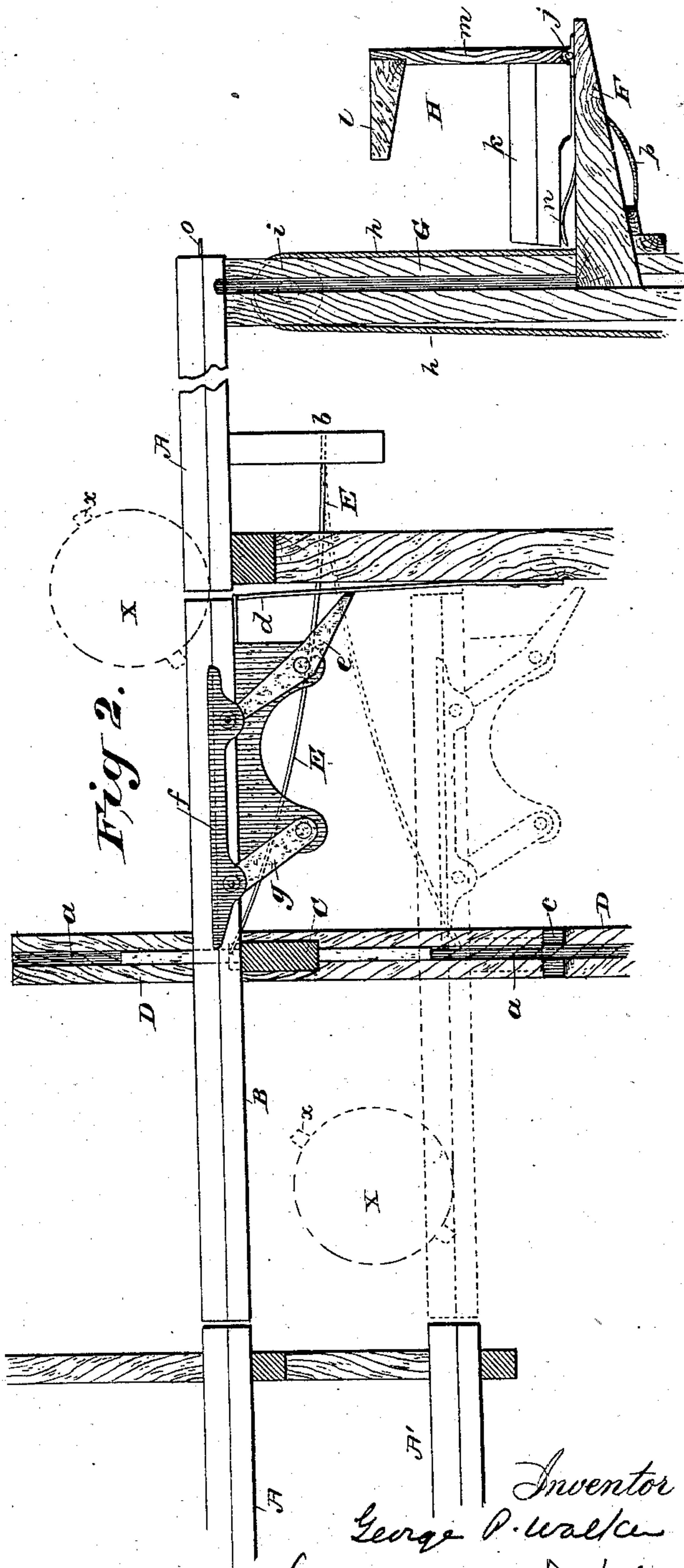


Fig 2.

Attest.
Geo. T. Smallwood.
Es. T. Dick

Inventor
George P. Walker
by Marshall D. Bailey
his attorney

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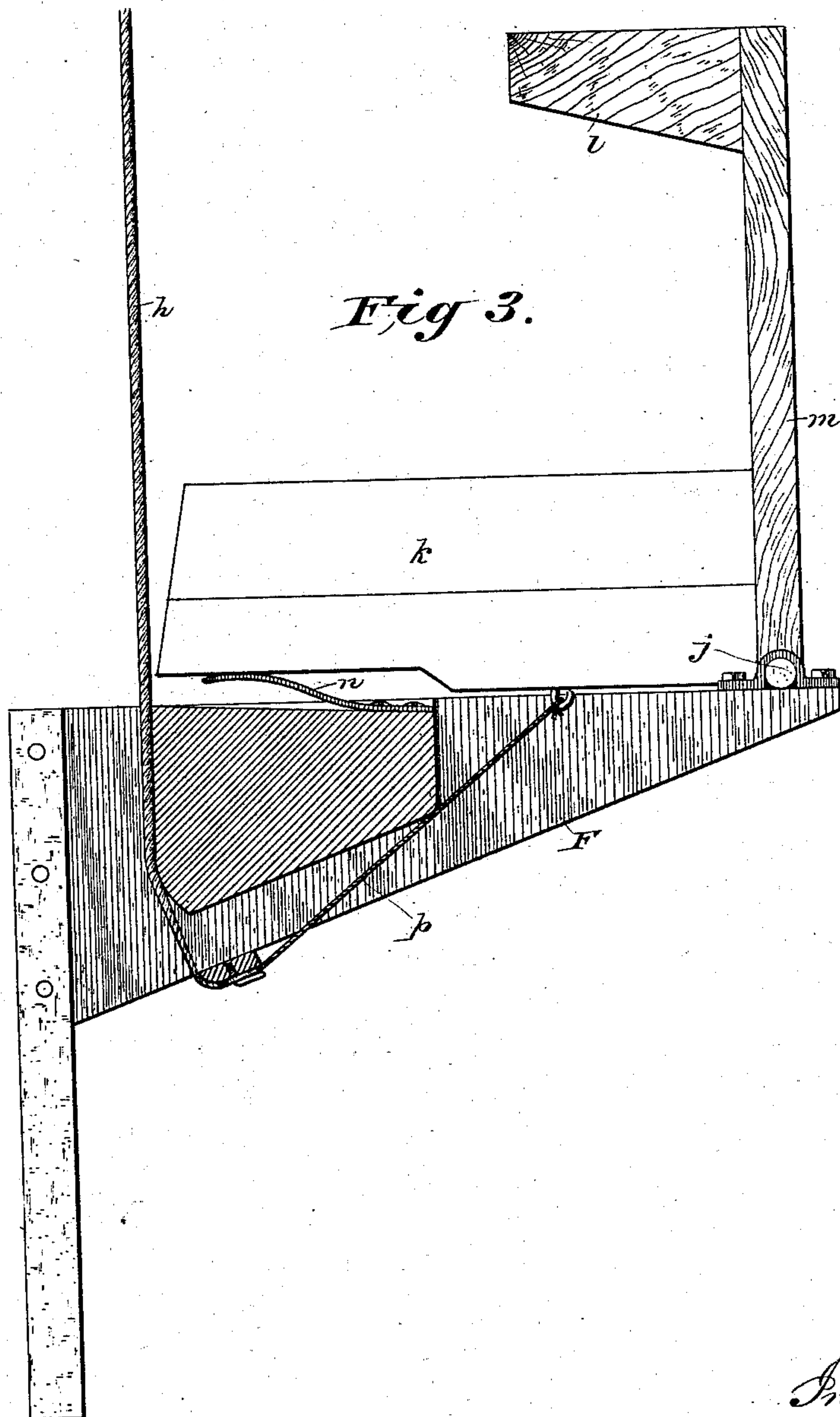
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Inventor:

George P. Walter
by Marcellus Bailey
his Attorney.

UNITED STATES PATENT OFFICE.

GEORGE P. WALKER, OF LOWELL, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO ABEL T. ATHERTON, OF SAME PLACE.

TRACK FOR CASH AND PARCEL CARRIERS.

SPECIFICATION forming part of Letters Patent No. 282,418, dated July 31, 1883.

Application filed June 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. WALKER, of the city of Lowell, in the State of Massachusetts, have invented certain new and useful
5 Improvements in Tracks for Cash and Parcel Carriers, of which the following is a specification,

My invention has reference mainly to means for shunting at the proper point the cash or
10 parcel carrier from the track on which it may be moving; and it also has reference to the device—termed “elevator”—by which the carrier is raised and delivered onto the track upon which it is to run. For the purpose of shunting
15 or diverting the carrier from the track on which it may be running, I combine with the track a track-section capable of a bodily up and down movement, held in position in the line of the track by a spring or its equivalent—
20 as, for instance, a weight—which bears such relation to the weight of the carrier that when the latter rolls upon the movable track-section its weight will preponderate the counterweight or spring that tends to raise and keep
25 raised the track-section, and will consequently cause the track-section to descend to the point where the carrier can be delivered from it to another track, or to a receiver, or the like. In order to hold the track-section up in place until the carrier has rolled fairly onto it, I combine therewith a locking device controlled by
30 a depressible lever so positioned as to be struck and depressed by the carrier after the latter gets onto the track-section, with the effect of unlocking and releasing said section and permitting it, with the carrier, to descend to the point where the carrier is to pass from it. The elevator I make use of is a vertically-sliding holder for the carrier, which is hinged
40 or jointed to a base-piece which moves with it, in such manner that it can be thrown back to permit the carrier to be placed in it, and can also, when raised flush or in line with the track, be slightly tilted forward, so as to insure the ejection of the carrier from it onto the
45 track. These features can best be explained and understood by reference to the accompanying drawings, in which—

Figure 1 is a sectional plan view of so much

of a track embodying my improvements as
50 necessary for the purpose of explanation. Fig. 2 is a side elevation, partly in section, of the same, showing in full lines the track-section raised and in dotted lines the track-section lowered. Fig. 3 is an elevation of the
55 elevator on an enlarged scale.

The track which we will call the main track (lettered A in the drawings) is supported in any of the usual ways, either by standards or scaffolding from below, or by hangers from
60 above. The track itself may be of any suitable known construction. As shown in the drawings, it is composed of a single rail, having approximately the form in cross-section of an inverted T, upon which is designed to run
65 the carrier provided with a peripheral central groove, which is entered by the vertical web of the rail, and with bearing-surfaces on each side of that groove, which bear and run upon the horizontal flanges which project from the
70 base of the web. This construction of the track and carrier, however, is not here claimed, it having been made by me the subject-matter, in part, of another application for Letters Patent of even date herewith.

At that point in the track where it is desired to shunt the carrier I interpose a movable track-section, B, which, in its normal position, is in line with the stationary portions of the track between which it is interposed,
80 and forms a part of the track. This track-section is intended to move up and down bodily, for which purpose it is, in the present instance, attached to a sliding cross-head, C, provided with vertical guide-ribs, which enter
85 guide-grooves *a*, formed in stationary side standards, D. The track-section in this way is made capable of sliding vertically in parallel planes. It is held up in normal position by a spring or a weight. In the present in-
90 stance I make use of a spring, E, which is made fast at *b* to some stationary part of the structure, and at its other end engages and lifts the track-section. The strength of the spring is such that while sufficient to raise the
95 track-section alone, it will not sustain the combined weight of the track-section and the carrier, and consequently, when the carrier rolls

down the inclined track from the stationary part A onto the movable track-section B, the latter, as soon as this takes place, descends, bearing with it the carrier, until its downward movement is arrested by a suitable stop at some predetermined point. The stop is shown at *c*, and is so placed that when the cross-head C brings up against it the track-section rail will be in line with or on the prolongation of a stationary side or shunt track, A', as indicated by dotted lines in Fig. 2, upon which the carrier will run from the depressed track-section. As soon as the carrier quits the track-section, and the latter is thus relieved from its load, the spring E at once asserts itself and returns the track-section to its elevated position.

The parts can be so proportioned and the strength of the spring so graduated with respect to the weight of the various parts that the track-section will act to receive the carrier from the track above, deliver it to the track below, and then return to its normal position with great rapidity and certainty; so rapidly, indeed, as to render it impossible for the carrier to reach the far end of the track-section before the latter has descended into its proper position with respect to the lower side track, A'.

With a view to lock the track-section in its elevated or normal position, so that it cannot be depressed until the carrier is fairly upon it, and so that, also, it cannot be depressed by any carriers save those which it is intended to shunt upon the particular side track, A', in connection with which the track-section is used, I make use of a locking device or detent and means adapted to be operated by the moving carrier to effect the disengagement of the locking device from the track-section. This locking device and means for operating the same, as aforesaid, can be variously constructed or arranged, as will be readily understood by those skilled in the art to which my invention relates. The particular locking device shown in the drawings in illustration of my invention is a spring catch or detent, *d*, consisting of a metallic spring-strip which catches or projects under one end of the track-section when the latter is in its normal position; and the means for disengaging this track from the section consist of a lever, *e*, pivoted to a downward extension on one side of the track-section rail, and adapted to bear at its lower end against the catch in such manner that when its upper end is depressed its lower end will be caused to push back the catch out of engagement with the track-section.

To enable the moving carrier to operate on and depress the end of the unlocking-lever, I employ a bearing-piece, *f*, placed in a horizontal position, and arranged somewhat like one leg of a parallel ruler, being jointed at one end to the upper end of the lever *e*, and at the other end to the upper end of an arm or link, *g*, which at its lower end is pivoted to the side extension of the track-section rail,

so as to be in substantial parallelism with the upper arm of lever *e*.

The arrangement just described is adapted more particularly for a carrier having projecting pins on its periphery, as indicated by dotted lines in the drawings, where X is the carrier, and *x* is the projecting pin. By using, say, two projecting pins, as shown, and then making the bearing-surface *f* of a length equaling or a little exceeding that of one-half of the periphery of the carrier, it will be seen that one or the other of the pins *x* must strike and depress the bearing-surface *f* before the carrier can pass beyond it. In case a continuous annular or circular flange is used on the carrier in lieu of the pin *x*, the bearing-piece *f* and link *g* can be dispensed with, and it being only necessary to place the upper end of the unlocking-lever *e* so that it will project into the path of the flange.

Only such carriers as have stop-pins or flanges so positioned as to act on and depress lever *e* will be shunted by the track-section B, so that by varying the positions of these flanges or pins, and by corresponding variations in the position occupied by the locking-levers of the movable track-sections situated at various points in the line of track, I can distribute the carriers, as desired, to the various side tracks used in connection with the main track, as will be understood without further explanation.

The elevator hereinbefore referred to is shown in Figs. 1 and 2, and more plainly in Fig. 3. It is composed of a base-piece, F, arranged to slide up and down in vertical ways or guides G, and provided with a hoisting-cord, *h*, passing over a pulley, *i*. To this base is hinged, at *j*, so as to turn on a horizontal axis, the cradle H, consisting of a rail, *k*, of a similar shape to the track-rail, and an overhanging guard-piece, *l*, projecting from a standard, *m*, for the purpose of keeping the carrier in place on rail *k*. The cradle is hinged to the base in such manner that its free end can be depressed to incline forward the rail *k*, and thus tilt the cradle with a view to eject from it the carrier, and a spring, *n*, interposed between the cradle and the base, normally holds up the free end of the cradle, so as to keep the rail *k* about horizontal. At the top of the ways G is a stop, *o*, against which rail *k* strikes when the elevator is raised. The free end of the cradle is connected to the base-piece by a cord, *p*, of some elastic material, which will permit the cradle to be turned back on its hinge far enough to allow the carrier to be put into it.

Supposing the elevator to be down and the carrier to be put into it, the operation of delivering the carrier therefrom onto track A is as follows: The elevator is raised by pulling on the hoisting-cord *h* until it reaches the position indicated by dotted lines in Fig. 2, at which time the cradle-track *k* will strike against stop *o* and will be in line with track A. Further pull on the cord will raise the base F and

the outer end of the cradle H, while the inner end of the latter, retained by the stop o, will be depressed and will force down spring p. This will result in tilting the cradle-track k, and consequently the carrier will roll from the cradle onto the main track. As soon as this is done the hoisting-rope is slackened, the elevator drops down to its original place, and the parts of the elevator resume their normal positions.

Having now described my improvements and the best way known to me of carrying the same into effect, what I claim as new and of my invention is—

1. The combination, with the main track, of a track-section capable of sliding bodily up and down, and an upholding spring or weight, which, while sufficient to uphold the track-section alone, is preponderated by the combined weight of the track-section and the carrier, substantially as and for the purposes hereinbefore set forth.

2. The combination of the main track, the side or branch track situated in and below the main track, the bodily-sliding track-section, forming in its upper position a part of the main track and its lower position a part of the side or branch track, and the track-section

upholding-spring or its equivalent, under the arrangement and for joint operation in connection with the carrier, substantially as hereinbefore set forth.

3. The combination of the main track, the up and down sliding track-section and its upholding-spring, with the lock or detent for retaining the track-section in its raised position, and mechanism constructed and arranged to be operated by the proper carrier as it moves over the track-section, so as to effect the release of said track-section from the lock or detent, substantially as and for the purposes hereinbefore set forth.

4. The vertically-sliding elevator, consisting of the base, the cradle hinged thereto, substantially as described, and the spring interposed between the cradle and base, in combination with the hoisting-cord, the main track, and the stop thereon, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 8th day of June, 1883.

GEORGE P. WALKER.

Witnesses:

ABEL T. ATHERTON,
C. T. ATHERTON.