

P. HINKLE.  
Hatch for Street-Elevators.

No. 204,821.

Patented June 11, 1878.

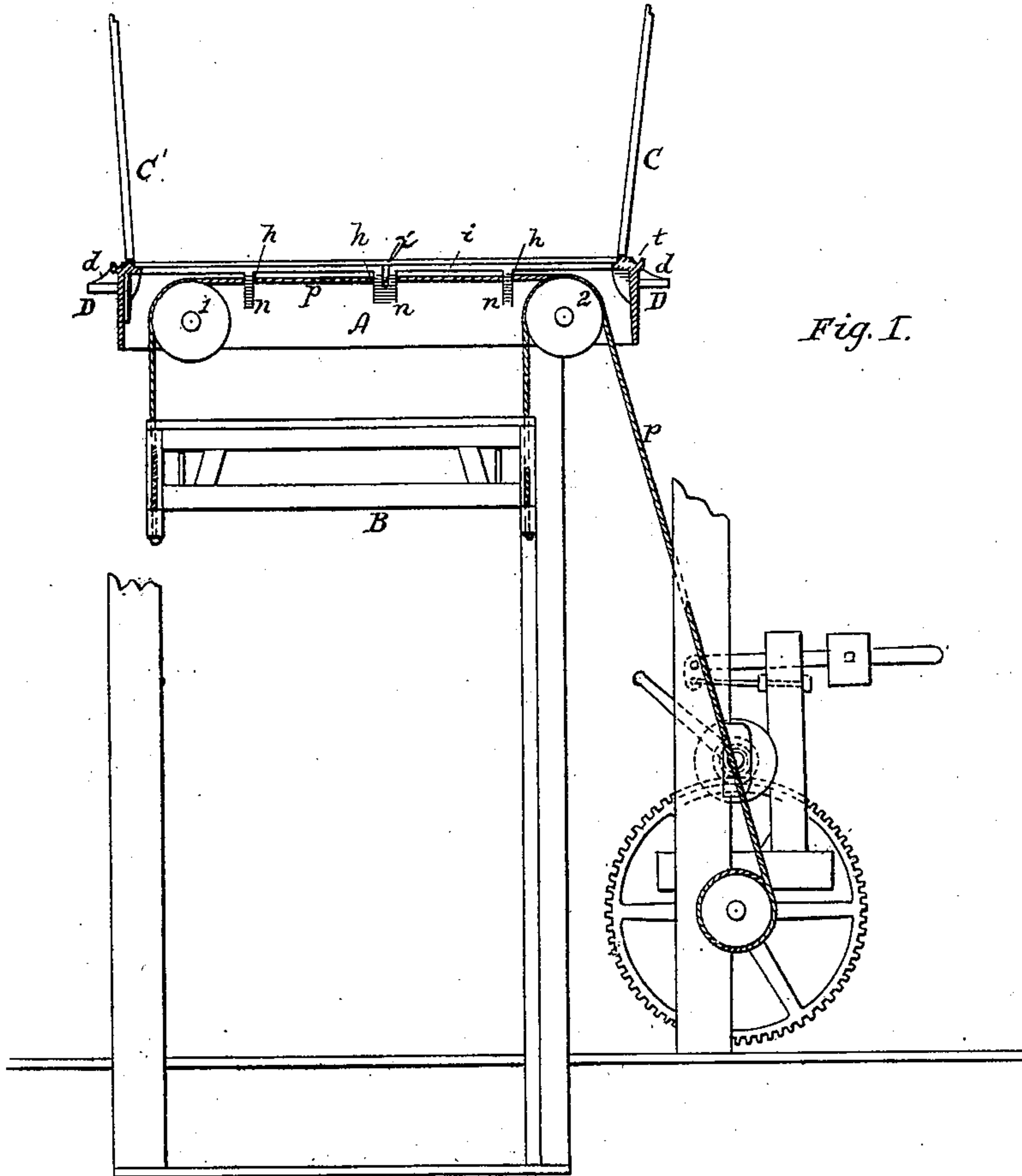


Fig. 1.

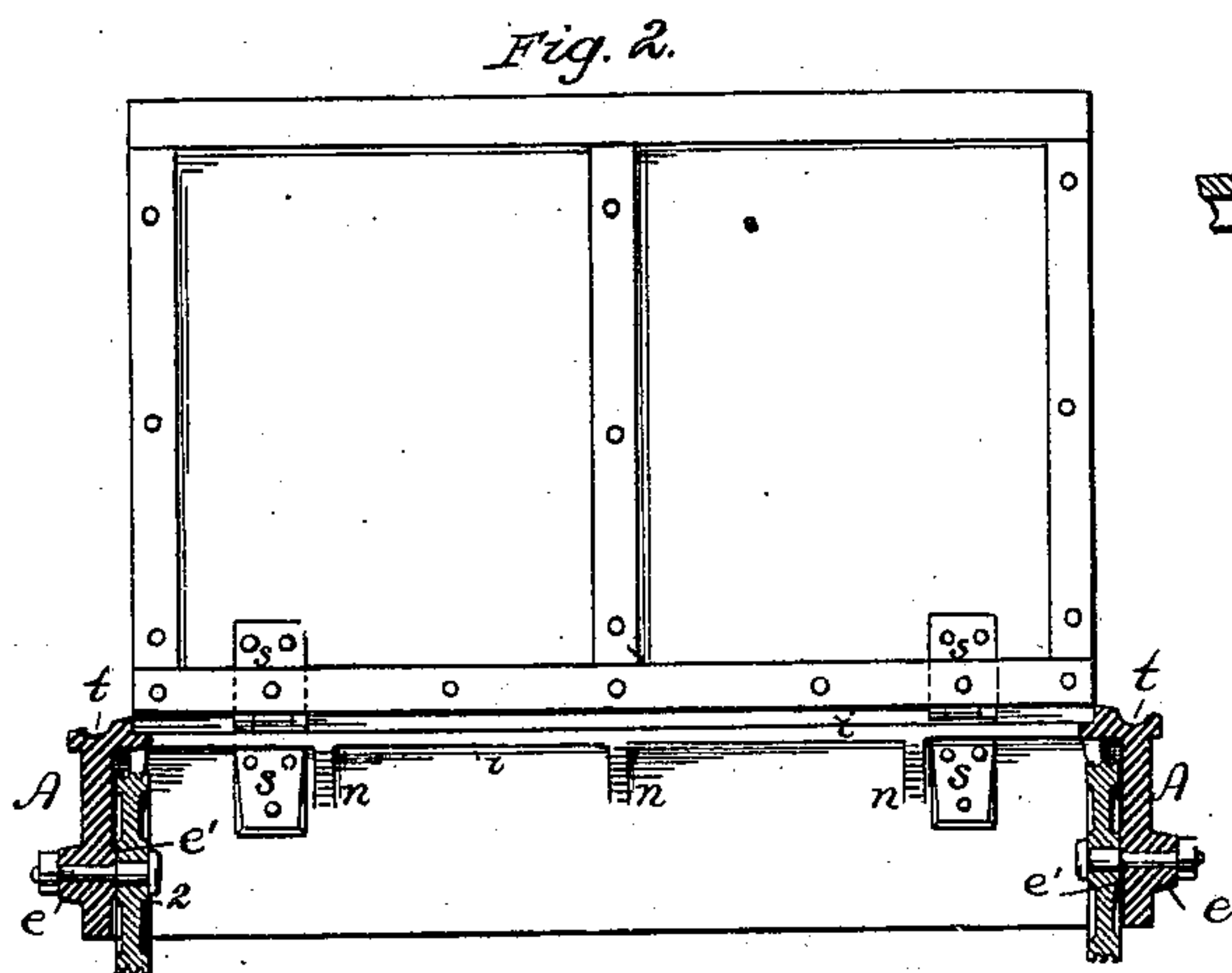


Fig. 2.

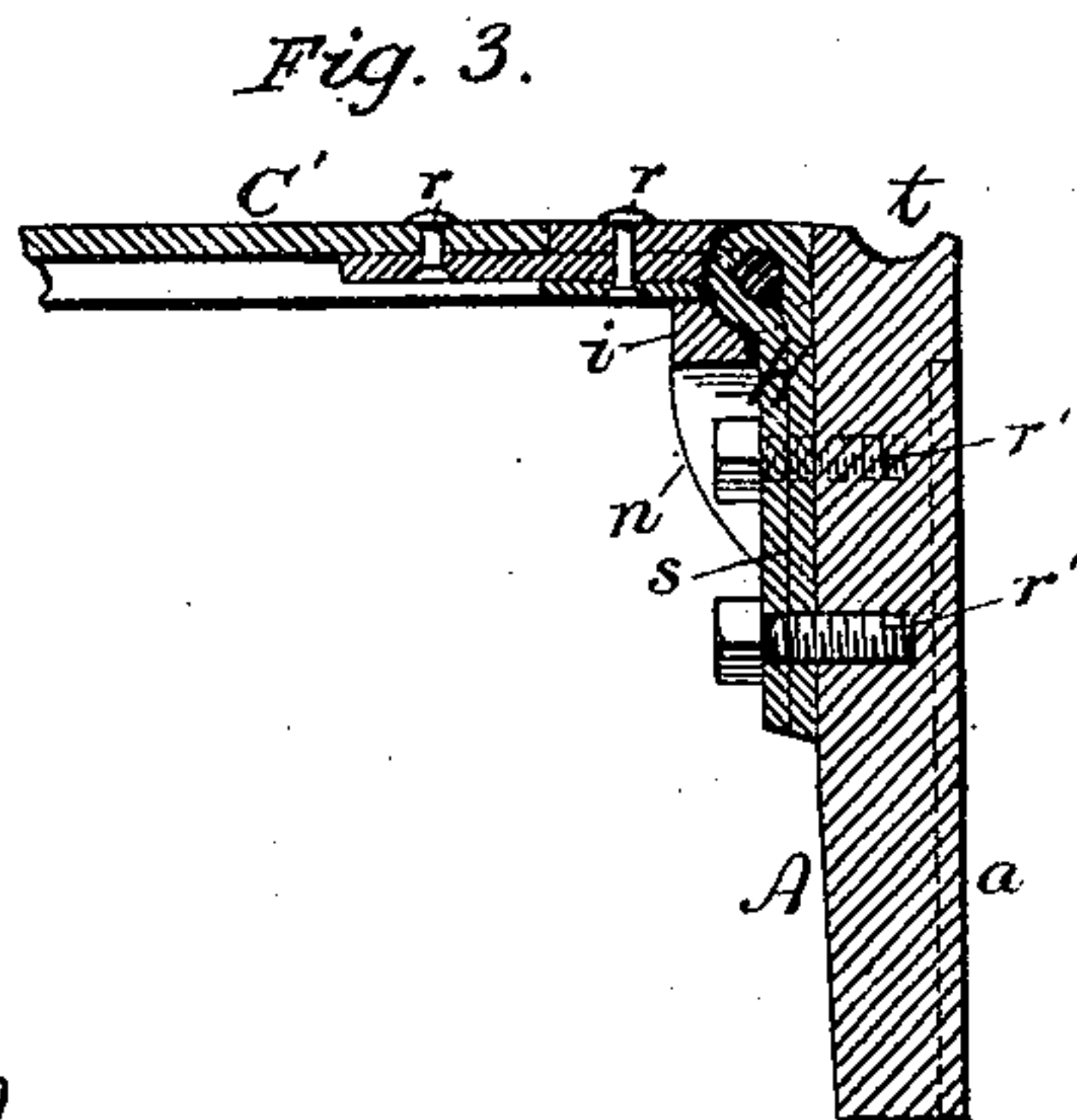


Fig. 3.

WITNESSES:

C. Clarence Poole  
R. K. Evans

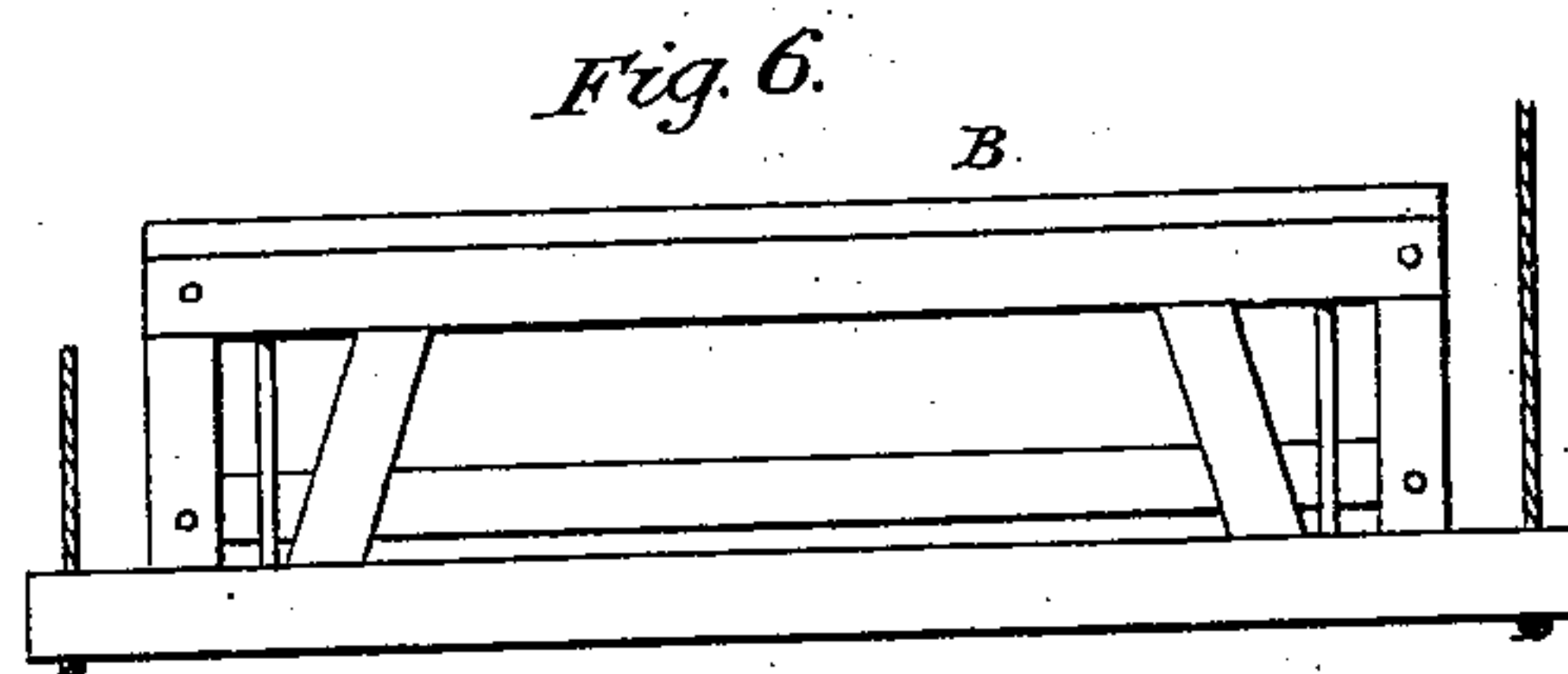
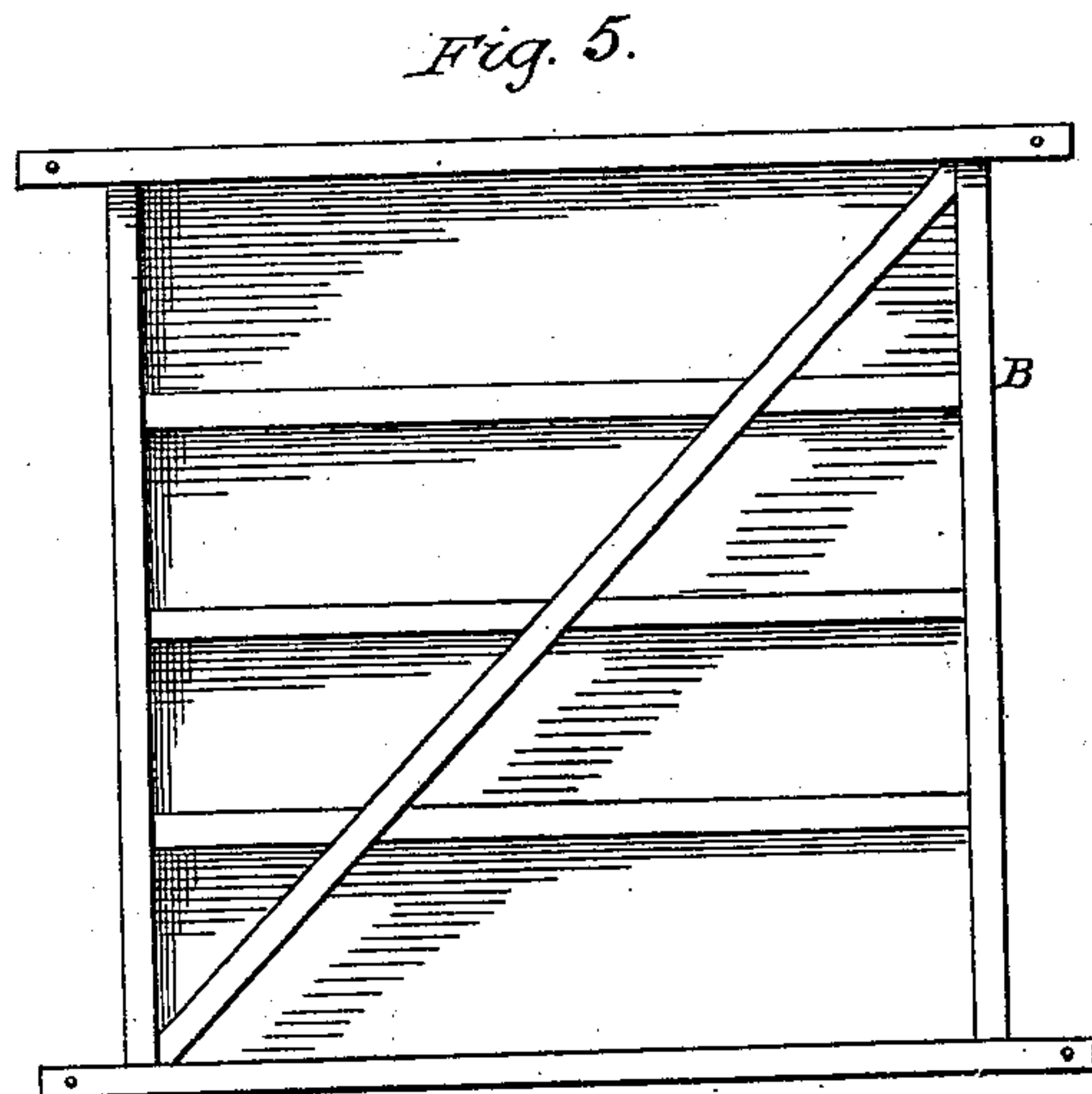
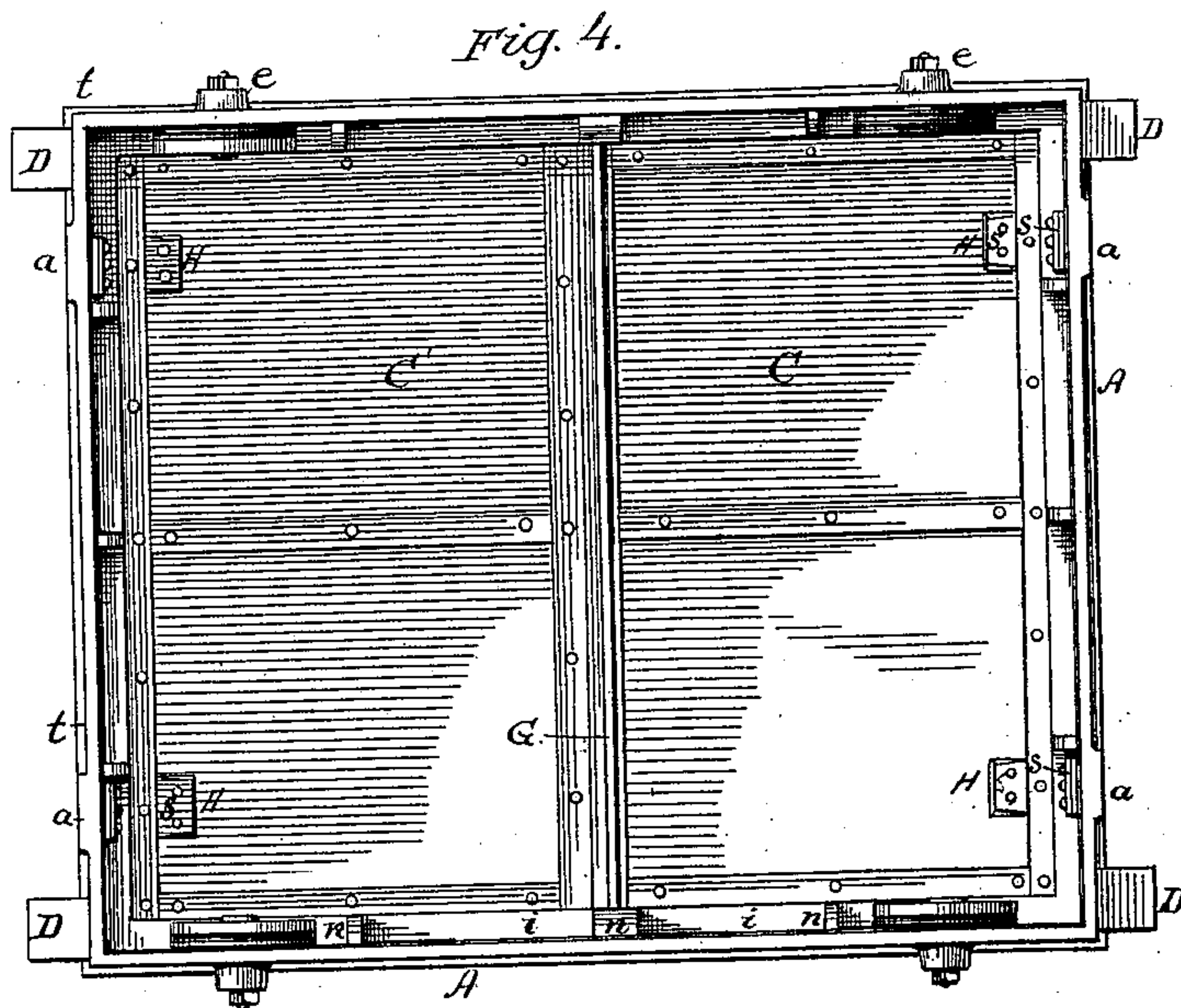
INVENTOR:

Philip Hinkle  
by A. H. Evans & Co.  
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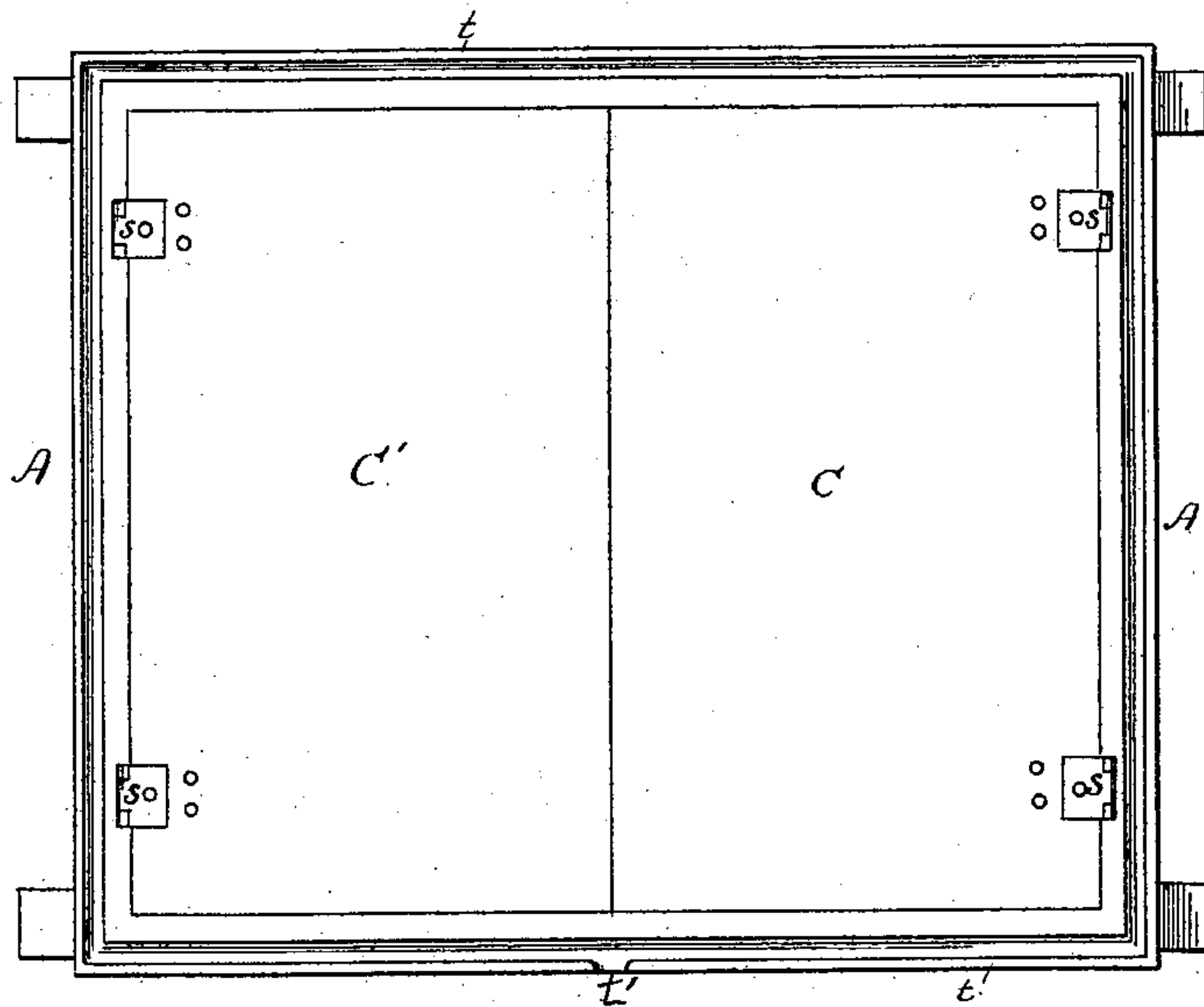
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Fig. 7.



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# UNITED STATES PATENT OFFICE.

PHILIP HINKLE, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN HATCHES FOR STREET-ELEVATORS.

Specification forming part of Letters Patent No. **204,821**, dated June 11, 1878; application filed April 27, 1878.

*To all whom it may concern:*

Be it known that I, PHILIP HINKLE, of San Francisco, California, have invented certain Improvements in Hatches for Street-Elevators; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of the elevator applied and hatchway in section. Fig. 2 is an enlarged section of hatchway, showing one door open. Fig. 3 is a cross-section through side of frame and hinge. Fig. 4 is a bottom view of hatchway. Figs. 5 and 6 are details. Fig. 7 is a top view of hatch with doors closed.

My invention relates to that class of hatchways covering openings in the pavement of a street, to allow the lowering of merchandise to the cellar by means of an elevator working below the hatchway; and has for its object to cheapen and strengthen the frame of the hatchway and prevent leakage around and between the doors.

My invention consists in casting the hatchway-frame as an entirety, having external lugs to hold in the masonry, and an internal rib supported by brackets to sustain the doors, and bosses or projections which sustain the pins on which the hoisting-pulleys are journaled.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is a rectangular iron hatchway-frame, cast in one piece. Integral with the frame, on its outside, are cast a projecting rib, *t'*, entirely around its upper edge, four projecting lugs, D D D D, braced by ribs *d d*, and four vertical strengthening ribs or projections, *a a*. On the inside of the frame, and cast integral with it, is a rib, *i*, slightly below the upper edge and extending entirely around it.

The rib *i* is supported by a series of brackets, *n n*, cast on the frame, and those on two

sides of the frame are supplied with holes *h*, to allow the hoisting-cords *p p* to pass through them in traveling from pulley 1 to pulley 2.

The doors C C' are hinged to the frame by means of hinges *s s*, so constructed and applied to the frame and the door that, when the doors are closed down on rib *i*, the hinges lie flush with the upper surface of the doors when the doors are closed, and form no impediment to walking over the hatchway. One leaf of each hinge is riveted to the door, and the other leaf is secured to the frame by bolts *r' r'*, so that by removing the bolts the doors can be readily taken off.

Integral with frame A, I also cast hollow bosses or studs, projecting outward, as seen at *e*, and projecting inward slightly, as seen at *e'*, to serve as journals for the spindles of the hoisting-pulleys 1 and 2.

Around the outside edges of the doors and in the top of the frame A, I cast a depression or gutter, *t*, provided with a spout, *t'*, leading to the street curb or gutter. This gutter and spout *t t'* effectually prevent any water from running from the pavement across the hatchdoors and leaking through the joints.

Experience has shown me that little or no leakage takes place in this class of devices from the water falling directly on the doors; but the water draining from the pavement in flowing across the doors does the mischief, and by preventing this cross-flow I reduce the leakage to the minimum.

In the center brackets *n n*, on each side of the frame, is a socket, *x*, to sustain a bar, G, which supports the doors at the center.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The cast hatchway-frame A, provided with lugs D, braces *a*, rib *i*, brackets *n n*, bosses *e e'*, and gutter *t* with its spout *t'*, the whole cast integral, as set forth.

PHILIP HINKLE.

Witnesses:

R. L. M. CAMDEN,  
FRANK M. RICKARDS.