

No. 640,385.

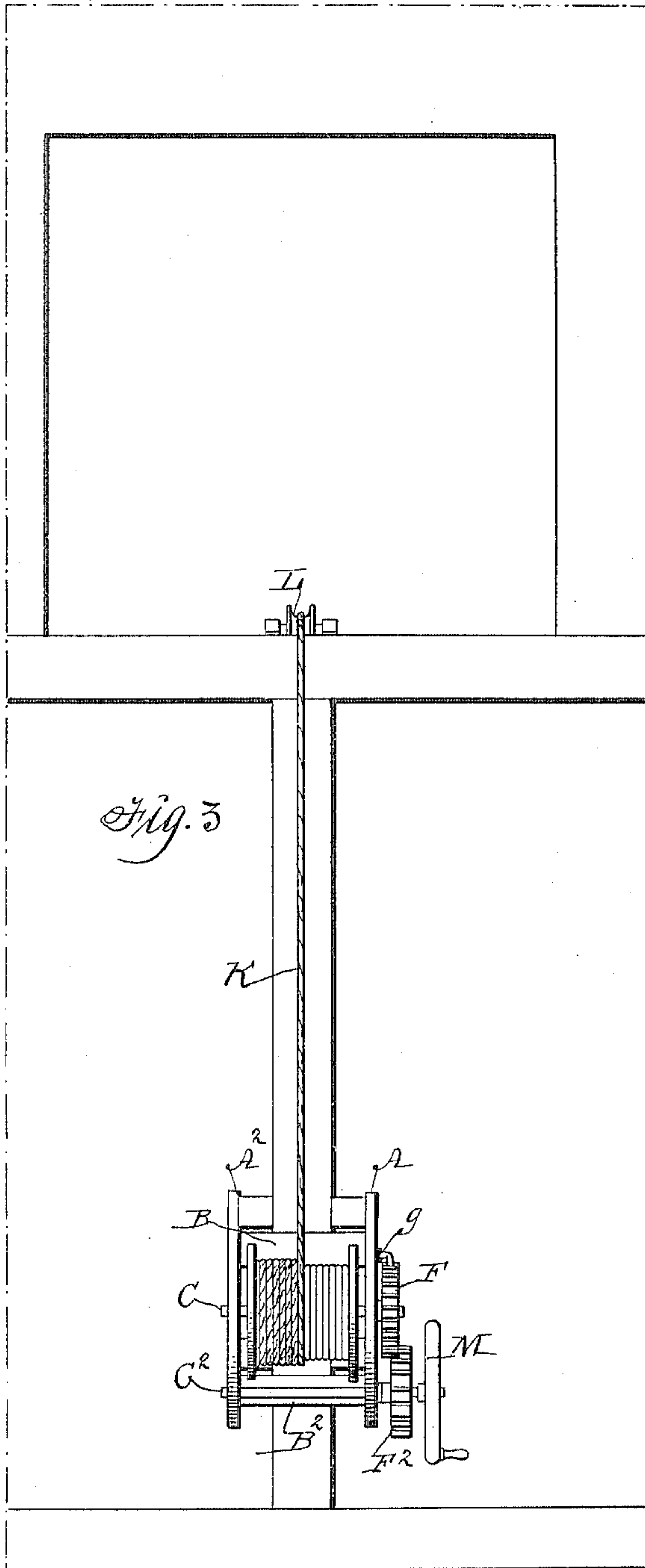
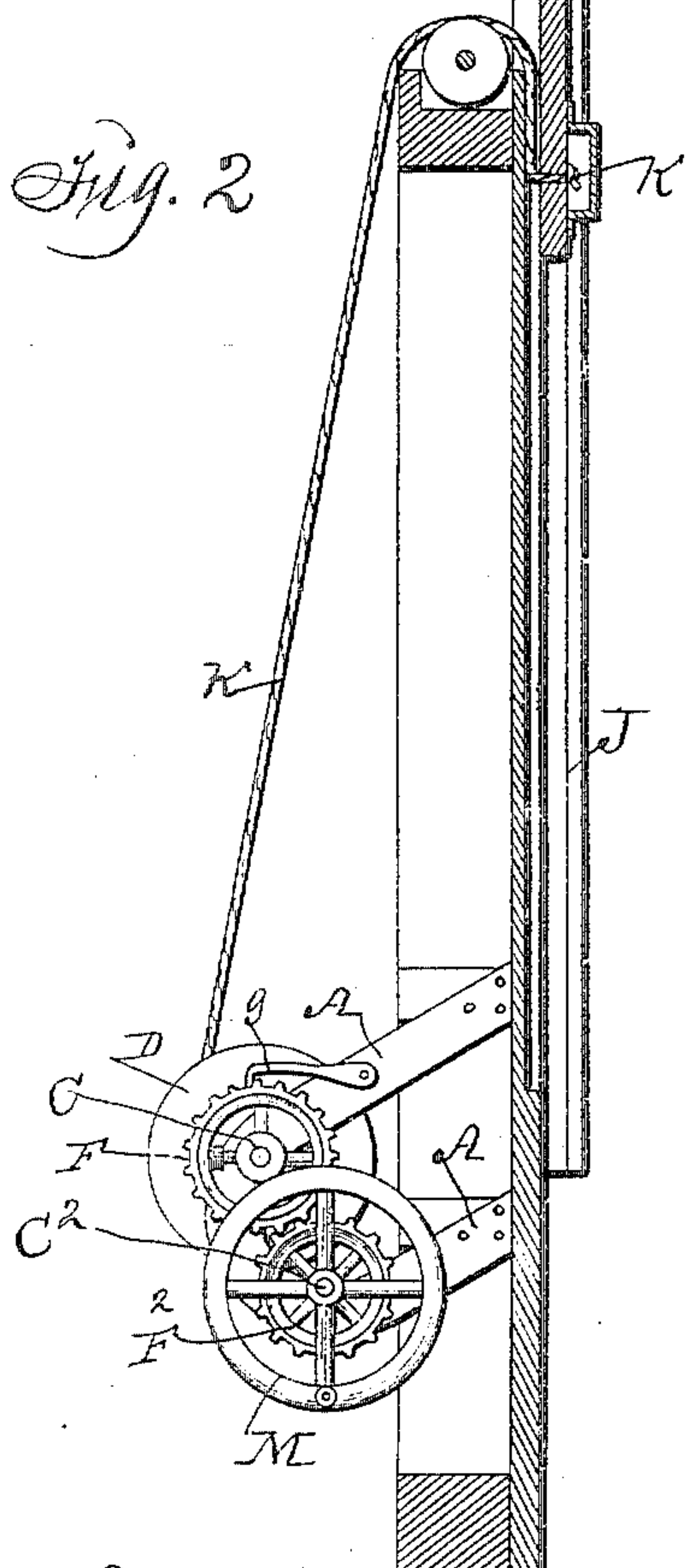
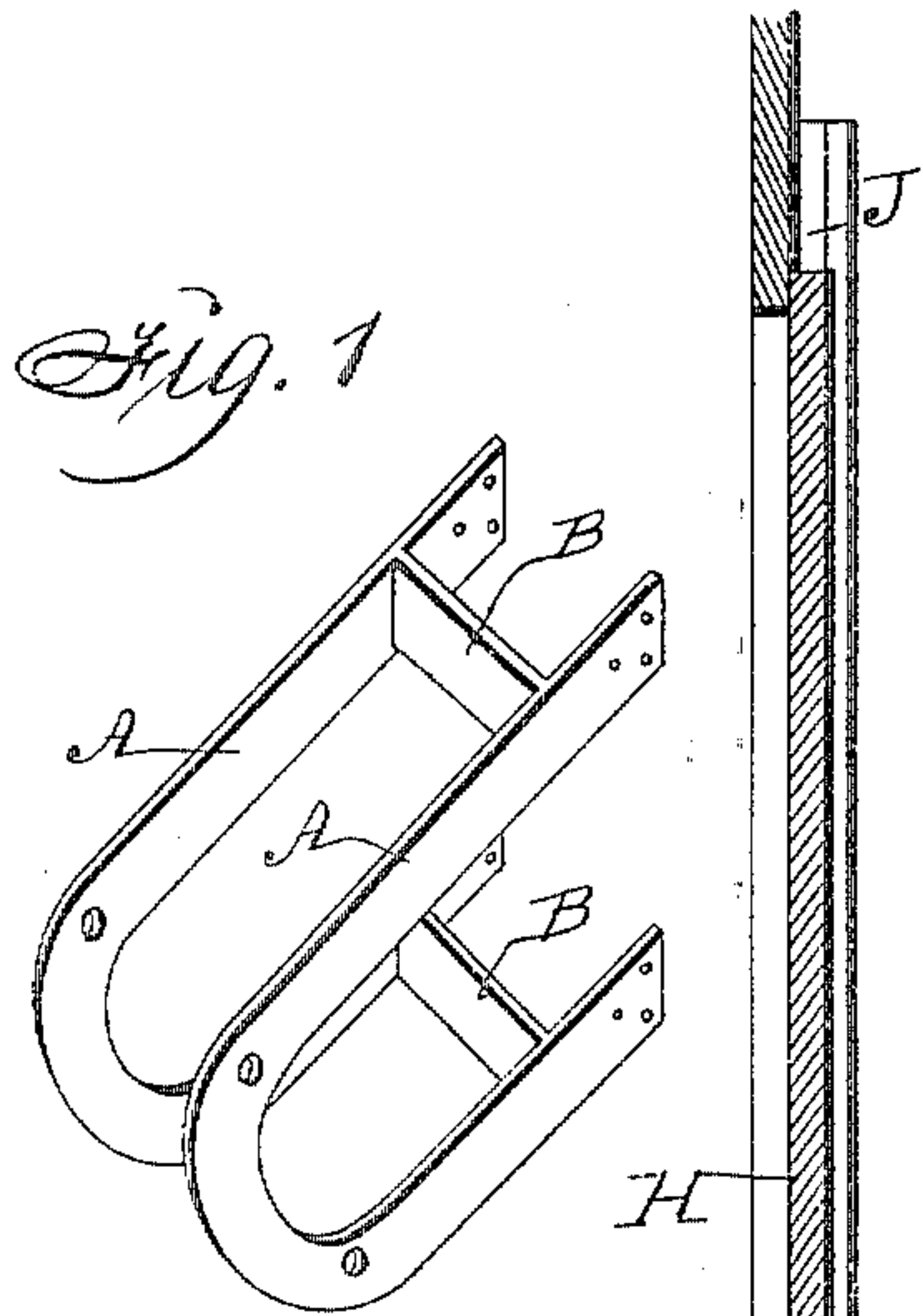
Patented Jan. 2, 1900.

F. HERING.

VERTICALLY ADJUSTABLE BARN DOOR.

(Application filed June 29, 1899.)

(No Model.)



Witnesses:
Fred Schraeder
George Hering

Inventor:
Fred Hering

UNITED STATES PATENT OFFICE.

FRED HERING, OF CHURDAN, IOWA.

VERTICALLY-ADJUSTABLE BARN-DOOR.

SPECIFICATION forming part of Letters Patent No. 640,385, dated January 2, 1900.

Application filed June 29, 1899. Serial No. 722,350. (No model.)

To all whom it may concern:

Be it known that I, FRED HERING, a citizen of the United States of America, residing at Churdan, in the county of Greene and State of Iowa, have invented a Vertically-Adjustable Barn-Door, of which the following is a specification.

My object is to facilitate the opening and closing, partly or entirely, of a door in an elevated and inaccessible position, as required for purposes of ventilation and for moving hay and other products in and out of a building.

My invention consists in the arrangement and combination of a door and hoisting mechanism with the wall of a building, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a frame specially adapted for mounting operative mechanism thereon and fixing it to the frame of a building. Fig. 2 is a vertical sectional view of the wall of a building and a sliding door fitted thereto and in a closed position and a side view of the hoisting mechanism fixed to the wall. Fig. 3 is an inside view of a portion of the frame and wall and the doorway open.

The letters A and A² designate the mating U-shaped metal sides, and B and B² the cross-pieces that connect the mating sides of the frame.

C is a shaft to which is fixed a cylinder D. The shaft is mounted in bearings formed in the parallel sides of the metal frame, adapted to be fixed to the frame of the building. C² is a corresponding shaft mounted in a similar way in the mating sides of the frame, but in a lower plane, and the two shafts are connected by means of gear-wheels F and F², fixed on the ends of the shafts.

A detent *g* is pivoted to the frame to engage the wheel F, as required to lock the wheels and to retain the sliding door stationary at different points of elevation desired and also to keep the door locked in a closed position.

A door H is fitted in ways J, fixed to the parallel sides of a doorway in the wall of a building.

K is a rope fixed to the lower part and center of the door and extended inward over a pulley L, mounted on a cross-piece in the frame of the wall, and from thence down and fixed to the cylinder D in such a manner that the rope can be wound upon the drum by means of a crank-wheel M on the end of the shaft C², as required to elevate the door H.

It is obvious an elevated door can be thus readily raised and lowered by a person on the lower floor of a building and retained in a locked position at different points of elevation for purposes of ventilation, opened entirely to facilitate the passage of hay and other farm products, and also closed and locked.

Having thus described my invention and its function and operation, the utility thereof will be readily understood by farmers, and what I therefore claim as new, and desire to secure by Letters Patent therefor, is—

1. A vertically-sliding door fitted in parallel ways at the sides of an elevated doorway, a pulley mounted at the bottom and center of the doorway, a frame fixed to the inside of the lower portion of the wall of a building directly below said pulley, a cylinder mounted in said fixed frame, means for rotating and locking said cylinder, a rope fixed to the bottom of the door and extended over said pulley and its lower end fixed to said cylinder, all arranged and combined to operate in the manner set forth for the purposes stated.

2. Means for operating a vertically-adjustable barn-door comprising a frame fixed to the wall of the building below the center of the doorway composed of mating sides A and A² and cross-bars B and B², a shaft C having a fixed cylinder D, a shaft C², gear-wheels F and F², a detent *g*, a rope K fixed to the door and to the cylinder, a pulley L at the bottom of the doorway and a crank-wheel on the end of the shaft C², all arranged and combined as shown and described for the purposes stated.

FRED HERING.

Witnesses:

FRED SCHROEDER,
GEORGE HERING.