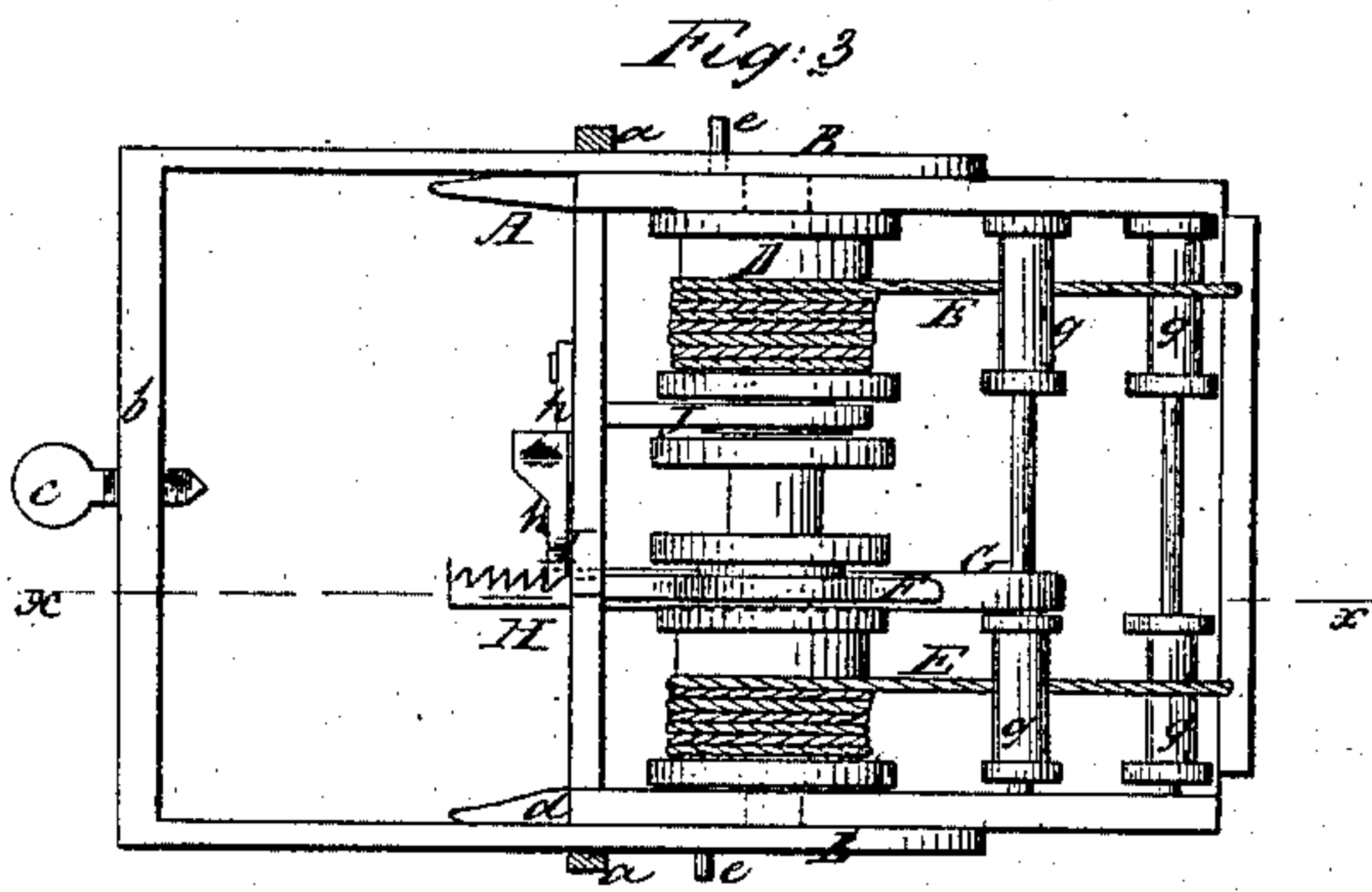
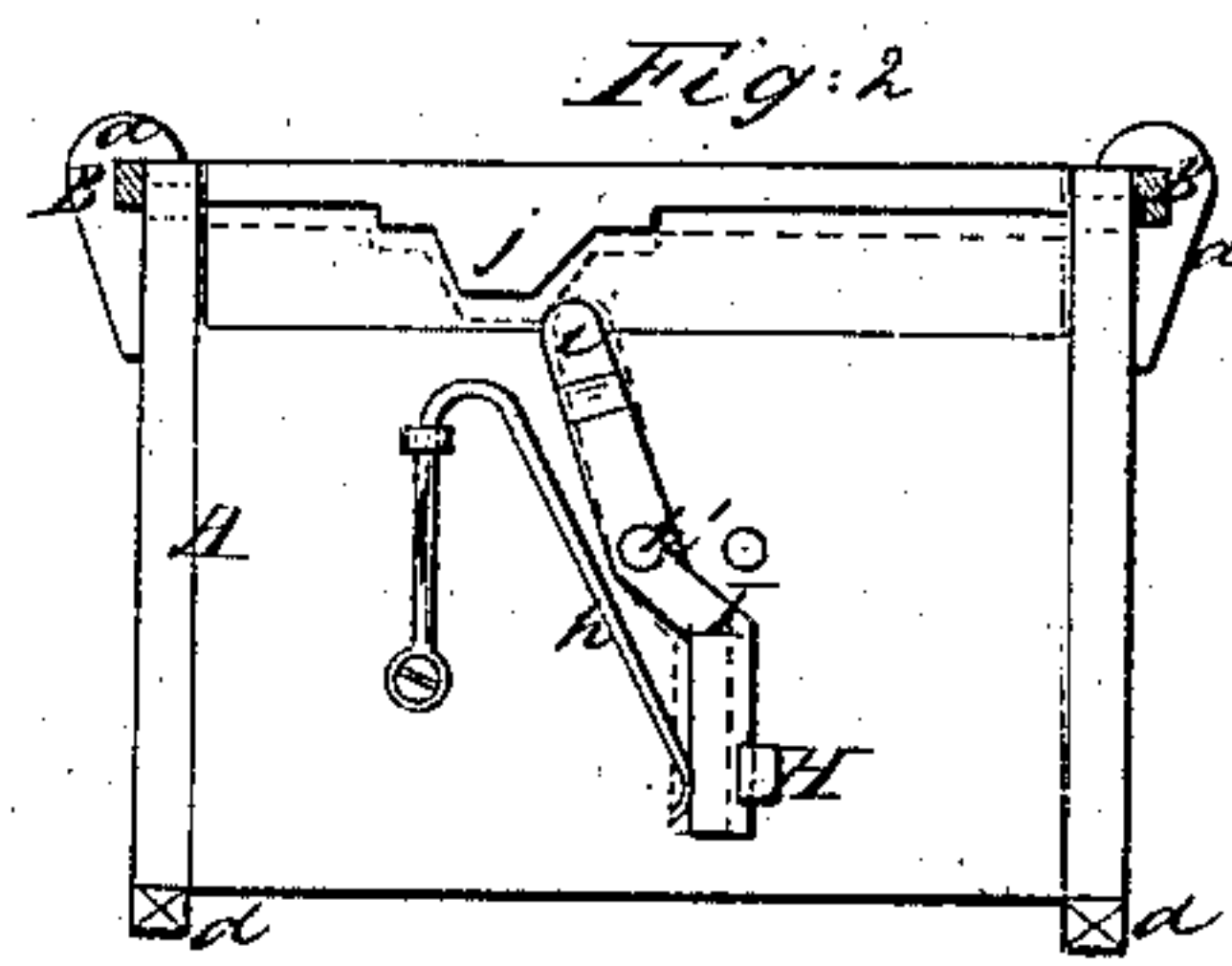
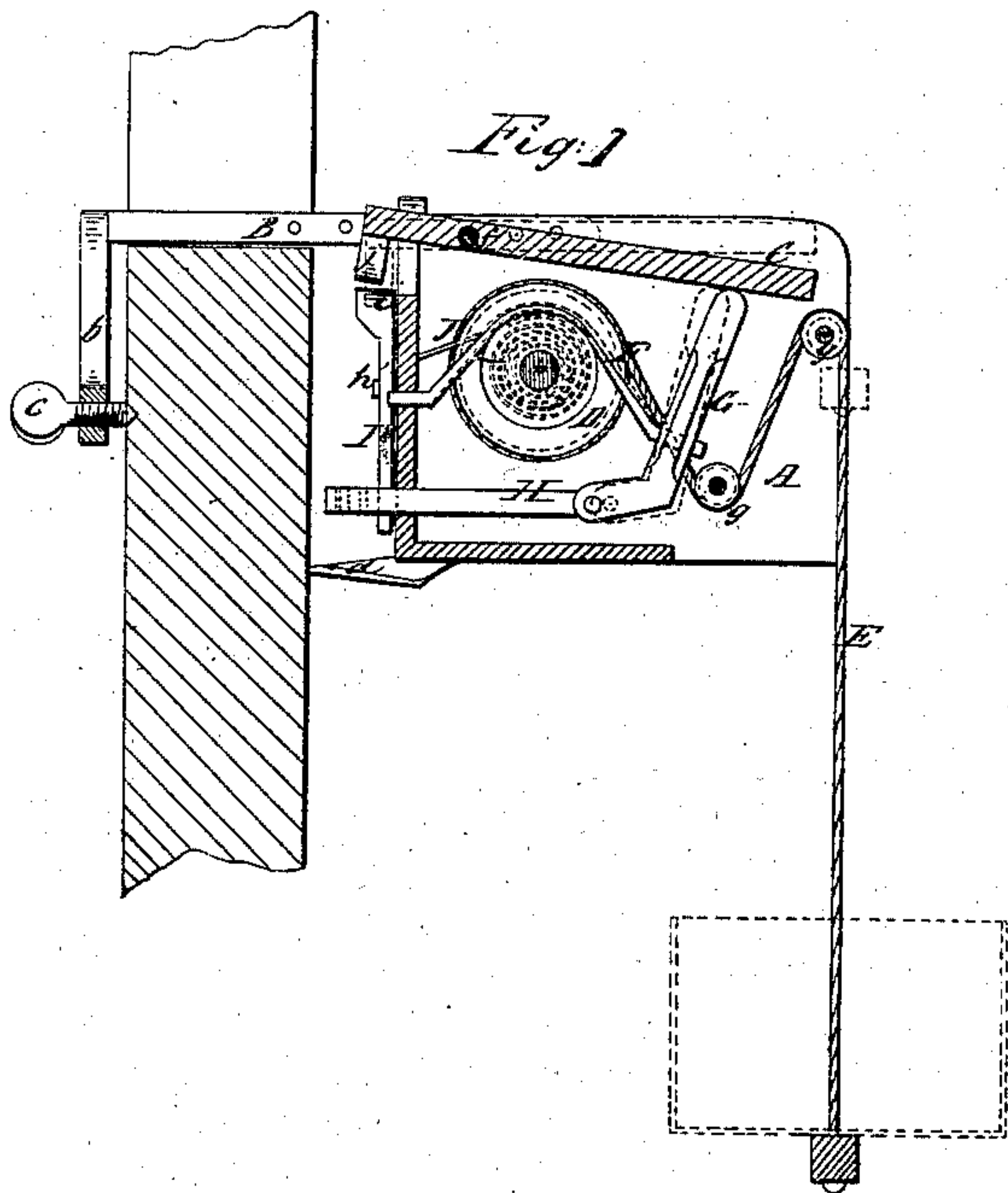


O. Sweeney.
Fire Escape.

Nº 21,282.

Patented Aug. 24, 1858.



UNITED STATES PATENT OFFICE.

OWEN SWEENEY, OF BROOKLYN, NEW YORK.

FIRE-ESCAPE.

Specification of Letters Patent No. 21,282, dated August 24, 1858.

To all whom it may concern:

Be it known that I, OWEN SWEENEY, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Fire-Escape; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical section of my improvement, taken in the line x, x , Fig. 3. Fig. 2, is an end view of ditto. Fig. 3, is a plan or top view of ditto, the platform being removed.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in the employment or use of a drum having a rope and basket or car attached, a brake and platform and compensating spring, combined and arranged as hereinafter fully shown and described, whereby a person can descend to the ground from a window in the upper stories of a building with perfect safety, the device being automatic in its action, requiring no attention after being adjusted to the window sill.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a rectangular box at the two opposite sides of which a bar B, is placed, said bars being fitted in suitable guides a , and having their inner ends connected by a curved bar b , through the center of which a set screw c , passes. To the inner end of the box A, at its lower part or edge two spikes d, d , are attached, one at each side. The bars B, B, are allowed to slide freely in the guides a , and they may be secured at any desired point by pins or screws e , which pass transversely through the bars B, into the sides of the box A.

The top plate or board C, of the box is hung on pivots or journals f, f , the pivots or journals being fitted in the sides of the box so that the plate or board C, is allowed to tilt or play vertically to a certain extent.

Within the box A, a drum D, is placed, the journals of the shaft of the drum being placed in the sides of the box.

E, is a rope the ends of which are attached to the drum D, one near each end. This rope passes under and over friction rollers g, g , and a basket or car shown in red Fig. 1, is attached to it.

F, is a metal strap the back end of which is attached to the inner end of the box A. This strap passes over the top of the drum D, and its front end is attached to a lever G, on the top end of which the outer part of the top plate or board C, of the box A, rests or bears. The lower end of the lever G, is pivoted or jointed to a rack H, which passes through the inner end of the box A, and has a pawl I, catching into it, said pawl, that is its lower part being pressed toward the rack by a spring h . The pawl I, is attached to the outer surface of the inner end of the box by a fulcrum pin h' , and the upper end of the pawl is rounded as shown clearly at i , Fig. 2.

J, is a coil spring, one end of which is attached to the drum D, and the opposite end to the back of the box, the spring being wound around the drum, see Fig. 3, and dotted lines in Fig. 1.

To the back part of the top plate or board C, of the box A, and at its under side a projection j , is attached.

The device is used as follows:—The box A, is first secured to the sill or casing K, of the window as follows.—The bars B, B, are drawn out from the box so that the curved bar b , will project down at the inner side of the window sill, the spikes d, d , bearing against the building at the outer side see Fig. 1. The screw c , being firmly screwed against the inner side of the sill. A person to descend, steps on the top board or plate C, and as he passes toward the outer end of the plate or board his weight actuates the lever G, which draws down the strap on the drum D, said strap serving as a brake, and the pressure of the strap on the drum is retained by the rack H, and pawl I, the rack being forced through the back end of the box as the plate or board C, is depressed, and the strap made to bind upon the drum with a degree of pressure commensurate with the weight of the person that passed over the plate or board, and as the person enters the car or basket it descends with an equal or nearly equal speed, accelerated speed being compensated for by the spring J, which is wound up on the drum D, as the car or basket descends. The car or basket remains below until a succeeding person intending to descend steps upon the inner end of the plate or board C, and depresses it so that the projection j , will strike the upper end of the pawl I, and release the rack H, and

consequently the brake or strap F, and the spring J, which served during the previous descent of the car or basket as a compensating power will rotate the drum D, wind up 5 the rope E, and elevate the car or basket for the descent of the succeeding person. It will be perceived that the strap or brake F, is made to bear with a greater or less pressure on the drum according to the weight 10 of the person that passes over and depresses the outer end of the plate or board C. Consequently persons of varying weights will descend with equal speed.

The device may be kept within a building 15 any number being used according to the size of the building. They may be readily adjusted to the sills of the upper windows when occasion may require. It will prove a valuable invention for large buildings 20 such as hotels etc.

Having thus described my invention what

I claim as new and desire to secure by Letters Patent, is,

1. The drum D, with rope E, attached brake F, and compensating spring J, and 25 vibrating or tilting platform or board C, placed within the box A, combined and arranged to operate as and for the purpose set forth.

2. I further claim the particular arrangement 30 of the rack bar H, pawl I, platform or board C, and strap or brake F, as shown, whereby the person that descends, solely by his own gravity, releases the drum from the brake, and causes the car or basket to ascend, 35 and also by the same means regulates for his descent the pressure of the brake on the drum, as described.

OWEN SWEENEY.

Witnesses:

WM. TUSCH,
W. HAUFF.