

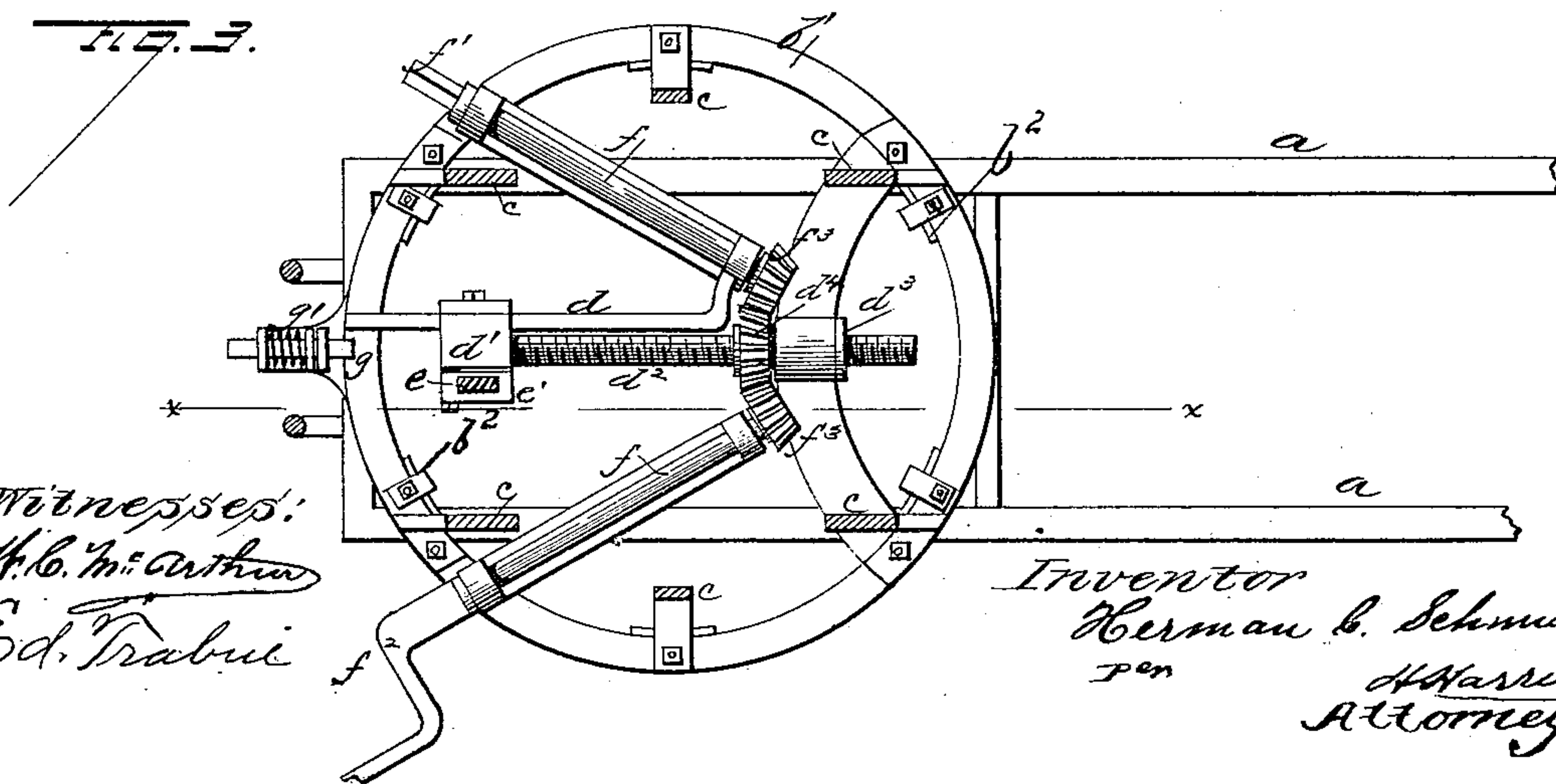
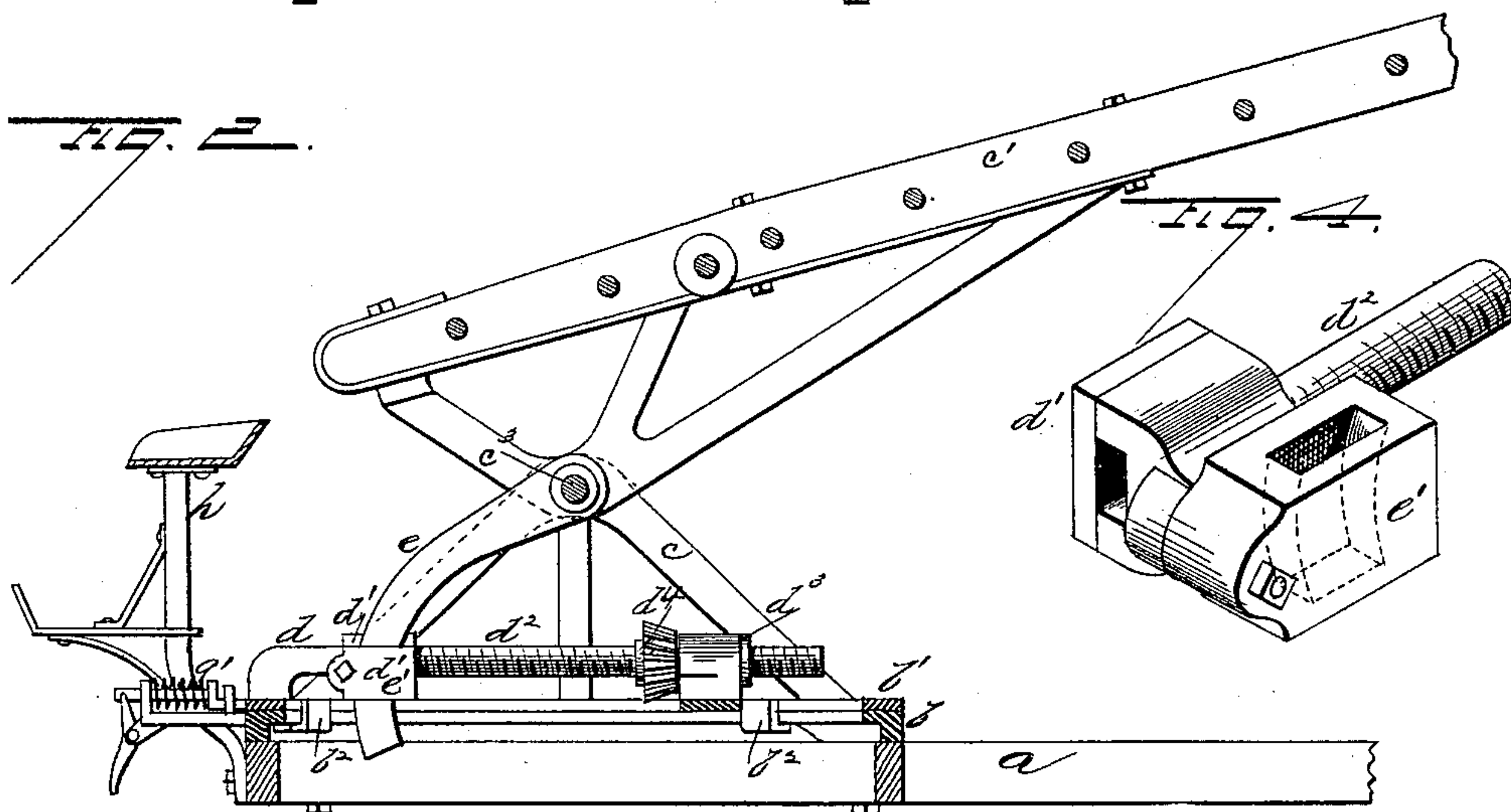
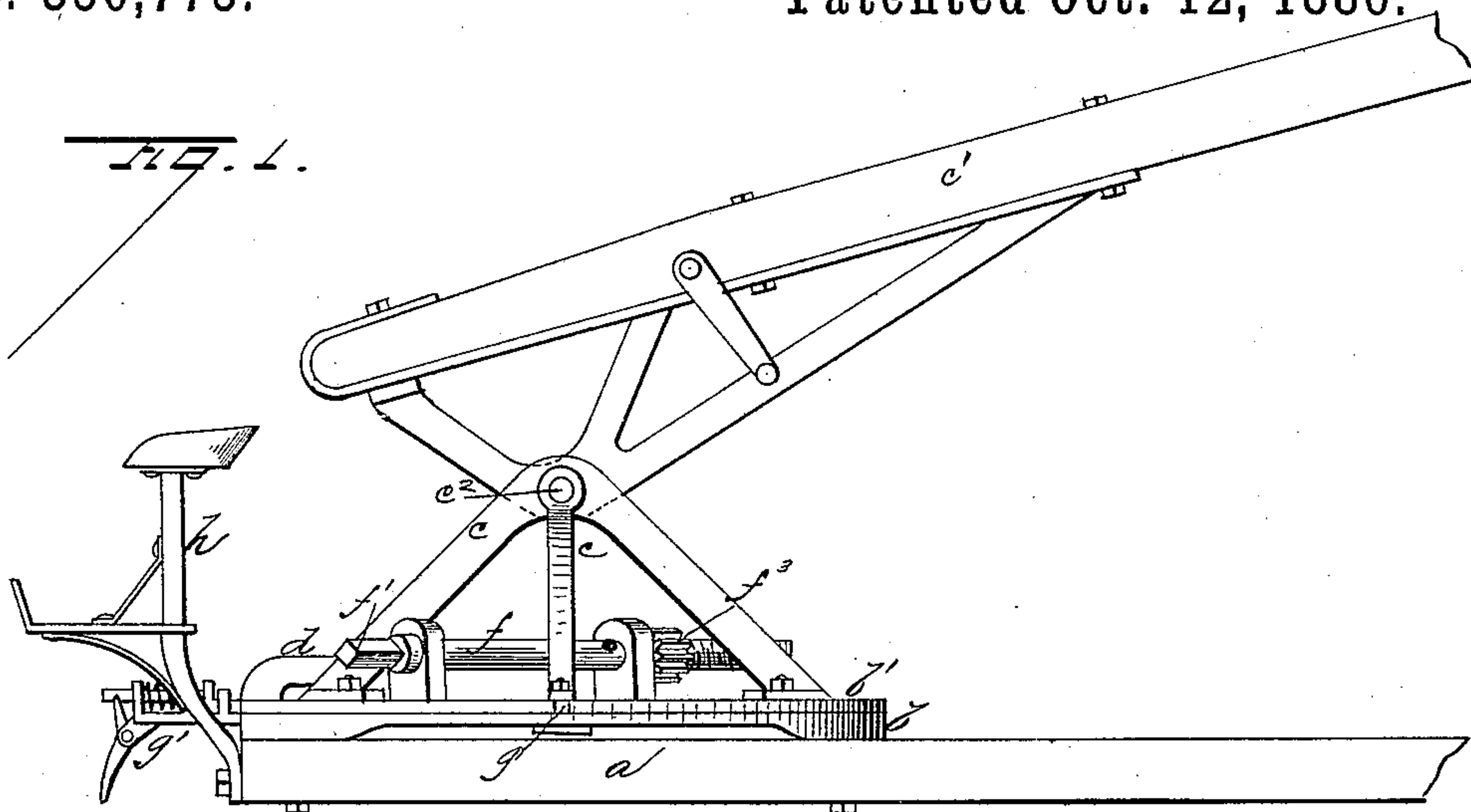
(No Model.)

H. C. SCHMIDT.

FIRE ESCAPE.

No. 350,773.

Patented Oct. 12, 1886.



Witnesses:
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UNITED STATES PATENT OFFICE.

HERMAN C. SCHMIDT, OF JOHNSTOWN, NEW YORK.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 350,773, dated October 12, 1886.

Application filed February 18, 1886. Serial No. 192,320. (No model.)

To all whom it may concern:

Be it known that I, HERMAN C. SCHMIDT, a citizen of the United States, residing at Johnstown, in the county of Fulton and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification, to wit:

This invention relates to extension fire-escapes; and it consists in certain peculiarities of the construction and arrangement of the same, substantially as will be hereinafter more fully set forth and claimed.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a side elevation of my device. Fig. 2 is a longitudinal vertical section on the line *xx*, Fig. 3; and Fig. 3 is a horizontal section showing the operating-screw and its connections. Fig. 4 is a detail view of a part of the device.

a represents the frame of a vehicle truck of the ordinary and well-known form commonly used with this class of escapes, and not necessary to more particularly describe in this connection. On the forward end of this frame is secured a circular frame or turn-table, *b*, on top of which is a second ring, *b'*, free to move around upon the other, and confined in place by a series of clips, *b²*, as shown. On this upper ring is secured the braced frame *c*, in the upper part of which is journaled the lower ladder-section, *c'*, by means of trunnions *c²*, on which the ladder turns in being raised and lowered. On the upper ring, *b'*, is secured a longitudinal guide-bar, *d*, on which is a sliding head-block, *d'*, having a screw-shaft, *d²*, secured to it, and running back through a screw-sleeve, *d³*, journaled in a boxing on the rear of the ring, and provided with a small pinion, *d⁴*, by which the sleeve is turned to move the screw and head-block back and forth. The trunnion-shaft *c²* is provided with a rigid arm, *e*, having its outer end curved, as in Fig. 2, and passed through a block, *e'*, pivoted on the sliding head-block, *d'*. Journaled in suitable boxes on the upper ring, *b'*, are also a pair of operating-shafts, *f*, the outer ends of which are squared or angular, as at *f'*, to admit the use of a cranked key, *f²*, in turning it, and on the inner ends they are provided with pinions *f³*, which mesh with the one on the screw-sleeve and give motion thereto.

The upper movable ring of the turn-table is formed with a series of peripheral notches, *g*, with which engages a spring-latch, *g'*, on the truck-frame or lower ring. On the forward end of the truck-frame is also placed the driver's seat *h*, which is supported on brackets which throw it out far enough to prevent any interference with the heel of the ladder in swinging it, in whatever position it may be.

In operation the cranked key is placed on one of the operating-shafts and turned, imparting motion to the screw sleeve, which at once draws the screw-rod and its head-block rearward. This action at once lifts the ladder by means of the curved arm *e*, and when at the proper angle the sections are extended and the ladders swung around to position. In all these movements it will be observed that there is nothing to interfere with the convenient and rapid operation of the ladders, and they are under control as soon as brought on the scene of action, without removing the seat or any part of the device. It will be observed that the operating crank-shafts are placed one on each side of the screw, and are inclined away from it, so that the device may be worked without uncoupling the team or removing the vehicle-tongue. The block *e'*, being pivoted, readily accommodates itself to the position of the arm *e*, and thus lessens the friction and renders the movement easy.

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

In a fire-escape, a truck-frame provided with a turn-table, an extension-ladder mounted on trunnions thereon, and a rigid arm projecting from the trunnion-shaft, in combination with a screw-shaft secured to a sliding head-block, a second block pivoted to the first, through which said arm passes, a revolving screw-sleeve journaled on the turn-table surrounding the screw-shaft and provided with a pinion, and an operating-shaft geared to said pinion and extended to the side of the truck, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HERMAN C. SCHMIDT.

Witnesses:

JOHN PLATHE,

FERDINAND ACKERKNECHT.