

No. 713,815.

Patented Nov. 18, 1902.

H. TEXTOR.
FIRE ESCAPE.

(Application filed July 31, 1901.)

(No Model.)

3 Sheets--Sheet 1.

Fig. 1.

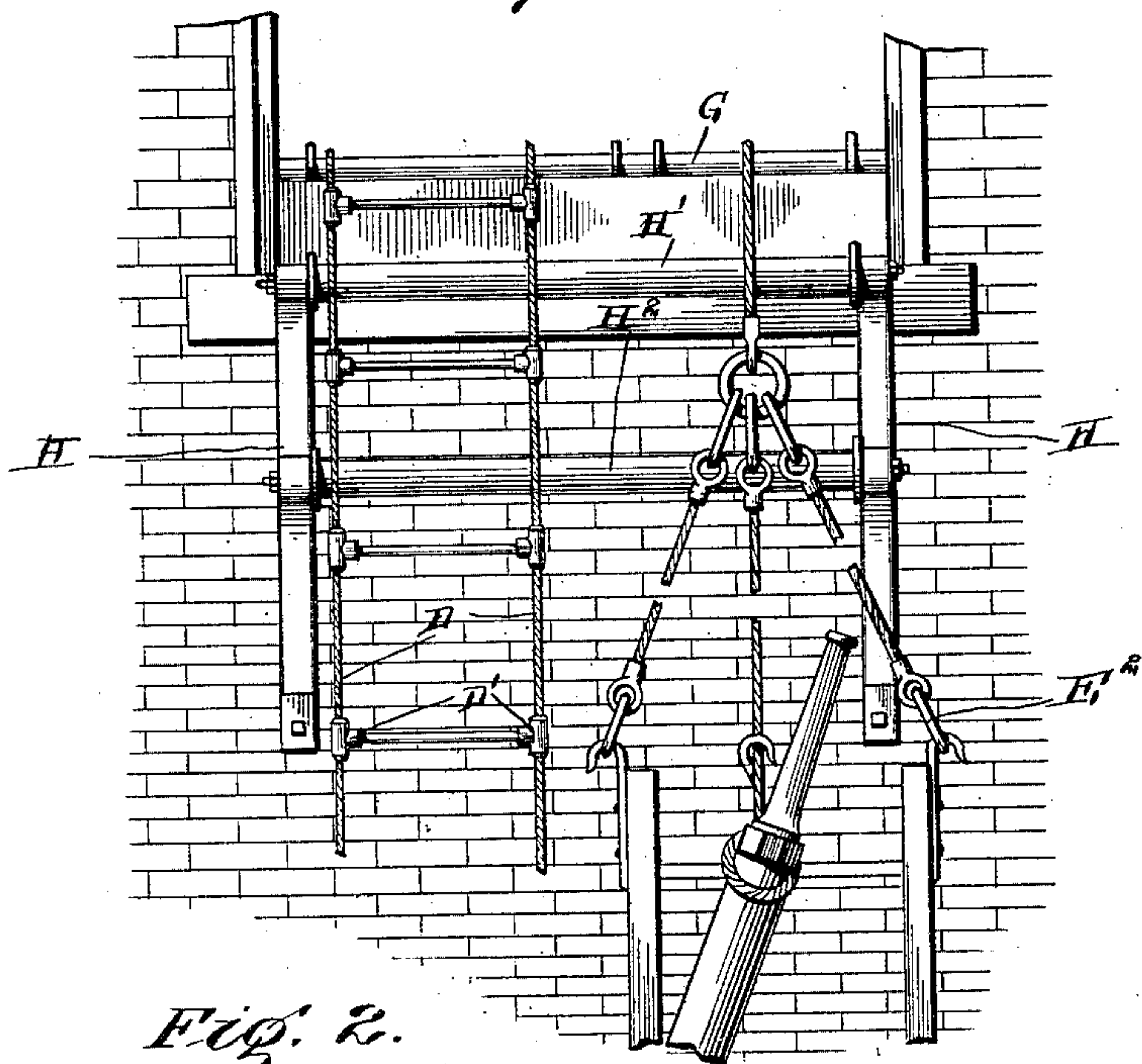
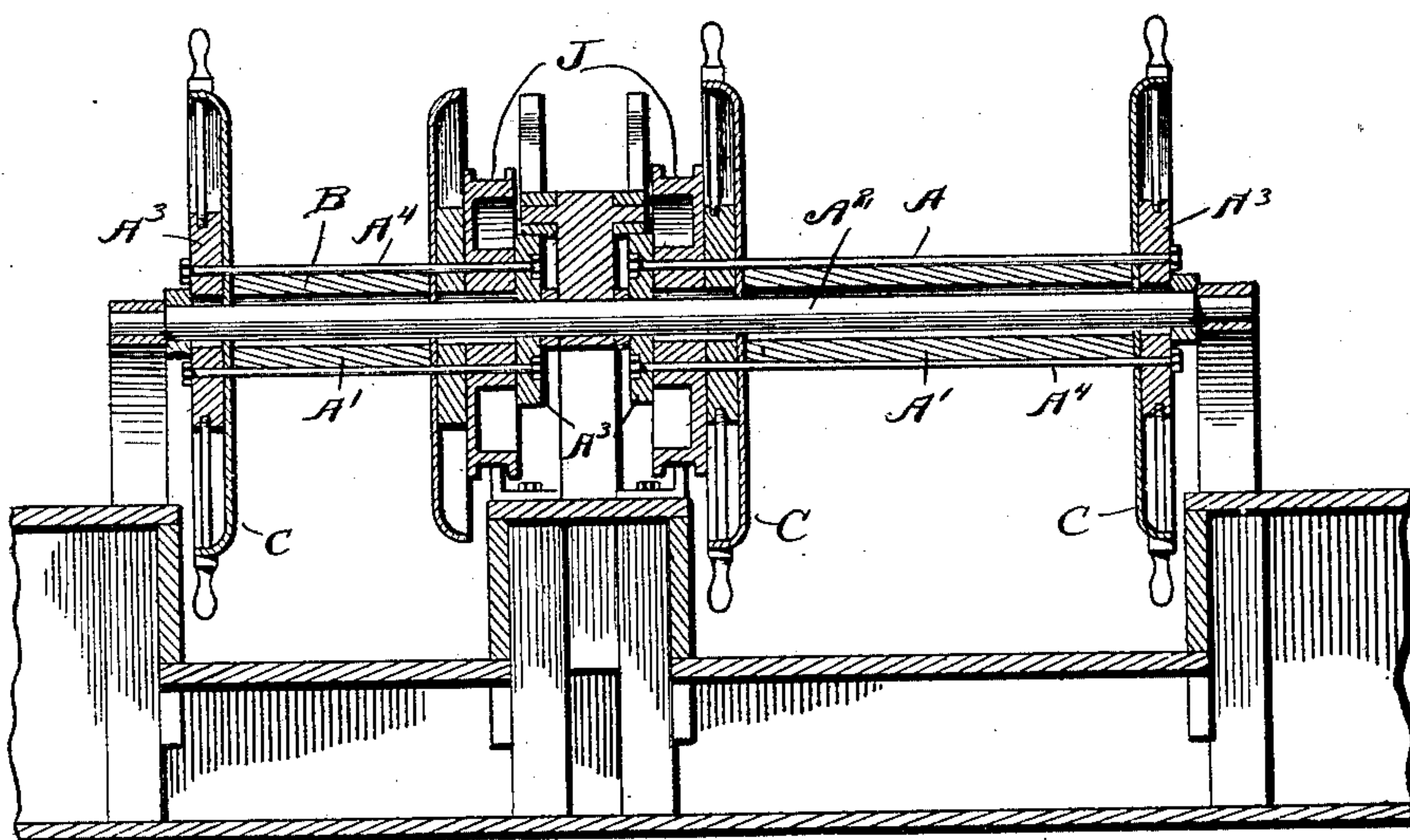


Fig. 2.



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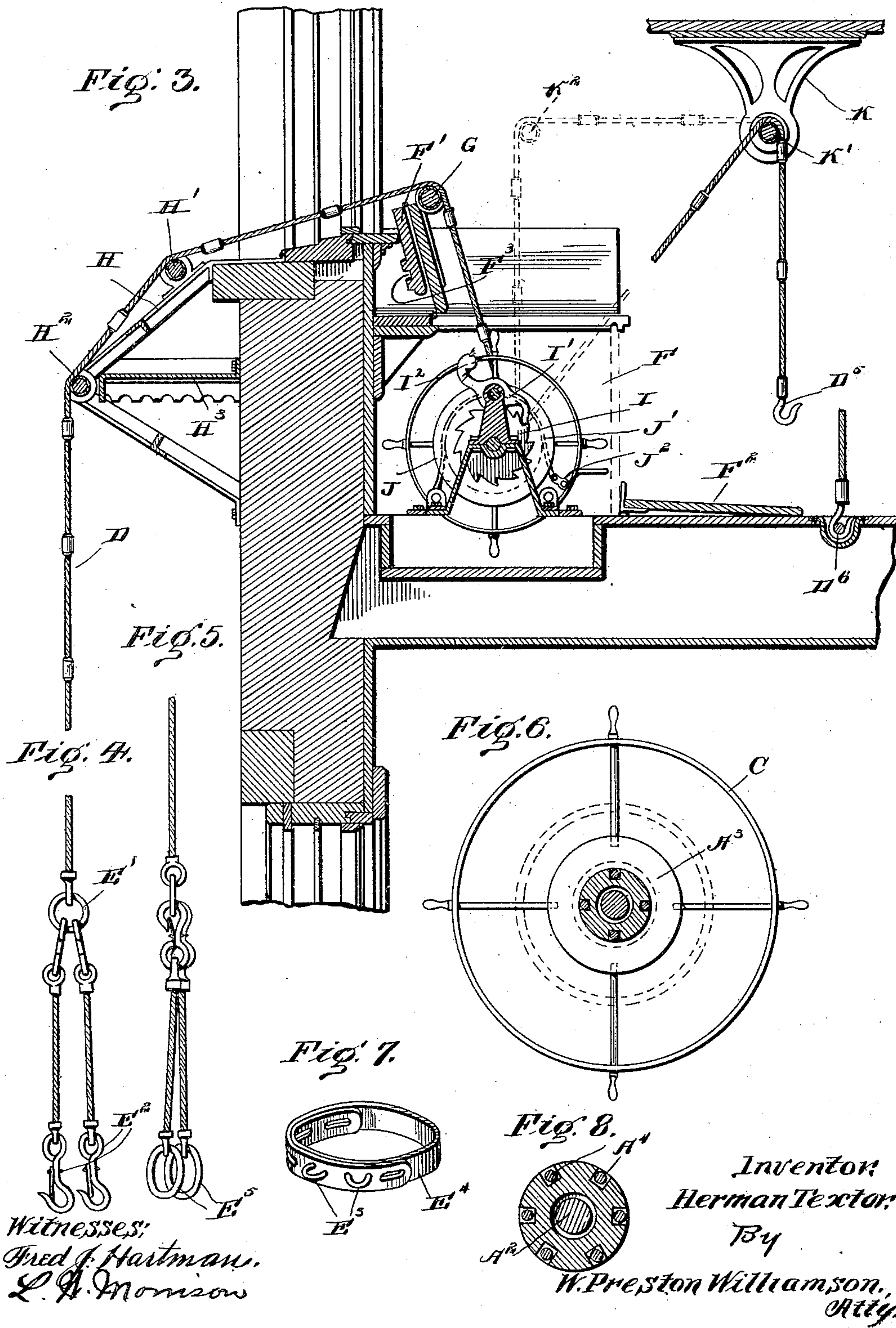
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3 Sheets—Sheet 3.

Fig. 9.

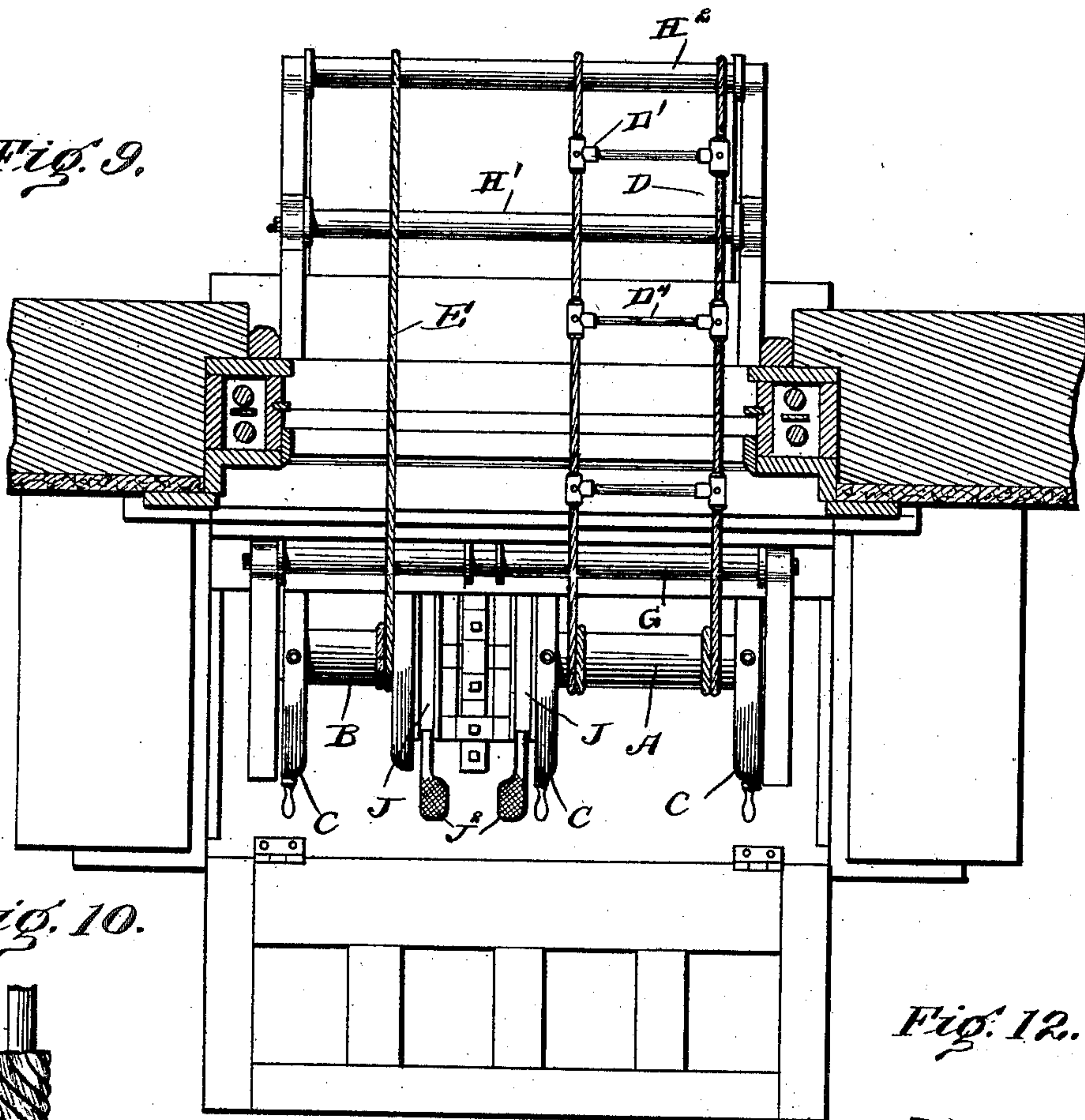


Fig. 10.

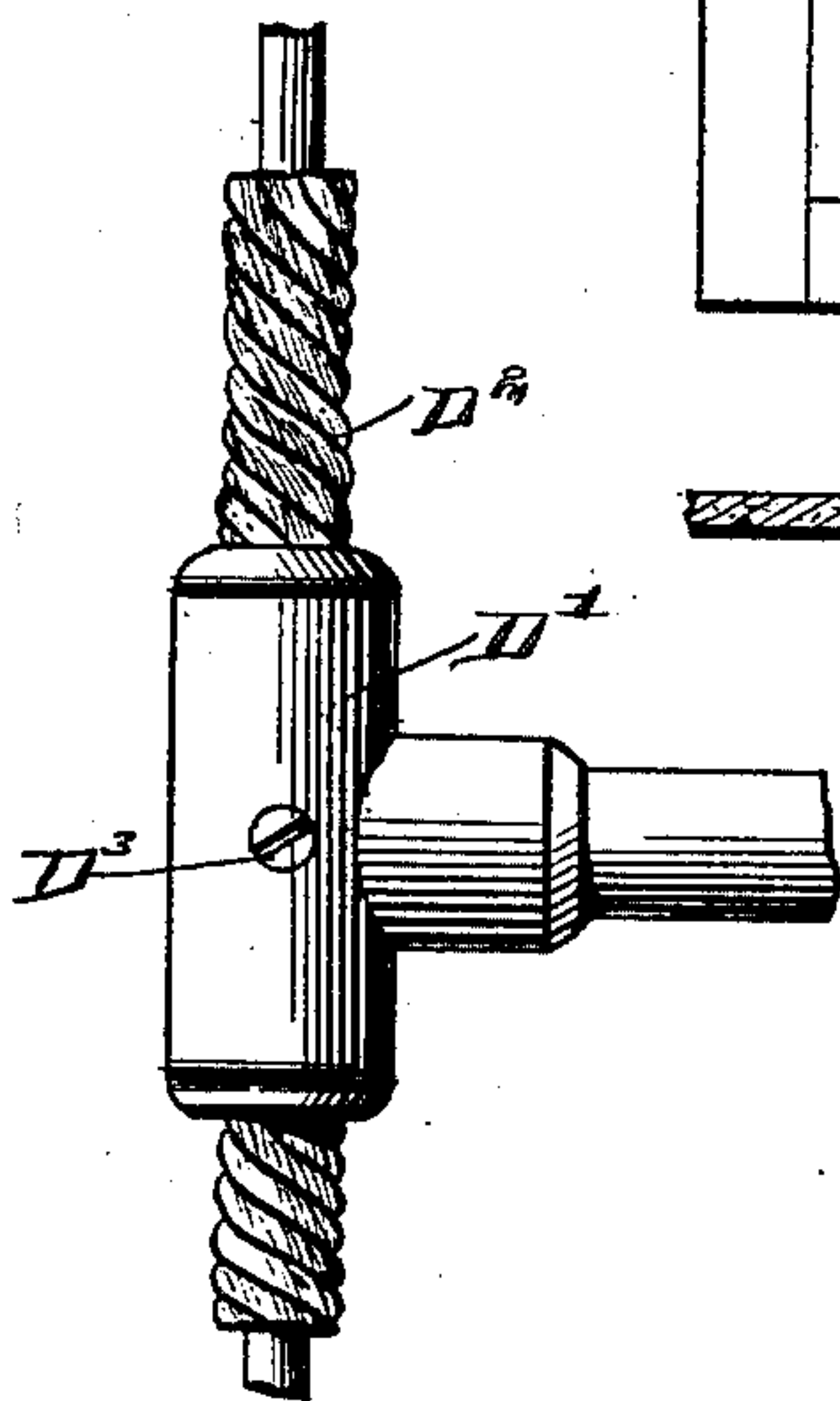


Fig. 12.

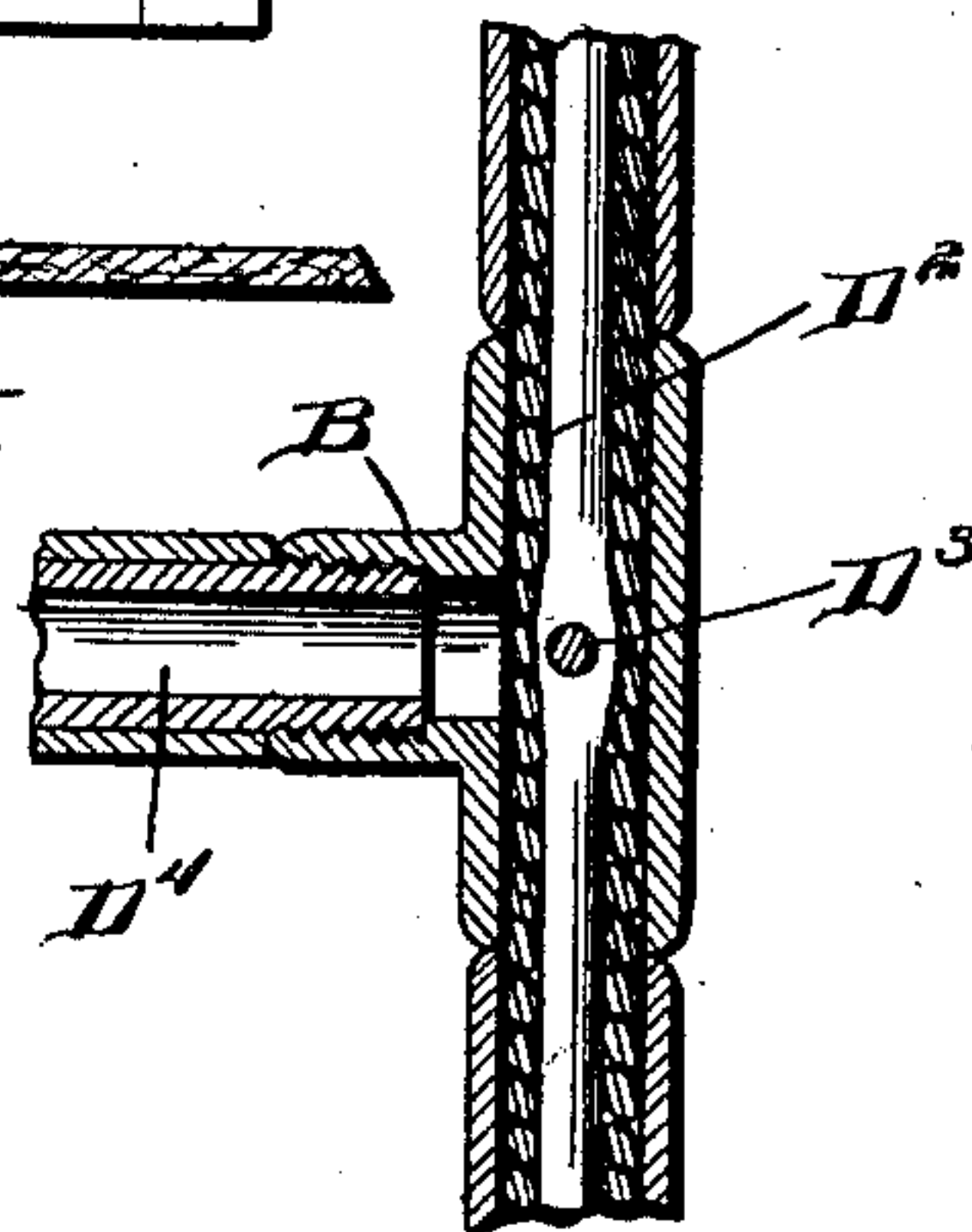
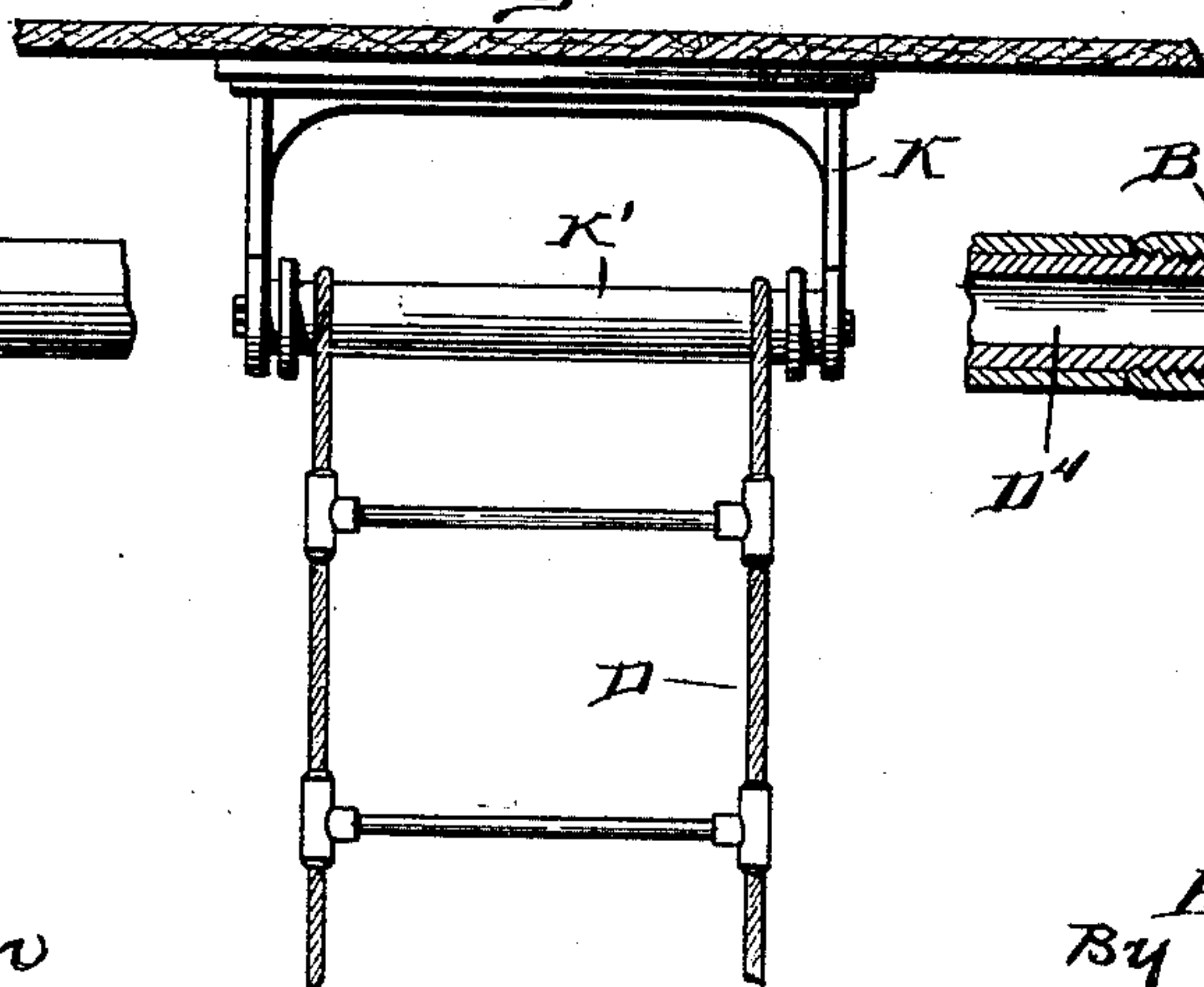


Fig. 11.



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UNITED STATES PATENT OFFICE.

HERMAN TEXTOR, OF CINCINNATI, OHIO.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 713,815, dated November 18, 1902.

Application filed July 31, 1901. Serial No. 70,399. (No model.)

To all whom it may concern:

Be it known that I, HERMAN TEXTOR, a citizen of the United States, residing at Cincinnati, county of Hamilton, and State of Ohio, have invented a certain new and useful Improvement in Fire-Escapes, of which the following is a specification.

My invention relates to a new and useful improvement in fire-escapes, and has for its object to provide a fire-escape which will consist of two drums with suitable hand-wheels connected therewith by which they can be rotated and brake appliances concealed in suitable receptacles underneath the window upon the interior of the room. Upon one of the drums are adapted to be wound a steel-cable ladder and upon the other drum a single cable, which is to be used for lowering children to the ground or in raising fire apparatus—such as a ladder, hose, &c.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents an outside view of a portion of a building, showing my apparatus in its operative position; Fig. 2, a longitudinal section through the drums; Fig. 3, a vertical section through the wall of the building, showing my apparatus in its operative position; Fig. 4, an elevation of the end of the wire cable, showing two snap-hooks attached to the same; Fig. 5, a similar view to Fig. 4, showing two exercising rings attached to the end of the single cable; Fig. 6, a cross-section of the drum, showing one of the hand-wheels in elevation; Fig. 7, a belt which is adapted to be placed around a child to which the snap-hooks shown in Fig. 4 can be attached for lowering a child from the window; Fig. 8, a cross-section of the drum, showing a greater number of strengthening-rods used; Fig. 9, a horizontal section through a wall of a building, showing my apparatus in its operative position; Fig. 10, an enlarged view of a por-

tion of a steel ladder, showing the construction of the same; Fig. 11, a side elevation of the bracket adapted to be attached to the ceiling of the room; and Fig. 12, a vertical section through a portion of the ladder, showing the construction of the same.

In the drawings, A represents drums, which are journaled in suitable bearings arranged upon the interior of the room underneath the window. These drums are composed of a wooden cylinder A', through which a shaft A² extends, which shaft is secured to a flange A³ at each end. Bolts A⁴ pass from one flange to the other and lie within grooves formed longitudinally of the wooden cylinder A'. This cylinder may or may not be covered with sheet metal or other fire-proof material. To each of the drums A and B are secured hand-wheels C, by which the drums may be rotated. The drum A is made considerably wider than the drum B, and upon this drum is adapted to be wound the steel-cable ladder D. This ladder may be constructed in any suitable manner; but I prefer the construction shown in detail in Figs. 10 and 12. This consists in providing the T-shaped joints D', which are secured upon the wire cable D² by means of the pin or screw D³, which passes through the T-shaped joints and the wire cable. The rungs D⁴ of the ladder are tubular and screw-threaded at each end and adapted to be threaded within the T-shaped joints B'. These rungs may be covered with rubber for the purpose of not injuring the hands when used for exercising, as will be hereinafter described. Upon the other drum B is adapted to be wound a single wire cable E, having attached to the free end of the same a ring E', to which ring may be attached, by means of snap-hooks, different appliances, as shown in Figs. 4 and 5.

In Fig. 4 I have shown two short lengths of cable attached to the ring E', upon the end of each of which are secured the snap-hooks E², which of course may be snapped within staples E³, secured to an adjustable belt E⁴, which belt may be attached around the body of a child for the purpose of lowering the child out of a window in case of fire.

When the lever D and the wire cable E are wound entirely upon the drum they are adapted to be concealed within a casing F, located beneath the window. This casing is in the

form of a box, having the two-part lid F' over the top of the same and the hinged portion F^2 upon the front of the box. The upper edge of this hinged front F^2 is adapted to lie
 5 within a groove F^3 , formed upon the under side of the lid F' . Thus when the front F^2 is raised and the lid is closed down upon the same, this groove will hold the front up in normal position. The receptacle thus formed
 10 can then be utilized as a window-seat by being covered with a cushion, and it is only necessary to quickly gain access to the apparatus to raise the lid F' , which will allow the front F^2 to drop simultaneously. To the
 15 under side of the lid F' are secured bearings in which are journaled idle rollers G , which when the lid is raised will lie above the window-sill, and in throwing the ladder D and the cable E out of the window to lower the
 20 same this ladder and cable will pass over the rollers G , and thus not come in contact with the window-sill. Upon the outside of the wall of the building and underneath the window I provide a metal framework H ,
 25 which carries bearings in which are journaled idle rollers H' and H^2 , over which the ladder and the cable are adapted to pass. The roller H^2 will thus hold the ladder and the cable at a convenient distance from the wall of the
 30 building. Attached to this framework H is a grating or platform H^3 for the purpose of supporting the people who are descending by means of the ladder.

Secured to each of the drums are ratchet-
 35 wheels I , which are adapted to be engaged by a pivoted pawl I' . This pawl has a weight I^2 formed upon the opposite end to the nose thereof, which weight is for the purpose of holding the nose of the pawl out of engage-
 40 ment with the ratchet-teeth, which will allow the ladder to descend of its own weight. The purpose of the ratchet-wheel and pawl is for holding the drums against retrograde motion when raising fire apparatus by means of the
 45 cable or in reeling the same and the ladder.

In lowering children from the window by means of the cable E it is desirable to have some form of brake mechanism to control the speed by which they will be lowered. For
 50 this purpose I provide grooved brake-wheels J , secured to and adapted to be revolved with each of the drums A and B , and over these brake-wheels are adapted to pass flexible metal straps J' , one end of which is secured
 55 rigidly to the framework or floor, and the other end is secured to a foot-lever J^2 . When the foot-lever J^2 is pressed downward, the

straps J' will be brought into frictional contact with the brake-wheels J , and thus retard the movement of the drum and thereby the
 60 cable or ladder.

In Fig. 3 I have shown in dotted lines how an extra roller K^2 could be secured to the ceiling or wall and the ladder passed over this roller and the roller K' , and thus form a hori-
 65 zontal ladder for the purpose of exercising. The hooks D^5 upon the end of the ladder are also for the purpose of securing in rings or staples secured to the pavement, which will thus hold the ladder stationary and keep it
 70 from swinging as persons are descending thereon.

The advantage of my invention is that this apparatus when in its normal position will not disfigure the building, but the receptacle
 75 will help to furnish the same, as it can be made in the form of a neat and attractive window-seat, but will be readily accessible in case of fire, and by means of the steel ladder and cable persons are enabled to descend and
 80 ascend from and to a burning room, and it is possible to lower children from the window or raise fire apparatus to the room by means of the cable. And a further advantage of my invention is that it can be made useful as
 85 a home gymnasium, or it can be used for practice, so as to enable persons, especially women and children, to become so expert that they will feel no timidity in descending from the building by ladder in case of fire.
 90 This is of great advantage, as this practicing can be all done in private, and they would thus gain experience that they would not gain if it depended upon their practicing in public.

Of course I do not wish to be limited to the
 95 exact construction here shown, as numerous modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

In a fire-escape, a drum, a flexible ladder attached to the drum, suitable housings for the drum, a lid for the housing having a central joint, rollers, over which the flexible
 105 ladder rides, journaled to the lid to project above the edge of the central joint when the lid is opened as and for the purpose described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

HERMAN TEXTOR.

Witnesses:

PRESCOTT SMITH,
 JOHN B. KNOX.