

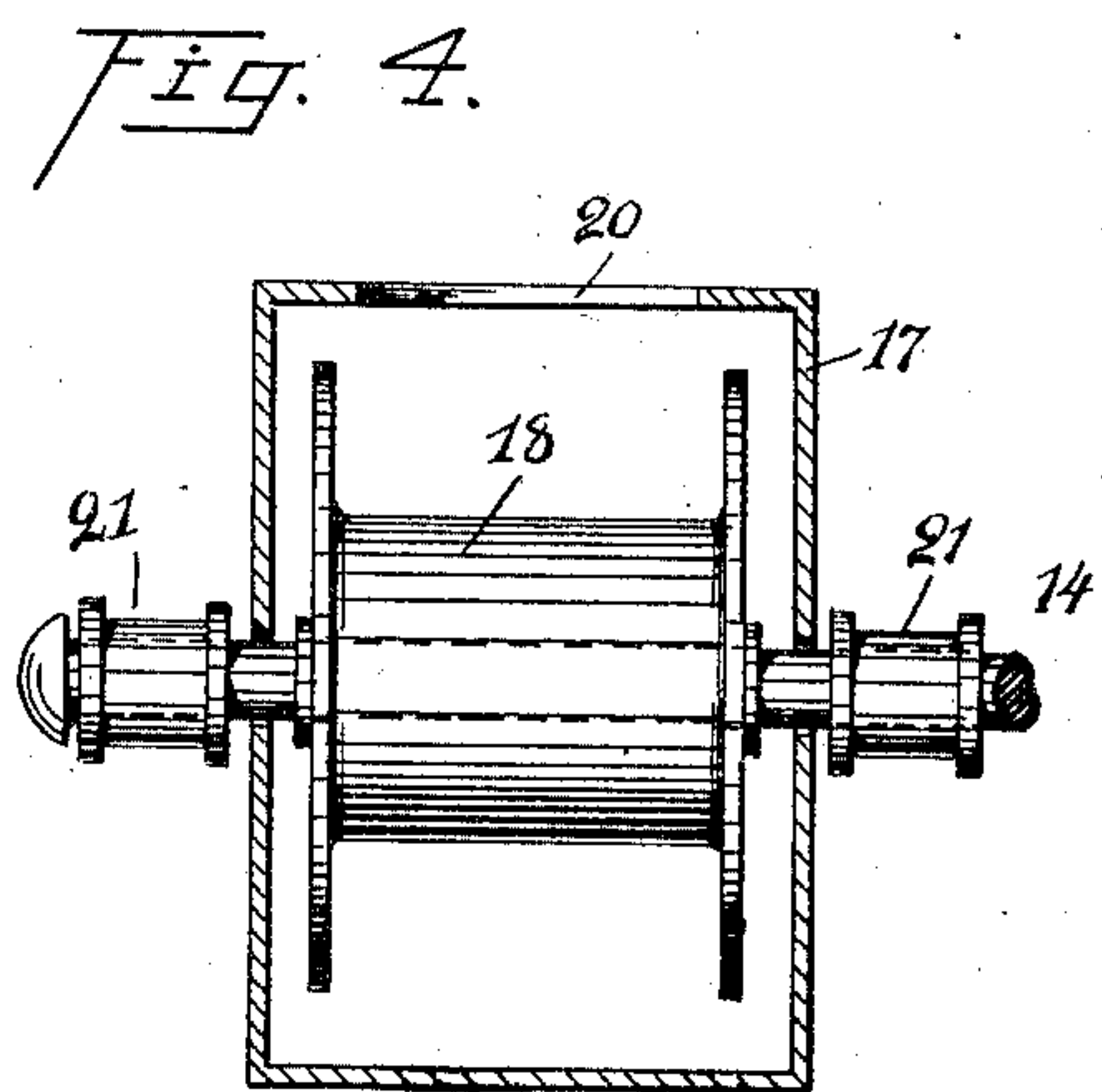
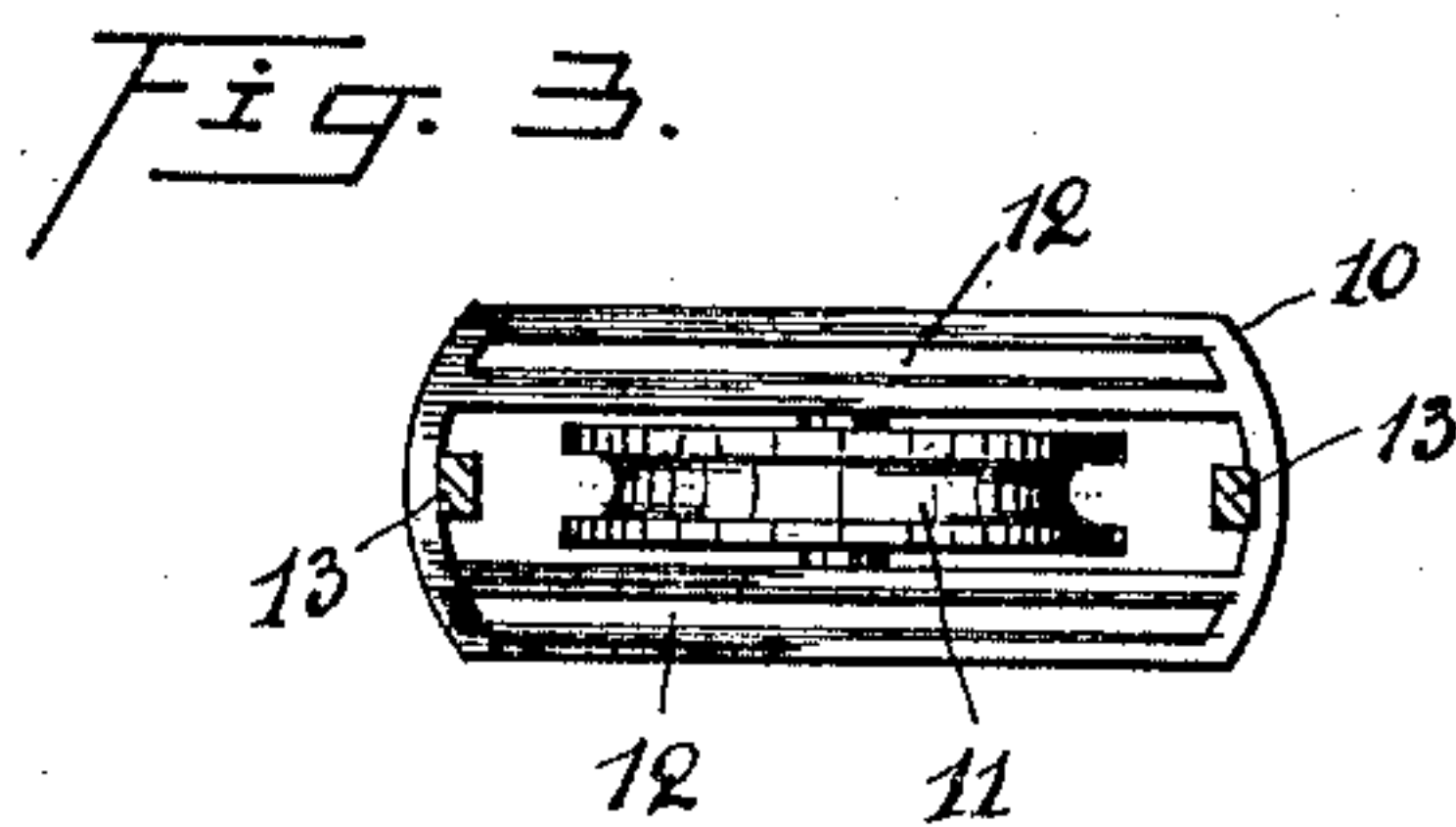
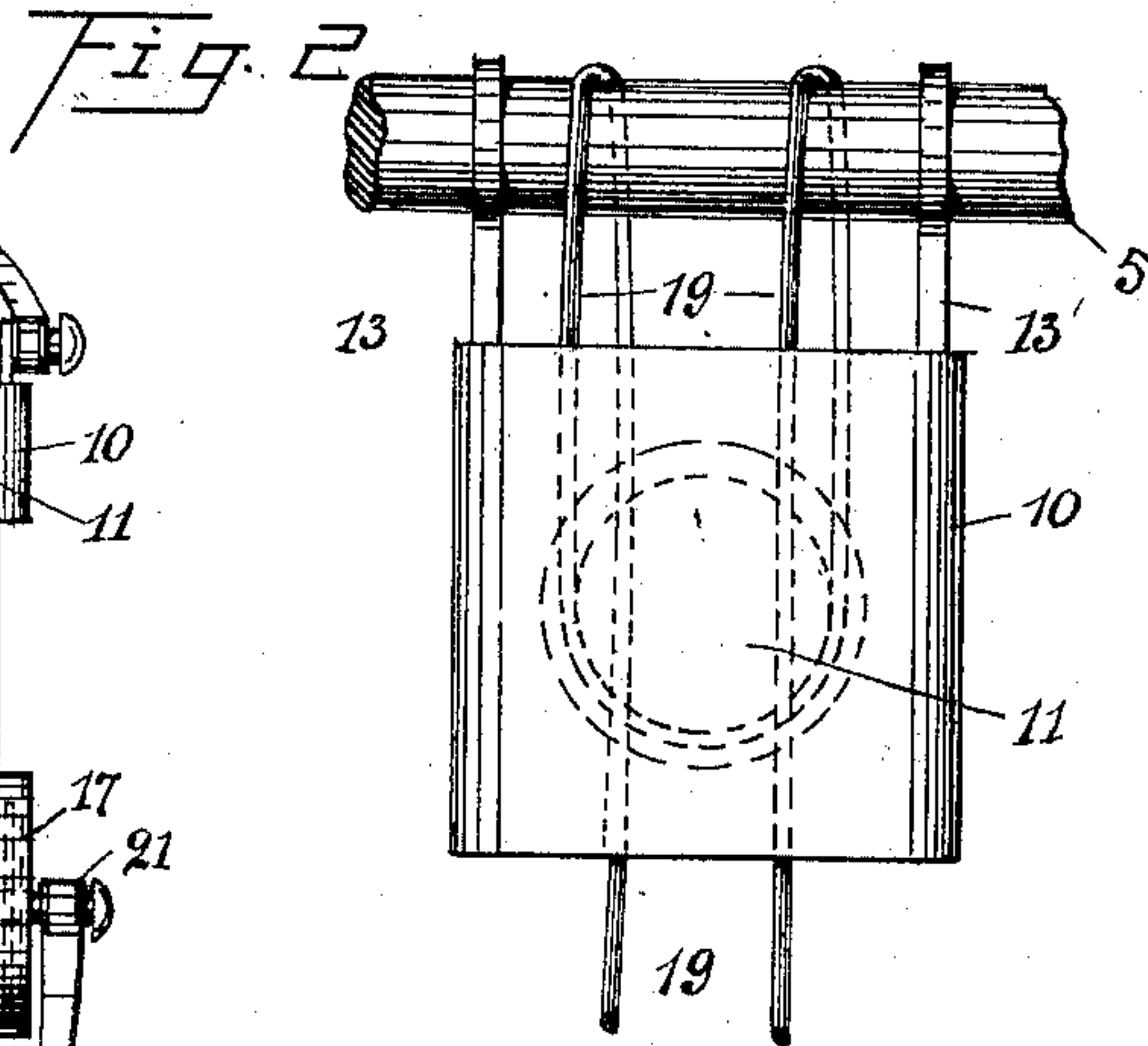
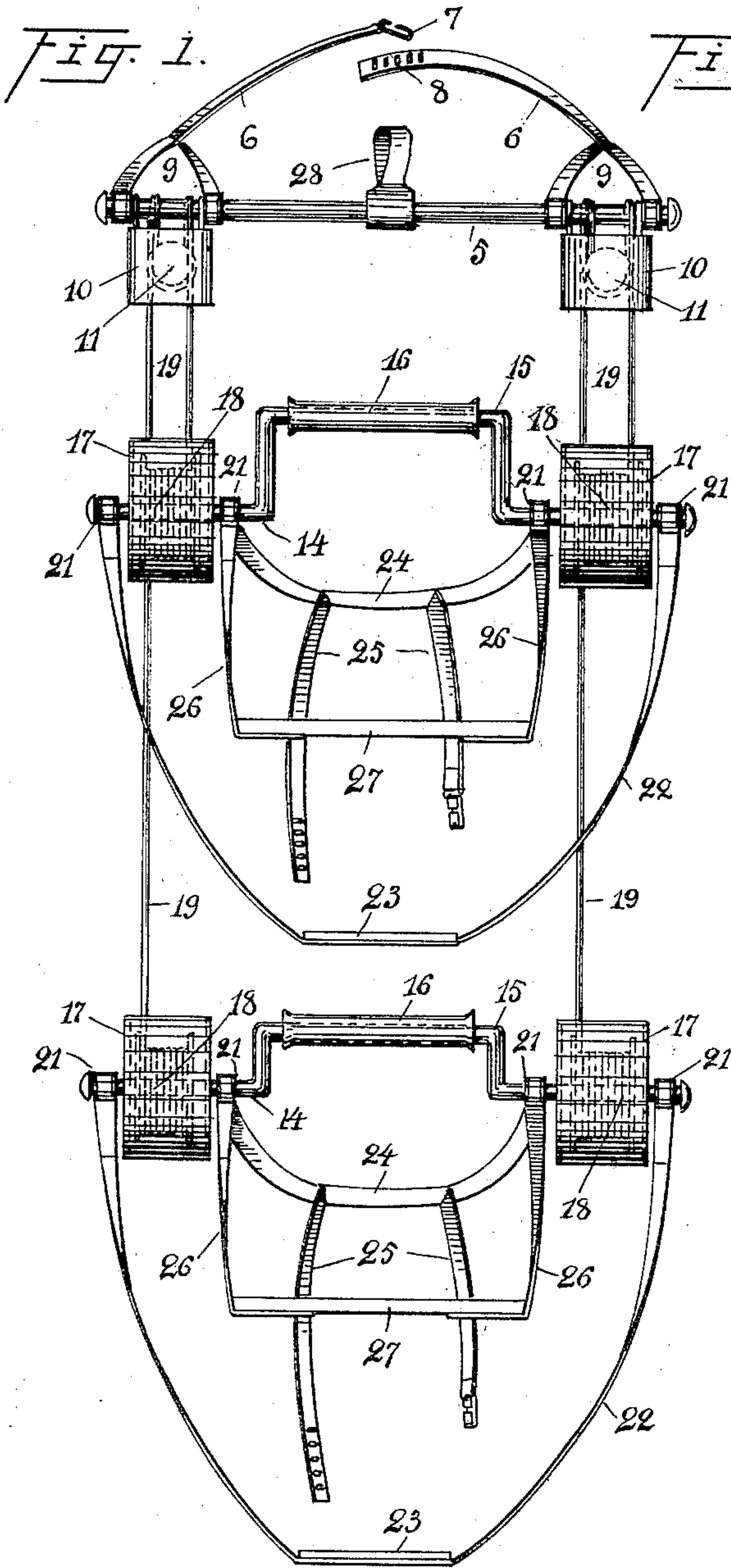
No. 703,133.

Patented June 24, 1902.

E. J. JOHNSON.
LIFE SAVING APPARATUS.

(Application filed Jan. 19, 1901.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

ELESE J. JOHNSON, OF NEW YORK, N. Y.

LIFE-SAVING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 703,133, dated June 24, 1902.

Application filed January 19, 1901. Serial No. 43,870. (No model.)

To all whom it may concern:

Be it known that I, ELESE J. JOHNSON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Life-Saving Apparatus, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to fire-escapes; and the object thereof is to provide an improved device of this class which may be suspended from any suitable support adjacent to the window or windows of a building and by means of which escape from the building may be made in case of fire; and with this and other objects in view the invention consists in a device or apparatus of the class specified constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a front view of my improved fire-escape; Fig. 2, a similar view of a detail of the construction on an enlarged scale; Fig. 3, a sectional plan view of another detail of the construction, and Fig. 4 a sectional side elevation of another detail of the construction, Figs. 3 and 4 being also on enlarged scales.

In the practice of my invention I provide an apparatus of the class specified comprising a cylindrical top bar 5, with the opposite ends of which are connected straps or other devices 6, by means of which the apparatus may be suspended from any suitable support, and said straps are provided at their free ends one with a buckle, spring-catch, or other suitable device 7, which is adapted to engage openings, loops, or other attaching devices 8, with which the other strap is provided.

The straps 6 are preferably divided at the ends thereof, which are connected with the bar 5, as shown at 9, so as to form two points of connection with said bar, and suspended from each end of said bar and between said

points of connection of the straps 6 are casings 10, which may be made of any desired material and in each of which is mounted a pulley-wheel 11, and said casings are each provided with opposite side compartments 12 and are suspended from the bar 5 by means of supports 13, this construction being clearly shown in Figs. 1, 2, and 3. I also employ two similar crank-shafts 14, each of which is provided with a central crank 15, on which is mounted a sleeve 16, which serves as a handle and which is free to turn thereon, and on each of the ends of each of these shafts is placed a casing 17, in which the shaft is free to turn, and it will thus be seen that two separate sets of the casings 17 are employed, and secured to the shafts in each of the casings 17 is a spool or drum 18.

A rope or cord 19 is passed around each of the pulley-wheels 11 in each of the casings 10, and the separate ends or sides thereof are then passed around the bar 5 and downwardly through one of the compartments 12 in the casings 10, and one end of each of said ropes or cords is connected with the spool 18 in the corresponding casing 17 on one of the crank-shafts 14, and the other side or end of each of said cords or ropes is connected with one of the spools 18 in the other casing 17 of the other crank-shaft 14, and the casings 17 are each provided at the top thereof with a slot or opening 20, through which said ropes or cords are passed.

Each of the crank-shafts 14 is provided at both ends with a small antifriction spool or sleeve 21, and connected therewith is a strap 22, provided with a foot-support 23, and within the casings 17 each of said shafts is also provided with similar spools or antifriction-sleeves 21, with which are connected a strap 24, which is provided with branch straps 25, which are adapted to be buckled around the body, and other straps 26 are connected with the inner spools or sleeves 21 and support a seat 27. The bar 5 is also provided with a loop or similar device 28, which is designed to be grasped by the hand and to form a support for a party entering the apparatus or desiring to descend thereby from a building, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and

the following statement thereof. In practice the apparatus is suspended from any suitable support adjacent to a window by means of a strap 6, and one of the crank-shafts 14, with its attachments, is supposed to be at a level with said window, while the other is at or near the ground. The casings 10 are open both at the top and bottom or at each end, so as to allow the cords or ropes 19 to pass loosely therethrough, and a party desiring to escape from a window steps upon the support 23 of the upper crank-shaft, holding on at the same time to the loop 28, and said party sits upon the seat 27, supported by the upper crank-shaft, and the branch straps 25, suspended from said crank-shaft by the strap 24, are buckled around the body of the said party, and by grasping that part of the ropes 19 by which the lower crank-shaft is supported the said party may lower himself to the ground, as will be readily understood, if the said parts of the ropes 19 are left free, the speed of the descent being controlled by a pull on that part of the ropes 19 by which the lower crank-shaft is supported. In this operation the ropes 19 pass around the pulleys 11 in the casings 10, also over the bar 5, and the friction produced is such as to practically control the descent. If, however, the lower reaches of the ropes 19 are held by a party on the ground, then a party supported by the upper crank-shaft may lower himself to the ground by simply grasping and properly manipulating the crank of said shaft, and if the lower reaches or part of said ropes 19 are left free or are not held a party supported by the upper crank may lower himself by grasping said parts of said ropes in one hand and the crank of the shaft by which he is supported in the other hand, and it will be understood that as one of the crank-shafts and its attachment descends the other crank-shaft and its attachment is raised or elevated into position for use.

In the case of light persons the descent may be absolutely controlled by grasping the cord 19, as hereinbefore described, and in such cases the crank-shaft may or may not turn, and it will be apparent that the turning of the crank-shaft may always be controlled by a party seated upon the seat 27.

When one of the crank-shafts and its attachments has been lowered to the ground, as above described, the other is in position for use, and the above operation may be repeated as often as necessary.

My improved fire-escape apparatus is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended, and it will be apparent that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what

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

1. A fire-escape apparatus, comprising a top bar, and means for suspending the same, two casings provided with pulleys and side compartments, said casings being open at the upper and lower ends, two crank-shafts provided with central cranks, and each of which is provided with a pair of casings loosely mounted thereon in each of which is a spool or drum, and ropes or cords passed around the pulley-wheels in the first-named casings, and around the top bar, one end of said ropes or cords being connected with the spools in one set of the crank-shaft casings, and the other end being connected with the spools in the other set of crank-shaft casings, substantially as shown and described.

2. A fire-escape apparatus, comprising a top bar, and means for suspending the same, two casings provided with pulleys and side compartments, said casings being open at the upper and lower ends, two crank-shafts provided with central cranks, and each of which is provided with a pair of casings loosely mounted thereon in each of which is a spool or drum, and ropes or cords passed around the pulley-wheels in the first-named casings, and around the top bar, one end of said ropes or cords being connected with the spools in one set of the crank-shaft casings, and the other end being connected with the spools in the other set of crank-shaft casings, said crank-shafts being also provided with supporting devices, substantially as shown and described.

3. A fire-escape apparatus, comprising a top bar, and means for suspending the same, two casings provided with pulleys and side compartments, said casings being open at the upper and lower ends, two crank-shafts provided with a pair of casings loosely mounted thereon in each of which is a spool or drum, and ropes or cords passed around the pulley-wheels in the first-named casings, and around the top bar, one end of said ropes or cords being connected with the spools in one set of the crank-shaft casings, and the other end being connected with the spools in the other set of crank-shaft casings, said crank-shafts being also provided with supporting devices, consisting of straps, adapted to be buckled around the body, other straps supporting a seat and another strap or straps forming a support for the feet, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 17th day of January, 1901.

ELESE J. JOHNSON.

Witnesses:

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M. K. LOWERRE.