

D. WEINSTOCK.

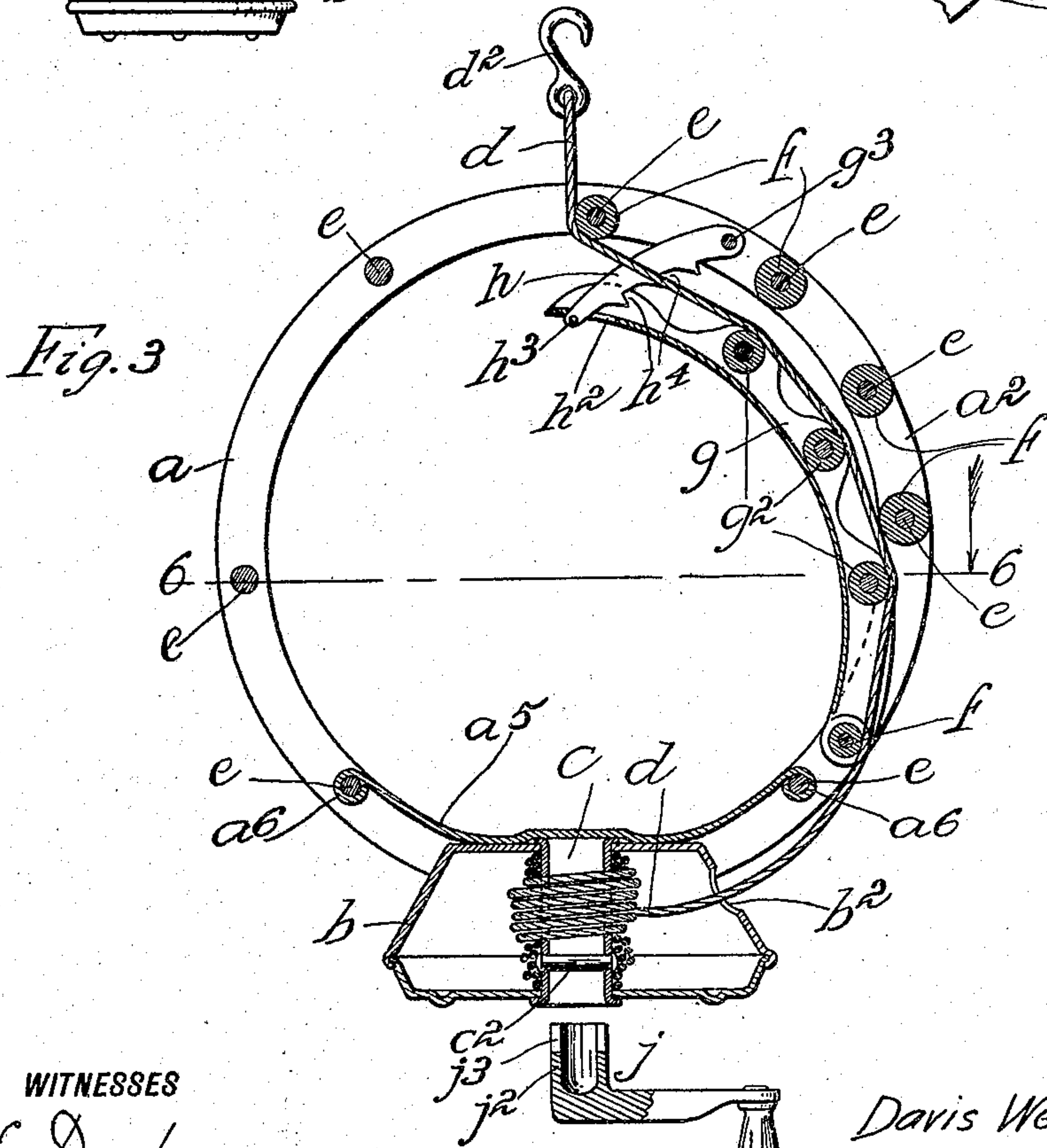
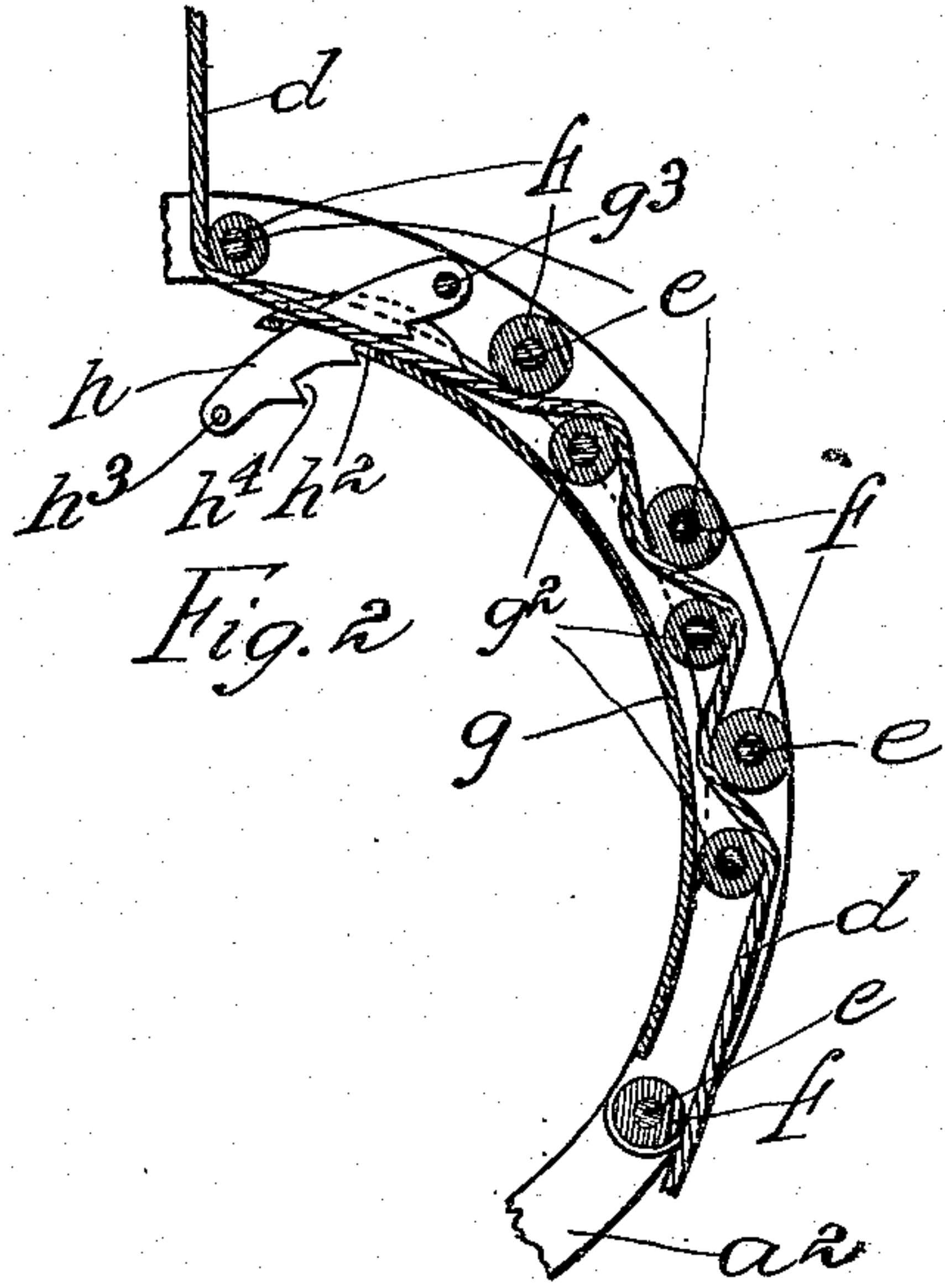
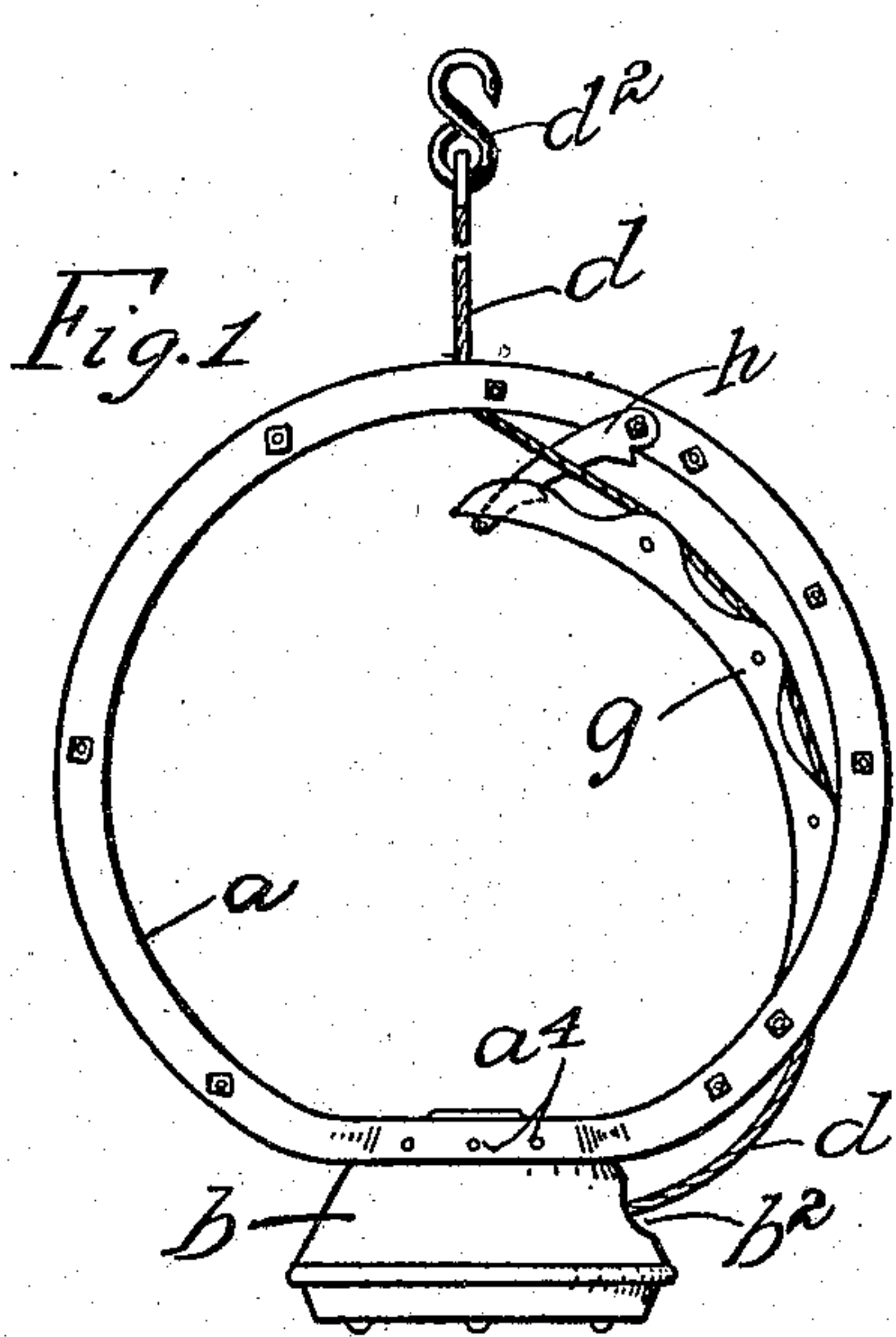
FIRE ESCAPE.

APPLICATION FILED FEB. 2, 1909.

930,580.

Patented Aug. 10, 1909.

2 SHEETS—SHEET 1.



WITNESSES

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Fig. 4

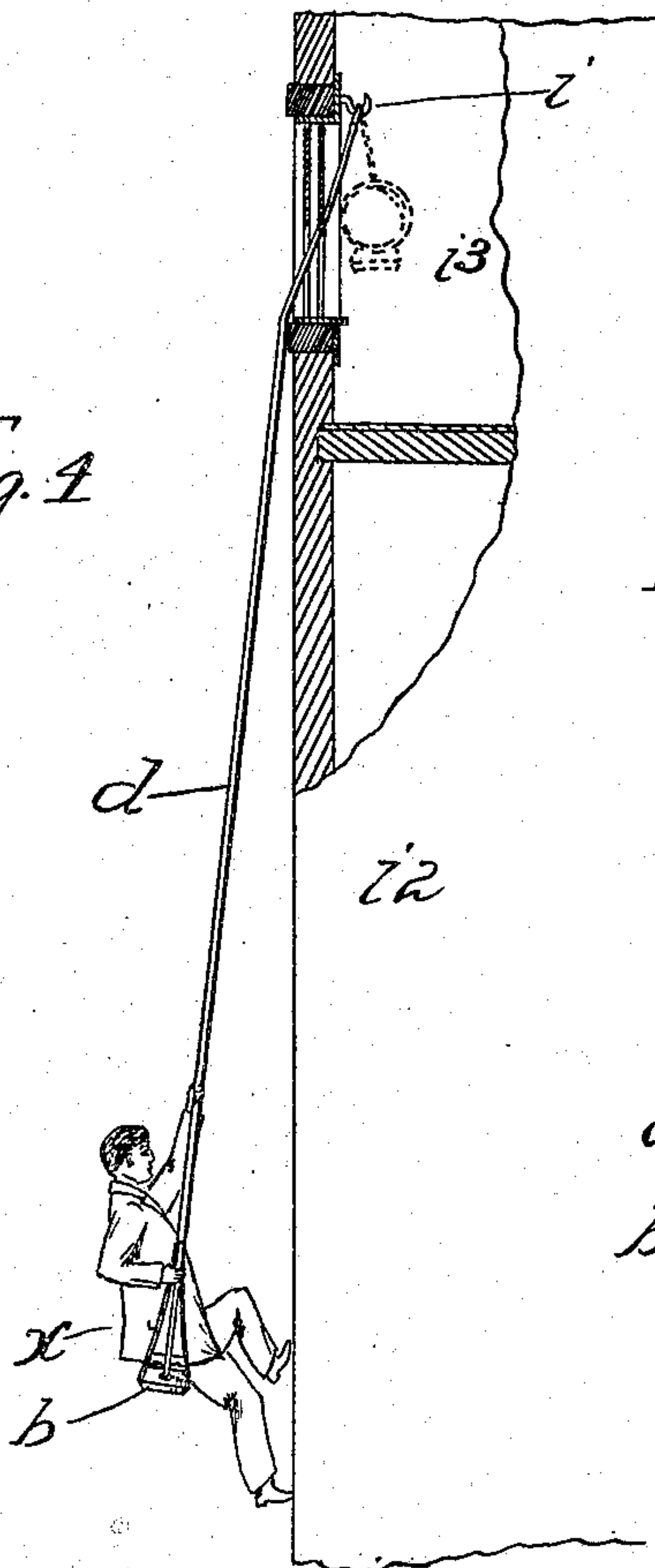


Fig. 5

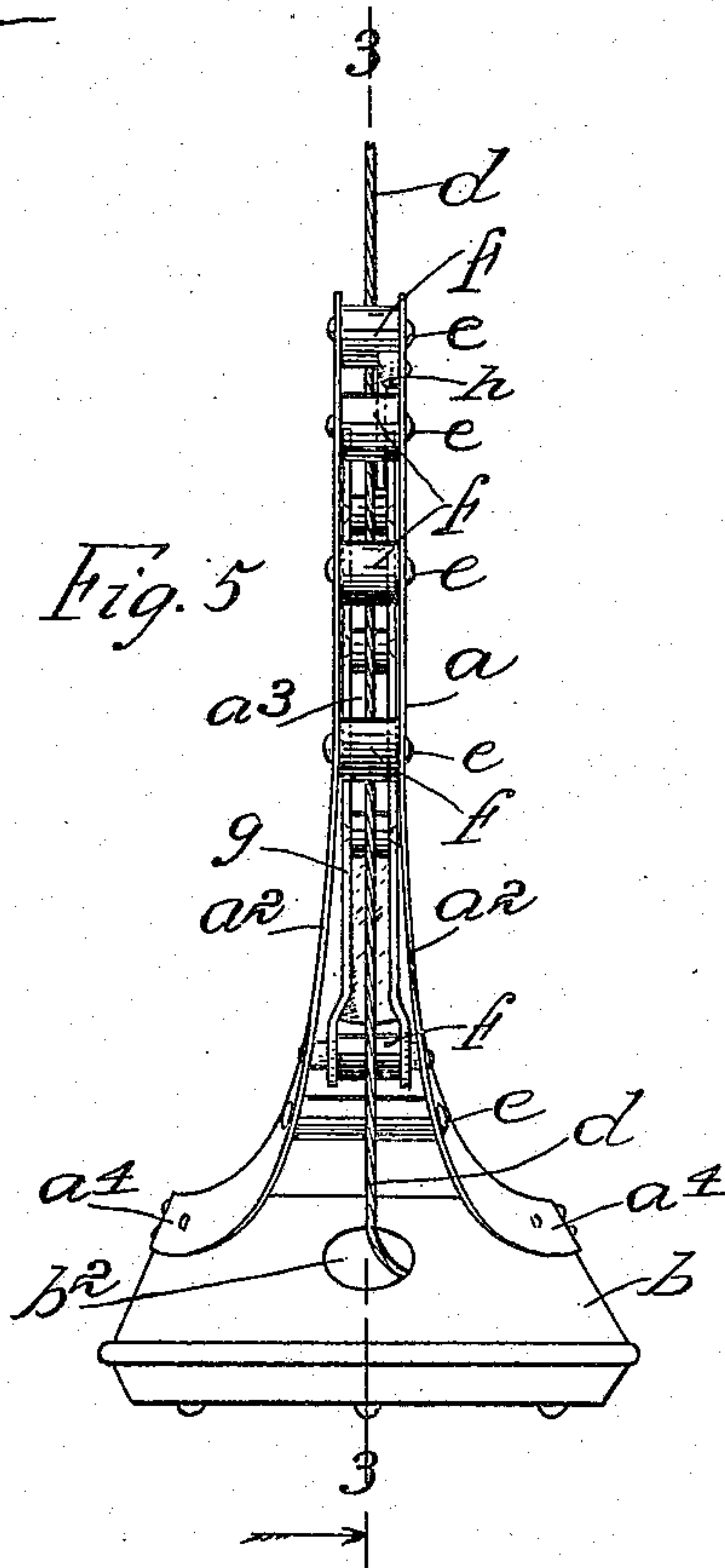
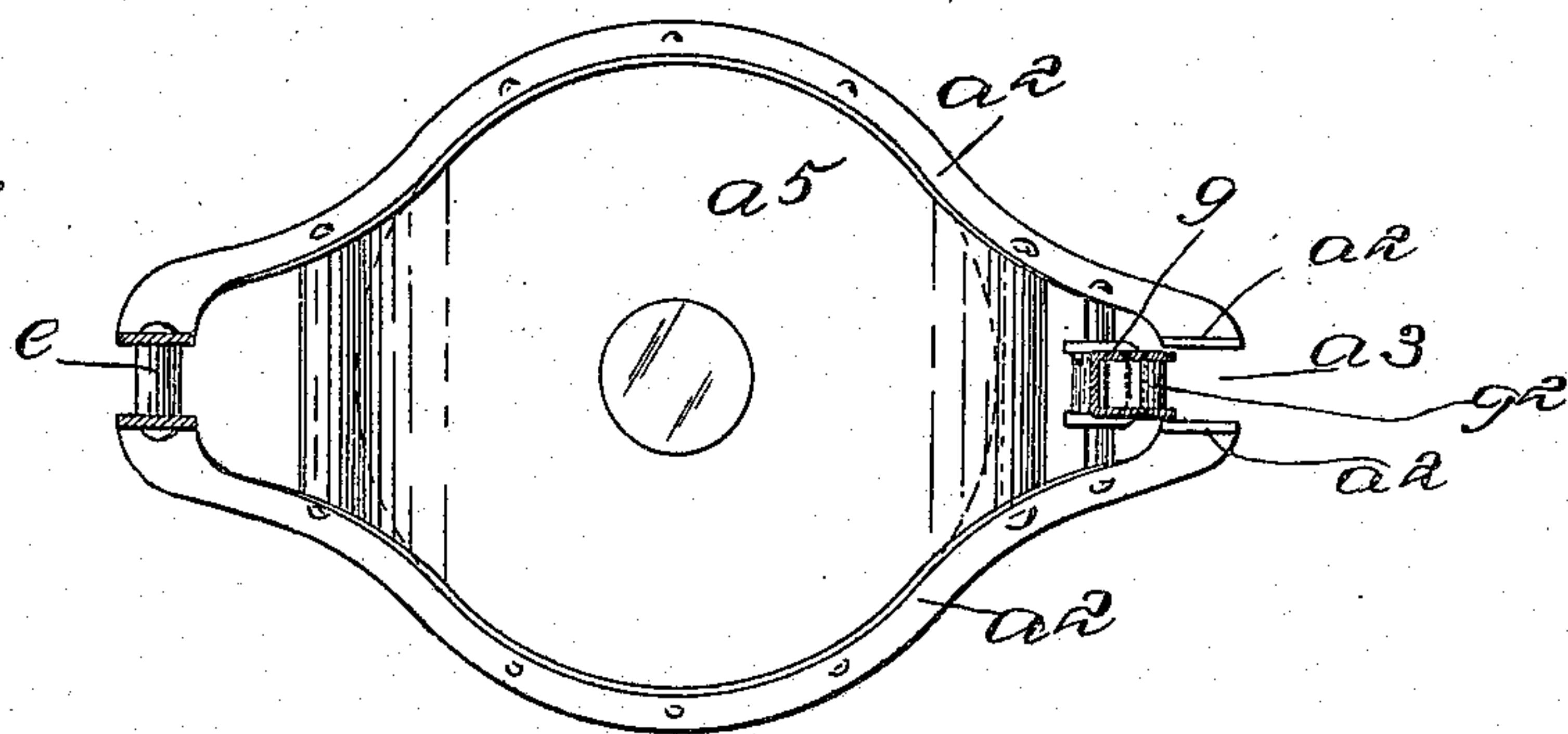


Fig. 6



WITNESSES

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# UNITED STATES PATENT OFFICE.

DAVIS WEINSTOCK, OF NEW YORK, N. Y.

## FIRE-ESCAPE.

No. 930,580.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed February 2, 1909. Serial No. 475,551.

*To all whom it may concern:*

Be it known that I, DAVIS WEINSTOCK, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a 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 escape device or apparatus; and the object thereof is to provide an improved device of this class by means of which a party or parties may easily escape from the window of a burning building and descend safely to the ground; and with this object in view the invention consists in a device 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 suitable reference characters in each of the views, and in which;—

Figure 1 is a back view of my improved fire escape device, Fig. 2 a partial vertical section of the right hand side thereof, Fig. 3 a complete vertical section of the device taken in the same plane as the section shown in Fig. 2 but showing the parts in a different position, the section being on the line 3—3 of Fig. 5, Fig. 4 a view showing my improved fire escape device in operation, Fig. 5 a side view of the device, and;—Fig. 6 a section on the line 6—6 of Fig. 3.

In the practice of my invention I provide a frame  $a$  which may be circular in form or approximately so, and to the bottom of which is secured a casing  $b$ . The frame  $a$  consists of two similar members  $a^2$  between which is a space  $a^3$ , and in the construction shown the casing  $b$  is also circular in form and the top portion thereof is beveled or conical in form, and the side members  $a^2$  of the frame  $a$  are separated and inclose the top portion of the casing  $b$  and are secured to the sides thereof as shown at  $a^4$  in Fig. 5, and in the construction shown a plate  $a^5$  is placed on the top of the casing  $b$ , and the end portions thereof are secured to the frame  $a$  at the opposite sides of said casing as shown at  $a^6$  and this plate forms a seat as hereinafter described.

Passing vertically through the casing  $b$  is

a rotatable drum member  $c$  which is preferably tubular in form and to which is secured and on which is wound a rope  $d$  preferably composed of wire.

The separate parts or side members  $a^2$  of the frame  $a$  are connected at intervals by transverse members, pins, bolts or similar devices  $e$ , and to two of these devices the plate  $a^5$  is secured, in the form of construction shown, and on the right hand side of said frame, in the form of construction shown, these pins, bolts or similar devices  $e$  form supports for rollers  $f$ , and on said side of the frame  $a$  the said pins or bolts  $e$  are much closer than at the opposite side, and one of the pins or bolts  $e$  and one of the rollers  $f$  mounted thereon is in the central top portion of the frame  $a$ .

Mounted on one of the pins or bolts  $e$  at the bottom of the right hand side of the frame  $a$  and on which one of the rollers  $f$  is placed is a curved channel arm  $g$  provided with rollers  $g^2$ , and the arm  $g$  is adapted to be moved toward and from the corresponding side of the frame  $a$ , and the casing  $b$  is provided with an aperture  $b^2$ , and the rope  $d$  is passed out through said aperture and up and around the bottom roller  $f$  and inwardly of the other rollers  $f$  and between said rollers and the rollers  $g^2$  in the channel arm  $g$ , and pivoted in the top of the right hand side of the frame  $a$  as shown at  $g^3$  is a dog  $h$  which passes down through a slot  $h^2$  and is provided at its free end with a transverse pin  $h^3$  which limits the downward or outward movement of the arm  $g$ , and always holds said arm in position for use as hereinafter described.

In the form of construction shown there are three of the rollers  $g^2$  which operate in connection with the corresponding number of the rollers  $f$ , and the end of the rope  $d$  is provided, in the form of construction shown, with a hook  $d^2$ , and in practice the said end of the rope  $d$  is passed beneath the upper roller  $f$  in the top portion of the frame  $a$  and may be engaged with or connected with a hook or other support  $i$  secured at the top of a window of a building  $i^2$  as clearly indicated in Fig. 4.

In the bottom part of the drum  $c$  is a transverse pin  $c^2$ , and I also provide a key device  $j$  for turning the drum  $c$  so as to wind the rope  $d$  thereon. The key device  $j$  is in the form of a crank and is provided with a head  $j^2$  having a transverse recess  $j^3$



adapted to receive the pin  $c^2$ , and when it is desired to wind the rope  $d$  on the drum  $c$  the head  $j^2$  of the key device  $j$  is inserted into the lower end of the drum and said drum is  
 5 turned so as to wind the rope thereon.

The operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.  
 10 The dog  $h$  is provided on its under side edge with teeth  $h^4$ , and these teeth are adapted to engage the bottom edge of the slot  $h^2$  in the arm  $g$  so as to hold said arm  $g$  in such position as to clamp the rope  $d$  between the  
 15 rollers  $g^2$  and the rollers  $f$ , and with the parts in this position the device is suspended from the hook  $i$  as shown in Fig. 4. If, at any time, a party in the room or compartment  $i^3$  desires to escape from the window  
 20 and descend to the ground the said party steps upon the window sill, the bottom sash being raised or both sashes knocked out, and the frame of the device is lowered so as to permit the said party to pass his feet there-  
 25 through and seat himself in the bottom of the frame  $a$  as clearly indicated at  $x$  in Fig. 4, and by grasping the right hand side of the frame and the arm  $g$  in one hand and holding on to the top portion of the frame  
 30 with the other hand or grasping the rope  $d$  above the frame the said party can, as will be understood, easily and quickly lower him-  
 35 self to the ground. In this operation the arm  $g$  is compressed or released so as to clamp the rope  $d$  between the rollers  $g^2$  and  $f$  and regulate the descent, and when one party  
 40 has descended to the ground in this manner the device may be drawn up to the window and the rope rewound on the drum  $c$  and another party may descend in the same  
 manner.

The teeth  $h^4$  on the dog  $h$  are not absolutely necessary and may or may not be employed; and various other changes in  
 45 and modifications of the construction herein described may be made, within the scope of the appended claims, without departing from the spirit of my invention or sacrificing its advantages.

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

1. In a fire escape, an open frame provided at one side and at the top with rollers,  
 55 an arm pivoted to said side of the frame and provided with rollers, a drum at the bottom of the frame, a rope wound on said drum and adapted to be passed between the rollers in the frame and the rollers in said  
 60 arm and carried out at the top of the frame

beneath the top roller, and means for turning said drum so as to wind the rope thereon substantially.

2. A fire escape comprising an open frame having rollers mounted in one side thereof, 65 a casing at the bottom of said frame and a roller at the top of said frame, an arm pivoted to the side of the frame in which said side rollers are placed, said arm being also provided with rollers, a vertically arranged 70 rotatable drum mounted in said casing, a rope connected with said drum and passed out through one side of said casing and up between the rollers in the frame and the rollers in said drum, and means for rotating 75 said drum so as to wind said rope thereon.

3. A fire escape comprising an approximate circular frame, a casing connected with the bottom end, a roller in the top thereof, a drum mounted in said casing, roll- 80 ers in one side of said frame, a curved arm pivoted below said rollers, rollers mounted in said arm, and a rope connected with said drum and adapted to be wound thereon, one end of said rope being passed out through 85 one side of said casing and up between the rollers in the side of the frame and the rollers in said arm, and means for holding said arm in a predetermined position when not in use. 90

4. A fire escape comprising an open-work frame composed of two similar side mem- bers, a casing connected with the bottom of said frame, a drum mounted in said casing, 95 rollers mounted in one side of said frame, an arm pivoted to the side of the frame in which said rollers are mounted and below said rollers, rollers mounted in said arm, and a rope connected with said drum and adapted to be wound thereon and one end 100 of which is passed out through said casing and up between the rollers in the frame and the rollers in said arm, said frame being also provided in the top thereof with a roller beneath which said rope is passed. 105

5. In a fire escape, an open frame provided at one side and at the top with rollers, an arm pivoted to said side of the frame and provided with rollers, and a vertically arranged rotatable drum supported at the 110 bottom of the frame.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 30th day of January, 1909.

DAVIS WEINSTOCK.

Witnesses:

C. E. MULREANY,  
 HARRY R. CANFIELD.