

No. 708,546.

Patented Sept. 9, 1902.

C. J. HAGGSTROM.

FIRE ESCAPE.

(Application filed Feb. 3, 1902.)

(No Model.)

Fig. 1.

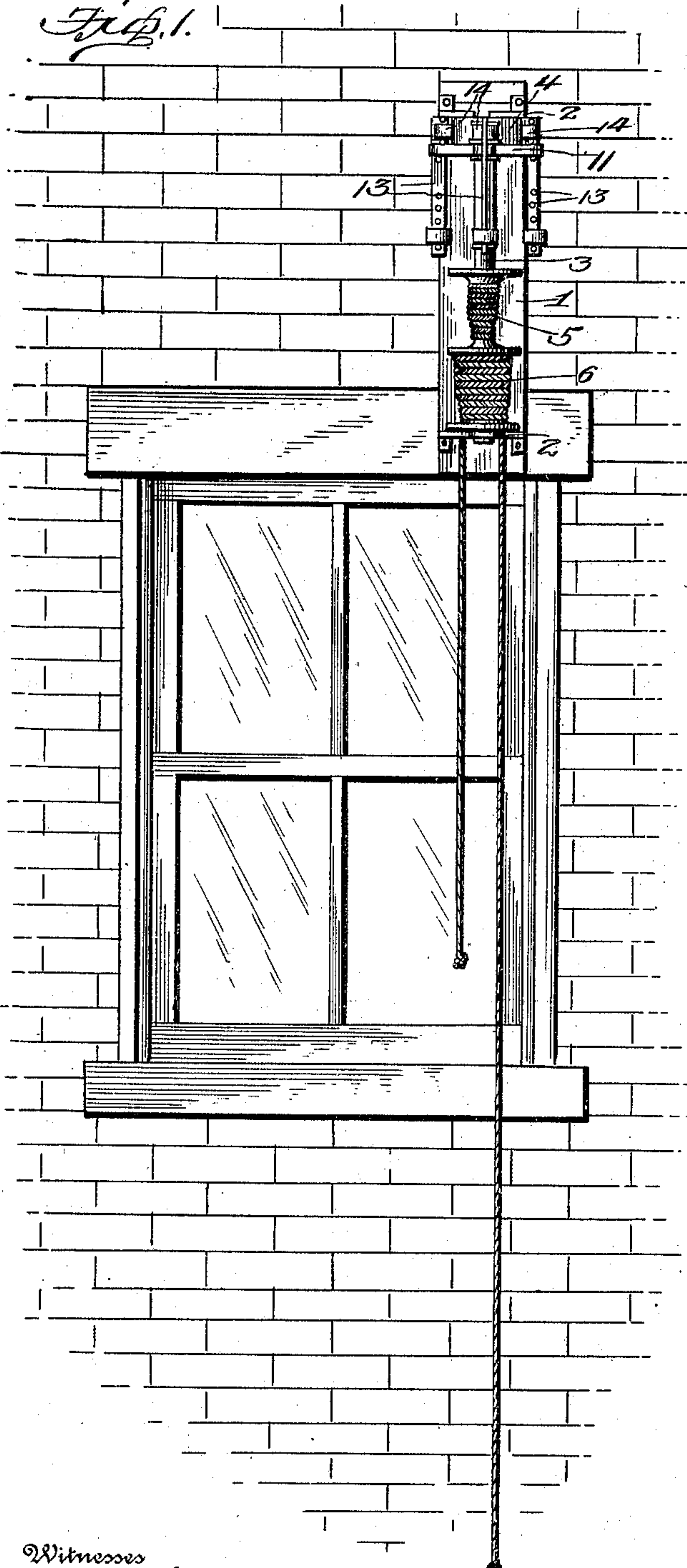
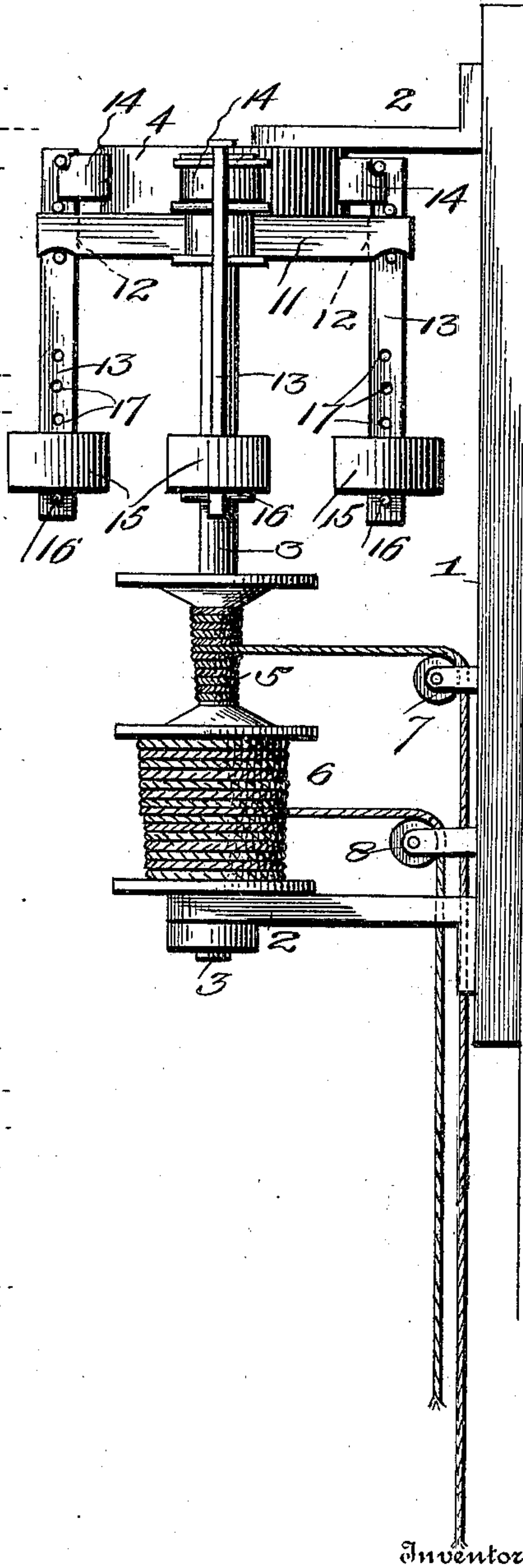


Fig. 2.



Inventor

C. J. Haggstrom

Witnesses

E. C. Hunt.
J. E. Wilson

TO GROUND

By

A. B. Wilson & Co.

Attorneys

UNITED STATES PATENT OFFICE.

CHARLES J. HAGGSTROM, OF WARREN, PENNSYLVANIA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 708,546, dated September 9, 1902.

Application filed February 3, 1902. Serial No. 92,363. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. HAGGSTROM, a citizen of the United States, residing at Warren, in the county of Warren and State of Pennsylvania, have invented certain new and useful Improvements in Fire-Escapes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to fire-escapes or, in fact, to a machine for lowering any objects from a height at an even rate of speed.

The object of the invention is to provide a machine of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, and efficient in operation.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a view of the machine, showing it secured to the wall of a building above the window thereof; and Fig. 2 is a side elevation on an enlarged scale.

Referring to the drawings, 1 denotes a frame which is adapted to be secured over the window and is provided with bearings 2, in which is journaled a shaft 3. 4 denotes a disk arranged concentrically with said shaft and through which the shaft preferably extends. 5 and 6 denote drums fixed to said shaft, and 7 and 8 denote guide-pulleys for guiding the ropes to and from said drums. The ropes are arranged upon said drums so that when one rope is unwinding from one drum the other rope will be wound upon the other drum, whereby when a load is placed at the end of that rope which is wound upon the drum and the load descends the act of unwinding this drum will wind the other drum, so that a load may be applied to the rope carried by that drum.

It is of course desirable that the limit of descent of the weight be controlled, and this is accomplished by fixing to the shaft a spider 11, having notches 12 in its arms, in which are pivoted levers 13, having pivoted

to their upper ends shoes 14, which are adapted to engage the disk and control the movement of the shaft. The opposite ends of these levers are provided with weights 15, which are made adjustable the length of said levers by pins 16, inserted through longitudinal rows of apertures 17, formed in said levers. This adjustment is particularly desirable where the weight of the load is well known, and thereby enables me to control the lowering of the load—for instance, in lowering bales of hay or barrels or any article of merchandise from a storeroom after the weight has been ascertained. These weights may be set so as to exert a certain amount of friction, so as to regulate the frictional contact of the shoes against the disk. The ropes 9 and 10 may be provided with any suitable means for attaching them to the weight or object to be lowered, and as these means in themselves form no part of the invention I have not deemed it necessary to show and describe the same.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring an extended explanation.

Assuming that the building is on fire and the occupant of the room over the window of which a fire-escape of this construction is placed desires to escape, he secures the free end of the wound rope around his body and jumps out. The drum to which this rope is attached unwinding will cause the spider to be rotated, and by centrifugal action the shoes at the ends of the levers will be forced against the periphery of the disk and regulate the descent of the person. When he reaches the ground, the other rope will have been wound up and will be in position for another person to grasp and lower himself by.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

In a fire-escape, the combination with a

frame provided with bearings; of a shaft
 journaled in said bearings and carrying at its
 lower end two drums, guide-pulleys secured
 to said frame, ropes reversely wound around
 5 said drums and having their ends pendent
 from said pulleys, a spider fixed to the upper
 end of said shaft to turn therewith, a rela-
 tively stationary friction-disk, levers pivoted
 intermediate their ends to said spider, brake-
 10 shoes carried at the upper ends of said levers
 for frictional contact with said disk, and

weights vertically adjustably connected to
 the lower ends of said levers, substantially as
 and for the purpose described.

In testimony whereof I have hereunto set 15
 my hand in presence of two subscribing wit-
 nesses.

CHARLES J. HAGGSTROM.

Witnesses:

JOHN AHLGREN,
 G. C. SWANSON.