No. 718,037. PATENTED JAN. 6, 1903.

R. TOENNES.

FIRE ESCAPE.

APPLICATION FILED OCT. 9, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1

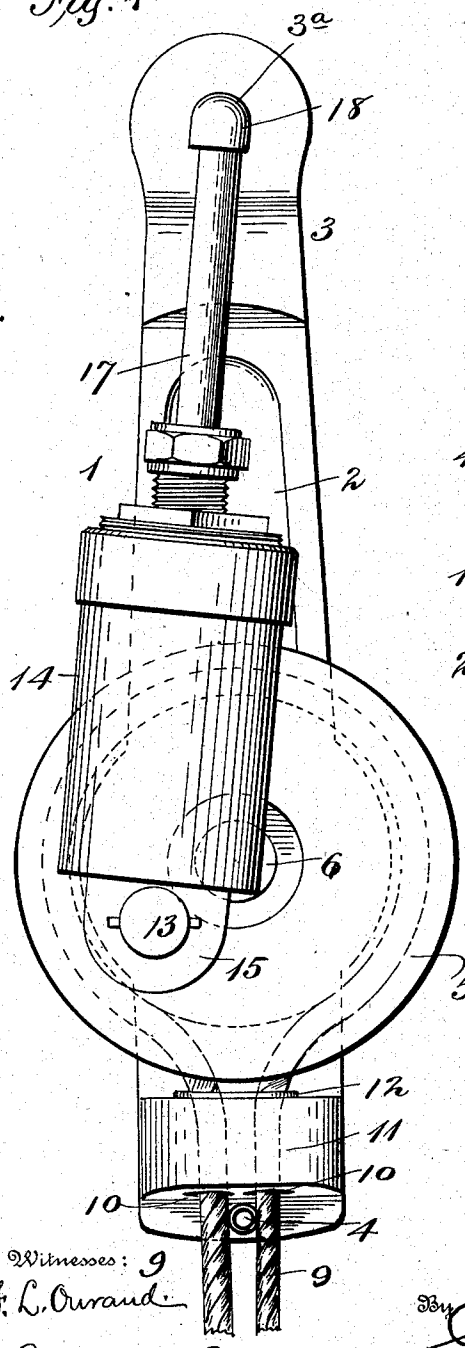
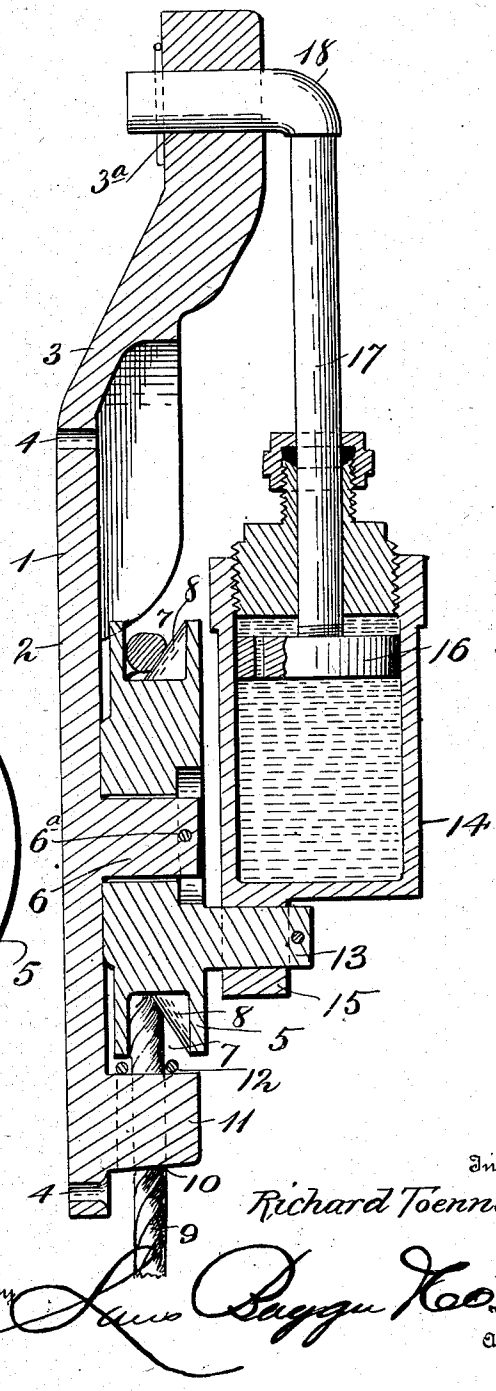


Fig. 2.



Witnesses:
J. L. Durand.
Frank G. Radelfinger.

Inventor:
Richard Toennes
By Lowe Bayyu & Co.
Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 718,037. PATENTED JAN. 6, 1903.

R. TOENNES.

FIRE ESCAPE.

APPLICATION FILED OCT. 9, 1902.

NO MODEL. 2 SHEETS--SHEET 2.

Fig. 4.

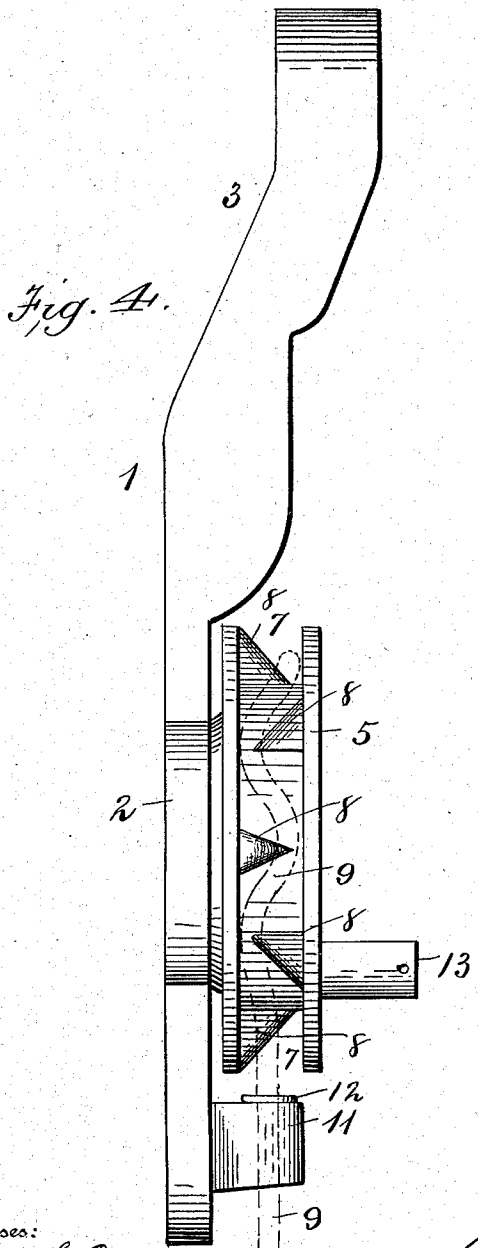
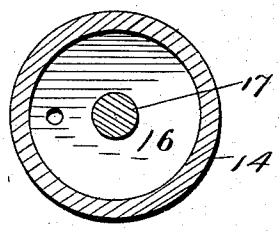


Fig. 3.



Witnesses:
Franck L. Ourand.
Frank G. Radelfinger.

Inventor:
Richard Toennes,
By Louis Bagger & Co.,
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD TOENNES, OF BOONVILLE, MISSOURI.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 718,037, dated January 6, 1903.

Application filed October 9, 1902. Serial No. 126,508. (No model.)

To all whom it may concern:

Be it known that I, RICHARD TOENNES, a citizen of the United States, residing at Boonville, in the county of Cooper and State of Missouri, have invented new and useful Improvements in Fire-Escapes, of which the following is a specification.

My invention relates to fire-escapes; and the object of the same is to produce a device of this character which will be simple in construction and efficient in operation to safely lower a person to the ground from the top stories of the highest building yet constructed.

The novel construction employed by me in carrying out my invention is fully described in this specification and claimed, and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a front elevation of my device. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail section of the cylinder. Fig. 4 is an edge view of the sheave.

Like numerals of reference designate like parts in the different views of the drawings.

The numeral 1 designates a support which comprises a straight body 2 and a curved neck 3. Apertures 4 are formed in the body to accommodate screws for securing the base to the wall adjacent to a window. A sheave 5 is mounted on a stud-shaft 6, formed integral with the support, and is secured by a key 6^a. The sheave 5 is grooved at 7, and pyramidal spurs 8 are formed in said groove and located alternately first on one side of the groove and then on the other to make a zigzag path for a rope 9, which passes over the sheave and through two guide-apertures 10, formed in a lug 11, integral with the lower end of the support 1. A link 12 embraces the rope and serves to hold it in contact with the lower side of the sheave. A crank-pin 13 is formed integral with the sheave 5, and a cylinder 14 is pivoted to said pin by means of an apertured lug 15, formed integral with the lower closed end of said cylinder. A perforated piston 16 is fitted in the cylinder 14, which is filled with glycerin or other viscous fluid. The piston 16 is carried by a piston-rod 17, the upper end of which bears a crank-arm 18, which engages an aperture 3^a in the neck 3.

In practice my device is secured to the wall neighboring a window and the rope adjusted on the sheave 5 so that one end comes up within a few feet of the sheave and the long end coiled up. In case of fire the long end of the rope should be thrown out of the window to prevent its becoming entangled and the short end grasped and the foot placed in the loop thereon, when the device will operate and lower one safely to the ground.

I do not wish to be limited as to details of construction, as these may be modified in many particulars without departing from the spirit of my invention.

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

1. In a fire-escape, the combination of a support having a curved neck thereon, a sheave mounted on said support, a fluid-cylinder pivoted to said sheave, a perforated piston fitting said cylinder, a piston-rod connected to said piston and bearing a crank-arm which engages an aperture in said neck, substantially as described.

2. In a fire-escape, the combination of a support bearing a stud-shaft and having a curved apertured neck thereon, a sheave mounted on said shaft and bearing a crank-pin, a fluid-cylinder pivoted to said crank-pin and extending parallel to said sheave, a piston fitting said cylinder and having a piston-rod bearing an arm engaging said aperture, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RICHARD TOENNES.

Witnesses:
LUCIEN BURIGHT,
JOHN GANTNER.