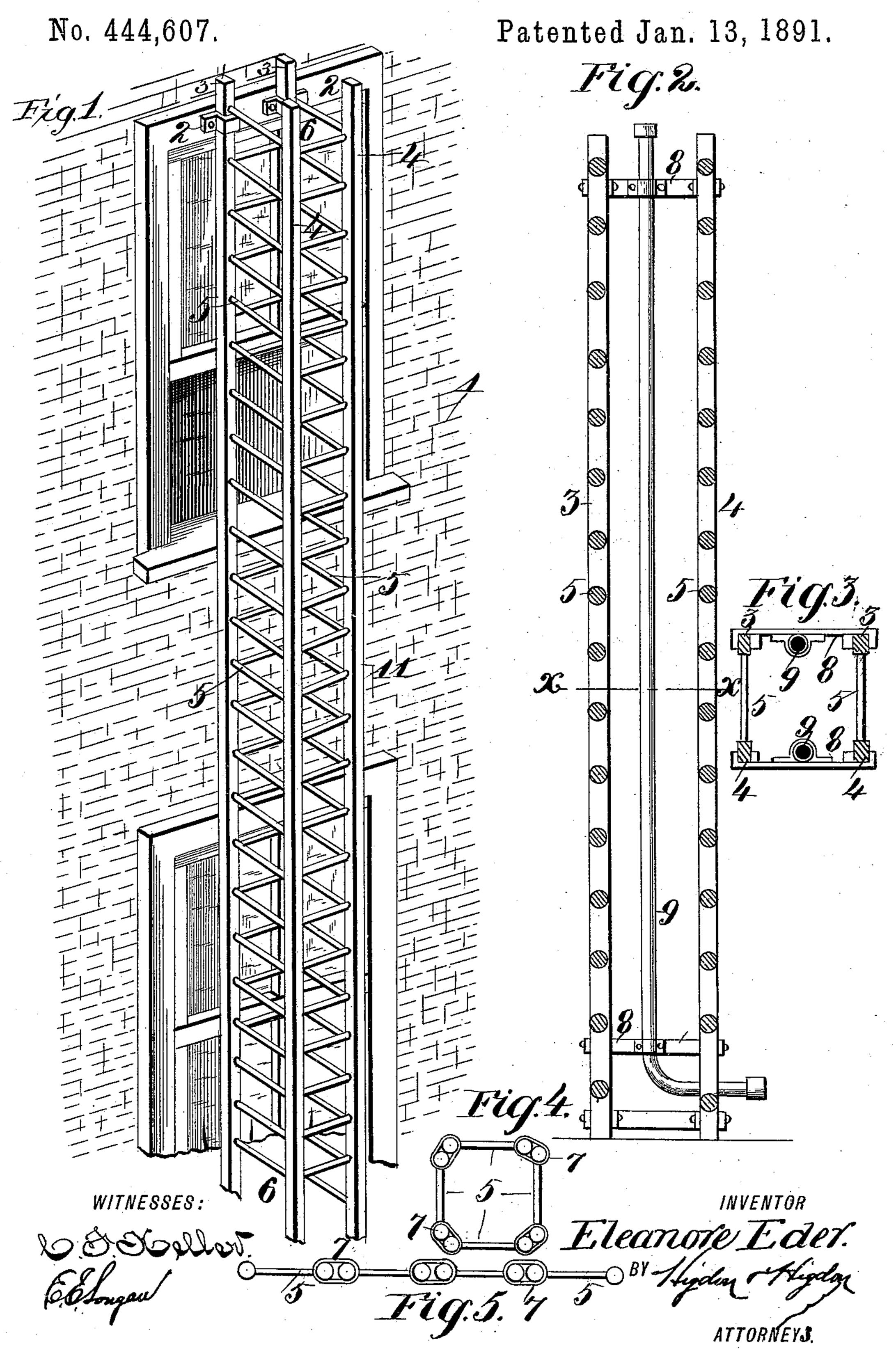
E. EDER.
FIRE ESCAPE LADDER.



## United States Patent Office.

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## FIRE-ESCAPE LADDER.

SPECIFICATION forming part of Letters Patent No. 444,607, dated January 13, 1891.

Application filed November 3, 1890. Serial No. 370,182. (No model.)

To all whom it may concern:

Be it known that I, ELEANORE EDER, of the city of St. Louis and State of Missouri, a subject of the Emperor of Germany, have invented certain new and useful Improvements in Fire-Escape Ladders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

escape ladders; and it consists in the novel arrangement and combination of parts, as will be more fully hereinafter described, and des-

ignated in the claims.

In the drawings, Figure 1 is a perspective view of my invention as applied to a building. Fig. 2 is a vertical longitudinal section of a modification of the same. Fig. 3 is a horizontal cross-section taken on the line x x of Fig. 2. Fig. 4 is a top plan view of a further modification of my invention. Fig. 5 is a top plan view of the same when placed in an open position.

Referring to the drawings, 1 represents a wall of an ordinary building, to which my invention or fire-escape ladder 11 is permanently attached by means of cleats 2, which are adapted to pass around upright pieces 3, and are then secured to the wall or to the window-frame, as shown in Fig. 1, in any suitable and substantial manner. The lower end of the ladder is likewise suitably attached to the wall.

33 and 44 represent the four upright pieces
of said ladder, which are so connected by a series of rounds 5 that a shaft 6 is formed between said upright pieces and said rounds. Said shaft is constructed of sufficient dimensions for persons to move freely upwardly and downwardly therein, and if they should perchance be overcome by the excitement and terror of the conflagration and fall, they will fall against the sides of the shaft, and thus be rescued from their probable perilous descent.

45 At each story a sufficient space is left between

the rounds for persons to enter the shaft, or they can climb down on the outside of the shaft, as they may see fit.

Suari, as they may see mi.

By the construction of my fire-escape ladder quite a number of persons may descend 50 at the same time. Some may descend on the three exterior sides of the shaft and at the same time others may descend on the insides thereof.

In Fig. 4 a modification is shown, where I construct my ladder by using four ordinary ladders and connecting them so as to form a shaft by means of bands 7 passing around the ad-

jacent upright pieces of said ladder.

In Fig. 2 a further modification is shown, 60 where I use two ladders, one of which is permanently attached to the wall and the other attached to the one that is permanently attached by means of cross-pieces 8. To these cross-pieces and on each side of the shaft 65 formed by connecting said ladders together I may attach water-pipes 9, which may be utilized for ordinary purposes, and also for a sliding pole in rapid descent.

One of the ladders may be attached to the 70 wall and the others opened out when not in use against the wall, as shown in Fig. 5.

Having fully described my invention, what I

claim is—

1. A permanent fire-escape ladder consist- 75 ing of a shaft 6, the front and back sides provided with rounds and the lateral sides there-of provided with sliding poles, as and for the purposes specified.

2. A permanent fire-escape ladder having a 80 shaft provided with a combined tubular sliding pole and water-pipe, substantially as set

forth.

In testimony whereof I affix my signature in presence of two witnesses.

ELEANORE EDER.

Witnesses:

C. F. KELLER,

E. E. Longan.