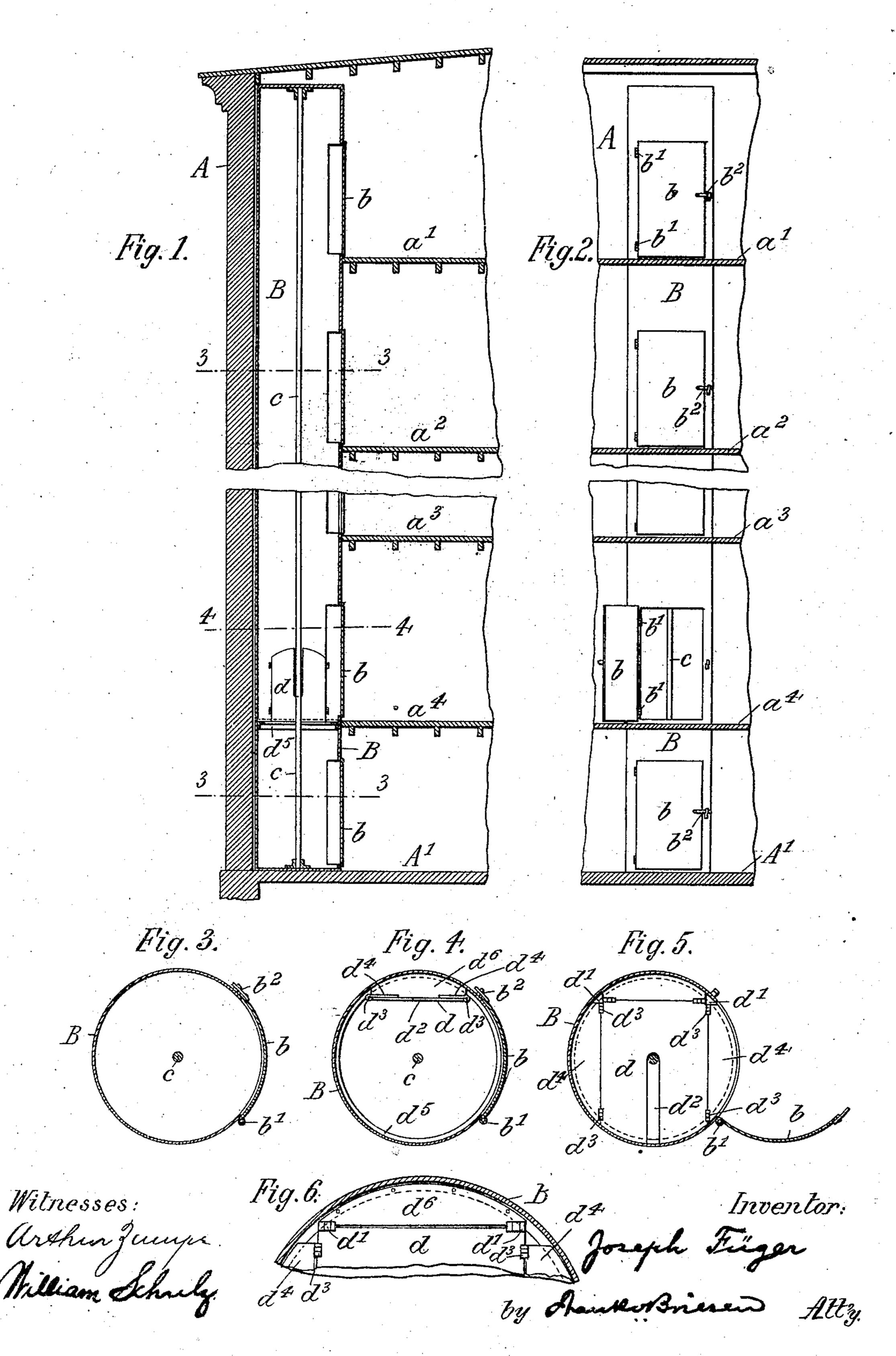
J. FÜGER.
FIRE ESCAPE.
APPLICATION FILED SEPT. 19, 1904.



## United States Patent Office.

JOSEPH FÜGER, OF NEW YORK, N. Y.

SPECIFICATION forming part of Letters Patent No. 785,301, dated March 21, 1905.

Application filed September 19, 1904. Serial No. 224,942.

To all whom it may concern:

Be it known that I, Joseph Füger, a citizen of the United States, residing at New York city, (Manhattan,) county and State of New 5 York, have invented new and useful Improvements in Fire-Escapes, of which the following is a specification.

This invention relates to a fire-escape which permits the safe and quick descent of endan-10 gered persons from the upper stories of a burning building to the ground floor or cellar, from whence their escape may then be effected.

In the accompanying drawings, Figure 1 is a vertical section through a building provided 15 with my fire-escape; Fig. 2, a front view of the fire-escape, showing the building in section; Fig. 3, a cross-section on line 33, Fig. 1; Fig. 4, a cross-section on line 44, Fig. 1, showing the trap-door raised; Fig. 5, a similar cross-20 section with the trap-door lowered, and Fig. 6 a detail of part of the trap-door.

The letter A represents a building having floors a'  $a^2$   $a^3$   $a^4$ , &c. Through these floors there extends from the roof to the cellar-25 floor A' a vertical fireproof shaft or tunnel B. This shaft is composed, preferably, of sheet metal and is of circular form in cross-section. Access to the interior of the shaft is obtained. at each story by means of a fireproof door b, 30 extending down to the floor-level. The doors b are shown to be hinged at b' and may be securely closed by latches  $b^2$ .

Centrally through the shaft B there extends an upright pole c, which reaches from the 35 roof to the cellar-floor A' and is also preferably made of fireproof material.

The shaft B should be of a diameter to conveniently accommodate a person and permit him to slide down along the pole to the ground. Thus a safe and quick descent within a fire and smoke proof inclosure is at all times insured.

In order to permit the descending persons to be landed either on the ground-floor or in the cellar, I provide the shaft B with a trap- 45 door d, hinged at d' to a segmental back plate  $d^6$ , secured to the inner side of the shaft B on a level with the ground-floor  $a^4$ . This door has a slot  $d^2$  to accommodate pole c and has a curved front and straight sides, Fig. 50 5. To these sides there are hinged at  $d^3$  segmental lids  $d^4$ , which form complements to the door, the whole, together with plate  $d^6$ , constituting a circle. If the persons are to be landed on the ground-floor, the door d is 55 lowered to rest upon a suitable support  $d^{\mathfrak{s}}$ , and the lids  $d^4$  are folded down to form a partition across the shaft on a level with the floor  $a^4$ . Should a landing be desired in the cellar, the lids are folded up and the door is 60 raised to leave an unobstructed passage within the shaft from the roof to the cellar. It will thus be seen that persons may readily lower themselves to that one of the two bottom landings which is free from fire or smoke, so 65 that in this way a rapid escape from any one of the top stories to the safest of the two bottom stories may be effected.

What I claim is—

A fire-escape composed of a circular fire- 70 proof shaft extending through the floors of a building, an inclosed pole, doors at the various floor-levels leading to the shaft, a segmental plate secured to the inner side of the shaft, a trap-door hinged to said plate, and segmen- 75 tal lids hinged to the door, substantially as specified.

Signed by me at New York city, (Manhattan,) New York, this 17th day of September,

JOSEPH FÜGER.

Witnesses:

WILLIAM SCHULZ, FRANK V. BRIESEN.