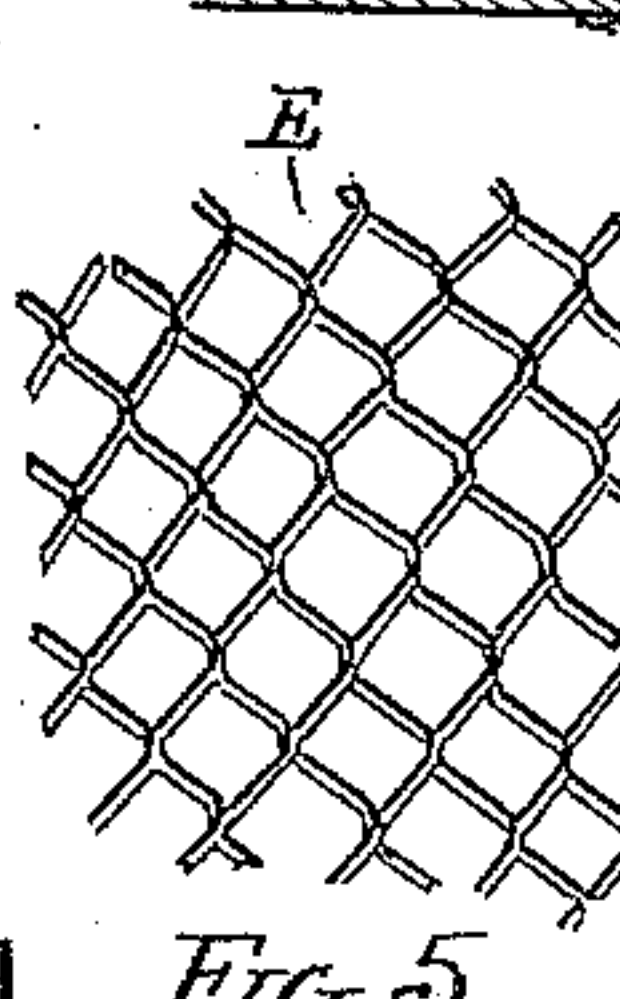
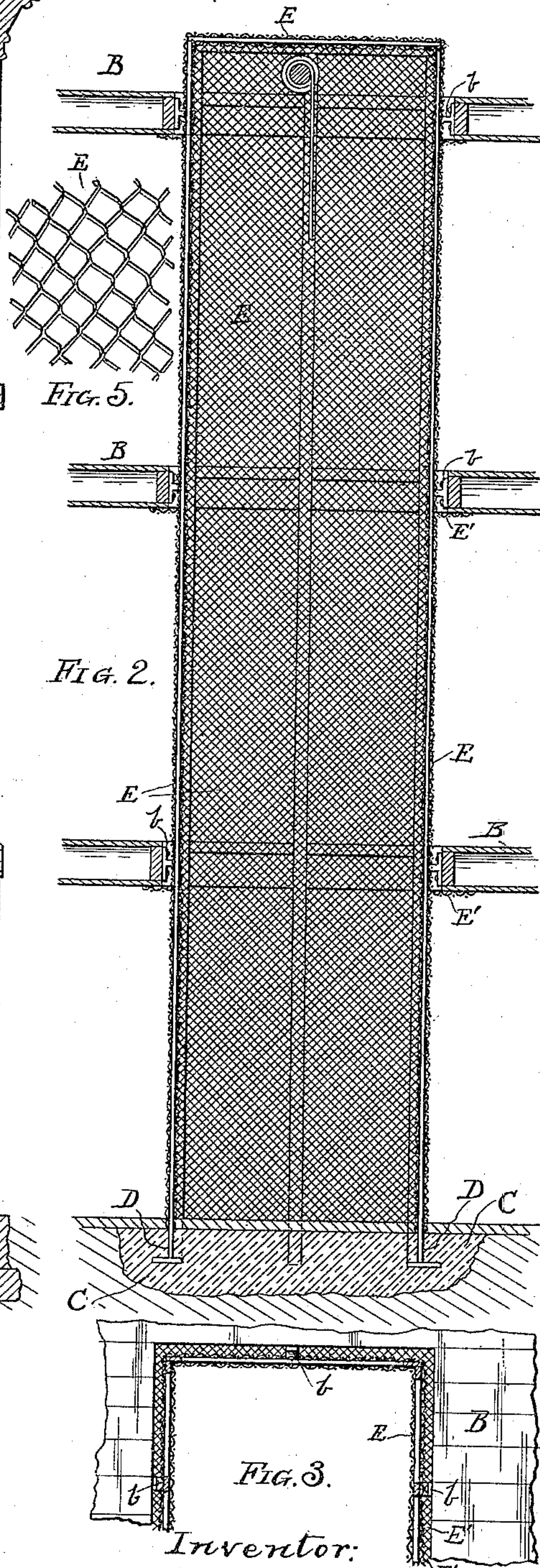
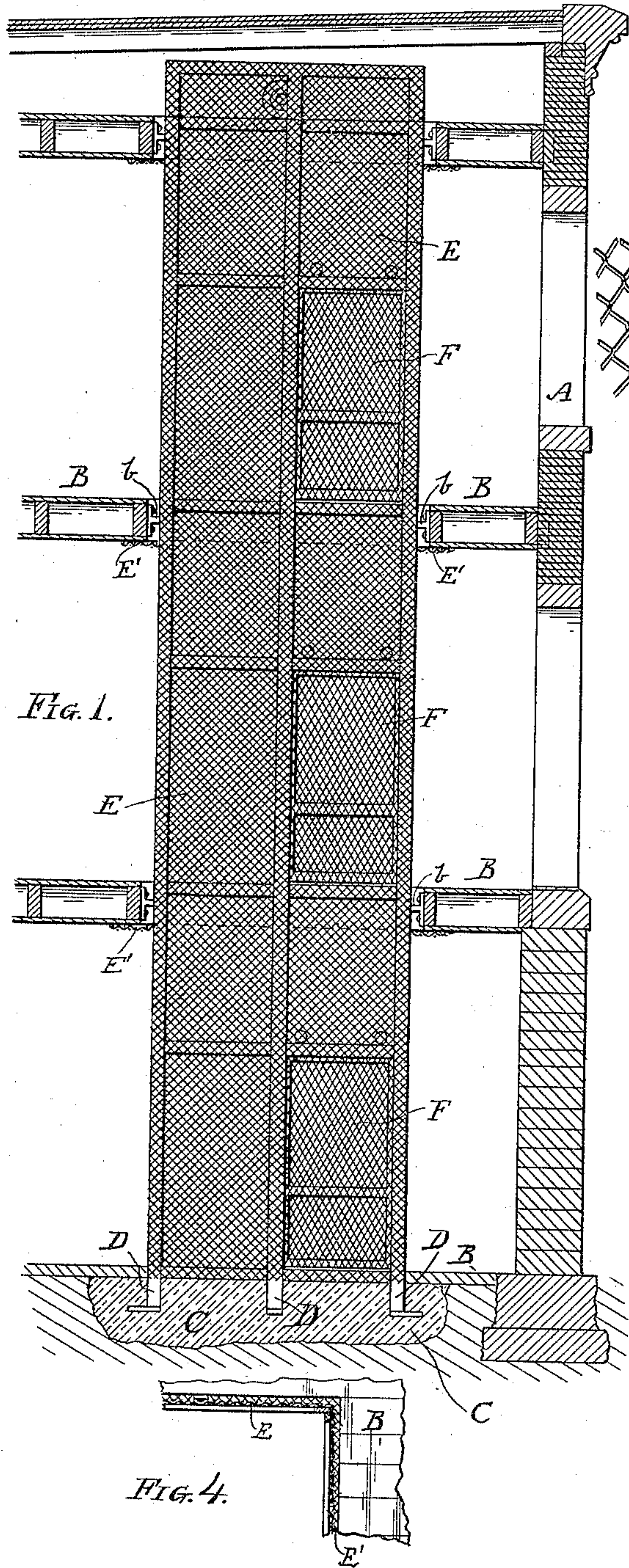


(No Model.)

E. L. BROWN.
ELEVATOR SHAFT.

No. 335,678.

Patented Feb. 9, 1886.



Witnesses:
J. B. Halperny.
John S. Thompson

Inventor:
Edwin Lee Brown
By Gridley & Fletcher
Attys.

UNITED STATES PATENT OFFICE.

EDWIN LEE BROWN, OF CHICAGO, ILLINOIS.

ELEVATOR-SHAFT.

SPECIFICATION forming part of Letters Patent No. 335,678, dated February 9, 1886.

Application filed August 3, 1885. Serial No. 173,386. (No model.)

To all whom it may concern:

Be it known that I, EDWIN LEE BROWN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Elevator-Shafts, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical sectional view of a portion of a building, showing a side elevation
10 of said elevator-shaft. Fig. 2 is a vertical sectional view of said shaft. Fig. 3 is a plan view in section of a part of the same. Fig. 4 is a like plan view in detail showing a modification of said construction, and Fig. 5 is a
15 detail view showing the preferable style of material used for incasing the frame of said shaft.

Like letters of reference indicate corresponding parts in the respective figures.

20 It is well known that elevator-shafts form one of the most dangerous features of buildings in which they are placed, in the facilities which they offer for the spread of fires from floor to floor by forming a direct chimney or
25 flue therefor.

The purpose of my invention is to overcome this serious objection and to produce an elevator shaft or well which may be light and thoroughly ventilated, while at the same time
30 it is rendered fire-proof, or so constructed as to prevent the communication of fire from one floor to another through or around the same.

Said elevator-shaft consists of a continuous iron frame-work so constructed as to be self-
35 supporting, or substantially so, independently of the floors, preferably embedded in concrete or other fire-proof material at the bottom, and wholly incased with "slashed metallic screening," so called, perforated sheet metal, or wire-
40 gauze, two thicknesses thereof being preferably used, with an intermediate air-space.

In the drawings, A, Fig. 1, represents a building, of which B indicates the floors, and C the concrete foundation for the elevator-
45 shaft. D D are the main posts or frame of said shaft, which are embedded in said concrete, substantially as shown, and extend to the top of the building, the same being preferably constructed of angle-iron and tied and
50 braced in any well-known way, so as to form a suitable frame. Upon both sides of said

frame, and rigidly attached thereto, from said concrete foundation up to and over the top, I place a covering or casing of slashed metallic screening, E E, or wire-gauze, the former being preferred on account of its deeper meshes, 55 and two thicknesses being preferably used instead of one, in which event it is desirable to separate them from each other, in order to leave an air-space between, and thus provide 60 greater security against the passage of the flame, while a larger and stronger mesh may be used, if desired, in the covering. For the purpose of bracing said frame laterally and preventing it from swaying, I connect portions of the frame-work with said floors, respectively, by means of angle-irons *b b*, rigidly 65 attached to the two, or in any equivalent manner; and in order to prevent the passage of flame between said elevator-shaft and the floors B, I extend gauze flanges or aprons E' 70 from said shaft to the bottom of each floor, as shown in Figs. 1 and 2; or, in lieu thereof, a filling of concrete, plaster-of-paris, or other non-combustible material may be employed. 75

The doors F are constructed in the usual way, and are likewise covered with said gauze.

Fig. 4 shows a modification of the construction above described, in that a single covering is used instead of two, as in the other 80 figures.

Fig. 5 shows the material described as "slashed metallic screening," which I regard as preferable to wire-gauze, especially where a single thickness is employed, as it presents 85 deeper meshes, and is cheaper and stronger. The drawings show the meshes somewhat enlarged in order to clearly indicate the construction.

As flame cannot pass through the covering 90 described, the whole of said shaft is rendered fire-proof thereby, while light and air are freely admitted.

Having thus described my invention, I claim—

1. An elevator-shaft incased in slashed metallic screening, wire-gauze, or equivalent material, substantially as and for the purposes specified. 95

2. An elevator-shaft covered and lined with 100 slashed metallic screening, wire-gauze, or equivalent material, and having an air-space

between said covering and lining, substantially as set forth.

3. An elevator-shaft having its base embedded in concrete or other fire-proof material, and incased with one or more thicknesses of wire-gauze, substantially as described.

4. The combination, with an elevator-shaft consisting of a continuous metallic frame extending from the bottom to the top of the building, of a complete metallic-gauze casing, substantially as set forth, and for the purposes specified.

5. An elevator-shaft having its base em-

bedded in concrete or other fire-proof material, the frame-work of which is constructed of metal and supported independently of the floors, except laterally, and is incased in one or more thicknesses of wire-gauze, with means for preventing the passage of flame around said elevator at said floors, respectively, substantially as described.

EDWIN LEE BROWN.

Witnesses:

D. H. FLETCHER,
J. B. HALPENNY.