

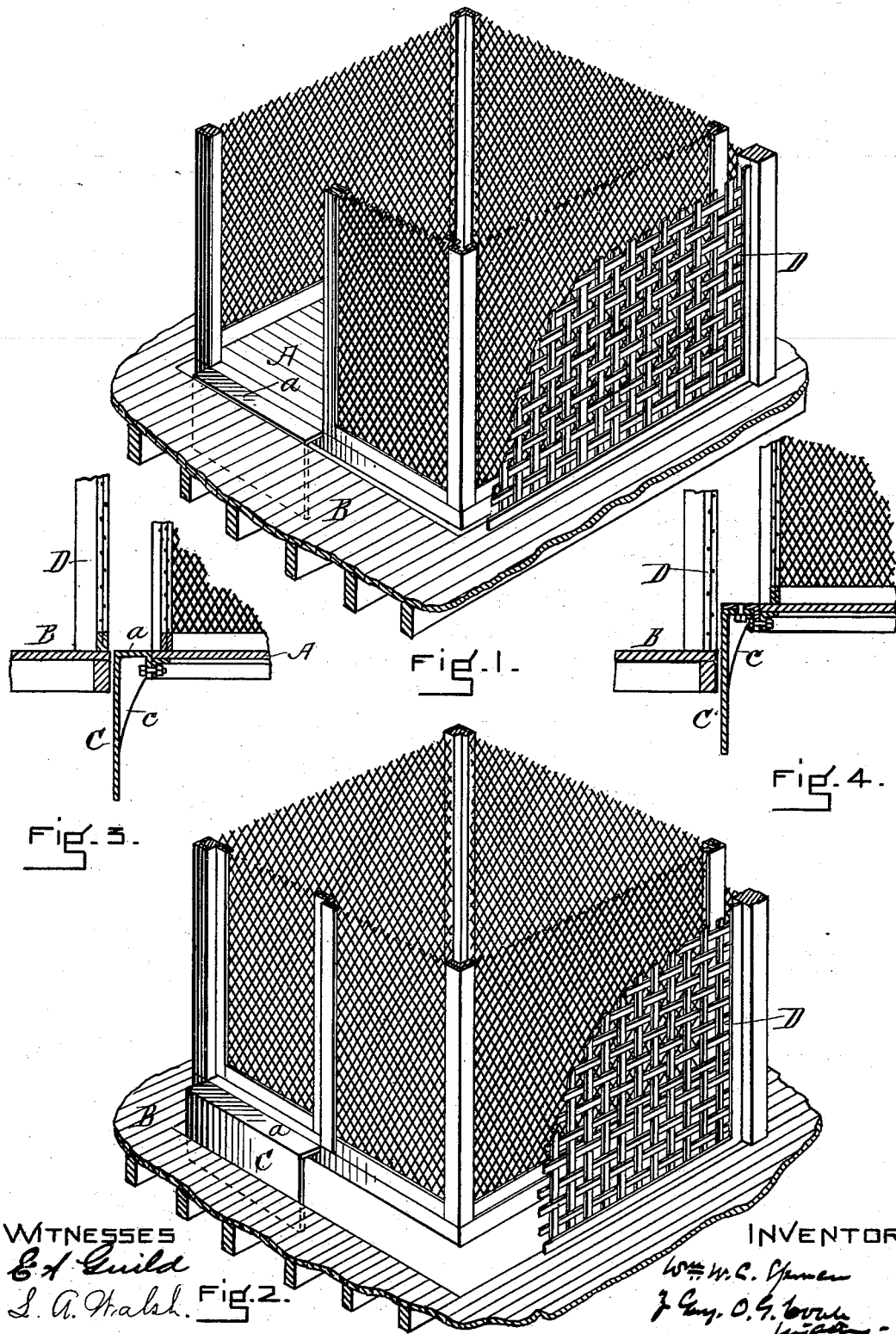
No. 648,309.

Patented Apr. 24, 1900.

W. W. C. SPENCER.
ELEVATOR GUARD.

(Application filed July 10, 1899.)

(No Model.)



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM W. C. SPENCER, OF BOSTON, MASSACHUSETTS.

ELEVATOR-GUARD.

SPECIFICATION forming part of Letters Patent No. 648,309, dated April 24, 1900.

Application filed July 10, 1899. Serial No. 723,289. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. C. SPENCER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Elevator-Guards, of which the following is a specification.

When a passenger-elevator reaches a landing, the door is often opened to admit passengers while the attendant is still attempting to bring the elevator to the exact level of the floor. In such case if the elevator is raised slightly above the floor—say two or three inches—a person anxious to get into the elevator can step forward in such a manner that a part of his foot will overhang the edge of the floor and come under the elevator. If the attendant, not seeing this, attempts to lower the elevator, the person's foot may be seriously injured by being jammed between the elevator and the floor. This accident has frequently happened even with careful elevator attendants and has been of so serious a character as to require amputation.

My invention is intended to guard against such an accident. For this purpose I provide a guard or riser extending downward from the sill below the floor of the elevator a sufficient distance—say from twelve to eighteen inches—and flush with the front of the sill. My invention will be understood by the drawings, in which—

Figure 1 is a perspective view of portion of an elevator embodying my invention, together with a portion of the surrounding floor, the two being on a level. Fig. 2 is a similar view showing the relations of the floor, the elevator, and the guard referred to when the elevator is slightly above the floor and is approaching it. Figs. 3 and 4 show details to be described below.

A is the elevator-floor, and B the surrounding floor of the building.

C is the guard referred to, and D is the wall of the elevator-shaft.

As it is often the case that there is some space for clearance between the elevator and the wall D of the elevator-shaft it is often customary, especially in iron elevators, to provide a tread *a* sufficiently wide to bridge the space between the elevator-floor and the floor of the building and extending along the

edge of the elevator as far as the door is wide. I have shown my guard attached to this tread, and it may be made in two forms—one shown in Fig. 3 and the other shown in Fig. 4. In either case C is the guard, which in the one case, Fig. 3, is in the same piece with the tread *a* and in the other case, Fig. 4, is a separate piece or plate of the full length of the tread and of the required depth—say eighteen inches. In this latter case it is bolted to the tread, and in either case I prefer to provide braces between it and the tread, so that it shall be substantially solid, so as not to yield when struck by a person's foot.

In operation if the attendant stops the elevator at any point within, say, eighteen inches above the floor of the building and opens the door it is impossible for the would-be passenger to get his foot under the elevator for the reason that his toe will strike the guard, and as the elevator settles to the level of the floor of the building the guard will simply grind against the toe of his shoe.

It is evident that my guard may be applied directly to the floor of the elevator or that portion of it which is opposite the door of the landing instead of being applied to the tread proper, and it may be made of wood or other material if thought best, though I prefer to make it of iron, its peculiarity being that it is a vertical guard which serves as an indication of how far out the elevator will project when it settles into place, and which having a flat face has no overhanging portion which might catch a person's foot and bend it downward or break it. If a person's foot does not touch it as it descends, the person is absolutely clear from the elevator, as might not be the case if the guard were angular or beveled outward from below. If a person's foot does touch my guard, it suggests the propriety of his drawing his foot back; but if he does not do so he will meet with no injury, for the guard being vertical there is no overhanging part to catch and jam his foot. Moreover, when made in one piece with the tread my guard may be easily attached to the elevator.

What I claim as my invention is—

1. An elevator, in combination with a guard, having a flat exposed surface extending vertically downward from the door-sill flush with

the outer edge of said sill and at right angles to the floor of the elevator, as and for the purposes set forth.

2. In combination, an elevator, tread and
5 guard, said tread being adapted to be attached to the floor of the elevator upon substantially the level thereof, and said guard being adapted to extend downward vertically therefrom in a plane at substantially right
10 angles thereto, and when the elevator has de-

scended nearly to a level with the floor of the building, to afford a flat vertical protecting-surface to any object projecting from the floor surrounding the elevator-well, as set forth.

In testimony whereof I have set my name 15
this 7th day of July, 1899.

WILLIAM W. C. SPENCER.

Witnesses:

GEORGE O. G. COALE,
E. A. GUILD.