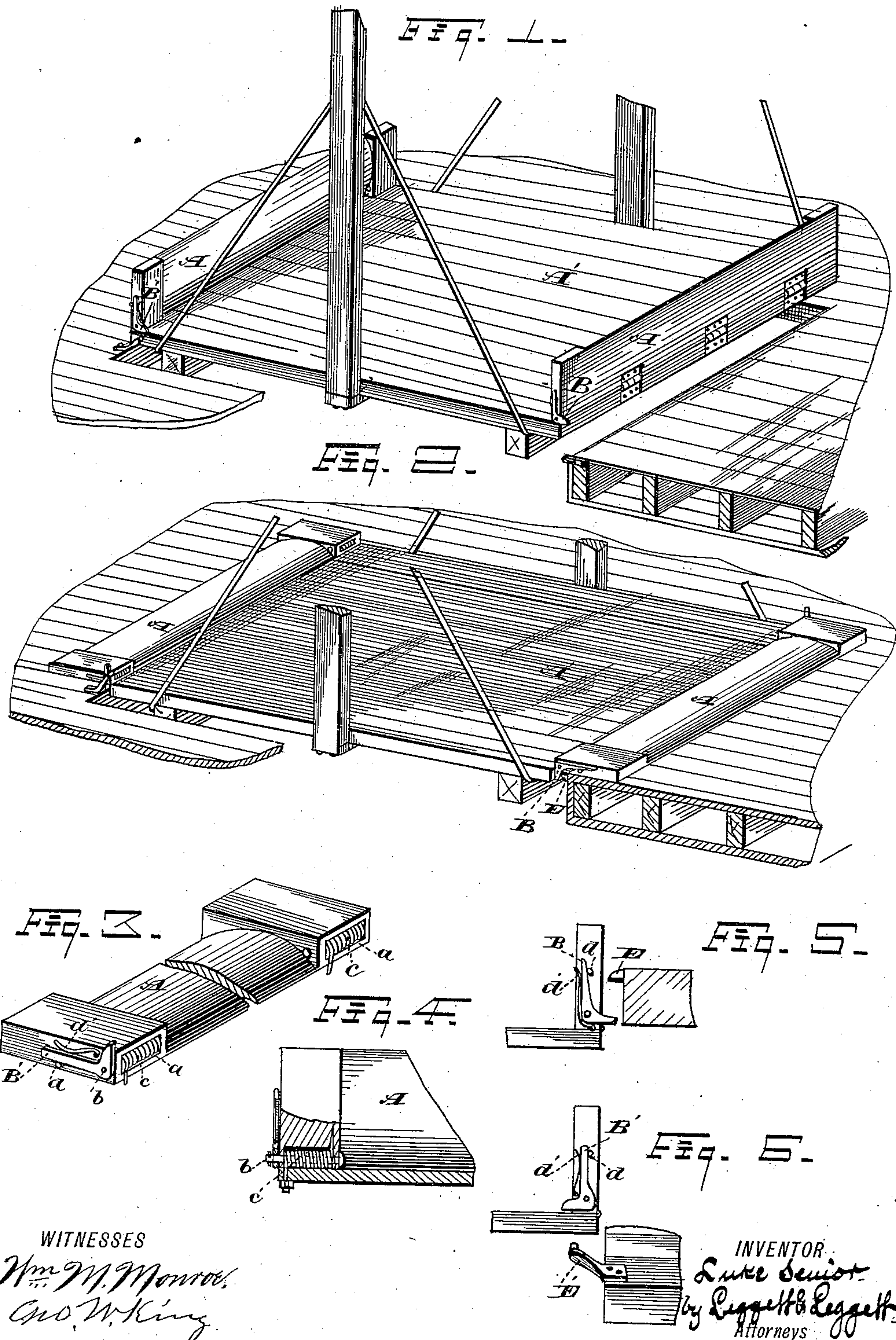


(No Model.)

L. SENIOR.
ELEVATOR ATTACHMENT.

No. 334,201.

Patented Jan. 12, 1886.



WITNESSES
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UNITED STATES PATENT OFFICE.

LUKE SENIOR, OF CLEVELAND, OHIO.

ELEVATOR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 334,201, dated January 12, 1886.

Application filed July 23, 1885. Serial No. 172,352. (No model.)

To all whom it may concern:

Be it known that I, LUKE SENIOR, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful

Improvements in Elevator Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in elevator attachments in which a guard-plank or equivalent is hinged to the front edge of the elevator-platform, and arranged to stand upright edgewise while the elevator is moving, to serve as a guard to prevent passengers or freight from being caught between the elevator-platform and the floor of the building. Suitable mechanism is provided for tilting the plank outward to overlap and rest on the floor of the building opposite which the elevator-platform happens to be, to the end that the tilting plank may serve as a gang-plank for the passage of freight or passengers to or from the elevator.

With these objects in view my invention consists in certain features of construction, and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of an elevator-platform showing my improvement attached, the latter being in an upright position. Fig. 2 is the same view, but with the guard-plank lowered upon the adjacent floor. Fig. 3 is a view in perspective of the guard-plank in a horizontal position. Fig. 4 is an elevation, partly in section, of a portion of a guard-plank, showing the spring attachment. Figs. 5 and 6 are end views of the guard-plank, showing the stops, respectively, for lowering the plank in the upward and downward movement of the elevator.

A are guard-planks that are hinged to the edge of the elevator-platform A', as shown in Fig. 1, so that the plank may tilt outward; but when in an upright position are held by the hinge from turning inward. Mortises *a* are made in the bottom edge of the plank, near the ends thereof, and rods *b* are inserted lengthwise of the plank, and extend, respectively, through the center of the mortises, and on each rod is mounted a coil-spring, *c*, one end of each spring engaging the plank and the other end

engaging the platform, with the arrangement of parts such that when the plank is tilted outward the springs are compressed, and the recoil of the springs will elevate the plank to the upright position shown in Fig. 1.

B and B' are levers of the bell-crank variety, that are pivoted in reverse position on the rods *b*, the levers B being arranged with the short or lateral arms extending outward, or from the elevator, (see Fig. 5,) while the levers B' are arranged with their lateral arms extending inward, or toward the elevator, the same plank having a lever, B, and a lever, B', connected therewith. Abutment-pins *d* are driven into the ends of the guard-plank in front of the upright arms of the levers B and B', and springs *d'* are arranged at the rear to hold the levers in an upright position against the abutment-pins. Stops E and E' are attached to the different floors of the building in position to respectively engage the respective levers. The arrangement of these stops in their relative position to the levers is shown in Figs. 5 and 6. When the elevator is ascending and the toe of the lever B engages the stop E, the lever is tilted, and by means of the pin *d* tilts the plank and brings it down on the floor in the position shown in Fig. 1. As the elevator passes the floor, the toe of the lever draws off of the stop, and the springs *c* return the plank to an upright position. When the elevator is descending, and the toe of the lever B strikes the stop E, the lever is tilted rearward against the action of the spring *d'*, and without disturbing the plank. On the other hand, when the elevator is ascending and the toe of the lever B' strikes the stop E, the lever is tilted rearward without moving the plank. When the elevator is descending, the engagement of the toe with the stop E tilts the lever and the plank is lowered onto the floor. As a lever, B, and a lever, B', are connected with each plank A, it follows that the plank in passing each floor that is provided with the stops E and E', arranged as aforesaid, will be tilted down upon the floor both with the ascent and descent of the elevator. The planks A in the upright position form guards that prevent shifting freight from protruding beyond the edge of the elevator, and prevent passengers from inadvertently thrusting the feet in dangerous proximity to

the passing floors. The planks A, in the horizontal position that they assume when the elevator is opposite a floor, serve as gang-planks, and for this purpose the edges of the planks 5 should be chamfered, as shown in Fig. 3.

The device is simple, cheap, and effective. Of course metal plates may be substituted in place of planks, or two or more planks or a frame-work of any desired width, may be used.

o What I claim is—

1. An elevator attachment consisting, essentially, of a plank, or equivalent, hinged to the edge of the elevator-platform, springs for holding the plank in and returning the same to an 5 upright position, and stops for tilting the plank to a horizontal position in passing the respective floors of the building, substantially as set forth.

2. In an elevator attachment, the combination, with guard-planks hinged to the elevator- 20 platform, springs connected with the planks for holding the latter in and returning them to an upright position, of tilting levers connected with the guard-planks, stops connected with the different floors for engaging said levers, 25 and arranged to automatically tilt the planks when the elevator is opposite the respective floors, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 10th day 30 of July, 1885.

LUKE SENIOR.

Witnesses:

CHAS. H. DORER,
ALBERT E. LYNCH.