2 Sheets—Sheet 1.

D. JENKINS.
Elevator.

No. 209,400. **Patented Oct. 29, 1878.**

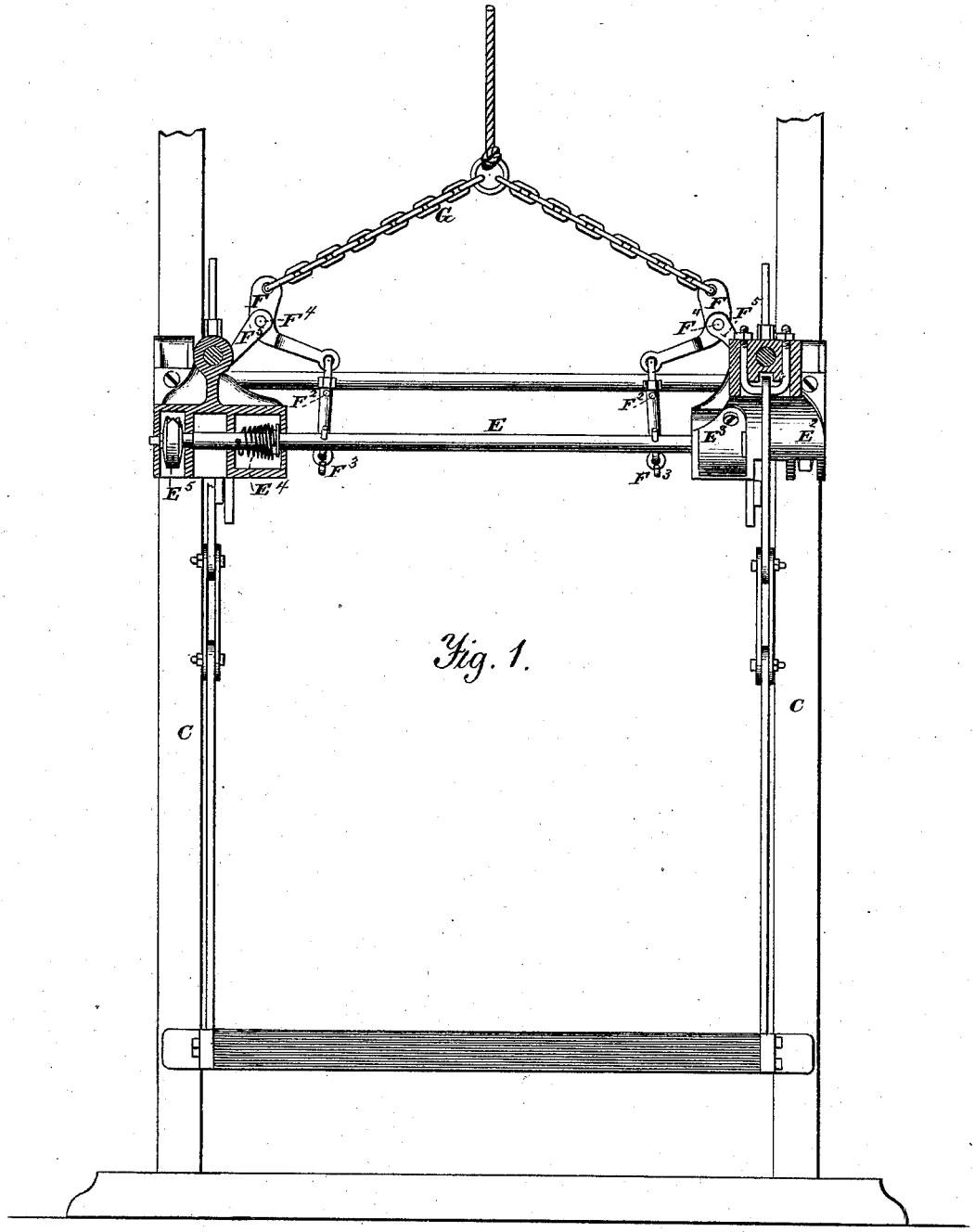

Fig. 1.

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Attys

2 Sheets—Sheet 2.

D. JENKINS.

Elevator.

No. 209,400. Patented Oct. 29, 1878.

Fig. 2.

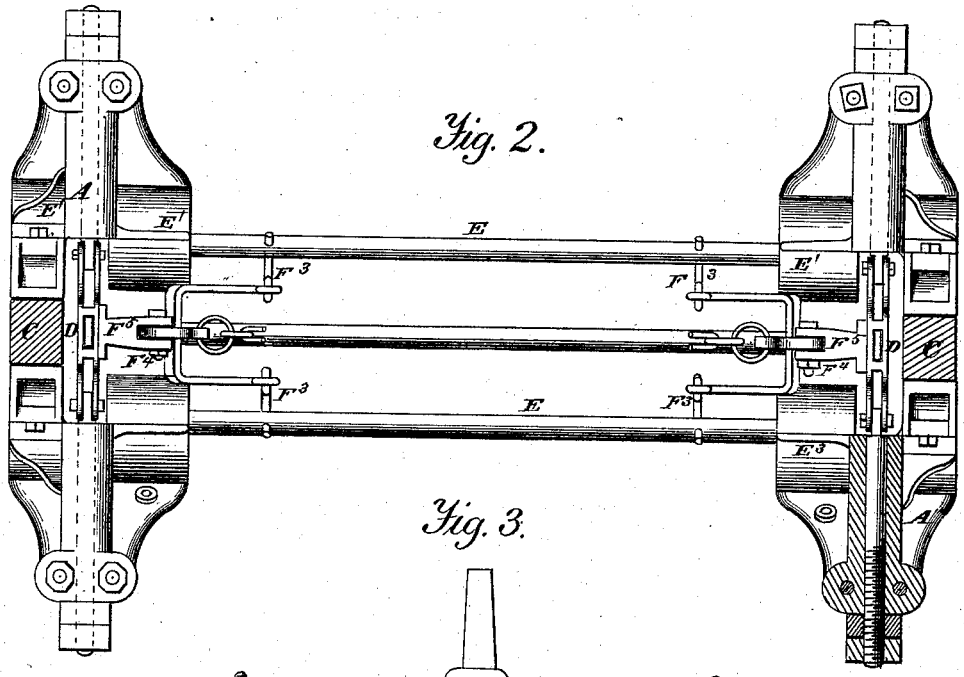


Fig. 3.

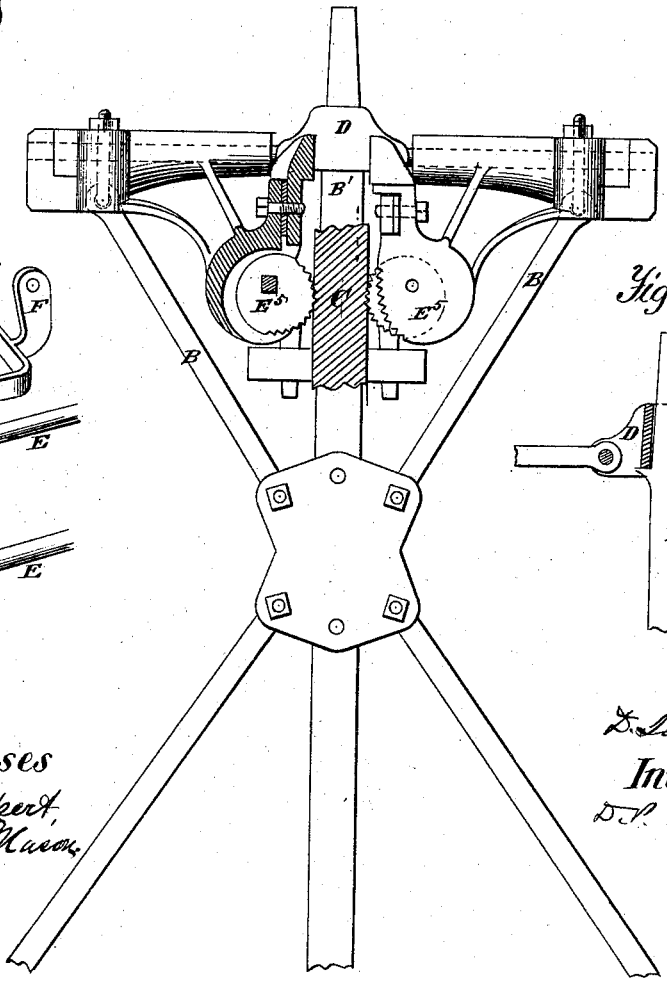


Fig. 6.

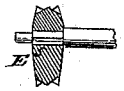


Fig. 4.

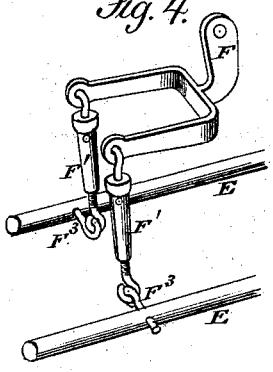
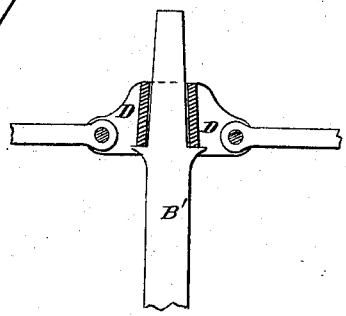


Fig. 5.



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UNITED STATES PATENT OFFICE.

DAVID JENKINS, OF EVANSVILLE, INDIANA.

IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. **209,400**, dated October 29, 1878; application filed October 14, 1878.

To all whom it may concern:

Be it known that I, DAVID JENKINS, of Evansville, in the county of Vanderburg and State of Indiana, have invented new and useful Improvements in Elevators, of which the following is a specification:

The invention consists of an elevator so constructed with clamps and levers that, should the hoisting apparatus give way, the clamps will fasten themselves into the upright guide-pieces, and thus prevent the elevator from falling.

In the annexed drawings, making a part of this specification, Figure 1 is a front elevation, partly in section. Fig. 2 is a top elevation, partly in section. Fig. 3 is a side elevation, partly in section. Fig. 4 is a perspective view of the bell-crank lever. Fig. 5 is a sectional view of the coupling. Fig. 6 is a sectional view of the eccentric-wheel.

The same letters are employed in all the figures in the indication of identical parts.

A A are levers, constructed with an outer box and inner cylinder, which are hinged to the couplings D D. To the outer ends of these levers are attached the rods B B, by which the whole weight of the elevator-platform and contents are suspended. The levers A A, on each side of the elevator, and embracing the upright guide-pieces C C, are connected by couplings D D, that fit over the upper ends of upright rods B′ B′. These upright rods pass loosely through the couplings D D, so that in event of the sudden breaking of the hoisting-rope no weight is suspended, except at the ends of the levers A A.

E E are rods, passing across the elevator through boxes on the under side of the levers A A. These boxes are divided into two chambers, E^2 E^3. In the inner ones, E^3 E^3, are placed spiral springs E^4 E^4, so attached to the rods E E that when the rods are turned the springs will cause them to return to their original position. In the outer chambers, E^2 E^2, is an eccentric, E^5, with teeth on one side, so hung to the rods E E that the teeth will bear against the guides C C, being turned by the springs E^4 E^4 when the strain on the hoisting-rope is relieved by its breaking.

F F are bell-crank levers, shaped as shown in Fig. 4. They have fulcrums formed by pins F^4 F^4 passing through the levers and the bifurcated arms F^5 F^5, into which they are set. The arms F^5 F^5 are firmly bolted to the upright rods B′ B′, for upon them come the whole weight of the elevator and contents while it is being raised or lowered.

To the arms of the levers F F are attached links F^1 F^1, working with a screw, so that they may be either lengthened or shortened, as required. After they have been properly adjusted they are held by means of the pins F^2 F^2 passing through the shell and screw. The lower ends of the links are attached to eyebolts F^3 F^3 in the rods E E, so that by moving the levers F F the rods are partially rotated and the eccentrics disengaged from the guides C C.

G is a chain or rope passing across the elevator, attached to the upper part of the levers F F, to which the hoisting-rope is made fast. As strain is brought on the hoisting-rope it draws the upper ends of the levers F F nearer together and forces the lower ends down, thus turning the rods E E, and also turning the eccentrics E^5 E^5, attached to them, away from the guides; but should the hoisting apparatus break, the rods will be thrown back by the action of the springs E^4 E^4, bringing the eccentrics to bear against the guides, and, as the whole weight of the elevator is then sustained by the rods B B at the extremity of the levers A A, the teeth of the eccentrics will be firmly fixed into the guides, and thus prevent it from falling.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the elevator-platform, the suspending-rods B B and levers or jointed arms A A, to which they are attached, and which serve as bearings for the oscillating shafts E E, as well as boxes for the springs and eccentrics by which the elevator is suspended on the guides in case of accident, substantially as set forth.

2. In combination with ways C C and chain G, the bell-crank levers F F, links F^1, eyebolts F^3 F^3, rods E, eccentrics E^5 E^5, and springs E^4, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID JENKINS.

Witnesses:

T. C. LOVE,

JAMES CROFTS.