(No Model.) 2 Sheets—Sheet 1.

J. KLEIN.

SCAFFOLD AND FIRE ESCAPE.

No. 284,308. Patented Sept. 4, 1883.

Fig. 1.

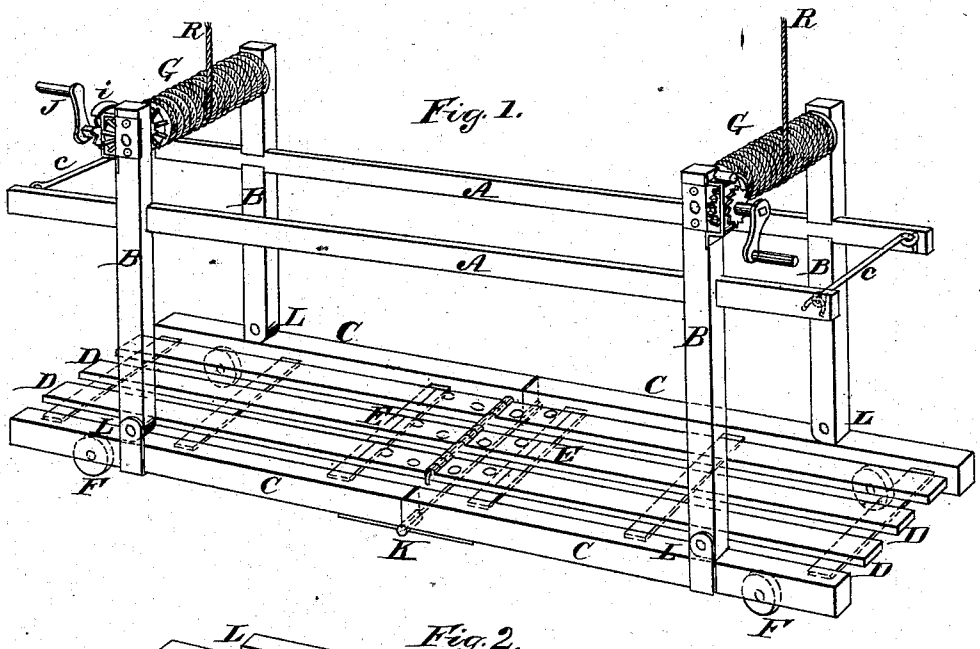


Fig. 2.

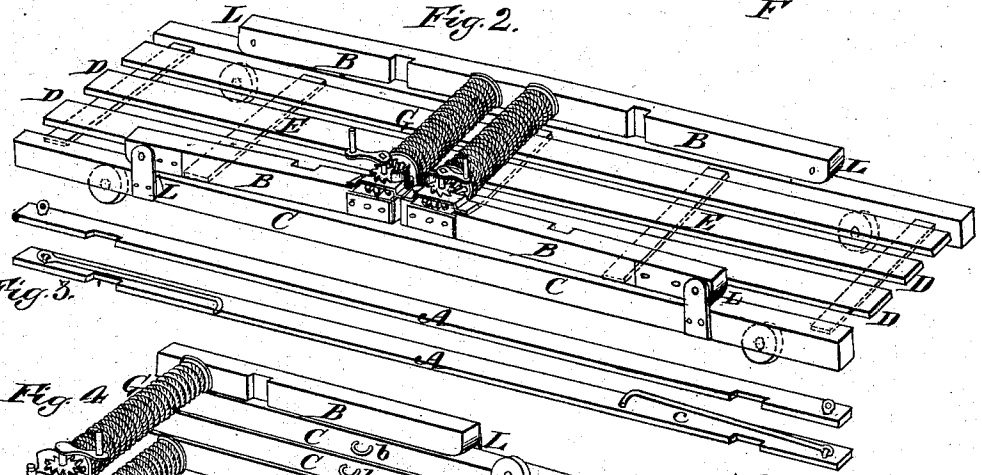


Fig. 3.

Fig. 4.

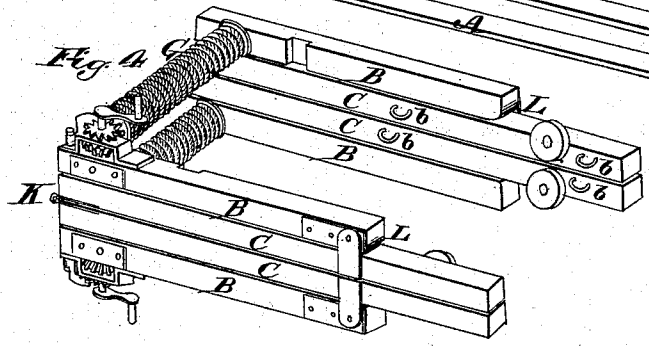


Fig. 5.

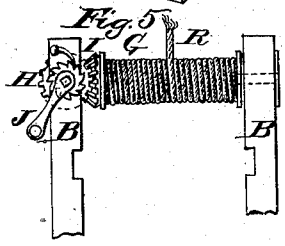


Fig. 7.

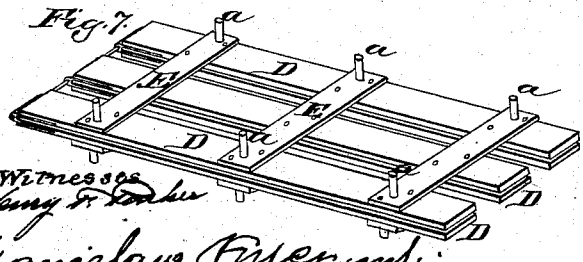
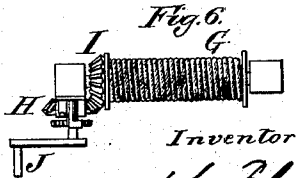


Fig. 6.



Witnesses:
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Stanislaus Fitzgerald

Inventor.
Joseph Klein

N. PETERS, Photo-Lithographer, Washington, D. C.

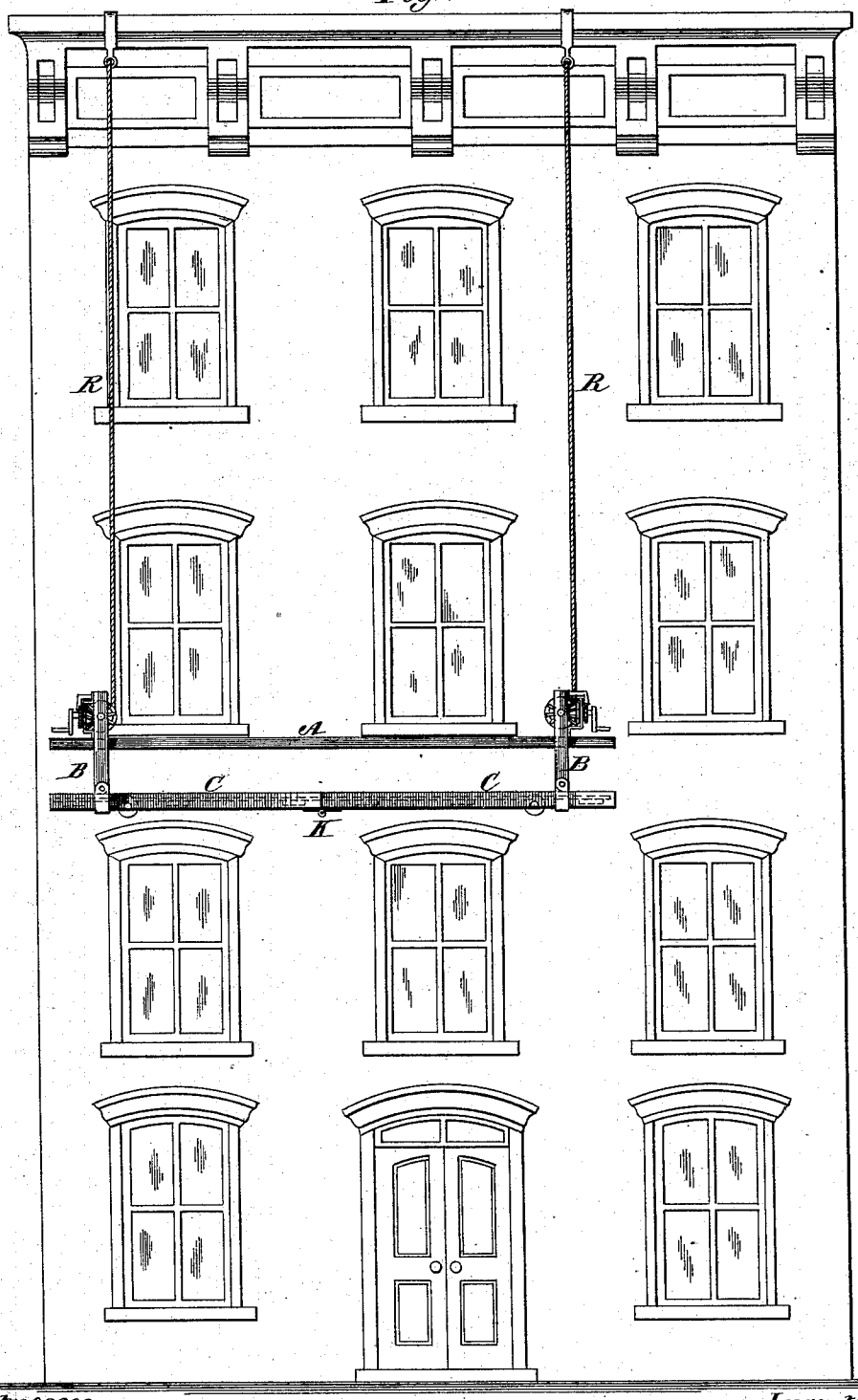
(No Model.) 2 Sheets—Sheet 2.

J. KLEIN.

SCAFFOLD AND FIRE ESCAPE.

No. 284,308. Patented Sept. 4, 1883.

Fig. 8.



Witnesses
Henry C. Parker.
Stanislaw Krzeminski

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Joseph Klein

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UNITED STATES PATENT OFFICE.

JOSEPH KLEIN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO ANTON WISNIEWSKI AND STANISLAW KRZEMINSKI, BOTH OF SAME PLACE.

SCAFFOLD AND FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 284,308, dated September 4, 1883.

Application filed April 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH KLEIN, a subject of the Emperor of Austria, residing in the city, county, and State of New York, have invented a new and useful Scaffold and Fire-Escape, of which the following is a specification.

My invention relates to improvements in scaffolds and fire-escapes, and its object is to provide an apparatus which can first be used in the erection of new buildings, and which may afterward serve as a scaffold to be used in making repairs, painting, and the like, and which can be kept constantly ready for use as a fire-escape. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a detailed view, in perspective, of the entire machine when adjusted for use. Fig. 2 is a similar view of the entire machine folded up for transportation or storage. Fig. 3 is a detailed view, in perspective, of the pieces which form the hand-rail or sides. Fig. 4 is a similar view of the pieces which, being unfolded, form the bottom frame and ends of the machine. Fig. 5 is a side view of one of the geared shafts by which the machine is suspended and operated when in use. Fig. 6 is the same view half reversed to show more clearly the connection of the gearing. Fig. 7 is a view in perspective of the cross-pieces which form the bottom or floor of the machine. Fig. 8 is a vertical section of the entire machine, showing the method of its attachment to buildings.

Similar letters refer to similar parts throughout the several views.

The side rails, A A, with mortises to receive the upright posts B B, connected by hinges L L to the bottom pieces, C C, hinged at K, form the frame-work of the machine. *c* *c* are rods which keep the side rails, A A, in position.

D D are the longitudinal pieces which form the bottom, and E E are the cross-pieces which hold D D together, and are provided with projections or bolts *a a*, which fit into the sockets *b b* in the frame-pieces C C, so as to form a solid floor.

F F are trucks attached to the frame-pieces C C.

G G are the geared shafts attached to the uprights B B, by means of which the whole machine is raised or lowered when in use.

H and I are geared wheels placed at right angles to each other and attached to the end of the shaft G, and imparting motion to it when power is applied to the handle J. *i* is a ratchet which falls upon the gear H.

R is the rope or chain by which the machine is suspended from a building.

In constructing my invention, I use wood, iron, or any material suitable for building frame-work, and I carry said invention into effect as follows: The machine being folded, as in Fig. 2, I first unfold the bottom pieces, C C, which, when opened, form a stiff unyielding frame-work. The end pieces, B B, are then raised, and the side rails, A, are slipped into the mortises in B B, ready to receive them, and are held in position by the cross-rods *c c*. The longitudinal pieces D D, connected with the cross-pieces E E, are placed upon the frames C C and held in position by the bolts *a a*, dropped into the sockets *b b*, the whole forming the floor to the machine. The scaffold is then ready for use, and the occupants, having attached one end of the ropes or chains R R to the edge of the roof, the window-sills, or any desired point in the upper part of the building, may raise themselves by turning the handle J, which moves the gear H, which, working into the gear I, attached to the shaft G, revolves it, and by winding up the rope or chain R raises the scaffold. If used as a fire-escape, the machine would be already attached to the building, and could be lowered by the same mechanism as above described.

The use of my device is not, however, confined to any particular buiding, and as it is constructed so as to fold together it is therefore portable, and in case of fire may be used as a life-saving device, raised and lowered by mechanism entirely disconnected with the burning building.

Having fully described my invention and the manner of its operation, what I claim, and desire to secure by Letters Patent, is—

1. In a scaffold and fire-escape, the bottom pieces, C C, hinged at K, in combination with the uprights B B, hinged at L, and the side rails, A A, held in position by the rods *c*, substantially as described.

2. In a scaffold and fire-escape, the frame C C, B B, and A A, in combination with the slats D D, joined to the cross-pieces E E, and connected with the frame C C by bolts *a a* and sockets or staples *b b*, substantially as described, and for the purpose specified.

3. In a scaffold and fire-escape, the frame C C, B B, and A A, in combination with the shafts G G, operated by the gears H and I, substantially as described, and for the purpose specified.

JOSEPH KLEIN.

Witnesses:
JOSEPH FURNIVAL,
BARBORA KLEIN.