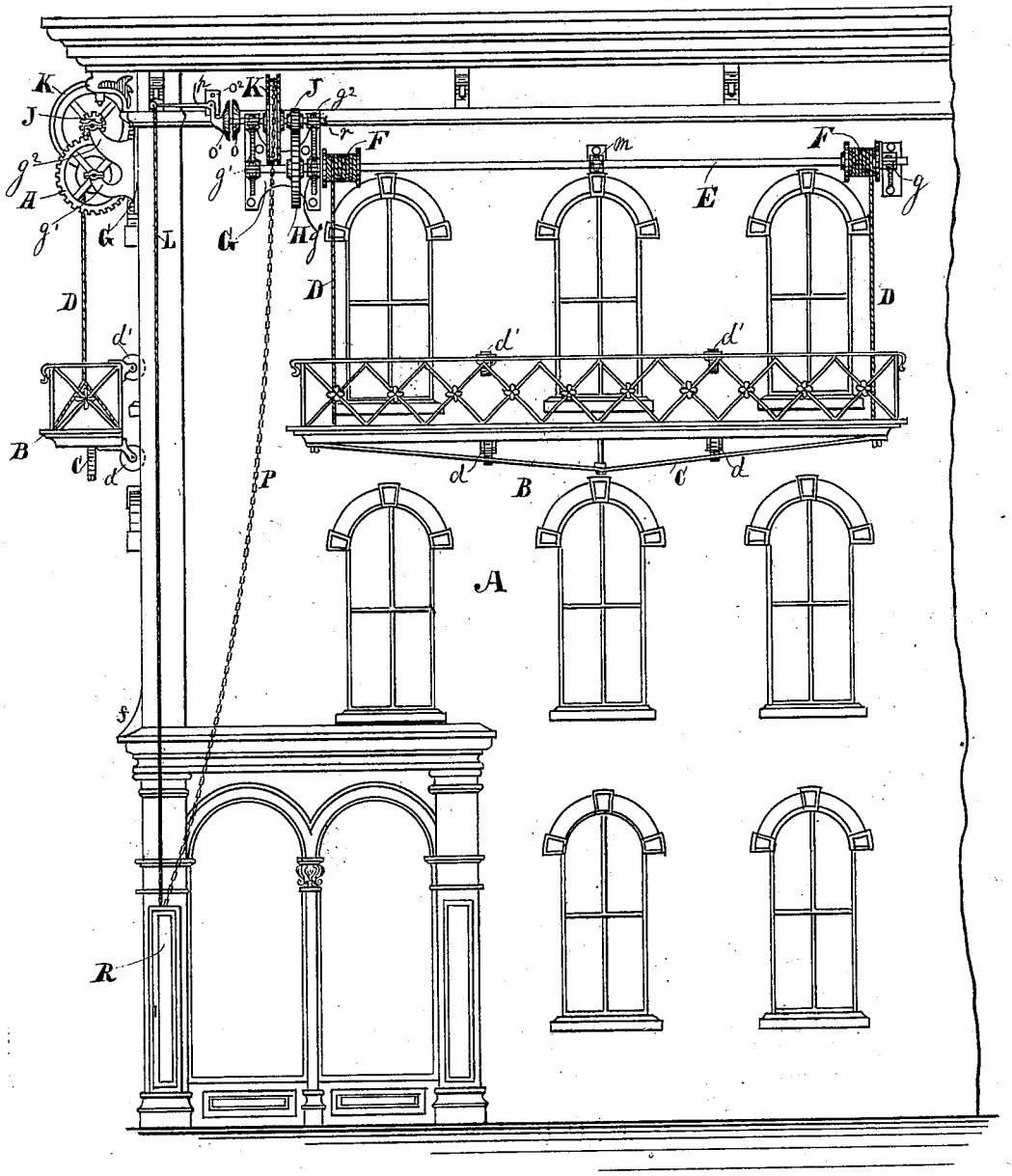
H. STACEY.
Fire Escape.

No. 201,896. Patented April 2, 1878.



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UNITED STATES PATENT OFFICE.

HENRY STACEY, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **201,896**, dated April 2, 1878; application filed August 10, 1877.

To all whom it may concern:

Be it known that I, HENRY STACEY, of Indianapolis, county of Marion, State of Indiana, have invented a new and useful Improvement in Fire-Escapes, of which the following is a description, reference being had to the accompanying drawings.

The object of my invention is to provide hotels and other buildings with a balcony which can be raised or lowered by persons on the balcony or on the ground, thereby furnishing to the inmates of the building ready means of escape, in case of fire, from any part of the building. The balcony may be made stationary at any desired place and used as a balcony, or it may be employed as a scaffold in painting the house or signs, or for cleaning the windows or walls, and as a means of bringing up firemen with their hose when required.

My invention consists of an adjustable balcony arranged to be operated with suitable mechanism, by persons either on the balcony or ground, in such a manner as to allow the balcony to be raised or lowered when desired, as will be hereinafter fully set forth in the specification and claims.

In the accompanying drawing I have represented my improved fire-escape balcony by a front and side elevation in one figure, in which A represents the building, and B the balcony.

Immediately under or inclosed in the cornice of the building is located the mechanism by which the balcony is operated.

E represents the main shaft supported in suitable bracket-hangers g g^1, which are prop-

secured through the walls to timbers inside of the building, so as to prevent any strain on the walls that would tend to pull them down.

The main bracket G is provided with four hangers, g^1 g^1 below and g^2 g^2 above, and the lower brackets g^1 support one end of the main shaft E, and on the shaft E, between the hangers g^1 g^1, is secured the large spur-wheel H, which meshes in gear with the pinion J, which is secured on the short shaft r, that operates in the hangers g^2 g^2 above. On the shaft r, between the hangers, is secured a sheave, K, over which works a wire rope or chain, P, which extends to the ground, and the lower end is kept locked up in the box R, which may be located at any convenient place, and the key kept handy for instant use. On one end of the shaft r is secured a brake-disk, o, against which the brake-disk o^1 is made to operate by means of the lever p and rope L. The lower end of this rope is also secured in the box R.

The lever p on brake-disk o^1 is pivoted to a bracket-plate, o^2, which is also secured to the walls, and the brake can readily control the movement of the balcony when operated by means of the rope L.

On the shaft E are two or more drums, F F, around which the wire ropes D D are wound. The lower end of these ropes are attached to the balcony B in a secure manner.

The balcony B is provided with rollers d d', which operate against the wall, and project far enough from the balcony to allow it to pass by any projections on the walls, except large projections, such as the cornice over store-doors. In such cases, then, there should be inclines f arranged, as shown, to guide the balcony over the cornice.

In order to give the balcony great strength, the braces C are employed as shown.

When it is required to lower the balcony from any cause, the chains or ropes P L are taken from the box R, and, as the chain P is allowed to run up, it winds itself around the sheave K and allows the balcony to fall. When the balcony is to be raised it is accomplished by pulling down on the chain or rope P. The rope L is only used to apply the brake as may be required.

It will be seen that the main bracket G, its shaft E, drums F, and wheels H K, together with the secondary bracket g, constitute an appliance adapted to be securely bolted to the wall of a house, and that the same is there attached below the cornice, which serves to protect it, without the employment of any auxiliary covering, as would be necessary were the appliance lower down.

Furthermore, the construction is comparatively inexpensive, as but one bracket, G, with wheels, &c., need be employed for a shaft extending the whole length of the building.

It will also be apparent that, should the chain P become displaced or broken, the gear-

ing of the shaft to the wheel K through the gears H J will insure such a reduction in the speed of rotation of the shaft as will prevent the destructive descent of the balcony.

I am aware that gears have been used with the elevating-drum of ordinary hoists; but I am not aware that any movable balcony has ever been combined with the appliances having the effect of those above described.

What I claim as new, and wish to secure by Letters Patent, is—

1. The combination, with the movable balcony, of a shaft extending below the cornice of the building, wire ropes D passing from the balcony to drums on the shaft, and a chain or hoist-wheel, K, and gears J H, arranged and operating as shown.

2. In combination with an elevator-balcony, the bracket-plate G, bracket-hangers g^1 g^1 g^2 g^2, and bracket g, the shaft E, provided with spur-wheel H and drums F F, the shaft r, provided with pinion J, sheave-wheel K, and brake-disk o and brake-disk o^1, lever p, and chain L, in the manner and for the purposes specified.

3. In combination with an elevator fire-escape balcony B, the shaft r and brake-disk o, the movable brake-disk o^1, lever p, and rope or chain L, in the manner and for the purposes described.

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

HENRY STACEY.

Witnesses:
E. O. FRINK,
S. C. FRINK.