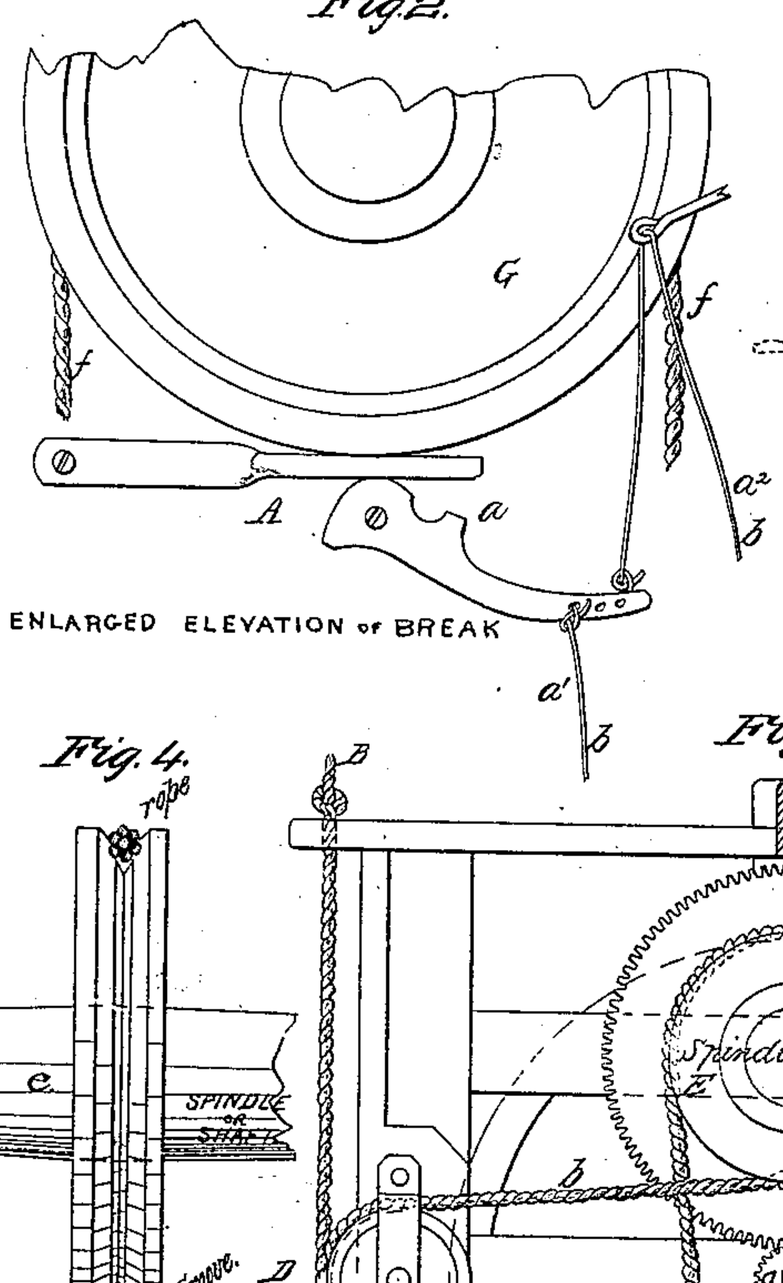
G. Scott,

Elevator.

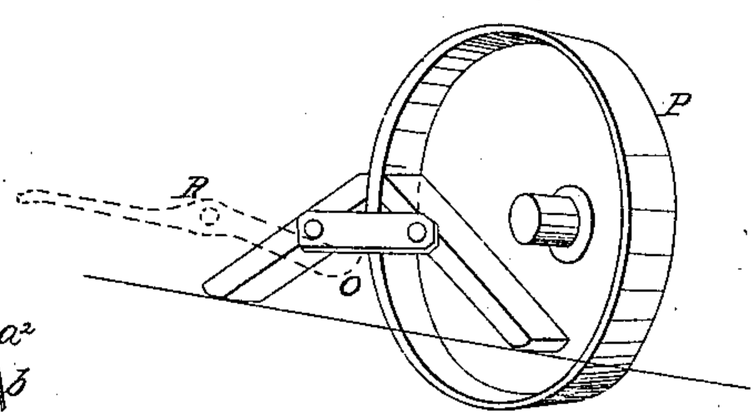
No. 81,299. Patented Aug. 18, 1868.

Fig. 2.



ENLARGED ELEVATION of BREAK

Fig. 3.

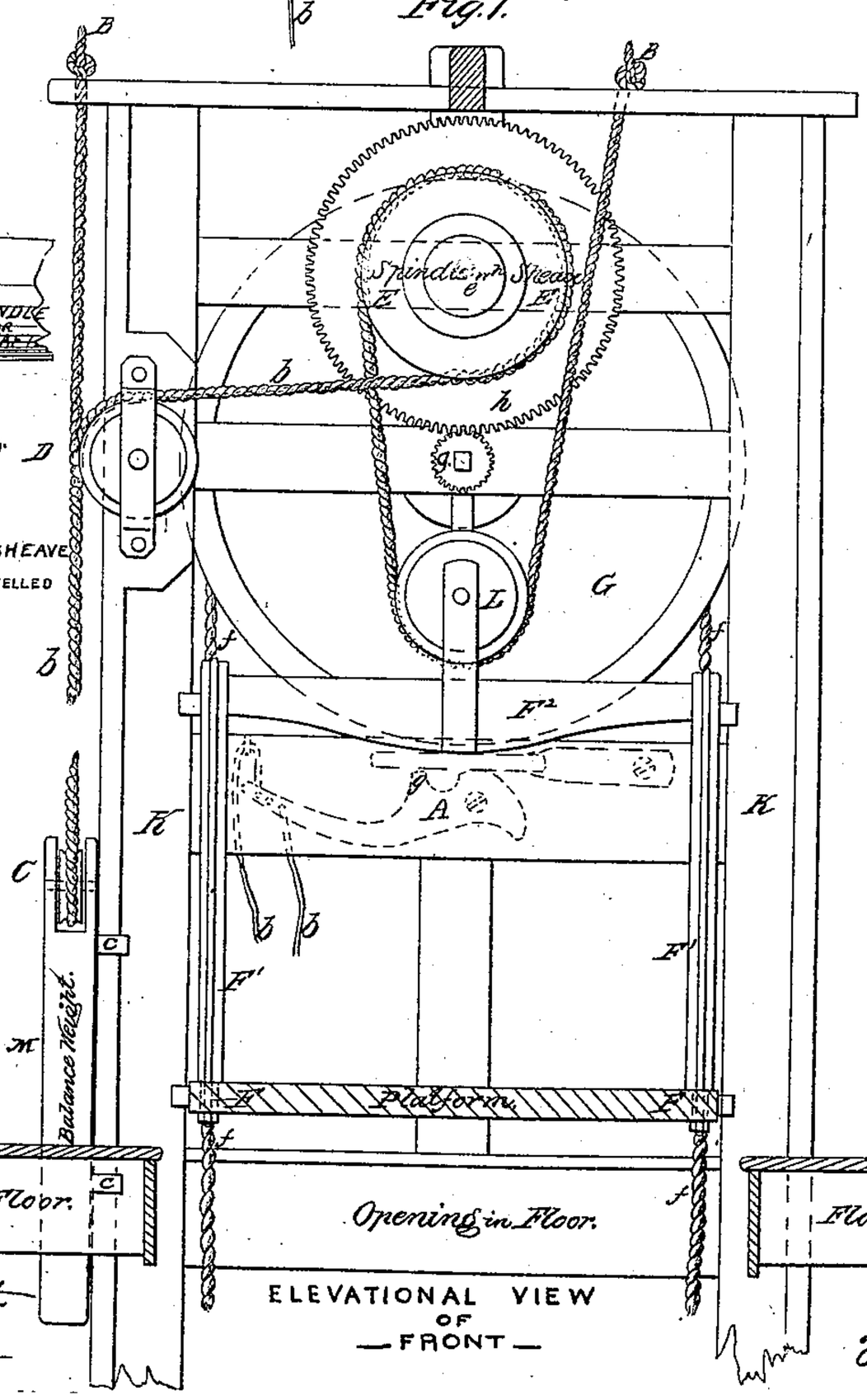


VIEW OF FRICTION CLUTCH, OR PAWL.

Fig. 4.

EDGE VIEW OF SHEAVE SHOWING DOUBLE BEVELLED GROOVE.

Fig. 1.



ELEVATIONAL VIEW OF —FRONT—

WITNESSES:
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United States Patent Office.

GEORGE SCOTT, OF LOUISVILLE, KENTUCKY.

Letters Patent No. 81,299, *dated August* 18, 1868.

IMPROVEMENT IN ELEVATOR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE SCOTT, of Louisville, in the county of Jefferson, and State of Kentucky, have invented a new and useful Improvement in Elevators for stores, warehouses, &c.; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a front elevation.

Figure 2 is an elevation of the brake.

Figure 3, a perspective view of the friction-clutch.

Figure 4, an elevation showing the edge of the sheave, and

Figure 5 a view of the brake.

The same letters in all the figures indicate the same parts.

My improvement relates to that class of elevators used in stores, warehouses, mills, &c., for raising articles from one story to another.

In the machine shown, the power is applied by means of an endless rope, *f*, carried around a large pulley, G, the revolution of which gives motion to a pinion, *g*, on its shaft, driving the spur-wheel *h*, on the shaft *e*. On this shaft is a sheave, E, constructed with a groove around its periphery, formed by sides of different angles on each side, so as to form a narrower groove inside of a wider one, into the former of which the draught-rope is pressed, giving it a much greater adhesion to the pulley.

F is the platform, moving freely between vertical guides K. The platform is suspended by a frame consisting of two side-pieces F^1, and a cross-piece, F^2, and having brace-rods extending from said cross-piece to the corners of the platform. The pulley L is placed in the middle of the cross-piece F^2. Another pulley, D, is attached to the guide-timbers, as shown in fig. 1. The rope *b* is attached to some of the timbers of the building permanently at B B′. It extends from B′ downwards, under the pulley L, thence up over the pulley E, thence over the pulley D, thence downwards under the pulley C, placed in the upper end of the balance-weight M, thence passing up to B, where it is fastened. The balance-weight keeps up the continuous tension of the rope, rising as the platform descends, and *vice versa*. As the rope *f* passes through bulls'-eyes in the corners of the platform, it may be operated by a person standing on the platform. The cam-lever *a* is pivoted to the frame adjoining the wheel G, and when the long arm is drawn down, it presses against the arm A, which acts as a brake against the edge of the wheel. The lever is actuated by ropes a^1 a^2.

The rope *f* is passed around an axle, Q, which, by means of a lever, R′, is made to raise the journal, which is in a movable box, so as to slacken or tighten the rope *f*. The wheel P is constructed with a flanged rim, which is seized by the clutch O, actuated by a lever, R. By pressing on the lever, the clutch secures the wheel, and prevents its movement, and thereby holds the rope *f*, and keeps the platform F stationary wherever desired.

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

1. The combination of the wheel G, rope *f*, axle Q, wheels Q′ and P, and the clutch O, substantially as and for the purpose set forth.

2. The pulley E, when constructed with a double-bevelled groove, and used in combination with a rope, *b*, fixed at both ends, and operating substantially as described.

3. The arrangement of the rope *b*, fixed at both ends, at B B, the platform F, the pulleys E, L, D, and C, the latter being placed in a balance-weight, M, substantially as described.

4. The arrangement of the rope *f*, passing through bulls'-eyes in the platform F, substantially as and for the purpose set forth.

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

GEORGE SCOTT.

Witnesses:

GEO. CLEMENT,

JOS. CLEMENT.