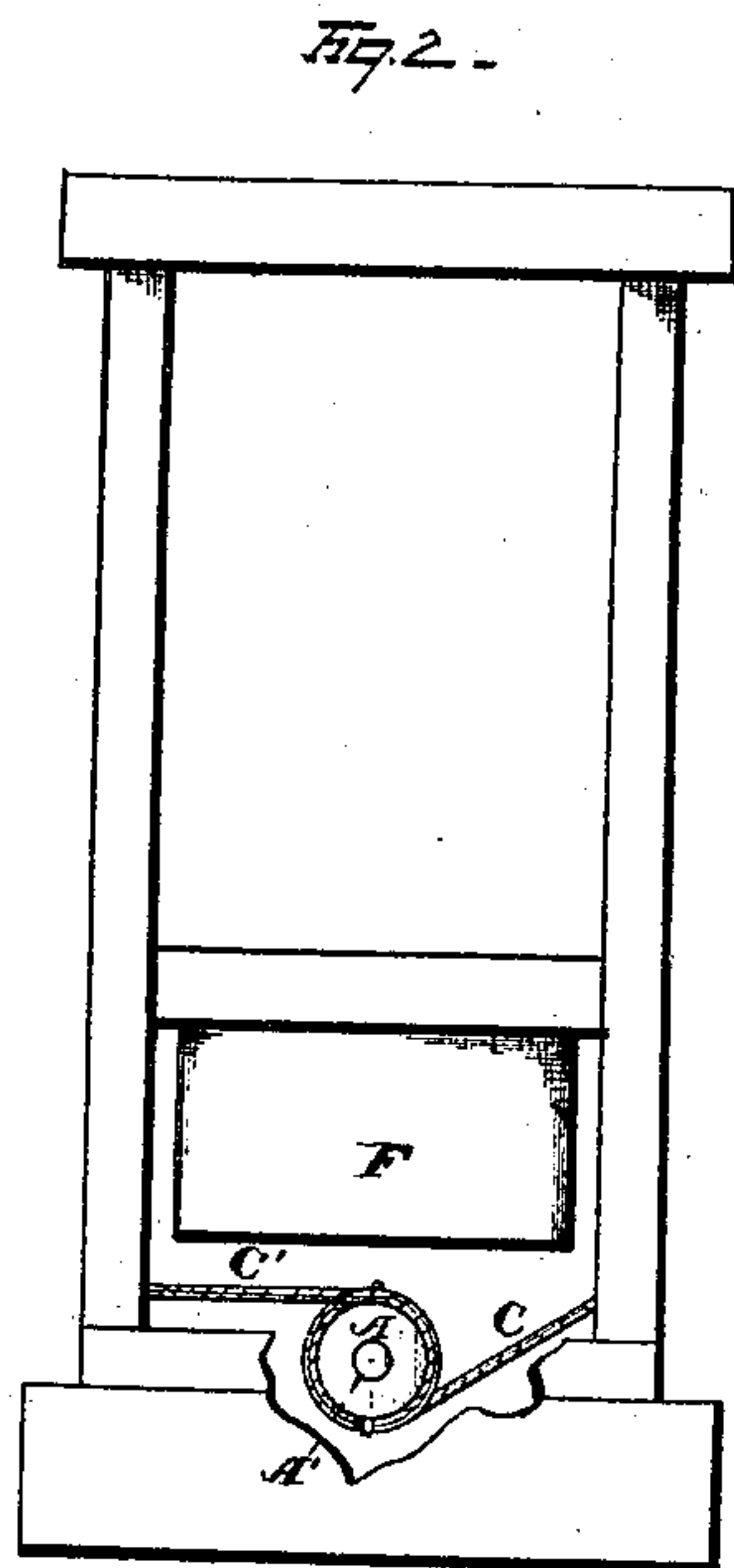
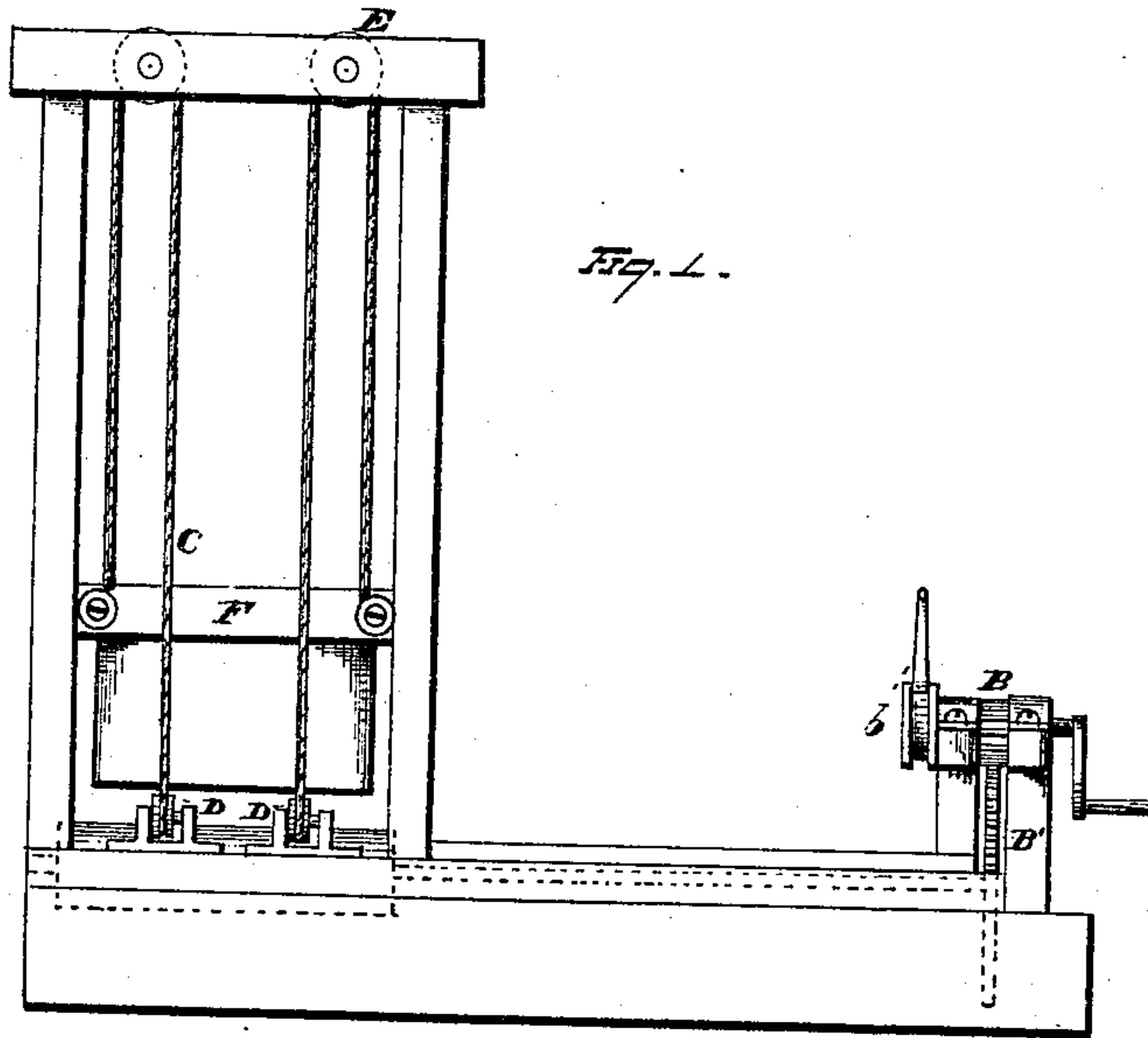


G. W. REID.
ELEVATOR.

No. 178,802.

Patented June 13, 1876.



WITNESSES
Edw. A. Nottingham.
Albert W. Bright.

INVENTOR
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UNITED STATES PATENT OFFICE.

GEORGE W. REID, OF CLEVELAND, OHIO, ASSIGNOR TO HIMSELF AND
HENRY R. DICKERMAN, OF SAME PLACE.

IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. **178,802**, dated June 13, 1876; application filed
May 15, 1876.

To all whom it may concern:

Be it known that I, GEORGE W. REID, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Elevators; 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 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in elevators.

In the drawing, Figure 1 represents an isometric view of an elevator embodying my invention; Fig. 2, an end view of the drum and elevator, showing the method of attaching the lifting ropes or chains.

My invention consists in the following parts and combinations, as hereinafter set forth and claimed, wherein A is a drum or bull-wheel, suitably journaled below the lowest point at which the elevator is to travel. The bull-wheel A is driven by the shaft A', which is provided with any suitable gearing device, B B', &c., and brake b, by which the elevator may be operated by hand or artificial power, as desired. To the bull-wheel A are fastened ropes or chains C C'. The chains C are so wrapped or entwined around the bull-wheel A as to escape from its lower surface, while the chains C' are so wound and attached as to escape from the upper surface of the bull-wheel A. By this arrangement it will be apparent that as the bull-wheel A is turned one way or another the chains C C' will all be simultaneously wound or unwound upon said bull-wheel. Proceeding horizontally from the bull-wheel A the chains C C' pass beneath pulleys D, suitably fixed to the frame-work of the elevator, or to the building itself. From

the pulleys D the chains C C' pass upward to or above the maximum distance which it is intended the elevator shall travel, where they are again made to pass over pulleys E; thence downward, where they are finally attached securely to the floor F.

Operation: By revolving the shaft A' and its bull-wheel or cylinder A, the chains C C' will be either wound or unwound, and, acting through the pulleys D and E, will operate to lift or lower the floor F of the elevator in a manner sufficiently obvious not to demand specific description.

What I claim is—

1. In an elevator, the combination, with the cage or movable floor F, of the single drum A, located beneath said cage, and connected thereto by means of cords or chains, which lead from the drum in opposite directions, and pass around suitable intermediate pulleys to change the line of force, substantially as and for the purpose specified.

2. The combination, with the single drum, located immediately beneath the cage or floor F, of the cords or chains C C' and the pulleys D E, substantially as and for the purpose specified.

3. The combination, with the single drum, located immediately beneath the cage or floor F, of the drum-shaft having cog-gearing attached thereto, and a windlass engaging with said gear-wheel, substantially as and for the purpose specified.

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

GEORGE W. REID.

Witnesses:

FRANCIS TOUMEY,
JAMES P. WALSH.