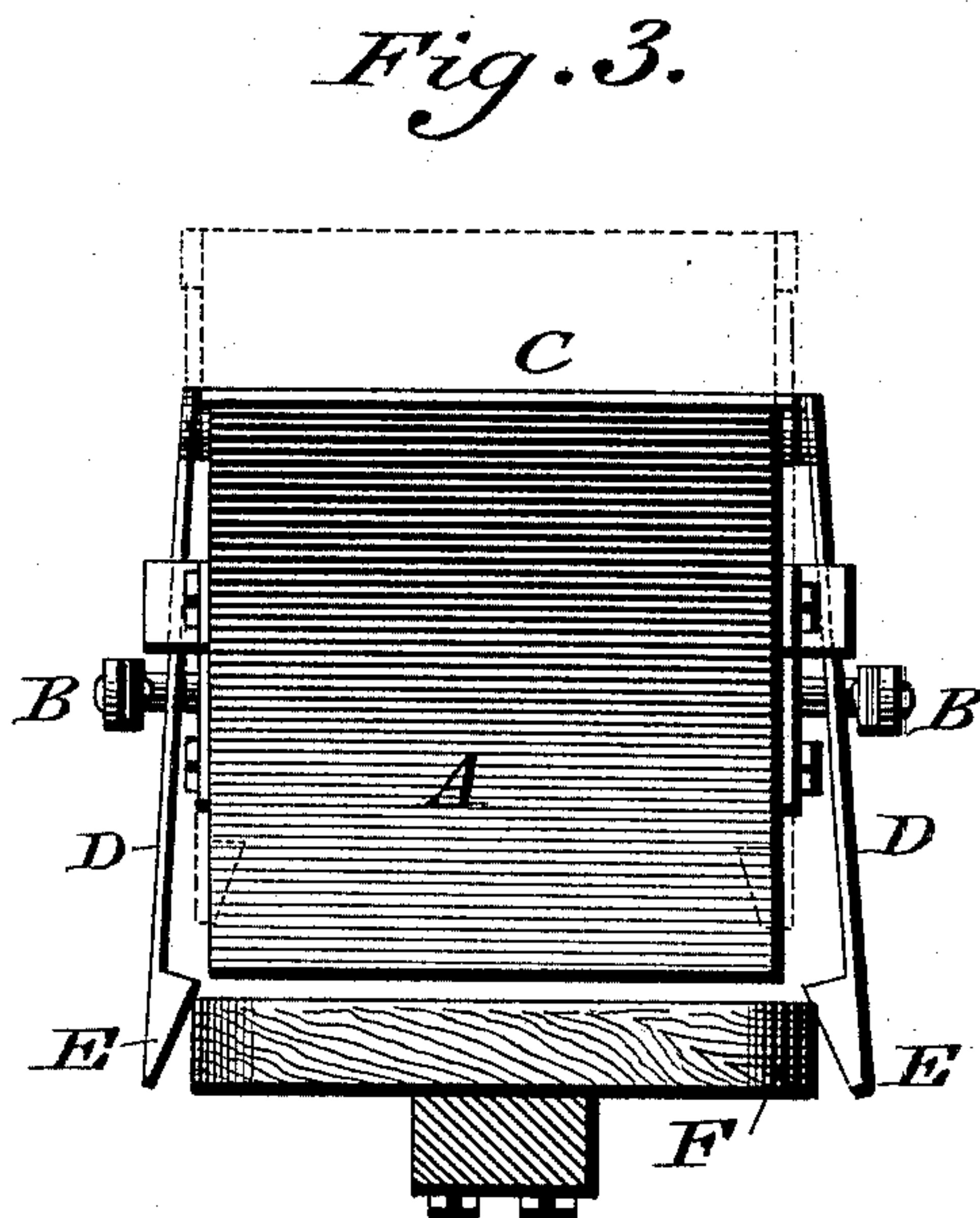
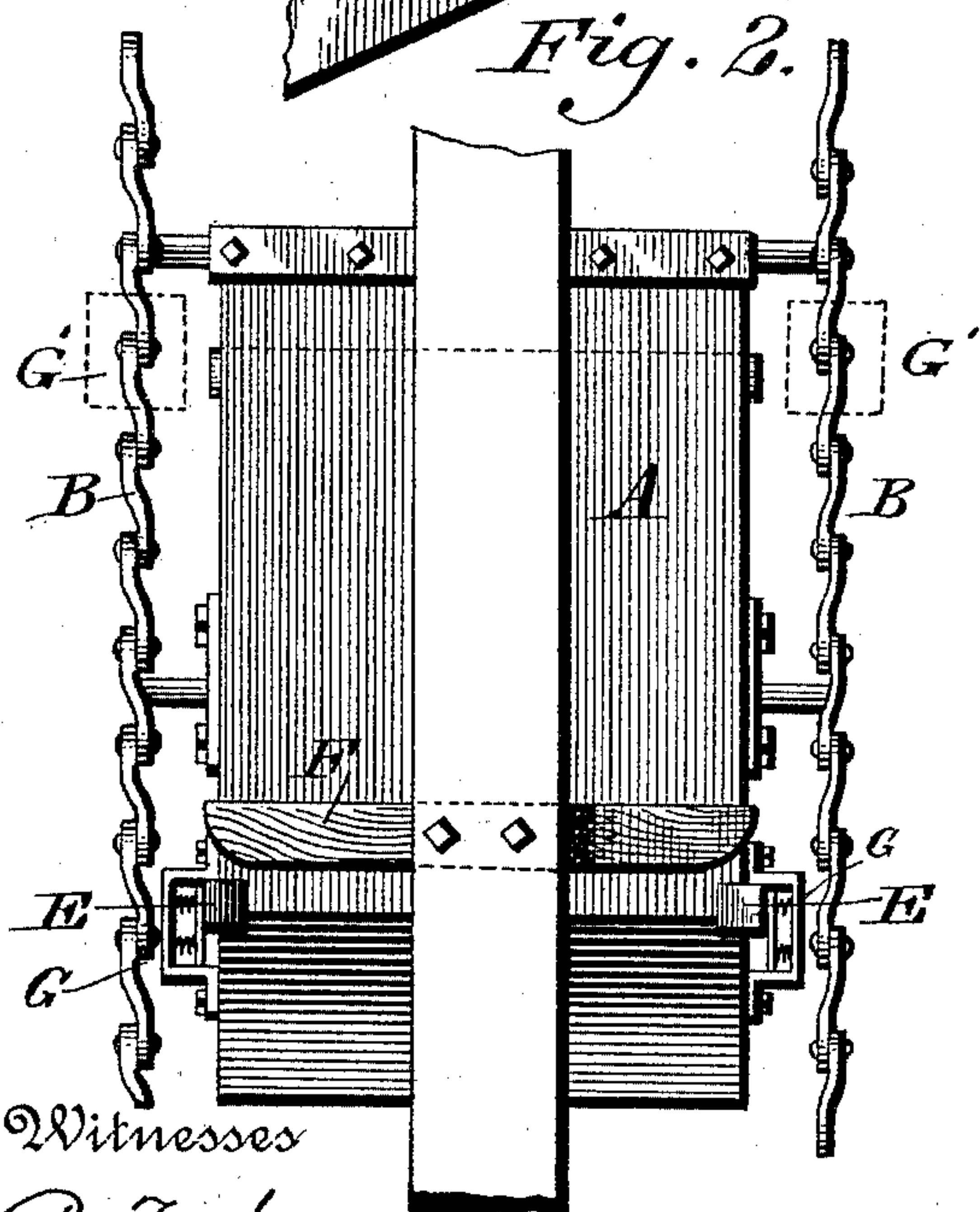
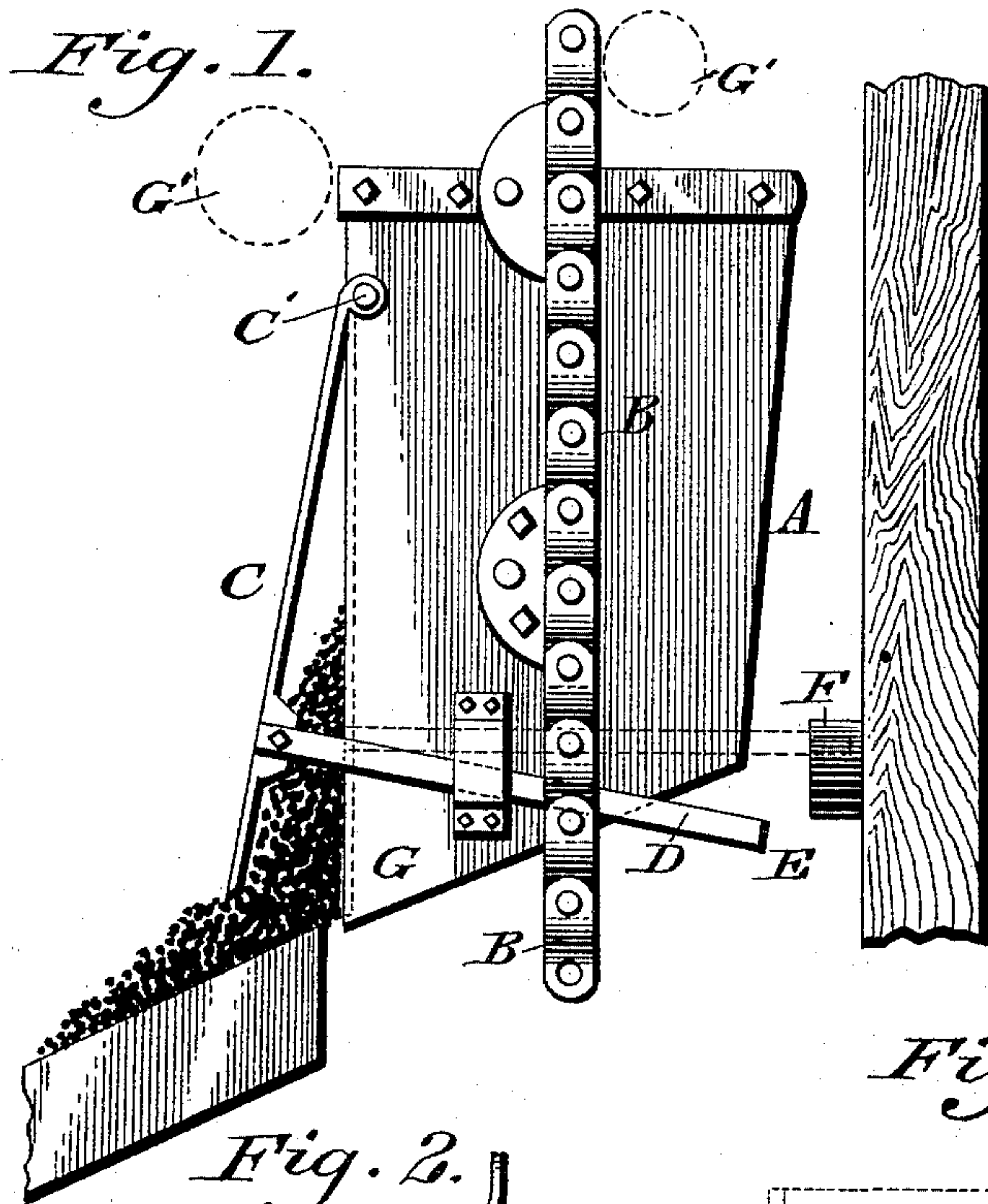


(No Model.)

L. D. HOWARD.
ELEVATOR BUCKET.

No. 413,061.

Patented Oct. 15, 1889.



Witnesses
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ELEVATOR-BUCKET.

SPECIFICATION forming part of Letters Patent No. 413,061, dated October 15, 1889.

Application filed March 15, 1889. Serial No. 303,385. (No model.)

To all whom it may concern:

Be it known that I, LYMAN D. HOWARD, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Elevator-Buckets, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in elevator-buckets; and it consists in a bucket with a pivoted door having spring-catches secured thereto, the noses of the catches being adapted to engage the back of the bucket and the catch being secured in keepers having springs bearing on said catch.

It further consists in the combination of parts herein described and claimed.

Figure 1 represents a side elevation of an elevator-bucket embodying my invention. Fig. 2 represents a rear view of the bucket shown in Fig. 1. Fig. 3 represents a top or plan view thereof.

Similar letters of reference indicate corresponding parts in the three figures.

Referring to the drawings, A designates an elevator-bucket, and B the chains to which the same is hung.

C designates the door of the bucket, the same having its axis at or near the top of the bucket, as at C'. To the lower end of the door, at the sides thereof, are secured catches D, whose noses E engage with the back of the bucket, the catches being pivoted to the door or made elastic, whereby they are capable of lateral motions.

Secured to the frame of the elevator in the path of the noses of the catches is a releasing device for said catches, the same consisting of a beam F, whose ends are sloping or rounding upward and so disposed that they are engaged by the inner faces of the noses E. It will be seen that when the catches are in their normal positions the door of the bucket is held closed. As the bucket rises the noses of the catches ride on the ends of the beam F, thus gradually forcing out the catches from their engagement with the back of the bucket, which being accomplished the door is no longer controlled by said catches, and the pressure of the contents of the bucket is

exerted on the door, thus throwing out the same, and consequently opening the bucket, permitting the discharge or escape of said contents. The door may be afterward closed, when the catches again engage with the back of the buckets, thus locking the door and closing the bucket preparatory to loading, the noses of the catches being forced into engaging position by springs G—in the present case located in the keepers or guides H—through which the catches pass at the sides of the bucket.

The bottom of the bucket is sloping at an angle to line of motion sufficient to allow the load to be released by gravity.

The rollers G' G'' of the elevator are arranged to close the door, the roller G' engaging said door and the roller G'' being placed in contact with chains at each side, thus preventing the bucket from swinging backward when the door is brought in contact with the roller G', thereby reliably insuring the closing of the door.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An elevator-bucket having a pivoted door, catches connected with said door and having noses adapted to engage the back of the bucket when the door is closed, keepers secured to the sides of the bucket and in which the catches play, and springs in said keepers bearing against said catches, said parts being combined substantially as and for the purpose set forth.

2. An elevator-bucket having a pivoted door, catches secured to said door, keepers in which said catches play, and springs bearing against said catches, the said catches having noses adapted to engage the back of said bucket, and a tripping device consisting of a beam with sides rounding upward, the outer ends of the noses being adapted to engage said beam, said parts being combined substantially as described.

LYMAN D. HOWARD.

In presence of—

HENRY G. WILEY,
F. W. SHELDON.