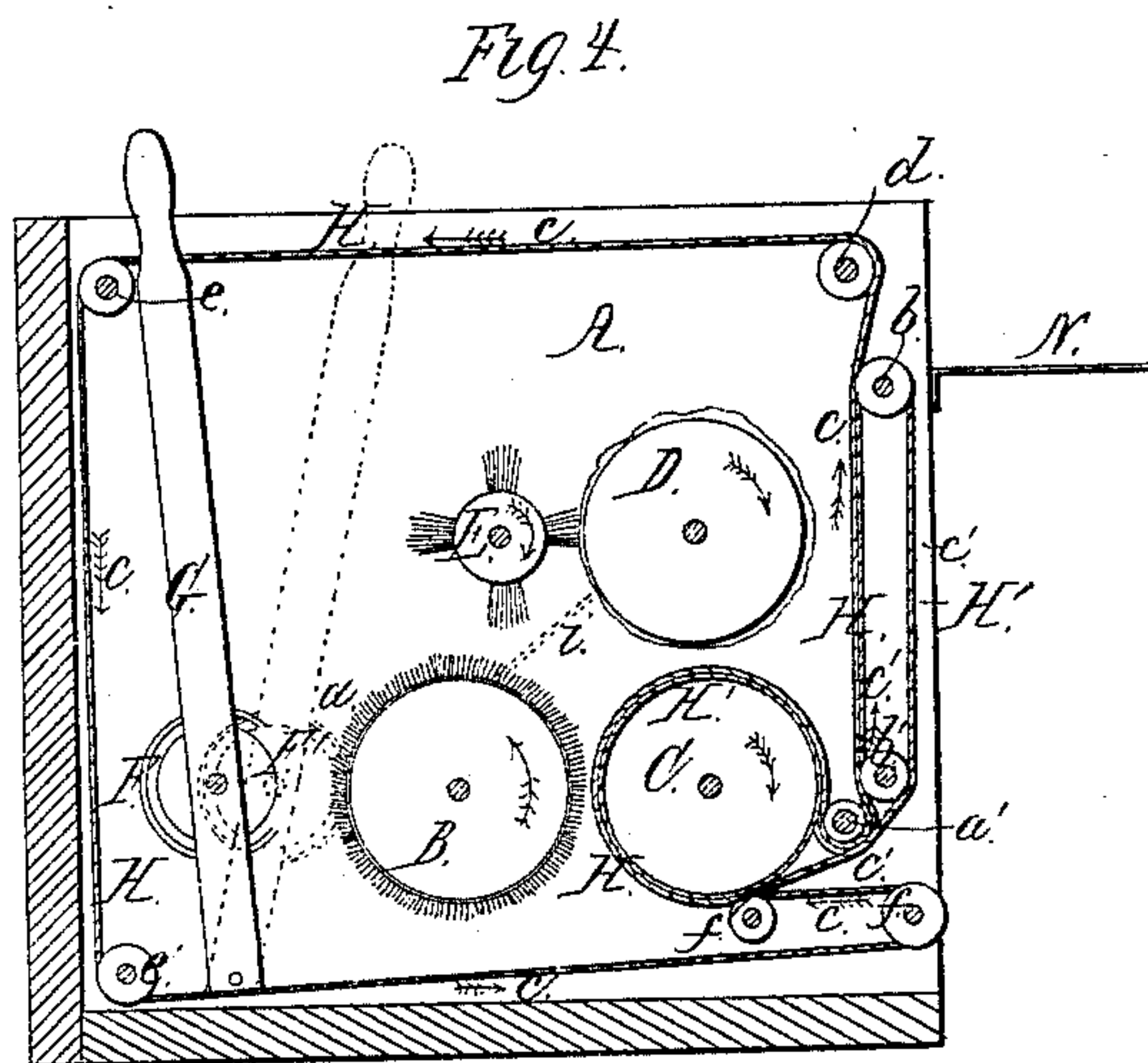
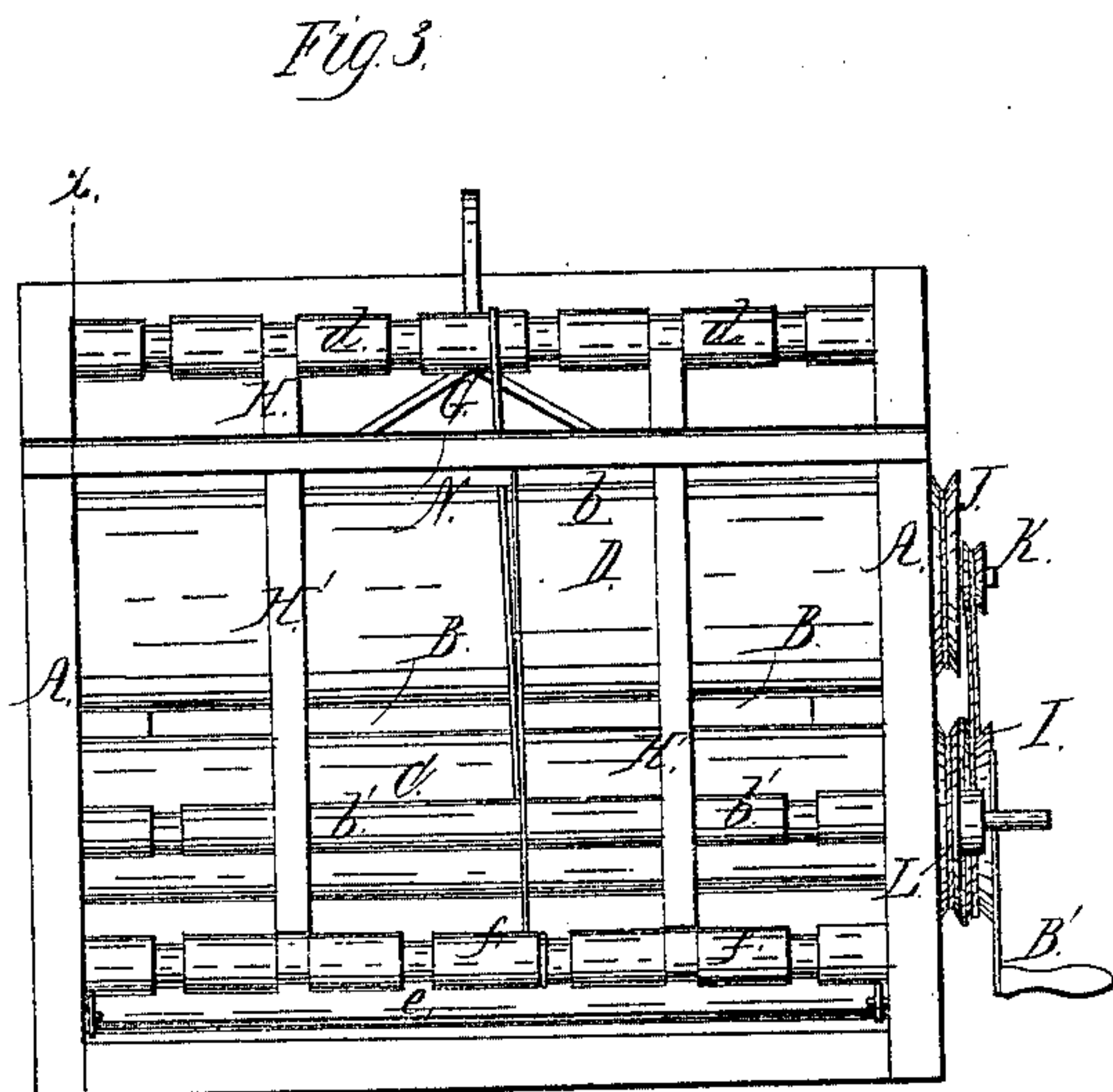
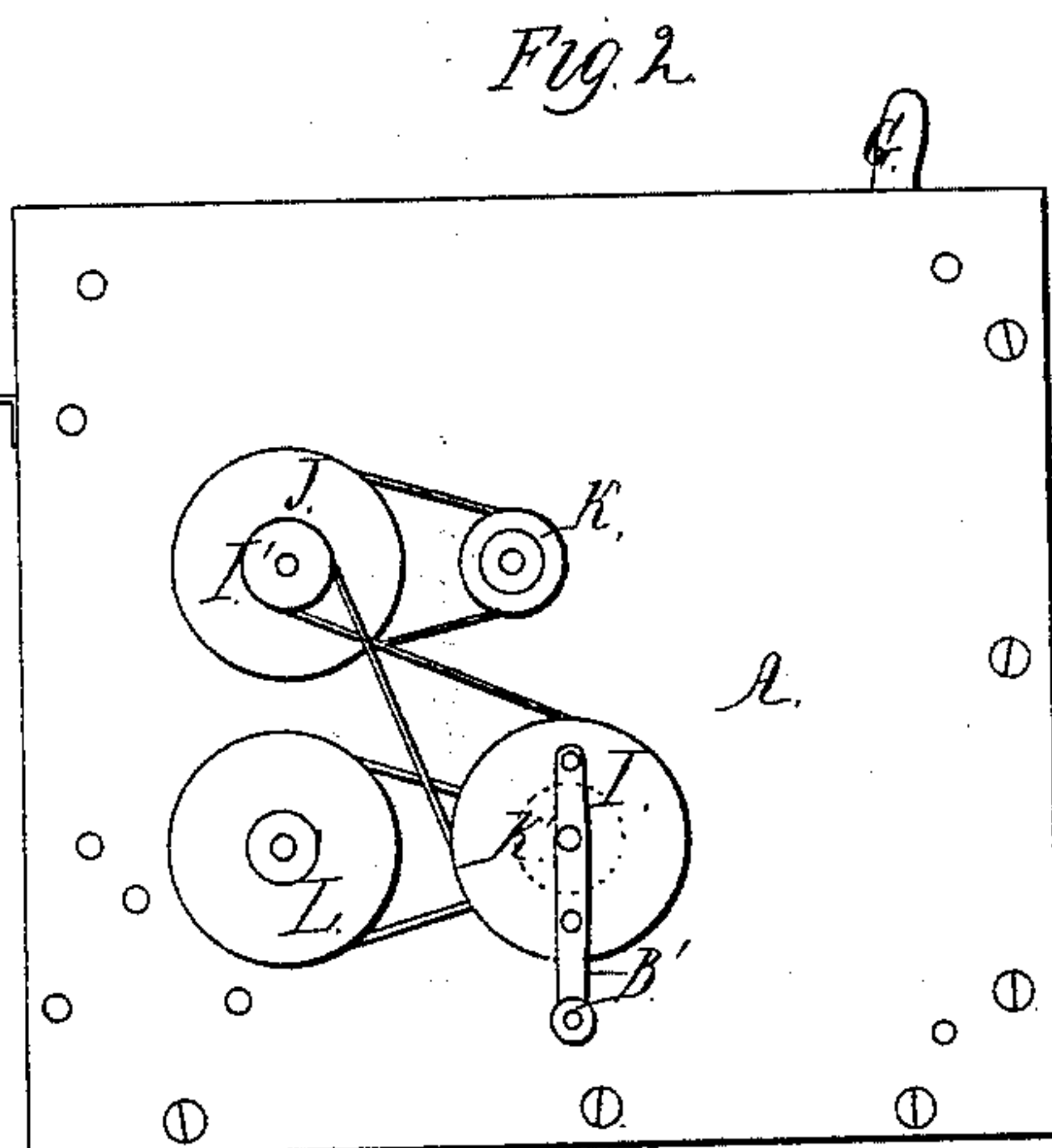
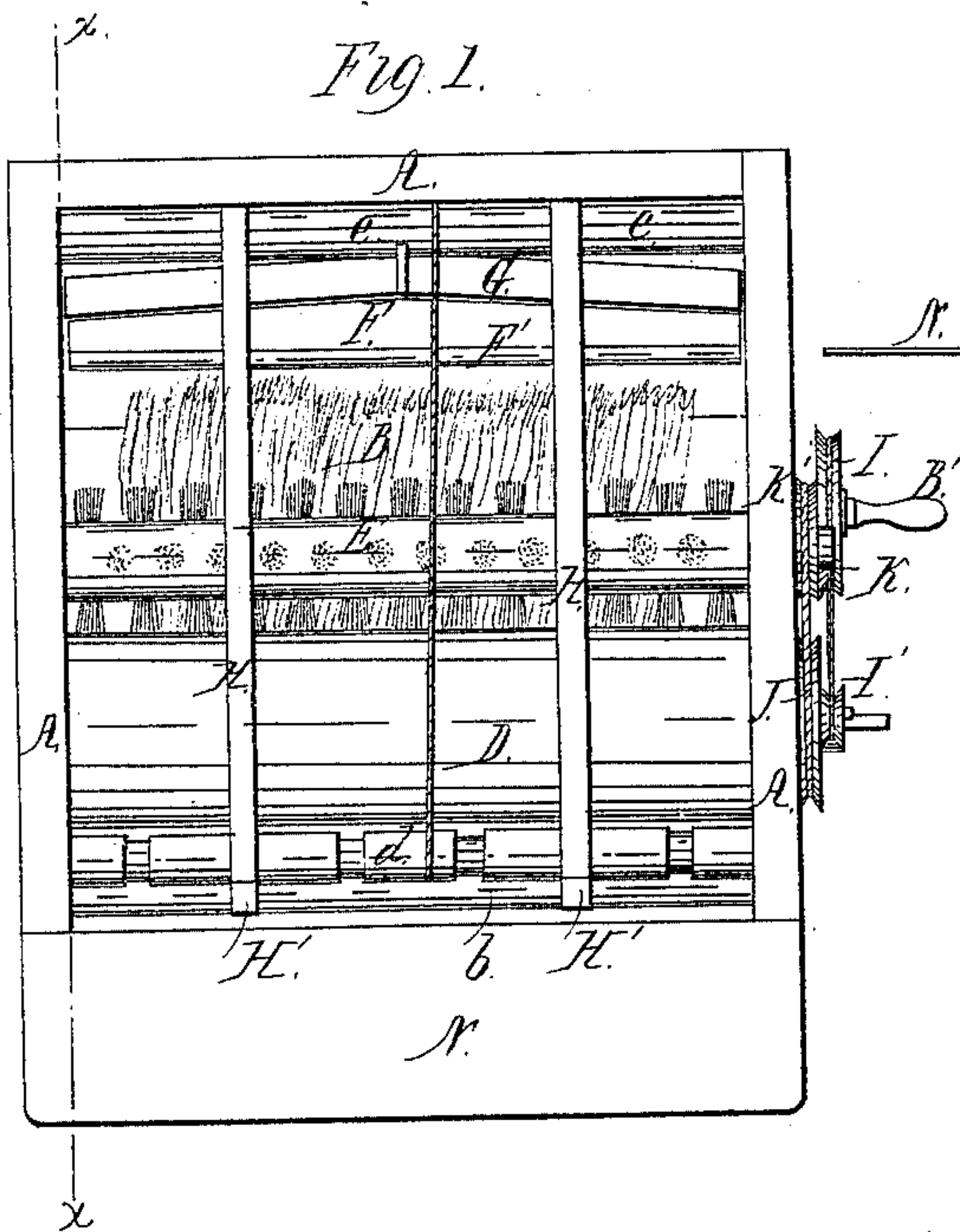


# J. K. Lowe

## Bronzing Machine.

N<sup>o</sup> 57527.

Patented Aug. 28, 1866.



Witnesses:  
W. R. Burdage  
J. Holmes.

Inventor:  
John K. Lowe



# UNITED STATES PATENT OFFICE.

JOHN K. LOWE, OF CLEVELAND, OHIO.

## BRONZING-MACHINE.

Specification forming part of Letters Patent No. 57,527, dated August 28, 1866.

### *To all whom it may concern:*

Be it known that I, J. K. LOWE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Bronzing-Machine for Printing; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view. Fig. 2 is a side view. Fig. 3 is a front view. Fig. 4 is a vertical section in the direction of the lines *xx* in Figs. 1 and 3.

Like letters of reference refer to like parts in the several views.

My improvement relates to a machine for receiving the prepared sheet, bronzing it, and discharging the same finished by one continuous automatic operation, as hereinafter described.

A represents the frame, of a square form, and in which are arranged the rollers B, C, and D, the shafts or journals of which have their bearings in the frame.

At one side of the cleaning-roller D, and above the fur roller B or its equivalent, is a revolving brush or roller, E, the brushes being placed intermediately with each other, the whole surface forming a brush, as seen in Figs. 1 and 4.

F represents a bronze-box, inside of which is a feed-roller, F', which is covered with canton-flannel. A handle or lever, G, pivoted at the bottom of the frame to which said box is fastened, is for the purpose of bringing the box in contact with the fur bronzing-rollers, as indicated by the dotted lines *a* in Fig. 4.

H is a belt passing over the roller C, then down under the roller *a'*, up and over the roller *d*, then passes to the back of the frame and over the roller *e*, down under the roller *e'*, and then to the front of the machine over the rollers *f* and *f'*, then over the sheet-roller C, thus forming a circuit in the direction of the arrows *c*.

H' is a shorter belt passing round the roller C, then under the roller *a'* and up over the

roller *b*, from that roller down under the roller *b'* to the roller C again, in the direction of the arrows *c'*. The shafts of these rollers all have their bearings in the frame A of the machine.

The roller B is turned by means of the crank B', which is attached to a pulley, I, on the side of the frame. A cord passing from this pulley over the smaller one, I', causes it to turn, and this, being secured to a larger pulley, J, turns that, thus turning the roller D, the shaft of which passes through the pulleys I' J.

A cord passes from the pulley J round the pulley K, which revolves the brush E. A cord also passes from the smaller pulley K' (indicated by the dotted lines in Fig. 2) round the pulley L, which turns the roller C.

The sheet, which is sized as in the ordinary manner of printing for bronzing, is placed so that it will pass in between the rollers C and *f'* and belts H H'. The crank is then turned, which turns the rollers, as before stated, and the sheet is passed round the roller C, down under the roller *a'*, and up to the roller *b*, where the belts H H' part and the sheet is thrown out on the table N.

The box F is brought in contact with the fur roller, as shown by the dotted lines in Fig. 4, and, as the fur roller in turning comes against the roller F', causes it to turn also, thus passing the bronze from the box to the fur roller B, upon which roller it is distributed, and as the sheet passes this roller the bronze is spread over it, and in passing the roller D, the outside of which is covered with canton-flannel or other suitable material, for the purpose of brushing or dusting off all bronze that is scattered over the sheet, leaving it only where it has adhered to the sizing. The brush E then cleans the bronze off the roller D, keeping it always clean. As the bronze is brushed off it falls on the fur roller B.

If desired, a strip (indicated by the dotted lines *i* in Fig. 4) can be put in between the rollers D and B, to keep the bronze from falling onto the roller C as it is brushed off the roller D.

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

1. The bronze-box F, feed-roller F', and handle G, in combination with the bronzing fur roller B, as and for the purpose set forth.

2. The revolving brush E and cleaning-roller D, in combination with the sheet-roller C and bronzing-roller B, arranged in the manner and for the purpose substantially as set forth.

3. The belts H H' and pulleys *d e e' f f' a' b b'*, in combination with the sheet-roller C, arranged and operating in the manner and for the purpose set forth.

JOHN K. LOWE.

Witnesses:

W. H. BURRIDGE,  
FRANK ALDEN.