

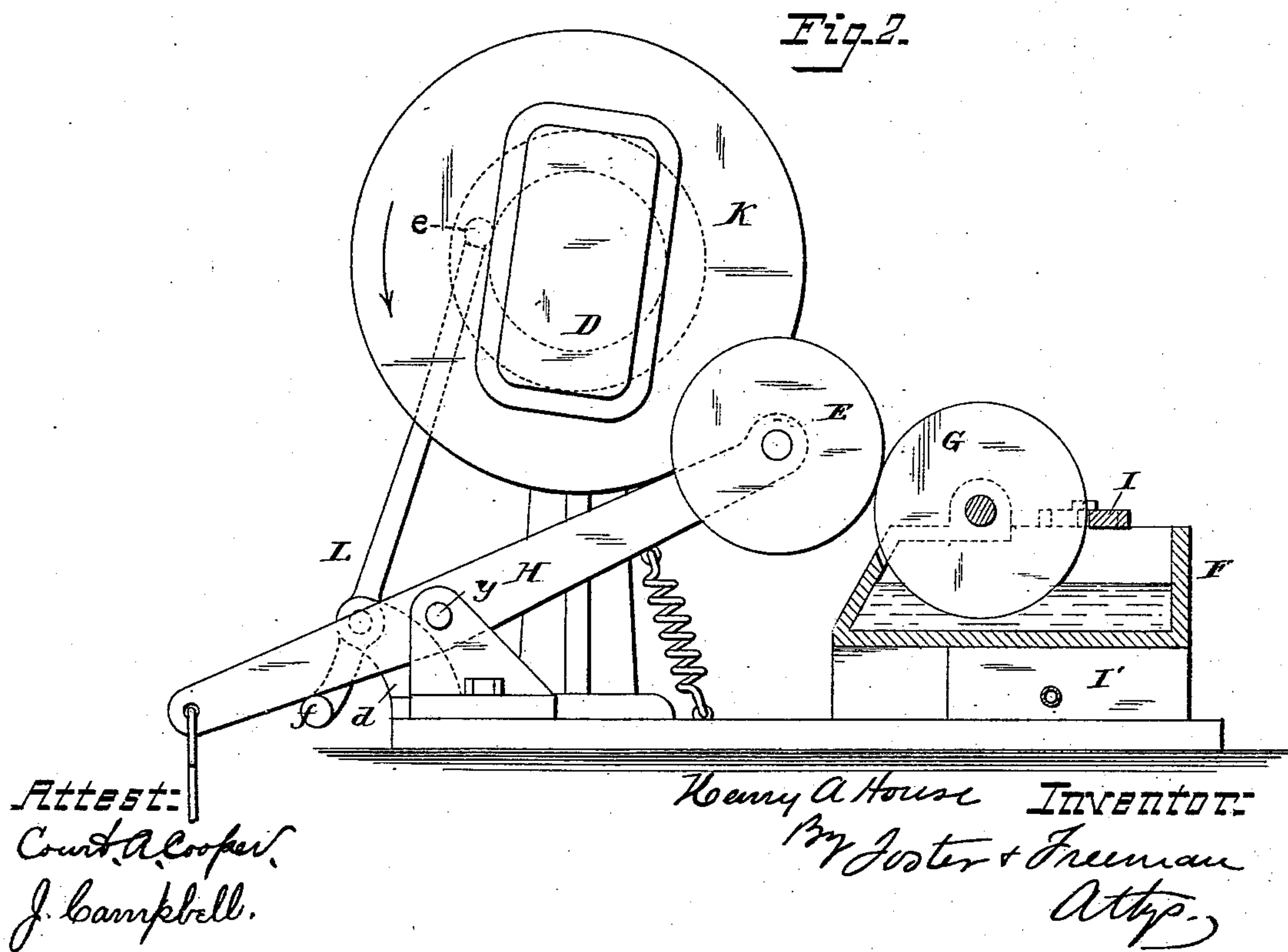
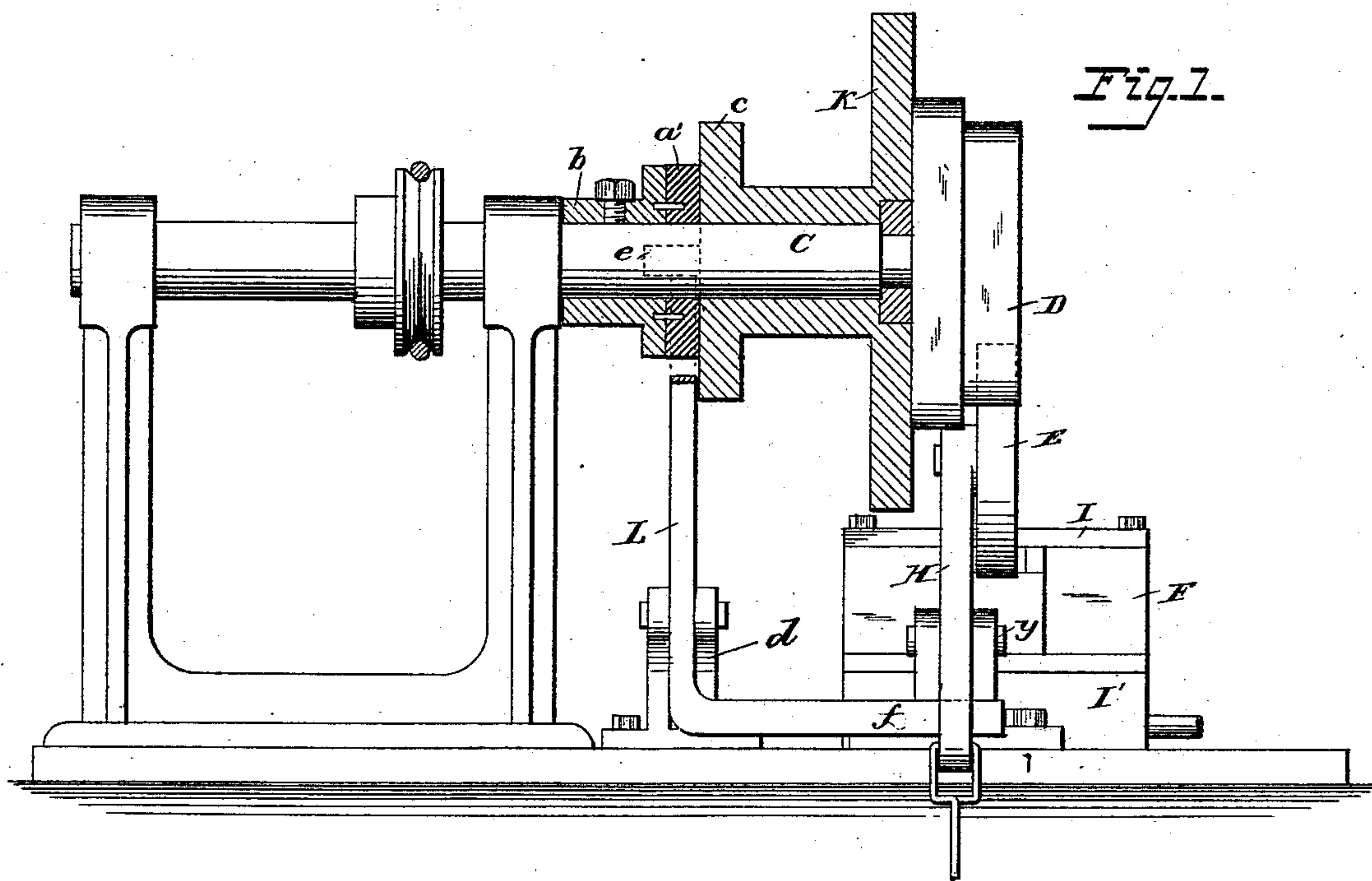
(No Model.)

2 Sheets—Sheet 1.

H. A. HOUSE.  
PAPER BOX MACHINE.

No. 365,072.

Patented June 21, 1887.



Attest:  
Court A. Cooper,  
J. Campbell.

Henry A. House Inventor:  
By Foster & Freeman  
Attys.

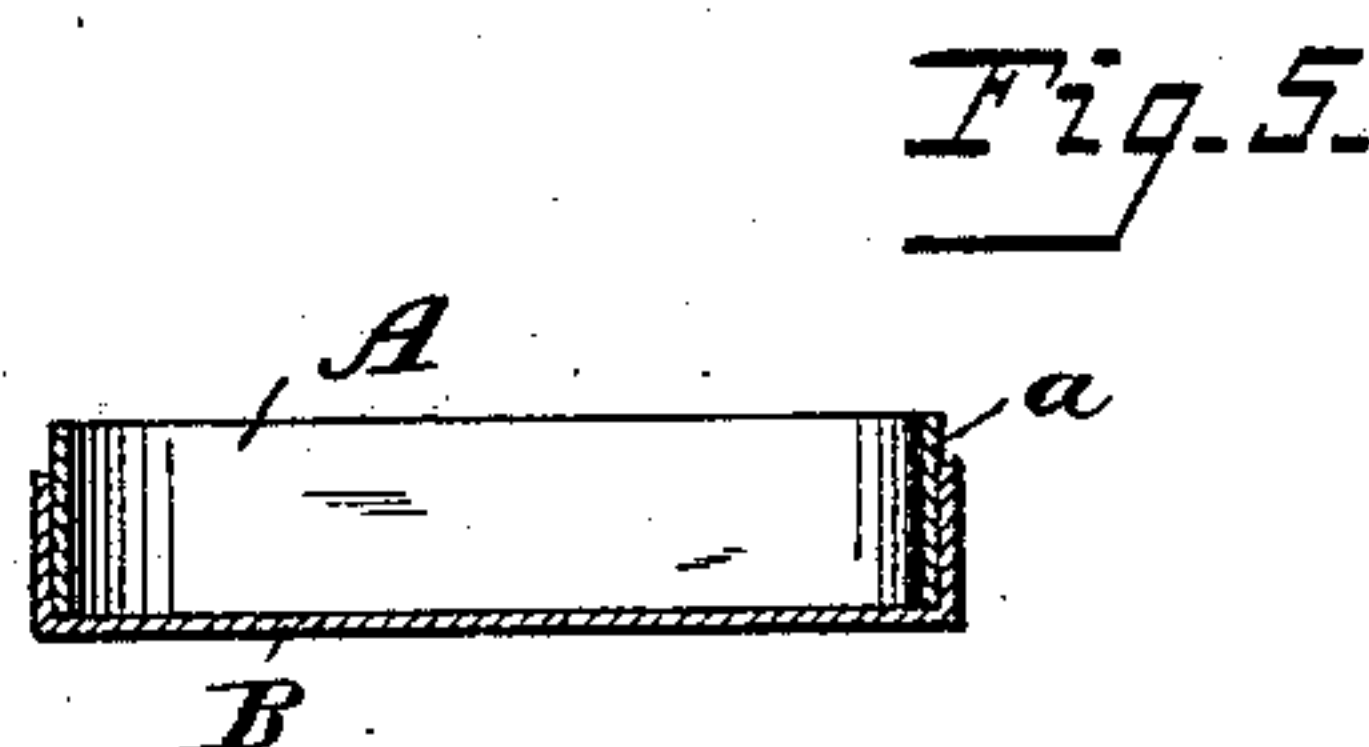
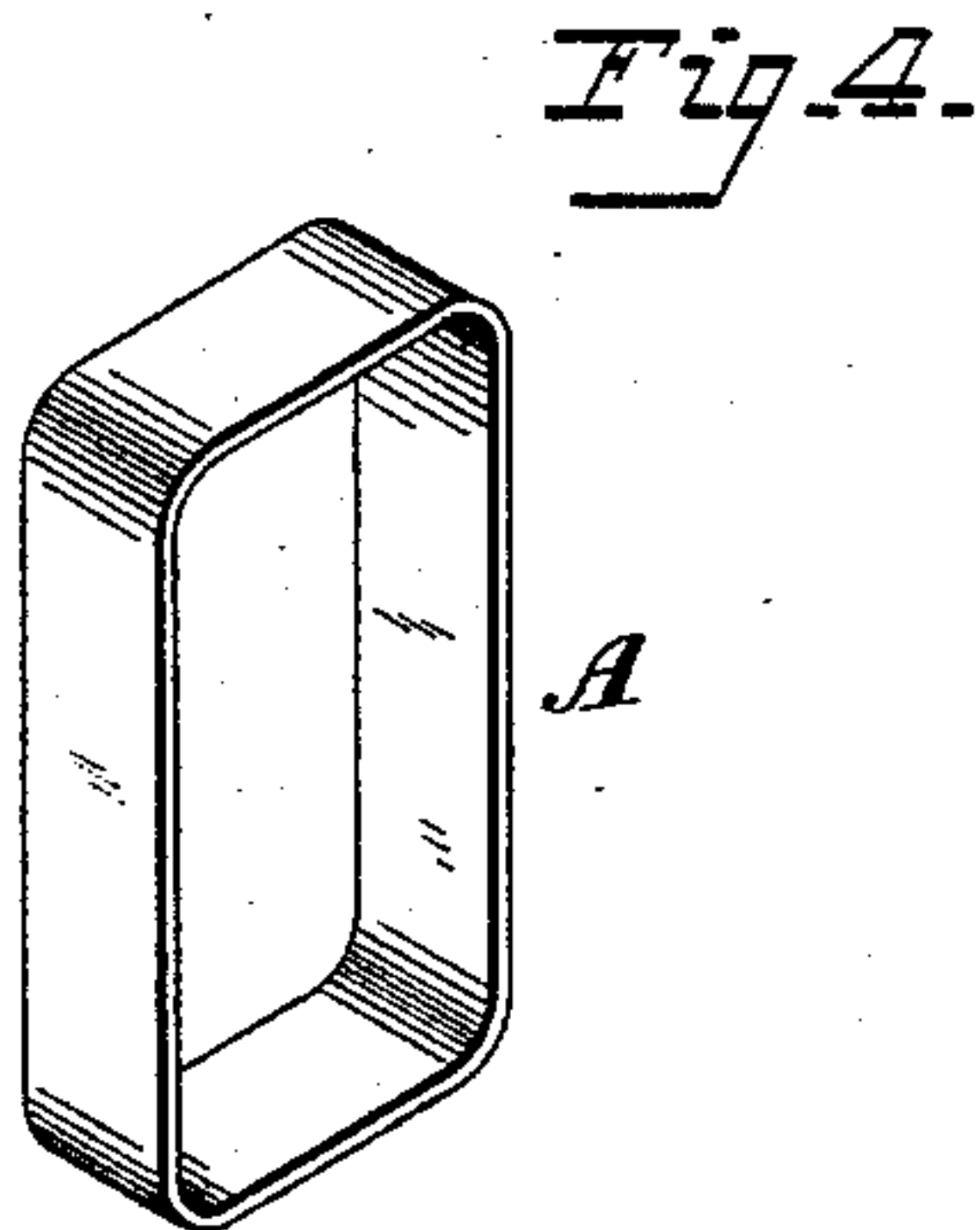
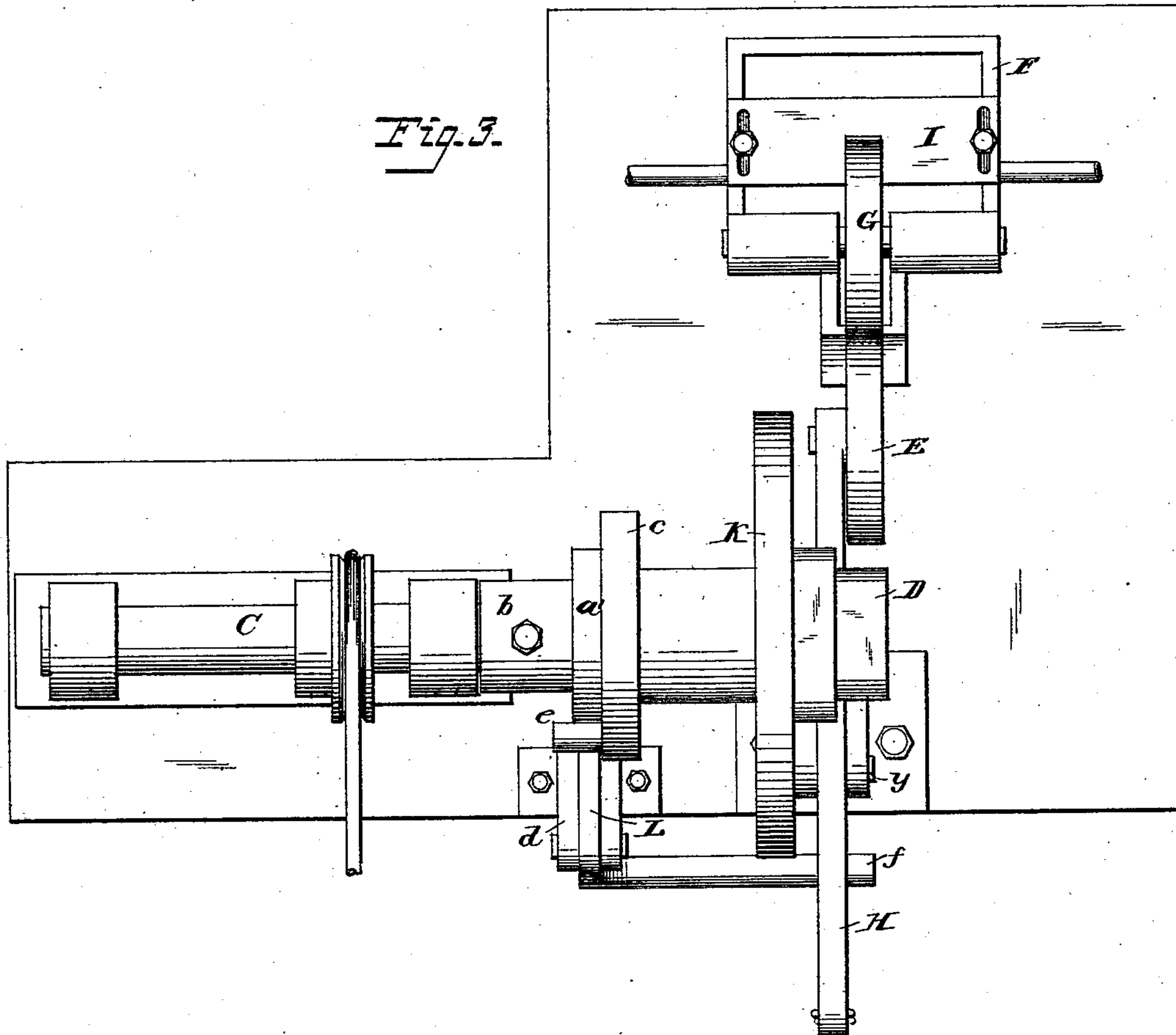
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# UNITED STATES PATENT OFFICE.

HENRY A. HOUSE, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE COMPRESSED PAPER BOX COMPANY, OF SAME PLACE.

## PAPER-BOX MACHINE.

SPECIFICATION forming part of Letters Patent No. 365,072, dated June 21, 1887.

Application filed January 3, 1884. Serial No. 116,373. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY A. HOUSE, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Paper-Box Machines, of which the following is a specification.

My invention relates to machines for making that class of boxes in which the body is provided with an inner guide piece or flange for the reception of the removable top; and my invention consists in means, fully described hereinafter, whereby to rapidly introduce and firmly cement the guide-pieces within the bodies.

In the drawings, Figure 1 is an elevation, in part section, of the apparatus. Fig. 2 is an end view, in part section. Fig. 3 is a plan. Fig. 4 is a perspective view of the guide-piece; Fig. 5, a section of a box-body with said guide-piece applied.

The guide-pieces A are continuous bands of paper bent to conform to the shape of the body of the box, being sometimes circular; at others square or polygonal, and sometimes oblong, with rounded corners, as shown. These bands are gummed or externally coated near one edge with cement, and are then introduced into the bodies B of the boxes, as shown in Fig. 5, the projecting flange *a* constituting a guide for the flange of the top. These operations have heretofore been performed by hand, and are tedious and expensive, and the boxes made, unless great care is used, lack uniformity. In effecting these operations by machinery I use a shaft, C, carrying a former, D, adapted to receive the bands to be inserted and secured in the box-bodies; and with these parts I combine a paster or device for applying paste to the outside of the band as the former is revolved. A brush or other device may be used for thus applying the paste; but I prefer a roller, E, on the edge of which the paste is deposited, and which, when in contact with the band, deposits the paste thereon. The roller is supported by a suitable frame movable to and from the former. As shown, the frame is in the form of a lever, H, pivoted at the point *y* to a stud on the base of the machine and operated by a treadle, and a paste-

box, F, carries a roller, G, which revolves in the paste and is in line with the roller E, so that when the lever is moved downward the two rollers are brought in contact, and when elevated the edge of the roller E is brought against the band upon the frame and deposits the paste thereon. The thickness of the film of paste on the roller G is regulated by an adjustable scraping-plate, I, which may be brought at any desired distance from the edge of the roller. The paste-box rests upon a hollow chest, I', to which steam is admitted to heat the same and maintain the paste in a proper condition. The band is slipped over the former while it is stationary; the former is then revolved, and after the paste is applied is again arrested until the body B of the box is slipped over the band, after which both are removed.

To avoid the necessity of repeatedly stopping and starting the shaft, I secure the former to a supporting device, herein shown as a disk, K, turning on the shaft, but with its hub in contact with a friction-pad, *a'*, between a collar, *b*, and a flange, *c*, on the hub carrying the disk, so that the disk and shaft will normally turn together, and I use a stop device to arrest the disk at the proper intervals, the motion of the shaft being continued. Thus a lever, L, pivoted to a stud, *d*, extends to a position adjacent to the flange *c*, from which extends a stud, *e*, and the lower end of the lever terminates in an arm, *f*, which extends below the lever H, so that as the latter is depressed to bring the roller E against the band the upper end of the lever L will be carried from the flange *c*; but when the outer end of the lever H is lifted the inner end of the lever L descends, and thereafter when the stud *e*, by the continued rotation of the disk K, is brought into proper position, it comes in contact with the end of the said lever and the rotation of the disk is arrested. The shaft is driven by a band or otherwise from any suitable motor.

The former D is detachable from the disk, as a different former must be used with each change in size or shape of boxes manufactured.

It will be evident that paste, glue, or any suitable cement may be used in the manufacture of the boxes.

Without limiting myself to the precise con-



struction and arrangement of parts shown, I claim—

1. The combination, in a box-making machine, of a former adapted to receive and hold the bands or guide-pieces during the application of the bodies thereto, a revolving support for the former, and a pasting device, substantially as described, movable to and from the former and adapted to apply cement to the outside of the band as the former is revolved, as set forth.

2. The revolving former, a paste-roller, a paste-supply, and a pivoted carrier for carrying said roller from the paste-supply to the former, substantially as described.

3. The combination of the revolving former, roller E, movable carrier therefor, paste-box F, and means, substantially as described, for coating the roller, as set forth.

4. The combination of a rotary shaft, disk supported thereby and carrying the former, a

frictional device, substantially as described, between the disk and shaft, paster movable to and from the edge of the former, and stop device, substantially as set forth, whereby to arrest the rotation of the disk and former during the rotation of the shaft, as described.

5. The combination of the revolving shaft, former carried by a disk, a frictional device, substantially as described, between the disk and shaft, a stop device, and paster connected to the stop device to withdraw it as the paster approaches the former, substantially as set forth.

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

HENRY A. HOUSE.

Witnesses:

JONATHAN GODFREY,  
ALFRED B. BEERS.