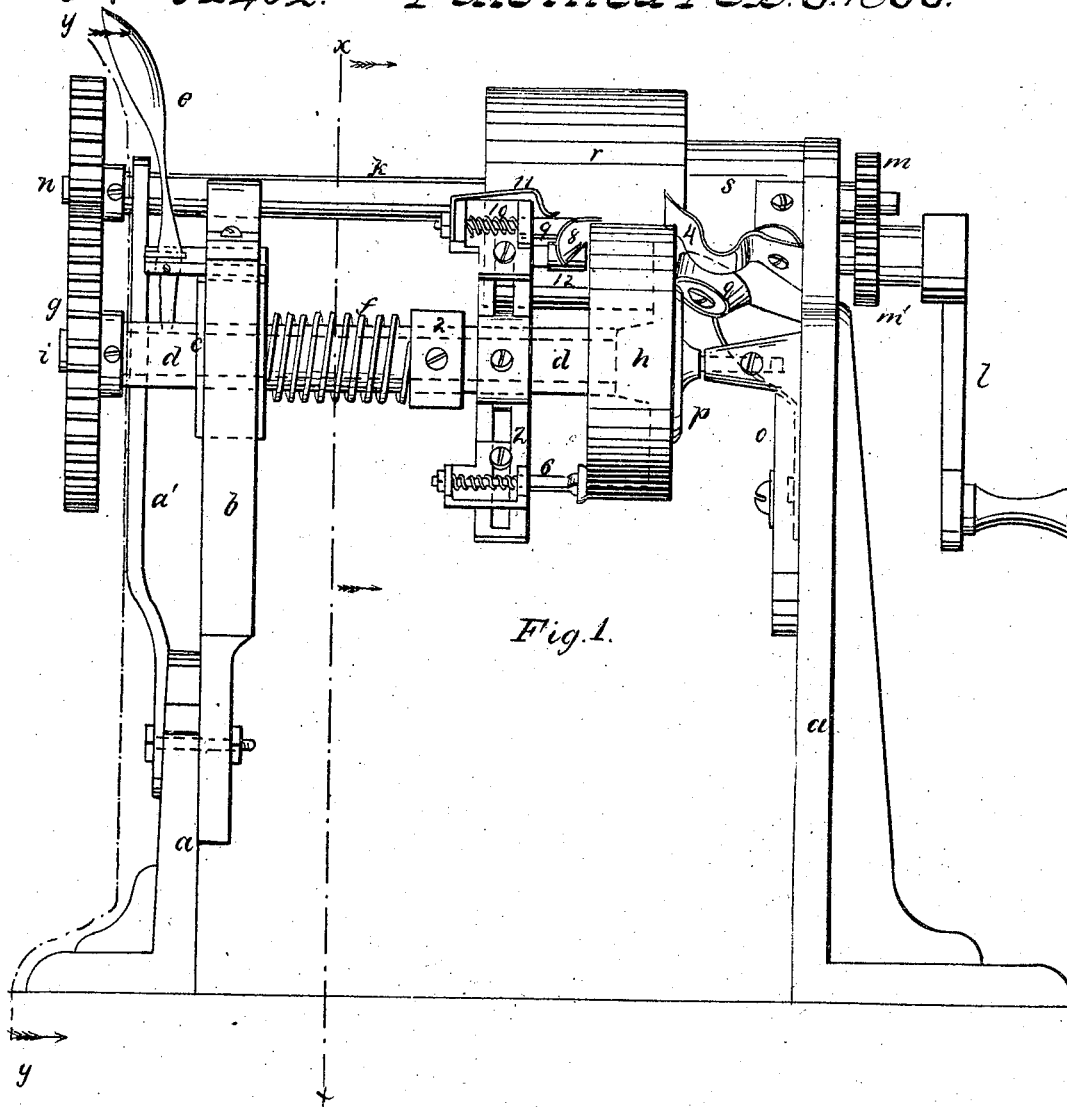


*C. A. Maxfield. Sheet 1 of 2 Sheets.*  
*Paper Box Mach.*

*N<sup>o</sup> 52432. Patented Feb. 6. 1866.*



*Fig. 1.*

*Witnesses.*

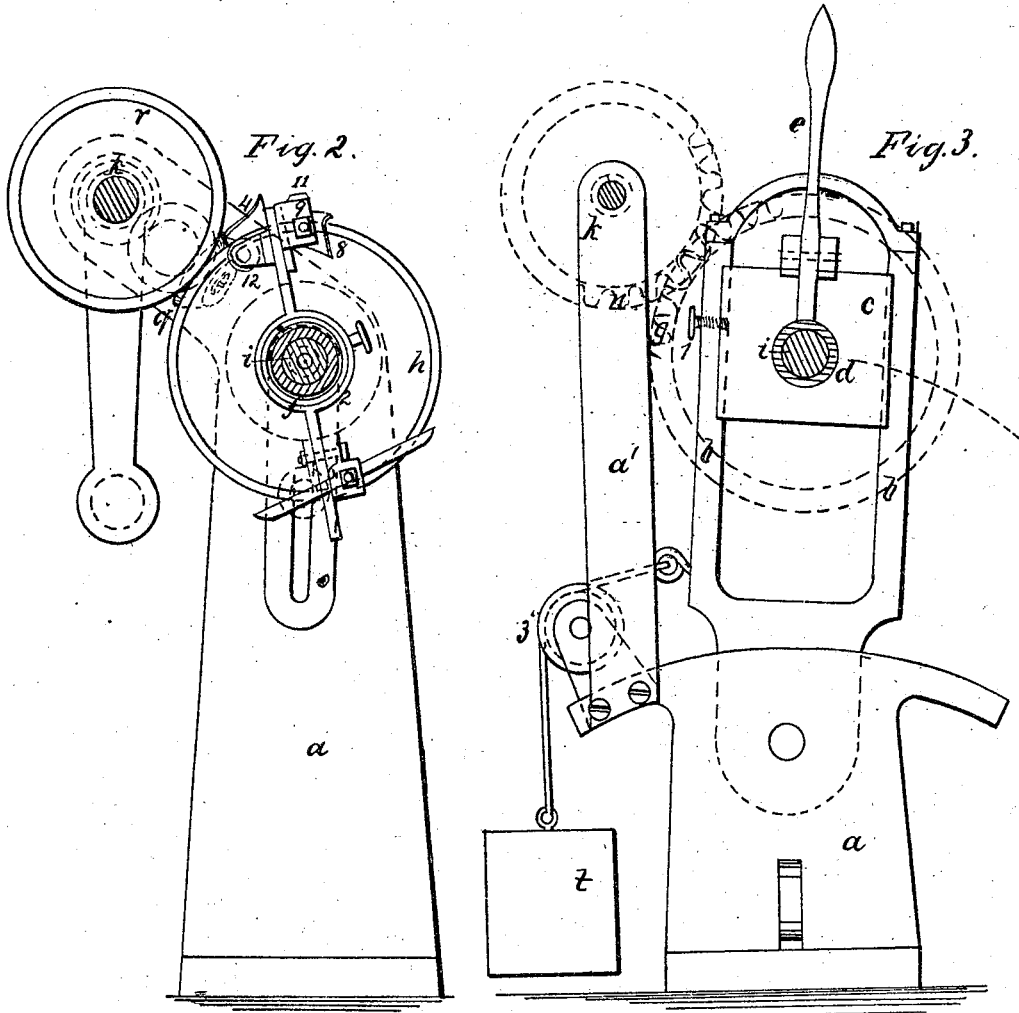
*Lemuel W. Correll*  
*Chas. H. Smith*

*Inventor*

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*C. A. Maxfield. Sheets 2, Sheets*  
*Paper Box Mach.*

*N<sup>o</sup> 52432. Patented Feb 6. 1866.*



*Fig. 4.*

*Fig. 5.*

*Witnesses*

*Lemuel W. Correll*  
*Chas. H. Smith*

*Inventor*

*Chas. A. Maxfield.*

# UNITED STATES PATENT OFFICE.

CHARLES A. MAXFIELD, OF NEW YORK, N. Y.

## MACHINE FOR MAKING PAPER BOXES.

Specification forming part of Letters Patent No. 52,432, dated February 6, 1866.

*To all whom it may concern:*

Be it known that I, CHARLES A. MAXFIELD, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Machinery for Making Boxes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a side elevation of the said machinery. Fig. 2 is a section at the line *xx* of Fig. 1, and Fig. 3 is a section at the line *yy*.

Similar marks of reference denote the same parts.

My invention relates to a mechanism for pressing a strip of glued paper upon the edge of the box at the junction of the bottom and sides or rim and lid, so as to form a union of the circular end with the cylindrical side of the box; also, in a means for pressing upon the cylindrical sides of the box a strip of glued or pasted paper to form a covering for the same, and turning the edges of said paper over, the one edge upon the circular end piece and the other edge over and within the circular rim of the box or lid, thereby a strong box, smoothly covered, can be made with great rapidity.

In the drawings, *a* is the frame of the machine. *b* is a swinging auxiliary frame, carrying a box, *c*, that may be moved up or down in the said frame *b*, and retained by a set-screw, 1, for adapting the machine to the size of the box, as hereinafter shown. Through this box *c* is a tube, *d*, that may be slid endwise through the box by a lever, *e*, upon a fulcrum-arm that projects from this box *c*; and *f* is a spring acting against a collar, 2, to force the tube *d* to the right, Fig. 1. Within this tube *d* is a shaft, carrying at one end the gear-wheel *g*, and at the other end the box-supporter *h*, that is held on by a screw, and may be removed and another substituted for a different size of box. In this case the gear *g* also has to be changed.

*k* is a shaft sustained at one end in the frame *a* and at the other end in the arm *a'*. This shaft *k* is rotated by the crank *l* and gears *m*, *m'*, and a gear, *n*, is provided that takes the gear *g* to rotate the shaft *i* and box-supporter *h*. (See red lines in Fig. 3.)

On the frame *a* is an adjustable stud, *o*, carrying a disk, *p*, that can be rotated upon its shaft, that extends into the stud *o*.

*r* is a roller on *k*, covered with rubber or other elastic material, and *q* is a conical roller contiguous to *h* and *r*, supported on a screw or gudgeon from the projection *s*.

The operation of the parts thus far is as follows: The attendant, by the lever *e*, draws the box-supporter *h* away from the disk *p*, and swings the auxiliary frame *b* toward himself. This allows for the introduction of a circular rim to form a box or cover over and around the holder or supporter *h*, with a round piece of material to form the bottom of the box against the flat side of *h*. The parts are swung back to position, (a counterpoise, *t*, and pulley and cord 3 aiding in so doing,) and the spring *f*, pressing the box-bottom against the disk *p*, holds the same. A strip of glued or otherwise adhesive paper or material is now laid upon the angle at the junction of and lapping upon both the cylindrical side and flat bottom or end, and the handle *l* turned as the strip of adhesive material is guided. A folder, made of a piece of bent metal, as at 4, folds the edge of the strip toward and upon the edge of the circular bottom. This compression is completed by the roller *q*, while the roller *r* presses the said material firmly upon the side of the box. This strip of material forms a union of the bottom or top and sides of the box, as indicated in Fig. 4 by the blue line.

A sliding spring-holding bar, 6, on the arm 7 upon *d* may be employed to press the circular rim of the box toward the bottom, so that they may not separate during the rotation of the box and holder *h*.

In order to cover the box with paper or similar material it is only necessary to apply to the side of the box one end of a strip of pasted or glued material and rotate the parts, the roller *r* pressing the same against the side of the box while the turner 4 and roller *q* fold the edge over smoothly against the bottom, and at the same time a folder, 8, formed of a curved piece of metal set on a sliding stock, 9, with a spring, 10, to press it toward the edge of the box, and a spring, 11, to keep it down, turns or folds the edge of the material around into the inside of the box or lid, as seen by the red lines in the section, Fig. 5, and I em-

ploy a roller, 12, which, being inside of the edge of the box, presses the said paper smoothly down to its place.

By releasing the pressure of the box-holder *h* against the disk *p*, by means of the lever *e*, the auxiliary frame *b* may be swung sufficiently forward to allow of the removal of the box or lid and the introduction of the parts for forming another.

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

1. Mounting the box-supporter *h* in the sliding pipe sustained in the swinging frame *b*, for the purpose of allowing the box to be placed upon or removed from the supporter *h*, substantially as specified.

2. The folding-guide 4, in combination with the supporter *h*, and rollers *r* and *q*, for the purpose and as specified.

3. The roller 12, and guide or folder 8, in combination with the box-supporter *h*, and roller *r*, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my signature this 8th day of September, A. D. 1865.

CHAS. A. MAXFIELD.

Witnesses:

LEMUEL W. SERRELL,  
CHAS. H. SMITH.