(No Model.)

H. MOTT.

MACHINE FOR SANDING PAPER BOXES.

No. 555,389. Patented Feb. 25, 1896.

Fig. 1.

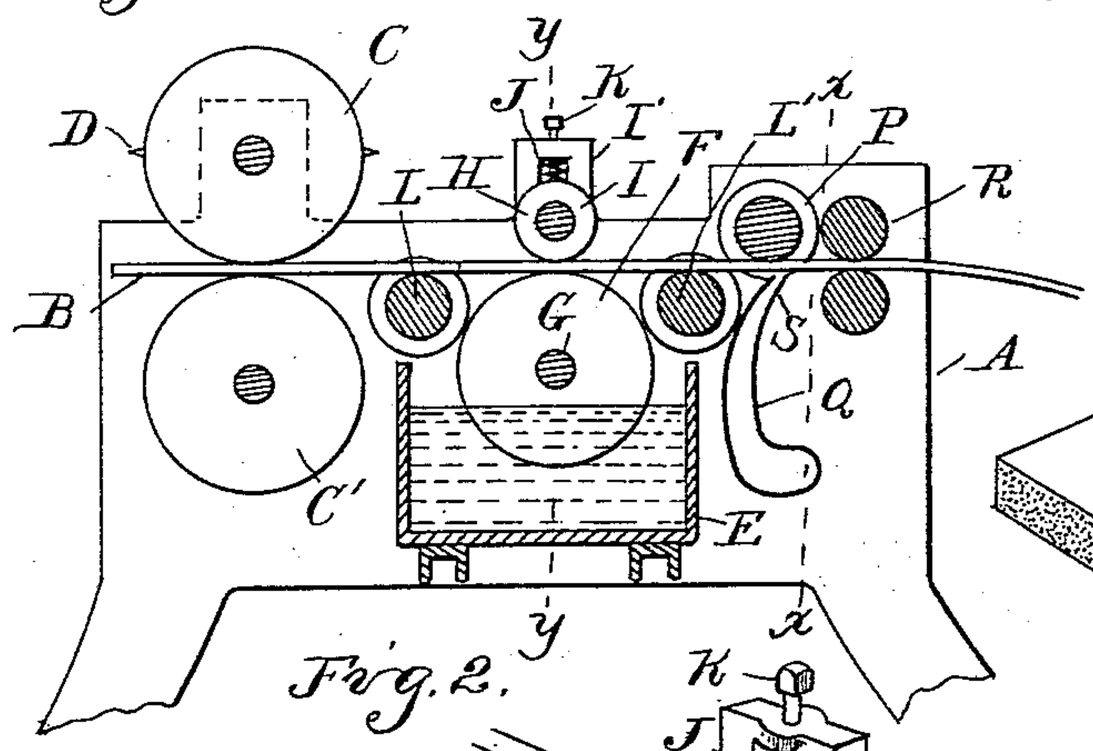


Fig. 5.

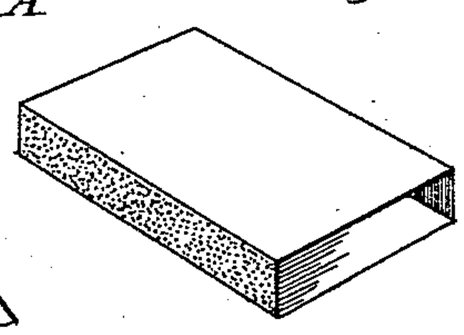


Fig. 2.

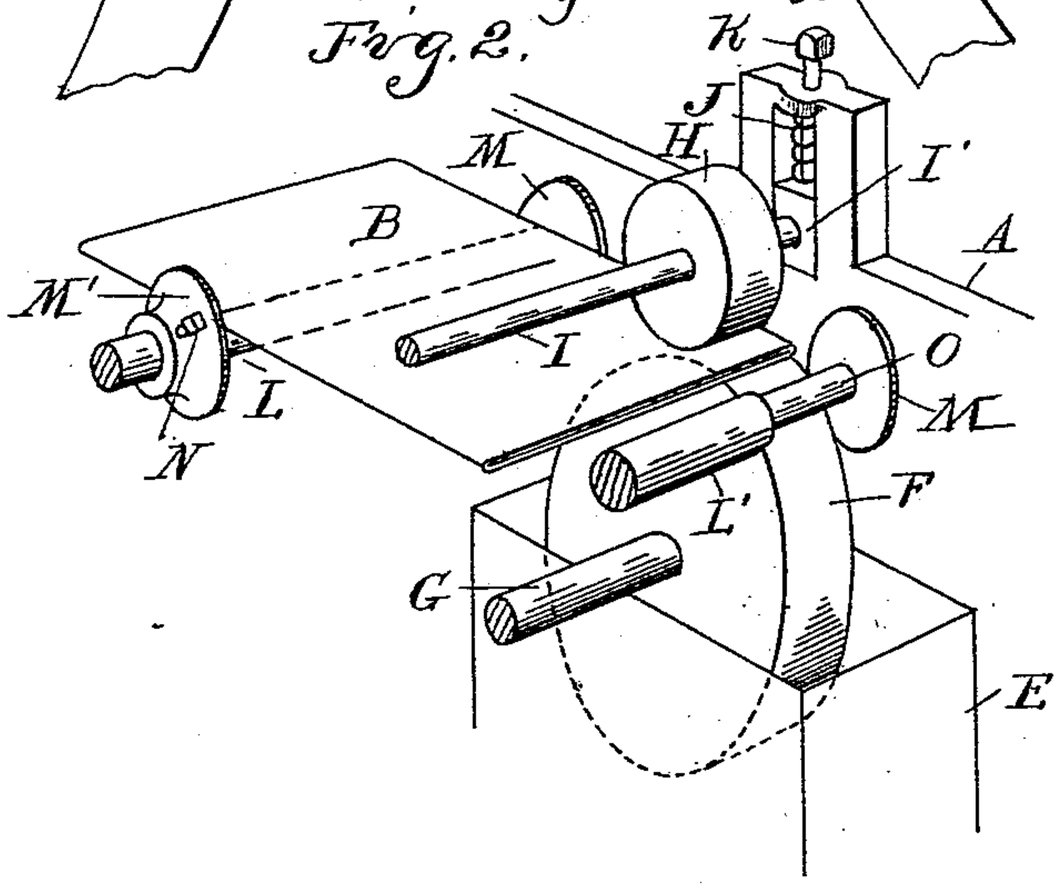


Fig. 4.

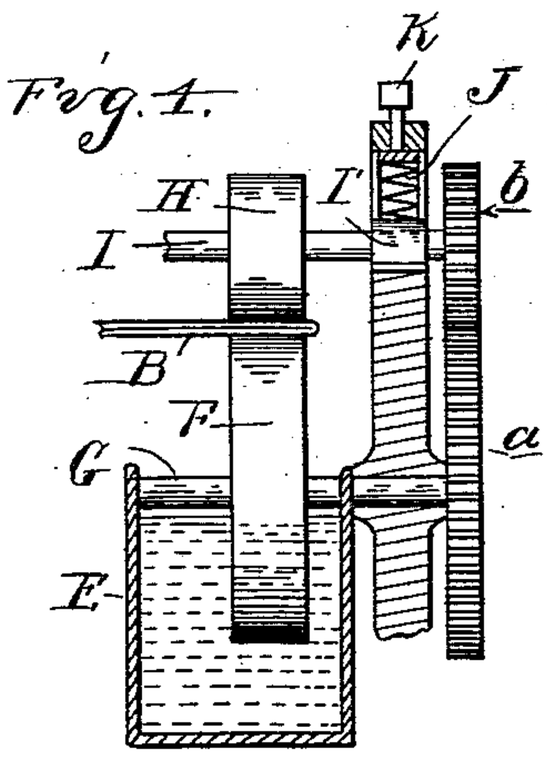
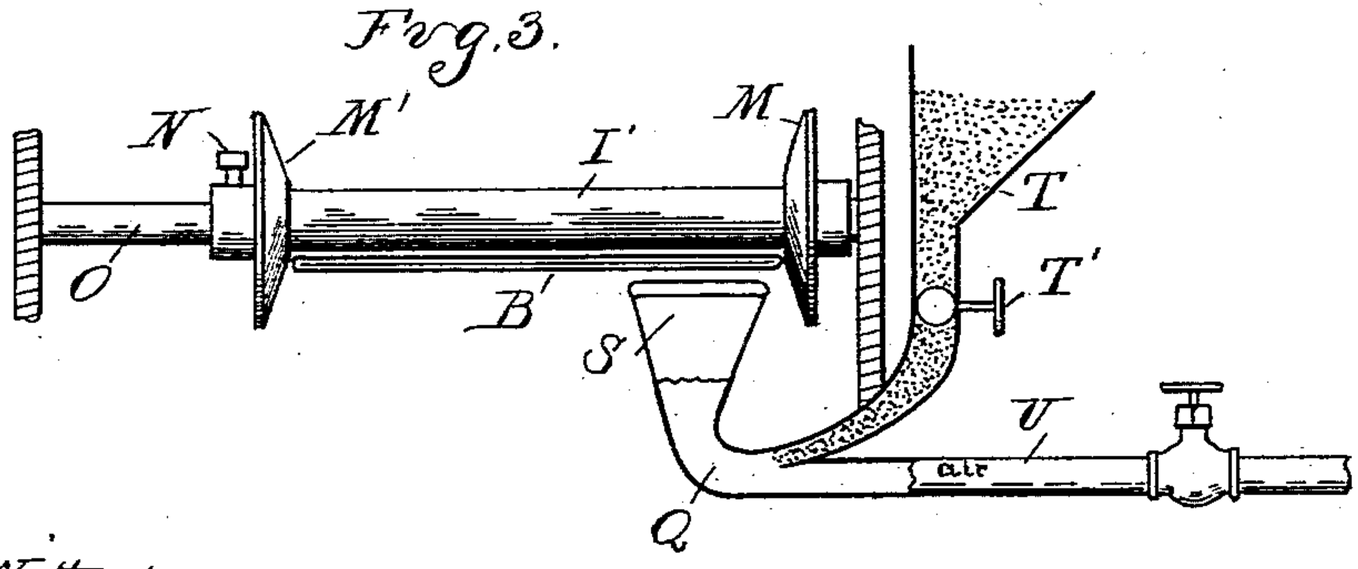


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY MOTT, OF DETROIT, MICHIGAN.

MACHINE FOR SANDING PAPER BOXES.

SPECIFICATION forming part of Letters Patent No. 555,389, dated February 25, 1896.

Application filed August 24, 1895. Serial No. 560,358. (No model.)

To all whom it may concern:

Be it known that I, HENRY MOTT, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Machines for Sanding Paper Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the construction of a machine for sanding one of the faces on a match-box; and it consists in the construction, arrangement and combination of the various parts, whereby the construction of the machine is simplified and made more perfect than in devices at the present time known.

I preferably use my machine as an attachment to or arranged beside a machine for manufacturing the tubular blanks from which the box-shucks are formed, such shucks or blanks being delivered to my machine in a flattened or collapsed condition.

In the drawings, Figure 1 is a vertical central section through my improved machine. Fig. 2 is a sectional perspective view of the blank-supporting rollers and the glue-applying mechanism. Fig. 3 is a section on line *x x*, Fig. 1. Fig. 4 is a transverse section on line *y y*, Fig. 1. Fig. 5 is a detached perspective view of one of the sanded shucks.

A is a suitable supporting-frame for the operating parts of my machine. This frame may be of any desired construction.

B represents the blank as fed from the machine which moves it, and C C′ represent feed-rollers for delivering the blank to the sanding-machine. These rolls are provided with cutting-off knives D for separating the continuous blank into sections of the desired length.

E is a glue pot or tank in which runs the glue-applying wheel F of a width corresponding to the width of the blank which it is desired to be sanded. G is a shaft upon which this wheel or roll is secured. H is a roll of similar width above the roll or wheel F and pressed thereon by spring-pressure. This roll is secured to the shaft I, which is supported in bearings I′ pressed downward by the tension of springs J, the strength of which may be adjusted by means of the adjusting-screw K.

The shafts I and G are geared together by means of the gear-wheel and pinions *a b*, either of which may be driven from any desired source of power.

Upon either side of the glue-wheel F are the blank-supporting rolls L L′. These rolls at each end are provided with collars M M′, which are substantially dish or plate shape, the collar M′ sliding upon the shaft and adapted to be held in any adjusted position by suitable securing means, such as the set-screw N. The roll L′ is provided with a reduced portion O opposite the gluing-wheels.

P is a roll which is secured above and slightly in advance of the roll L′, and is what may be called the "blast-resisting" roll, as it is above the blast-pipe Q, by means of which the sand-blast applies the sand to the glued portion of the blank.

R are feed-rolls for delivering the blank from the machine. The blast-pipe Q terminates in the upwardly-curved flaring discharge-nozzle S.

T is a hopper for holding the sand, which has a discharge-pipe leading into the base of the pipe Q, which discharge-pipe is controlled by the valve T′.

U is the air-blast pipe likewise leading into the base of the pipe Q, by means of which the sand is delivered upon the blank.

The parts being thus constructed their operation is as follows: As the blank is fed into the machine it is cut off or nearly severed into shucks of the desired length by the rolls C C′. Thence it is fed upon the roll L and between the gluing-rolls, the amount of glue deposited upon the under surface of the blank being largely determined by the pressure in the upper roll and the consistency of the glue. After leaving the gluing-rolls, it is fed over the roll L^8, the glued portion passing over the reduced neck O, so that the glue will not be scraped off from the blank and beneath the roll P. At this point the sand-blast strikes the glued portion of the blank and thoroughly covers it with the same. It is then delivered from the machine from the feed-rolls R, which are highly polished and which serve to more firmly press the sand into the glue.

What I claim as my invention is—

1. In a machine of the kind described, the

combination of the driven glue-applying roll F and the complementary upper roll H, of the rolls L L′ on opposite sides of the gluing-rolls forming the supporting-table for the blank to and from the gluing-rolls, the upper roll P and the sand-blast nozzle below the roll P, substantially as described.

2. In a machine of the kind described, the combination of the driven glue-roll F, the complementary driven roll H, the spring-pressed bearing I′ in which the shaft of that roll is supported, the rolls L L′ on opposite sides of the gluing-roll over the support of the blank to and from such rolls, the dish-shaped collars M M′ on these rolls, one of the collars being adjustable, the upper roll P above and beyond the roll L′, feed-rolls R and the flaring curved sand-blast nozzle S under the roll P, the parts being arranged substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY MOTT.

Witnesses:
JAMES WHITTEMORE,
O. F. BARTHEL.