

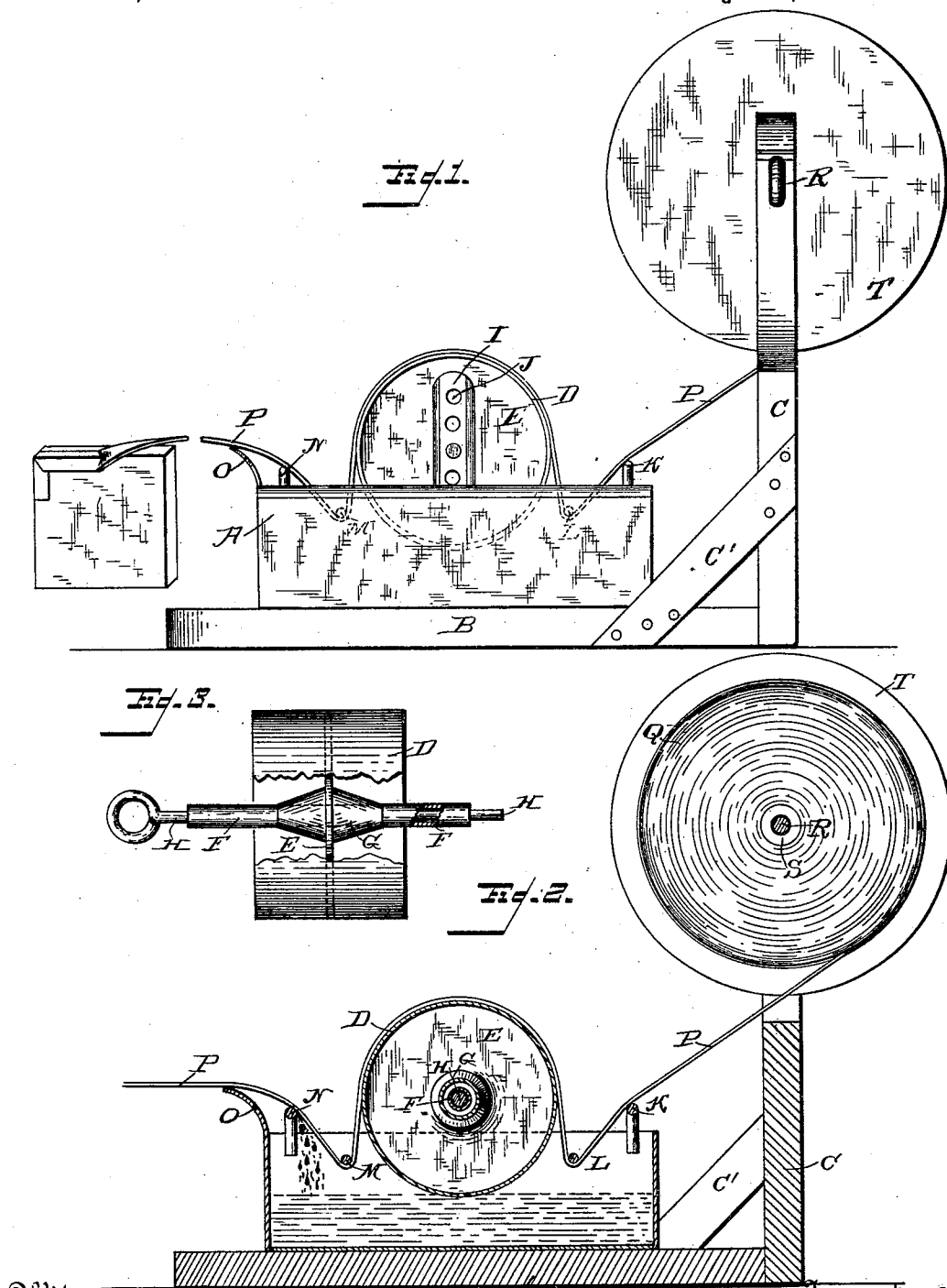
(No Model.)

D. F. LAFEAN & F. X. DEVLIN.

BOX COVERING MACHINE.

No. 475,324.

Patented May 24, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

DANIEL F. LAFEAN AND FRANK X. DEVLIN, OF YORK, PENNSYLVANIA.

BOX-COVERING MACHINE.

SPECIFICATION forming part of Letters Patent No. 475,324, dated May 24, 1892.

Application filed April 27, 1891. Serial No. 390,529. (No model.)

To all whom it may concern:

Be it known that we, DANIEL F. LAFEAN and FRANK X. DEVLIN, citizens of the United States, residing at York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Box-Pasting Machines; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention has reference to machines for pasting strips of paper or other material preparatory to applying the strips to paper boxes along the edges thereof for the purpose of finishing and strengthening the boxes.

The invention has for its object to simplify the construction of such a machine and to render it more durable, more efficient in use, not so liable to get out of repair, and more easily repaired than machines heretofore constructed and used for the same purpose.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, the invention consists in the construction and the combination of parts hereinafter described, and then claimed, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a side elevation of the machine. Fig. 2 is a vertical longitudinal section through the same; and Fig. 3 is a front elevation of the paste-applying drum, broken away and partly in section.

In the drawings, the letter A designates a trough designed to hold the paste or glue and resting upon a base B, from which rises a bifurcated standard C, braced to the base by diagonal bars C'. The trough is provided with a drum D, composed of thin sheet metal, preferably copper, opened at both ends and having an internal diaphragm or partition E, designed to sustain the drum against collapsing and at the same time form the two chambers on opposite sides thereof, so that access may be had to the interior of the drum from both sides for the purpose of removing any indentations that may accidentally be made in the surface of the drum, which if allowed

to remain would cause some of the paper strip to pass from the drum without having the paste applied thereto, and consequently form an imperfectly-stripped box. This is important, as it obviates the necessity of sending the drum to the shop for the removal of its heads when otherwise formed in order to permit access to the interior for the purpose of such repairs. This construction also makes the drum lighter than when otherwise constructed, as only a single partition need be used, and that being located near the central portion of the drum will afford a strong and substantial brace to the drum. A sleeve or hollow shaft F passes through the drum, and next to the diaphragm E on each side thereof is provided with cone-shaped caps G, designed to brace the connection between the diaphragm and the sleeve.

Through the hollow shaft or sleeve F there passes loosely a shaft H, on which the drum and its shaft turn, the shaft having its bearings in the two standards I, rising up from the trough and being movable from one to another of a series of holes J in the standards, so as to adjust the drum up or down to come in contact with the paste or glue, as there may be more or less of it in the trough. The trough is also provided at one end with a cross-bar K, raised above the top edge of the trough and at a point between it and the drum with a tension or hold-down rod L, located below the top edge of the trough and intended to hold the traveling paper strip against the face of the drum. On the opposite side of the drum there is a rod M, located similarly to the rod L and intended to serve the same purpose, and between it and the end of the trough is a raised bar N, which serves as a scraper to remove surplus glue or paste from the paper strip, as indicated in Fig. 2 of the drawings. The rods L and M serve also as guides for the paper which is drawn over the drum.

The trough at the end where the pasted strip is delivered for application to the box, as indicated in Fig. 1 of the drawings, is provided with a curved guard or plate O, which serves not only to support the paper strip at that end, but also as a scraper to remove any excess of the paste or glue that may not have been taken off by the bar N. This plate or

guard O being curved, any surplus paste taken off by it will run down it into the trough.

The paper strip P to be pasted is supported
5 in the form of a roll Q upon a removable
shaft R, supported in the fork ends of the
standard C. This shaft carries a sleeve S,
which turns freely on the shaft and consti-
tutes a core upon which the paper strip is
10 wound into a roll, and it prevents the paper
from drawing so tightly as to be broken in
moving it over the drum, as at times happens
where the core is not used. On each side of
the paper roll is a disk or guard-plate T,
15 which fits loosely on the shaft between the
paper roll and the fork ends of the standard
in which the shaft is journaled. These plates
serve to guide the paper strip evenly from
the roll and to prevent it from slipping side-
20 wise from off the roll and to prevent its fric-
tional contact with the fork ends of the stand-
ard, and as a result the roll turns easily and
there is no unnecessary friction to do dam-
age to the paper, and yet the paper is kept
25 taut so that it will not form into loops or folds
that would interfere with the satisfactory
working of the device.

The operation is apparent from the fore-
going description without needing further
30 amplification.

The several parts can be made of any ma-
terial desired. It is also obvious that there
may be made changes in the details of the
several parts without departing from the
35 spirit of the invention, and although we have

described with particularity the construction
of each part we do not mean to be restricted
to such details.

Having described our invention and set
forth its merits, what we claim is—

1. In a box-pasting machine, the combina-
tion, with the trough for containing the paste,
of the hollow rotatable drum for transferring
the paste, composed of a spindle or shaft hav-
ing a centrally-disposed partition-plate, and
45 a sheet-metal shell mounted upon said plate
and projecting beyond both sides thereof,
whereby access may be had to the interior of
the drum to repair damages to the shell with-
out separation of the shell and said partition,
50 substantially as described.

2. In a box-pasting machine, the combina-
tion, with the trough for containing the paste,
of the hollow rotatable drum for transferring
the paste, composed of a spindle or shaft hav-
ing a centrally-disposed partition-plate and
55 a sheet-metal shell mounted upon said plate
and projecting beyond both sides thereof,
and the cone-shaped caps inclosed within
said drum and bearing against opposite sides
60 of the said centrally-disposed partition to
brace the single partition on both sides, sub-
stantially as described.

In testimony whereof we affix our signatures
in presence of two witnesses.

DANIEL F. LAFEAN.
FRANK X. DEVLIN.

Witnesses:

DAVID LAUNASTER,
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