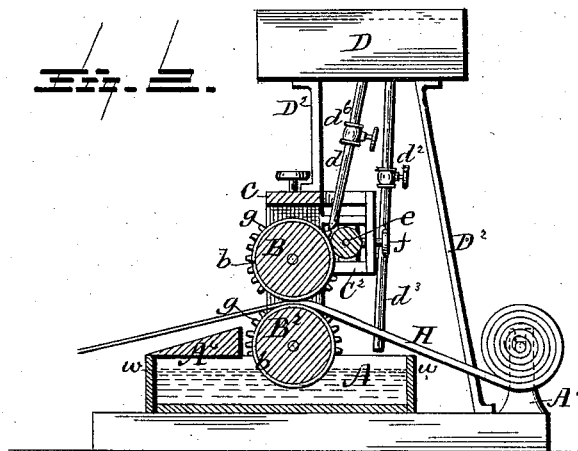
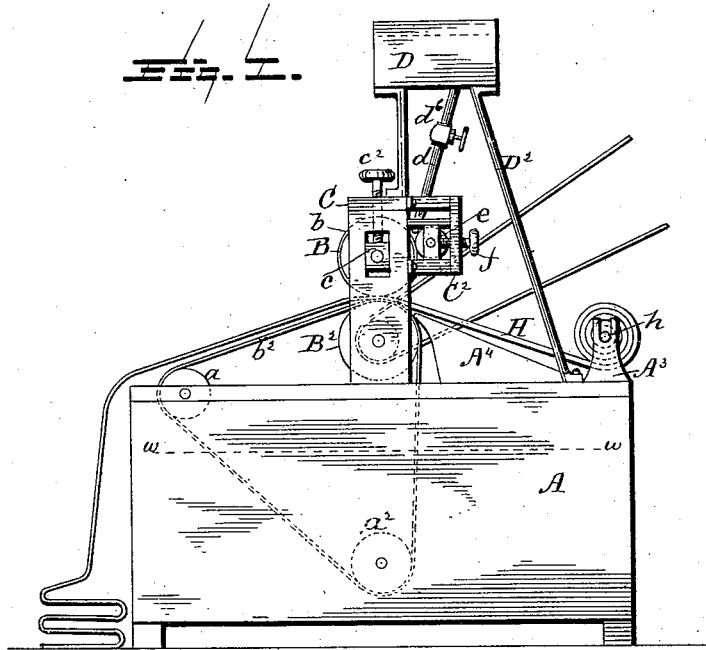


(No Model.)

J. W. JOHNSON.
LINT COATING AND PACKAGING MACHINE.

No. 455,865.

Patented July 14, 1891.



Witnesses

C. C. Schiller.

I. J. Masson

Inventor

James W. Johnson,

By his Attorney

E. E. Masson

UNITED STATES PATENT OFFICE.

JAMES W. JOHNSON, OF NEW BRUNSWICK, NEW JERSEY.

LINT COATING AND PACKAGING MACHINE.

SPECIFICATION forming part of Letters Patent No. 455,865, dated July 14, 1891.

-Application filed May 21, 1891. Serial No. 393,593. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. JOHNSON, a citizen of the United States, residing at New Brunswick, in the county of Middlesex, State of New Jersey, have invented certain new and useful Improvements in Lint Coating and Packaging Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to machines for surfacing cotton lint with an adhesive substance to unite its fibers; and the objects of my improvement are to provide a simple and inexpensive machine for surfacing or impregnating the top or bottom or both surfaces of a homogeneous but thin bat of absorbent cotton lint with an adhesive solution to unite together the fibers of said surfaces to adapt it for use by dentists as an absorbent in the mouth of their patients, or as lint in dressing wounds without danger of having the fibers adhere to the parts to which it is applied. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a machine constructed in accordance with my invention. Fig. 2 is a vertical section of a modification of the same.

In said drawings, A represents a tank containing a thin solution of an adhesive substance—for example, a solution of two ounces of starch in twenty pounds of water. Above said tank two horizontal rolls B and B² are placed one above the other and have their journals at each end received in bearings mounted in a frame C, the upper bearings c being adjustably retained by vertical screws c². The rolls B B² are made of an elastic material, preferably rubber, upon which there is a covering of coarse canvas or of wire b, preferably woven, to slightly indent or give a pebbled appearance to the dampened surface of the material passed between them, said indentations facilitating the impregnation of the viscid or adhesive liquid into the material to a short distance below its surface.

In Fig. 1 the canvas covering of the lower roll is in the form of an endless belt b², that is made to pass around guide-rollers a and a² to guide and conduct said belt under the surface and within the gummy liquid placed in

the tank A, the surface of said liquid to remain about on the line w w.

In the modification shown in Fig. 2 the long hanging belt b² of Fig. 1 is dispensed with and the lower portion of the canvas or wire covered roll B² is made to dip into the gummy liquid, and the surface of the liquid shown on line w w is maintained substantially constant by a gradual supply admitted from a reservoir D above the machine through a pipe d³, controlled by a cock d². The canvas or wire covered surface of the upper roll B is also kept impregnated with the gummy or starchy liquid of the reservoir D by means of a series of pipes d, extending from the bottom of said reservoir to within a short distance of the top roll B, each pipe being provided with a cock d⁶ to control the flow of the liquid therethrough. The reservoir D is supported by legs D², resting upon the machine.

To properly distribute the gummy liquid upon the surface of the roll B, a rubber roller e is made to press against said surface. For this purpose the journals of said roll e are mounted in movable bearings that are retained by means of pressure-screws f, passing through a frame C², attached to the side of the frame C. The rolls B B² preferably have upon their journals gears g to cause them to rotate uniformly together.

In operation a bat of absorbent cotton H is coiled upon a mandrel h, and the latter has its ends loosely mounted in racks A³ upon the machine, and one end of said bat is introduced between the rolls B B², and said rolls being made to revolve the two surfaces of the bat become not only coated, but impregnated with a small amount of the starchy liquid, and the bat is reduced to a thickness about equal to thick blotting-paper well adapted to the use above stated. From the rolls the prepared material passes over the side of the machine and is either received in the form of plies or conducted into a drying-room. Shields A⁴ are generally placed upon the tank A to prevent the bat or completed material from sagging into the starchy liquid.

If it is desired to impregnate the bat of absorbent cotton only upon one side—as, for example, the bottom side—the series of pipes d are closed by means of the cocks d⁶, and said bat is passed through the machine; but if it

is desired to impregnate the top side only the cocks *c*⁶ are opened and the tank A is left empty of gummy liquid.

Having now fully described my invention, I claim—

1. In a lint-coating machine, the combination of two rolls of elastic material covered with wire or canvas cloth and mounted one above the other, a tank under the lower roll, adjustable bearings for the upper roll, an elastic roll adjustably retained against the upper roll, a reservoir above said rolls, and a pipe leading from said reservoir to the upper rolls, the area of said pipe being controllable, substantially as described.

2. In a lint-coating machine, the combina-

tion of a frame, two rolls mounted one above the other, a tank under the lower roll, an adjustable bearing for the upper roll, an elastic roll adjustably retained against the upper roll, a reservoir above said rolls, a pipe leading from said reservoir to the upper rolls, and a pipe leading from the reservoir to the lower tank, said pipes having cocks thereon, substantially as and for the purpose described.

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

JAMES W. JOHNSON.

Witnesses:

JOHN A. LAW,

THOS. G. PHINNY.