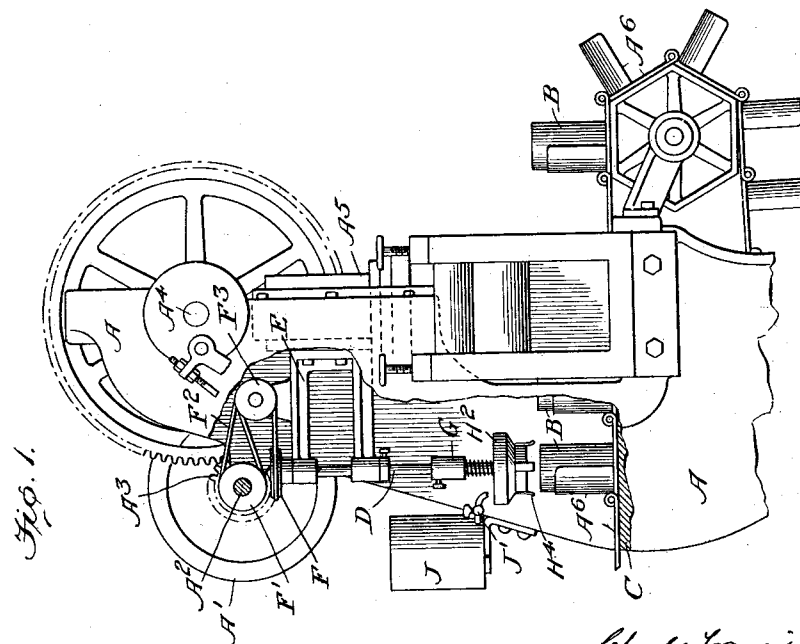
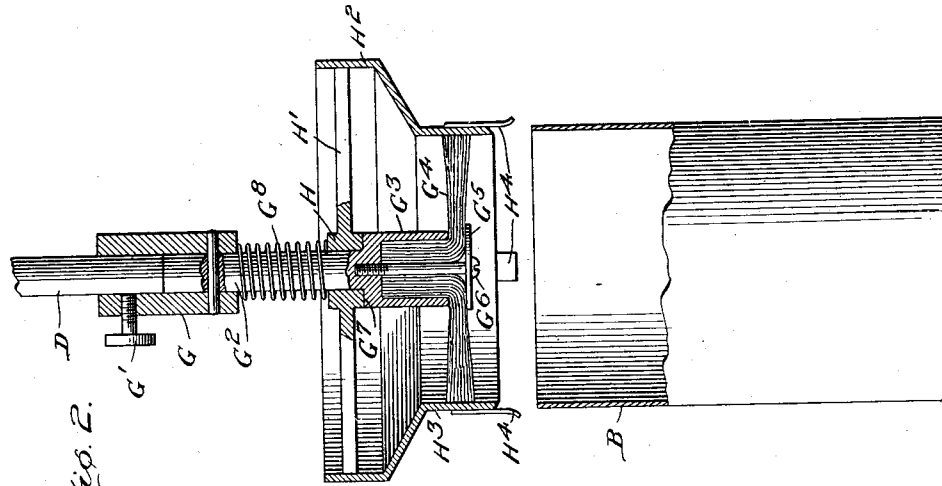


C. F. JENKINS.
ADHESIVE APPLYING DEVICE.
APPLICATION FILED MAR. 4, 1910.

1,064,738.

Patented June 17, 1913.

2 SHEETS—SHEET 1.



Witnesses.

Edwin L. Bradford
R. Craig Greene.

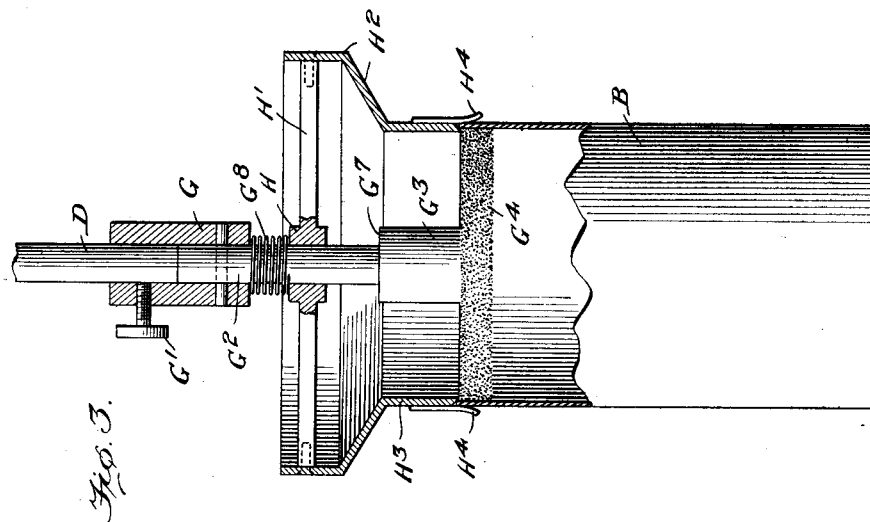
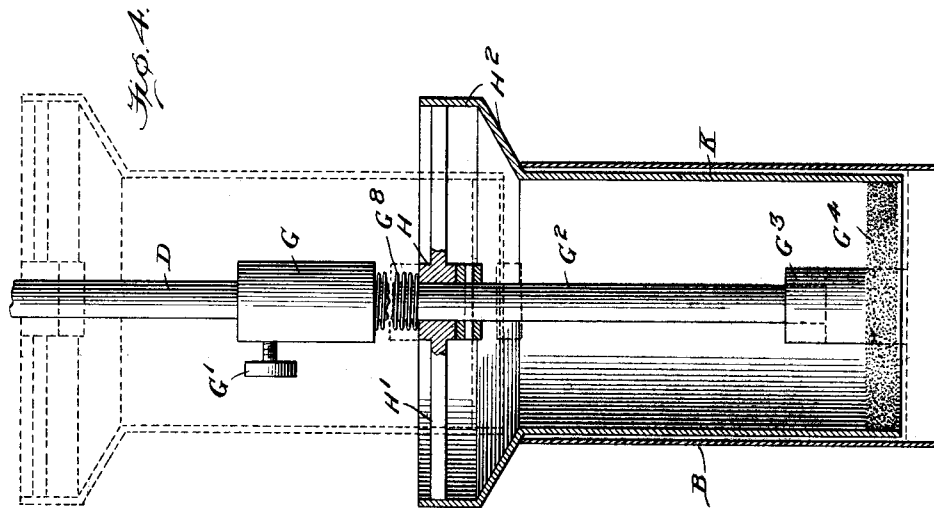
Inventor

Charles Francis Jenkins

By Wallace R. ...

Attorney

2 SHEETS—SHEET 2.



Witnesses

Edwin L. Bradford
R. Craig Greene

Inventor

Charles Francis Jenkins

By *Wallace Cunningham* Attorney

UNITED STATES PATENT OFFICE.

CHARLES FRANCIS JENKINS, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO SINGLE SERVICE PACKAGE CORPORATION OF AMERICA, OF NEW YORK, N. Y.,
A CORPORATION OF NEW JERSEY.

ADHESIVE-APPLYING DEVICE.

1,064,738.

Specification of Letters Patent. Patented June 17, 1913.

Application filed March 4, 1910. Serial No. 547,376.

To all whom it may concern:

Be it known that I, CHARLES FRANCIS JENKINS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Adhesive-Ap-
5 Applying Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to mechanism for applying adhesive to the interior of paper receptacles, at points to be covered by the margins of closures to be inserted therein, and the object is to secure rapid and effective
15 application of the adhesive at the desired points without danger of smearing other portions. This object is attained by providing an open tube containing a rotary adhesive-applying brush, bringing the end
20 of the tube to or into the mouth of the receptacle, projecting the rotating brush therefrom, retracting the brush within the tube, and then moving the tube away from the receptacle, the closure being
25 inserted, of course, before the adhesive sets.

In the accompanying drawings, Figure 1 shows in elevation, the novel devices operatively attached to a closure forming and inserting machine of common form. Fig.
30 2 is an enlarged elevation, partly in section, of parts seen also in Fig. 1. Fig. 3 is a view similar to Fig. 2 but showing certain parts in a different position. Fig. 4 is a view like Fig. 3 but showing slightly modified devices
35 used when the adhesive is to be applied near the lower end of the receptacle.

In these figures, A represents the frame of the machine, A' a driving pulley, A² its shaft, A³ gears driving a crank-shaft A⁴,
40 A⁵ a crosshead reciprocated by the crank-shaft and carrying devices for forming and inserting closures, and A⁶ a device for carrying forward, step by step, tubular paper receptacles B,—all without novelty.

45 In the operation of this machine, each receptacle comes to rest temporarily over a supporting bed plate C, as shown at the left in Fig. 1. Above the receptacle while in this position, a vertical shaft D is mount-
50 ed to rotate, but not to slide, in a bracket E fixed to the rear side of the crosshead A⁵, which is here shown as at the upper limit of its path. Upon the upper end of the shaft D, above the bracket and resting

thereon, is fixed a pulley F which is con- 55
stantly rotated by means of a pulley F' upon the shaft A², and a belt F² which passes around an idler pulley F³ mount-
ed on the bracket at some distance from the other pulleys, so that the de- 60
scent of the bracket and idler pulley does not materially affect the action of the belt. To the lower end of the shaft D a down-
wardly extending sleeve G is fixed by a set- 65
screw G', and in this sleeve is fixed an extension G² of the shaft. This extension bears at its lower-end a rigidly connected inverted cup or hollow head G³ filled with the bristles of a heavy brush, and these
70 bristles are spread outward, to form a disk brush G⁴, by means of a plate G⁵ held in place by a screw G⁶, the brush disk being normally of a diameter slightly exceeding the diameter of the interior of a receptacle to which it is to apply adhesive. 75

A hub H, provided with arms H', is 75
mounted upon the shaft extension and is normally gently pressed down upon a shoulder G⁷ by a light spring G⁸ which re-
acts against the sleeve or other shoulder 80
above. The ends of the arms are rigidly connected to the wall of a funnel H² concentric with the shaft and having a lower cylindrical portion H³ of approximately the
85 same diameter as the receptacle and having its lower margin inwardly beveled so that it may readily enter slightly into the mouth of the latter, as indicated in Fig. 3. The
portion H³ is provided with external, de-
90 pending and outwardly flaring, flange-like fingers H⁴ to guide the mouth of the receptacle into exact alinement when the funnel descends to the latter.

When the crosshead is at its highest point, the parts occupy the positions indicated in 95
Figs. 1 and 2 and the shaft D is in rotation carrying with it the funnel and the slightly compressed inclosed brush disk, which is supplied with adhesive from a receptacle J, the supply being regulated by a valve J'. 100
Preferably, the glue is allowed to fall just within the walls of the funnel so that it may run down upon the periphery only of the brush disk; and such glue as may fall upon the arms cannot escape because the arms are 105
located below the upper margin of the funnel. When the crosshead descends, the rotating shaft and funnel are carried down

together until the latter meets the receptacle, as in Fig. 3, when its descent and rotation are both arrested when it has entered the mouth to a distance depending on the length of the beveled portion. The slightly compressed brush continues to descend until its body or disk is slightly below the funnel, when by its own elasticity it springs out into contact with the receptacle wall, upon which it effectively applies glue by its rotary movement. When the crosshead begins to ascend, the brush rises with it and re-enters the funnel while the latter is still held down upon the receptacle by the spring, and an instant later the shoulder upon the shaft extension meets the hub and the funnel is lifted to initial position, leaving the receptacle to be advanced to position for receiving the proper closure, which is inserted in the usual way by the devices carried by the crosshead. The whole operation is repeated automatically and indefinitely.

When the glue is to be applied near the bottom of the receptacle, the devices are attached to a well known machine having a longer closure inserting stroke. In this case, the brush bearing extension of the shaft is made longer, as seen in Fig. 4, and the lower cylindrical portion of the funnel is also lengthened, as shown at K, and made smaller so that it may readily move within the receptacle.

Means other than the fingers of the primary form may be employed, if desired, to guide the mouth of the receptacle, but as the

entering portion of the funnel is smaller, this is not usually necessary. The action of this form is practically the same as before and is so obvious that no detailed statement thereof is thought necessary. In either form, the funnel may be a simple tube. Certain modifications of the construction set forth being readily made without invention, I wish to claim my invention as broadly as the state of the art will permit, as well as more specifically.

What I claim is:

The combination with a support for an open receptacle, of a pendant shaft normally at some distance above the receptacle and alining with its axis, a brush fixed to the lower end of the shaft, a sleeve slidingly mounted upon the shaft, normally inclosing said brush, and adapted to be arrested in its downward movement by engaging the mouth of the receptacle, means for supplying adhesive upon the walls of said sleeve above the brush, means for lowering the shaft until the brush projects within the receptacle from the arrested sleeve and restoring the parts to normal position, a spring resisting relative upward movement of the sleeve upon the shaft, and means for rotating the shaft while so projected.

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

CHARLES FRANCIS JENKINS.

Witnesses:

JAMES L. CRAWFORD,
R. CRAIG GREENE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."