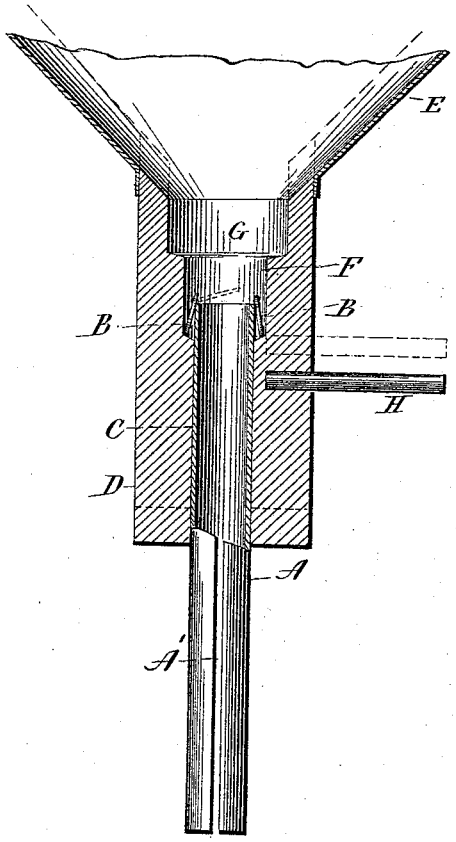
(No Model.)

C. WOOSTER.

FEEDING MECHANISM FOR MACHINES FOR MAKING BUTTONS.

No. 490,421. Patented Jan. 24, 1893.



Witnesses.
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UNITED STATES PATENT OFFICE.

CLARENCE WOOSTER, OF SAUGATUCK, CONNECTICUT.

FEEDING MECHANISM FOR MACHINES FOR MAKING BUTTONS.

SPECIFICATION forming part of Letters Patent No. 490,421, dated January 24, 1893.

Application filed October 31, 1892. Serial No. 450,521. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE WOOSTER, of Saugatuck, in the county of Fairfield and State of Connecticut, have invented a new Improvement in Feeding Mechanism for Machines for Making Buttons; and I do hereby declare the following, when taken in connection with accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represent a view in vertical central section through the tube and lower end of a hopper constructed in accordance with my invention.

My invention relates to an improved mechanism for feeding the paper disks used in making some kinds of buttons, the object being to provide a simple, reliable, and effective device for the purpose mentioned.

With these ends in view, my invention consists in the combination with a feed-tube, of a hopper provided at its lower end with a sleeve, the lower end of which is bored out to receive the upper end of the tube, and the upper end whereof is bored out to form a circular chamber concentric with said bore, and larger than the diameter of the tube, and opening upward into the hopper, one of the said parts being movable relative to the other to agitate the disks and cause them to enter the said chamber, and thence be discharged into the upper end of the tube.

In carrying out my invention, I use an ordinary feed-tube A, having a slot A′, extending throughout its length, and made a little larger in cross section than the diameter of the disks B, to be fed. The lower end of this tube feeds the disks into the machine, which is not shown herein. The upper end of the tube enters a bore C, formed in the lower end of a cylindrical sleeve D, attached to the lower end of the hopper E, most of which is broken away. The said bore C, in the sleeve, is just large enough to permit the sleeve to be moved up and down with the hopper on the upper end of the tube. The upper end of the tube is bored out to form a chamber F, concentric with, but larger than the bore C, of which it forms a continuation, the said chamber F, opening at its upper end into a larger, but shallower chamber G, which in turn opens into the hopper. A pin H, extending outward from the sleeve, provides means for intermittently lifting it, so as to change its relative position with respect to the upper end of the tube, whereby the disks B, which are thrown loose into the hopper and fill the chambered upper portion of the sleeve, are agitated. When the feeding mechanism is in operation, the disks will work down into the chamber F, between the walls thereof and the tube. Then when the hopper, and hence the sleeve are raised, the disks in the chamber will be raised too, and as they are raised they tip inward, and finally fall into the top of the tube, their tendency being always to tip inward, because their inner support, which is the tube, is gradually withdrawn from them by the lifting of the sleeve, while their outer support, which is in the wall of the chamber, does not change with respect to them.

I have found my improved device to be very effective and successful in use, and it is simple to make, and requires little or no attention. It may of course be used for feeding paper as well as metal disks.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

In a feeding-mechanism for machines for making buttons, the combination with a feed-tube, of a hopper provided at its lower end with a sleeve, the lower end of which is bored out to receive the upper end of the tube, and the upper end whereof is bored out to form a circular chamber concentric with the said bore, and larger than the diameter of the tube, and opening upward into the hopper, one of the said parts being movable relative to the other to agitate the disks and cause them to enter the said chamber, and thence be discharged into the upper end of the tube, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CLARENCE WOOSTER.

Witnesses:
EDWIN L. STEVENSON,
RUFUS WAKEMAN.