

C. SPOFFORD.

MACHINE FOR PASTING AND FOLDING COLLAR ENDS.
No. 171,586.

Patented Dec. 28, 1875.

Fig. 1.

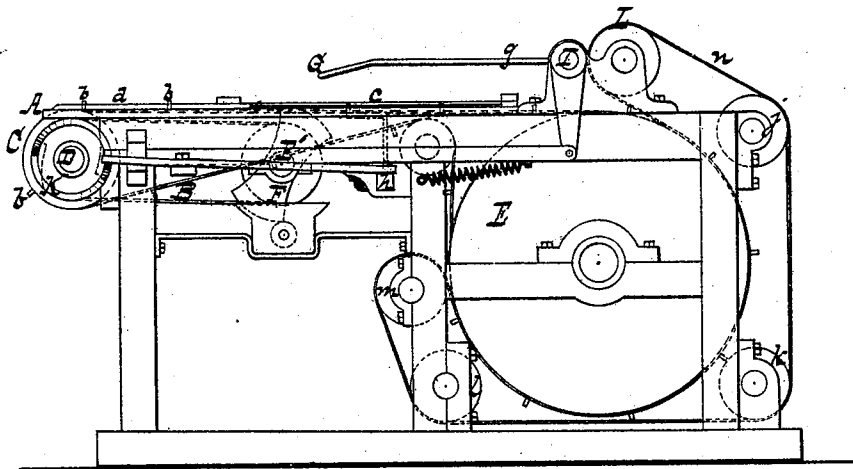
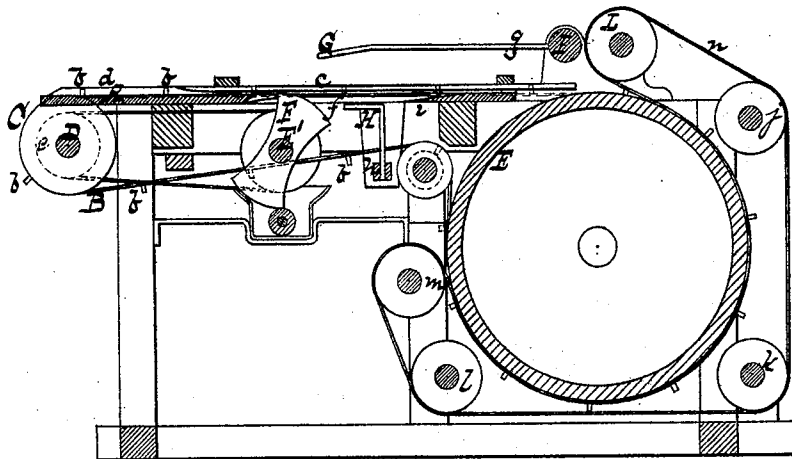


Fig. 2.



Witnesses.

Otto Stupeland
Chas. Wählers.

Inventor.

Charles Spofford

Van Santvoord & Stauff
Atty.

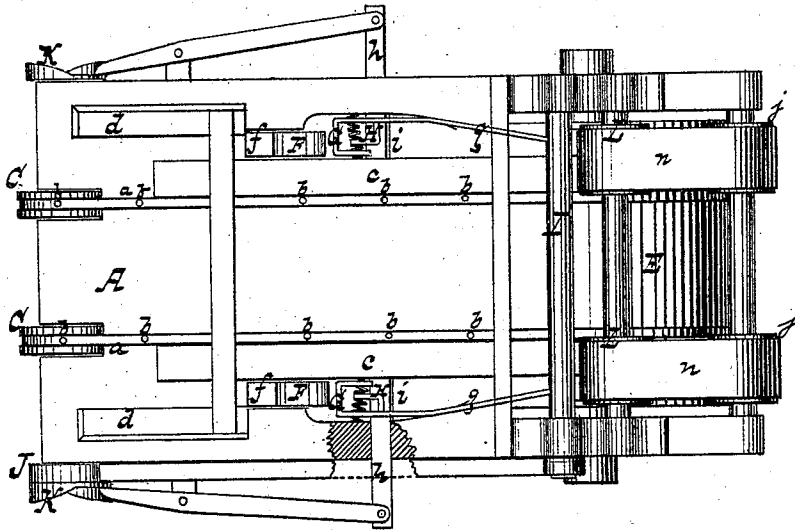
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Fig. 3.



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Van Santvoord & Hauff.
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UNITED STATES PATENT OFFICE.

CHARLES SPOFFORD, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO JAMES H. HOFFMAN, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR PASTING AND FOLDING COLLAR-ENDS.

Specification forming part of Letters Patent No. **171,586**, dated December 28, 1875; application filed November 4, 1875.

To all whom it may concern:

Be it known that I, CHARLES SPOFFORD, of Boston, in the county of Suffolk, State of Massachusetts, have invented a new and useful Improvement in Machines for Folding and Pasting the Ends of Collars and other articles, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view. Fig. 2 is a longitudinal vertical section. Fig. 3 is a plan or top view.

Similar letters indicate corresponding parts.

This invention consists in the combination, with a folding-table, a paster-roller, and one or more carrying-chains, of a reciprocating depresser and a reciprocating folder, so that a collar or other article placed on the table is carried, and its end, after having been supplied with paste on its under surface, is folded by the combined action of the depresser and folder. With the folding-table, the carrying-chains, and the folding mechanism are combined compressing-rollers and a heating-drum, so that the end or ends of the collar or other article, after having been supplied with paste and folded, are firmly compressed, and then dried, and that, after the article leaves the machine, the pasted end or ends are firmly retained in the required position.

In the drawing, the letter A designates the folding-table, which is provided with two slots, *a a*, in which work the carrying-chains B. These chains are provided with studs *b b*, projecting up above the surface of the table, and set at regular distances apart, so that when motion is imparted to the chains a collar or other article placed on the table will be carried in toward the folding mechanism. On the table are secured two guide-strips, *c c*, placed at such a distance above the surface of the table that the collars or other articles to be acted upon can pass between them and the table. Suitable gages *d d* are secured on the table near its receiving end, so that the collars or other articles can be readily brought in the proper position. The chains B are stretched over wheels C, mounted on a shaft, D, which is situated at the receiving end of the table, and over a drum, E, which is situated at the

opposite end of the table, and which is mounted on a shaft, to which a revolving motion can be imparted by any suitable power, or the driving-power may be applied to the shaft D. On this shaft at or near its middle is mounted a chain-wheel, *e*, from which motion is transmitted to a shaft, *E'*, carrying the pasting-rollers or disks F. These disks are made in the form of double segments, and the peripheries of these segments are supplied with paste from a suitable cistern in any desirable manner. Said pasting-segments F are situated beneath the apertures *f f* in the table A, and as they revolve the paste previously deposited on their peripheries is transferred to the ends of a collar or other article carried over the table by the chains B, the motion of the chains and of the pasting-segments being so timed that they co-operate in the manner above stated. After the collar or other article has passed the pasting-segments its ends are turned down by the depressers G G, and then folded inward by the folders H H. The depressers G G are secured to arms *g g*, which extend from a rock-shaft, I, that receives an oscillating motion by means of a cam, J, mounted on the shaft D. Instead of securing the depressors to a rock-shaft, however, they may be attached to a slide, which receives a rectilinear reciprocating motion. The folders H are secured to slides *h h*, which receive a reciprocating motion by cams K K, mounted on the shaft D, the motion of the depressors and folders being so timed that they do not come in conflict with each other. After the ends of the collar or other article have been folded, said ends are carried up by the chains B on the inclined planes *i i*, and as the motion of the chains proceeds the collar is carried through under the pressing-rollers L to the drying-drum E, on which the same is retained by tapes *n n*, which retain its ends in close contact with said drum until the latter has completed about three-fourths of a revolution, when the collar is deposited in a suitable receptacle placed beneath the table A. In order to effect this purpose the tapes are carried around the pressing-rollers L, and thence one strand of each tape passes partially around the heating-drum, while the other strand runs

over guide-rollers *j k l m*, until it meets the first strand.

After the collars or other articles have been discharged from my machine, as above described, they are in the proper condition to be packed up without further delay.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a machine for folding and pasting the ends of collars and other articles, the combination, with a folding-table, a paste-roller, and one or more carrying-chains, of a reciprocating depressor and a reciprocating folder, constructed and operating substantially as shown and described.

2. The combination, with a folding-table, a paste-roller, one or more carrying-chains, and a folding mechanism, of compressing-rollers, and a heating-drum, all constructed and operating substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 23d day of October, 1875.

CHAS. SPOFFORD. [L. S.]

Witnesses:

HUGO BRÜGGEMANN,
E. F. KASTENHUBER.