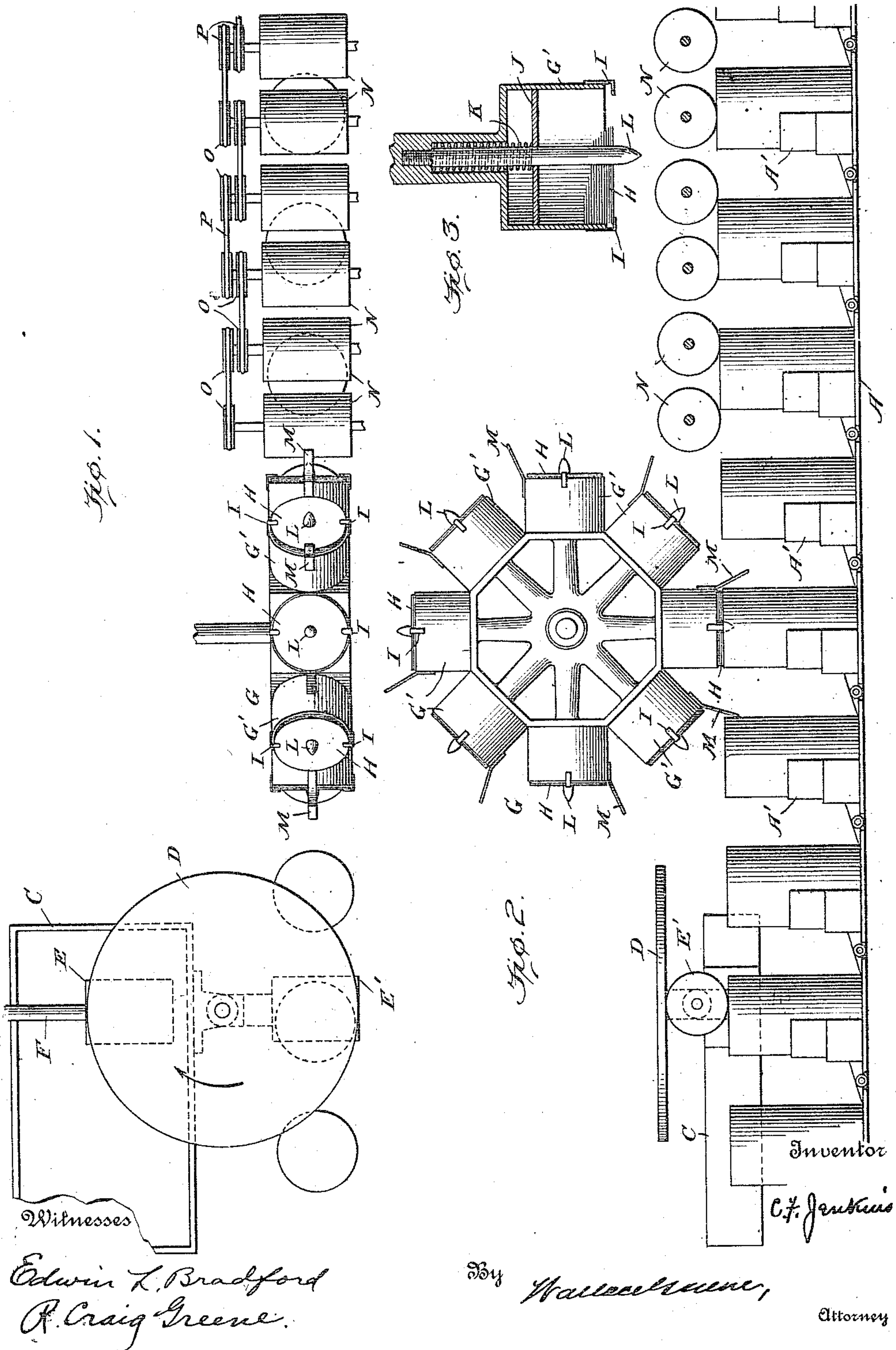


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 RECEPTACLE LABELING APPARATUS.
 APPLICATION FILED APR. 7, 1910.

985,060.

Patented Jan. 31, 1911.



UNITED STATES PATENT OFFICE.

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RECEPTACLE-LABELING APPARATUS.

983,060.

Specification of Letters Patent.

Patented Jan. 31, 1911.

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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 Receptacle-Labeling Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

The object of this invention is to provide automatic devices for securing labels upon the ends of receptacles while the latter are advanced successively, usually as one step in the operation of apparatus for automatically forming, filling, closing and labeling cylindrical receptacles without handling them during the operation. The devices may, however, be used independently of the other parts of such apparatus, or may be duplicated in such apparatus for the purpose of applying labels to both ends or sides of the receptacles.

In the embodiment of the invention chosen for illustration, the receptacles are advanced by an endless belt, glue or the like is applied to their ends while they are advancing, and each glued face, in passing beneath a label-carrying wheel, draws a label from the latter by adhesion, and then passes beneath one or more rollers which press the label down firmly and smoothly upon the receptacle. In this instance, the receptacles are identical in size, and cylindrical in form, and each label-receiving end is provided with a relatively small central filling opening, which is not covered by the label.

In the accompanying drawings, Figure 1 is a plan view of the principal part of the apparatus. Fig. 2 is a side elevation of the same devices with a certain carrier or conveyor belt added. Fig. 3 is an axial section of one of the label-carrying devices seen in the other figures.

In these views, A represents a portion of a receptacle-carrying belt without novelty, and B, B a series of receptacles advanced by the belt, the rear side of each receptacle being supported by a wing A' upon the belt. Alongside and above the plane of the belt is an adhesive receptacle C from which the adhesive is transferred to a horizontal rotary disk D extending on one side over the receptacle C and on the other side over the belt A by a roller E. From the latter side,

glue is transferred to the top of each passing receptacle B by a horizontal roller E' the diameter of which is equal to the distance between the disk and the plane of the tops of the receptacles B. The rollers and disk may be rotated solely by contact of the roller E' with the passing receptacles, or through force applied to the shaft F of the roller E. After receiving glue, the receptacles pass below a vertical wheel G, in the plane of the belt, provided with a series of radially arranged peripheral label-carrying pockets G', each consisting of a cup containing superposed annular labels H which are pressed down against very thin hooked retainers I by a follower J and a spring K coiled about a receptacle-centering rod L which has a tapered point adapted to enter the aperture in the receptacle top. The parts are so arranged that as the receptacles advance with the belt, each strikes an oblique arm M projecting from the side of the corresponding cup and thus rotates the wheel. When the receptacle is immediately below the wheel's axis, the lowermost label in the corresponding cup is pressed lightly against the sticky surface of the top, while accurately centered by the rod L, and as the belt moves on this label is drawn from the retainers. The spacing is such that when the axial line of each receptacle passes through the center of the wheel a cup registers with the receptacle. As the belt further advances the receptacle with its label, the latter is rolled down by preferably yielding rollers N which are rotated by the receptacles themselves or by pulleys O and belts P, if desired. The apparatus is extremely simple and may be operated with perfect success at a high speed until practically the entire stock of labels is exhausted from the numerous cups.

Since changes in construction may be made without passing the proper limits of the invention, it is desired to limit the broader claims only as the state of the art may require.

What I claim is:

1. The combination with means for advancing a series of spaced receptacles, of automatic means for applying glue to the tops of the advancing receptacles, means for marginally holding a mass of superposed labels, means for causing said mass to press

momentarily against one of the advancing glued tops, at intervals, to apply thereon the lowermost label of the mass, and means for pressing said label upon the top after it is so applied.

2. The combination with an endless belt arranged to travel horizontally in a vertical plane, for carrying a series of receptacles, a glue receptacle alongside the belt, a revolvably mounted horizontal disk extending over both said receptacle and belt, means for transferring glue from the receptacle to the lower face of the disk, and a roller arranged to transfer glue from the disk to the top of each receptacle carried by the belt.

3. The combination with an endless belt arranged to continuously advance a series of receptacles, of an adhesive applying device in position to apply adhesive to each receptacle passing upon the carrier, a rotary label applying device in position to apply a label to each advancing adhesive-bearing receptacle, and a roller in position to press firmly upon the advancing receptacles the labels so applied.

4. The combination with a horizontally traveling carrier adapted to advance a series

of spaced receptacles, of a wheel revolvably mounted above and in the vertical plane of the belt, a series of radial open cups fixed to the periphery of the wheel and provided with hooked retainers to hold superposed labels in the cups, respectively, springs for pressing the labels outward against the retainers, and pointed receptacle centering rods projecting axially from the cups respectively.

5. The combination with a horizontally traveling carrier adapted to advance a series of spaced receptacles, of an annular series of radially disposed label containing devices mounted to rotate together above and in the vertical plane of said carrier, and arms projecting from said devices, respectively, in position to be struck respectively by the advancing receptacles, whereby said devices are rotated step by step by the carrier acting through the spaced receptacles.

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

CHARLES FRANCIS JENKINS.

Witnesses:

JAMES L. CRAWFORD,
R. CRAIG GREENE.