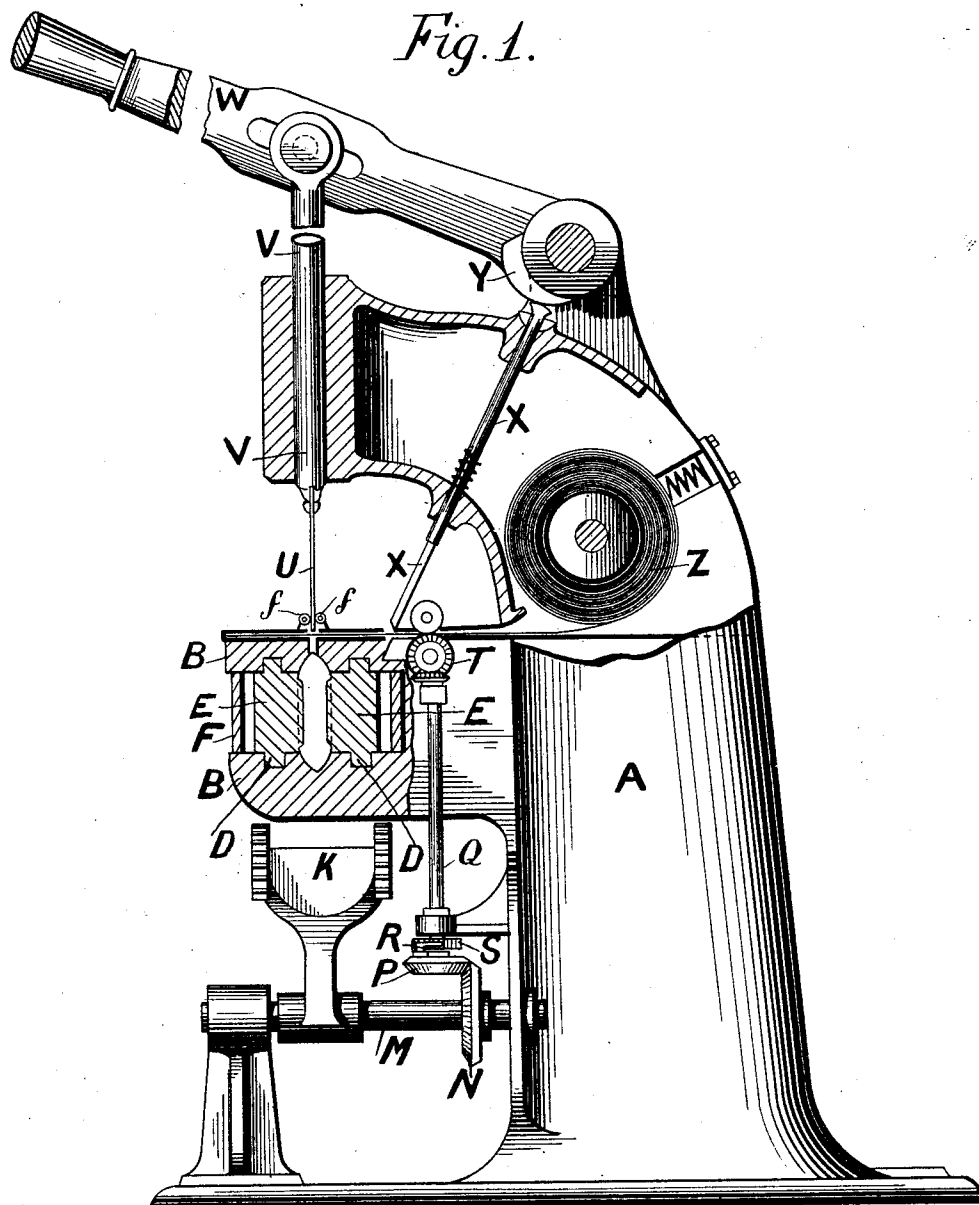


A. E. WEBB.

MACHINE FOR INSERTING LABELS IN SOAP CAKES.

No. 480,642.

Patented Aug. 9, 1892.



Witnesses:  
J. A. Rutherford  
Geo. H. Rea.

Inventor:  
Alfred E. Webb.  
By James L. Norris,  
Attorney

(No Model.)

4 Sheets—Sheet 2.

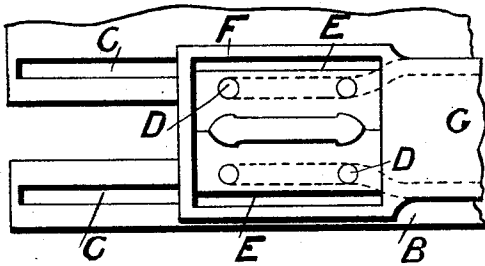
A. E. WEBB.

# MACHINE FOR INSERTING LABELS IN SOAP CAKES.

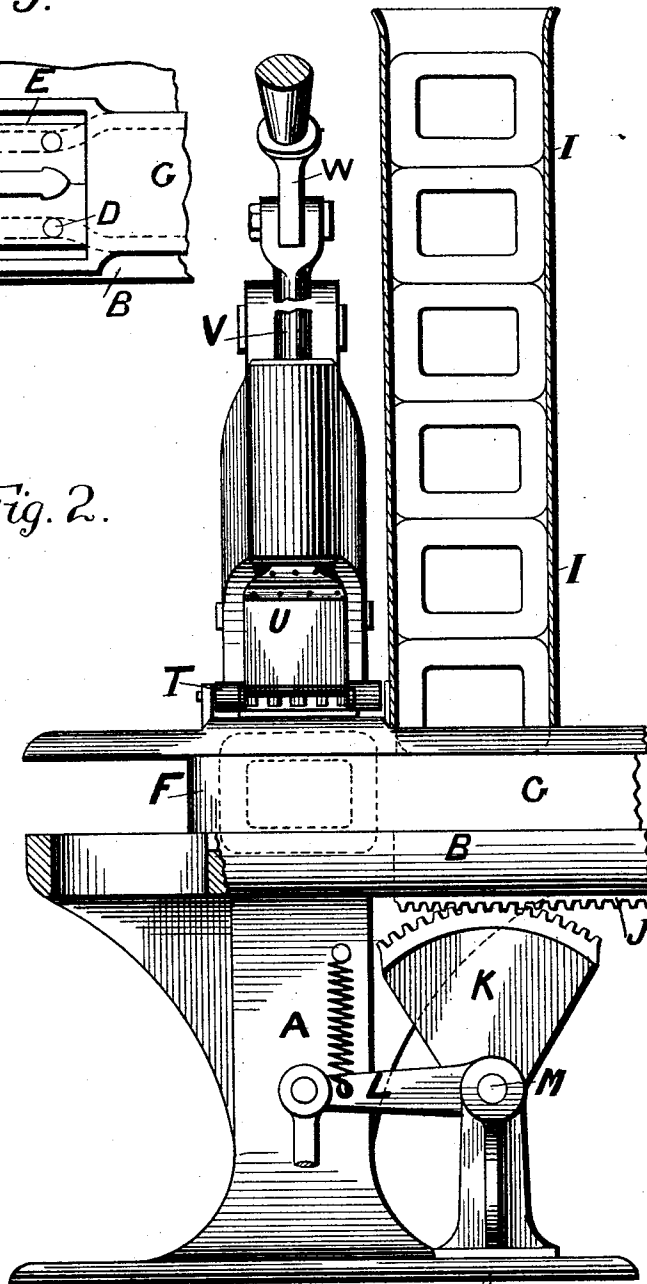
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*Fig. 3.*



*Fig. 2.*



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J. H. Rutherford.  
Geo. W. Rea.

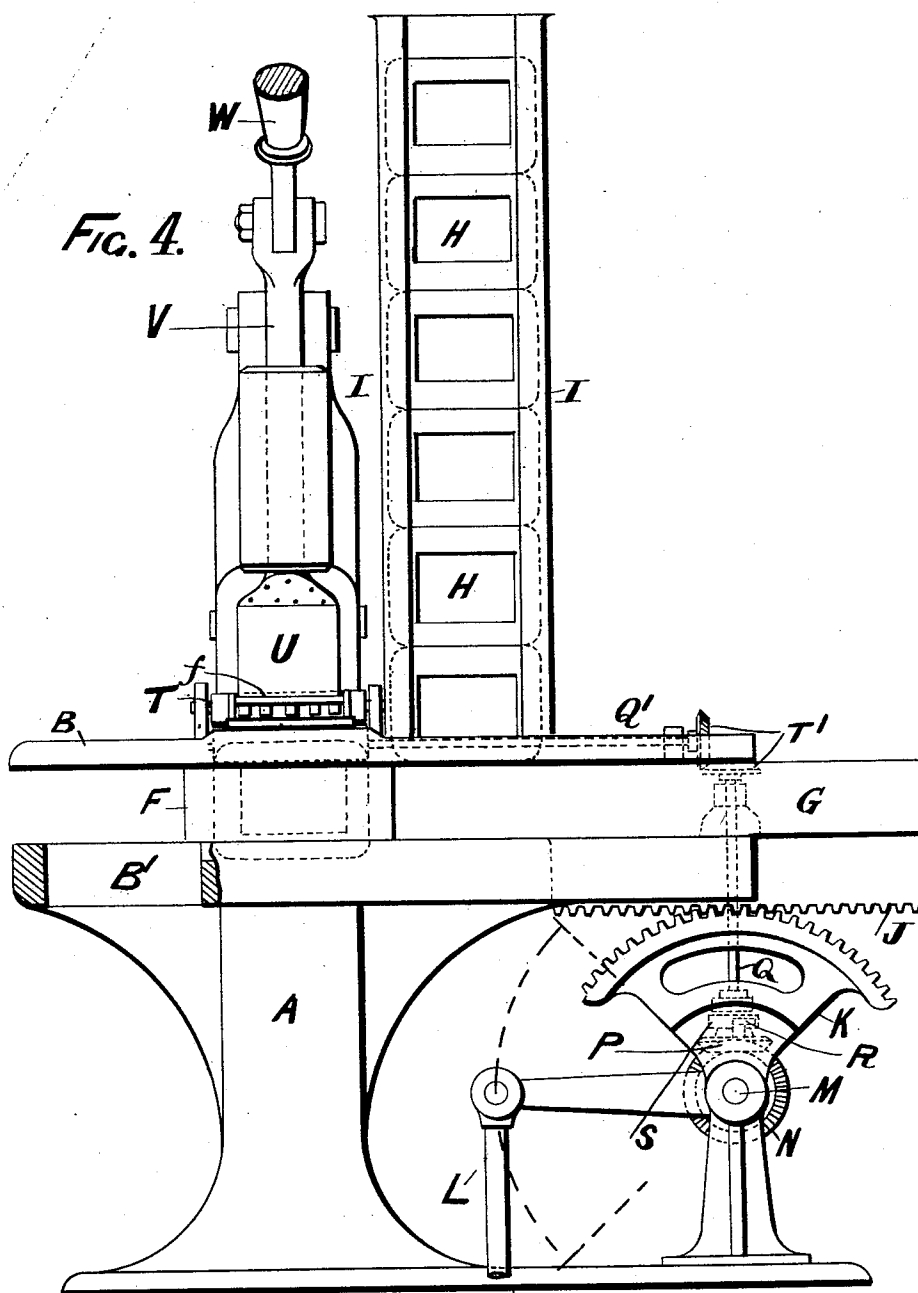
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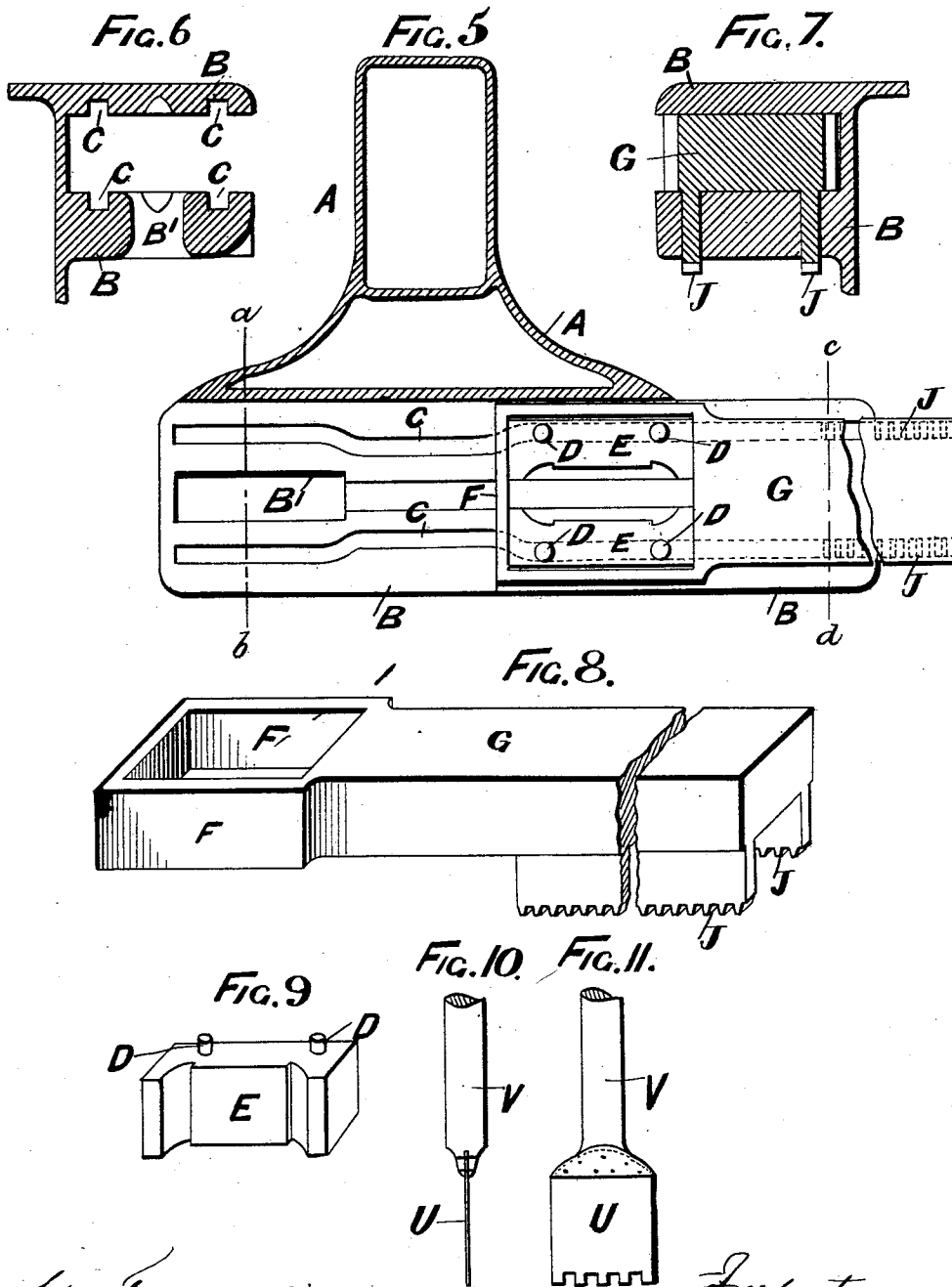
Inventor: Alfred E. Webb.  
By James H. Norris.  
Attorney

A. E. WEBB.

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Patented Aug. 9, 1892.



Witnesses:  
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R. H. Smith

Inventor:  
Alfred E. Webb  
By James H. Norris,  
Attorney.

# UNITED STATES PATENT OFFICE.

ALFRED ERNEST WEBB, OF LONDON, ENGLAND, ASSIGNOR TO THE ECONOMIC ADVERTISING COMPANY, LIMITED, OF SAME PLACE.

## MACHINE FOR INSERTING LABELS IN SOAP CAKES.

SPECIFICATION forming part of Letters Patent No. 480,642, dated August 9, 1892.

Application filed July 5, 1890. Serial No. 357,843. (No model.) Patented in England April 25, 1890, No. 6,355.

*To all whom it may concern:*

Be it known that I, ALFRED ERNEST WEBB, a subject of the Queen of Great Britain, residing at 59 Sandbrook Road, Stoke Newington, London, England, have invented certain new and useful Improvements in Machines for Inserting Labels in Soap Cakes or Tablets, (for which I have obtained Letters Patent in Great Britain, No. 6,355, dated April 25, 1890,) of which the following is a full, clear, and exact specification.

This invention has for its object to provide a new and improved machine for inserting a piece of paper or a label bearing an advertisement or other character or design into the body of a cake or tablet of soap.

To accomplish this object my invention involves the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a sectional side elevation of a machine embodying my invention. Fig. 2 is a broken front elevation. Fig. 3 is a detail plan view showing the two half-dies and the grooves in the base-plate by which the dies are moved laterally to open and close the same as they reciprocate. Fig. 4 is a sectional front elevation which more clearly illustrates the mechanism by which the reciprocating table is operated. Fig. 5 is a plan view of the table and box, showing the half-dies arranged therein. Fig. 6 is a sectional view taken on the line *a b*, Fig. 5. Fig. 7 is a similar view taken on the line *c d*, Fig. 5. Fig. 8 is a detail perspective view of the table and box within which the dies are placed. Fig. 9 is a detail perspective view of one of the half-dies. Fig. 10 is an end elevation of the presser-blade and its stem, and Fig. 11 is a front elevation of the same.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The letter A indicates a standard, and B an extension or base-plate provided with sinuous grooves C, Fig. 3, in which studs D on two half-dies E are arranged to move for opening and closing the half-dies, as required.

The dies E are held loosely in an aperture F, formed at one end of a sliding table G, which supports the column of soap cakes or tablets H on edge in a reservoir or holder I.

The table G, when moved by the quadrant K, has a reciprocating motion, and at each backward stroke the lower soap cake or tablet of the series falls from the reservoir or holder I into the space between the two dies, the dies being separated to allow the tablet to fall between them. The table when moving forward pushes the dies and tablet along and the pins D, riding in the curved grooves C, close the two half-dies toward each other, and the tablet is thus firmly held between them ready for the descent of the blade U to force the label into it, the label having been fed by the feed-rollers T and laid across the top of the dies, the strip being severed by the cutter X. The hand-lever W on being depressed forces the label downwardly from the center into the soap-tablet, so that a printed impression which is on the label appears from within the soap either from one side or from both sides, according to the printing.

The tablet G, by a movement of the quadrant K, is forced farther along, so that the two half-dies controlled by the pins D and grooves C reopen and the tablet, being free, falls through the aperture B' of the bed-plate B.

The letter J indicates racks attached to the under side of the table G and in gear with the quadrant K and capable of being actuated by a lever L, which may connect with a treadle or other operating mechanism.

The axle M, on which the quadrant K is keyed, carries a bevel-wheel N, gearing into the loose-fitting pinion P on the vertical shaft Q. This pinion P has a pawl R on its base to engage the rack-wheel S for giving motion to the paper-feed roller T by the pinions T' on the shafts Q Q', so that the paper-feed roller T is moved in one direction only, the pawl R slipping over the rack-teeth in the reverse direction, the paper then being stationary.

The presser-blade U is affixed to the rod V and is depressed by the lever W, as is also the paper-cutter X by the cam Y. The paper is carried by the reel Z.

Any tendency of the piercer-blade to cling to the soap can be prevented by glycerine or its equivalent on the rollers *f*, against which the piercer rubs, said rollers serving, also, to prevent the piercer-blade buckling if made of thin steel.

In the operation of the machine the parts are in normal position when the half-dies *E* are beneath the soap reservoir or holder *I*. In this position a soap cake or tablet will descend between the half-dies, and the lever *L* is then operated to swing the toothed quadrant *K* and slide the table *G* forward, whereupon the edges of the curved grooves *C* will act on the studs *D* to force the half-dies together at a point beneath the slot in the base-plate, through which the presser-blade *U* is adapted to move. In the movement of the quadrant *K* to slide the table *G* forward, as explained, the bevel-gear *N* operates the pinion *P* and through the pawl *R* turns the wheel *S*, thereby rotating the shaft *Q* and transmitting the feed motion to the paper-feeding roller *T* to feed a portion of the paper strip over the slot in the base-plate *B*, through which the presser-blade moves when depressed. The lever *W* is now operated to depress the presser-blade *U* and paper-cutter *X*, whereby the paper strip is severed, and the severed portion is struck about centrally between its ends and forced down into the body of the soap cake or tablet. In practice the paper must be sufficiently strong, and the edge of the presser-blade should be somewhat blunt, so that the paper will not be divided by the downstroke of the presser-blade. After the paper or label is inserted, as explained, the presser-blade is raised and the quadrant *K* is moved to further advance the table, by which means the edges of the grooves *C*, acting on the studs *D*, separate the half-dies above the opening *B'* and the soap cake or tablet falls therethrough. The motion of the quadrant is then reversed to slide the table backward, and thus place the half-dies beneath the soap receptacle or holder.

Having thus described my invention, what I claim is—

1. The combination of a reservoir or holder for soap cakes or tablets, a paper-carrier, a table having a pair of laterally-movable dies between which the soap cake or tablet is received, means for moving the half-dies toward and from each other, and a reciprocating pressing-blade for forcing the paper into the body of the soap cake or tablet while the latter is confined between the dies, substantially as described.

2. The combination of a reservoir or holder for soap cakes or tablets, a paper-carrier, a table having a pair of laterally-movable half-dies between which a soap tablet is received, mechanism for reciprocating the table, means for moving the half-dies toward and from each other as the table reciprocates, and a vertically-movable pressing-blade for forcing the paper into the body of a soap cake or tablet while the latter is confined between the half-dies, substantially as described.

3. The combination of a reservoir for holding soap cakes or tablets, a paper-carrying reel, a table having a pair of laterally-movable half-dies between which a soap cake or tablet is received, mechanism for reciprocating the table, means for moving the half-dies toward and from each other, a cutter for severing the paper to form a label, a reciprocating pressing-blade for forcing the label into the body of a soap cake or tablet while the latter is confined between the half-dies, and devices for operating the cutter and the pressing-blade, substantially as described.

In witness whereof I have hereto signed my name, in the presence of two subscribing witnesses, this 11th day of June, 1890.

ALFRED ERNEST WEBB.

Witnesses:

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RICHARD CORE GARDNER,

166 *Fleet Street, London, England.*