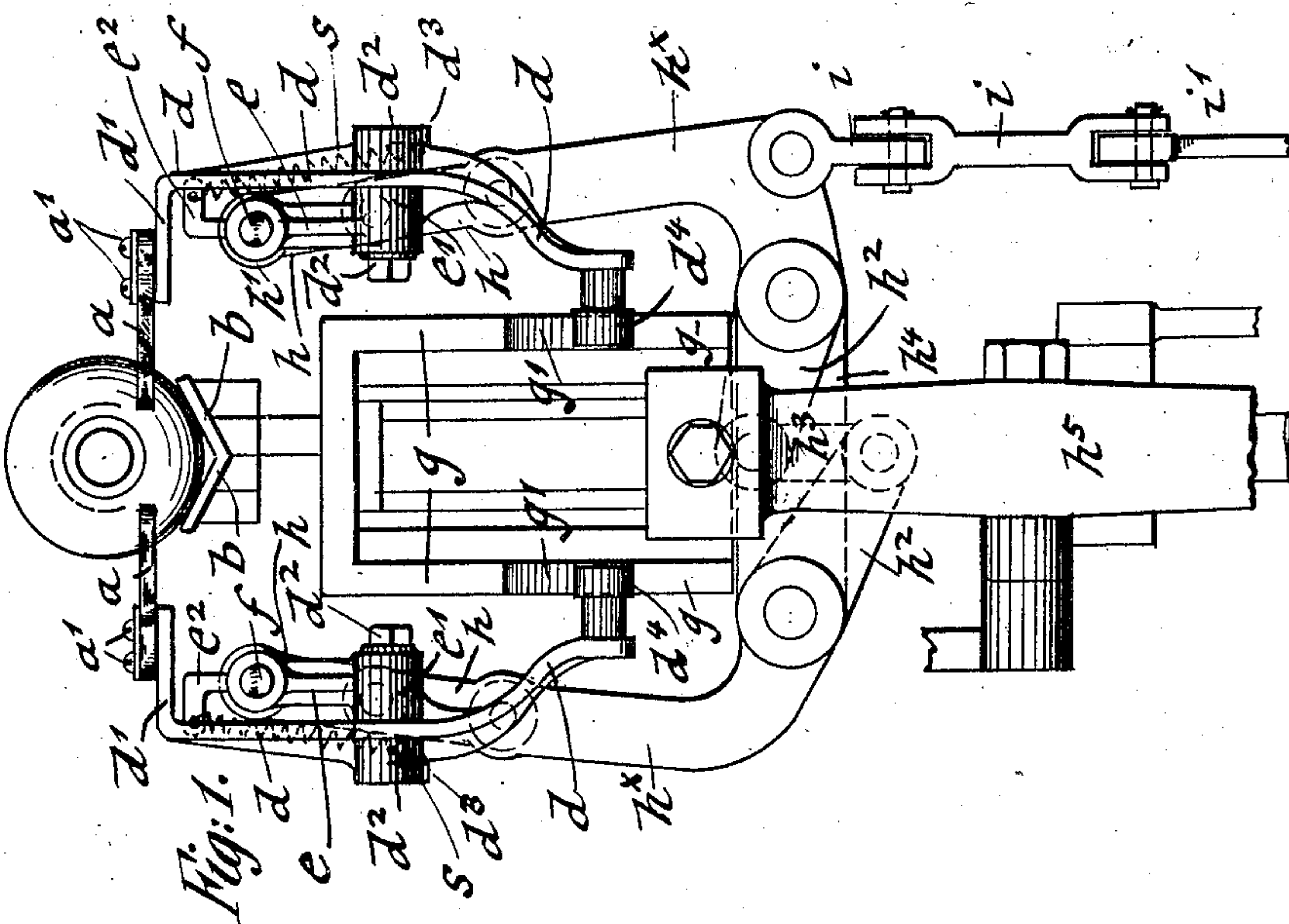


WIPER ATTACHMENT FOR BOTTLE LABELING MACHINES.

Patented Jan. 18, 1910.

946,996.



Witnesses:
S. Drucker
H. M. Patrick

Inventor
Edward Arnold
By his Attorneys
James L. Forster.

UNITED STATES PATENT OFFICE.

EDWARD ERMOLD, OF NEW YORK, N. Y.

WIPER ATTACHMENT FOR BOTTLE-LABELING MACHINES.

946,996.

Specification of Letters Patent.

Patented Jan. 18, 1910.

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To all whom it may concern:

Be it known that I, EDWARD ERMOLD, a citizen of the United States of America, residing in New York, in the borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Wiper Attachments for Bottle-Labeling Machines, of which the following is a specification.

This invention relates to an improved attachment for bottle-labeling machines by which the neck-labels can be applied around the necks of bottles in a forwardly or backwardly slanting position, the attachment being more specifically designed for use with the bottle-labeling machine for which Letters Patent were granted to me on June 1, 1909, No. 923,501, so that the neck-labels can be wiped onto the necks of the bottles at any desired angle of inclination to the longitudinal axis of the bottles in a very effective and reliable manner; and for this purpose the invention consists of a neck-label wiper attachment for bottle-labeling machines which comprises a pair of neck-label wipers, levers provided with inwardly-projecting holders at their upper ends for supporting the wipers, said wiper-levers being fulcrumed to the lower ends of hanger-arms supported on the forwardly-extending pivots of the body-label wipers, means for imparting vertically reciprocating motion to the body and neck label-wipers, means for imparting laterally oscillating motion to the same, stationary cams having inclined faces for engaging antifriction rollers at the lower ends of the fulcrumed forwardly and backwardly swinging neck-label wiper-levers, and springs for holding the antifriction rollers of said wiper-levers in contact with said cam-faces.

The invention consists further of certain details of construction and combinations of parts which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a front-elevation of my improved neck-label wiper attachment for bottle-labeling machines, Fig. 2 is a side-elevation of the same, and Fig. 3 represents a side-elevation of a bottle showing the position of the neck-label placed in a slanting position on the neck of the same.

Similar letters of reference indicate corresponding parts throughout the several views. Referring to the drawings, *b* represents

the stationary bottle-rest of a bottle-labeling machine. The bottle-rest is provided at its rear-end with a stop *b*¹ against which the bottom of the bottle abuts when the bottle is placed in position on the bottle-rest.

a a are the neck-label wipers, which are made of rubber or other elastic material and of the usual shape. They are attached at their outer ends by screws *a*¹ to the inwardly-bent upper ends or holders *d*¹ of two wiper-levers *d*, which are fulcrumed by pivots *d*² sidewise to sleeves *e*¹ at the lower ends of short hanger-arms *e* that are pivoted at their upper ends to the forwardly-extended ends of the pivots *f* of the body-label wipers *w*, as shown in Fig. 1. To the upper parts of the hanger-arms *e* are applied angular lugs *e*² which are connected by helical springs *s* with crank-arms *d*³ applied to the hubs of the wiper-levers *d* so as to move their lower ends in backward position under the influence of the springs. The lower ends of the wiper-levers *d* are provided with antifriction rollers *d*⁴ which move over the inclined faces *g*¹ of stationary cams *g* that are attached to the supporting frame of the bottle-labeling machine. The pivots to which the body-label wipers as well as the supporting arms *e* of the neck-label wipers are applied, are supported in the upper sleeve-shaped ends *h*¹ of levers *h* which are connected at their lower ends with elbow-levers *h*^x which are fulcrumed at the lower ends to a transverse piece *h*⁴ at the upper end of a vertically-guided sleeve *h*⁵, to which vertically reciprocating motion is imparted by a cam-lever *h*⁶ from the cam-shaft of the bottle-labeling machine before referred to. The lower ends of the elbow-levers *h*^x are connected with each other by inwardly-extending arms *h*² and a pivot-link *h*³. One of the elbow-levers *h*^x is connected at the apex of its angular portion by a pivot-link connection *i* with a second cam-lever *i*¹ by which oscillating motion in outward direction is imparted at the proper time to the body and neck label-wiper actuating mechanism, so that they can pass clear of the bottle during their upward motion to be ready for the next wiping of the labels by the descending motion of the body and neck label-wipers and their supporting and actuating mechanisms.

The lower ends of the wiper-supporting levers *d* are curved inwardly toward each other and carry at their lower ends the roll-

ers d^4 which pass over the stationary cam-faces g, g^1 . The cam-faces impart a backwardly-sweeping motion to the neck-label wipers, as shown by the arrows in Fig. 2, so as to place the neck-labels in a downwardly-slanting position on the necks of the bottles. The oscillating motion imparted by the cam-faces to the neck-label wiper-supporting levers is imparted simultaneously with the downward motion of the neck-label wipers imparted to them with the vertically reciprocating motion by the body and neck label-supporting mechanism, while the lateral motion is imparted to the wiper-supporting mechanisms by the mechanism connected with one of the laterally oscillating elbow-levers h^x , which motion is transmitted by the pivot connection i to the cam-lever i^1 . The joint action of the cam-controlled neck-label wipers and the vertically reciprocating supporting mechanism produces the wiping of the label in downwardly-inclined or slanting position on the neck of the bottle, which is specially required for bottles having necks tapering from the bottle-mouth toward the body of the bottle. In case an upwardly-inclined slant of the neck-label is required, the cam-faces g^1 and cams g are reversed, so that, instead of a backward motion, a forward motion is imparted to the neck-label wipers, where the neck-labels are wiped on the bottle-necks with a reverse inclination or upward slant relatively to the axis of the bottles.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a bottle-labeling machine, the combination of neck-label wipers, oscillating and spring-actuated wiper-holding levers adapted to oscillate in a vertical plane, hanger-arms to which said wiper-levers are fulcrumed, stationary cams having inclined cam-faces engaging the lower ends of the wiper-levers and moving the upper ends of

the same in backward direction and the wipers in slanting direction over the neck-label on the bottle-neck, and means for moving said hanger-arms up and down and toward and away from each other.

2. In a bottle-labeling machine, the combination of a bottle-rest, neck-label wipers, oscillating and spring-actuated levers supporting said neck-label wipers, stationary cam-faces engaging the lower ends of said neck-label wiper-levers, supporting arms applied to the forwardly-extending pivots of the body-label wipers and fulcrumed to the oscillating wiper-levers, elbow-levers supporting the pivots of the body and neck label-wipers, means for imparting vertically reciprocating motion to said elbow-levers, and means for imparting laterally oscillating motion to the same.

3. In a bottle-labeling machine, the combination, with a stationary bottle-rest, of neck-label wipers, fulcrumed and spring-actuated levers provided with inwardly-bent upper ends or holders for the neck-label wipers and with antifriction rollers at the inwardly-curved lower ends of the same, stationary cams having straight and inclined cam-faces for said levers, hanger-arms applied to the forwardly-extended pivots of the body-label wipers, a pivot connection between the lower ends of said hanger-arms and the neck-label wiper-levers, said levers being pivoted to the hanger-arms sidewise of and parallel with the axis of the bottle, means for imparting vertically reciprocating motion to the body and neck label-wipers, and means for imparting laterally oscillating motion to the same.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

EDWARD ERMOLD.

Witnesses:

PAUL GOEPEL,
SEYMOUR DRUCKER.