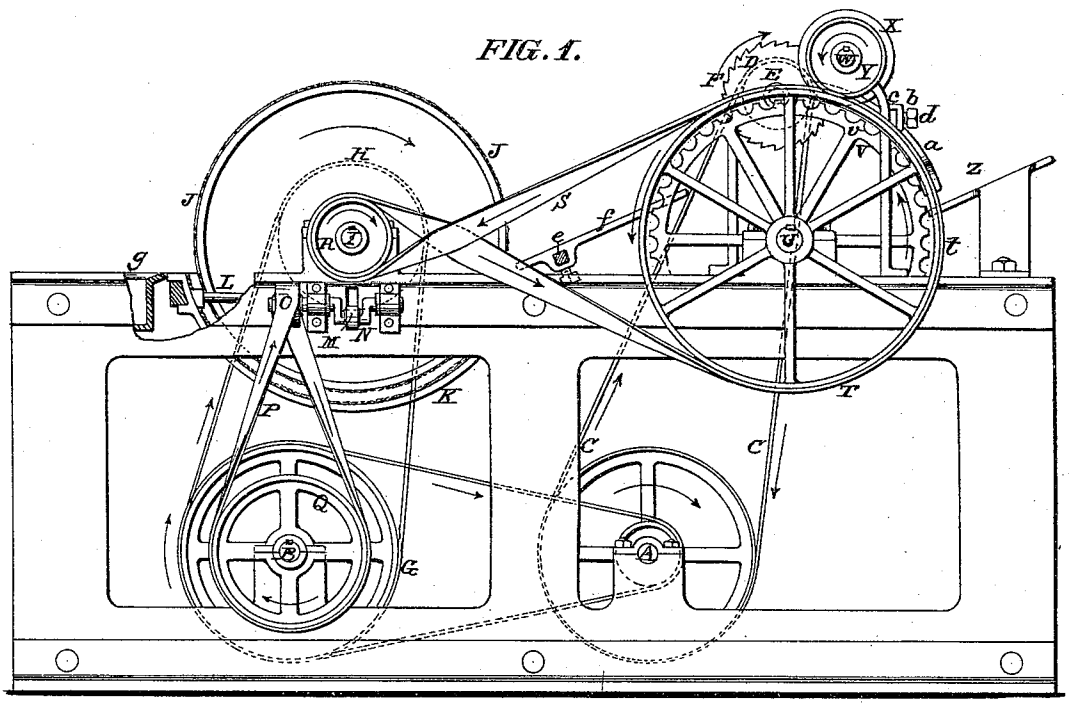
2 Sheets—Sheet 1.

C. F. HALL.

CANDLE BUTTING AND POLISHING MACHINE.

No. 175,696. Patented April 4, 1876.

FIG. 1.



ATTEST:

Robert Burns
Harold Hutchins

INVENTOR:

Charles F. Hall
By Knight Bros.
Attys.

2 Sheets—Sheet 2.

C. F. HALL.

CANDLE BUTTING AND POLISHING MACHINE.

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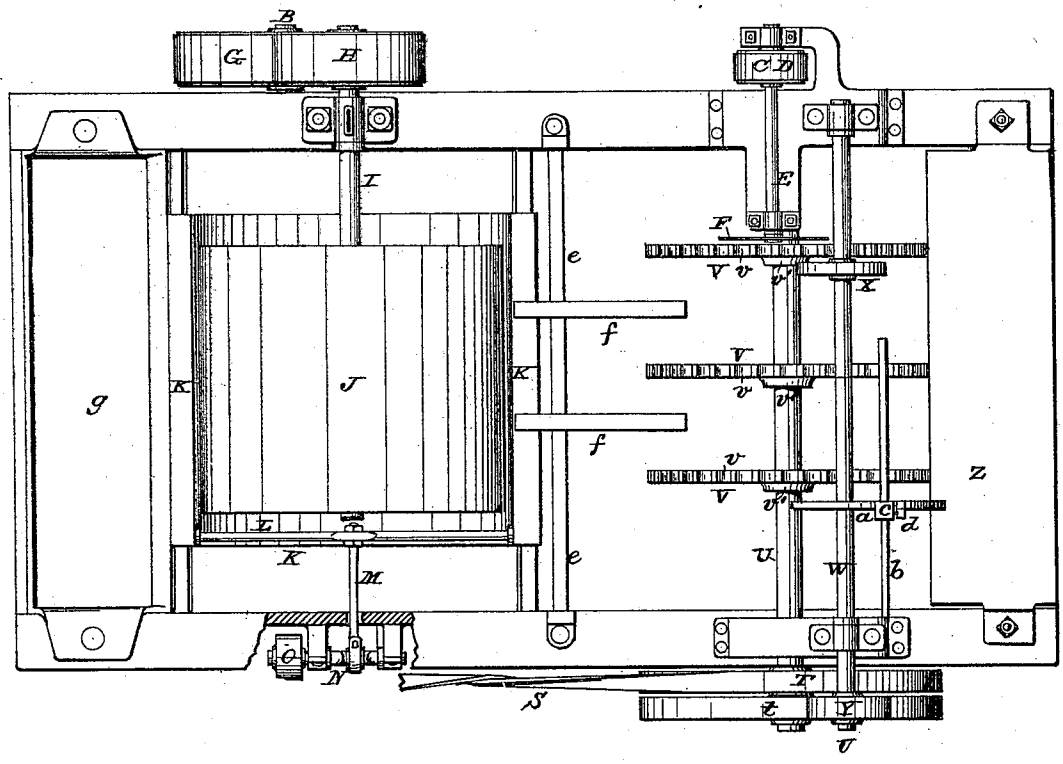
FIG. 2.



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UNITED STATES PATENT OFFICE.

CHARLES F. HALL, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN CANDLE BUTTING AND POLISHING MACHINES.

Specification forming part of Letters Patent No. **175,696**, dated April 4, 1876; application filed January 11, 1876.

To all whom it may concern:

Be it known that I, CHARLES F. HALL, of the city and county of St. Louis, in the State of Missouri, have invented a new and useful Improvement in Machines for Butting and Polishing Candles, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

My improvement consists in a machine into which the candles are placed, one by one, when fresh from the molds, and by which they are first butted off to the exact length by a circular saw or rotating cutter, and then are rolled between a rotating drum and reciprocating concave or trough, which is lined with cloth, the drum also being covered with the same material.

Figure 1 is a side view of the machine. Fig. 2 is a top view of the machine.

A and B are counter-shafts, by connection with which the different parts of the machine receive motion. These counter-shafts may be located above or beneath the floor, and may both receive motion from the same line-shaft.

The shaft A has a pulley, with a belt, C, passing around the pulley D upon the saw-spindle E. The saw or cutter F is for the purpose of cutting off the rough butts of the candles and reducing them to a uniform length.

The shaft B carries a pulley, G, on which is a belt passing over a pulley, H, on the drum-shaft I. The drum J is cylindrical, and its circumference is covered with cloth. Beneath the drum is a trough, K, concentric therewith, and lined with cloth. The trough has endwise reciprocation by connection with a crank, N, connection being made by means of a rod, M, whose end is strapped to a cross-bar, L, of the trough. The shaft of crank N has rotation by a belt, P, passing over a pulley, O, upon it, and beneath a pulley, Q, on the shaft B.

The drum-shaft carries a pulley, R, having belt-connections S with a pulley, T, upon the shaft U. The shaft U has a number of disks, V, whose peripheries have rounded notches *v*, into which the candles are laid. These disks are made adjustable on the shaft U by sliding, and set, by means of set-screws *v'*, to suit any required length of candle.

Over the shaft U is a shaft, W, carrying a pulley, X, whose periphery bears upon the top of the candle when under the action of the cutter F. This shaft W receives rotation by a friction-pulley, Y, which is in contact with the friction-surface *t* of pulley T.

Z is an inclined table, upon which the candles are laid, with their top ends in contact with the guide *a*. The inclination of the table rolls the candles down to the periphery of the disks V, when the candles are lifted, one at a time, by the notches *v* and carried around, with their butt ends to the cutter F.

The guide *a* is adjustable on its supporting-bar *b*, so as to suit the different lengths of candles. The adjustment is made by sliding the collar *c* in the bar *b*. The guide is fixed to its adjustment by a set-screw, *d*.

e is a bar, carrying a number of adjustable inclined fingers, *f*, by which the candles are taken from the notches *v*, and down which they roll to the trough K.

The candles are carried to the other side of the trough by the rotation of the drum and dropped into the receiver *g*. The candles are polished in passing between the drum and trough.

I claim—

1. The combination of the clothed drum J and lined trough K, having the described reciprocating motion, substantially as and for the purpose set forth.

2. The combination of notched disks V and rotary cutter F, substantially as and for the purpose set forth.

3. In combination with the notched disks V, and trough and drum J K, the inclined fingers *f*, substantially as and for the purpose set forth.

4. The combination of guide *a*, feed-table Z, rotating notched disks V, pressure roller or pulley X, fingers *f*, rotating drum J, and reciprocating trough K, substantially as and for the purpose set forth.

CHAS. F. HALL.

Witnesses:
SAML. KNIGHT,
ROBERT BURNS.