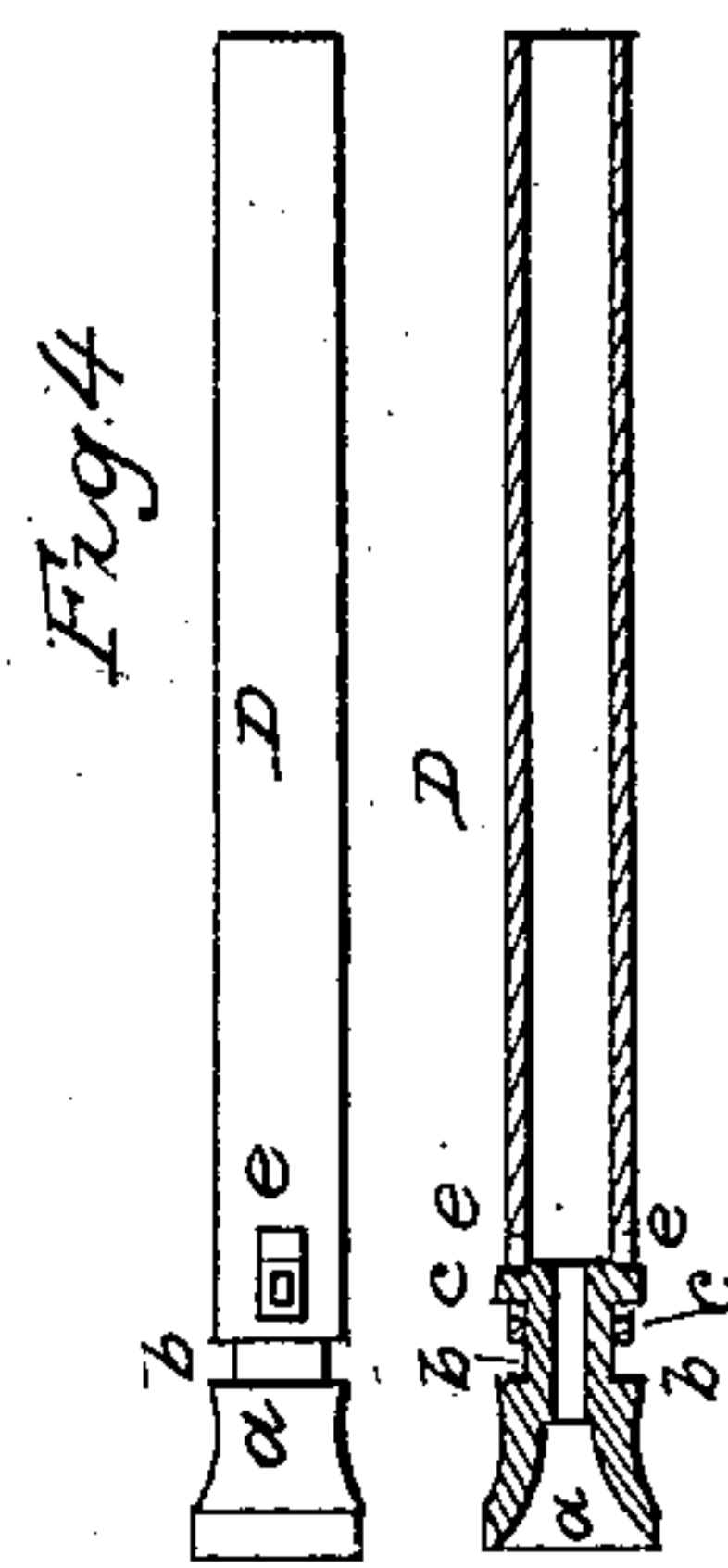
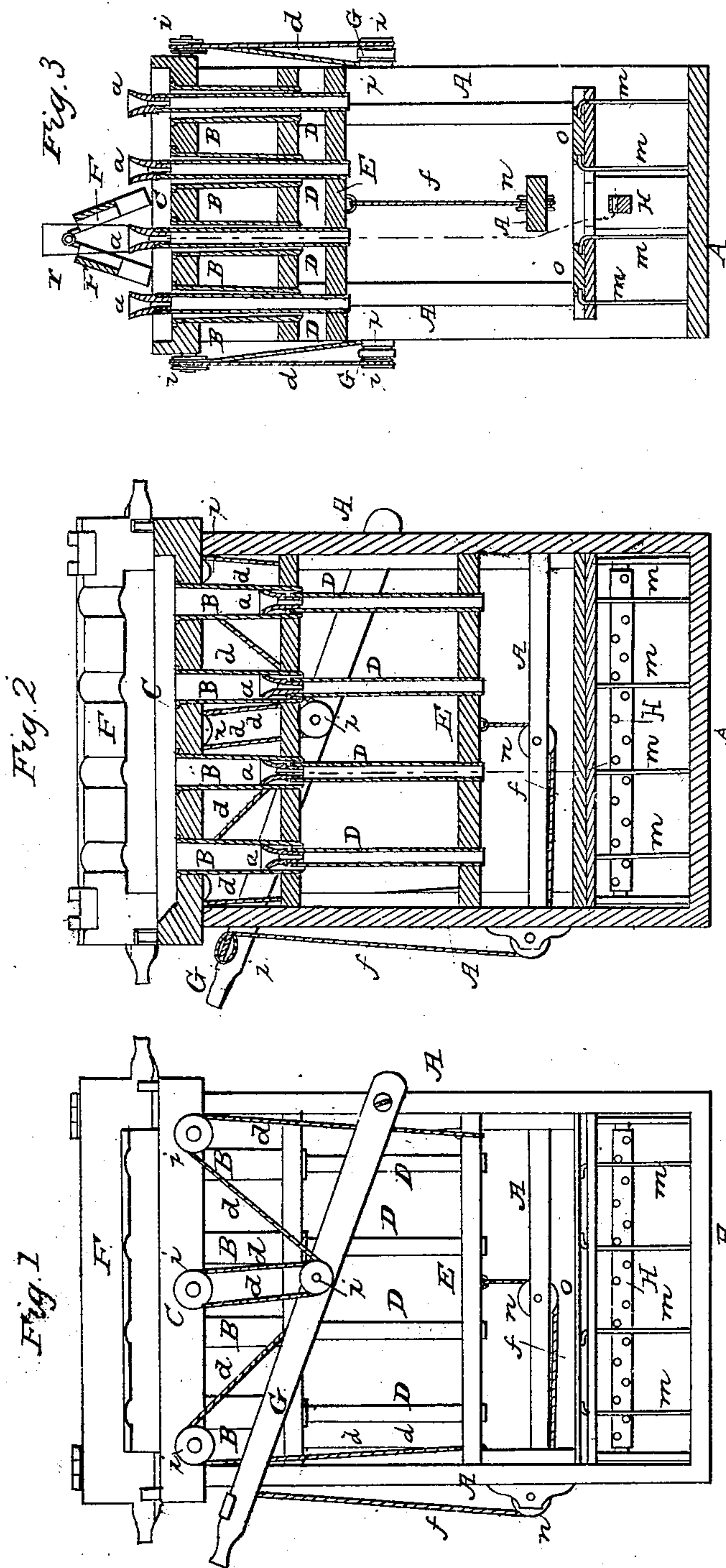


W. HUMISTON.
Candle Machine.

No. 13,334.

Patented July 24, 1855.



UNITED STATES PATENT OFFICE.

WILLIS HUMISTON, OF TROY, NEW YORK.

CANDLE-MOLD APPARATUS.

Specification forming part of Letters Patent No. 13,334, dated July 24, 1855; Reissued January 22, 1861, No. 1,131.

To all whom it may concern:

Be it known that I, WILLIS HUMISTON, of Troy, in the county of Rensselaer and State of New York, have invented certain new and
5 useful Improvements in Candle-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying
10 drawings, making a part thereof, in which—

Figure 1, represents a side view of the machine. Fig. 2, represents a vertical longitudinal section taken through one of the tiers of molds. Fig. 3, represents a vertical
15 transverse section taken also through the transverse tier of molds, and Fig. 4, represents one of the molds in full, and one cut through the center, on an enlarged scale.

Similar letters in the several figures denote like parts.

20 The nature of my invention relates to certain improvements upon that class of candle machines wherein pistons are used to force the candles from the molds.

To enable others skilled in the art to make
25 and use my invention, I will proceed to describe the same with reference to the drawings.

A, represents the frame of the machine, upon the top of which is placed, a trough or
30 reservoir C for catching the excess of tallow or other material out of which the candles are made, after the molds are filled.

B, are the candle molds the butts of which are secured to the bottom of the trough C,
35 and their points project downward a distance corresponding to the length of the candles to be made in them.

D, are a series of hollow pistons, arranged in a sliding frame E, said pistons being provided with loose tops *a* made to receive the
40 tips of the candles. The loose tops *a* (better seen in Fig. 4,) slide within the hollow pistons a short distance, and have upon their opposite sides lugs *c c*, which project through
45 slots *e, e*, cut in the pistons, so that by means of said lugs and slots, or the shoulder *b*, on said loose tops, they have a limited play, but cannot be drawn from, or leave the pistons.

The object of this device is to facilitate the
50 forcing of the candles from the molds, which requires a sudden start to loosen them, and which, in the trade, is called "popping." It is not the force so much as the suddenness of it that starts out the candles, it requiring
55 something like a hammer blow to accom-

plish it. These movable tops never leave or pass below the lower ends of the molds, and form therein the rest for the tip of the candle. When the candles are molded their tips rest in these loose tops *a*, and when the can-
60 dles are to be forced out, the pistons are let down, while the tops *a* remain in contact with the candle—the lugs and slots admitting of this movement; this allows the pistons play enough to be brought up suddenly, 65 which starts out the candles.

When the candles are raised up above the molds they pass between clamps F, suitably arranged on top of the trough, and these
70 clamps, operated by hand, or by the treadle or lever which operates the pistons, instead of as is usually the case catching the wicks, which brings them so near the mold as to obstruct the next pouring, seize the candles
75 themselves and hold them until the succeeding pouring is ready to be forced up, when the wicks are cut and clamp candles and all removed, and replaced by another. This
80 holds the formed candle directly over the mold until it is ready to be removed, when the wicks may be simultaneously cut by a sliding or swinging knife in a manner well known. The centering apparatus for the
85 wicks may be of the kind represented in my former patent.

I am aware that the candles forced from the molds have been supported in hinged supports, which with the candles were first
90 turned down horizontally, and a bar slipped or turned under the tips of the candles, and then the whole turned up again, thus requiring several manipulations, and frequently breaking the tips, or the candles
95 themselves, by bending the tips over the tops of the pistons in which they rest. My arrangement is more simple, requires less labor, and cannot break the tips.

G, G, are levers to which cords *d, f*, passing over pulleys *i, n*, are connected by one of their ends, the other ends being respectively
100 connected to the top and bottom of the frame carrying the pistons, so as to raise or lower it at pleasure.

m, are the spindles on which the balls of wick are placed their ends being bent and
105 turned under a board *o*, to keep them in place.

H, is the wick stretcher, through holes in which the wick passes, and thence up
110 through the hollow pistons, as seen in red

lines Figs. 2, 3, and thence through the molds.

The clamps F, are hinged at their tops, and stand over the molds as seen in Fig. 3, the red lines *r*, representing a candle in them.

Having thus fully described the nature of my invention, I would state that I am fully aware that, pistons have been used in connection with candle molds, for the purpose of forcing out the molded candles. This I do not claim, but

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

1. Making the top of the piston in which the tip of the candle rests, movable on the piston, so that it may remain in contact with the candle, while the piston is slightly de-

pressed or lowered, to bring it up with a sudden blow, to start the candles from the molds, substantially as set forth.

2. I also claim in contradistinction from clamping the wicks, or from a tip bar, or supporter, the clamping of the candles themselves, in the position in which they are forced from the molds, and thus holding them until ready to be removed, by which means I retain greater facilities for pouring into, or filling the molds, and avoid the danger of breaking the candles or their tips, substantially as described.

WILLIS HUMISTON.

Witnesses:

A. B. STOUGHTON,
THOMAS UPPERMAN.

[FIRST PRINTED 1912.]