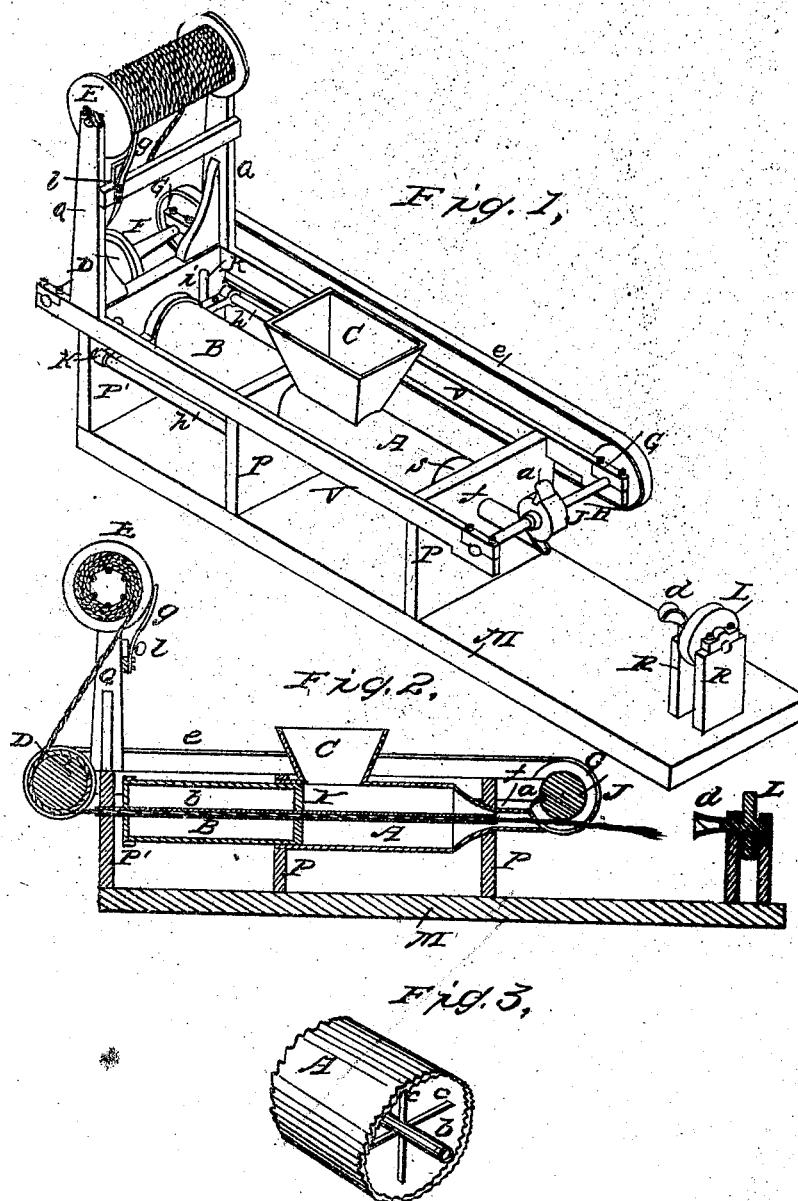


B. F. SHELABARGER.

Candle Mold.

No. 5,139.

Patented June 5, 1847.



# UNITED STATES PATENT OFFICE.

B. F. SHELABARGER, OF MIFFLINTOWN, PENNSYLVANIA.

## MAKING CANDLES

Specification of Letters Patent No. 5,139, dated June 5, 1847.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. SHELABARGER, of Mifflintown, in the county of Juniata and State of Pennsylvania, have invented a new and Improved Machine for Molding Candles of Tallow, Sperin, or other Substances While in a Cold State; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a perspective view, Fig. 2, is a vertical longitudinal section, and Fig. 3, is a perspective view of a detached portion of the machine.

Similar letters refer to corresponding parts in all the figures.

M, is a platform, and P, P, P', are standards rising from the same, supporting the respective parts of the machine.

A, is a cylinder in which the tallow or other suitable substance is placed preparatory to molding; K, is a piston working in the cylinder A, attached to the end of the hollow cylinder B. The outer or front end of the cylinder B, is supported by, and slides upon the ways or guiding rods *h, h*, being connected to the same by the projecting arms *h, h*, as represented. The rear end of the cylinder A, terminates in a hollow cone *s*, to which the molding tube *f*, is connected; *b*, is a small tube for conducting wicking to the candle while forming in the molding tube *f*. The tube *b*, has its front end made fast in the front standard P', and extends to the rear, through the center of the cylinder B, the piston K, and the cylinder A; terminating at the point where the molding tube *f*, joins the hollow cone *s*, where its rear end is stayed by the arms *c, c, c, c*, in such a position as to form an annular space between the same, and the molding tube *f*.

The wicking is wound upon a reel E, supported by the standards Q, Q, rising from the front end of the machine; *g*, is an adjustable brake for retarding the motion of the reel E; the wicking is carried from the reel E, to a grooved pulley D, placed below the same, around which it is given one or two turns and is then passed through the tube *b*. The pulley D, is placed on the center of the shaft F, which has its bearings in

the front ends of the side rails V, V. The shaft F, has a pulley G', attached to one of its ends, which is connected by a band *e*, with the pulley G, on the shaft H, which has its bearings in the rear ends of the side rails V, V. To the center of the shaft H, there is secured a wheel J, to the periphery of which there is attached a curved cutter *a*, for cutting off the candles to a suitable length. R, R, are standards rising from the rear end of the platform M, supporting the axle of the pulley L. *d*, is a conical spiral cutter, attached to the front end of the axle of the pulley L, for tipping and pointing the candles, as it is revolved. The form of the cutter *d*, is shown in Fig. 1, more distinctly.

The operation of my improved candle molding machine, is as follows: The tallow, sperin, or other suitable material, is in the first place cut into thin slices, by a plane, or other suitable cutting instrument, for the purpose of rendering the candles uniform in hardness and in their appearance; it is placed in the cylinder A; motion is then imparted to the conical cutter *d*, and to the piston K; the movement of the piston condenses the tallow in the hollow cone *s*, and forces it into the molding tube *f*; as the tallow enters the molding tube, it unites around the cord of wicking and forms the candle in the molding tube. The forward movement of the wicking as the candle is formed and passes out of the molding tube, imparts motion to the pulley D, and thereby to the pulley G', and the shaft H.

The length of the candles are regulated by the size of the wheel J, and the number of cutters placed upon the same. The candle as it emerges from the tube *f*, passes to the conical cutter *d*, directed by suitable guides if necessary. The cutter *a*, is so arranged that it acts upon the candle immediately after its point has been formed by the conical cutter *d*. The force required for cutting off the candle is exerted by the candle itself in being forced against the cutter, causing it to pass through the same as the wheel J, revolves. The strength of the wicking being merely sufficient to impart motion to the axles F, and H, and thereby to bring the cutter *a* to its proper position for acting on the candle, at the moment its tip has been finished by the cutter *d*.

The candles as they are pointed and cut off, may be removed from the machine by an endless apron or other suitable mechanical device, at the option of the person using the machine.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The manner in which I form the candles, point them, and cut them to a suitable length at one operation, by means of the cylinder A, piston K, wick tube b, molding tube f, grooved pulley D, axles F, and H, connecting band e, the cutter wheel J, curved cutter a, and conical spiral cutter d, com-

bined and operating with each other substantially as herein set forth.

2. I also claim the manner of preparing the tallow or other suitable material for molding in a cold state, by cutting it into thin slices, (previous to placing it in the cylinder A,) for the purpose of giving equal solidity to the candles, and uniformity of appearance.

BENJAMIN F. SHELABARGER.

Witnesses:

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