W. HUMISTON.

Candle Mold.

No. 10,730. Patented April 4, 1854.

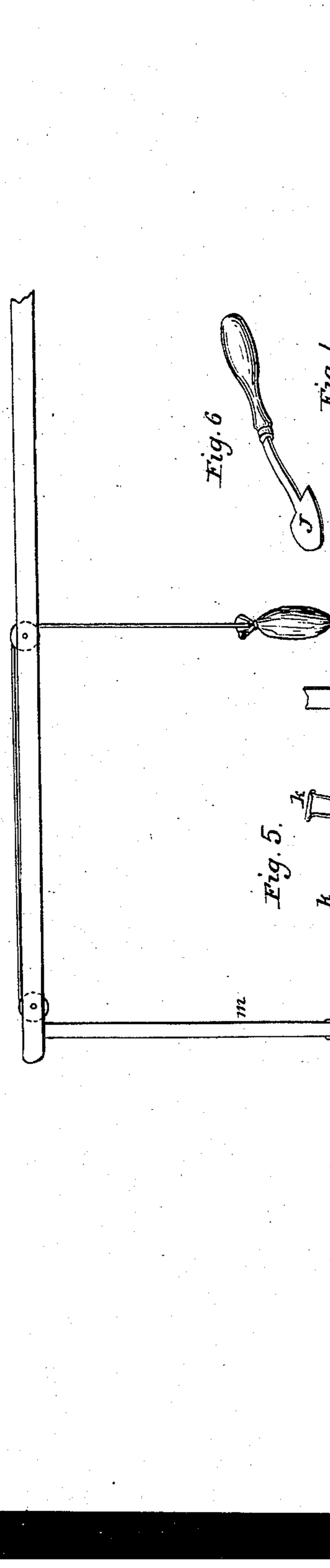

Fig. 6

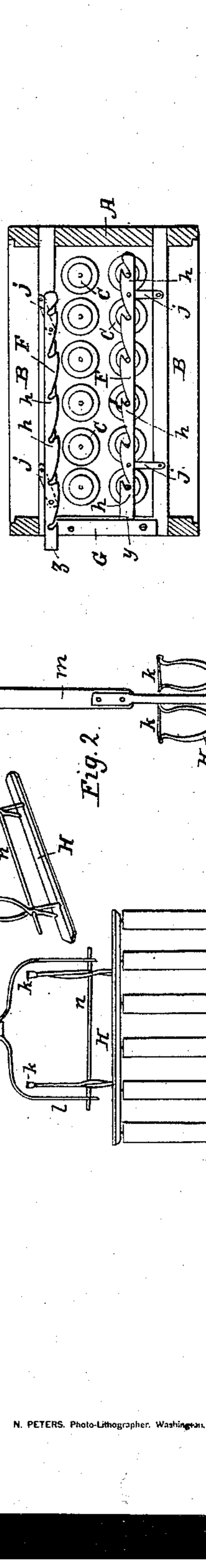

Fig. 4.

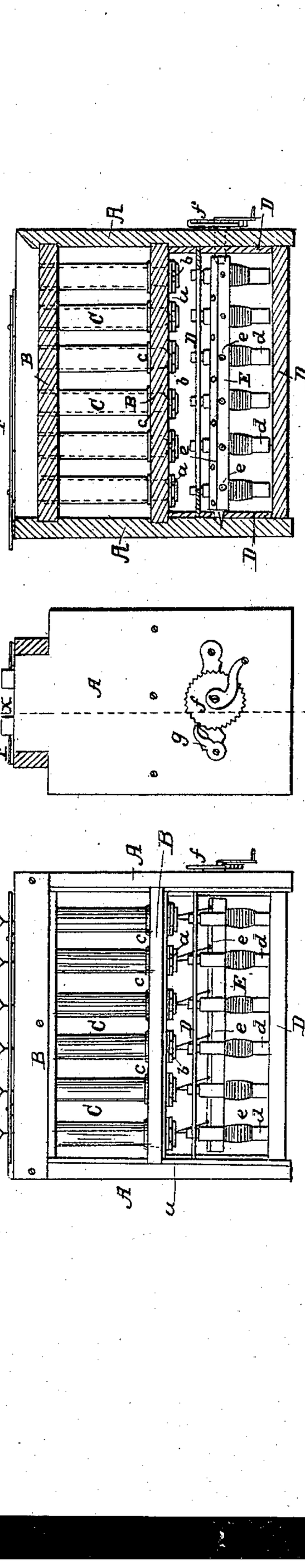

Fig. 3.

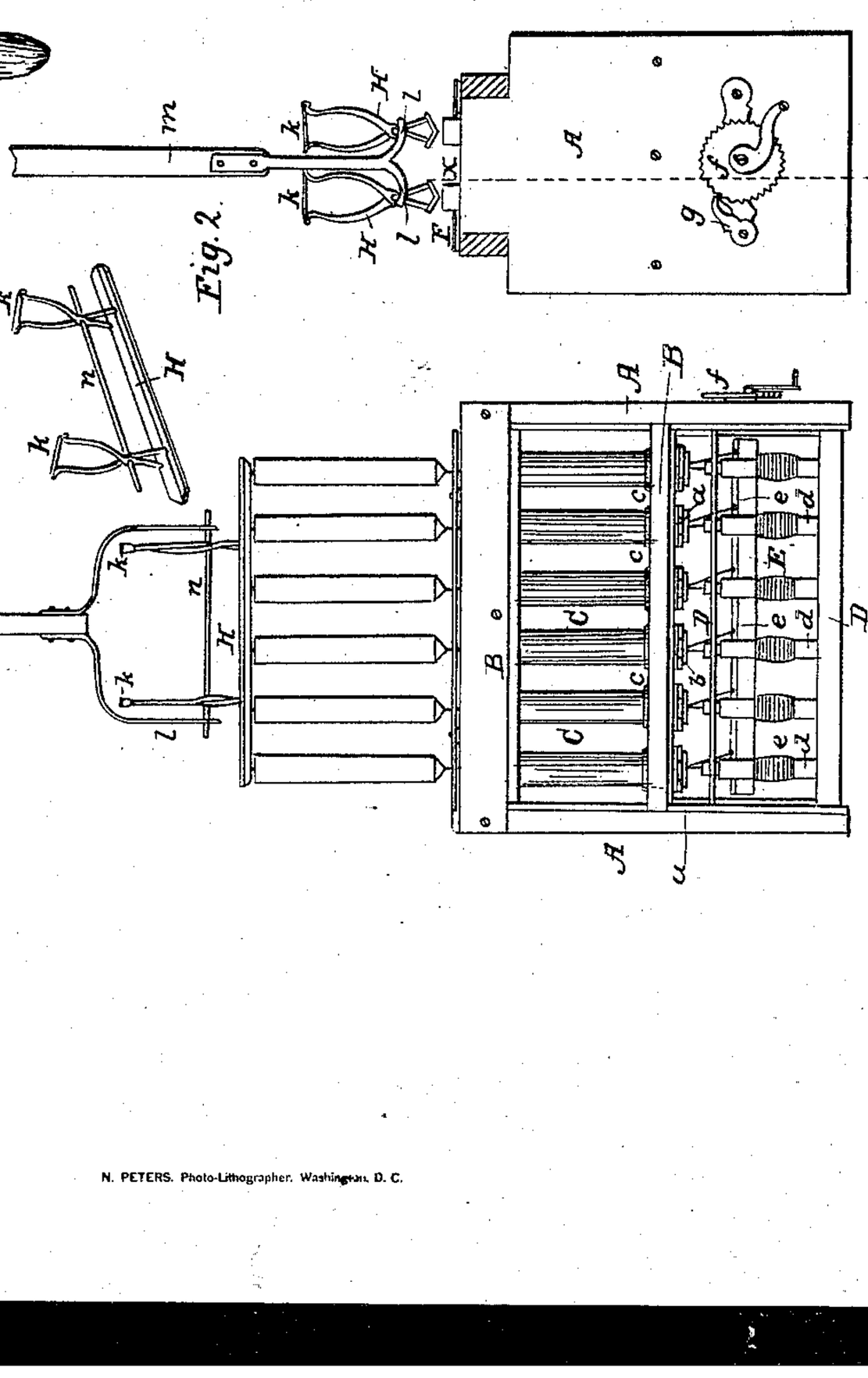

Fig. 2.

Fig. 5.

UNITED STATES PATENT OFFICE.

WILLIS HUMISTON, OF TROY, NEW YORK.

CANDLE-MOLD APPARATUS.

Specification forming part of Letters Patent No. 10,730, dated April 4, 1854; Reissued March 6, 1866, No. 2,190.

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 new and useful Improvements in Machines for Making Candles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side elevation; Fig. 2, an end elevation; Fig. 3, a sectional view taken at the line X X of Fig. 1. Fig. 4 is a top view. Fig. 5 is a detached perspective view of one of the nippers used in drawing the candles from the molds. Fig. 6 is a view of the wick cutter.

The nature of my invention consists, first, in the use of a wick stretcher, so arranged as to remove the strain or friction upon the wicks, before the candles are drawn from the molds; also, in combining with the wick stretcher a centering bar and stop for first perfectly centering the wicks at the tops of the molds before they are stretched and held by the stretcher.

The construction and operation is as follows:

A A are the end frames.

B B are the frames in which are placed the candle molds C, C. Upon the ends of said molds which project through the lower frame are cut screw threads. A ring (*a*) of leather, india rubber, or any suitable substance for packing is then put over the end of the mold and screw. The nut (*b*) is then screwed down upon it, forcing it up snugly against the frame and at the same time drawing the shoulder (*c*) on the mold down to the frame, thereby making a water tight joint, preventing the water from the melted ice leaking through and wetting the wicking.

D D is the frame containing the wick tightener E, and the wick bobbins (*d d*). This frame is made so as to slide in snugly between the end frames A A. The wick tightener is a shaft reaching across the frame lengthwise and has as many holes (*e e*) bored through it at right angles to each other as there are candle molds in the machine. One of the journals of the wick tightener passes through the end frame A and has attached to it the ratchet wheel (*f*) with the catch or pawl (*g*), being for the purpose of keeping the wick tightener set in any required position.

The wick guide F for adjusting and centering the wicks, there being one for each row of molds, is constructed of metal or wood, and is long enough to extend across the line of molds. In it are cut the centering notches (*h h*), one for each wick. It is hung upon the arms (*j j*) and is so adjusted that when the end is against the stop G, then the centering notches are directly over the center of the molds. It can be arranged so as to center the notches with the molds, by means of slides instead of the arms, but it it not so efficient or advantageous an arrangement as the arms.

The nippers H for drawing the candles from the molds have their jaws tightened and set on the wicks by means of the spring catches (*k k*) placed at the ends of the handles, which arrangement gives the great advantage of leverage and a much firmer grip upon the jaws.

The operation of the machine is as follows: The bobbins being supplied with wicking and set in their proper positions in the bobbin frame, the ends of the wicks from each bobbin is then passed through its respective hole in the wick tightener, and thence passes up through the candle molds, when they are gripped by the nippers and the double hooks (*l l*) attached to the rod (*m*) are hooked on to the nipper shaft (*n*) of each nipper, then drawn up by means of the cord passing over the pulleys in the beam (*o*) and attached to the weight (*p*) and the wick guides being swung around against the stop G, as shown at (*y*), Fig. 4, and the wick tightener being wound sufficiently to tighten the wick it is then accurately centered and ready for pouring the tallow into the molds, which being done and ice or snow placed around the outside of the molds the candles soon become cool enough to draw from the molds. The wick guide is then thrown back, as seen at (*z*), Fig. 4, and the wick tightener being unloosened the candles are then drawn from the molds by means of the nippers, double hooks, pulleys and weight, as before described, and as shown in Fig. 1, when the wick guide can be again thrown in proper position for centering the wicks and the wick tightened. The mold is then ready to fill again, which being done the candles first drawn can be

removed by cutting the wicks by passing the shovel bladed cutter J between the rows of candles and on the surface of the hardened tallow on the face of the molds. After the wicks are cut the superfluous tallow is scraped off and the nippers again applied to draw the candles from the molds as at first.

Having thus fully described the nature of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The wick stretcher E, so arranged that the wicks may be uniformly stretched before the material is run into the molds, and the friction or strain be removed therefrom, before the candles are drawn from the molds to prevent the breaking of the wicks, substantially as described.

2. I also claim in combination with the wick stretcher E, the centering bar or plate F, with its stop or guide G, for first properly centering the wick at the top of the mold before it is stretched and held, substantially as described.

WILLIS HUMISTON.

Witnesses:
JOHN MORDU,
J. J. SAVAGE.

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