

(No Model.)

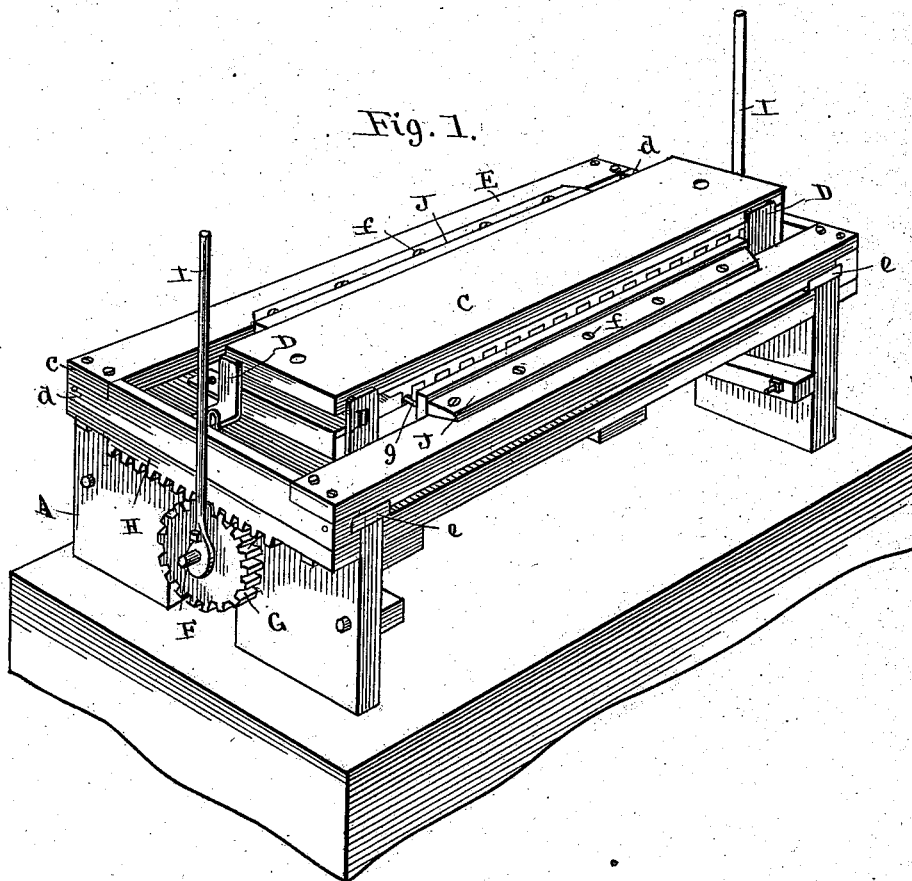
2 Sheets—Sheet 1.

A. P. NEFF.

CIGAR PERFORATING MACHINE.

No. 382,548.

Patented May 8, 1888.



Witnesses.

Lorine L. Clark

N. S. Clements.

Inventor

Adie P Neff.

By his Attorney,
J. B. Brown.

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Fig. 2.

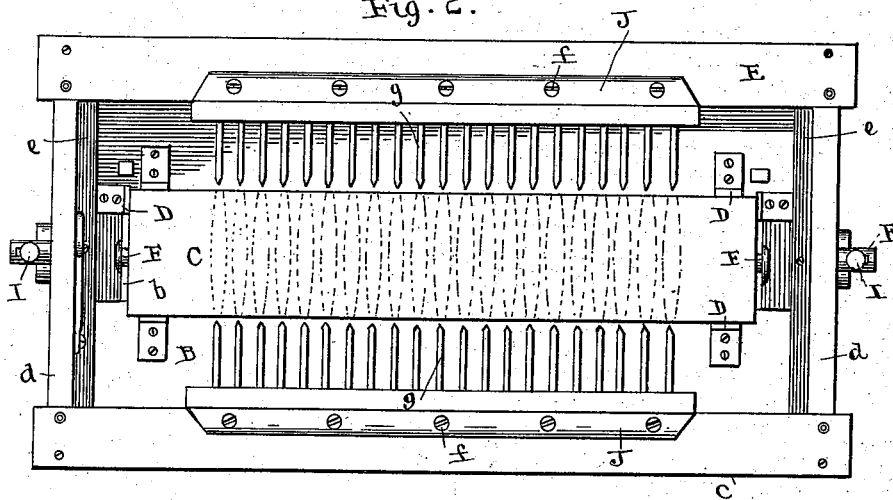
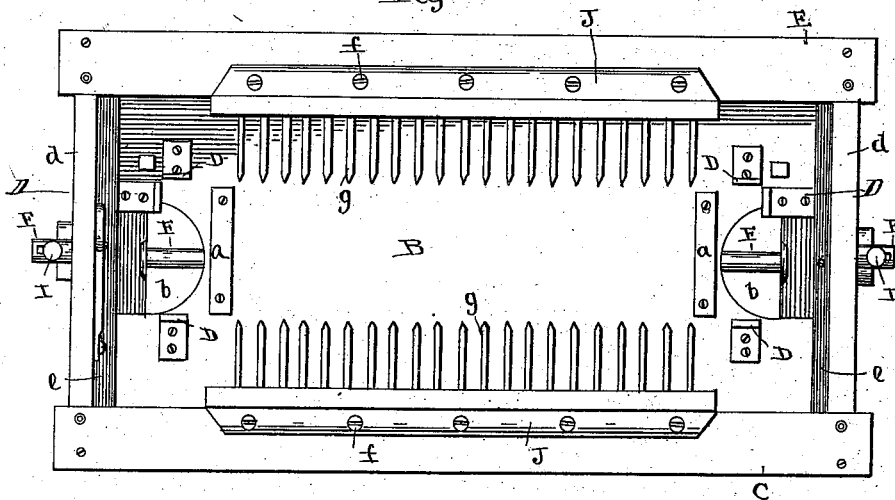


Fig. 3.



Witnesses.

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By his attorney,
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UNITED STATES PATENT OFFICE.

ADIE P. NEFF, OF RELAY, PENNSYLVANIA.

CIGAR-PERFORATING MACHINE.

SPECIFICATION forming part of Letters Patent No. 382,548, dated May 8, 1888.

Application filed March 11, 1887. Serial No. 230,525. (No model.)

To all whom it may concern:

Be it known that I, ADIE P. NEFF, a citizen of the United States, residing at Relay, in the county of York and State of Pennsylvania, have invented an Improved Cigar-Perforating Machine; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the machine; Fig. 2, a plan view of the same, and Fig. 3 a plan view with the mold-board removed.

This invention relates to machines for perforating cigars from end to end, either before or after the wrapper is applied, by means of needles which enter alternately the two ends of the cigar. To this end the cigars are placed in a mold-board fixedly held in a suitable frame, and the cigars therein are perforated by means of needles carried by a reciprocating sliding carriage. In perforating-machines it is desirable that the needles shall be as short as possible, so as to lessen as far as possible the chances of their being bent out of shape, and therefore two sets of needles in this machine are provided, which enter alternately opposite ends of the cigars and traverse each cigar just past the center thereof, so that the two needles make a continuous perforation through the cigar. It is also essential that the two sets of needles shall be exactly in line with each other, so that the perforation shall be continuous; hence both sets are properly mounted on the same sliding carriage, which is a hollow rectangular frame surrounding and inclosing the stationary mold-board. To adapt the same machine to different-sized cigars requiring needles of different lengths and at different distances apart, each set of needles is carried by a plate detachably secured to the sliding carriage.

Referring to the drawings, A is the supporting-frame, which rests upon any suitable stand or support. On the bed-plate B of this frame is placed the mold-board C, which contains the cigars to be treated. The mold-board C rests upon cross-strips *a a*, placed on the bed-plate, which can be brought to a truer level than the entire surface of the bed-plate. The mold-

board is held from lateral and lengthwise displacement by means of angle-irons or guides D D, secured to the bed-plate. Beneath the ends of the mold-board the bed-plate is cut away at *b b* to facilitate the removal of the mold-board.

E is the rectangular reciprocating needle-carrying carriage, composed of longitudinal rails *cc* and end rails, *dd*. This reciprocating carriage slides laterally across the bed-plate upon guide-rails *ee*, secured to the bed-plate. The rails of the sliding carriage are suitably grooved to fit the rails *ee*, as shown in Fig. 1, so that the carriage shall have no longitudinal or vertical movement.

The sliding carriage is reciprocated by means of a shaft, F, journaled in the supporting-frame beneath the bed-plate. This shaft carries (at one or both ends, as may be desired) a pinion, G, which meshes with a rack, H, fixed to the sliding carriage underneath the same. If there are two pinions, there will be two corresponding racks. This shaft is rocked or oscillated by means of levers I I, rigidly secured thereto. The movement of the levers thus moves the sliding carriage from side to side to and from the opposite sides of the mold-board.

On the upper side of each of the longitudinal rails of the reciprocating carriage are detachably secured the needle-plates J J. These are shown as attached by screws *ff*, so that they can be removed and others substituted. Secured to the plates and projecting inwardly toward each other are the needles *gg*. These needles are horizontally arranged at a height so as to enter the exact centers of the cigars in the mold-board, and the length of each needle is slightly in excess of one-half the width of the mold-board, so that each may perforate a cigar rather more than half its length. The space between the points of the opposite sets of needles is greater than the width of the mold-board, so that the latter can be readily removed. The ends of the vertical guides D D extend upward higher than the points of the needles, so that in removing the mold-board it cannot accidentally come in contact with the ends of the needles and bend the same.

In operating the machine, first one set of needles enters the cigars at one end and then the

other set of needles on the reversé movement of the sliding carriage enters the opposite ends of the cigars.

I claim as my invention—

5 1. In a cigar-perforating machine, the combination of a supporting-frame, a mold-board held in suitable guides on the frame, a reciprocating carriage embracing the mold-board and mounted on suitable guides or ways on the
10 frame, two sets of perforating needles mounted, respectively, on opposite sides or rails of the carriage, and means for reciprocating the carriage on its ways, whereby the two sets of needles are caused to move simultaneously in the
15 same direction and to alternately perforate the two ends of the cigars held in the mold-board, substantially as and for the purpose herein specified.

20 2. The combination of a supporting-frame, a mold-board held in suitable guides on the frame, a reciprocating carriage embracing the mold-board and mounted on suitable guides

or ways on the frame, two needle-plates removably attached to opposite sides or rails of the carriage and respectively provided with
25 sets of perforating-needles, and means for reciprocating the carriage on its ways, substantially as and for the purpose herein set forth.

3. The combination, with a supporting-frame provided with vertical guides to engage with
30 the mold-board, a removable mold board, and the reciprocating carriage, of plates carrying perforating-needles and detachably secured to the longitudinal rails of the said carriage, and means for reciprocating the said carriage, sub-
35 stantially as and for the purpose herein specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ADIE P. NEFF.

Witnesses:

FRANK. P. REEVER,
C. T. CULP.