No. 706,679 Patented Aug. 12, 1902.

# S. MOUNTFORD.

## CIGAR PERFORATOR.

(Application filed May 21, 1902.)

(No Model.)

Fig. 1.

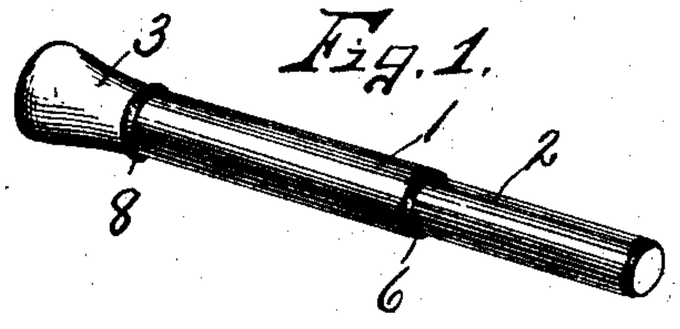



Fig. 2

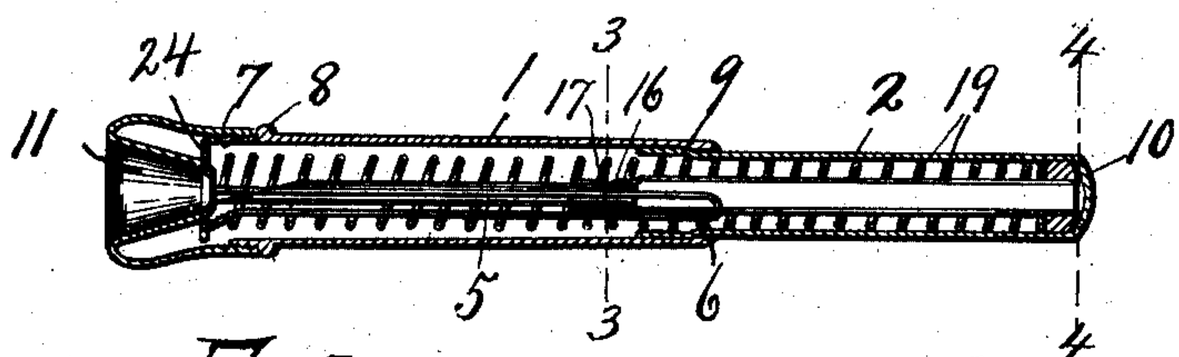



Fig. 3.

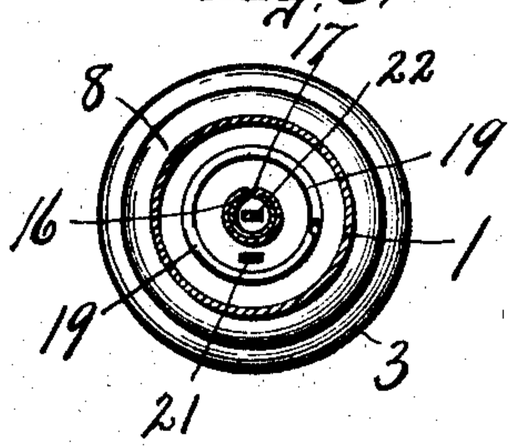



Fig. 4.

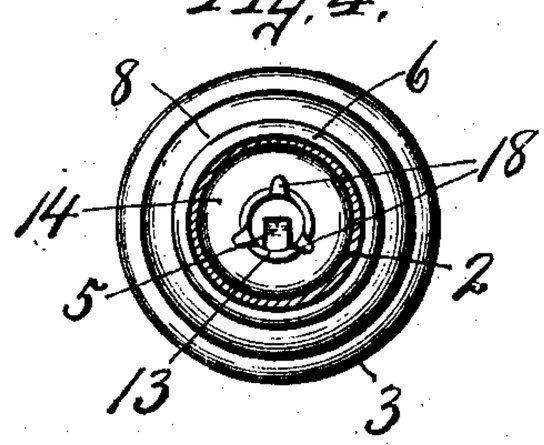



Fig. 5

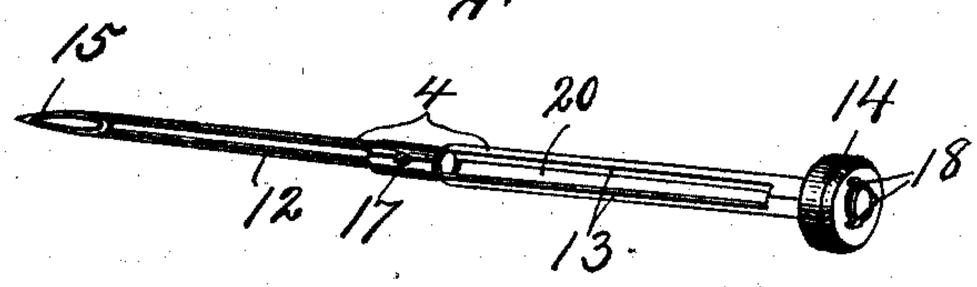



Fig. 6.

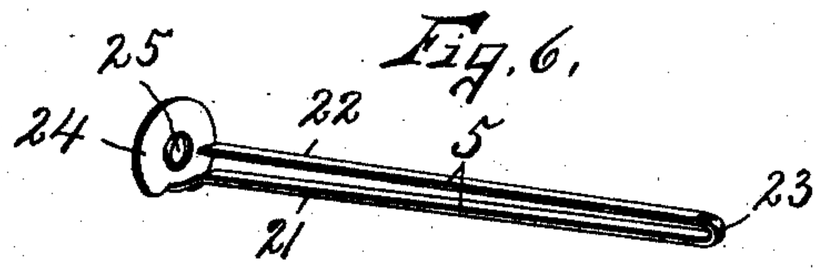
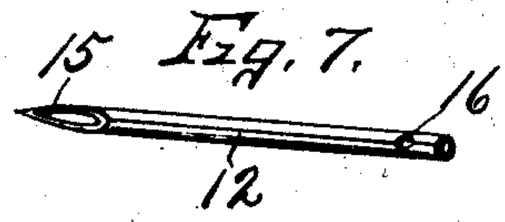



Fig. 7.




WITNESSES:
F. E. Arthur,
H. E. Chase

INVENTOR
Sidney Mountford
BY
Smith & Davidson
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

SIDNEY MOUNTFORD, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE WHITEHEAD & HOAG COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## CIGAR-PERFORATOR.

SPECIFICATION forming part of Letters Patent No. 706,679, dated August 12, 1902.

Application filed May 21, 1902. Serial No. 108,342. (No model.)

*To all whom it may concern:*

Be it known that I, SIDNEY MOUNTFORD, of Newark, in the county of Essex, in the State of New Jersey, have invented new and useful Improvements in Cigar-Perforators, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in cigar-perforators, having more particular reference to the perforating mechanism.

My object is to construct such a perforator by which I am enabled to perforate or to perforate and cut a channel in the central portion of the cigar from the tip inwardly on a line substantially parallel with the axis of the cigar and to remove the tobacco therefrom, so as to produce a perfect draft. By this operation I obviate the necessity of clipping the tip of the cigar, and thereby preventing the wrapper from becoming unwound or loosened and at the same time increasing the suction-surface of the cigar.

A further object is to provide a simple means by which the tobacco is removed from the tip end of the cigar and from the perforator or cutter during its return to its normal position after the operation of perforating the cigar, and a further object is to simplify the construction and reduce the cost of manufacture of the perforating mechanism by reducing the number of parts and obviating any necessity for soldering any of the parts together.

To this end the invention consists in the combination, construction, and arrangement of the parts of a cigar-perforator, as hereinafter fully described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a cigar-perforator embodying my invention. Fig. 2 is an enlarged longitudinal section through the perforator seen in Fig. 1. Figs. 3 and 4 are enlarged sectional views taken on lines 3 3 and 4 4, Fig. 2. Fig. 5 is a perspective view of the detached cutter and perforator. Fig. 6 is a perspective view of the extractor rod or bar for removing the tobacco from the perforator when the same is returned to its normal position. Fig. 7 is a perspective view of the detached steel cutter-section of the perforator.

Similar reference characters indicate corresponding parts in all the views.

In the drawings, I have shown a cigar-perforator consisting of telescoping tubes 1 and 2, a cigar-receiving tip 3, a cutter and perforator 4, and an extractor 5. The tubes 1 and 2 and tip 3 form the case for inclosing the perforator and cutter and other operating mechanism, the tube 1 being formed of metal or other suitable material, constructed in the form of a cylinder, having one end provided with an inwardly-projecting annular shoulder 6, and its other end is threaded at 7 for receiving similar threads upon the inner end of the tip 3, said latter end of the tube 1 being also provided with an outwardly-projecting annular shoulder 8 for limiting the inward movement of the said tip and presenting a neater appearance to the case. The tube 2 is also usually formed of metal and is movable longitudinally of and within one end of the tube 1, its inner end being provided with an annular shoulder 9, engaging the shoulder 6 and limiting the outward movement on the part 2, and its outer end is preferably closed by an end wall 10, which forms a suitable abutment for the outer end of the perforator and cutter 4, presently described. The tube 3 is also usually formed of sheet metal, pressed or stamped into the desired shape, one end being formed with threads for engaging the threaded end 7 of the part 1, and its other end is provided with an inwardly-tapering socket 11, open at its inner end and adapted to receive the tip end of the cigar for the purpose of alining the same centrally with the perforator and the cutter 4. The mechanism thus far described may be considerably varied in detail without affecting the material objects of my invention.

The cutter and perforator 4 form one of the essential features of novelty of this device, the essential novelty of which lies in the manner of uniting the sections which compose the cutter and perforator. These features are clearly illustrated in Figs. 2 to 5, inclusive,

in which I have shown the cutter and perforator as consisting of sections 12, 13, and 14. The section 12, forming the cutter and perforator proper, is made of steel in the form of a tube and having one end provided with a tapering cutting edge 15, and its other end is formed with an aperture 16 in its side wall in proximity to its end face, as seen in Fig. 7. This cutter-section 12 is usually formed from a strip of steel rolled in the form of a tube, with its meeting edges abutting against each other, after which the cutting edge 15 is ground or otherwise formed in the manner seen in Figs. 5 and 7. The other section 13 of the cutter and perforator 4 is formed of any desired metal, usually of brass, and consists of a tube having one end reduced in diameter for receiving and closely fitting the adjacent end of the section 12, a portion of said end of the section 13 being indented or depressed at 17 into the aperture 16, this depression or indentation serving to lock the sections 12 and 13 firmly together and prevent endwise or rotary movement of said sections one upon the other and obviates any necessity of soldering at this junction. The opposite end of the section 13 is provided with spurs or shoulders 18, Figs. 4 and 5, which after the head 14 is placed in position upon the said end are crimped or bent outwardly upon the adjacent face of the head 14 for holding said head from endwise displacement. This head 14 consists of a metallic sleeve, which fits tightly upon the outer end of the section 13 and, being firmly held in position by the spurs or shoulders 18 from endwise displacement, forms an abutment for one end of a spring 19, hereinafter described. It is apparent from the foregoing description that the parts 12, 13, and 14 are rigidly secured to each other without soldering, the indentation 17 and spurs or shoulders 18 serving to lock said parts firmly to each other without further securement and form an economical method of manufacturing. This cutter and perforator is inserted within the sections 1 and 2, the head 14 abutting against the end wall 10 of the part 2, and the point or cutting edge 15 normally lies in close proximity to the inner open end of the tapering socket 11 and is movable by the part 2 outwardly through said socket 11 when the parts 1 and 2 are moved lengthwise of each other against the action of the spring 19.

The intermediate portion of the section 13 is provided with one or more slots or ways 20 for receiving a portion of the extractor 5 and permitting the longitudinal movement of the cutter and perforator independently of the extractor. This extractor also forms an important feature of my invention on account of its simplicity and peculiarity of construction, and consists of metallic arms or bars 21 and 22, having corresponding ends united by a cross-bar 23, thus forming a substantially U-shaped piece, one of the arms 21 opposite to the cross-bar or junction 23 being provided with an abutting plate 24, arranged at substantially right angles thereto and formed with a central aperture 25, alined with the free end of the arm 22. This bar 5 is normally arranged in the central section or tube 1, the head or abutting plate 24 normally resting against the inner end face of the walls of the socket 11, with the aperture 25 alined with said socket, and the arm 22 is inserted through the slot 20 and into the opening of the cutting-tube 12, while the arm 21 is disposed at the outside of the tube and substantially parallel therewith, the cross-bar 23 normally extending through the slot 20. It is apparent that this extractor 5 is of slightly greater length than the tube 12 and normally extends beyond its opposite ends, the cross-bar 23 serving as a stop to limit the inward movement of the cutter and perforator 4 and plunger 2 by reason of its engagement with the end of the slot adjacent to the head 14.

The spring 19 encircles the cutter and perforator mechanism 4, one end abutting against the head 14 and the other end against the plate 24, and serves to hold the sections 1 and 2 in their extended position, as seen in Figs. 1 and 2.

In the operation of my invention the cigar with the tip end is inserted in the socket 11 and held in this position while the operator moves the plunger 2 toward the tip 3. This operation forces the cutting edge through the aperture 25 and into the tip end of the cigar as far as may be desired, being limited only by the engagement of the outer end of the slot 20 with the cross-bar 23. During this operation a portion of the tobacco is removed from the cigar and carried backwardly by the cutter as it returns to its normal position, and owing to the fact that the extractor 5 is fixed from endwise movement and that the free end of the arm 22 extends into proximity to the aperture 25 this tobacco which has been removed from the cigar by the cutter is forcibly extracted from the opening in the cutter and falls into the tapering socket 11, from which it is readily removed by inverting the perforator-case.

The operation of my invention will now be readily understood upon reference to the foregoing description and the accompanying drawings.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a cigar-perforator, the combination of a cutter-section and a holding-section for the cutter having a lengthwise slot, one of the sections having an aperture and the other being provided with an indentation projecting into the aperture for locking the sections together in combination with an extractor having arms united through the slot, one arm in the cutter-section and the other along the outside of said cutter-section and provided with an aperture to receive the cutter-section, and means for holding said parts.

2. In a cigar-perforator, the combination with a cutter-tube and a holding-section therefor, the cutter-tube being split longitudinally and having an aperture near one end and the holding-section having an indentation near one end projecting into the aperture for the purpose described, casing-sections, one being movable endwise and moving the perforator, and an extractor held by the other casing-section and projecting into the cutter-section.

3. In a cigar perforator and cutter, a tubular cutter-section formed of steel having one end provided with a cutting edge and its other end provided with an aperture in its side wall, a tubular holding-section having one end fitting closely upon the perforated end of the cutter-tube, and provided with a depression entering the aperture for the purpose described, in combination with an extractor projecting into the cutter-section, and casing-sections, one engaging and operating the perforator endwise and the other engaging and holding the extractor.

4. In a cigar perforator and cutter, a connecting tube and a holding-section secured to each other, a sleeve or head mounted on one end of the holding-section, said holding-section having spurs or shoulders crimped or turned outwardly for holding the head in position.

5. In a cigar-perforator, the combination of a tubular cutting-section having one end provided with a cutting edge and its other end provided with an aperture, a tubular holding-section having one end fitting upon the apertured end of the cutter-section and provided with a depression entering said aperture, a head on the opposite end of the holding-section, said holding-section having outturned spurs or shoulders engaging the outer end face of the head for the purpose set forth, an extractor, and telescoping casing-sections one engaging and holding the extractor and the other engaging and operating the perforator-cutter.

6. In a cigar-perforating device, a tubular cutter and perforator, in combination with arms united at one end, one of the arms being inserted in the tubular cutter and the other arm provided with an abutting plate, a head on the perforator and cutter and a spring interposed between said head and the abutting plate.

7. In a cigar cutter and perforating device, the combination with a tubular cutter, of an extractor consisting of a U-shaped bar having one arm inserted in the cutter and means for holding the parts in position.

8. The herein-described extractor for cigar-perforators consisting of a U-shaped bar in combination with a tubular cutter receiving one arm of the bar, and telescoping parts inclosing the former parts and operable endwise to move the cutter lengthwise of the arm therein.

9. The herein-described extractor for cigar-perforators consisting of substantially parallel arms having corresponding ends united, the opposite end of one of the arms being provided with an abutting plate, in combination with a tubular cutter receiving one of the arms, and an inclosing case composed of sections, movable endwise one upon the other, one section engaging the tubular cutter and the other the abutting plate for the purpose set forth.

10. In combination with a slotted cutter and perforator having a tubular cutting-section and an abutting head, an extractor having an arm inserted in the tubular cutter and provided with an abutting head, a spring interposed between said heads and a case inclosing said parts.

11. The combination of telescoping tubes movable endwise one upon the other and a cigar-receiving tip secured to one of the tubes, a hollow cutter and perforator movable with one of the tubes into the tip, an extractor having an arm inserted in the hollow cutter and an abutting plate engaged with the tip and a spring interposed between said abutting plate and one end of one of the tubes for the purpose set forth.

12. In a cigar perforator and cutter, a tube having a removable tip provided with a socket for receiving the cigar end, a second tube movable lengthwise within the former tube, a perforator and cutter engaged by and movable with the second tube into the socket, in combination with a U-shaped extractor having one arm abutting against the inner end of the tip and its other arm inserted in the cutter, and a spring interposed between said abutting end of the extractor and the head of the cutter and perforator.

In witness whereof I have hereunto set my hand this 16th day of May, 1902.

SIDNEY MOUNTFORD.

Witnesses:
JOSEPH B. SHORT,
WM. A. JONES.