May 2, 1933. R. HIRSCH 1,907,338

CIGAR AND CIGARETTE HOLDER

Filed Dec. 17, 1932

Fig. 1.

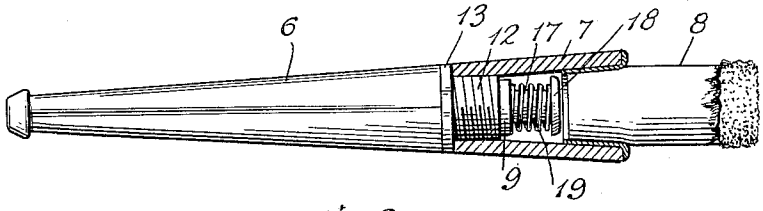


Fig. 2.

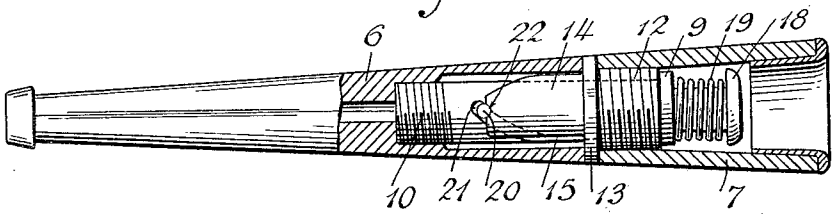


Fig. 3.

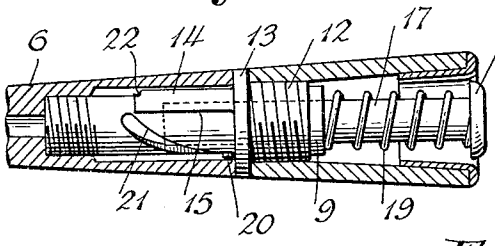


Fig. 4.

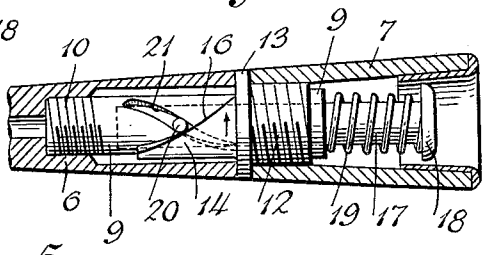
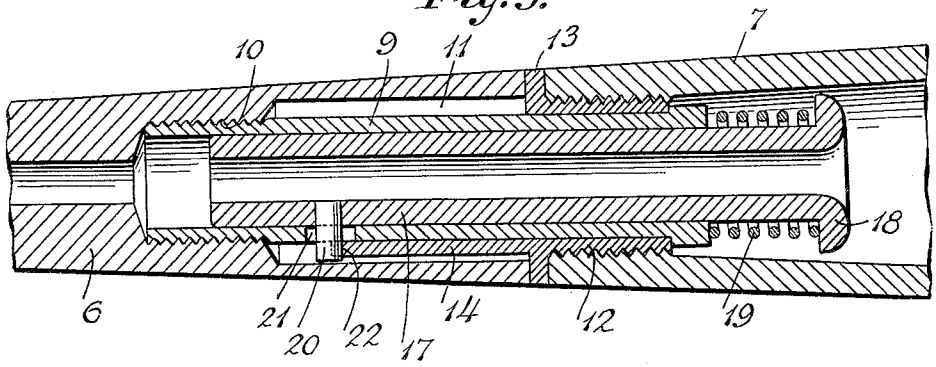


Fig. 5.



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CIGAR AND CIGARETTE HOLDER

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This invention relates to improvements in cigar and cigarette holders and has particular reference to an ejecting mechanism therefor.

An object of the invention is to provide an improved mechanism of simple and practical constructon wherein a movement of one of the elements of the holder in a single direction is utilized to control the operation of an ejector to expel an article from the holder and also to restore said ejector to a normal position in which another article may be inserted into the holder.

Another object is to provide a mechanism in which an ejector is operated by a relative rotary movement between the bit of the holder and the article holding section thereof.

The above and other objects will appear more clearly from the following detailed description, when taken in connection with the accompanying drawing, which illustrates a preferred embodiment of the inventive idea.

In the drawing:—

Figure 1 is an elevation, partly in section, of a holder constructed in accordance with the invention and showing a cigarette in position therein.

Figure 2 is a fragmentary longitudinal section showing the ejecting mechanism in its normal position with the ejector element retracted.

Figure 3 is a view similar to Figure 2 showing the ejector element in its operated position to which it has been propelled in order to expel an article such as a cigarette or cigar from the holder.

Figure 4 is another fragmentary longitudinal section illustrating the ejector element in the act of being restored to its normal position, and

Figure 5 is an enlarged fragmentary longitudinal section through the ejecting mechanism.

The ejecting mechanism which comprises the essential features of the present invention may be adapted to operate with equal facility in either a cigar or cigarette holder without departing from the spirit or scope of the invention as expressed in the appended claims.

As shown in the drawing, the holder comprises the bit 6 which can be made of any suitable material and which is of substantially the same construction as an ordinary bit of this character. Cooperating with the bit 6 is a holder section 7 of tapered formation and having its larger end adapted to receive one end of a cigarette 8 to hold the same in position for smoking. The bit 6 and section 7 are separable and are capable of relative rotary movement for the purpose of controling the operation of the ejecting mechanism now to be described.

This mechanism comprises a sleeve member 9 which is carried by the bit 6 and detachably connected thereto by means of cooperating screw threads 10 formed upon the inner end of said sleeve member and on the interior of said bit at the inner end of the enlarged bore 11 in the latter. The sleeve member 9 is of sufficient length so that its forward end will extend into the inner end of the holder section 7 when the latter is in position. Encircling the outer end of the sleeve member 9 is an externally screw-threaded supporting member 12 having an annular flange 13 at one end which is adapted to engage the outer end of the bit 6 and forms an abutment against which the section 7 is engaged when the latter is screwed upon the threads of said supporting member. After said section has been turned to this position any further rotation thereof, in the same direction necessary to thread the same into place, will cause a rotary movement of the supporting member 12 about the sleeve 9 which is utilized to effect the operation of the ejecting mechanism. Due to the connection of the sleeve 9 with the bit 6, the operation of said mechanism may also be accomplished, in a manner that will appear in the course of description, by a turning movement of the bit relative to the section 7 but in an opposite direction from that in which said section is rotated. Rearwardly of the annular flange 13, the supporting member 12 is provided with an extension 14 which only partially encircles the sleeve member, one longitudinal edge 15 (Fig. 3) of said extension being straight and the opposed edge 16 (Fig. 4) being curved to provide a cam surface for a

purpose which will presently appear. Slidable longitudinally in the sleeve member 9 is a tubular ejector element 17 through which the smoke from the cigarette may be drawn into the bit 6 and the outer end of said element is provided with a head 18 disposed within the section 7 and adapted, when the ejecting mechanism is operated, to engage the inner end of a cigarette or cigar and expel the same from the holder. A coil spring 19 for propelling said ejector element is interposed between the head thereof and the adjacent end of the sleeve member 9. When said element is in its normal position said spring is compressed. Adjacent the end of the ejector 17 opposite the head 18 there extends laterally from said ejector a pin 20 which projects through a cam slot 21, spirally formed in the adjacent portion of the sleeve member 9. Said pin 20 is also sufficiently long to project into the bore 11 where it is adapted to engage in a notch or recess 22 formed in the rear end of the extension 14 when the ejector is in its normally retracted position, as best shown in Figures 2 and 5. When, however, the section 7 has imparted thereto a slight rotary or turning movement in one direction relative to the bit 6 the supporting member 14 will be turned, as indicated by the arrow in Figure 4. This turning movement will first cause the pin 20 to be disengaged from its notch by forcing said pin rearwardly against the tension of the spring 19, the adjacent end of the cam slot 21 in the sleeve 9 being slightly extended beyond said pin for this purpose. Following the disengagement of the pin from its notch the straight longitudinal edge 15 of the extension 14 then comes into longitudinal alignment with the pin and when said edge passes beyond said pin and the end of said extension is no longer engaged therewith the spring 19 thereupon becomes effective to propel the ejector element 17 forwardly to the position shown in Figure 3. During this movement, the pin 20 moves forwardly in the spiral slot 21 and by reason of its engagement therewith the ejector element 17 will be slightly turned during its forward movement. This latter movement is limited and ceases when the pin 21 strikes against the annular flange 13 of the supporting member 12, as shown in Figure 3.

When it is desired to restore the ejector element to its normal position the section 7 is again rotated in the same direction as previously described whereupon, due to a like rotation of the supporting member 12, and its extension 14, the pin 20 is brought into engagement with the cam edge 16. Continued rotation of the section 7 now causes said pin to ride rearwardly upon said edge and over the end of said extension 14 and finally again into the notch 22. The passage of the pin over said cam edge causes a retraction of the ejector element rearwardly in the sleeve member 9 and during this movement the spring 19 is again compressed and placed under tension.

From the foregoing description it will be seen that an operation of the ejecting mechanism may be accomplished by holding the section 7 stationary and turning the bit 6 in a direction opposite to that to which the section 7 is turned when the latter is used to attain the desired result. When the bit 6 is turned, the sleeve member 9 is rotated relative to the supporting member 12 and such movement effects the release of the pin 20 from its notch and subsequent forward movement into engagement with the flange 13. Also, the turning movement of the bit 6 and sleeve 9, after the forward propulsion of the ejector element has been completed, will again bring said pin 20 into engagement with the cam edge 16 to thereby restore the ejector element to its normal position.

What is claimed is:

1. A device of the class described, comprising a bit, a holder section, an ejector element having a normally retracted position in said section, means for supporting said ejector element while permitting a limited relative spiral movement thereof with respect to said bit, and means controlled by a relative movement between said bit and holder section in a single direction to operate said ejector element to expel an article from said holder section and to restore said element to its normal position.

2. A device of the class described, comprising a bit, a holder section mounted for relative movement with respect to said bit, a supporting member upon which said section is mounted, an ejector element slidable through said supporting member, and means controlled by a relative rotary movement between said bit and said holder section in one direction for operating said ejector element to expel an article from said holder section and for restoring said ejector element to its normal position by a continued relative rotary movement in said direction.

3. A device of the class described, comprising a bit, a holder section connected thereto, a sleeve member carried by said bit and having a cam slot therein, an ejector movable in said sleeve member and projecting into said holder section and having a pin extending into said slot, a spring interposed between said sleeve member and ejector and operable to move the latter to expel an article from said holder section, and a supporting member for said holder section rotatable on said sleeve member and engageable with said pin to retain said ejector in a normally retracted position against the action of said spring.

4. A device of the class described, comprising a bit, a holder section connected thereto, a sleeve member carried by said bit and hav-

ing a cam slot therein, an ejector movable in said sleeve member and projecting into said holder section and having a pin extending into said slot, a spring interposed between said sleeve member and ejector and operable to move the latter to expel an article from said holder section, a supporting member rotatable on said sleeve member and having an extension engageable with said pin to retain said ejector in a normally retracted position against the action of said spring, said extension being rotated by said supporting member relative to said pin to render said spring effective, and having a cam surface engageable with said pin, upon continued rotation of said extension, to restore said ejector to its normal position.

5. A device of the class described, comprising a bit, a holder section mounted for relative movement with respect to said bit, an ejector element having a normally retracted position in said section, and means controlled by a relative movement between said bit and holder section in a single direction to operate said ejector element to expel an article from said holder section and to restore said element to its normal position.

6. A device of the class described, comprising a bit, a holder section, an ejector element under tension, means for supporting said ejector element while permitting a limited relative spiral movement thereof with respect to said bit, and cam means operable by relative rotation between said holder and bit to retract said ejector element and to release the same upon continued movement in the same direction.

7. A device of the class described, comprising a bit, a holder section connected thereto, a sleeve member carried by said bit and having a slot therein, an ejector, said ejector having a pin engageable in said slot, tensioning means interposed between said sleeve member and ejector and operable to move the latter to expel an article from said holder section, and a cam member rigid with said holder section, said cam member engaging said pin and in one of its positions to retain said ejector in a retracted position against the action of said tensioning means.

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