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LOCKING DEVICE FOR CIGAR CUTTERS.
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LOCKING DEVICE FOR CIGAR-CUTTERS.


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To all whom it may concern:

Be it known that I, GEORGE E. HARRISON, citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Locking Devices for Cigar-Cutters, of which the following is a specification.

The subject-matter of the present invention is directed to new and useful improvements in cigar cutting devices, and as its principal object aims to provide a cutting device of this type in which the movable cutting knife will be held against movement into operative relation with the fixed knife unless the lineal gage has been properly positioned on the bed-block of the cutter, and a lineal gage has been moved rearwardly in the act of properly positioning the cigar.

A further object is to operatively connect the locking mechanism for the movable cutting knife with the cigar gage so that it will be impossible to swing the movable cutting knife into operative relation with the fixed knife unless the lineal gage has been moved longitudinally of the said block against the tension of a spring and held in this position during the manipulation of the movable cutting knife.

A still further object is to provide a novel connection between the gage and the locking rod, constructing the connecting means in such manner that the mere threading or unthreading of a wing-nut will operate to secure the gage in adjusted position on the locking arm or will release the gage so that it may be longitudinally adjusted on the rod in order to accommodate cigars of various lengths.

A yet further object is to construct the cutting device with such regard to proportion, number and arrangement of parts that it may be cheaply manufactured, will be durable and efficient in its action, and may be quickly and conveniently employed in trimming the ends of cigars of any length within a reasonable range.

The above and additional objects are accomplished by such means as are illustrated in the accompanying drawings, described in the following specification, and then more particularly pointed out in the claims which are appended hereto and form a part of this application.

With reference to the drawings, wherein there has been illustrated the preferred embodiment of this invention as it is reduced to practice, and throughout the several views of which similar reference numerals designate corresponding parts, Figure 1 is a perspective view illustrating the cutter with its various elements in operative assembled relation; Fig. 2 is a section on the line 2—2 of Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 2; Fig. 4 is a detail view of the locking rod and gage, illustrating the several parts of this device in disassembled relation but indicating the manner in which they are assembled to form an operative structure; Fig. 5 is a vertical section of the connecting bolt by which the gage is adjustably secured to the locking rod.

Proceeding now to the description of the drawings, and with particular reference to Fig. 1 in which the invention is best illustrated as an entirety, it will be observed that the cutter includes broadly a base-block 10, a bed-block 11 removably mounted thereon, a fixed and a movable cutting knife respectively designated by the numerals 12 and 13, a cigar receiving channel 14, and a longitudinally adjustable gage 15 which operates in the cigar channel and to which is operatively connected a locking rod, the extreme forward terminal of which is discernible at 16.

The base-block 10 is preferably, although not necessarily, constructed of wood, and may be stained to impart an ornamental appearance. On this base-block is removably mounted the bed-block 11, which is designed to serve as the holder for the cigar and also as a support for the cutting knives and gage. This bed-block may be constructed of wood or a composition should such material be found desirable, but in the preferred embodiment of the invention it is formed of metal. The member 11 is substantially rectangular in shape and consists in a top plate 17, side walls 18 and 19, and end walls 20 100 and 21. Adjacent the side wall 18 the top plate 17 is enlarged, and is formed with a channel which has been heretofore designated by the numeral 14. This channel acts as the holder or receiver for the cigar, and, as will be seen upon reference to the drawings, extends longitudinally of the bed-block. The bottom wall of this channel is
equipped with a slot 22 which extends longitudinally and is formed adjacent the rear portion of the channel for a purpose which will be hereinafter fully explained.

5 The fixed cutting knife, previously designated by the numeral 12, is positioned, as shown in Fig. 1, at the forward end of the cigar receiving channel 14 and in its preferred embodiment consists in a tempered steel plate which is centrally apertured and is formed with a substantially semi-circular notch at its upper portion as indicated at 23. A screw 24 is inserted through the central aperture of the plate 17 and is threaded into a receiving bore formed in the inner wall 24 of the bed-block. The notch 23 is, of course, formed with a sharpened edge, the lowermost point of which is disposed at a point slightly above the bottom of the cigar receiving channel, as will be readily noted upon reference to Fig. 1.

10 The movable cutting knife 13, which, as heretofore explained, cooperates with the fixed jaw in trimming the ends of the cigar, is, as best shown in Fig. 6, substantially identical to the fixed knife 12. The member 13 is, however, secured to the free terminal of the pivoted arm 25. This arm 25 is pivotally mounted at one terminal on a bolt 26 which is threaded into a receiving aperture 30 formed in the portion of the arm 25 which extends beyond the side wall 19. A stop screw 31 is, of course, threaded into the side wall 19, the forward terminal of which is inserted in an identical to the fixed knife blade 12. The free terminal of the arm 25 is equipped with a milled nut or disk 27 provided for the obvious purpose of affording the operator of the device a firm grip on the movable knife. The pivoted terminal of the arm 25 is normally held with the knife 13 spaced from the knife 12, thereby being provided for this purpose a leaf spring 28, the rear terminal of which is secured to a screw 29 carried by the side wall 19, the forward terminal of which is inserted in an aperture 30 formed in the portion of the arm 25 which extends beyond the side wall 19. A stop screw 31 is, of course, threaded into the side wall 19 and bears against the upper face of the leaf spring 28 so that the downward movement of the knife 13 and the consequent upward movement of the terminal 32 of the arm 25 can be accomplished only by overcoming the spring. When the arm 25 is in normal elevated position, the shoulder 33, which is formed on the lower edge of the portion 32, is in engagement with the base member 10 and, consequently, limits the upward swinging movement of the knife 13. A second shoulder 34 is formed on the lower edge of the arm 25 extending approximately at an angle of 45° to the shoulder 33, and is designed to limit the downward swinging movement of the knife 13 by engagement with a stop pin 35 which is carried by the end wall 21, as clearly shown in Fig. 1.

60 In order to normally lock the movable knife 13 against movement into operative relation to the fixed knife 12, there has been provided, as heretofore explained, a locking rod. This locking rod is, as best shown in Fig. 4, bent intermediate its length as at 36 to produce an offset forward terminal 37. The extreme terminal of this offset portion 37 is mounted for movement through an opening formed in the wall 21 of the bed-block, as hereinbefore designated at 16 in Fig. 1. The offset portion 37 of this locking rod is journaled in a lug bracket 38 which is preferably formed integrally with the top plate 17 and extends downwardly therefrom, as is best illustrated in Fig. 3. A cotter pin 39 is carried by the portion 37 adjacent its extreme forward terminal, being provided to limit the movement of the terminal 37 through the end wall 21 of the bed-block by engaging against the inner face of the end wall, as will also be observed upon reference to Fig. 3. A helical spring 40 is wound around the offset portion 37 of the locking rod, bearing at its forward terminal against the cotter pin 39 and at its rear terminal against the adjacent face of the bracket lug 38. It will thus be seen that the extreme forward terminal of the member 37 is normally held to project beyond the outer face of the wall 21. It will thus be noted that the forward terminal of the locking rod is normally held in such position that it will, by engagement with the shoulder 34, hold the arm 25 against movement into operative relation to the fixed knife 12.

65 As a means for enabling the operator to move the locking rod 16 into inoperative position when a cigar is placed within the receiving channel 14, the locking rod has, as hereinbefore described, been operatively connected to the gage 15. This gage 15, as best illustrated in detail in Fig. 4, consists in a substantially cylindrical body member 41, the forward portion of which is recessed, as at 42, to provide a socket which will receive the rear terminal of the cigar. Extending rearwardly from the body portion 41 of the gage is a plate 43 which is apertured, as at 44, to receive a connecting bolt 45 by which it is adjustably secured to the locking rod 36. The lower face of the plate 43 lies in a plane above the lower portion of the member 41 for a purpose which will be hereinafter more fully explained. The cylindrical body member 41 of the gage is adapted for movement through the channel 14. As illustrated in Fig. 4, an elongated opening 46 is formed in the lower terminal of the bolt 44, which opening is adapted to receive the locking rod. In connection with the bolt 45 this invention employs a locking sleeve 47 which is formed with diametrically opposed openings adapted also to receive the locking rod 36.

In assembling the bolt and sleeve, the bolt 45 is inserted through the locking sleeve 47 and is secured thereto by a cotter pin 48. The gage 15 is then inserted in the gage slot 36, engaging the locking pin 37 with the gage slot 36. Finally, the locking rod 16 is moved into position and the gage 15 is allowed to return to its normal position. When the locking rod 16 is moved into position, the locking pin 37 engages in the gage slot 36, thereby locking the gage 15 in position. The locking pin 37 is then moved to its normal position, thereby unlocking the gage 15.
is first inserted in the sleeve to bring the opening 36 into registration with the openings in the side of the sleeve, and the locking rod is then passed through both the bolt and sleeve, as will be discerned upon reference to Fig. 3. It will now be noted that the application of the wing nut 48 to the upper threaded terminal of the nut 45 will operate to urge the lower face of the plate 43 into engagement with the upper edge of the sleeve 47. At the same time, the threading of the nut onto the bolt 44 will draw the plate upwardly so that the bottom portion of the opening 46 will thus be brought into severe frictional engagement with the locking rod, while the upper portion of the openings in the sleeve 47 will be urged downwardly into similar engagement with the upper portion of the locking rod.

In other words, the bolt and sleeve will bear against the locking rod, exerting pressure in opposite directions and at diametrically opposite points of the locking rod, thus securely holding the gage in adjusted position on the locking rod. The sleeve 47 is cut-away at diametrically opposite points, as indicated at 49 so that the upper portion of the sleeve may be moved freely through the slot 22 without engagement with the top plate 17.

The actual construction and arrangement of the several parts of the invention being thus described in detail, it now remains to give a brief explanation of the operation of the device. When desiring to trim the end of a cigar, the operator places the article in the receiving channel 14, having first adjusted the gage so that the cigar will be the proper length after it has been trimmed. The rear terminal of the cigar being inserted in the rear socket of the gage, the cigar is moved rearwardly in the channel 14 with the result that the locking rod is moved rearwardly in the bed-block, withdrawing the terminal 37 from locking position against the tension of the spring 40. When the cigar has thus been moved rearwardly to draw the locking rod into inoperative position, the operator may readily trim the terminal of the cigar by pressing downwardly on the member 27 with the resultant movement of the cutting blade 13 into operative relation to the member 12. It is now to be noted that the rearward movement of the locking rod is limited by the engagement of its rear terminal, indicated at 50, Fig. 9, with the inner face of the end wall 20. As soon as the knife 13 has passed downwardly a sufficient distance to trim the end of the cigar, it is released and is again swung back into inoperative position by the spring 39 in the manner heretofore explained. The operator now removes the cigar from the channel 14 and, as has also been hereinafore described, the spring 40 acts immediately to project the terminal of the offset portion 37 of the locking rod beyond the outer face of the wall 21 into such position that it will engage with the shoulder 34 of the arm 25 should an attempt be made to swing this member into operative position.

In order to enable the operator to ascertain the exact length to which the cigar will be cut, a number of characteristics are inscribed on the enlarged portion of the top plate 17 at one side of the receiving channel 14. These characteristics are accompanied by numerals which indicate the distance of the gage from the knife 12. These numerals are advanced along the top plate 17 a sufficient distance to compensate for the rearward movement of the gage after the operator has inserted a cigar into the channel 14, in the manner previously set forth. In explanation of this statement, it may be well to state that the operation of the device is such that if the gage is set, for instance with its forward terminal in transverse alignment with the line adjacent the numeral 4, which indicates four inches, the forward edge of the gage will in reality be only approximately three and three-fourth inches from the knife 12. Thus when a cigar has been applied and the gage has been moved rearwardly through the channel to withdraw the locking rod from locking position, the gage will be moved rearwardly the remaining quarter of an inch so that the scale will have given an accurate estimate of the finished length of the cigar.

In reduction to practice, it has been found that the form of this invention illustrated in the drawings, and referred to in the above description as the preferred embodiment, is the most efficient and practical; yet realizing that the conditions concurrent with the adoption of this device will necessarily vary, it is desired to emphasize the fact that various minor changes in details of construction, proportion and arrangement of parts may be resorted to, when required, without sacrificing any of the advantages of this invention, as defined in the appended claims.

What is claimed is—

1. A cigar cutter including a fixed knife, a movable knife, a lineal gage member, and means operatively connected to the gage member for normally locking the movable knife in inoperative position.

2. A cigar cutter including a fixed knife, a movable knife, a lineal gage member, and spring-pressed means operatively connected to the gage member for normally locking the movable knife in inoperative position.

3. A cigar cutter including a movable knife, a fixed knife, a lineal gage member, and spring-pressed means for normally locking the movable knife in inoperative posi-
10. A cigar cutter including a base member, a bed-block removably mounted thereon and having a longitudinally extending cigar receiving channel and a longitudinally extending slot formed in the channel, a fixed knife secured at one terminal of the channel, a movable knife pivotally connected to the bed-block and co-operating with the fixed knife, a locking rod mounted for sliding movement in the bed-block, yieldable means for normally projecting the forward terminal of the locking rod into the path of movement of the movable knife, a linear gage slidable in the channel, and means for adjustably connecting the gage to the locking rod, said means including a sleeve having diametrically opposed openings receiving the locking rod, a bolt insertible in the sleeve and having a transverse bore registering with the openings of the sleeve and receiving the locking rod, the upper terminal of the bolt being threaded and inserted through an opening formed in the gage, and a wing nut threaded on the upper terminal of the bolt.

11. A cigar cutter including a movable knife, a slidable gage member, and means operatively connected to the gage member for normally locking the knife in inoperative position.

12. A cigar cutter including a movable knife, a gage member movable toward and away from the knife, and yieldable means connected to the gage member for normally locking the knife in inoperative position.

13. A cigar cutter including a movable knife, a gage member, and yieldable means normally locking the knife in inoperative position, said means being connected to and movable with the gage member.

14. A cigar cutter including a movable knife, a gage member movable toward and away from the knife, and yieldable means connected to the gage member for normally locking the knife in inoperative position.

15. A cigar cutter including a movable knife, a gage member, and yieldable means normally locking the knife in inoperative position, said means being connected to and movable with the gage member.

16. A cigar cutter including a bed-block, a fixed knife, a movable knife, a lineal gage slidable longitudinally on the bed-block, a spring-pressed locking rod having its terminal normally projecting into the path of movement of the fixed knife for locking the movable knife against movement into operative relation to the fixed knife, and means for securing the gage into adjusted position on the locking rod.
ably connected to the gage member, and yieldable means normally holding the rod in locking relation to the knife.

18. A cigar cutter including a base member, a bed-block having a longitudinally extending slot, a movable knife pivotally connected to the bed-block, a slideable locking rod, yieldable means normally projecting the terminal of the rod into the path of the knife, a gage slideable on the bed-block, and means adjustably connecting the gage and locking rod, said means including a sleeve having diametrically opposed openings receiving the rod, a bolt insertible in the sleeve and having a transverse bore registering with the openings of the sleeve and receiving the locking rod, the upper terminal of the bolt being threaded and insertible through the gage, and a wing-nut threaded on the upper terminal of the bolt.

19. A cigar cutter including a bed-block, a movable knife pivoted thereto, a locking rod slideably mounted in the bed-block, yieldable means normally holding the terminal of the rod in the path of the knife, a gage slideable on the bed-block, and means for adjustably connecting the gage to the rod, said means including a sleeve having diametrically opposed openings receiving the locking rod, a bolt insertible in the sleeve and having a transverse vertically elongated bore registering with the openings of the sleeve and receiving the locking rod, the upper terminal of the bolt being threaded and insertible through the gage, and a wing-nut threaded on the upper terminal of the bolt and bearing against the upper face of the gage, whereby the nut may be drawn upwardly to move slightly through the sleeve.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE E. HARRISON. [L. S.]

Witnesses:

E. A. SIEBERT,
GEORGE BLAES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."