Sept. 15, 1931. L. P. BRUENING 1,822,953

THIMBLE

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Fig. 1.

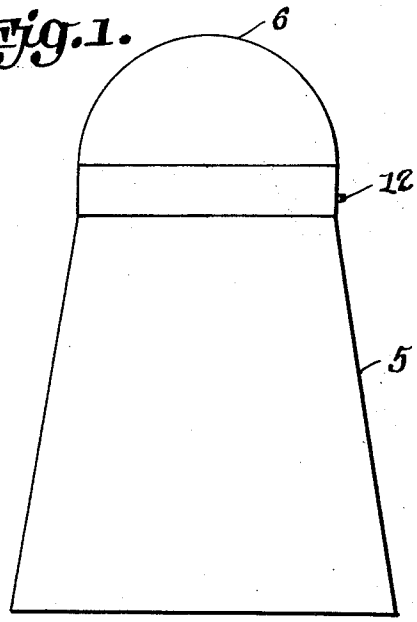


Fig. 2.

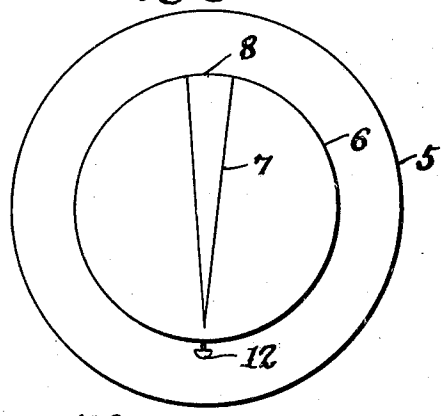


Fig. 4.

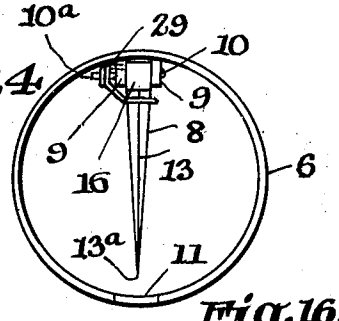


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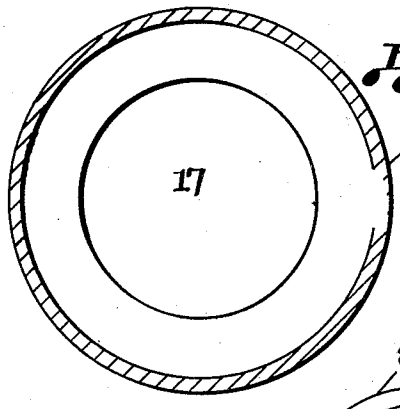


Fig. 16.



Fig. 15.

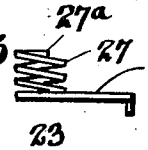


Fig. 14.



Fig. 11.

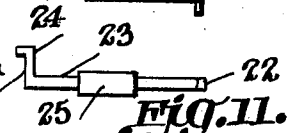


Fig. 5.

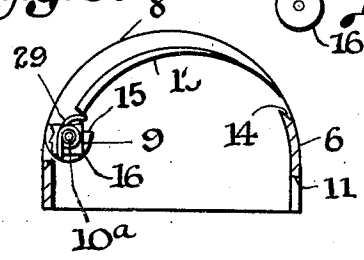


Fig. 10.

Fig. 13.

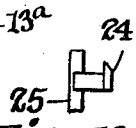


Fig. 12.



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THIMBLE

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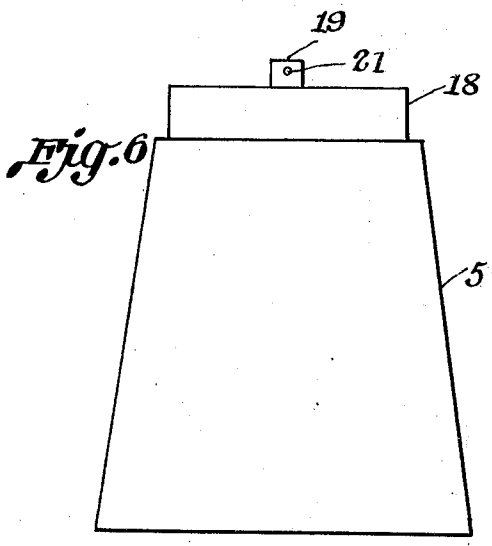


Fig. 6.

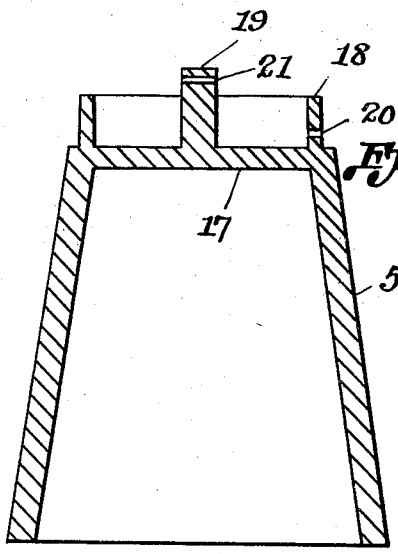


Fig. 7.

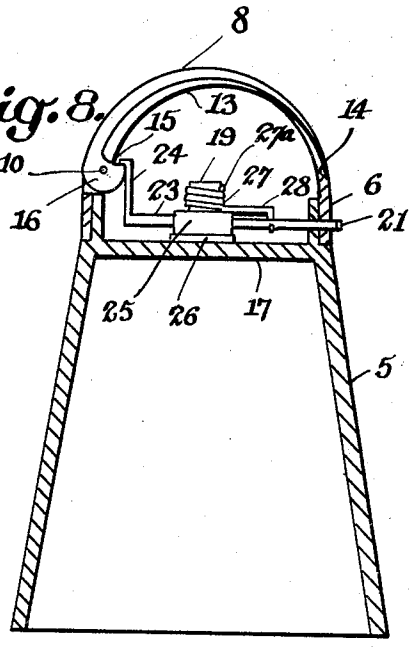


Fig. 8.

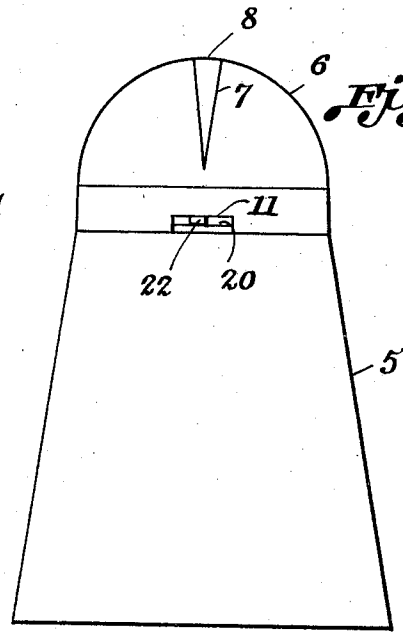


Fig. 9.

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UNITED STATES PATENT OFFICE

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THIMBLE

Application filed August 12, 1930. Serial No. 474,714.

This invention relates generally to thimbles employed in sewing by hand and particularly to a thimble which is constructed to combine a ripping and thread cutting knife in its head portion, said knife adapted to be nested in the said head and to be releasable into operating position upon manipulation of a spring detent associated therewith.

It is an object of this invention to provide a new and improved thimble construction which combines in a highly efficient and convenient manner in its head portion a ripping and thread cutting knife.

It is also an object of this invention to provide an improved thimble of the type described which has a ripping and thread cutting knife pivoted in one side of the head of the thimble and conforming to the curvature thereof so as to nest therein in a slot in the head portion corresponding to the shape of the knife, said knife being outwardly spring-pressed and releasable outwardly by a spring retained detent mechanism constructed on the inside of the head portion of the thimble and having a lever protruding from one side of the head portion for engagement by the thumb of the user of the thimble.

It is also an object of this invention to provide an improved thimble construction of the type described which will eliminate the necessity of using other implements and tools for ripping and thread cutting while using my improved thimble.

It is also an object of this invention to provide a device of the character described which is highly simple and effective and positive in operation, and cheap and inexpensive to manufacture, and which provides in highly attractive form a device admirably adapted for the purposes for which it is designed.

These and other and further objects of the invention, its nature, and its composition and arrangement and combination of parts will be readily understood from an inspection of the following description of the drawings, in which:

Figure 1 is a side view of my improved thimble.

Figure 2 is a top view of Figure 1.

Figure 3 is a longitudinal section through the base of the thimble looking upward.

Figure 4 is a bottom view of the head portion of my improved thimble and disclosing the mounting of the ripping and thread cutting knife therein.

Figure 5 is a central vertical section through the head portion of my improved thimble further disclosing the mounting of the knife therein.

Figure 6 is a general side elevational view of my improved thimble showing the base portion thereof with the head portion removed.

Figure 7 is a vertical central section taken at approximately ninety degrees to Figure 6.

Figure 8 is a similar view to Figure 7 showing the head portion in section as in Figure 5, mounted on the base portion and disclosing the arrangement of the detent mechanism within the head portion.

Figure 9 is a similar view to Figure 1, taken at ninety degrees thereto.

Figure 10 is a detail of the ripping and thread cutting knife.

Figure 11 is a side view of the release lever.

Figure 12 is a top view thereof.

Figure 13 is an end view taken from the left of Figure 12.

Figure 14 discloses the washer, which is to be placed between the detent lever and the top of the base and around the post located centrally thereon.

Figure 15 is a side view of the detent spring.

Figure 16 is a top view of Figure 15.

It will be understood that I do not desire to limit the application of this invention to the particular modification set forth herein to illustrate the same, and any change or changes may be made in material or structure consistent with the spirit and scope of the invention.

Referring in detail to the drawings, the numeral 5 designates the hollow frusto-conical base into which the finger is to be inserted when using the thimble. The numeral 6 designates the semi-spherical head portion of the thimble which is mounted on the base portion by means of a ring 18 mounted on

the upper end of the base portion 5, the head portion engaging over said ring and abutting the top of said base portion as disclosed in Figure 8.

A triangular cut 7 is made from a point near one edge of the head on a diameter thereof to a point near. The edges of the opening 7 are bevelled as shown at 14 to form a seat for the edges of the triangular knife 8 which is adapted to be positioned therein.

The frusto-conical base portion 5 has its upper edge closed by a plate 17 upon which is mounted the ring 18 and a centrally located boss 19. Suitable means, not shown, are provided for maintaining the head portion and the base portion in secure engagement.

The knife 8 is in the form of a curved hook of generally triangular cross section presenting the principal cutting edge 13 and the surfaces of the knife converge to a sharp point 13*a*. The butt portion 16 is a semicircular body forming with the knife blade a notch 15 adapted to be engaged by a laterally directed portion 24 and a vertical projection 24*a* of a detent lever 23 which has a centrally enlarged and apertured portion 25 for rotatable mounting upon the boss 19.

One end 22 of the detent lever 23 is enlarged to form a knob which is projected through a slot 20 in the ring 18 and through another slot 11 in the lower edge portion of the semispherical head. It should be stated that the head portion is suitably roughened, as is the back portion 8 of the knife 7 to provide the proper surface for engaging the ends of needles in the operation of sewing by hand.

A circular washer 26 is adapted to be slipped on the boss 19 and then the apertured enlargement 25 and the lever 23 is placed thereover, and then a coiled spring 27 is placed over the lever 23. The upper end 27*a* of the spring is passed into and fastened in the hole 21 in the upper portion of the boss, and the lower end of the spring is formed with a horizontal extension 28 terminating in a hook for engaging about the lever 23 near the portion 22 thereof.

The spring 27 with the lever 23 thus forms a spring detent adapted to engage with the notch 15 of the knife blade to maintain the blade in closed position as shown in Figure 8.

The butt end of the knife is mounted pivotally between a pair of lugs 9 formed adjacent one end of the triangular opening 7 by means of a pivot pin therethrough and through the butt of the blade. Suitable means may be provided for ejecting the knife into operating position upon the release of the lever 23 from the notch 15.

A suggested form for said ejecting means is to form an extension of the pivot pin 10 as at 10*a*, the pin being tightly fitted into the butt of the knife, and to provide a coil spring 29 tightly gripping the extension 10*a* of the pin 10 with a free end hooked over the adjacent lug 9, so as to swing the blade into extended position, when the detent is moved in the slot 11 into release position.

In the operation of the spring detent it will be obvious that upon moving the end 22 of the lever 23 in the slot 11 in one direction the portion 24 of the lever will be displaced from the notch 15 on the blade and the spring 29 will be permitted to swing the knife 7 into extended position.

The spring 27 is so disposed as to normally rotate the lever 23 so as to engage the portion 24 with the notch 15 to retain the knife in its closed position. Thus, with the thimble upon the finger, it is a simple matter to actuate the end 22 of the detent 23 with the thumb to release the knife into ripping and cutting position whenever it is desired to rip or cut threads, and the knife may be restored to its position in the semi-spherical head by simply pressing the knife back into position. Permitting the detent lever to return to engagement with the notch 15 through the action of the spring 27 which will then lock the knife in the head.

It will now be obvious that I have provided an improved sewing thimble of the type described, which is simple and positive in operation, which is composed of few and simple parts, and which is simple and easy and inexpensive to manufacture, and otherwise admirably adapted for the purposes for which it was designed.

I claim:

1. A thimble of the type described comprising a hollow body for positioning on a finger while sewing, a hollow cap on the upper end thereof, an elongated opening across the cap having one end below the upper part of the cap, a knife having one end pivoted in said one end of the opening and adapted to close said opening when in retracted position, and a manually operable spring detent in said cap for releasably retaining the knife in retracted position.

2. A thimble of the type described comprisng a hollow body for positioning on a finger while sewing a hollow cap on the upper end thereof, an elongated opening across the cap having one end below the upper part of the cap, a knife having one end pivoted in said one end of the opening and adapted to close said opening when in retracted position, and a manually operable spring detent in said cap for releasably retaining the knife in retracted position, the upper end of the hollow body being closed by a plate having an upstanding flange on which said cap is secured.

3. A thimble of the type described comprising a hollow body for positioning on a finger while sewing, a hollow cap on the upper end thereof, an elongated opening across the cap having one end below the up-

per part of the cap, a knife having one end pivoted in said one end of the opening and adapted to close said opening when in retracted position, and a manually operable spring detent in said cap for releasably retaining the knife in retracted position, the upper end of the hollow body being closed by a plate having an upstanding flange on which said cap is secured, said cap being generally hemispherical in form.

4. A thimble of the type described comprising a hollow body for positioning on a finger while sewing, a hollow cap on the upper end thereof, an elongated opening across the cap having one end below the upper part of the cap, a knife having one end pivoted in said one end of the opening and adapted to close said opening when in retracted position, and a manually operable spring detent in said cap for releasably retaining the knife in retracted position, the upper end of the hollow body being closed by a plate having an upstanding flange on which said cap is secured, said cap being generally hemispherical in form, and said elongated opening being triangular and disposed with its base below the upper part of the cap, and said knife being generally triangular in cross section.

5. A thimble of the type described comprising a hollow body for positioning on a finger while sewing, a hollow cap on the upper end thereof, an elongated opening across the cap having one end below the upper part of the cap, a knife having one end pivoted in said one end of the opening and adapted to close said opening when in retracted position, and a manually operable spring detent in said cap for releasably retaining the knife in retracted position, the upper end of the hollow body being closed by a plate having an upstanding flange on which said cap is secured, said cap being generally hemispherical in form, and said elongated opening being triangular and disposed with its base below the upper part of the cap, and said knife being generally triangular in cross section, said spring detent consisting of a horizontal swingable spring-positioned lever, a shoulder on the base of the knife, means on the lever for engaging the shoulder for normally retaining it in retracted position in the cap.

In testimony whereof I affix my signature.

LEE P. BRUENING