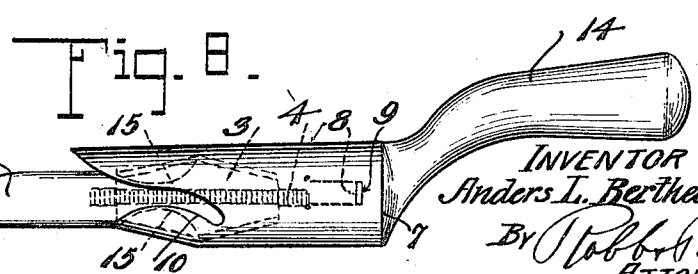
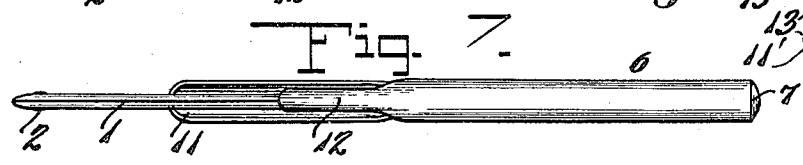
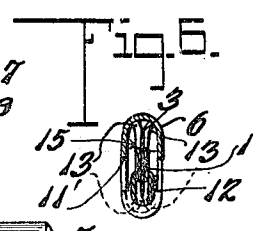
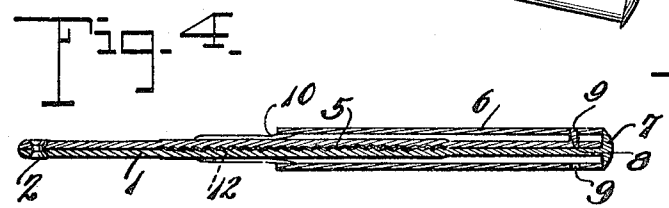
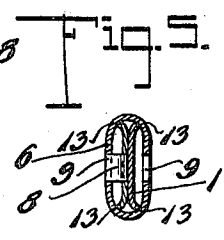
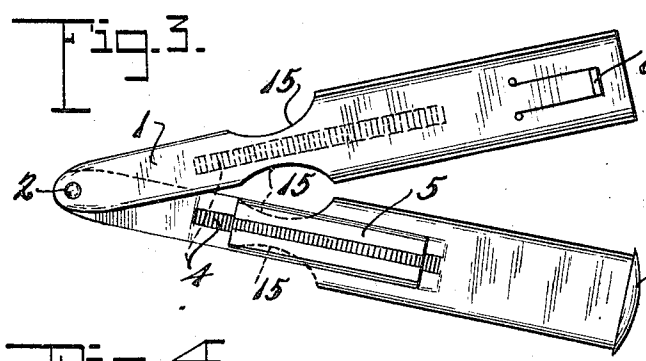
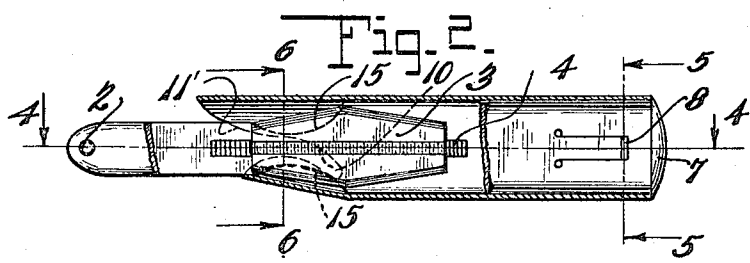
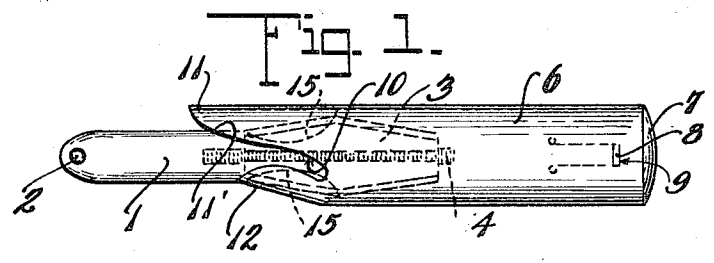


A. L. BERTHELSEN.
FABRIC CUTTING DEVICE.
APPLICATION FILED JAN. 9, 1918.

1,318,346.

Patented Oct. 14, 1919.
2 SHEETS—SHEET 1.



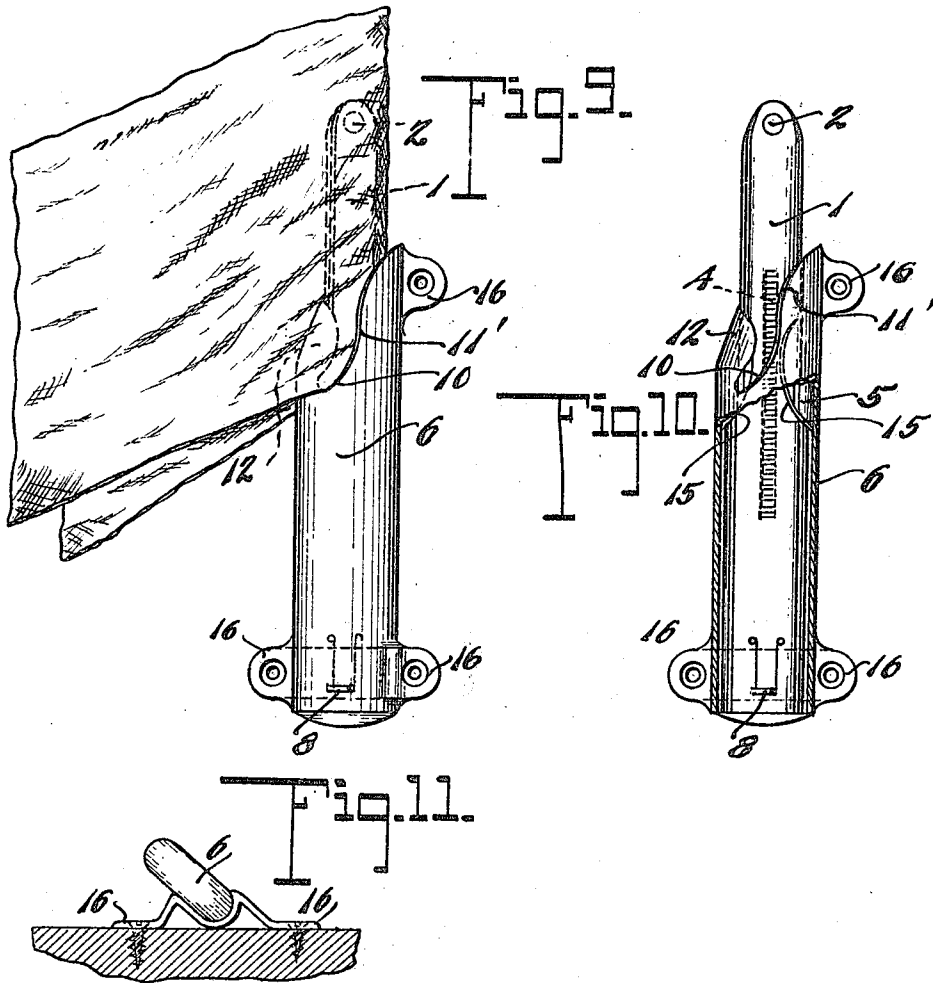
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UNITED STATES PATENT OFFICE.

ANDERS L. BERTHELSEN, OF CHICAGO, ILLINOIS.

FABRIC-CUTTING DEVICE.

1,318,346.

Specification of Letters Patent.

Patented Oct. 14, 1919.

Application filed January 9, 1918. Serial No. 211,052.

To all whom it may concern:

Be it known that I, ANDERS L. BERTHELSEN, a subject of the King of Denmark, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fabric-Cutting Devices, of which the following is a specification.

The present invention relates to improvements in fabric cutting devices, the cutting operation of which is produced by a relative movement between the fabric and the cutter, as distinguished from a scissors action. Among others, the objects of the invention are to provide a relatively small or pocket size article embodying a cutting blade disposed within cloth guiding means so arranged with regard to the edge of the blade as to produce a movement of the fabric in a direction at an angle to said edge to thereby sever the material along the desired line of cut; to provide the guiding means aforesaid in the form of a sheath which constitutes a protector for the blade, and manipulative means for the device; and to provide holding means for the blade so coacting with the sheath as to hold the material in proper alinement in advance of the guiding means preliminary to severing and enabling the blade to be variably adjusted for presenting a new cutting edge when desired.

These and such other objects as may hereinafter appear are attained by the novel construction, combination, and arrangement of parts to be hereinafter specifically described and claimed. Reference will now be had to the accompanying drawings forming a part of this specification, wherein:

Figure 1 is a side elevation of a device constructed in accordance with my invention;

Fig. 2 is a longitudinal sectional view, a portion of the blade holder being broken;

Fig. 3 is a side elevation of a blade holder, the sections of which are in open position;

Fig. 4 is a longitudinal sectional view on the line 4-4 of Fig. 2;

Figs. 5 and 6 are transverse sectional views on the lines 5-5 and 6-6, respectively, of Fig. 2;

Fig. 7 is a bottom plan view of the device;

Fig. 8 is a side elevation showing a slightly modified form of blade holder;

Fig. 9 is a top plan view of a modified

form of the type of my cutter which is designed to be secured in stationary position;

Fig. 10 is a similar view, a portion of the casing being broken away and shown in section; and

Fig. 11 is an end elevation of the modified form referred to.

Referring to the drawing, 1 indicates a blade holder which consists of complementary sections pivoted at one end as indicated at 2 and receiving between its sections a cutting blade 3 of the desired form. The blade along a longitudinal median line is suitably corrugated so as to engage with similar corrugations 4 on the sections of the blade holder by means of which construction the blade is adjustably held by the holder and capable of adjustment in a longitudinal direction as well as a reversible adjustment. In other words, the blade is preferably of a type embodying a series of cutting edges and said blade may be shifted in the longitudinal direction for the purpose of changing the portion of the edge of the blade with relation to the cloth guiding means hereinafter described whereby longer life and use of the blade is secured. It will be obvious that the said blade may be reversed so that the rear portion of the upper edge may be disposed in the operative position above referred to or the blade may be inverted and the same adjustment of the previously lower edge secured.

In Fig. 3 of the drawing is indicated a slightly modified form of blade 5, such obvious modification of the cutter element being within the purview of this invention. The holder 1 is disposed within a case or sheath 6 somewhat oval in cross section, said holder being movable longitudinally into such sheath from the rear end so that its front or the pivot end thereof projects substantially in advance of the forward extremity of said sheath. The holder is shouldered as indicated at 7 at its rear end, such shouldered portion limiting the longitudinal movement aforesaid and constituting a closure for the rear end of the sheath. A resilient locking tongue 8 is formed on or stamped from one of the sections of the holder and as shown in Fig. 4 most clearly engages in an opening 9 in the side of the sheath, which latter is provided with an opening at each side for this purpose in order that the holder may be locked in either position of its disposition within the sheath.

Not only does the sheath just referred to constitute a protector for the blade 3 which lies substantially within the end of the sheath but it also constitutes manipulative means by which the device is used and in addition to these functions the material of said sheath is so cut away at its forward end or slotted as indicated at 10 as to provide what I term as fabric guiding means 11 at one side and gripping means 12 at the opposite side. The cutting away in the manner just indicated provides a construction of guide means in which the edges or flanges 11' extend downwardly at opposite sides of the blade and at an incline to the cutting edge thereof. Inasmuch as the guide means 11 extends over the cutting edge so that it is substantially U-shaped in cross section, its function is to produce a folding of the material over the edge and exertion of pressure in a lateral direction as well as a downward direction so that the fabric is severed when it moves into the guide means aforesaid by the operative cutting edge of the blade 3 lying in spaced relation to the guiding means.

Referring now to the gripping means 12 the material of the sheath at this point is pressed inwardly as most clearly shown in Fig. 7 so as to slidably and snugly receive the blade holder 1. The gripping means therefore, in conjunction with the slight curving of the upper longitudinal edges of the blade holder sections as indicated at 13, centralize the holder and maintain the blade in its proper relation to the sheath guiding means for performing its function.

In Fig. 8 the blade holder is slightly modified so as to provide a suitable handle 14 by means of which the use of the device is facilitated. Other changes in the details of construction may readily be made within the scope of the invention.

In the use of this article the cutting operation, as hereinbefore premised, is accomplished by a relative movement between the fabric and the cutter, and it is immaterial whether the fabric is held stationary and the cutter moved in the cutting action, or whether the cutter is held stationary and the material moved relative thereto. When the line of cut on the fabric is determined, and this is preferably at right angles to the sel-vage edge of said material, the latter passes over the projecting extremity of the handle and into the guide 11 of the sheath, the curvature of which produces folding of the material preliminary to the cutting action of the blade becoming effective. Since the material is directed by the curvature or inclination of the edges of the flanges 11' at an angle to the cutting edge of the blade, it is severed; the severed edges passing outwardly as they reach the inner portion of the slot or cut-away portion of the sheath, this being facili-

tated by the formation of the gripping which lies directly beneath the guide. The material, however, is best severed by preliminarily folding the same upon the line of cut and passing the device along said line, the fold being guided by the projecting extremity of the holder 1 which supports the material in alignment with the cutting edge of the blade and in advance thereof.

It has been hereinbefore explained that when the operative portion of the cutting blade becomes dulled by use, the adjustment of the blade to present a new cutting edge may be accomplished in several ways, either by a reversal of the position of the blade holder, which it may here be stated is cut away from both edges as indicated at 15, or a longitudinal adjustment of the blade in the holder, or, lastly, by a reversal either end for end or edge for edge of the blade within the holder.

In Figs. 9 to 11 I have shown modifications of the fabric cutter, the principles of which, however, are the same as in the preferred form. In Fig. 9, for example, I have only modified the device to the extent of providing the sheath with apertured supports 16 by means of which it may be secured to a counter or similar support. The casing, as will be observed in Fig. 11, is arranged at an inclination best suited for enabling the cutting operation to be easily carried out.

This and other similar modifications may readily be made in the device without departing from the spirit of the invention and within the scope of the claims hereto appended.

Having thus described my invention, what I claim as new is:—

1. In a cutting device of the class described, a cutting member and spaced guide means adjacent to said cutting member extending over and about the sides of the cutting edge thereof, said means being operative preliminarily before cutting action to fold the material to be cut and thereafter to direct the same against the cutting member upon relative movement of the material and the cutter.

2. In a cutting device of the class described, a blade and relatively stationary guide means arranged in spaced relation to the edge of the blade and having its opposite sides extending downwardly along the said edge in a direction at an angle thereto for pressing the material to be cut with an increasing degree of pressure downwardly and laterally.

3. In a cutting device of the class described, a blade, a protective sheath in which the blade is inclosed with its cutting edge in spaced relation to the sheath wall, the entrance of the sheath along the cutting edge being cut away in a direction

transversely and longitudinally to provide spaced guide flanges at opposite sides of the blade.

4. In a cutting device of the class described, a blade, a holder therefor and a sheath in which said holder is movably received, the sheath having guide means at one end spaced from the edge of the blade and projecting substantially in advance thereof to preliminarily act upon the material prior to cutting action and subsequently move said material in a direction across the edge upon relative movement between the material and the cutter.

5. In a cutting device of the class described, a blade, a holder therefor and a sheath in which said holder is movably received and including fabric guiding means, said sheath having gripping means with which the holder is slidably engaged and held in operative relation to the guiding means aforesaid.

6. In a cutting device of the class described, a blade, a holder therefor and a sheath in which said holder is movably received, said sheath being slotted at one end to form spaced fabric guiding means and gripping means coöperative with the holder.

7. A fabric cutting device comprising a blade, a sheath substantially entirely surrounding said blade, said sheath having an opening exposing a point of the cutting edge of the blade, and into which opening fabric or the like may be introduced to contact with said point, and blade holding means within the sheath on which the blade is adjustable to and fro to shift the cutting point along the blade edge when the latter becomes dull at any particular point.

8. In a fabric cutting device, the combination of a blade, a sheath in which said blade is housed, a holder sustaining the blade within the sheath and having an end portion thereof projecting exteriorly of the sheath to constitute fabric supporting and guiding means for directing the fabric into the sheath into contact with the blade, and means on said sheath coöperative with the projecting portion of the blade holding means whereby to preliminarily fold the material about said means as the fabric moves relatively into the sheath for severance by the blade.

9. In a cutting device of the class described, the combination of a sheath, a blade mounted in said sheath, a holder for said blade for sustaining the same in operative position in the holder comprising coöperative sections between which the blade is clamped, the end of said holder projecting

from the sheath to coöperate with the fabric in the movement of the latter into cutting relation with respect to said blade.

10. In a cutting device of the class described, the combination of a sheath, a blade mounted in said sheath, a holder for said blade for sustaining the same in operative position in the holder comprising coöperative sections between which the blade is clamped, the end of said holder projecting from the sheath to coöperate with the fabric in the movement of the latter into cutting relation with respect to said blade, and means on the sections of the holder with which the blade is adjustably engaged for providing for shifting of the blade to effect a change of the cutting point along the edge of said blade.

11. In a fabric cutting device, a blade, a sheath, fabric guiding means on said sheath, and means providing adjustment of the blade with relation to the guiding means and for retracting the blade from the sheath.

12. In a fabric cutting device, a blade, a sheath cut out at one end to form spaced guiding and gripping means, and a blade holder, the walls of the sheath forming the gripping means being pressed inwardly to slidably engage the holder.

13. In a fabric cutting device, a blade, means for holding the blade in operative position exposing a point of the cutting edge to material to be cut, and means within the holding means permitting adjustment of the blade along the longitudinal axis of said holding means to change the cutting point.

14. In a fabric cutting device, blade holding means and a reversible blade bodily adjustable to shift the effective cutting point of the cutting edge in a longitudinal direction.

15. In a fabric cutting device of the class described, a blade, manipulative means therefor, and relatively stationary means for supporting the material to be cut while the point of severance thereof moves relatively toward the blade preliminary to cutting.

16. A fabric cutting device of the class described comprising a cutting element, and means arranged in advance of said cutting element to preliminarily act upon the material to be cut to effect folding of the same prior to cutting action, and guide means with which the projecting portion of the holder coacts to force the material against the edge of the blade.

In testimony whereof I affix my signature.

ANDERS L. BERTHELSEN.