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FIBER NEEDLE CUTTER.

APPLICATION FILED MAY 20, 1911.

1,009,009.

Patented Nov. 14, 1911.

Fig. 1.

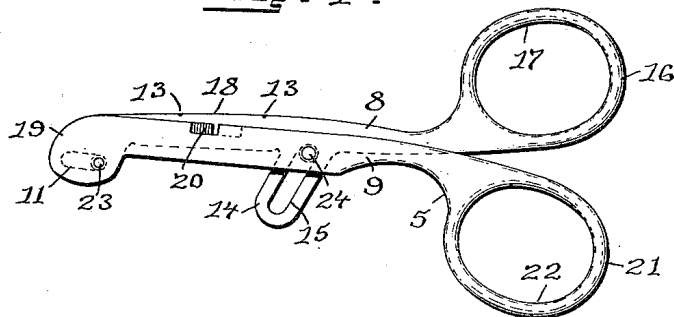


Fig. 2.

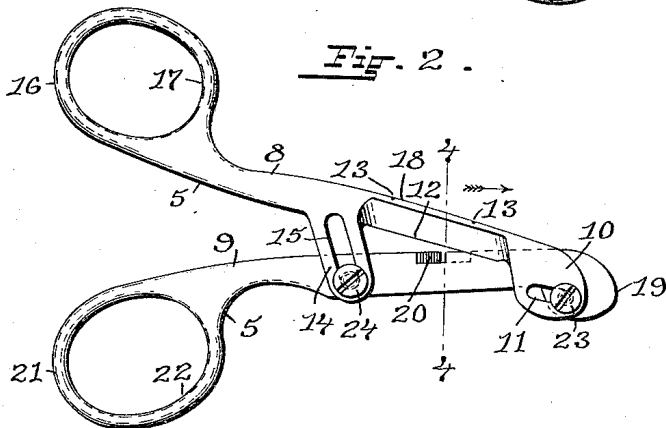


Fig. 3.

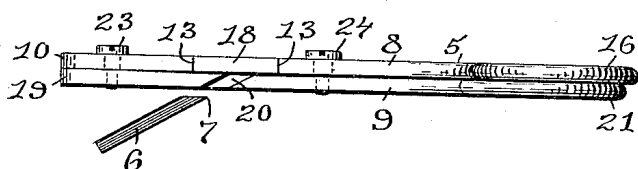
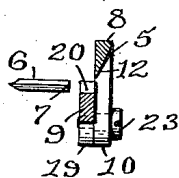


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## FIBER-NEEDLE CUTTER.

1,009,009.

Specification of Letters Patent. Patented Nov. 14, 1911.

Application filed May 20, 1911. Serial No. 628,483.

*To all whom it may concern:*

Be it known that we, ALBERT JOSEPH BACHAND and WILLIAM DOUGLASS BLOSSFIELD, citizens of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Fiber-Needle Cutters, of which the following is a specification.

This invention has reference to an improvement in phonograph accessories, and more particularly to an improvement in fiber needle cutters for trimming or pointing fiber phonograph needles.

Fiber phonograph needles are formed from small strips of bamboo triangular in cross section and cut off at an angle at one end to form a point. These fiber needles are used in disk phonographs to produce a softer and more natural tone and will wear approximately the length of time required to run one record. When used once it is necessary to re-point the needle for further use and this is done by cutting off at the same angle a small portion of the pointed end of the needle. There is also a limit to which these needles can be shortened, as a needle that is too short does not reproduce properly.

The object of our invention is to improve the construction of a fiber needle cutter for re-pointing fiber needles, whereby the operation of re-pointing fiber phonograph needles is greatly facilitated, and an attractive, convenient and suitable accessory is provided for disk phonographs.

Another object of our invention is to provide a fiber needle cutter with a gage, whereby the limit to which a fiber needle may be reduced is accurately determined.

Our invention consists in the peculiar and novel construction of a fiber needle cutter, as will be more fully set forth hereinafter and claimed.

Figure 1. is a front view of the cutter in the closed position. Fig. 2. is a back view of the cutter in the open position. Fig. 3. is a top edge view of the cutter and showing a fiber phonograph needle in position to be inserted into the cutter for re-pointing the needle, and Fig. 4. is a transverse sectional view through the cutter, taken on line 4. 4. of Fig. 2.

In the drawings, 5. indicates our improved fiber needle cutter and 6. a fiber needle formed from a small strip of bamboo trian-

gular in cross section and cut off at an angle at one end to form a point 7. which runs in the groove in the record. The needle 6. is shown only to illustrate the operation of the cutter 5.

The cutter 5. is constructed to somewhat resemble a pair of small shears, for convenience of handling and operation and consists of two operating handle members 8. and 9. The handle member 8. has a sliding pivot end 10. in which is a longitudinal slot 11., a knife edge 12. adjacent the pivot end, two transverse nicks 13. 13. on the upper edge, a downwardly and forwardly extending arm 14. in which is a slot 15. which extends at an angle toward the pivot end 10. and a handle 16. in which is an oval opening 17. for the thumb, as shown in Fig. 2. The ends of the slots 11. and 15. limit the opening and closing movements of the members and the transverse nicks 13. 13. are placed approximately five eighths of an inch apart and form a gage 18. by which the limit to which the needles may be reduced in length, is accurately obtained. The handle member 9. has a pivot end 19. an angular notch 20. which extends across the upper edge of the member at an angle, as shown in Fig. 3. and has sufficient width and depth to receive the needle 6., and a handle 21. in which is an oval opening 22. for the finger, as shown in Figs. 1. and 2. The member 8. is pivotally and slidably secured to the member 9. by a shouldered screw 23. which extends through the slot 11. and is screw-threaded into the end 19. and a shouldered screw 24. which extends through the slot 15. and is screw-threaded into the member 9.

When in use a fiber needle is cut or pointed by opening the cutter and inserting the needle into and slightly through the angular notch 20. when by closing the members 8. and 9. the knife edge 12. co-acting with the adjacent edge of the member 9. cuts a predetermined portion at an angle from the end of the needle, thereby re-pointing the same and this re-pointing of the needle is greatly facilitated and a more perfect point obtained, by the sliding or shearing action of the members. When a needle has been re-pointed a plurality of times, the gage 18. will indicate if the needle may again be re-pointed for use, or not.

Having thus described our invention we

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claim as new and desire to secure by Letters Patent:—

1. In a fiber needle cutter, two hand members pivotally and slidably secured together, one hand member having a pivoted end, a knife edge and a handle, and the other hand member having a pivot end, an angular notch and a handle and means for pivotally and slidably securing the hand members together.
2. In a fiber needle cutter, two hand members pivotally and slidably secured together, one hand member having a sliding pivot end, a knife edge and a handle, and the other hand member having a pivot end, an angular notch and a handle, means for pivotally and slidably securing the hand members together and means for limiting the opening and closing movements of the hand members.
3. In a fiber needle cutter, two hand members pivotally and slidably secured together, one hand member having a sliding pivot end in which is a longitudinal slot, a knife edge adjacent the pivot end, a downwardly and forwardly extending arm in which is a slot, and a handle, all formed integral, and the other hand member having a pivot end, an angular notch formed in the upper edge and a handle member, all formed integral, means for pivotally and slidably securing the hand members together and means for limiting the opening and closing movements of the hand members.
4. In a fiber needle cutter, two hand members pivotally and slidably secured together, one hand member having a sliding pivot end in which is a longitudinal slot, a knife edge adjacent the pivot end, a downwardly and forwardly extending arm in which is a corresponding slot, and a handle all

formed integral, and the other hand member having a pivot end, an angular notch formed in the upper edge and a handle member, all formed integral, a shouldered screw extending through the slot in the sliding pivot end of the first hand member and in screw-thread engagement with the pivot end of the second hand member, and a shouldered screw extending through the slot in the arm of the first hand member and in screw-thread engagement with the second hand member.

5. In a fiber needle cutter, two operating hand members pivotally and slidably secured together, one hand member having a sliding pivot end in which is a longitudinal slot, a knife edge adjacent the pivot end, two transverse nicks in the upper edge forming a gage, a downwardly and forwardly extending arm in which is a corresponding slot, and a handle having a thumb hold, all formed integral, and the other hand member having a pivot end, a notch formed in the upper edge and extending at an angle across the same and a handle having a finger hold, all formed integral, a screw extending through the slot in the sliding pivot end of the first hand member and screw-threaded into the pivot end of the second hand member and a screw extending through the slot in the arm of the first hand member and screw-threaded into the body of the second hand member.

In testimony whereof, we have signed our names to this specification in the presence of two subscribing witnesses.

ALBERT JOSEPH BACHAND.

WILLIAM DOUGLASS BLOSSFIELD.

Witnesses:

CHAS. H. LUTHER,

JULIA RICCI.