A. MONARD.

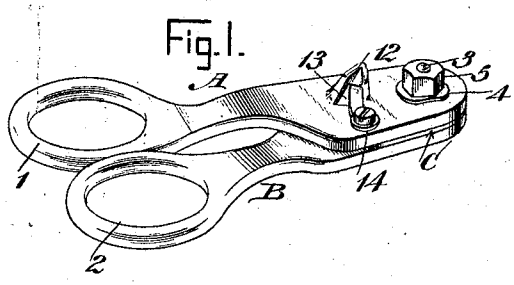
FIBER PHONOGRAPH NEEDLE CUTTER.

APPLICATION FILED MAR. 12, 1914.

1,159,246.

Patented Nov. 2, 1915.

Fig. 1.



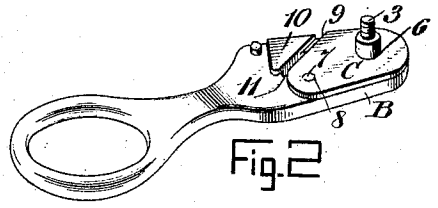


Fig. 2

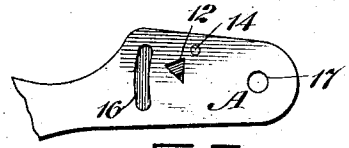


Fig. 3.

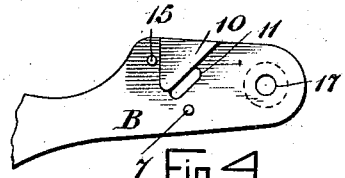


Fig. 4.

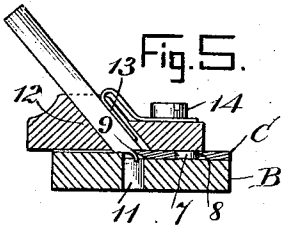


Fig. 5.

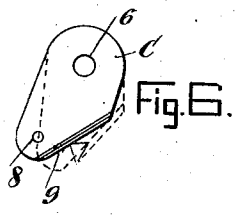


Fig. 6.

WITNESSES

E. K. Reichenbach.

6 Broadway.

INVENTOR

Armand Monard

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

ARMAND MONARD, OF NEW YORK, N. Y.

FIBER-PHONOGRAPH-NEEDLE CUTTER.

1,159,246. Specification of Letters Patent. Patented Nov. 2, 1915.

Application filed March 12, 1914. Serial No. 824,137.

To all whom it may concern:

Be it known that I, ARMAND MONARD, a citizen of Switzerland, and a resident of the city of New York, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Fiber-Phonograph-Needle Cutter, of which the following is a full, clear, and exact description.

This invention relates to a cutting device for trimming or pointing fiber phonograph needles, and it has for its general objects to improve and simplify the construction and operation of cutting devices of this character so as to be reliable and efficient in use, comparatively inexpensive to manufacture and of such design as to be extremely handy to manipulate.

Another object of the invention is to improve cutting devices of that character which comprises a pair of hingedly connected elements that are adapted to fit the thumb and second finger, like the handle members of a pair of scissors, one element having a needle-holding device of novel form and the other element having a cutting blade arranged in a simple and novel manner so that by a movement of the elements, similar to the closing of a pair of scissors, the blade will trim the tip of a fiber needle.

With such objects in view, and others which will appear as the description proceeds, the invention comprises various novel features of construction and arrangement of parts as will be set forth with particularity in the following description and claims appended hereto.

In the accompanying drawing which illustrates one embodiment of the invention, and wherein similar characters of reference indicate corresponding parts in all the views, Figure 1 is a perspective view of the cutting device; Fig. 2 is a perspective view of the blade-holding section with the blade in position; Fig. 3 is a plan view of the inner face of the needle-holding section of the device; Fig. 4 is a view of the inner face of the blade-holding section with the blade removed; Fig. 5 is a sectional view through the device, taken in the plane of the needle when in position to be trimmed and showing the blade in the act of trimming the tip of the needle; and Fig. 6 is a plan view of the blade shown in full lines in its initial position in trimming a needle and by dotted lines in its final position.

Referring to the drawing, A designates the needle-carrying section or element of the cutting device, and B the blade-carrying section, said sections being substantially like the handle members of a pair of scissors so as to fit respectively the midde finger and thumb of the hand in which the device is held and operated, the elements A and B having openings 1 and 2, respectively, to receive the finger and thumb. The opposite ends of the sections A and B are pivotally connected together by a screw bolt 3 which has a spring washer 4 and a nut 5, whereby the said elements can be maintained tightly together. The inner or opposed faces of the sections A and B are flat, and on the section B is fastened a flat blade C, against which the inner face of the section A is clamped by the pivot bolt 3. The blade C has an opening 6 for the pivot 3 to pass therethrough, so that the latter serves as one of the means for holding the blade in place, the other means being a lug 7 on the section B, which lug fits into an opening 8 in the opposite end of the blade from the opening 6. By taking out the bolt 3 the sections A and B are disconnected and the blade C can then be lifted off the pin 7 for the purpose of sharpening the cutting edge 9. This cutting edge 9 is arranged obliquely to the longitudinal axis of the member B, so that in operation the cutting edge will have a drawing cut on the needle. Spaced from the cutting edge 9 of the blade and integrally formed on the inner face of the element B is a rest or seat 10 which, as shown in Fig. 5, is slightly lower than the cutting edge 9 of the blade C, such seat or surface 10 serving to receive the inner end of the needle to form a rest therefor and thereby limit the thickness of the shaving that is cut off the tip of the needle. The element B has a slot 11 directly under the cutting edge 9 so that the shaving from the needle can drop out.

The means for holding the needle on the upper element A of the needle cutting device comprises a triangular guide opening 12 which passes from the top entirely through the element A to the inner surface thereof, the opening being triangular in form so as to conform to the cross-sectional shape of the fiber needles to be trimmed. One wall of the passage or needle-holding guide is formed by a spring 13 which has a member extending into the needle-receiving opening 12 to engage one of the flat sides

thereof, such spring being fastened by a screw or other means 14 to the element A. The spring serves to act on the needles in such a manner that they will all have the same pitch or inclination when they are in position to be cut. The opening and closing movements of the elements A and B are limited by a pin 15 on the element B engaging in an arcuate slot 16 in the element A, which slot is concentric with the pivot-receiving openings 17 of the said elements, and by the pin 15 engaging the ends of the slot 16, the relative movement of the elements A and B is limited.

In operation the device is held in one hand with the thumb and middle finger engaging in the openings 2 and 1 of the elements B and A, respectively, and with the other hand the needle to be trimmed is inserted in the needle holder 12 and pushed in far enough to bear on the rest or surface 10 of the element B when the device is open, that is to say, when the grip ends of the elements A and B are spread as far as they will go. The elements A and B are then brought together, and in so doing the cutter passes from the full to the dotted line position, Fig. 6, and trims the end of the needle, the trimming action being illustrated in Fig. 5. The needle is then removed to make way for the next one to be trimmed.

From the foregoing description taken in connection with the accompanying drawing, the advantages of the construction and method of operation will be readily understood by those skilled in the art to which the invention appertains, and while I have described the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the appended claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A hand tool for trimming fiber needles, comprising a pair of hingedly connected members shaped to be gripped by the thumb and finger for relatively moving the members, a blade on one member, the other member having a three-sided opening for receiving the needle to be trimmed, and a spring disposed in the opening to engage one side of the needle and press the other two sides thereof simultaneously against two sides of the opening for maintaining the needle in place during the trimming thereof.

2. A fiber needle trimming tool of such size and shape as to be held in and operated by one hand, the same comprising a pair of elements, a pivot connecting the elements, one of the elements having an aperture for receiving the needle to be trimmed, a blade fastened to the other element and lying between both elements, said blade having an opening through which the pivot passes and means for limiting the relative movement of the elements to a range preventing the uncovering of the cutting edge of the blade.

3. A fiber needle trimming tool of such size and shape as to be held in and operated by one hand, the same comprising a pair of elements, a pivot connecting the elements, one of the elements having an aperture for receiving the needle to be trimmed, a blade fastened to the other element and lying between both elements, said blade having an opening through which the pivot passes and means for limiting the relative movement of the elements to a range preventing the uncovering of the cutting edge of the blade, the blade-carrying element having a surface adjacent the cutting edge and slightly below the level of the latter for forming a rest with which the end of the needle normally engages, there being an opening in the blade-carrying element between the cutting edge of the blade and the said surface for permitting the needle shavings to pass.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARMAND MONARD.

Witnesses:
PAUL HAIN DROZ,
TUBES GEORGES.