

J. D. ROCKHILL.
 TRIMMER FOR PHONOGRAPH RECORDS.
 APPLICATION FILED AUG. 4, 1909.

974,435.

Patented Nov. 1, 1910.

Fig. 1.

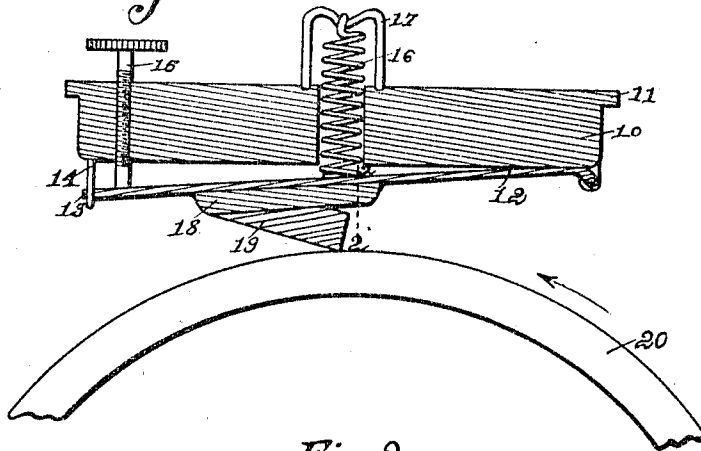


Fig. 2.

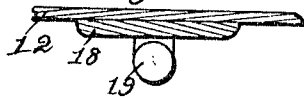
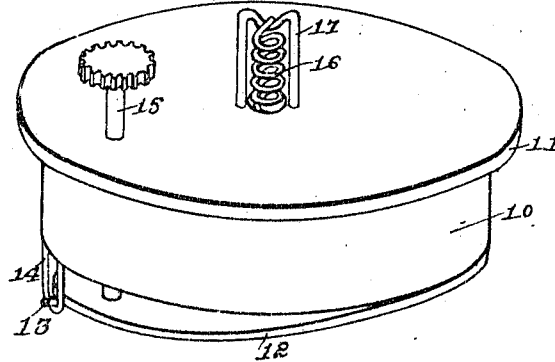


Fig. 3.



Witnesses.
 W. A. Loftus.
 A. G. Heaguel

Inventor.
 J. D. Rockhill.
 by Ennis & Lane Attys

UNITED STATES PATENT OFFICE.

JOHN DAVID ROCKHILL, OF CONRAD, IOWA.

TRIMMER FOR PHONOGRAPH-RECORDS.

974,435.

Specification of Letters Patent.

Patented Nov. 1, 1910.

Application filed August 4, 1909. Serial No. 511,229.

To all whom it may concern:

Be it known that I, JOHN DAVID ROCKHILL, a citizen of the United States, residing at Conrad, in the county of Grundy and State of Iowa, have invented a certain new and useful Trimmer for Phonograph-Records, of which the following is a specification.

My invention is designed to be used in the nature of an attachment that may be readily, quickly, and easily attached to or detached from an ordinary phonograph in place of the cylindrical frame that contains the reproducing instrument.

My object is to provide a trimming device of this kind, of simple, durable and inexpensive construction that may be readily and quickly adjusted to trim off the records to any depth of cut desired; and, more specifically, it is my object to provide a cutting tool of such shape and size as to trim a phonograph record without chipping or breaking the record, to thereby properly prepare a record for use in such a manner that its surface is well adapted for receiving impressions.

My invention consists in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a central, sectional view of a device embodying my invention, the cutting tool being shown in engagement with a portion of a phonograph record. Fig. 2 shows a sectional view on the line 2— of Fig. 1, and Fig. 3 shows a perspective view of the frame for holding the trimming tool.

Referring to the accompanying drawings, I have used the reference numeral 10 to indicate the supporting frame of the trimming device. This supporting frame is preferably cylindrical in shape and comprises a body portion 10 with a flange 11 at its top. The said body portion is preferably made of the same size and shape as the body portion of the frame that holds the reproducing instrument of the phonograph with which the device is to be used. In this connection, it is obvious that by the use of a frame of this kind, the operator may readily and easily remove the reproducing instrument from a phonograph and then place the frame of the trimming instrument in the position for-

merly occupied by the reproducer, and then the other parts of the phonograph may be operated in the ordinary way and the trimmer will operate to prepare a phonographic record for use. In this way the expense of a separate instrument for turning the record and advancing the trimmer is dispensed with.

Pivoted to the under surface of the body portion 10 is a disk 12 having a projection 13 at the side opposite from the pivotal point, which projection is placed in a guide loop 14 connected to the body portion 10 to thereby limit the lateral movement of said disk. Seated in the body portion 10 is an adjusting screw 15 having its lower end designed to engage the disk 12 to limit its forward movement. Connected to the central portion of the disk 12 is a contractible coil spring 16 attached at its upper end to a support 17 connected to the body portion, so that the said disk 12 is yieldingly held upwardly against the adjusting screw 15.

Fixed to the disk 12 is a block 18 having the cutting tool 19 applied thereto. This cutting tool is extended downwardly and in a direction toward the hinged end of the disk 12, the angle of the end surface of the cutting tool being such that it will form an acute angle relative to the phonograph record with which it is to be used, as clearly illustrated in Fig. 1 of the drawings. The body portion of the cutting tool at the lower end thereof is approximately round in cross section, as clearly illustrated in Fig. 2, and the end thereof is arranged at an angle slightly deviating from a vertical line, with the lower portion inclined away from a vertical line in a direction toward the body of the cutting tool, as clearly shown in Fig. 1.

The portion of the phonograph record shown is indicated by the reference numeral 20 and the direction of its movement relative to the cutting tool is indicated by an arrow in Fig. 1; that is to say, the end of the cutting tool is so shaped that it will form an acute angle relative to that portion of the phonograph record with which it is used which is traveling in a direction toward the cutting tool. The diameter of the cutting tool at its end is greatly in excess of the width of the spaces between the various spiral lines on the record over which the reproducing instrument passes so that with each operation of the cutting tool, a number of spiral lines on the record are covered, and

inasmuch as the cutting tool travels in the same path as the reproducing instrument, it is obvious that the various paths which the cutting tool makes will overlap each other and this will result in producing a finished record comparatively smooth and even.

In practical use and assuming that it is desired to trim a record, the operator simply detaches the body portion of the frame that contains the reproducing instrument and substitutes for it the body portion 10 of the trimming device. Then the record is placed on the mandrel of the phonograph and the phonograph is operated in the ordinary way. 15 By having the end of the cutting tool rounded on its lower surface, it is obvious that when it cuts into the record, it will not have any sharp corners that would tend to chip or break out portions of the record with which it comes in contact. Furthermore, by having the end of the cutting tool inclined at an acute angle relative to that portion of the record which is moving in a direction toward it, the cutting tool will tend to scrape 25 the record as distinguished from cutting the record, and there will be no tendency for the cutting tool to chip or break out the portions of the record with which it comes in contact as would be the case if the cutting end of the tool were arranged at an obtuse angle relative to the part of the record that was moving toward it. The rounded lower edge of the tool, together with the scraping operation which it accomplishes, makes it possible for the device to operate with a minimum of applied power, hence the power of an ordinary phonographic instrument is sufficient to operate the trimmer. By means of the adjusting screw, the depth to which 40 the cutting tool enters the record may be quickly and easily adjusted, and the spring 16 will tend to hold the disk that supports the cutting tool in an elevated position against the adjusting screw.

45 I claim as my invention:

1. A device for trimming phonographic records, comprising a substantially circular body portion designed to be detachably supported in a phonograph in place of the circular frame usually employed for support-

ing the phonographic reproducing instrument, a disk pivoted at one edge to the under surface of said body portion, an adjusting screw mounted in the body portion to engage the free end of the disk for adjusting its position relative to the body portion and for holding it away from the body, a spring connected to the disk and extended through the body portion to yieldingly hold the disk upwardly against said adjusting screw, and a cutting tool fixed to the under surface of the disk substantially circular in cross section and extended at an acute angle relative to the central portion of the disk, the cutting edge of said tool being substantially round and being inclined at an angle slightly less than a right angle relatively to the lower surface of the cutting tool, for the purposes stated.

2. A device for trimming phonographic records, comprising a substantially circular body portion designed to be detachably supported in a phonographic instrument in place of the circular frame usually employed for supporting the phonographic reproducing instrument, a disk pivoted at one edge to the under surface of said body portion and having a projection at its opposite edge, a guide loop fixed to the body portion to receive said projection, an adjusting screw 80 mounted in the body portion to engage said disk, a contractible spring fixed to the central portion of the disk and extended through said body portion, a support for said spring fixed to the body portion, and a cutting tool fixed to the under portion of the disk substantially circular in cross section and extended at an acute angle relative to the central portion of the disk, the cutting end of said tool being substantially round 90 and being inclined at an angle slightly less than a right angle relatively to the lower surface of the cutting tool, for the purposes stated.

Des Moines, Iowa, July 15, 1909.

JOHN DAVID ROCKHILL.

Witnesses:

WM. A. SANDOE,

E. W. SCHWIELERT.