May 20, 1941. L. THOMPSON 2,242,803

CORRECTION MARKER FOR DISK RECORD DICTATING MACHINES

Filed June 28, 1939

Fig. 1.

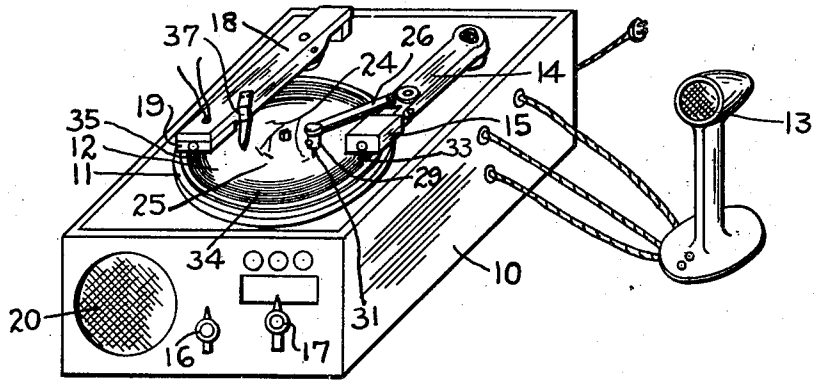


Fig. 2.

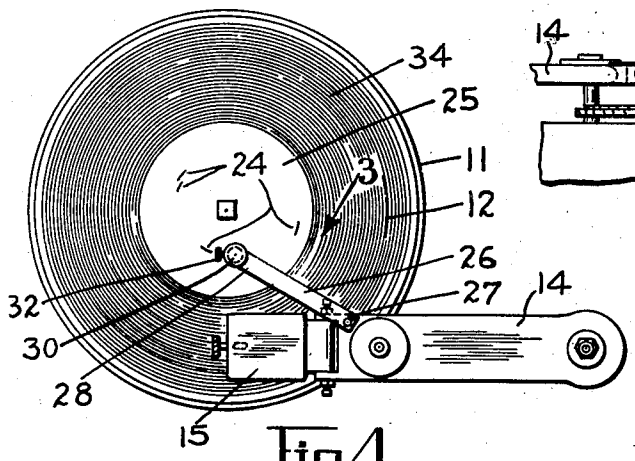


Fig. 3.

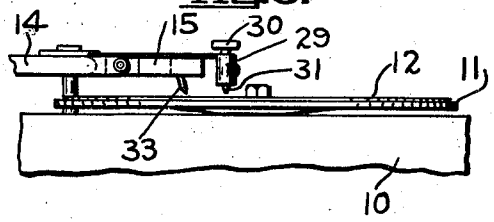


Fig. 4.

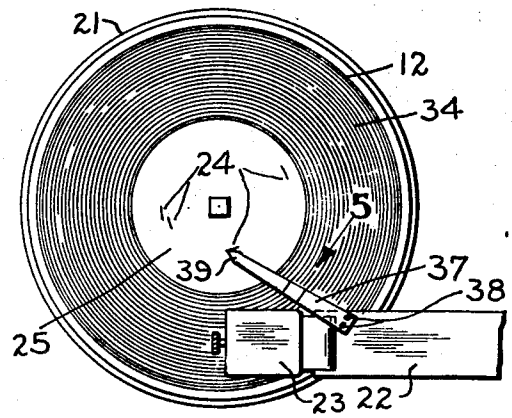
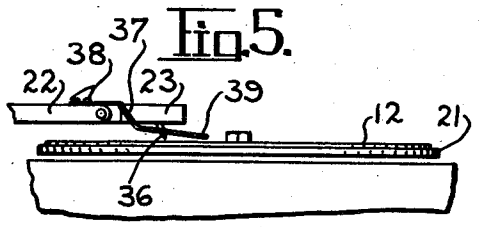


Fig. 5.



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CORRECTION MARKER FOR DISK RECORD DICTATING MACHINES

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Application June 28, 1939, Serial No. 281,561

6 Claims. (Cl. 274—9)

This invention relates to sound recording and reproducing apparatus, and more particularly to a dictating machine employing flat disk records for recording and transcribing sound.

When using the dictating unit of dictating machines wherein flat disk records are used, it has hitherto been difficult to mark the record to indicate the beginning and end of the dictation or the points where corrections are necessary. One form of a marker adapted for the above purpose was disclosed in my copending application, Serial No. 248,690, filed December 31, 1938, in which the indicating marks are superimposed by means of a crayon upon the sound grooves of the record. The present invention contemplates the provision of means to apply indicating marks upon the central section of the record not designed to receive sound grooves, whereby the starting and ending of the dictation, and also the points at which corrections are made, may be readily located and permitting the record to be played back at such points to familiarize the user with the same before the entire letter is transcribed.

One object of this invention is to provide means carried by the recording arm of the dictating mechanism, which may be manually depressed to mark the central area of the flat disk record.

A further object is to provide a pointer movable with the pick-up arm of the transcribing unit of a dictating mechanism whereby the correction point may be quickly indicated and thus facilitating the disposal of the pick-up needle in the proper sound groove.

A still further object of this invention is to provide an improved correction marker for dictating machines of the above nature which will be relatively inexpensive to manufacture, simple in construction, compact, and very efficient and durable in use.

With these and other objects in view, which will appear as the description proceeds, there has been illustrated in the accompanying drawing, one form in which the invention may be conveniently embodied in practice.

In the drawing:

Fig. 1 is a perspective view of a dictating unit of a dictating machine having the improved correction marker installed thereon.

Fig. 2 is a top plan view of the turntable, disk record, recording arm, and the improved correction marker.

Fig. 3 is a side view of the same, looking in the direction of the arrow 3 of Fig. 2.

Fig. 4 is a top plan view of the turntable, disk record, pick-up arm and the indicating pointer of the transcribing unit.

Fig. 5 is a side view of the same, looking in the direction of the arrow 5 in Fig. 4.

Referring now to the drawing wherein like reference numerals designate like parts throughout the several views, the numeral 10 denotes the casing of a dictating unit of the type shown and described in the above-mentioned copending application. This unit also includes a rotatable turntable 11 carrying a flat disk record 12, a dictating microphone 13, a swingable recording arm 14 carrying a groove-cutting head 15, and suitable control knobs 16 and 17. A play-back unit is also shown associated with the dictating unit on the casing 10, and comprises a swingable reproducer arm 18 carrying a pick-up head 19 and a loud speaker 20. The play-back unit is particularly adapted for the use of the person dictating, but may, if desired, be used for transcribing by a typist or other person. Preferably, however, a separate transcribing unit, such as is shown in Figs. 4 and 5, will be employed and located at a point remote from the dictating unit. This separate transcribing unit comprises a rotatable turntable 21, a swingable reproducer arm 22, and a pick-up head 23.

In order to indent or scratch the central section 25 of the record 12 to produce marks 24 to indicate correction points, etc., provision is made of an arm 26 of thin spring strip material which is secured at one end by rivets 27 to the recording arm 14, said arm 26 being directed at such an angle from said arm 14 as to cause its outer end 28 to overlie the blank central section 25 of the record 12. A hollow vertical lug 29 having a manipulating knob 30 at its upper end is secured to the free end 28 of the marking arm 26, and said lug 29 is adapted to receive a record-marking needle 31 which may be clamped in said lug by a thumb screw 32, whereby said needle may be vertically adjusted with respect to the record 12. Preferably the record-marking needle 31 will be so adjusted that its lower end will be slightly above the upper surface of the record 12 when the cutting stylus 33 of the recording head 15 is in operative contact with the record for cutting sound grooves 34 therein.

Operation

In operation, the person dictating will talk into the microphone 13 to cause the groove-cutting stylus 33 to form sound grooves 34 on the outer portion of the record 12. If a correction is required, he will press down upon the manipulat-

ing knob 30 to cause the marking needle 31 to engage the blank section 25 of the record 12, and thus producing a short arcuate mark 24 thereon (see Figs. 2 and 4). The same operation may be performed to indicate the beginning or end of a letter.

During the play-back of the record for transcribing or other purposes, the typist will be enabled to accurately dispose the needle 35 of the pick-up head 19 of the play-back unit, or the needle 36 of the pick-up head 23 of the transcribing unit in the proper sound groove 34 by means of a pointer arm 37. The latter arm 37 is formed of thin sheet metal, and is secured at its inner end to the arm 18 or the arm 22, as the case may be, by rivets 38. The pointer arm 37 extends at such an angle to the respective play-back arm 18 or transcribing arm as to overlie the blank portion 25 of the record 12, and is preferably bent downwardly so that its pointed extremity will lie close to the surface of the record 12 without touching it. By means of this construction, when the extremity 39 of the pointer 37 lies adjacent one of the marks 24, the play-back needle 35, or the transcribing needle 36, respectively, will be accurately positioned over the proper sound groove at the point on the record corresponding to said marks as above described.

One advantage of the present invention is that a permanent record may be made on the disk record itself of all corrections, beginnings and ends of letters, etc., and there will be no possibility of confusion or mix-ups as was formerly the case where correction-indicating markings were made on cards or other devices which were separate from the record.

While there has been disclosed in this specification one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new and for which it is desired to secure Letters Patent, is:

1. In a dictating machine, a sound recording arm mounted to swing over a flat disk record for forming sound grooves therein, vertically movable marking means carried by said arm overlying the blank central portion of said record, not intended to be recorded, and normally spaced above said record, and means for depressing said marking means into contact with said blank central portion of the record to form a mark thereon to indicate the grooved part of said record being recorded to which attention is to be directed.

2. In a dictating machine, a disk record-carrying turntable, a sound-recording arm overlying said turntable and mounted to swing over said record, a flexible resilient marking arm extending laterally from said recording arm to overlie the central section of said record, not intended to be recorded, whereby said marking arm will be manually depressed into contact with said central section to form an indented groove thereon to indicate the particular groove of the outer portion of said disk to which attention is to be called.

3. In a dictating machine for operating on disk records, a dictating unit including a recording arm mounted to swing over the outer portion of said record for producing sound grooves thereon, a second depressible arm secured to said recording arm and having its extremity positioned over the central section of said record, not intended to receive sound grooves and a manually operated depressor button carried by said second arm capable of manual depression to mark said central section for indicating a definite point of the dictation to which attention is to be called.

4. In a dictating machine for operating on disk records, a dictating unit including a recording arm mounted to swing over the outer portion of said record for producing sound grooves therein, a depressible arm secured to said recording arm disposed at an angle thereto and extending laterally over the central section of said record, not intended to be recorded with sound grooves, and manually operated means carried by said depressible arm capable of depression to mark a groove in said central section, for indicating a definite point of the dictation.

5. In a dictating machine using flat disk records, a recording arm mounted to swing over the outer portion of said record for forming a spiral of sound grooves therein, and a second arm of flexible material extending from said arm and mounted to swing over the central section of said record not intended to be recorded and lying inside of the outer portion upon which sound grooves are to be formed, and a hand knob secured to the free end of said second arm capable of manual depression to mark a signal indication on said central section corresponding to the point on said record being recorded.

6. In a dictating machine, a disk-carrying turntable, a sound-recording arm overlying said turntable, a depressible marking arm extending laterally from said recording arm to overlie the central section of said record upon which grooves are not usually formed, and means on said marking arm capable of manual depression to produce a mark on said central section which indicates exactly the groove of said outer portion of the record containing matter requiring correction.

LINCOLN THOMPSON.