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S. BEGUN

2,058,399

ELECTROMAGNETIC TALKING MACHINE

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Fig. 1

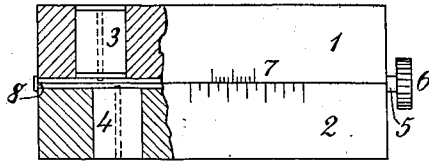


Fig. 2

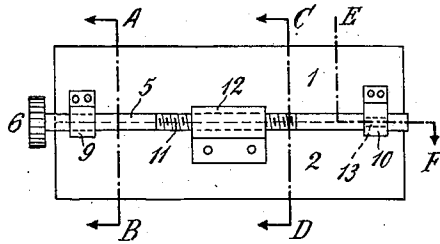


Fig. 3

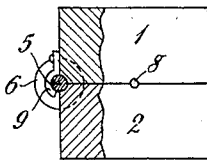


Fig. 4

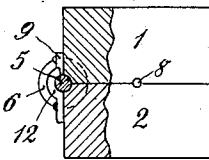
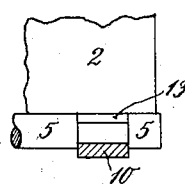


Fig. 5



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ELECTROMAGNETIC TALKING MACHINE

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3 Claims. (Cl. 179-100.2)

The invention relates to electromagnetic sound recording and reproducing machines and more particularly to the so-called talking heads thereof in which electromagnets are arranged to coact with a steel wire or tape as a sound recording and reproducing means.

It is well-known to so dispose these electromagnets that such wire or tape shall be moved between two or more of them, and further to so arrange the electromagnets that the cores on one side of the wire or tape are offset with respect to those on the opposite side thereof, that is to say, not in line with them. In accordance with the distance between adjacent cores either the higher or the lower frequencies will predominate.

The invention is concerned with a construction that shall enable this distance to be varied.

One embodiment of the invention is described hereafter by way of example, reference being had to the accompanying drawing in which

Fig. 1 is an elevation of the talking head partly in section, Fig. 2 an elevation thereof as viewed from the side opposite to that represented in Fig. 1, Fig. 3 is a partially sectioned end elevation, the section being on the line A-B of Fig. 2, Fig. 4 is a similar view to Fig. 3, the section being on the line C-D of Fig. 2. Fig. 5 on a larger scale than Figs. 1 to 4 shows a section on the line E-F of Fig. 2.

The talking head has two blocks 1, 2 in which electromagnets 3, 4 are disposed the cores of which are represented in dotted lines. These magnets are to coact in a well-known manner with a steel wire that extends along a channel 8 formed by the blocks 1, 2 which thus constitute a casing for the wire. The wire is not shown. Fixed to the block 1 are two bearings 9, 10 in which a spindle 5 is rotatably mounted. This spindle has a head 6 that may be milled or serrated as indicated in Figs. 1 and 2, and also has a screw-thread 11 for engagement with a female thread of a bushing 12 secured to block 2.

Spindle 5 and block 1 are prevented from moving longitudinally of each other. This may be done for instance by one of the bearings 9, 10, in the case represented bearing 10, projecting into an annular groove 13 of the spindle, as will best be seen from Fig. 5.

Thus, by turning the spindle by means of head 6, block 2 is displaced along block 1 in one or the other direction according to the direction in which the spindle is rotated. As a result the distance between the cores of the magnets 3, 4 is varied so that either the higher or the lower frequencies can be made to preponderate. This is

advantageous in several respects, such as when recording or reproducing speech in the first place and then musical performances.

The novel arrangement enables this variation of distance to be effected even during the operation of the device, without any parts having to be interchanged, so that it is at any time possible to cause the higher frequencies to be in preponderance of the lower ones, or vice versa.

In order also to enable the amount of variation to be ascertained, a vernier or like graduation 7 may be provided on the blocks 1, 2, as shown in Fig. 1. A vernier graduation is used by preference, since the distances between the adjacent cores are very small and since also the displacement of these cores should be very small.

What is claimed is:

1. In an electromagnetic talking head for use with ferrous record bearing filaments, guides to position such a filament, a pair of electromagnets arranged to be on different sides of such a filament when it is so positioned, the axes of said electromagnets being mutually offset, means for variably supporting said magnets so that the extent of said offset may be adjusted, and graduated indicating means adapted to indicate the extent of said offset.

2. In a talking head, a casing made in two parts forming a channel adapted to guide a sound record carrier, and electromagnetic means in each of these parts, these electromagnetic means being arranged on opposite sides of said channel and offset with respect to each other, the said two parts of the casing being displaceable with respect to each other for varying the distance between the cores of the said electromagnetic means, the said two parts of the casing being provided with a series of graduations and a cooperating indicating means adapted to indicate the amount of their mutual displacement.

3. In a talking head, a casing made in two parts forming a channel adapted to guide a sound record carrier, and electromagnetic means in each of these parts, these electromagnetic means being arranged on opposite sides of said channel and offset with respect to each other, the said two parts of the casing being displaceable with respect to each other for varying the distance between the cores of the said electromagnetic means, the said two parts of the casing being provided with a series of graduations and a cooperating series of vernier graduations adapted to indicate the amount of their mutual displacement.

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