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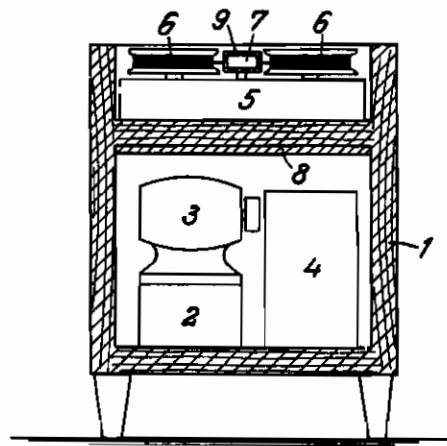
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MAY 18, 1943. SOUND RECORDING AND REPRODUCING DEVICES

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# ALIEN PROPERTY CUSTODIAN

## SOUND RECORDING AND REPRODUCING DEVICES

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This invention relates to sound recording and reproducing devices, and more particularly to new and useful means for eliminating disturbances heretofore observed in such devices.

It is a general endeavour in the manufacture of modern sound recording and reproducing machines to more and more reduce their size. This necessitates the different parts thereof to be arranged in close proximity to each other, from which follows that also the driving motor and the power pack through which the various parts of the machine receive their operating currents from the mains supply must be disposed rather close to the magnetic tape or wire and to the electromagnetic head or heads. Now, certain difficulties have been encountered since the stray field of the driving motor deleteriously influences not only the magnetic sound carrier or tape but also the recording and reproducing electromagnetic heads so that harmful disturbances have been introduced.

It is an object of this invention to eliminate this drawback and to secure sound recording and reproducing free of disturbances or distortions. This effect is realized in accordance with this invention by the provision of shield means for the electromagnetic head and/or for the driving motor.

The accompanying drawing schematically shows one embodiment of my invention. A cabinet 1 carries in its lower part a power pack 2, a driving motor 3 and an amplifier 4, while the magnetic tape or wire controlling mechanism 5 with its two reels or drums 6 is disposed in the upper part of the cabinet 1. An electromagnetic head 7 is arranged between the two reels 6 and in contact with the wire or tape carried by said reels. According to the main feature of this invention there is provided a screen 8, e. g. of any material of high conductivity, which wholly encloses the electromagnetic head. In accordance with a further feature of this invention further shield means 9 in the shape of a metal foil or plate is arranged in order to form a complete screen between the lower and the upper part of the cabinet 1. By using these two shields or even either thereof, the electromagnetic head 7 and the magnetic tape or wire carried by the two reels 6 are fully protected against the stray field of the driving motor 3 so that this field cannot give rise to any disturbances or distortions in the operation of the sound recording and reproducing system.

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