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AUTOMATIC BRAKE FOR TALKING MACHINES.

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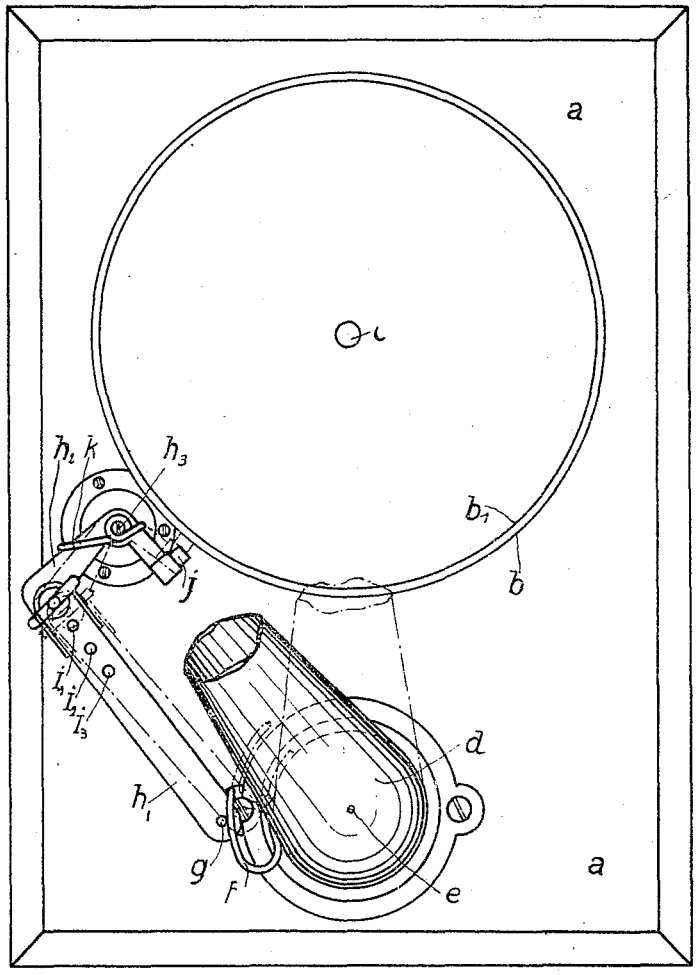
1,381,032. **Patented June 7, 1921.**

Fig. 1



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AUTOMATIC BRAKE FOR TALKING-MACHINES.

1,381,032. Specification of Letters Patent. Patented June 7, 1921.

Application filed April 25, 1917. Serial No. 164,334.

To all whom it may concern:

Be it known that I, HERMANN THORENS, a citizen of the Swiss Republic, resident of Sainte-Croix, Switzerland, have invented a new and useful Automatic Brake for Talking-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to automatic brakes for talking machines of the type which comprise a two armed lever under spring tension one end of the lever being provided with a brake pad and the other engaging with the tone arm in such manner that during the playing of a piece the brake pad is held inoperative but upon the completion of the piece and the needle being free of the groove, the arm under spring tension causes the needle end of the tone arm to travel toward the center of the record and is thus enabled to effect the braking of the machine.

The object of this invention is to provide a brake of this type which can be adjusted so that it may be used with machines having different sized boxes.

The accompanying drawing illustrates by way of example one embodiment of my invention, the same being a plan view of a talking machine provided with my automatic brake.

The box of the talking machine is shown in a and bears, on the one side, the plate b carrying the disk b^1 turning around the axis c and, on the other side, pivoting around the vertical axis e, the tone arm d, the end of which is provided with a diaphragm with its needle. (Not shown.)

On the tone arm d is fastened a curved stem f having a portion thereof concentric with the axis of rotation of the tone arm. Opposite said stem is a roller g, connected with a bent lever composed of two parts h^1 and h^2 and pivoted on the axis h^3 fastened on to the box of the talking machine. The parts h^1 and h^2 of the said lever are both connected with a screw i which may be placed in various holes i^1, i^2, i^3, bored into the piece h^1, thus allowing the bent lever to be lengthened or shortened in accordance with the size of the box on which the brake is to be fitted. The other end of the bent lever is provided with a brake-pad constituted, for instance, by a piece of leather.

A spring k constantly draws the bent part of the lever bearing the roller g, thus causing said part of lever to bear against the stem f fastened on to the tone arm d, hence the brake-pad j against the periphery of the plate b.

The working of the various members as substantially set forth in the foregoing examples, is easy to understand.

While the reproduction of a piece of music is proceeded with, the end of the tone arm carrying the diaphragm is slowly moved from the edge of the disk toward the center as the needle of said diaphragm follows the spiral grooves engraved on the disk.

Immediately the reproduction of the piece of music is completed, the needle of the diaphragm, being no longer guided by the grooves, moves directly toward the center of the disk, under the pressure exerted by the roller g on the lever, against stem f. The tone arm d and the bent lever h^1, h^2 are then forced by means of the spring into the position shown by the broken lines on the drawing, the tone arm being forced into the said position by the roller g acting upon the curved end of the stem f. The bent levers h^1, h^2 by pivoting around h^3, bring forward the brake-pad j which bears against the periphery of the disk bearing plate, thus causing the latter to stop.

What I claim is:—

An automatic brake for talking machines comprising a curved stem on the shank of the tone arm having a portion thereof concentric with the axis of rotation of the tone arm, a two armed lever fulcrumed at the junction of its arms, a brake pad mounted on the end of one of such arms, a roller mounted at the end of the other arm and a spring acting upon such lever and causing the roller to bear against the aforesaid stem such that immediately the end of the groove on the record is reached the tone arm is caused to swing toward the center of the record and the brake brought into operation, the said lever being made in two parts adapted to be connected together in such manner that the length of the said other arm may be adjusted so that the mechanism may be used with machines having different sized boxes.

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

HERMANN THORENS.

Witnesses:
MYSSE CAMPICHE,
PIERRE BARRON.