May 1, 1951 J. M. KUHLIK 2,550,826

ANVIL FOR SOUND RECORDING AND REPRODUCING MACHINES

Filed April 5, 1948

FIG. 1.

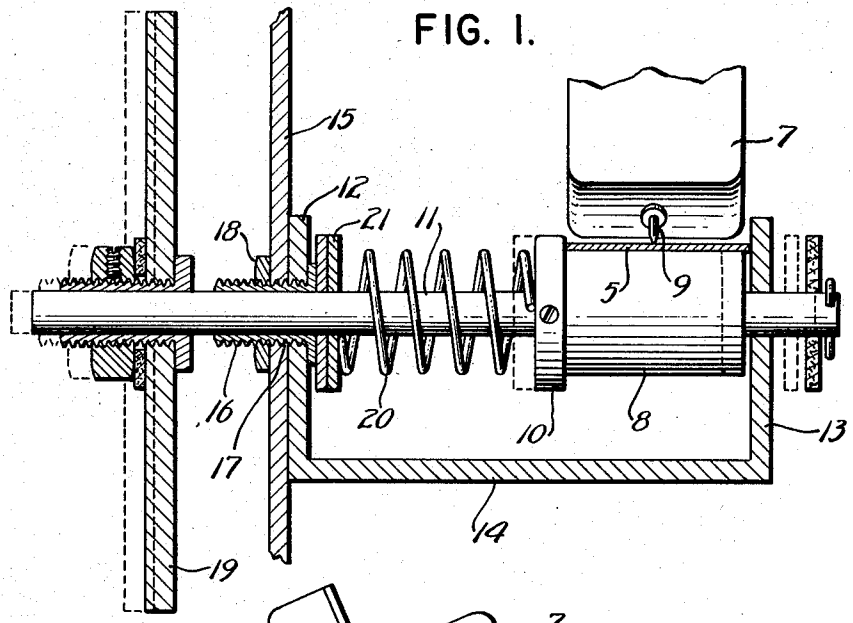
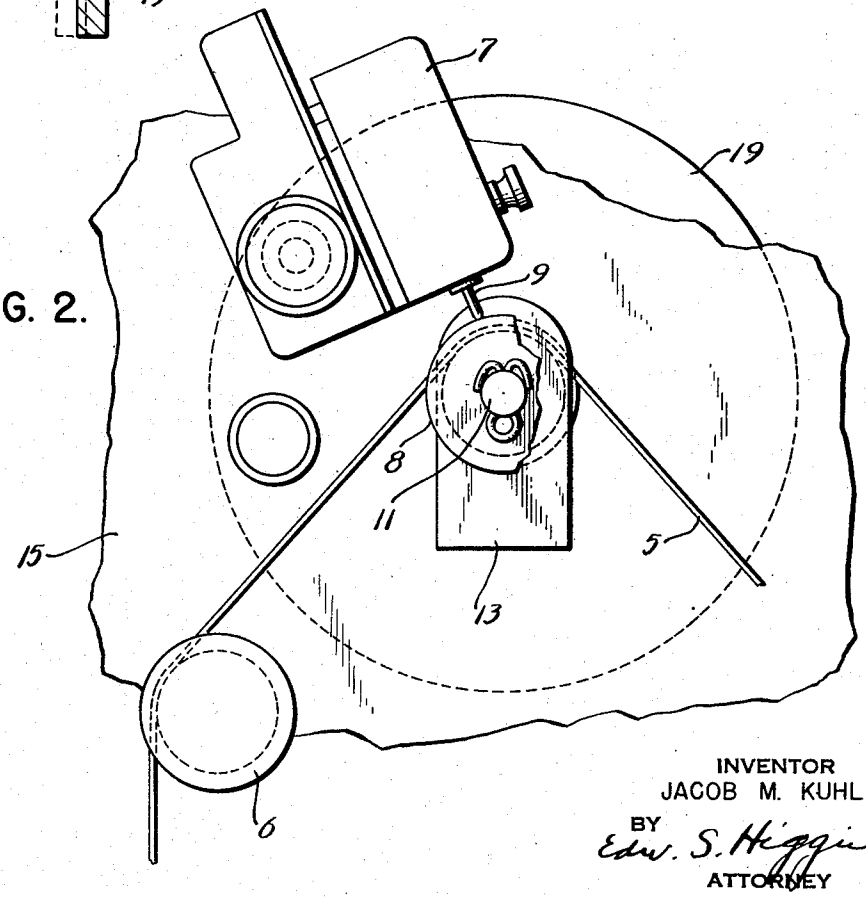


FIG. 2.



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ANVIL FOR SOUND RECORDING AND REPRODUCING MACHINES

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2 Claims. (Cl. 271—2.6)

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This invention relates generally to sound recording and reproducing machines and more particularly to an improved base member or anvil over which the film passes and to an improved mounting therefor.

In sound recording and reproducing machines the film passes over a base or anvil at the point where it is engaged by the stylus. Such anvils are usually stationary and of the same width as the film and have flanges at both ends. The films however are often irregular in width and not uniform and in travelling a portion of such irregular films that is wider than the width of the anvil is liable to become buckled or damaged when passing over the anvil and causes the stylus to move out of its track. Furthermore such films are usually covered with an emulsion and the friction of the film on the anvil as it passes over same is liable to scrape off the emulsion.

It is a prime object of the present invention to overcome the above difficulties by providing an anvil that rotates with the passage of the film thereover and that is adjustable in width thereby accommodating itself to the width of the film.

Another object is to provide a secure mounting for the anvil.

A further object is to provide such an anvil that is simple in construction, economical to manufacture and highly efficient in operation.

Other objects and advantages of the invention will be apparent from the description thereof to follow taken in connection with the accompanying drawing in which:

Fig. 1 is a partial sectional and side elevational view of an anvil embodying my invention showing the mounting therefor.

Fig. 2 is a front elevational view of the parts shown in Fig. 1.

Referring to the drawing, the film 5 is driven in the usual manner by a motor (not shown) and passes over a guide roller 6 and underneath a sound box or head 7. The film passes over a base or anvil 8 underneath and adjacent the sound box so that the stylus 9 of said sound box is adapted to engage said film for recording or reproducing sound. The anvil includes a metal sleeve with a flange 10 formed at one end thereof and is fastened to a shaft 11 by a set screw or in any other suitable manner. The anvil is mounted adjacent the outer end of the shaft, which shaft extends loosely through upstanding arms 12 and 13 of a U-shaped bracket 14 secured to the front wall 15 of the sound recording and reproducing machine casing. The shaft passes freely through a bushing 16 which is threaded into an opening

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17 in the wall 15 and which is secured to the wall by a nut 18 at the rear thereof. A fly wheel 19 is suitably secured to the rear end of the shaft 11, for controlling the movement of the shaft.

A compression spring 20 encircling the shaft has one end seated against the flange 10 of the anvil and its other end against washers 21 on the shaft adjacent the arm 12 of the bracket. The spring normally presses against the anvil and urges said anvil and shaft outwardly toward the arm 13 of the bracket. The distance between the inner surface of the flange 10 and the inner surface of the arm 13 of bracket 14 is equal to the regular or ordinary width of the film so that the edges of the film contact said inner surfaces. However if a portion of the film which is wider than regulation size passes over the anvil between the flange 10 and arm 13, it will meet no resistance as the inner or left hand edge of the film as viewed in Fig. 1 will force the anvil 8 and shaft 11 with attached fly wheel 19 rearwardly or to the left as viewed in Fig. 1 against the action of spring 20 thereby enlarging the space or distance between the flange 10 and the arm 13 permitting the wider portion of the film to pass over the anvil and permitting the stylus 9 to remain in its track. When the wider portion has passed over the anvil, the spring 20 will move the anvil, shaft and fly wheel to normal position.

The anvil, shaft and fly wheel are rotated by the friction of the film as it passes over the anvil, the fly wheel controlling such movement as is usual. The film is driven by a motor (not shown) and pulls the film thus rotating the anvil and associated parts by friction. Inasmuch as the anvil moves along with the film, the friction does not scrape off the emulsion on the surface of the film.

Changes in details might be made without departing from the principle of the invention.

I claim:

1. In a sound recording and reproducing machine, in combination, a casing wall having an opening therein, a flanged bushing in said opening, a U-shaped bracket having one end fastened to said wall by said bushing and having aligned openings in its outer and inner end arms, a slidable and rotatable shaft extending through said bushing in the wall and said aligned openings, an anvil fixed to said shaft adjacent its outer end between said end arms, a flange fixed to one end of said anvil, said flange and the outer arm of said bracket forming a guide for the passage of a film, a compression spring encircling said shaft between the inner arm of said bracket and the

flanged end of said anvil for yieldingly urging the anvil and shaft outwardly toward the outer arm of said bracket whereby the space between said outer arm and flange may be varied by the passing of a film to accommodate portions of the film of irregular width and a fly wheel on the inner end of said shaft.

2. An anvil construction for a sound recording and reproducing machine comprising a U-shaped bracket adapted to be fastened to the casing of the machine, the end arms of said bracket having aligned openings therein, a slidable and rotatable shaft extending loosely through said openings, a sleeve fixed to said shaft between the arms of said bracket, an annular flange fixed to one end of said sleeve, said flange and one arm of said bracket forming a guide for a film in passage, a compression spring encircling said shaft and having one end seated against the other arm of said bracket and having its other end seated against the flanged end of the sleeve for yieldingly urging the flange and shaft toward the guide arm of the bracket.

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