

M. A. POSSONS.
 NEEDLE HOLDER FOR SOUND BOXES.
 APPLICATION FILED AUG. 8, 1908.

931,957.

Patented Aug. 24, 1909.

Fig. 1.

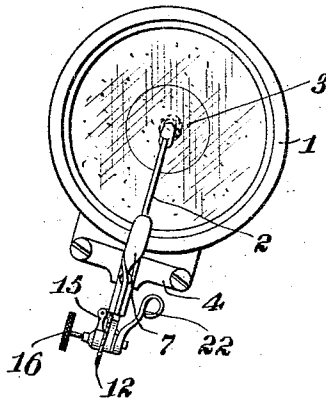


Fig. 2.

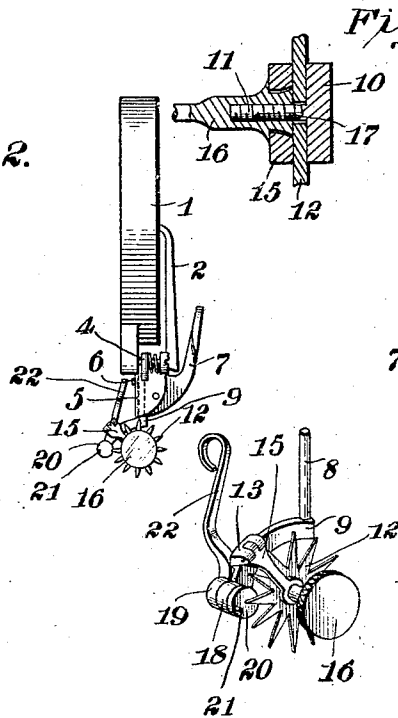


Fig. 3.

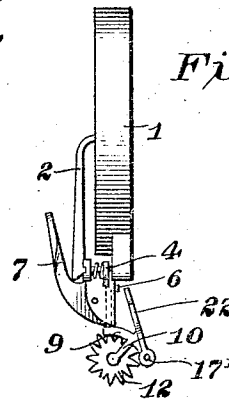
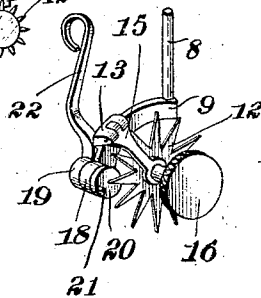


Fig. 4.



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UNITED STATES PATENT OFFICE.

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NEEDLE-HOLDER FOR SOUND-BOXES.

931,957.

Specification of Letters Patent. Patented Aug. 24, 1909.

Application filed August 8, 1908. Serial No. 447,569.

To all whom it may concern:

Be it known that I, MINARD ARTHUR POSSONS, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Needle-Holders for Sound-Boxes, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in needle holders for sound boxes.

The object of my invention is to provide a needle holder adapted to support a rotatable needle and said holder adapted to be secured in the needle receiving socket of the sound box.

Another object of my invention is to provide a needle holder of this character which can be made independent of the sound box and secured within the needle receiving socket of the ordinary sound box.

In the accompanying drawings, Figure 1 is a side view of my improved needle holder attached to the ordinary sound box now in use. Fig. 2 is an edge view of Fig. 1 looking in the direction of the arrow shown in Fig. 1. Fig. 3 is an edge view looking in the opposite direction from Fig. 2. Fig. 4 is an enlarged perspective view of the needle holder as it would be manufactured and sold to be adapted to the ordinary sound box. Fig. 5 is an enlarged sectional view showing the swivel connection of the thumb-nut with the swinging arm.

Referring now to the drawings, 1 represents an ordinary sound box having the usual arm 2 connected to the center of the diaphragm 3, the outer end of said arm connected to the spring operated member 4 carrying the needle receiving socket 5. In sound boxes of this character the needle is either secured in the said socket by a set screw 6 or by a cam lever 7, and in some instances by both the set screw and the cam lever. While I have shown and described this form of sound boxes to show the application of my needle support, it will be understood that any form of sound boxes may be used, as sound boxes all use a needle receiving socket. Therefore it will be seen that my improved needle holder can be readily secured to any sound box using a needle socket.

My improved needle holder consists of a shank 8 adapted to enter the needle receiv-

ing socket of the sound box and secured therein by means of the said screw or cam lever in the same manner that the ordinary needle is secured in the socket. The lower end of the shank 8 has secured firmly and rigidly therewith a curved plate 9, and said curved plate intermediate its ends is provided with a downwardly extending arm 10. The lower end of said arm is provided with an inwardly extending screw threaded stud 11, and upon which is mounted the disk needle 12. This needle as shown is stamped from a piece of sheet metal having serrations in its outer periphery forming a series of independent needles whereby the needle does not have to be moved for each record.

The upper edge of the curved plate 9 opposite the arm 10 is provided with the lugs 13 and 14, between which is mounted a swinging arm 15, the lower end of which is adapted to swing down opposite the stud 11 and surround the outer end thereof. Swiveled within the lower end of said arm 15 is a thumb nut 16 having at its inner end an internally screw threaded socket 17, which is adapted to be screwed to the outer end of the stud 11 and frictionally clamp the needle 12 against the arm 10 and hold the same against rotation. The thumb nut 16 as will be understood, is not screwed tight enough to absolutely prevent this needle 12 from being rotated, but sufficiently tight to prevent it from being moved by frictional contact with the record disk of the talking machine, and therefore when the needle is set, it is held in said position.

In order to provide means for rotating the disk needle a distance to bring a different point in contact with the record disk, I provide the lower end of the arm 9 with an enlarged portion 18 through which passes a rotatable shaft 17'. The outer end of said shaft has rigidly secured thereto a disk 19 carrying the crank arm 22. The inner end of said shaft has rigidly secured thereto a disk 20. The inner face of the disk adjacent to its outer edge is provided with an inwardly extending pin 21 which is adapted when the disk is rotated, to engage one of the points of the needle and rotate it a sufficient distance to bring another point in position on the record disk of the talking machine.

By the construction herein set forth it will be seen that I have produced a needle holder adapted to removably hold a disk needle in

such a position that it will assume the proper position upon the record disk and at the same time allowing of the ready removal of the needle when all the points have been used, and the whole device adapted to be removably attached to the ordinary sound box as heretofore set forth.

Having thus fully described the invention what is claimed as new, is:—

10 1. The combination with a sound box having the usual needle receiving socket, of a needle holder removably secured in said socket, a rotatable needle removably secured to said holder and having a series of needle
15 points on its outer periphery, and means carried by the holder for rotating the needle.

2. The combination with a sound box having the usual needle receiving socket, of a needle holder comprising a shank adapted to be clamped in the needle receiving socket,
20 a downwardly extending arm rigidly carried by the lower end of said shank, a horizontal stud carried by said arm, a rotatable needle mounted on said stud, a swinging
25 member carried by the arm, a thumb nut swiveled in the lower end of the swinging arm and adapted to be screwed on the stud on the outside of the needle, a rotatable shaft
30 carried by the arm and means carried by the shaft for rotating the needle.

3. The combination with a sound box having a needle receiving socket, of a needle holder comprising a shank adapted to be clamped in the needle receiving socket, a curved arm rigidly carried by the lower end
35 of said shank, a second arm carried by the curved arm intermediate its end, a horizontal stud carried by the lower end of said second arm and externally screw threaded, a disk needle mounted upon said stud, a member
40 pivotally secured to the arm intermediate its ends, a thumb nut swiveled in the lower end of said member and adapted to be screwed upon the stud and clamping the disk needle in its operative position, a shaft
45 rotatably mounted in the lower end of said arm, a small disk carried by the inner end of said shaft, a pin carried by the inner face of said disk and adapted to engage the disk needle and rotate the same a distance sufficient to bring another point of the needle in
50 position on the record during each rotation of the shaft.

In testimony whereof I affix my signature in presence of two witnesses.

MINARD ARTHUR POSSONS.

Witnesses:

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