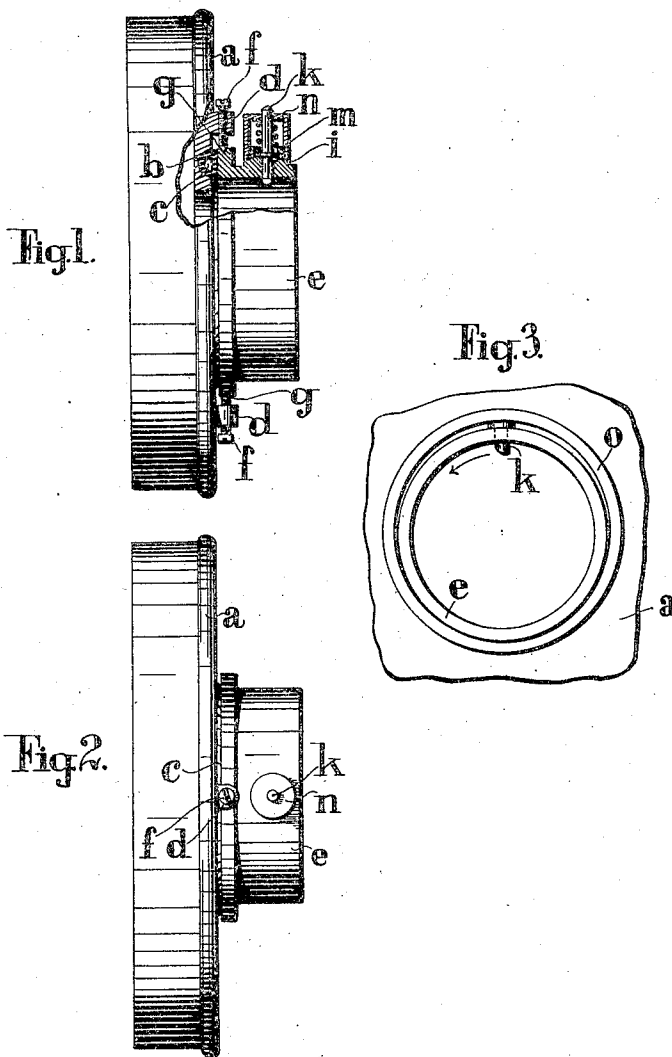


A. FISCHER.
SOUND BOX FOR TALKING MACHINES.
APPLICATION FILED OCT. 23, 1908.

942,816.

Patented Dec. 7, 1909.



Witnesses:
F. R. Patton.
J. L. Kuster

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UNITED STATES PATENT OFFICE.

ALEX FISCHER, OF KENSINGTON, LONDON, ENGLAND.

SOUND-BOX FOR TALKING-MACHINES.

942,816.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Original application filed February 3, 1908, Serial No. 414,070. Divided and this application filed October 23, 1908. Serial No. 459,207.

To all whom it may concern:

Be it known that I, ALEX FISCHER, a subject of the King of England, residing at 8 Maclise road, Kensington, in the county of London, England, have invented certain new and useful improvements in the Construction of Sound-Boxes for Talking-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in the construction of sound boxes for talking machines of the disk type and refers to certain details forming part of my former application for sound boxes filed February 3rd, 1908, Serial No. 414070, of which the present application is a division.

The present application refers particularly to the construction of the backs of sound boxes and to means for connecting the sound box to the tone arm or trumpet.

In order that my said invention may be better understood, I will proceed to describe the same with reference to the drawing accompanying this specification, in which:—

Figure 1 shows a side elevation of a sound box partly in section; Fig. 2 shows plan of same; Fig. 3 shows a modified form of the invention.

The same letters of reference are employed to denote the same parts in all the views:—

a shows the back plate of the sound box. This back plate is provided with an annular groove *b*, into which a rubber washer *c* (preferably tubular) is placed.

d, d show two small brackets attached to the back *a*.

e is a flanged tube forming the sound exit tube fixed on to the back of the sound box by center screws *f* screwing through the brackets *d* and into two center holes *g* in the flange of the tube *e*. In this position the flange *i* of the ring *e* presses tightly against the rubber ring *c*, making a flexible sound tight joint, which will allow the sound box a small turn around its vertical axis, the center screws forming the turning axis.

On the tube *e* I form a boss *i* into which a spring pin *k* is fitted, such spring pin being provided with a flange *m* to limit its

action, so that the bottom of the pin may enter a hole in the tone arm or trumpet in order to attach the sound box firmly thereto. *n* is a cap screwed on the boss *i* to hold the spring in position.

Fig. 3 shows a simplified form of spring for the pin. Instead of having the spiral spring and cap *n* screwed to the boss *i*, I have a rubber ring *o* passing around the tube *e* and over the head of the pin. At its lower end the spring pin is so formed that the sound box can only be turned in one direction, suitable means being employed to prevent the spring pin from turning around its vertical axis. Two holes (preferably opposite one another) are provided on the small end of the tone arm, on to which the sound box is pushed. In these holes the pin *k* springs, which will lock the sound box to the tone arm in the playing position, and with a half turn the sound box will be brought in position for changing the needle easily. The spring pin at its lower end is cut on the slant and will allow the sound box to be turned around in the direction as indicated by the arrow (Fig. 3), while a turn in the opposite direction will be impossible. By turning the sound box the pin held down by the spiral springs and cap or rubber ring will be pushed up, or slide up and ride on the top of the sound arm until the hole is reached again. An annular shallow groove may be provided on the tone arm connecting the two holes to form a guide for the pin to prevent the sound box from slipping off when not locked in the holes.

What I claim and desire to secure by Letters Patent of the United States of America is:—

1. The combination of a sound box having brackets, a flexible washer in contact with said box, a flanged tube bearing at one end on said washer, and screws passing through said brackets and into said tube, substantially as described.

2. The combination of a sound box having brackets and a groove thereon, a flexible washer in said groove, a flanged tube bearing on said washer, and screws passing through said brackets and into said tube, substantially as described.

3. The combination of a sound box having brackets and a groove on its back, a flexible washer in said groove, a flanged tube bear-

ing on said washer, screws passing through said brackets and into said tube, and a spring-pressed pin carried by said tube, substantially as described.

- 5 4. The combination of a sound box having brackets, a flexible washer in contact with said box, a flanged tube bearing at one end on said washer, screws passing through a hole in said tube, and a rubber ring passing

around said tube and pressing said pin inward, substantially as described. 10

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

ALEX FISCHER.

Witnesses:

A. E. VIDAL,

L. SIMMONDS.