

No. 718,073.

PATENTED JAN. 13, 1903

W. BARNES.

SUPPORT FOR HORNS FOR TALKING MACHINES.

APPLICATION FILED SEPT. 24, 1902.

NO MODEL.

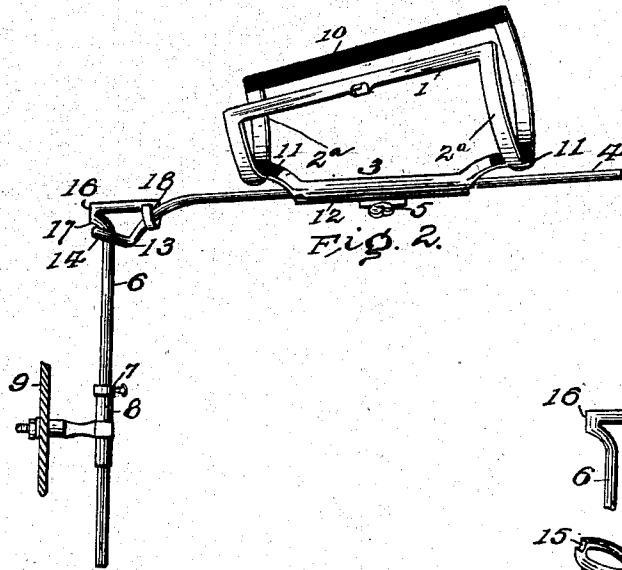
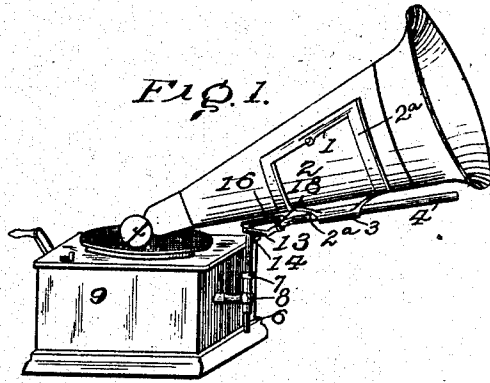
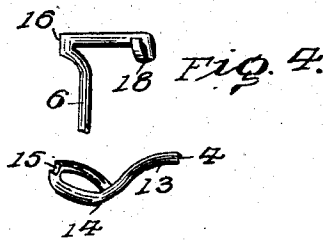
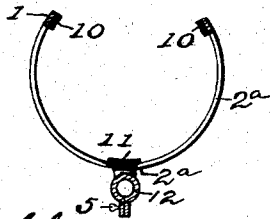


FIG. 3



Witnesses

D. W. Gould.

M. R. Rind

By

Charles M. Cattin

Inventor

Walter Barnes,

Attorney

UNITED STATES PATENT OFFICE.

WALTER BARNES, OF TOLEDO, OHIO.

SUPPORT FOR HORNS FOR TALKING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 718,073, dated January 13, 1903.

Application filed September 24, 1902. Serial No. 124,692. (No model.)

To all whom it may concern:

Be it known that I, WALTER BARNES, a resident of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Supports for Horns 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 pertains to make and use the same.

The invention relates to adjustable supports for horns for talking-machines.

The main object of the invention is to provide improved supporting devices for talking-machine horns or for other analogous devices.

In the drawings, Figure 1 is a perspective view of a talking-machine with the improved horn-support. Fig. 2 is a perspective view of the support detached from the machine. Fig. 3 is a sectional view of the cradle, showing rubber pieces on the inside thereof. Fig. 4 is a detail view of the lock-joint for the cradle-arm.

In all the figures of the drawings, 1 represents the sheet-metal cradle in which the reproducing-horn 2 may rest.

3 is the curved flange or connecting member, in which the cradle terminates at the bottom between the curved spring ends 2^a, the cradle-arm 4 passing through the opening in the downwardly-curved tube-like flange and being fastened by a thumb-screw 5.

6 indicates the adjustable standard for supporting the horn.

7 indicates an adjustable shoulder or collar by which the height of the standard is regulated.

8 indicates a T-shaped socket through which the standard 6 passes and which is fastened to the machine-cabinet 9.

The inner surface of the two top longitudinal pieces of the cradle are lined with thin strips of rubber 10, and there are small pieces of rubber 11 at the bottom of the cradle at the two points where the horn rests. This rubber lining and these rubber rests help to grasp the horn more securely than the metal cradle alone would do. The inner edges of the bottom of the cradle are connected by an intermediate arm 12, curved into a tube-like shape, so that there is a receptacle through which the cradle-arm 4 passes, the thumb-

screw 5 holding it in place. The cradle-arm terminates with a curve 13 and with a circle 14 on its lower end. On the top of the circle in the center is cut a shallow slot or notch 15, in which the point 16 of the top of the standard rests at 17 when the support is in use.

The adjustable standard is inserted perpendicularly through the T-shaped socket 8 and terminates at the top with a sort of a triangular-shaped reverse point 16, a part running thence forward to the cradle-arm and terminating with a hook, eye, or ring 18, grasping the cradle-arm. The standard is also passed through the ring in the end of the cradle-arm in such a manner that the triangular point shall rest in the slot or notch 15 in one side of the ring with which 4 terminates. The shoulder or collar 7 is furnished with a thumb-screw, whereby the standard may be elevated or lowered at pleasure. The socket 8 is made T-shaped to prevent wobbling of the standard when the machine is in operation. The shoulder or collar 7 should be formed loosely enough so that the cradle-arm and the standard may be pushed together when not in use, so that the same will occupy less space in the packing-case, as shown in my application of even date herewith on cases for talking-machines, Serial No. 124,693.

Some of the advantages of the device described above are as follows: The spring-cradle will fit and grasp any size of reproducing-horn. The rubber lining and strips referred to in the description will not only prevent the horn from turning, but will largely do away with the metallic sound that accompanies the reproduction of sound with the ordinary arm and reproducing-horn of talking-machines. The edges of the horn may be secured together by connecting devices, as hooks 22; but this is not essential, especially if the horn is large. The attachment of a thumb-screw on the lower part of the cradle, fixing the cradle to the main arm or cradle-rest, allows the rest to be either elevated or shortened, according to the size of the horn used. This does away with the horn stand or support commonly used.

An important feature of the device is the lock-joint, (the point where the standard and the cradle-arm join.) The reproducer 20 has

a perpendicular as well as a horizontal motion, so that the sound-box and stylus are allowed to follow the record or sound waves without destroying or injuring the record, the weight of the reproducer being almost altogether carried by the standard. Not only can the standard be adjusted by manipulating the adjustable shoulder or collar, allowing the cradle-horn to be placed at any height desired or made necessary by size of horn used, but through it the pressure put upon the needle-point of the reproducer can be limited as desired. By making the parts of the lock-joint as indicated the device can be closed together longitudinally and moved approximately into line with the arm when not in use, so that it will occupy less space and can be packed for carrying with greater facility.

Another advantage of the lock-joint embodied in this device is that it holds the reproducing-horn securely, thus preventing the same from being accidentally thrown out of place or thrown out of balance.

I may use the described lock-joint between the standard and the supporting-arm otherwise without departing from my invention.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A horn-supporting cradle having spring parts adapted to grasp a horn, elastic pieces on its inner side, whereby the horn is firmly held and kept from direct contact with its support.

2. A horn-supporting cradle having curved spring ends adapted to grasp a horn, upper connecting members between said ends, said members being lined with rubber, and rubber pieces in the lower parts of said curved ends, whereby the horn is kept from direct contact with its support.

3. The combination of a supporting-cradle having curved ends and a bottom connecting member between said ends, and formed into tube-like shape, and a supporting-arm extending through said member.

4. The combination of a supporting-cradle having curved ends and a bottom connecting member between said ends, and formed into tube-like shape, and a supporting-arm extending through said member, and means, as screw 5, for securing said arm and member together.

5. The combination of a standard having at one end a reverse point 16, a part extending therefrom forward and terminating in an eye, a supporting-arm extending through said eye and terminating in a ring surrounding the standard just below point 16, the upper side of said ring having a notch adapted to receive point 16, forming a lock-joint.

6. The combination of a standard having at one end a reverse point 16, a part extending therefrom forward and terminating in an eye, a supporting-arm extending through said eye and terminating in a ring surrounding the standard just below point 16, the upper side of said ring having a notch adapted to receive point 16, forming a lock-joint, and a horn-supporting cradle fixed on the supporting-arm.

7. The combination of a standard having at one end a reverse point 16, a part extending therefrom forward and terminating in an eye, a supporting-arm extending through said eye and terminating in a ring surrounding the standard just below point 16, the upper side of said ring having a notch adapted to receive point 16, forming a lock-joint, and an adjustable collar on said standard.

8. The horn-supporting cradle having curved ends, a lower connecting and supporting tube-like member, and upper members between said ends, and connecting devices on said upper members.

9. The combination of the cabinet, the part 8, the standard, the supporting-arm, there being a lock-joint between said standard and arm holding the latter from accidental swinging, and a cradle on the arm.

10. The horn-supporting cradle, the supporting-arm, the standard, the lock-joint between said arm and standard holding them at approximately right angles to each other when in use, said joint being loose, whereby the standard can be moved approximately into line with the arm and longitudinally thereof to save space in packing.

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

WALTER BARNES.

Witnesses:

CLEM V. WAGNER,
L. M. WILLIAMSON.