UNITED STATES PATENT OFFICE.

CLINTON B. REPP, OF NEW YORK, N. Y.

SOUND-BOX FOR PHONOGRAPHS.

1,163,854. Specification of Letters Patent. Patented Dec. 14, 1915.

Application filed January 19, 1912. Serial No. 672,066.

To all whom it may concern:

Be it known that I, CLINTON B. REPP, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Sound-Boxes for Phonographs, of which the following is a specification, reference being had therein to the accompanying drawings, which form a part thereof.

My invention relates to sound boxes for phonographs, and more particularly to the means for insulating the sound box casing so as to exclude the vibrations developed in the diaphragm therefrom.

The main object of the invention is to provide a sound box wherein the edges of the diaphragm will be firmly clamped in position through a medium which will absorb any vibrations passing thereto, which will be weather proof and not susceptible to climatic changes, and which will not deteriorate rapidly through aging.

A further object is to provide a structure of this character wherein the edges of the diaphragm will be completely inclosed by the vibration absorbent body so as to eliminate any possibility of vibrations passing to the metallic portions of the sound box.

A still further object is to provide in a sound box a uni-structural gasket supporting the diaphragm which will have a normal tendency to close upon the edge of the diaphragm, thus simplifying its application to the sound box. And a still further object is to provide a sound box wherein the metallic portions within the sound box will be sheathed by a resilient body to prevent the development of sound vibrations in the metallic portions of the sound box adjacent to the sound outlet opening.

The invention consists primarily in a sound box for phonographs, embodying therein a casing having a sound outlet opening therein, a diaphragm, and a cork gasket supporting the edge of said diaphragm, said gasket having oppositely disposed portions adapted to be clamped upon said diaphragm, and means clamping said gasket upon the edge of said diaphragm; and in such other novel features of construction, and combination of parts, as are hereinafter set forth and described, and more particularly pointed out in the claims hereto appended.

Referring to the drawings: Figure 1 is a transverse section of a sound box embodying my invention; and Fig. 2 is a detail view in perspective of the packing gasket with the diaphragm therein, said diaphragm being broken away, and said gasket being partly broken away.

Like letters refer to like parts in both of said views.

In sound boxes now commonly used in phonographs, the diaphragm is mounted in a metallic sound box, by means of oppositely disposed annular tubular gaskets. While this construction has been found to be capable of good results, it possesses objectionable features such as the susceptibility of the gaskets to a loss of their resiliency through a loss of life in the rubber of which they are made, the susceptibility to rapid deterioration through climatic changes as in machines exported to tropical countries, and the exposure of the ends of the diaphragm between the gaskets to the metallic flange of the sound box, thus in some instances permitting the transmission of vibrations to the sound box as a result of this exposure.

As a result of extensive experiments in endeavoring to discover a construction of sound box and the supporting gaskets incidental thereto which will not possess these objectionable characteristics, I have ascertained that high efficiency may be secured by the use of cork gaskets and that such gaskets not only possess a degree of resiliency necessary to prevent the transmission of vibrations thereby to the metallic portions of the sound box, but may be readily compressed about the edge of the diaphragm to firmly secure it in place, and are not affected by climatic conditions to an extent to cause any material loss of efficiency by reason thereof.

In the embodiment of my invention shown in the accompanying drawings, *a* indicates an ordinary metallic sound box having a pendant edge *b* and a sound outlet opening *c*. Seated within the sound box and secured therein by means of the packing gasket and the annular clamp ring *d*, held in place by the screws *e*, is a diaphragm *f*.

In practice, I have found the form of gasket shown in the drawings to be the most effective in use as securely holding the diaphragm in position while facilitating its application to the sound box. This gasket comprises a split ring *g* of cork, having upon the inner surface thereof a channel *h*

UNITED STATES PATENT OFFICE.

ALBERT J. RHOADS, OF JEFFERSON, OHIO.

CLOTHES-LINE PROP.

1,163,855. Specification of Letters Patent. Patented Dec. 14, 1915.

Application filed June 24, 1915. Serial No. 36,096.

To all whom it may concern:

Be it known that I, ALBERT J. RHOADS, a citizen of the United States, residing at Jefferson, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Clothes-Line Props; and I do 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 clothes line props and more particularly to extensible devices of this character.

The object of the invention is to provide a simple and efficient device of this character so constructed that it may be readily adjusted with one hand and which requires no lifting power to unloosen any catches or clamps.

With this and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings: Figure 1 represents a side view of a prop constructed in accordance with this invention; Fig. 2 is an edge view thereof shown applied; Fig. 3 is an enlarged longitudinal section thereof; Fig. 4 is a transverse section taken on the line 4—4 of Fig. 1; Fig. 5 is a detail perspective view of one of the supporting elements.

In the embodiment illustrated a prop is shown composed of two sections 1 and 2 in the form of bars slidably engaged with each other, the section 1 which is designed to be engaged with the supporting surface being shown pointed to facilitate its engagement with said surface. A clip band 3 is secured to the section 1 preferably near its upper end by rivets or other suitable means and which extends laterally from one face of said section to provide a guiding loop for the reception of the section 2 to hold said section in engagement with the section 1 and facilitate its movement relative thereto without danger of the separation of the sections.

This section 1 is provided on its rear face with a plurality of longitudinally spaced supporting elements 4 here shown in the form of headed studs or nails driven transversely into the section 1 and having the heads thereof inclined upwardly and outwardly with the upper portion of their inner faces offset to form pockets 5 for a purpose to be described. The side of said head opposite that forming the pocket is disposed in engagement with the outer face of the section 1 to facilitate the passage of a clip band or loop 6 carried by the lower or inner end of section 2, said band being similar in construction to the band 3 except that the arms 7 thereof are made slightly longer to provide for the lateral movement of the lower end of the section 2 in relation to section 1, so that said section 1 may slide freely over the heads of the supporting elements 4 by simply pressing section 2 toward section 1 and sliding it upward or downward at the will of the operator.

A band receiving and supporting member 7^a is shown arranged on one side edge of the section 1 near its lower end and is here shown constructed similar to the elements 4 carried by the outer or rear face thereof, and which is designed to receive the lower edge of one of the arms of the guiding loop 6 when the section 2 is at its extreme lowermost position, and thereby prevents said section from moving farther downward, and hence prevents separation or disengagement of the sections. This band or loop 6 which is substantially U-shaped in configuration has the legs or arms thereof spaced apart a distance substantially equal to the width of the sections 1 and 2 so that all possibility of said band sliding over the supporting element 7^a is prevented. The upward movement of section 2 is controlled by the engagement of a lateral knob or handle 8 with the band 3. This handle 8 may be of any suitable or desired construction and is here shown in the form of a sleeve having a headed screw 9 extending therethrough and engaged with section 2 near its lower end and by means of which said section may be moved up or down at the will of the operator.

The section 2 is provided at its upper or outer end with a longitudinally extending open slot 10 which is designed to receive a clothes line C to be supported.

From the above description, it will be obvious that the section 2 may be readily moved and adjusted relatively to section 1 by simply grasping the handle 8 and forcing section 2 inward toward section 1, the length of the arms or legs of the clip 6 being sufficient to provide for this movement and to