G. W. BEADLE.

LID SUPPORT.

APPLICATION FILED OCT. 26, 1917.

1,280,637. Patented Oct. 8, 1918.

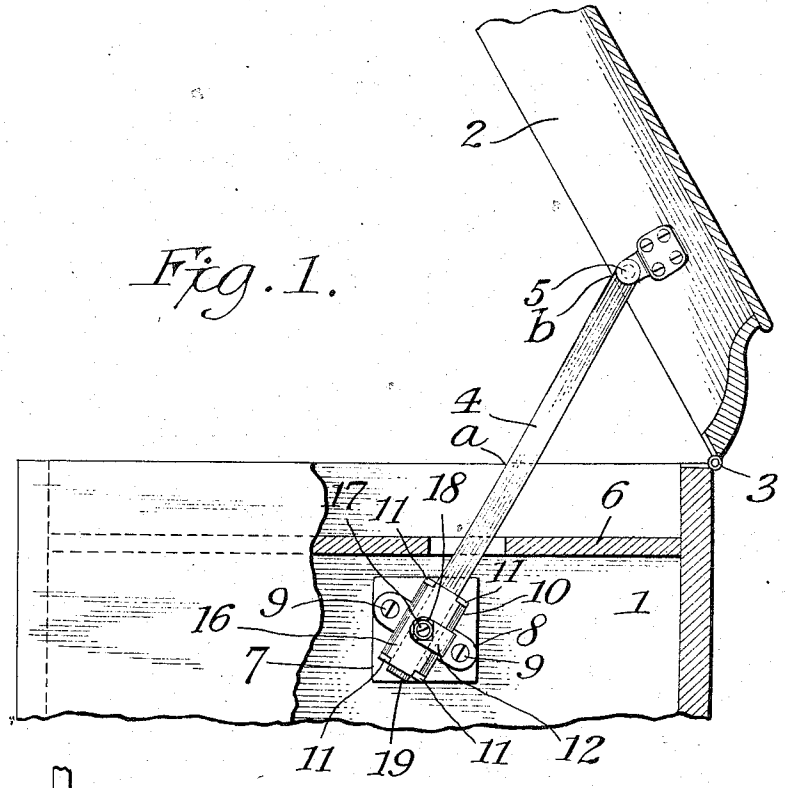


Fig. 1.

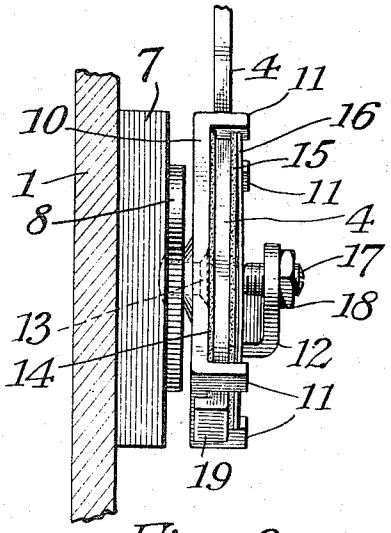


Fig. 2.

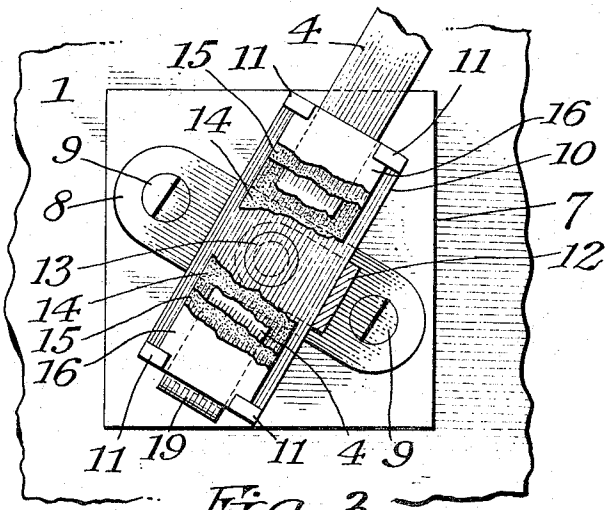


Fig. 3.

INVENTOR

George W. Beadle

BY

Mauro, Cameron, Lewis & Massie

ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE W. BEADLE, OF NEW ROCHELLE, NEW YORK, ASSIGNOR TO AMERICAN GRAPHOPHONE COMPANY, OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF WEST VIRGINIA.

LID-SUPPORT.

1,280,637. Specification of Letters Patent. Patented Oct. 8, 1918.

Application filed October 26, 1917. Serial No. 198,639.

To all whom it may concern:

Be it known that I, GEORGE W. BEADLE, a citizen of the United States of America, and a resident of New Rochelle, New York, have invented a new and useful Improvement in Lid-Supports, which invention is fully set forth in the following specification.

This invention is intended primarily for supporting the cover of the cabinet for a Grafonola or other talking-machine; but it can be employed in other service, such as maintaining in desired position the hinged top of any box or chest or trunk, or any other movable closure or door. Among the objects of the invention are: to provide a contrivance by which the cover or closure can be opened or closed by one hand only; and, in case of a vertically-opening cover which, when lifted, would otherwise drop down by its own gravity, to prevent such unintended dropping of the cover; and to provide a device which will present the minimum obstruction in the angular opening of a hinged top or cover. Other objects and advantages of the invention will be apparent from the ensuing description.

The invention consists broadly of providing a pivoted guide-plate upon the box or stationary member, in combination with a rigid prop pivoted upon the lid or movable member, with suitable friction-means coacting upon said plate and prop. Other features of the invention will be clearly set forth in the appended claims.

The invention is susceptible of expression in various physical forms; but, for the sake of clearness, one embodiment, as applied to a Grafonola cabinet, is set forth in the accompanying drawings. In these drawings:

Figure 1 is a vertical section through a Grafonola cabinet, with its lid in its raised position, to present a side-view of a simple form of the invention employed therewith;

Fig. 2 is a front elevation, on a larger scale, of the same form of the device;

Fig. 3 is a side-view of the pivoted guide-plate (partly broken away), and of its supporting-plate.

Referring to these drawings, 1 represents the side of the cabinet, and 2 the lid or cover hinged thereto at 3. 4 is the prop, shown as a rigid and straight bar, pivoted at its upper end to the cover, at 5, and depending through a vertical slot in the platform or deck 6 (which supports the talking-machine). Below said slot, a block 7 is secured to the wall 1 of the cabinet; and to this block is secured the supporting-plate 8, as by screws 9—9. The guide-plate 10 is shown as rectangular, and with the four outwardly-turned fingers 11, one at each corner, to provide a guide-way at least as wide as the width of bar 4; and said plate also carries the member 12, extending outwardly from one side thereof and then across, to lie parallel to the main portion of the plate 10. Said plate 10 is pivoted upon its support 8, as by a rivet 13; and, preferably, the material of plate 10 has been forced outwardly, in a countersink around said rivet, both to let the head of the rivet lie below the surface of plate 10, and also to provide a smaller bearing-surface against the face of plate 8,—all as indicated in Fig. 2.

To assemble the device, first, a strip 14 of "red fiber" or other suitable friction-material, shown as rectangular and with its four corners cut away so as to fit within the four fingers 11, is placed against the face of said plate 10; then the bar 4 is located within said four fingers and against said strip 14; next, a second and similar friction-strip 15 is similarly placed on the outer side of said bar 4; then, a plate 16, shown as a slightly-bent flat spring, is similarly positioned; and, finally, the screw 17, carried by the member 12, is turned down against the plate or spring 16 to produce the desired amount of friction. If desired a lock-nut 18 can be employed on this screw.

When the parts are properly adjusted, the lid 2 can be readily raised or lowered with one hand; and, owing to the friction, it will remain in whatever position it has been placed. Preferably the lower end of the prop 4 will be provided with a stop, as 19, to limit the upward movement. With a lighter cover, less friction would suffice; with a heavier cover, greater friction is required, to prevent the lid slamming down of its own weight when released.

In the arrangement indicated by Fig. 1, it will be noted that the portion *a*—*b* of the prop (the portion exposed in profile, when the lid is raised,—as in Fig. 1) is a straight line, and offers the minimum amount of obstruction to the angular opening between the side-edge of the cabinet and the lid.

That is, the points *a* and *b* form, with the hinge 3, a substantially-equilateral triangle. It is preferable, therefore, that the parts should be so arranged that, when the lid has been raised to the desired extent, say sixty degrees, the pivots 5 and 13 should be in such relative position that the prop 4 will lie at about the same angle (but in the opposite direction). This can be secured by the use of the present invention, in which, as the lid is lowered, the requisite slight angular movement of the straight prop is permitted by the pivotal mounting of the guide-plate.

For the sake of clearness, one form of the invention has thus been disclosed in full detail. Yet it is to be understood that the invention is not limited to the precise construction and arrangement set forth, but might be embodied in various forms. Also parts might be inverted or transposed, and parts omitted, without departing from the spirit of the invention.

The invention having been thus described, what is claimed is:

1. A support for the lid of a box or the like, consisting of the combination of a plate pivoted to the box and having four outwardly-projecting fingers and also a member lying parallel to the main portion of said plate, a set-screw protruding through said member and toward the main portion of said plate, two strips of friction-material and a spring-plate located within said fingers and between the face of said plate and the adjacent end of said screw, and a straight bar pivoted to the lid and depending at an angle of about sixty degrees to the lid when opened about sixty degrees, said bar extending slidably between said fingers and also between the two friction-strips aforesaid.

2. A support for the lid of a box or the like, consisting of the combination of a plate pivoted to the box and having four outwardly-projecting fingers and also a member lying parallel to the main portion of said plate, a set-screw protruding through said member and toward the main portion of said plate, two strips of friction-material and a spring-plate located within said fingers and between the face of said plate and the adjacent end of said screw, and a bar pivoted to the lid and extending slidably between said fingers and also between the two friction-strips aforesaid.

3. A support for the lid of a box or the like, consisting of the combination of a plate pivoted to the box and having side-members projecting at right angles from two opposite sides of the main portion of said plate and also having a member lying parallel to said main portion, a set-screw protruding through said parallel member and toward said main portion, and a bar pivoted to the lid and extending slidably between said side-members and also between said main portion and the adjacent end of said screw.

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

GEORGE W. BEADLE.

Witnesses:
C. A. HANSON,
N. N. GADKIN.