

C. G. SWEET.
ROSIN APPLICATOR.
APPLICATION FILED JULY 28, 1910.

978,410.

Patented Dec. 13, 1910.

3 SHEETS—SHEET 1.

Fig. 1.

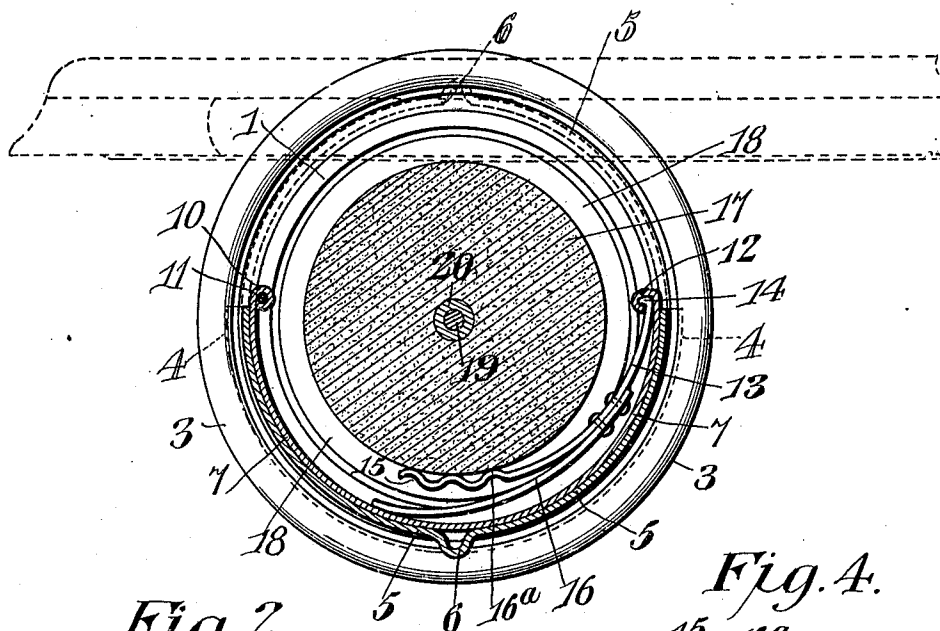


Fig. 2.

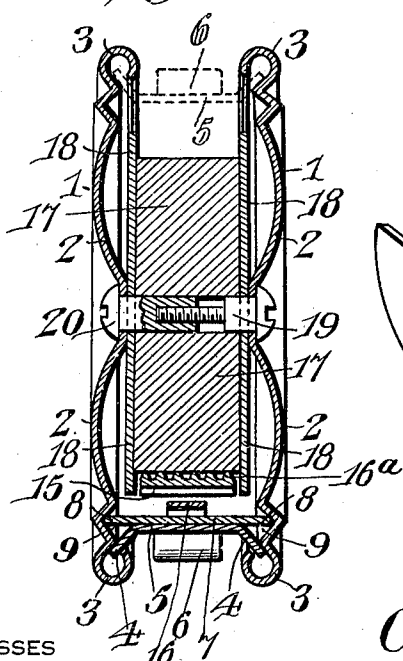


Fig. 4.

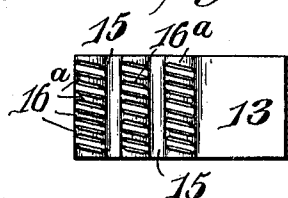
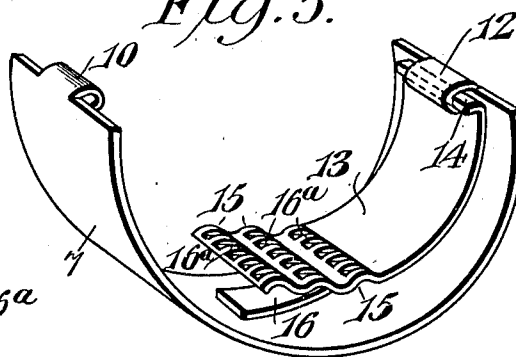


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 5.

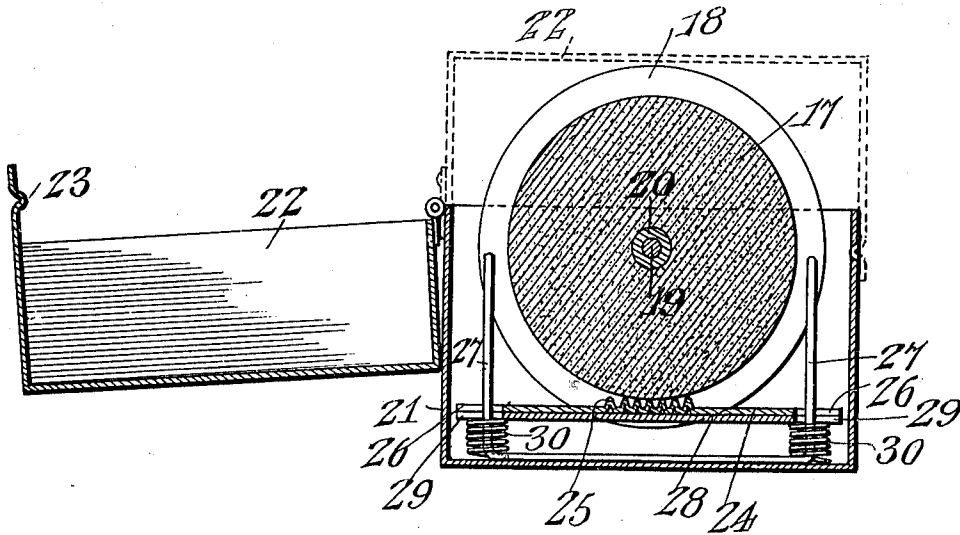


Fig. 6.

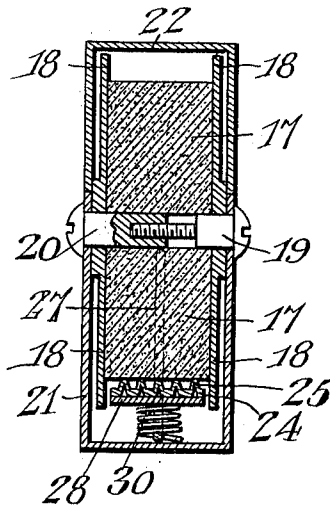


Fig. 7.

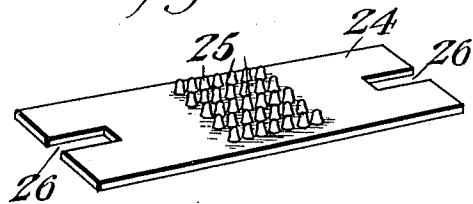
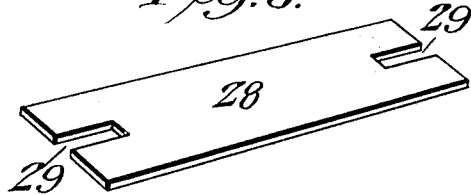


Fig. 8.



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UNITED STATES PATENT OFFICE.

CLIFFORD G. SWEET, OF AURORA, ILLINOIS.

ROSIN-APPLICATOR.

978,410.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Application filed July 28, 1910. Serial No. 574,402.

To all whom it may concern:

Be it known that I, CLIFFORD G. SWEET, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented a new and useful Rosin-Applicator, of which the following is a specification.

This invention has reference to means for the application of rosin to violin and other like bows, and its object is to avoid the friction incident to the drawing of the hairs of the bow over a block of rosin in the customary manner.

In accordance with the present invention, the rosin is employed in the form of a block, preferably a cylindrical block, mounted in a suitable support, preferably a protecting casing, which may be opened to expose the rosin, and closed to protect the rosin, and means are provided whereby the surface of the rosin may be engaged by the hairs of the bow, but instead of these hairs moving over the rosin surface while the latter is quiescent, the movement of the bow causes a like movement of the rosin block where engaged by the bow, so that no friction is caused to an extent detrimental to the hairs of the bow, while means are, also, provided whereby the movement of the rosin block under the impelling action of the bow causes a reduction of the surface of the block to a powdery or dust-like form, and this surface so acted upon ultimately reaches the hairs of the bow when the powdered or dust-like rosin is transmitted to the bow hairs in a form best adapted for imparting to the strings of the instrument to be played the tone qualities desired. The casing will, when closed, prevent any escape of rosin powder or dust not transferred to the bow.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming a part of this specification, in which drawings—

Figure 1 is a sectional elevation of a device embodying my invention showing it open in full lines and by dotted lines indicating a portion of a bow in contact with the body of rosin and also by dotted lines showing the closed position of the cover. Fig. 2 is a central transverse section of the device. Fig. 3 is a detail perspective view of the scraper. Fig. 4 is a detail plan view of a portion of the scraper showing more

clearly the arrangement of the abrading surface. Fig. 5 is a longitudinal section showing a different form of the invention. Fig. 6 is a central transverse section of the device shown in Fig. 5. Fig. 7 is a detail perspective view of the scraper illustrated in Figs. 5 and 6, and Fig. 8 is a detail perspective view of the reinforcing plate upon which the said scraper rests.

In the form of the invention illustrated in Figs. 1 and 2, I employ a casing which is illustrated as of a cylindrical form and consists of two side plates 1 which may be constructed of sheet metal or any other preferred material having the requisite durability, lightness and cheapness. These side plates 1 are preferably stamped out with expanded portions 2 which will impart an ornamental appearance to the device and will furnish convenient means for grasping the device between the fingers. The edges of the side plates are turned inward on themselves, as shown at 3, to provide smooth round surfaces which will avoid cutting or otherwise injuring the operator's fingers. The rounded edge portions 3 serve as runways or guides for the outwardly flared side edges 4 of a cover 5 which is of a semi-circular form and is provided with a projection 6 at about its center to facilitate its operation. When the device is not in use, this cover 5 is moved around the guides or runways 3 so as to extend over the upper open portion of the container, as indicated by dotted lines, but when the device is in use, the cover is moved around the runways to slide beneath the semi-cylindrical portion 7 of the holder, the edges 8 of which are engaged in grooved portions 9 of the side plates and are secured therein by soldering or otherwise. This semi-cylindrical portion 7 has a bead 10 formed on one end which will project between the edges of the side plates and will present a smooth convex surface so that cutting of the hairs of the bow by contact with the body of the container will be prevented. The bead 10 may be reinforced by a pin 11 inserted through the same and the side plates, if so desired, and this pin will also serve as a convenient means for fixedly securing the plate 7 between the side plates 1. At the end of the plate 7 opposite the bead 10 an overhanging lip 12 is provided which, like the bead 10, serves to guard against cutting of the hairs of the bow and also serves as a convenient means

for supporting the scraper 13. This scraper 13 is in the form of a cross plate having a lip 14 at one end engaging in the overhanging bead or lip 12 and having one end free and corrugated, as indicated at 15. The upper surface of this corrugated portion 15 is roughened or provided with abrading points or teeth 16, of any convenient or preferred form, and the abraded extremity of the plate 13 is held against the body of rosin by a spring 16 secured to the under side of the scraper and bearing against the inner face of the plate 7 of the container.

The rosin 17 is formed into a cylindrical body or roller between two cheek plates 18 and is journaled or pivoted between the side plates 1 of the container by means of male and female screws or bolts 19, 20, inserted centrally through the said side plates, the cheek plates, and the body of rosin, as clearly shown in Fig. 2. The rosin may be secured between the cheek plates 18 in any convenient or preferred manner, and a simple method of accomplishing this result is to melt the rosin and pour it between the cheek plates while the same are held within a suitable mold with a plug or core extending centrally through the cheek plates so that a central opening will be formed in the body of rosin to receive the bolts 19 and 20 when the rosin is to be fitted within the container.

While in Figs. 1 and 2 I have shown the container or holder as of a cylindrical or circular formation, it may be of any preferred construction, and in Figs. 5 and 6 I have shown a form of container consisting of a substantially rectangular box 21 having a lid 22 hinged thereto and provided with a spring catch 23 adapted to engage a socket in the side of the box to hold the cover or lid normally in its closed position. The rosin in this arrangement is provided in the form of a cylindrical block or roller 17 between cheek plates 18, as before described, and is pivotally mounted in the sides of the box 21 by the bolts 19 and 20, exactly as shown in Figs. 1 and 2 and described in connection therewith. In both constructions the cheek plates 18 extend beyond the periphery of the rosin block and serve as guides for the bow hair.

The employment of the rectangular box permits the use of a scraper of a different form from that illustrated in Figs. 1 to 4, and such scraper, as shown, consists of a plate 24 provided at its center with a plurality of projections or teeth 25 adapted to bear against the under portion of the edge of the rosin body, as in Figs. 5 and 6. The ends of this scraper plate 24 are provided with notches 26 which fit over pins 27 rising from the bottom of the box and serving as guides to prevent excessive lateral movement of the scraper. In order to reinforce the

scraper, a base or supporting plate 28 is provided, and this supporting plate 28 is likewise provided with notches 29 in its ends engaging the guide-pins 27, as shown. Springs 30 are coiled around the guide pins between the bottom of the box and the under side of the presser plate, and, by their expansion, serve to hold the scraper against the edge of the body of rosin and thereby form powder on its surface, as will be readily understood.

To use the device the cover is opened, and then the bow is drawn across the cylinder or block of rosin between the edges of the cheek plates, in the same manner that it is customary to draw a bow across a block of rosin ordinarily held in the hand of the user. The contact of the bow hairs with the rosin causes the latter to rotate within the holder or container and the scraper engaging the periphery of the rosin block reduces the same to a powdery or dust-like form, sufficiently adherent to the block to be carried by the same until ultimately it reaches the hairs of the bow and is transmitted thereto by the pressure necessary to cause a rotative movement of the rosin block.

The transfer of rosin from a block by the movement of the hairs of the bow over the same while the block remains quiescent results in the production of a rosin surface on the bow hairs which is liable to produce improper tones. This condition is entirely avoided by the application of the rosin in the powdered or dust-like form to the hairs of the bow, which by the present invention is accomplished without waste of rosin or liability of scattering the rosin powder, while the operation, so far as the user is concerned, is the same as that with which violinists are familiar. Furthermore, since the rosin cylinder rotates when the bow is drawn across the same, injury to the hair of the bow either because of the friction engendered or because of the catching of the hair on some obstruction, is entirely avoided.

The device is in practice capable of so cheap a construction that after the first outlay by the purchaser the old cheek plates and remains of the rosin cylinder may be discarded and a new cylinder with its cheek plates may be installed in the holder at a trifling cost.

The scraper is of a width to so fit between the cheek plates that it will readily follow the surface of the cylindrical block of rosin as the diameter of such block decreases while it acts on the entire surface of a rosin block, so that the wearing of the latter into grooves and the chipping away of the brittle rosin, which is a common annoyance with the rosin blocks usually employed, is avoided, for with the present invention the rosin will wear evenly throughout.

In the form shown in Figs. 1 to 4, the scraper is indicated as slightly curved to conform to the surface of the rosin block, and in the form shown in Figs. 5 to 8 the scraper may be made of a light flexible material which may be bent slightly, if desired, to conform to the surface of the rosin block. In either case the elastic pressure exerted against the scraper causes it to remain in contact with the rosin block, as the latter wears away.

The structures shown in the drawings are well adapted for the purposes of the present invention, but it will be understood that the invention is not confined to such structures, the showing being in a measure indicative, and it will be further understood that various changes and modifications may be made in the structure shown so long as the salient features of the invention are retained.

What is claimed is:—

1. A rosin applicator designed to carry a block of rosin and provided with rosin engaging means for reducing the surface of the rosin to a powder or dust-like form prior to reaching the hairs of a bow impelling the rosin block.

2. A rosin applicator provided with a block of rosin movable with the hairs of a bow where engaged thereby at substantially the same surface speed, and means rendered active by the movement of the rosin block for converting the surface thereof into a powdery or dust-like form prior to the engagement therewith of the hairs of the bow.

3. A rosin applicator provided with a rotatable block of rosin responsive to a movement of a bow thereover to attain a surface speed substantially the same as the speed of movement of the hairs of the bow, and means for preparing the surface of the rosin block where engaged by the bow for transfer thereof to the hairs of the latter, said means acting on the surface of the rosin block before reaching the hairs of the bow.

4. A rosin applicator comprising a rosin block rotatably responsive to the action of a traveling bow thereon, and means in constant operative relation to the rosin block for preparing the surface of the latter for transfer to the hairs of the bow.

5. A rosin applicator comprising a rotatable rosin block responsive to the action of a bow thereon to attain substantially the same surface speed as the speed of travel of the bow, and a scraper for engagement with the rosin block and adapted to act thereon during the movement of the block for preparing the surface of the block for transfer to the hairs of the bow.

6. A rosin applicator comprising a rotatable rosin block responsive to the action of a bow thereon to attain substantially the same surface speed as the speed of travel

of the bow, a scraper, and impelling means for the scraper imparting thereto a normal tendency to remain in engagement with the rosin block and adapted to act thereon during the movement of the block for preparing the surface of said block for transfer to the hairs of the bow.

7. A rosin applicator comprising a holder, a rotatable block of rosin therein, and a scraper housed in the holder in operative relation to the rosin block.

8. An applicator for rosin comprising a holder, a block of rosin rotatably mounted therein, a scraper in the holder in operative relation to the surface of the rosin, and means within the holder for maintaining the scraper in contact with the rosin.

9. An applicator for rosin comprising a holder, a block of rosin rotatably mounted therein, a scraper in operative relation to the rosin, and an elastic impelling means within the holder acting upon the scraper to maintain the same in contact with the rosin.

10. A rosin applicator comprising a suitable holder, a rosin block provided with cheek plates and rotatably mounted within the holder, and a scraper in the holder bearing upon the rosin between the cheek plates.

11. The combination of a holder, a block of rosin rotatably mounted therein, guide pins within the holder, a scraper on said guide pins, and springs on the guide pins engaging the scraper to hold the same against the rosin.

12. The combination of a holder, a block of rosin rotatably mounted therein, guide pins rising from the base of the holder, a scraper on said guide pins, a base plate on said pins and supporting the scraper, and springs surrounding the pins between the holder and the base plate.

13. The combination of a holder, a block of rosin rotatably mounted therein, spaced guide pins in the holder, a scraper consisting of a plate having notches at its ends transverse to said guide pins and provided at its central portion with scraping projections, and springs on the pins acting on the scraper to hold the teeth thereon against the block of rosin.

14. The combination of a holder, a block of rosin rotatably mounted therein, a scraper within the holder in operative relation to the block of rosin, and a spring bearing against the holder and acting on the scraper to maintain the same against the block of rosin.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CLIFFORD G. SWEET.

Witnesses:

G. F. ORCUTT,
G. H. BRIDGES.