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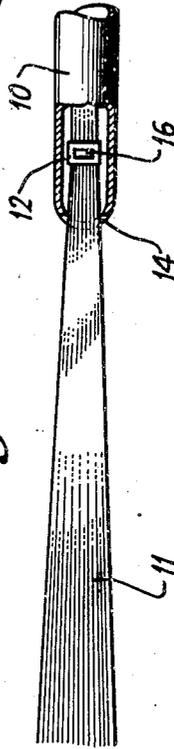
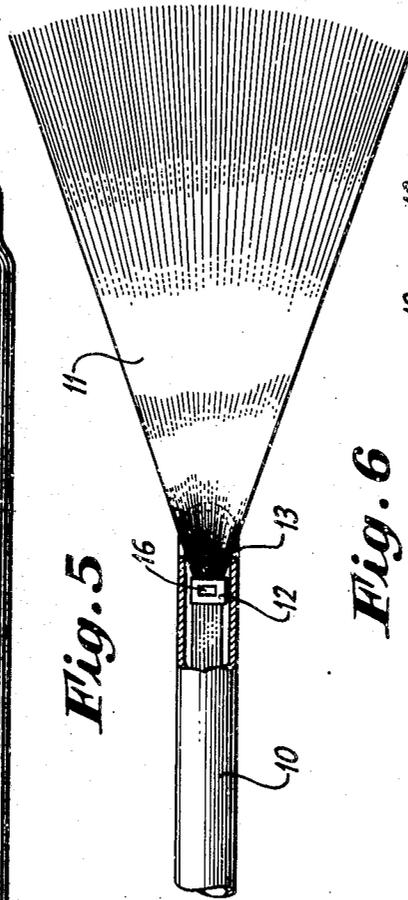
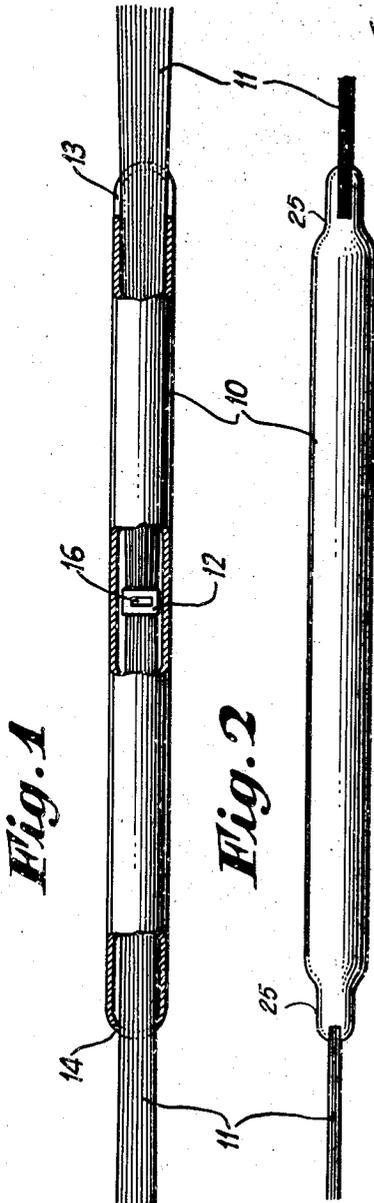
W. D. GLADSTONE

2,485,824

DRUM BEATER

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*Fig. 1*

*Fig. 2*

*Fig. 3*

*Fig. 5*

*Fig. 4*

*Fig. 6*

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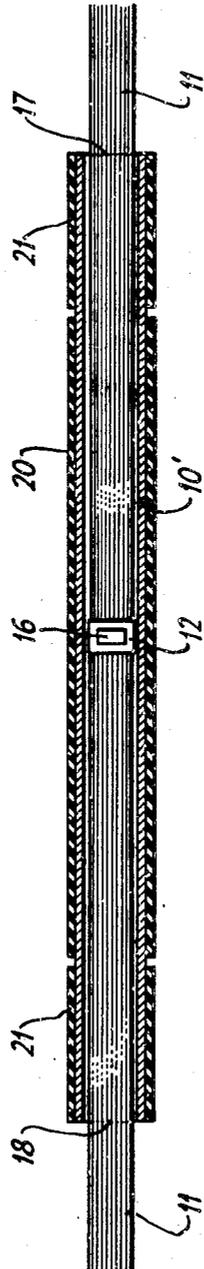
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*Fig. 7*



*Fig. 8*



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# UNITED STATES PATENT OFFICE

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## DRUM BEATER

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6 Claims. (Cl. 84-422)

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This invention relates to musical instruments, and more particularly to wire brushes, sometimes referred to as jazz drum switches.

The wire brush is used with the drum or cymbal to obtain patter and swish-like sound effects. It usually comprises a tubular handle having at one end a plurality of thin gauge steel wires which spread out in the manner of a fan and are fastened to a clip or lug seated within and slidable along the length of the handle. In the conventional wire brush, there is provided a metal rod which is fixedly connected at one end to the lug in the interior of the handle in order to adjust the spread of the wires. The other end of the rod terminates in a loop or a ball located outside the handle to enable the rod to be easily grasped by the hand and moved along the longitudinal axis of the handle, thereby permitting adjustment of the effective length and the spread of the wires.

One difficulty experienced with known types of wire brushes is that the length of the rod which protrudes from the handle changes during use for different adjustments of the wires, thus interfering with the balance or feel of the instrument in the hand of the user.

Another difficulty is caused by undesired changes in adjustment of the wires during usage, due to inadvertent movement of the rod.

The wire brush of the present invention overcomes the foregoing difficulties and has the additional advantage, among others, of eliminating the need of a rod for adjusting the effective length and spread of the wires.

According to the invention, the wires extend throughout the entire length of the tubular handle and can be pulled out from either end. In accordance with one embodiment of the invention I provide apertures of different sizes at both ends of the handle, either by the use of different size holes or by a variation in taper of the end construction of the handle, and thus am able to obtain different spreads of the wires from both ends of the wire brush. In accordance with another embodiment, the apertures at both ends of the handle are of the same size, but I obtain different spreads of the wires by the use of slidable rubber sleeves at one or both ends of the handle.

A detailed description of the wire brush of the invention follows, in conjunction with a drawing, wherein:

Fig. 1 shows a view of the wire brush of the invention, partly in perspective and partly in section, with certain parts broken away to more clearly illustrate the construction;

Fig. 2 is a side or edge view of Fig. 1;

Fig. 3 is a view of the right hand end of the wire brush of the invention and illustrates the large aperture;

Fig. 4 is a view of the left hand end of the wire

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brush of the invention and illustrates the smaller aperture;

Fig. 5 is a view of only the right hand portion of the wire brush of Fig. 1 with the wires pulled out of this end, ready for use;

Fig. 6 is a view of only the left hand portion of the wire brush of Fig. 1 with the wires pulled out of this end, ready for use;

Fig. 7 illustrates a modified form of wire brush of the invention; and

Fig. 8 illustrates an end view of the brush of Fig. 7.

Throughout the figures of the drawing like parts are designated by like reference numerals.

Referring to the drawing in more detail, there is shown a wire brush or jazz drum switch comprising a tubular handle 10, preferably though not necessarily of circular cross-section; and a plurality of fine quality, thin gauge, rust-proof piano steel wires 11 extending out from both ends of the brush, as seen in Fig. 1. This particular figure illustrates the brush when not being used.

Handle 10 may be made of metal, plastic, hard rubber or other suitable material. The wires 11 are clamped together at a point within the interior of the handle, preferably at the center in the showing of Fig. 1, by a metallic lug or clip 12 which is crimped at 16 to securely fasten the clip to the wires.

It is preferred that each of the wires 11 be a single continuous piece, although, if desired, the wires may be made in two pieces held together by the clip 12.

The lug or clip 12 is slidable along the interior of the handle 10 in response to either a pulling or pushing pressure on the wires in a direction along the longitudinal axis of the handle.

The tubular handle is tapered, rounded, or squeezed at both ends 25 in a manner shown clearly in the side or edge view of Fig. 2. This tapering or squeezing of the ends prevents the lug or clip 12 from leaving the interior of the handle 10.

The ends 25 of the handle 10 are provided with different sized apertures 13 and 14 to enable the wires 11 to have different spreads when pulled out from these ends. Aperture 13 is shown as larger than aperture 14. Thus, when the wires 11 are grasped by the fingers of the user and pulled out from the right hand large aperture 13 as far as they will go, which will be when the lug 12 engages the reduced end 25 of the handle near 13, they will have a relatively wide spread as shown in Fig. 5. In this position (Fig. 5) the wires at the other end at 14 will be drawn into the handle (concealed) and will not protrude from the aperture 14. When the wires are grasped by the user and pulled or pushed out of the left hand small aperture 14 as far as they will go, which will be when the lug 12 engages the re-

duced end 25 of the handle near 14, they will have a narrower spread as shown in Fig. 6. In this position (Fig. 6) the wires at the other end at aperture 13 will be drawn into the handle and will not protrude from the aperture 13.

Obviously, a greater spread of wires means less bunching and less weight of the wires, whereas a narrower spread means more bunching and a greater weight which can be effective on the drum or cymbal.

In order to change the wires 11 from the position of Fig. 5 to Fig. 6, or vice-versa, the wires are grasped by the user and pushed back into the handle 10 until they protrude from the other end and then they may be pulled out from the other end.

The handle 10 may be grooved to provide a good gripping surface for the fingers of the musician, or may be covered with a grooved rubber sleeve for this purpose, as indicated in Figs. 7 and 8.

In order to distinguish the different ends of the wire brush in semi-darkness, the handle 10 or its covering may have different colors at the different ends. Thus, one half of the handle or its adjacent end may be colored red while the other half may be colored white or silver, for example, or one end colored white and the other end left unpainted. By making the handle 10 from molded plastic material I am able to provide a very attractive instrument in different colors.

By way of illustration and not by limitation the handle 10 may be about 7 inches long and the wires may protrude about one inch from both ends in the position shown in Fig. 1.

Fig. 7 shows another embodiment of a wire brush of the invention, wherein the handle 10' is provided with equal sized apertures 17 and 18 at both ends. In order to obtain different spreads of the wires, there are provided flexible rubber and relatively small-length sleeves 21 near both ends of the handle. These rubber sleeves may be slid over the apertures 17 and 18 to any desired extent in order to restrict the spread of the wires 11. Since the sleeves are made of flexible rubber, that end portion of the sleeve 21 which is slid or pushed over the aperture 17 or 18 will constrict the spread of the wires 11. A portion of the sleeve 21 should remain on the handle 10' when the sleeve is manipulated to restrict the spread of the wires. If desired, only one sleeve 21 may be used. It should be noted that a rubber tubular sleeve 20 is shown surrounding the major portion of handle 10'. This element 20 provides a good gripping surface for the fingers of the user, but may be eliminated, if desired. Fig. 8 illustrates an end view of the brush of Fig. 7.

I claim:

1. A musical instrument comprising a wire brush having a tubular handle, a plurality of wires in the interior of said handle and having an overall length greater than the length of said handle, and a clip securely fastened to said wires at a point intermediate the end of said wires and located in the interior of said handle, said handle having apertures at both ends for enabling said wires to extend from either end of the handle, and means at both ends of the handle for restricting the spread of said wires from the respective ends.

2. A musical instrument comprising a wire brush having a tubular handle, a plurality of wires in the interior of said handle and having an overall length greater than the length of said handle, and a clip securely fastened to said wires

at a point intermediate the end of said wires and located in the interior of said handle, said handle having apertures at both ends for enabling said wires to extend from either end of the handle, said apertures being of different size to enable said wires to have relatively different spreads when pulled out from said ends through said apertures.

3. A musical instrument comprising a wire brush having a tubular handle, a plurality of wires in the interior of said handle and having an overall length greater than the length of said handle, and a clip securely fastened to said wires at a point intermediate the end of said wires and located in the interior of said handle, said handle having apertures at both ends for enabling said wires to extend from either end of the handle, the end portions of said tubular handle being of reduced dimensions compared to the intermediate portion to prevent egress of said clip through said ends.

4. An instrument in accordance with claim 1, characterized in this that a flexible sleeve is provided around and frictionally engages said handle near one end for enabling it to be slid over the end of the handle to restrict the spread of the wires, said flexible sleeve by virtue of the friction between it and the handle being capable of being positioned at any point in its length on said handle to thereby provide a multiplicity of adjustments for said wires.

5. A musical instrument comprising a wire brush having a tubular handle, a plurality of wires in the interior of said handle and having an overall length greater than the length of said handle, and a clip securely fastened to said wires at a point intermediate the end of said wires and located in the interior of said handle, said handle having apertures at both ends for enabling said wires to extend from either end of the handle, said apertures being of different size to enable said wires to have relatively different spreads when pulled out from said ends through said apertures, the end portions of said tubular handle being of reduced dimensions compared to the intermediate portion to prevent egress of said clip through said apertures.

6. A wire brush comprising a straight tubular handle of circular cross-section, a plurality of wires in the interior of said handle and having an overall length greater than the length of said handle, and a clip securely fastened to said wires at a point intermediate the ends of said wires and located in the interior of said handle, said handle having apertures at both ends for enabling said wires to extend from either end of the handle, said apertures being of different size to enable said wires to have relatively different spreads when pulled out from said ends through said apertures.

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