United States Patent

Menard

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[54] **DRUM STICK**

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[52] **U.S. Cl.** **84/422**
[51] **Int. Cl.** **G10d 13/00**
[58] **Field of Search** ..... 84/422 S

[56] **References Cited**

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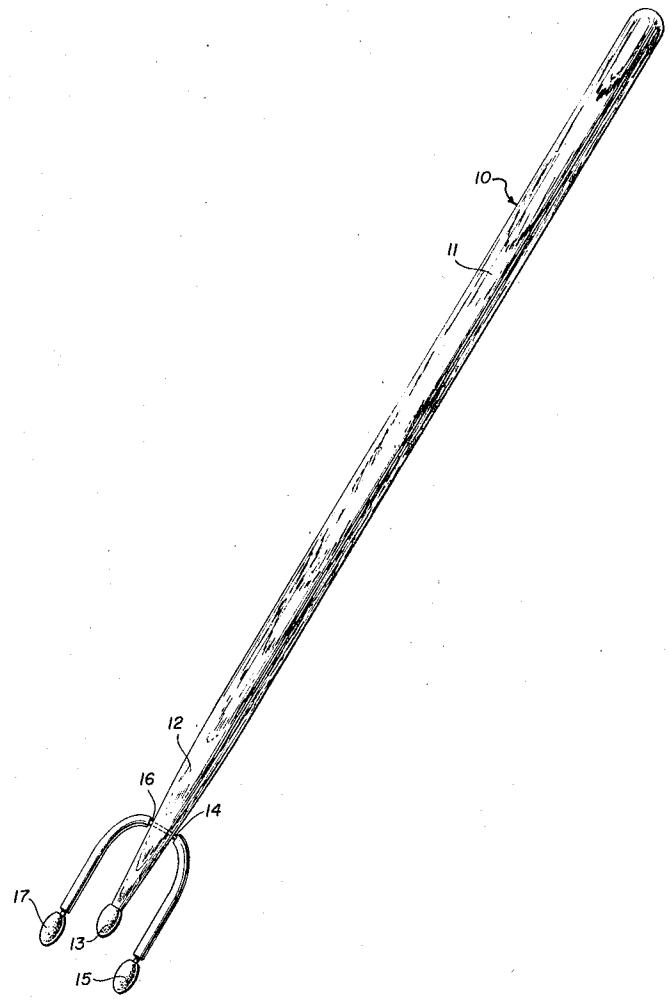
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[57] **ABSTRACT**

A drum stick having a flexible element attached to the stick adjacent its head, the flexible element having a head attached to its free end.

6 Claims, 4 Drawing Figures



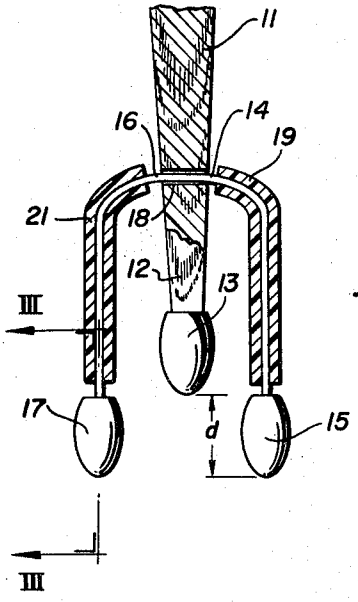


FIG. 2

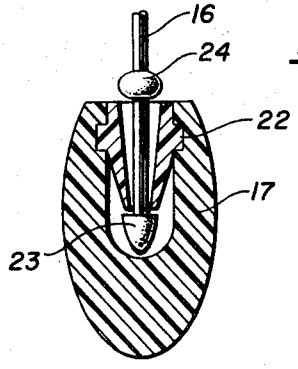


FIG. 3

FIG. 1

FIG. 4

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DRUM STICK

BACKGROUND OF THE INVENTION

In the production of modern music, it is common practice to use drums as at least part of the rhythm section. As a matter of fact, even where other rhythm instruments may not be used, the drum is usually to be found. For that reason, it is important that the drummer be provided with not only a variety of percussion instruments, but also that he be able to do this in such a way as to "fill" the background of the music. In other words, he is not only required to provide the beat to the music, but also to provide a broad spectrum of sound which will make the orchestra sound as though many more instruments were present. Although considerable attention has been given in the past to the improvement of drums and other percussion instruments themselves, very little has been done with the striking instrument itself, that is to say, the drum stick. The commonly-used drum stick is capable of striking only one beat at a time. Therefore, its effective use is limited to highly-skilled drummers who are capable of producing a large number of beats in a given length of time. These and other difficulties experienced with the prior art devices have been obviated in a novel manner by the present invention.

It is, therefore, an outstanding object of the invention to provide a drum stick capable of producing a plurality of beats for each stroke of the stick.

Another object of this invention is the provision of a drum stick capable of producing a broad sound instead of a single tap.

A further object of the present invention is the provision of a drum stick whose use will permit even an unskilled drummer to provide a filling sound for orchestra music.

It is another object of the instant invention to provide a drum stick permitting the production of a ruff with only a single stroke of the stick.

A still further object of the invention is the provision of a drum stick having secondary striking members which are capable of a long life of useful service.

With these and other objects in view, as will be apparent to those skilled in the art, the invention resides in the combination of parts set forth in the specification and covered by the claims appended hereto.

SUMMARY OF THE INVENTION

In general, the invention consists of a drum stick having an elongated main body with a head at one end. A flexible element is attached to the main body adjacent the head and has on its free end a secondary head.

More specifically, two oppositely-located flexible elements are provided, each with its own head. The head on the flexible element is located a substantial distance beyond the head on the main body of the stick.

BRIEF DESCRIPTION OF THE DRAWINGS

The character of the invention, however, may be best understood by reference to one of its structural forms, as illustrated by the accompanying drawings, in which:

FIG. 1 is a perspective view of a drum stick constructed in accordance with the principles of the present invention,

FIG. 2 is a sectional view of a portion of the drum stick,

FIG. 3 is a sectional view taken on the line III—III of FIG. 2, and

FIG. 4 is a perspective view of an insert used in the drum stick.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring first to FIG. 1, wherein are best shown the general features of the invention, the drum stick, indicated generally by the reference numeral **10**, has in the usual way an elongated main body **11** formed of hickory or other suitable material. It is provided at one end with a tapered portion **12** on which is mounted a nylon head **13**.

Attached to the main body **11** adjacent the head **13** is a flexible element **14** whose free end is provided with a nylon bead or ovoid head **15**. In a similar manner, a second flexible element **16** is attached to the main body and is provided at its free end with a head **17**. Flexible elements **14** and **16** are connected to the main body on diametrically-opposite sides of its circular cross-section.

Referring now to FIG. 2, it can be seen that a transverse bore **18** is provided through the main body **11** of the stick and that the flexible elements **14** and **16** form part of an integral strand of a tough, wear-resistant material, such as nylon. The first flexible element **14** is provided with a sleeve **19** which extends from adjacent the head **15** to adjacent the main body **11**, while the second flexible element **16** is similarly provided with a sleeve **21** which extends from adjacent its head **17** to adjacent the main body **11**. Both sleeves **19** and **21** are formed on an elastomer material, such as rubber.

FIGS. 3 and 4 show the manner in which the heads **15** and **17** are attached respectively to their flexible elements **14** and **16**. Because the bore **18** is necessarily much smaller than either of the heads, it is necessary to assemble the drum stick by passing the flexible element through the bore **18** and then applying at least one of the heads afterwards. The head **15** is ovoid and is provided along its long axis with an insert **22** through which the end of the flexible element **14** is inserted and held. The flexible element is provided at its end with an arrow or cone-shaped head **23** and with a protuberance **24** spaced from the head **23**. As is evident in FIG. **4**, the insert **22** is provided with a cluster of semi-flexible fingers **25** which are cammed or spread outwardly when the end of the flexible element **14** is inserted into the head **15**. In other words, the conical shape of the head **23** on the flexible element forces the fingers apart and then they close around the element at the base of the head to lock it in place. At the same time, the protuberance **24** prevents excessive longitudinal movement of the flexible elements relative to the head **15** after the two have been assembled.

The spacing relationship between the main head **12** of the drum stick and the secondary heads **15** and **17** is quite important. As is evident in FIG. **3**, the inner bases of the heads **15** and **17** are located in approximately the same plane transversely of the main body **11** as the outer end of the head **12**. In other words, when the drum stick is suspended from its butt end, the flexible elements **14** and **16** hang downwardly beside the main body **11** and the heads **15** and **17** hang below the head **12** by an amount equal to their lengths.

The operation of the invention will now be readily understood in view of the above description. The drum stick is held in the conventional manner and is used to strike a percussion surface such as a drum head in the conventional manner. Instead of a single tap being emitted from each stroke of the drum stick, however, the three heads **12**, **15**, and **17** strike the drum surface at slightly different times, giving a broad sound similar to a three-beat ruff. When the sticks are used to produce a drum beat in the conventional manner, the sound is the equivalent of three drummers playing at the same time. When a drummer uses a pair of these drum sticks to accompany an orchestra, the effect is to give greater "filling" behind the orchestra. One result of this is that a less experienced drummer is able to give the impression that his technique is better than it really is. At the same time, the sound is an unusual one that lends itself to certain types of music and produces an unusual sound that cannot be produced by any other type of percussion instrument. Although the manner in which the device operates is not thoroughly understood, it is supposed that the nylon strand making up the flexible elements **14** and **16** gives the auxiliary portion of the drum stick a flexibility and strength, while the elastomer sleeves **19** and **21** give them a spring-like resiliency. The manner in which the flexible element is attached to the heads **15** and **17** assures that the head does not become separated from the resilient element, despite the tremendous forces that are brought to bear due to centrifugal force and the whipping action which takes place. The use of a substance such as nylon for the flexible element and the head as well as the insert **22** and the heads **23** insures not only strength to resist these forces, but also the long-wearing characteristic which is necessary to give a prolonged life.

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material spirit thereof. It is not, however, desired to confine the invention to the exact form herein shown and described, but it is desired to include all such as properly come within the scope claimed.

The invention having been thus described, what is claimed as new and desired to secure by Letters Patent is:

1. A hand-operated drum stick, comprising

a. an elongated main body having a head at one end,

b. an elongated flexible element connected at one end to the main body adjacent the head, and

c. a head attached to the other end of the flexible element.

2. A drum stick as recited in claim **1**, wherein a second flexible element is connected to the main body at a point opposite the connection of the first-mentioned flexible element thereto, a second head being attached to the free end of the said second flexible element.

3. A drum stick as recited in claim **2**, wherein the first-mentioned and the second flexible elements are integral and extend through a transverse bore in the main body.

4. A drum stick as recited in claim **3**, wherein the two heads are located a substantial distance beyond the head on the main body.

5. A drum stick as recited in claim **3**, wherein each flexible element is provided with a sleeve formed of elastomer material extending from its head to the main body.

6. A drum stick as recited in claim **3**, wherein the flexible elements and the heads are formed of a tough, wear-resistant plastic material.

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