July 3, 1951 C. E. ANDERSON, JR 2,559,384

CHIMED MALLET

Filed Aug. 9, 1948

Fig. 1.

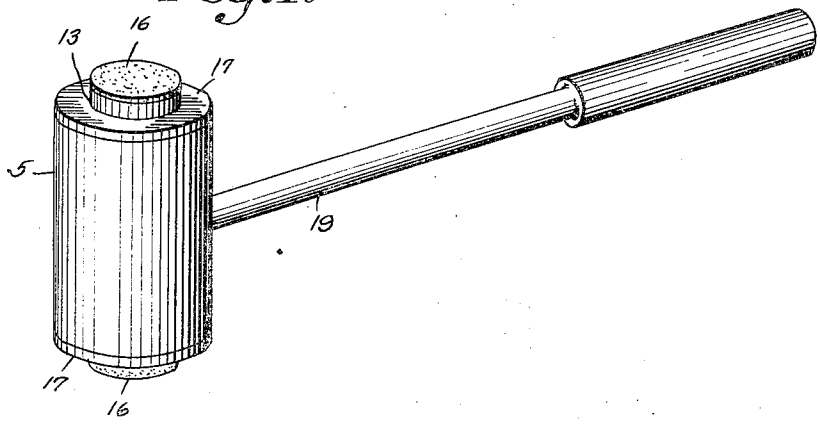


Fig. 2.

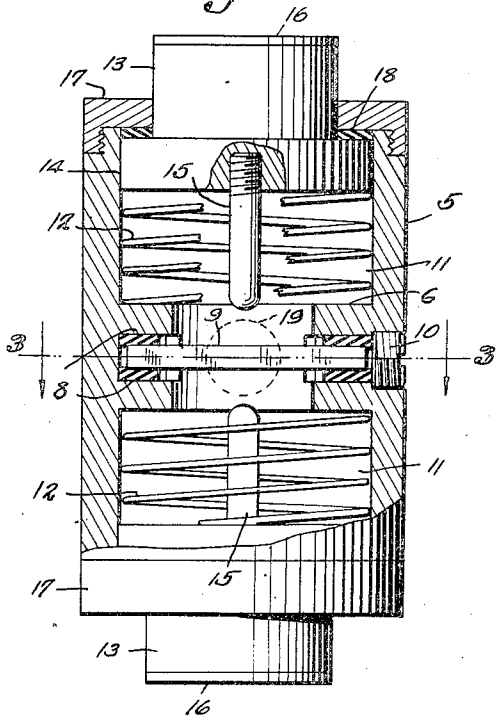
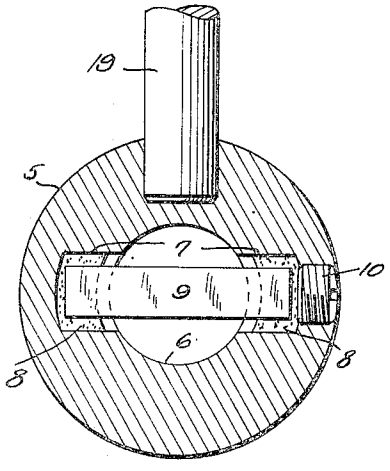


Fig. 3.



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CHIMED MALLET

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2 Claims. (Cl. 46—174)

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This invention relates to a toy for small children, and more particularly, has reference to a chimed mallet which, when swung by the child so as to strike an object or floor or other surface, will emit a pleasing sound.

It is well known to parents of small children that children enjoy striking one object against another, and this tendency of the small child has in many instances produced considerable damage to furniture and other objects in the household. Additionally, the discordant and jarring noises produced are decidedly nerve racking.

Accordingly, it is an important purpose of the present invention to provide a chimed mallet suitable for use as a child's toy, the mallet having the appearance of an ordinary mallet or toy hammer, but being padded so as to prevent injury to surfaces struck thereby, as well as to eliminate the sound ordinarily produced by contact of the mallet with such surface; to provide a mallet of this type which when brought against said surface, is adapted to sound a pleasant musical note, with no trace of the ordinary sound produced by a mallet or hammer striking a surface; and which is adapted to sound said note regardless of which end of the mallet body is used.

Another important object is to provide a toy as described that is adapted to be manufactured at relatively low cost, will be attractive in appearance, efficient in operation, durable, and not easily put out of order.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawings,

Fig. 1 is a perspective view of a chimed mallet constructed in accordance with the invention.

Fig. 2 is a longitudinal section through the body of the mallet.

Fig. 3 is a transverse section taken on line 3—3 of Fig. 2.

Referring to the drawing in detail, I provide a body 5 of any suitable material, which in the present instance is cylindrical, although said body could, as will be apparent from the description to be provided hereinafter, be of other cross-sectional configuration.

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In any event, the body 5 is hollow, and intermediate its ends it is provided with an annular shoulder 6 extending from the inner surface of the body, said shoulder being oppositely recessed as at 7, and there being cushion elements of rubber or similar material positioned in the recesses to support resiliently a tuned bar, or chime 9. For the purpose of ready insertion of the chime 9 during manufacture, and also to provide for substitution of a chime if desired, an opening is formed in the body wall communicating with one of the recesses 7, this opening in the present instance being threaded to receive a plug 10. As will be understood, the chime can be inserted through the opening and mounted in the illustrated position, whereupon the plug can then be employed to close the opening for the purpose of retaining the chime in its position. I believe that other methods of mounting the chime in the body may as well be employed, this particular means being shown only as an illustrated example.

The provision of the shoulder 6 intermediate the ends of the body 5 defines at either end of the body a chamber 11, and in each chamber is mounted a coil spring 12, one end of which abuts against the adjacent surface of shoulder 6. The other end of the spring 12 is adapted to yieldably urge outwardly of the body 5 a head 13, the inner end of which is enlarged as at 14, the spring 12 abutting against said enlarged inner end. Threaded in the inner end 14 of the head 13 is a plunger 15, the free end of which is normally spaced from chime 9 as best illustrated in Fig. 2.

The other end of head 13 is provided with a pad or cushion element 16, which may be secured thereto in any suitable manner, as by adhesives or otherwise.

Adapted to retain the head 13 and spring 12 within the body 5, and serving as a stop limiting outward movement of the head, is a flanged cap 17, that may be threadable on the end of head 5, the cap 17 having an opening in which the head may be slidably reciprocated. An annular resilient gasket or washer 18 is interposed between the cap and the enlarged end portion 14 of the head.

Secured fixedly to the body 5 in any suitable manner is the handle 19, whereby the mallet may be swung.

It will be readily observed that a child grasping the handle 19 may bring either head 13 against a surface forcibly. When this occurs, pad 16 on said head will prevent damage to the

surface, and will also eliminate any actual noise occurring between the head and the struck surface or object. However, the striking of the mallet against a surface or object causes head 13 to move inwardly of the body 5, so that the free end of the plunger 15 is brought against the chime 9, sounding a pleasant musical note. Spring 12, of course, returns head 13 to its normal position.

An important characteristic of the invention may be readily noted as residing in the fact that either end of the mallet can be struck against an object. Additionally, other important characteristics may also be noted. Spring 12 is so arranged as to serve the function not only of returning the head 13 to normal position, but also, serves as a shock absorber taking part of the shock when the mallet is brought against a surface.

The device of course has other applications beside that of a child's toy. It can be readily used, as may be noted, as a gavel, or, it is readily adaptable for use in a household as a novel dinner bell.

What is claimed is:

1. A chimed mallet including a hollow body of rigid material having end openings; heads mounted for reciprocation in the respective openings, said heads when struck against a surface telescoping in the openings; means inside and rigid with said body and located centrally between the opposite ends of said body and constituting a stop shoulder having a central opening; a chime bar mounted upon said shoulder and extended diametrically across the central opening of said shoulder; and spring means at each end of the body, each spring means abutting at one end against one face of the stop shoulder and abutting at the other end against a head, each spring means normally pressing the heads outwardly from the ends of the body and holding the inner ends of the heads spaced from opposite faces of the chime bar, each spring means absorbing part of the shock of impact when a head is struck against a surface before contact of the head with the chime bar.

2. A chimed mallet including a hollow mallet body formed with end openings; heads mounted for reciprocation in the respective openings and normally projecting partly out of said openings; an annular shoulder formed upon the inner surface of the side wall of the hollow body so as to divide the interior of said body into end chambers in each of which a head telescopes when struck against a surface, said annular shoulder being open at its center to provide a space communicating between the respective end chambers, the annular shoulder being former intermediate its opposite faces with diametrically opposed cushioned recesses; a chime bar having its ends mounted in the cushioned recesses and extending diametrically across said communicating space; a spring in each end chamber, each spring abutting at one end against one face of the annular shoulder and abutting at its opposite end against the inner end of a head; and striking pins mounted on the inner ends of the heads and extending through the respective end chambers, the striking pins terminating short of the respective opposite faces of the chime bar, each spring compressing when a head is struck against a surface so as to cause the associated striking pin to sound the chime, compression of either spring absorbing a part of the shock of impact before striking of the chime by the pin.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
620,904	Gardam	Mar. 14, 1899
831,150	Post	Mar. 10, 1908
1,506,567	Cohn	Aug. 6, 1924
1,555,993	Larson	Oct. 6, 1925
2,125,979	Arnold	Aug. 6, 1938