Aug. 21, 1934. V. M. WITHERS ET AL 1,970,722

HUMMING TOP

Filed Nov. 16, 1933

Fig. 1

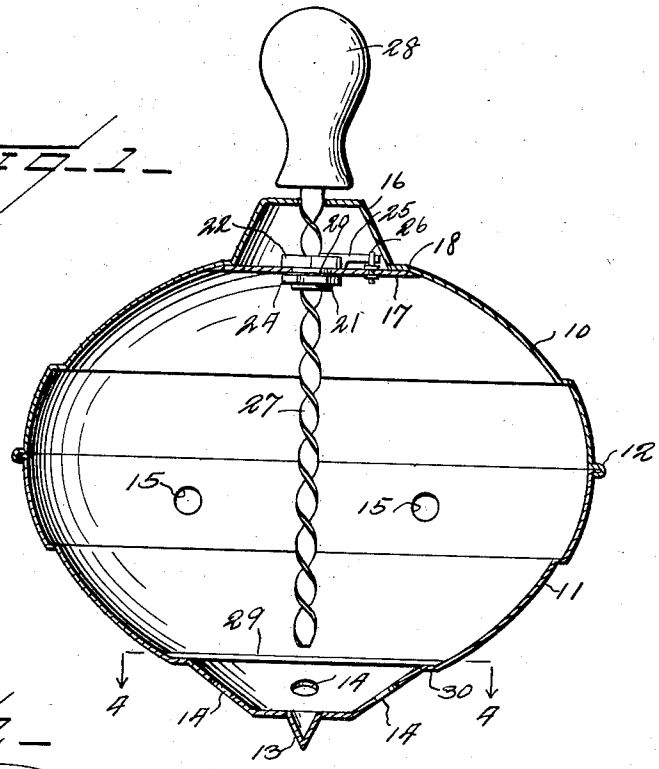


Fig. 2

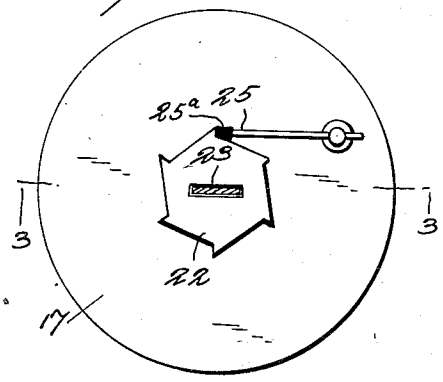


Fig. 4

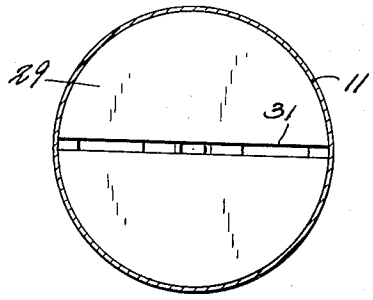
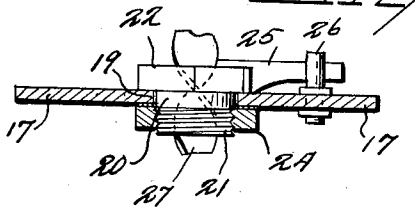


Fig. 3



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HUMMING TOP

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3 Claims. (Cl. 46—32)

This invention relates to tops and particularly to tops which are rotated by the operation of the spindle of the top and which in rotating give forth a humming sound.

The general object of this invention is to provide a top of very simple construction made of sheet metal and which is designed to be operated by means of a spiral twisted strip of metal constituting a spindle and attached to the handle and by the reciprocations of which strip the top is caused to rotate.

A further object is to provide a top, the body of which is of sheet metal formed in two sections so that it may be easily struck up and in which the operating mechanism of the top is extremely simple.

Our invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a vertical section of a top constructed in accordance with our invention;

Figure 2 is a top plan view of the plate supporting a nut through which the stem operates;

Figure 3 is a transverse section through this plate on the line 3—3 of Figure 2;

Figure 4 is a section on the line 4—4 of Figure 1.

Referring to the drawing, it will be seen that the body of the top is formed of two metallic sections designated respectively 10 and 11. These sections are substantially hemispherical and the sections are connected to each other by the folded joint 12. The lower portion of the section 11 is formed with the conical boss 13 forming a stud upon which the top rotates and immediately above this stud 13 the lower portion of the lower section 13 is perforated at a plurality of points 14. The middle zone of the top preferably in the section 11 is perforated as at 15.

The upper section 10 at its middle has an upwardly extending hollow boss 16 and immediately below this boss there is disposed a plate 17 which is attached to the wall of the section 10 at 18 as by soldering, brazing or the like. This plate 17 as shown in Figures 2 and 3 is formed with a central opening 19. Passing through the opening 19 is a very short bolt 20 having screw-threads 21 at one end, a medially disposed unthreaded portion and a ratchet head 22 at its other end. This bolt is formed with the diametrically extending slit 23 as shown in Figure 2. Coacting with the threads 21 is a nut 24. This nut is only turned up sufficiently to permit the bolt to rotate freely within the plate 17. Coacting with the ratchet 22 is a pawl 25 mounted upon an upwardly projecting stud 26 carried by the plate 17. This pawl is, of course, resilient. When the ratchet 22 is rotated in a clockwise direction in Figure 2, motion will be communicated to the plate 17 and thus to the top but when the bolt 22 is rotated in the opposite direction, it will rotate freely without affecting the top, the spring 25 being very light.

Passing through a circular opening in the top of the boss 16 and passing through the slit 23 is a spiral stem or blade 27 which at its upper end above the boss 16 is provided with the handle 28. It will be seen now that as this blade is disposed, it will cause a rotation of the bolt 21 in a clockwise direction in Figure 2 and will cause a rotation of the top in a clockwise direction. A reverse movement of the stem 27, however, causes the ratchet 22 to rotate in a reverse direction and the ratchet 22 will slip past the pawl 25. The weight of the top body will be sufficient to cause it to move downward or to stay in one horizontal plane when the handle is lifted. Thus it will be seen that by alternately lifting and depressing the handle, the top will be given a rotary movement in a clockwise direction. Preferably a plate 29 is disposed upon a shoulder 30 formed just above the openings 14. This plate is attached to the shoulder 30. It is preferably provided with a slot 31 extending diametrically across it, which slot as it rotates with the top body assists in causing a humming noise. This plate also acts as an inertia element or fly wheel and because of the fact that there are two of these plates, namely 17 and 29, the top is properly balanced.

It may be remarked that the pawl 25 may be provided with a tip of non-metallic material 25a which will prevent the pawl from clicking too noisly.

It is also to be understood that the boss 13 may be made separately of solid material and brazed to the top or be made as indicated.

We claim:—

1. A top comprising a hollow sheet metal body, a plate attached to the upper portion of the body, a member swiveled upon the plate for free rotation and having a diametric slot, said member having ratchet teeth, a pawl operatively carried by the body and engaging said ratchet teeth to cause a rotation of the body with said member in one direction, and a spirally twisted stem having a handle, the stem extending downward through said body and through said slot in said member.

2. A top comprising a hollow sheet metal body, a plate attached to the upper portion of the body, a bolt swiveled upon the plate for free rotation and having a diametric slot, said bolt having

ratchet teeth, a pawl operatively carried by the body and engaging said ratchet teeth to cause a rotation of the body with the bolt in one direction, and a spirally twisted stem having a handle, the stem extending downward through said body and through said slot in said bolt, and a nut engaging the bolt and holding it in place.

3. A top of the character described, formed of two sections of sheet metal, each section being approximately hemispherical, the sections being engaged with each other at their meeting edges, the lower section having a stud upon which the top is supported for rotation, the upper section having an upwardly extending central hollow boss, a plate extending across the upper section immediately below said boss and attached to the upper section, a member swiveled in said plate for free rotation, said member having a diametric slot and having exterior ratchet teeth, a pawl carried by said plate and engaging said ratchet teeth, a spindle formed of a strip of metal spirally twisted and extended downward through the slot, the upper end of the spindle having a handle, and a plate extending across the lower portion of the top below the lower end of the spindle and attached to the sheet metal of the top, the plate being slotted and acting to weight the lower portion of the top and as an inertia element and to cause a humming noise as the top is rotated.

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