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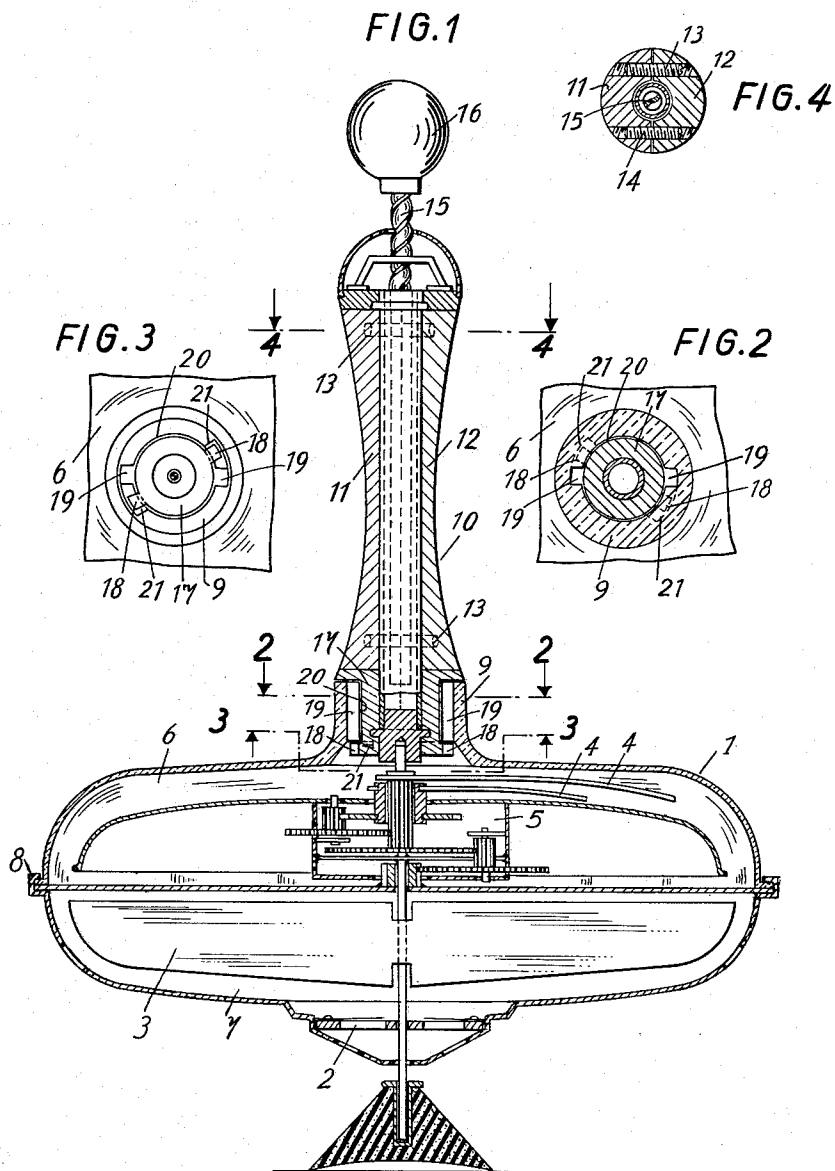
P. BALLEIS

2,997,808

SPINNING TOY TOP

Filed Aug. 11, 1958

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

FIG. 5

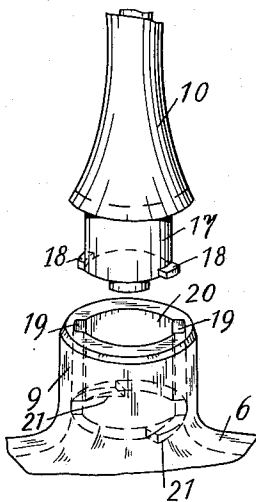


FIG. 6

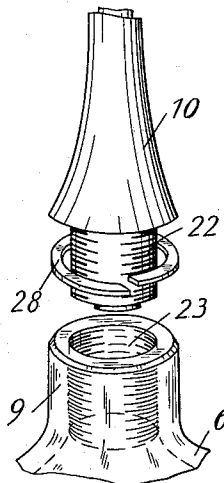


FIG. 7

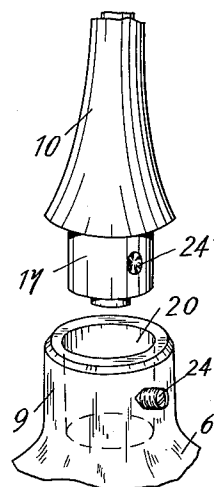
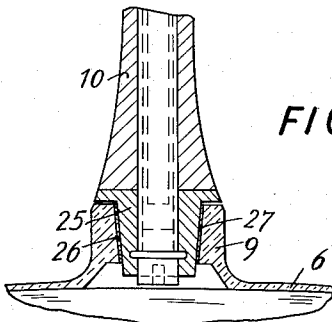


FIG. 8



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1

2,997,808

SPINNING TOY TOP

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2 Claims. (Cl. 46-68)

The present invention relates to improvements in toy tops, and especially in musical tops and visually entertaining tops. The tops which are provided with a music-producing part are also known as choral or singing tops. Visually entertaining tops often have disks which are divided into segments of different colors which are visible from the outside by a transparent covering. These tops are known as color-changing tops. The two different types of effect producing mechanisms of tops have also been combined with each other to produce both visual and audible effects.

All of these tops are driven by a drill rod which is mounted in a handle. In the known tops, this handle is irremovably connected to the body of the toy, which is a considerable disadvantage when the tops are to be packed for shipment since the space required in the box depends upon the entire length of the toy including the projecting handle, and a considerable portion of such space has to be left empty.

Although it is known to provide tops with drill rods which can be removed after the top has been wound, such an arrangement is very unsuitable and practically useless for tops of the above-mentioned kind since small children for whom such toys are primarily intended are incapable of managing a removable winding device. Such a top therefore misses its purpose as a toy completely, and even though many efforts have been made to introduce such a construction, they have all been unsuccessful for the mentioned reason.

It is an object of the present invention to overcome the above-mentioned disadvantages of the known toy tops by designing the handle of the drill rod so as to be disconnectable from the top itself. Consequently the top may now be packed and shipped with the handle removed therefrom and lying separately in the box, and the dealer may then attach the handle to the top when he makes a sale. This new type of construction not only results in the advantage that the top can be packed within a much smaller space but also that handles of different color or shape can be made available and be chosen by the customer in accordance with his own desire.

The type of connection between the handle and the body of the top may be of different constructions. A preferred type of connection, however, is a bayonet-type lock since it may be applied in a very simple manner. It is also possible to screw the handle firmly to the body of the top and possibly to provide a resilient washer which makes it practically impossible for the connection to come apart of its own accord. Still another possibility resides in inserting a plug on the handle into a suitable socket bore in the top body and to lock this plug in position, for example, by a grub screw. Finally, the handle and the top body may also be keyed or wedged to each other and, if necessary, the two parts may additionally be soldered or cemented to each other.

Further objects, features, and advantages of the present invention will appear from the following detailed description thereof, particularly when read with reference to the accompanying drawings, in which:

FIGURE 1 shows a vertical cross section of the toy top according to the invention;

FIGURE 2 shows a cross section taken along line II—II of FIGURE 1;

2

FIGURE 3 shows a cross section taken along line III—III of FIGURE 1;

FIGURE 4 shows a cross section taken along line IV—IV of FIGURE 1;

FIGURE 5 shows a perspective view of a bayonet-type lock for connecting the handle with the top body;

FIGURE 6 shows a perspective view of a screw connection;

FIGURE 7 shows a perspective view of a pin-and-socket connection with a setscrew; while

FIGURE 8 shows a cross section similar to FIGURE 7, but with a conical pin-and-socket connection.

Referring to the drawings, FIGURE 1 shows the top body 1 containing an effect producing mechanism such as the musical part 2 which is supplied with the necessary air in the usual manner by a vane 3. Another effect producing mechanism such as the visually entertaining part consists in this particular embodiment of a pair of hands 4 which are driven by the gearing 5. The transparent part 6 of the top body 1 which is connected to the opaque part 7 at 8 has a central annular flange 9 at its upper end which forms a socket into which the handle 10 is inserted. This handle 10 consists of the two parts 11 and 12 which are connected to each other by screws 13 and 14. Handle 10 contains the drill rod 15 with a knob 16 for operating the top in the usual manner.

As indicated in FIGURES 1 to 5, this embodiment of the invention is provided with bayonet-lock projections 18 on the plug portion 17 which are inserted through suitable recesses 19 into the socket bore 20 of the annular flange 9 and are then locked together with the corresponding locking surfaces 21.

In the modification according to FIGURE 6, the plug portion of the handle is provided with screw threads 22 and may thus be screwed into the corresponding threads in the socket 9 on the upper part 6 of the top body so as to connect the handle and top body firmly to each other. In order to prevent this screw connection from accidentally coming apart, a spring washer 28 may be interposed.

A further modification of the invention is illustrated in FIGURE 7, in which the cylindrical plug portion 17 of the handle 10 may be inserted into the corresponding socket bore 20 of flange 9 and be clamped therein by means of a grub or set screw 24 which engages a recess 24' provided in plug 17.

Finally, in the embodiment according to FIGURE 8, handle 10 is provided with a conical plug portion 25 which may be inserted into a corresponding conical socket bore 26 in the flange 9 on the upper part 6 of the top body. Although an impact upon the upper end of the handle will wedge the two parts firmly together, they may be additionally secured to each other either by a grub-screw as in FIGURE 7 or by being coated with a layer of cement 27.

Although my invention has been illustrated and described with reference to the preferred embodiment thereof, I wish to have it understood that it is in no way limited to the details of such embodiment, but is capable of numerous modifications within the scope of the appended claims.

Having thus fully disclosed my invention, what I claim is:

1. A spinning toy top comprising, in combination: a top body supporting an effect producing mechanism and having an upwardly extending flange portion formed with an upwardly flaring conical opening; and an elongated handle supporting along its axis a drill rod which is movable axially and rotatably with respect to said handle, the lower end of said handle being formed with a downwardly tapering conical member adapted to be wedgedly received in said conical opening of said flange portion of said top

3

body, said conical member of said handle and said flange portion of said top body constituting a coupling means for detachably connecting said handle and body together sufficiently rigidly to allow a driving force applied to said drill rod to rotate said top body and to actuate said effect producing mechanism. 5

2. A spinning toy top comprising, in combination: a toy body provided with an elongated annular flange having a conical bore; a handle; a drill rod supported centrally of said handle and mounted for rotation therein; and a 10 conical plug portion associated with one end of said handle and receivable in said conical bore to releasably wedge said handle including its supported drill rod snugly

4

into said bore of said flange of said body, whereby said handle, when secured to said flange, is engaged throughout a portion of its length thus firmly securing said toy body and said handle to each other.

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