

Sept. 25, 1934.

H. SCHMIDT

1,974,516

TOP

Filed March 15, 1934

Fig. 1

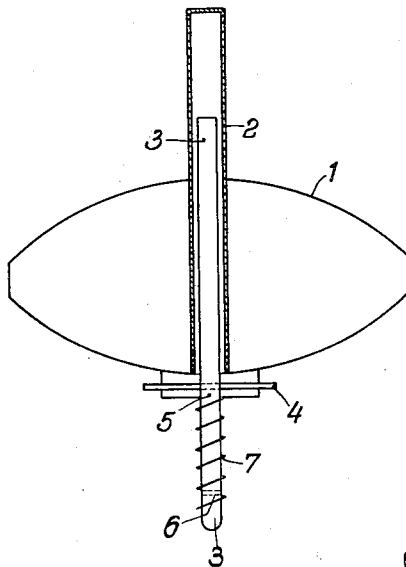


Fig. 2

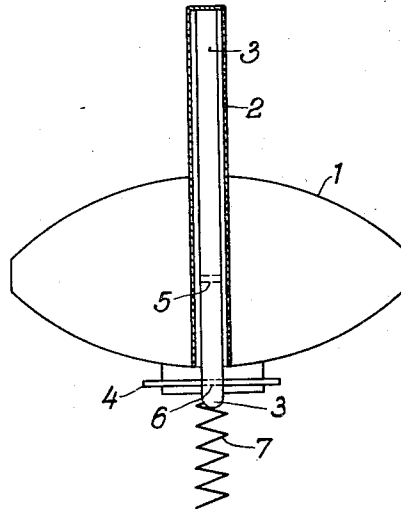
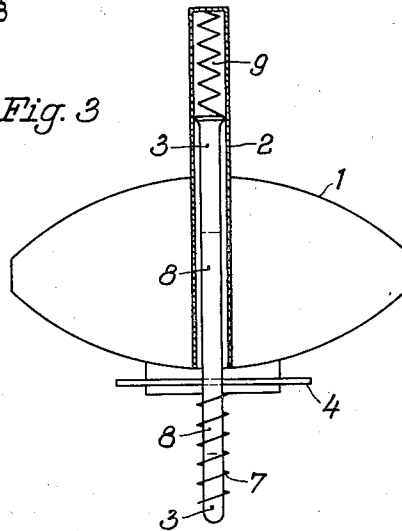


Fig. 3



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UNITED STATES PATENT OFFICE

1,974,516

TOP

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Application March 15, 1934, Serial No. 715,727
In Germany March 18, 1931

3 Claims. (Cl. 46—32)

Toy tops are known, which spin and jump and in which the spring causing the jumping motion either is fixed in the form of a helical spring externally on the lower part of the top and is provided for the spinning motion with a pin or extends through the interior of the top transversely through the cavity within the top, clamped to a plate, and is rigidly connected to the pin. In such tops it is no longer new to provide at the bottom of the top body a resilient ball having a pin or to provide on the bottom part of the top a helical spring, at the bottom end of which the spinning pin with a collar is inserted.

In such tops the combining of the spinning and jumping effects in one and the same top has not been completely successful as the pin provided on the helical spring or on the ball did not ensure a perfectly satisfactory spinning motion, for the pin was not rigidly connected to the top body, so that the helical spring or the ball disposed between the pin and the top body would easily commence to oscillate when there were inequalities in the ground, with the result that the duration and quietness of the spinning were detrimentally affected. In addition to this the helical spring becomes deformed even after being in use for only a short time, so that the pin acquires an inclined position with respect to the central axis of the top.

These disadvantages are overcome by the present invention, as the spinning pin is mounted entirely independently of the spring provided for the jumping motion within a hollow shaft so as to be adjustable in such a manner that in the operative position the top spins like an ordinary spinning top without being hindered by the spring, while when the pin is removed or completely pushed in, that is to say made inoperative, the top will jump on the helical spring like any known jumping top.

In a modified constructional form of the present invention the spinning pin is provided with a spring abutment, the object of which is to cause the spring abutment to be compressed to such an extent by the effect of the blow when the top is thrown down that the pin recedes in the interior of a hollow shaft and the jumping spring thus at first only comes into action. As, however, the spring abutment of the spinning pin is made such that it can support the weight of

the top the spring will at once cause the spinning pin to project again, so that automatically the jumping motion will be replaced by a spinning motion. A suitable device prevents the spinning pin from falling out.

It should be mentioned that while it has already been proposed to provide the spinning pin in ordinary tops with a spring abutment, it is new to bring this spring abutment in the manner described into alternate operation with a jumping spring.

In the accompanying drawing, Figs. 1 to 3, the new invention is illustrated diagrammatically by two constructional examples. Figs. 1 and 2 show the first mentioned constructional form in two positions. 1 is the top itself with the axially inserted hollow shaft 2 for the spinning pin 3, which can be held and secured against falling out by means of a transverse pin 4 which can be pushed through it so as to engage in holes 5 or 6 in the spinning pin, or in any other suitable manner, in the operative position (Fig. 1) and the inoperative position (Fig. 2). 7 is the jumping spring which lies loosely around the spinning pin and is fixed to the bottom of the top.

When the pin 3 is retracted within the shaft 2, or is entirely removed, the top will jump on the spring 7.

In the constructional form according to Fig. 3 the numerals 1 to 4 and 7 are the same as in Fig. 1. 9 is the spring abutment of the spinning pin provided in this constructional form. 8 is a longitudinal slot in the pin 3 through which the pin 4 passes, for guiding and limiting the movement of the pin 3 with the hollow shaft. The spring 9 is sufficiently strong to support the weight of the top without being compressed to such an extent as to allow the top to rest on the spring 7.

What I claim is:

1. A jumping and spinning top, comprising a jumping spring fixed to the bottom of the top, a hollow shaft in the top, and a spinning pin mounted in the hollow shaft and capable of being retracted therein independently of the jumping spring, the pin normally protruding beyond the spring so as to allow the top to spin, and when retracted having its end short of the end of the spring so that the top can jump on the spring.

2. A jumping and spinning top, comprising a jumping spring fixed to the bottom of the top, a hollow shaft in the top, a spinning pin mounted in the hollow shaft and capable of being retracted therein independently of the jumping spring and transverse pins for engaging holes in the spinning pin for securing it either in a position in which it protrudes beyond the spring so as to allow the top to spin or in a retracted position so that the top can jump on the spring.
3. A jumping and spinning top, comprising a jumping spring fixed to the bottom of the top, a hollow shaft in the top, a spinning pin mounted in the hollow shaft, a spring within the hollow shaft adapted to urge the spinning pin into the position in which it protrudes beyond the jumping spring so as to allow the top to spin, and a transverse pin engaging in a longitudinal slot in the spinning pin for guiding the latter.
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