

No. 688,762.

Patented Dec. 10, 1901.

C. WEBER.
TOY.

(Application filed June 19, 1901.)

(No Model.)

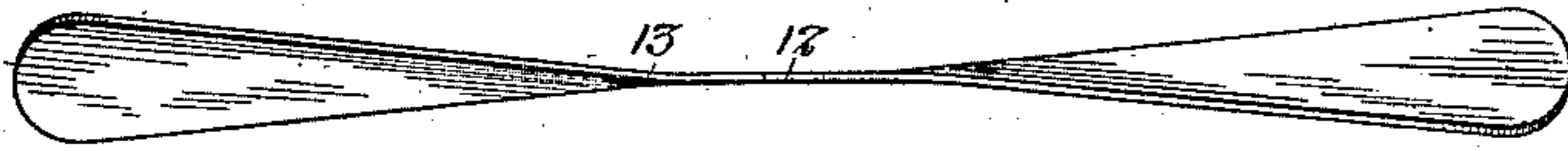


Fig. 1.

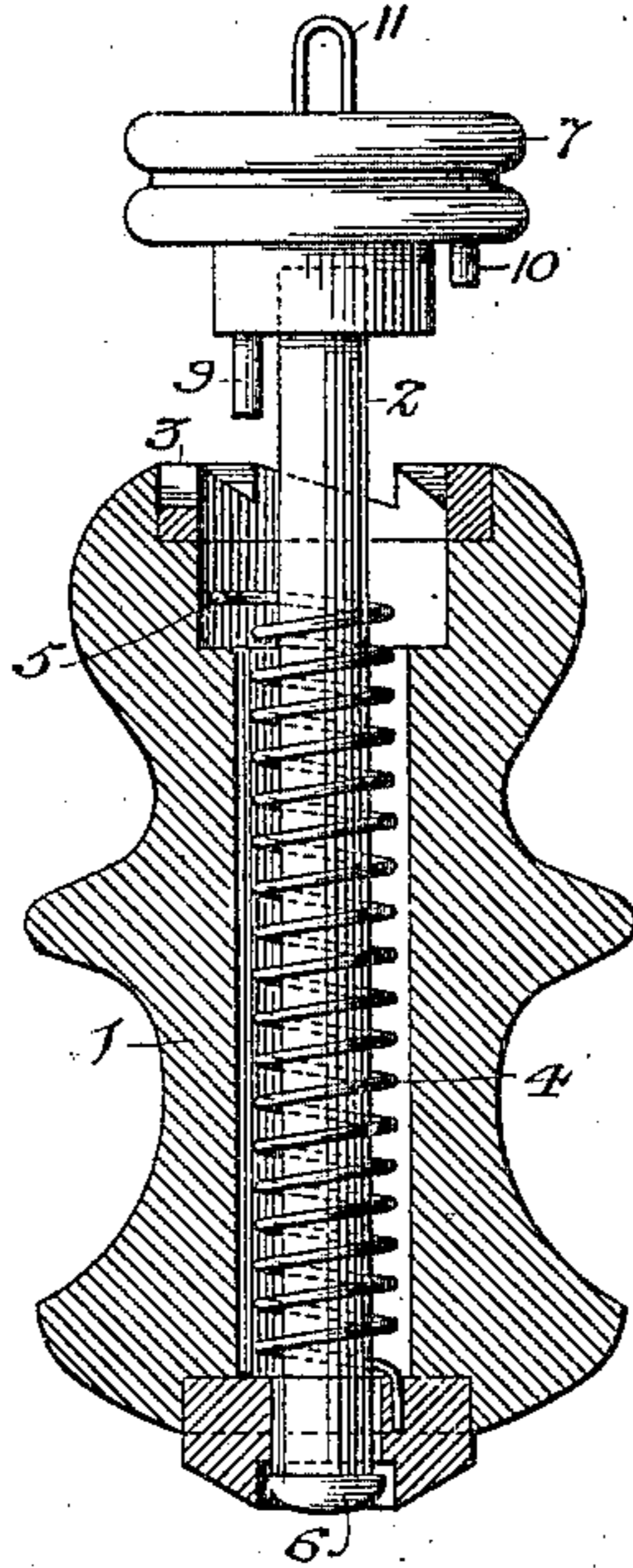


Fig. 2.

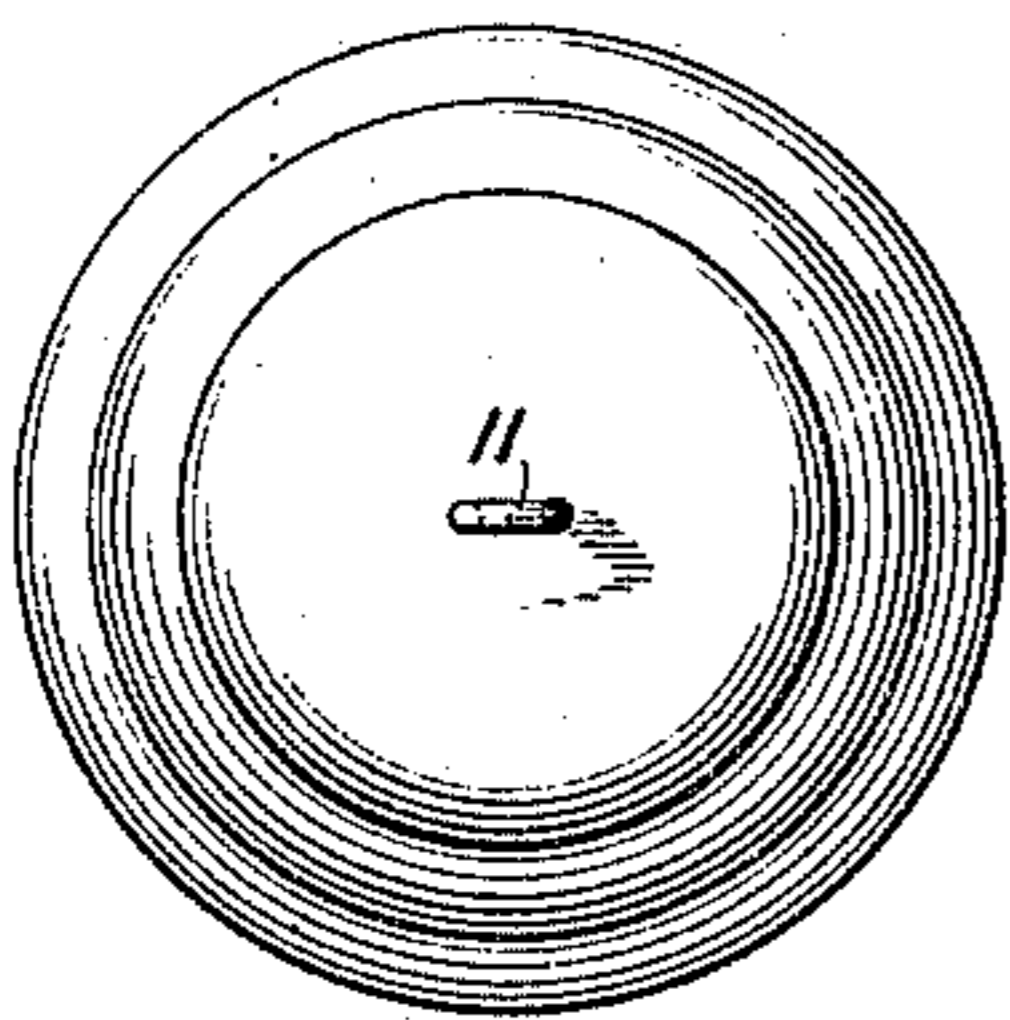


Fig. 3.

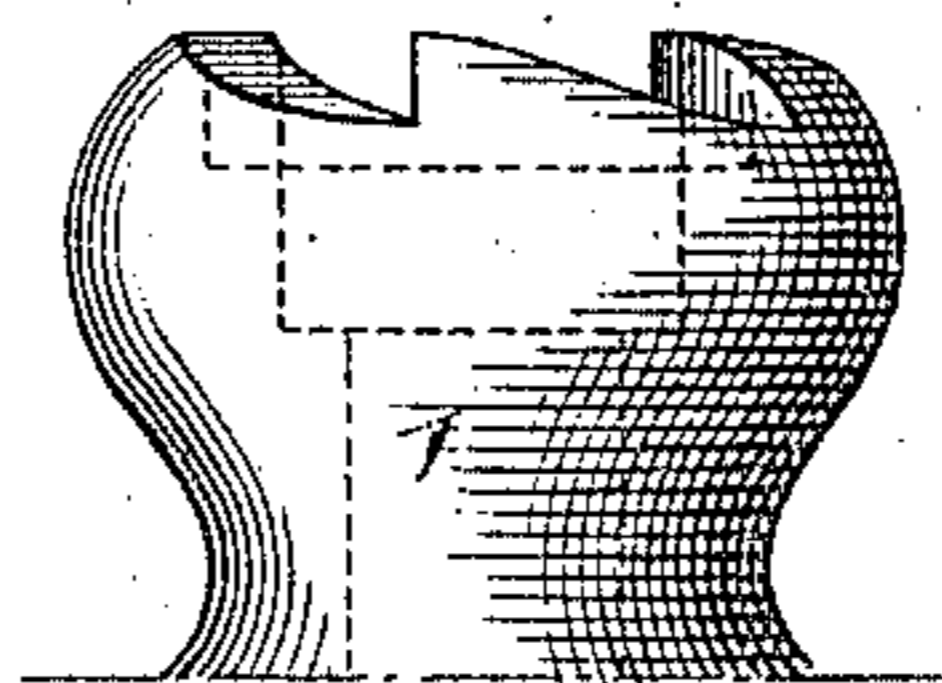
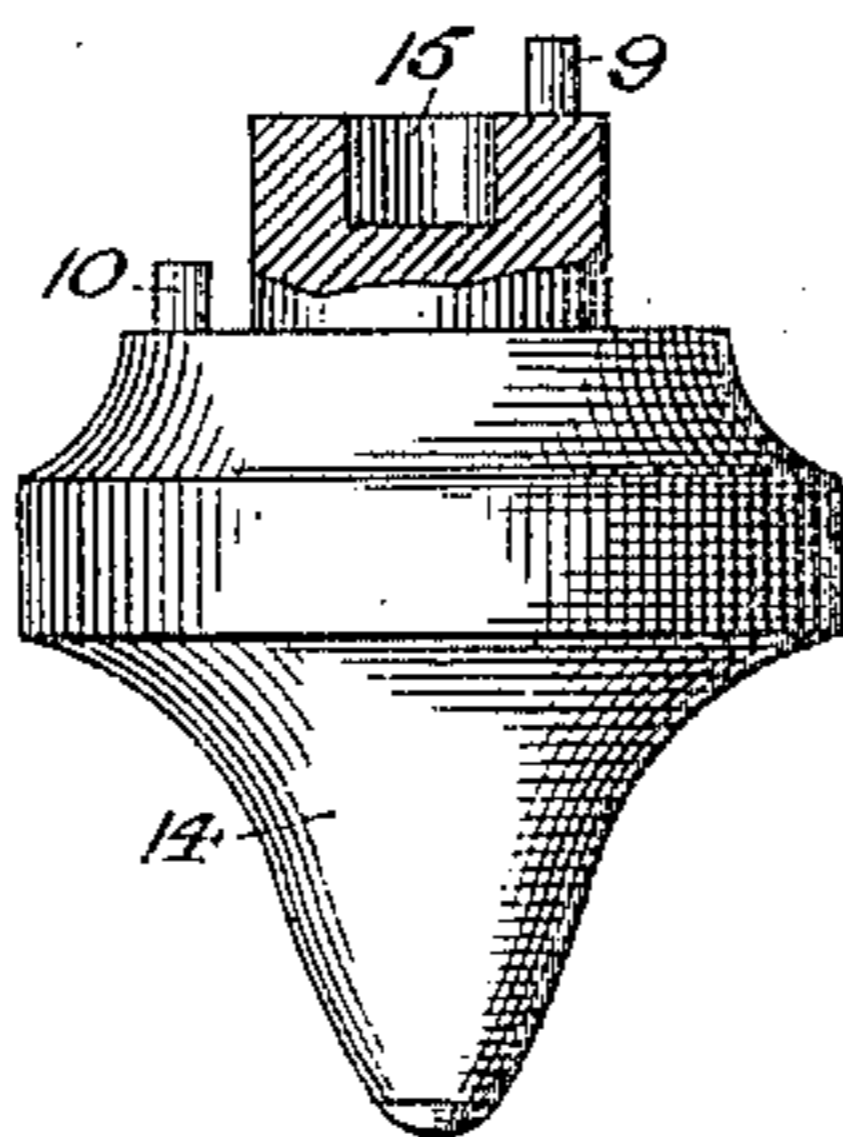


Fig. 4.



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TOY.

SPECIFICATION forming part of Letters Patent No. 688,762, dated December 10, 1901.

Application filed June 19, 1901. Serial No. 65,152. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WEBER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Toys, of which the following is a specification.

My invention relates to that class of toys in which a rotatable spindle contained within a suitable handle carries a head upon which
10 is mounted a vaned disk, which by the rotation of said head is caused to rise in the air, the handle also containing a spring which is adapted to act upon a pin on the rotatable head in order to turn the same, said handle
15 also having a ratchet engaging with another pin on the head to retain the same as the spring is wound up by the rotation of the spindle, the latter being turned in the reverse direction by the recoil of the spring as soon as
20 said spring is freed from the control of the ratchet.

The objects of my invention are to simplify the construction of a toy of this class, to prevent possibility of injury to the child using
25 the same, and to permit of the use of the device for operating a spinning top or toy other than the flier for which it is mainly intended.

In the accompanying drawings, Figure 1 is a sectional view, partly in elevation, of a toy
30 constructed in accordance with my invention. Fig. 2 is a plan or top view of the rotating head of the toy. Fig. 3 is a side view of the upper portion of the handle, illustrating a special feature of my invention; and Fig. 4
35 is a side view, partly in section, illustrating a form of top which may be used in place of the flier.

In Fig. 1 of the drawings, 1 represents a tubular handle, in which is mounted, so as to be
40 free to slide longitudinally, a spindle 2, the bore of the handle having a number of countersunk portions, one for receiving a ratchet-ring 3 at the top of the handle, another for receiving the coiled spring 4, which surrounds
45 the stem 2, another for receiving the projecting end 5 of said spring, and another for receiving the enlarged head or button 6 at the lower end of the stem 2, the spring being confined to a plug at the lower end of the handle
50 by any suitable means, so as to be prevented from rotating in the handle, the means adopted in the present instance for thus retaining

the spring being the engagement of the lower end of the same with the plug of the handle.

Mounted upon the upper end of the spindle 2, so as to be caused to rotate therewith,
55 is a head 7, which has two depending pins 9 and 10 and a central projecting staple 11 or other oblong projection for engaging with a similarly-shaped opening 12 in the vaned disk
60 or flier 13.

When the head 7 is depressed so that its portion of greatest diameter rests upon the end of the handle, the pin 9 will engage with the projecting end 5 of the spring 4 and the pin 10
65 will engage with the ratchet 3 as the head is turned, so as to impart tension to the spring, the ratchet preventing the backward movement of the head under the recoil of the spring. When the spring has been sufficiently wound,
70 the vaned disk 13 is applied to the central projection 11 of the head 7, and the spindle 2 is then projected longitudinally, so as to free its pin 10 from the control of the ratchet 3, whereupon the recoil of the spring 4 will cause a
75 rapid rotation of the spindle 2 and its head 7 and will cause the vaned flier 13 to leave the projection 11 of the head and take its flight through the air.

Heretofore it has been usual in toys of this
80 class to provide the rotating head 7 with a couple of projecting pins, one on each side of the center of the head, and accidents are likely to arise, because of the accidental release of the head from the retainer while the
85 hand of the child is pressed against these pins, the rapid rotating movement of the head in such case causing the pins to tear the flesh of the hand, thereby in some cases causing serious injury. When the centrally-located
90 projection is used, however, this objection is overcome, especially if the projection is rounded on the end, as shown in Fig. 1, since no portion of said projection has a very rapid movement, nor does any portion
95 of it engage with the flesh of the hand, so as to tear or bruise the latter if it happens to be pressed upon the projection when the head is released from the control of the retainer after the spring has been wound. By the use
100 of the end ratchet-ring upon the handle, moreover, the pin 10 is naturally pressed into engagement with said ratchet in the operation of winding the spring, and a special

spring-pin, such as sometimes employed in connection with this class of toys, is rendered unnecessary.

5 If desired, the ratchet-teeth may be formed directly upon the upper end of the handle 1, as shown, for instance, in Fig. 3, thus rendering unnecessary the use of the special ring 3 and still further simplifying and cheapening the cost of the toy.

10 The spindle 2, while fitting so snugly to the opening in the head 7 as to prevent accidental displacement of the same, can be detached from said head when it is desired to employ the toy for use in connection with
15 some other rotating device than a vane disk—for instance, in connection with a spinning-top, such as shown at 14 in Fig. 4, this top having the pins 9 and 10 for engaging, respectively, with the spring 4 and ratchet 3,
20 and also having, by preference, a central recess 15, with which the spindle 2 can engage in order to push the top longitudinally, so as to free its pins from engagement with the spring and ratchet.

25 Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination of the handle having

the internal coiled spring, and the end ratchet, with the longitudinally-movable spindle hav- 30
ing a head with pins for engaging said spring and ratchet, said pins being so disposed as to be released from the control of said spring and ratchet by the longitudinal movement of the spindle, substantially as specified. 35

2. The combination of the spindle having a head with longitudinally-projecting pins, and a handle having an internal spring for engaging with one of the pins on the head, and ratchet-teeth formed directly in the end 40
of the handle for engaging the other pin of said head, substantially as specified.

3. The combination of the handle and its coiled spring and ratchet, with the rotatable head having pins for engaging with said 45
coiled spring and ratchet, and a central operating-spindle detachably connected to said head, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of 50
two subscribing witnesses.

CHARLES WEBER.

Witnesses:

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