

E. W. GIBBS.

TOP.

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1,005,020.

Patented Oct. 3, 1911.

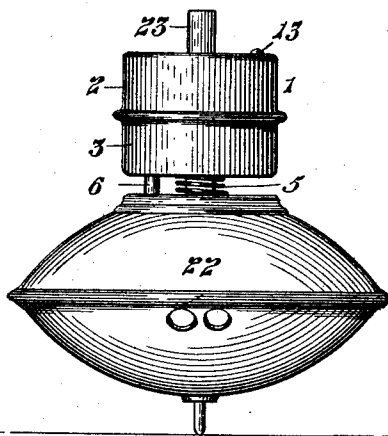


Fig. 1.

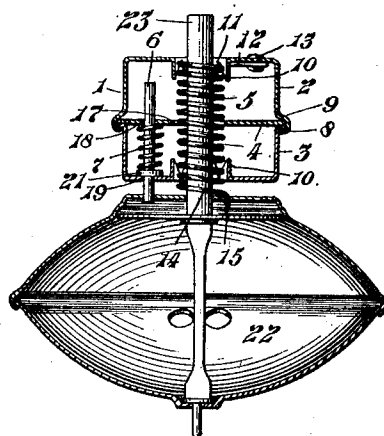


Fig. 2.

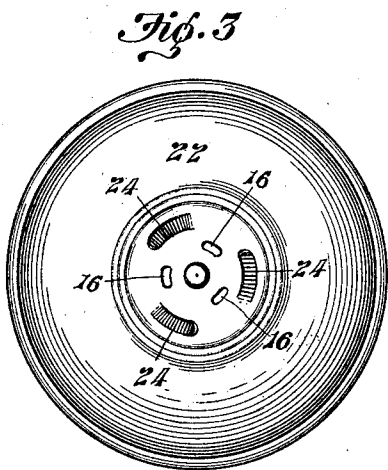


Fig. 3.

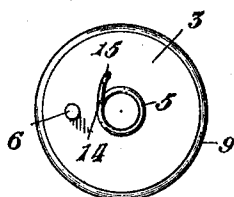
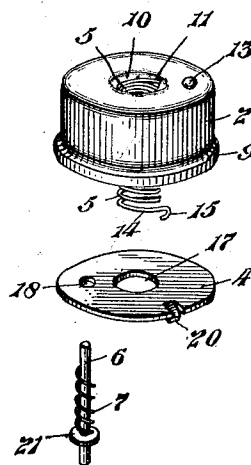


Fig. 4.

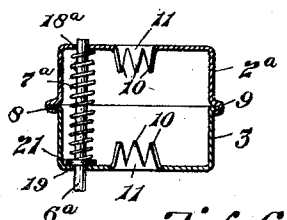


Fig. 6.

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UNITED STATES PATENT OFFICE.

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TOP.

1,005,020.

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To all whom it may concern:

Be it known that I, ELMER W. GIBBS, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Tops, of which the following is a specification.

The invention relates to the construction of the twisting head for tops of the type shown in Letters Patent No. 847,933, issued to me on March 19, 1907, and the improvements include the making of a light but strong and durable head out of metal in an economical manner, in and to which head the locking pin and twisting spring are mounted and secured in such a manner that the spring cannot injure the hand of the user, as by breaking where secured to the head.

A preferred embodiment of the invention is illustrated in the accompanying drawing, forming part hereof, in which—

Figure 1 is a side elevation of a top with the twisting head thereon; Fig. 2, a vertical section of the same; Fig. 3, a plan view of the top with the twisting head removed; Fig. 4, a lower end view of the twisting head; Fig. 5, a perspective view of the several parts in position for assembling; and Fig. 6, a modified form showing the twisting head without a partition.

Similar numerals refer to similar parts throughout the drawing.

The twisting head 1 is composed of the case members 2 or 2^a and 3, the disk partition 4, the twisting spring 5, the locking pin 6 or 6^a and the locking spring 7 or 7^a; which parts are separately made, preferably as illustrated in Fig. 5, and are then assembled to form the completed head, as shown in section in Fig. 2. The case members 2 or 2^a and 3 are shaped or stamped out of metal in the form of cylindric cups, the rim of one of which is provided with the lip flange 8, and the rim of the other with the rabbet flange 9 adapted to telescope over and then be bent inward to engage the lip flange to form the completed case, as shown in Figs. 2 and 6.

The closed or outer end of each case member is slit radially a short distance from the center, and the intervening cusps 10 thus formed are bent inward and form the guide

sockets 11 for the ends of the twisting spring 5, which is preferably made in the form of a coil as shown. One end 12, herein referred to as the upper end, of the twisting spring, is tangentially extended laterally between two of the cusps 10 and along the inner side of the end of the corresponding case member, to which end it is secured as by means of the rivet 13; and the other or lower end 14 of the spring is provided with the hook 15 which projects beyond the end of the corresponding case member, and is adapted to releasably engage in the recesses or sockets 16 which are provided for that purpose in the upper end of the top. It is evident that by this construction and arrangement of the parts the secured end of the spring does not project outside the corresponding end of the case and there is no danger of cutting or injuring the hand of a user by the breaking or disconnecting of this end of the spring.

The transverse disk partition 4 is preferably provided in the case, wherein its edges are clamped and secured between the flanges of the members when the same are engaged together, as shown in Fig. 2. This partition, when used, is provided with the central aperture 17 through which the twisting spring extends, and also with the lateral aperture 18, which, with the similar aperture 19 in the end of the lower case member, (or when no partition is used the apertures 18^a and 19 in the ends of the case) constitute guides in which the locking pin 6 or 6^a is located and adapted to operate endwise. The partition is also preferably provided with the deflected tongue 20 which may be cut in its periphery, and this tongue is arranged to engage in the notch 20^a provided in one of the flanges, preferably the lip flange which becomes the inner flange, thus serving to stop the partition against rotation.

The locking pin 6 or 6^a is provided with the stop flange 21 near its lower projecting end which normally abuts the lower end of the case, between which flange and the transverse partition (or the upper end of the case) is located the locking spring 7 or 7^a which is preferably in the form of a spiral extending around the pin, and by its energy serves to hold the pin in its normal downwardly projecting position. For the purposes of the locking pin and its spring it will be

understood that the ends of the case and the transverse partition may be collectively considered as cross walls.

A simple but substantial twisting head is thus made which is well adapted to serve the purpose of spinning the top 22, which operation may be briefly described as follows: The stem 23 of the top is inserted from the lower end upward through the hollow of the twisting spring, and the projecting hook 15 on the lower end of the spring is engaged with one of the recesses 16 in the upper end of the top. The head is then rotated to twist the spring, in which operation the locking pin successively enters and engages as a ratchet in the inclined recesses 24 which are provided for that purpose in the upper end of the top, the resiliency of the locking spring 7 permitting the pin to ride over the intervening facets 25 of the top. When the spring 5 has been sufficiently twisted, the top is spun as by merely holding the sides of the head between the first two fingers and pressing the stem of the top downward with the thumb, which serves to disengage the locking pin from the top and permits the twisting spring to unwind itself, in doing which it rapidly rotates the top with the stem thereof as an axle in the twisting spring, until the hooked end of the spring is disengaged from the top recess, after which the head is lifted from the stem of the top, or the stem of the top drops out of the head. It is evident that

the annular rib formed around the head by the engaged flanges serves to facilitate the prehension of the fingers.

I claim:

1. A twisting-head for tops including a metal case having cross walls with corresponding apertures therein, a locking pin adapted to operate in the apertures and having a stop flange normally abutting one wall of the case, and a spring between the flange and the other wall of the case.

2. A twisting-head for tops including a metal case with a transverse partition therein there being corresponding apertures in one end of the case and the partition, a locking pin adapted to operate in the apertures and having a stop flange normally abutting the apertured end of the case, and a spring between the flange and the partition.

3. A twisting-head for tops including a metal case having its ends slit radially with the intervening cusps bent inward to form axial sockets, and a spiral twisting spring in the sockets having one end extended between adjacent cusps and secured to the inner side of the corresponding end of the case, and having a hook on the other end protruded beyond the corresponding end of the case.

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Witnesses:

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