E. P. LEHMANN.

SPINNING DEVICE FOR TOPS.

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1,056,283. Patented Mar. 18, 1913.

Fig. 1.

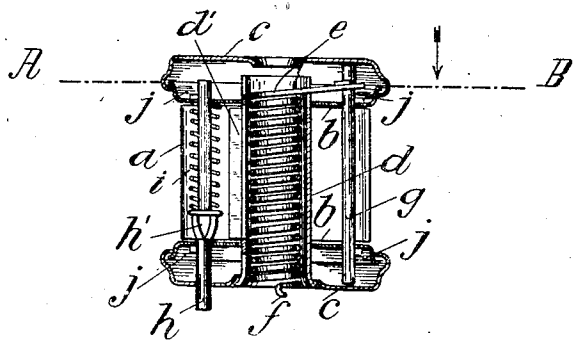
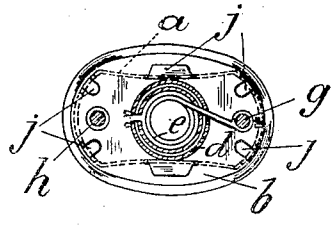


Fig. 2.



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SPINNING DEVICE FOR TOPS.

1,056,283. Specification of Letters Patent. Patented Mar. 18, 1913.

Application filed September 19, 1911. Serial No. 650,178.

To all whom it may concern:

Be it known that I, ERNST PAUL LEHMANN, subject of the King of Prussia, residing at No. 6 Plauerstrasse, Brandenburg-on-the-Havel, Prussia, Germany, have invented new and useful Improvements in Spinning Devices for Tops, of which the following is a specification.

My invention relates to improvements in toy-tops and more particularly to a holder or twisting-head employed for imparting rotary motion to the toy-top proper by means of a coiled wire-spring connected to the said holder or twisting head in a manner which has been known and employed before and which requires no further detailed description. It will be sufficient to mention, that the stem projecting from the upper surface of the body of the toy-top may be passed through a hole or aperture in the holder and that one end of the wire-spring connected to said holder is made to engage a lug or recess of the body of the toy-top, while a pin or stud projecting from said holder engages another lug or recess of the body of the top. On turning the holder around the stem of the body of the top, the spring will be wound up and when the locking pin is disengaged from its hold upon the body of the top, the spring will be set free to unwind and impart rotary motion to the body of the top. The holders or spring-twisting heads of this kind which have been hitherto employed consist of a solid block of wood or other suitable material, having a central bore to receive the coiled wire-spring, the lower end of said spring projecting from the lower face of the twisting block and the upper end of said spring being secured to the upper surface of the block by any suitable means.

My invention consists in constructing the holder or spring-twisting head instead of from a solid block, from a hollow main body, to the top and bottom end of which a hollow cap or casing is secured, the said hollow main body and caps being preferably made of sheet-metal, celluloid or some other light and resistant material.

The particular advantages to be derived from the novel construction consists in facilitating the manufacture of the twisting heads of toy tops in a cheap and exactly uniform manner, while the holders hitherto in use, being turned by hand from wood or other material frequently differ in size and position of the working parts with relation to each other, whereby they fail to fit the toy-top which they are designed to drive. The novel construction, further, allows of shaping the holder without any increase of work or expense in a manner better adapted for holding the twisting-head between the thumb and fore-finger while turning the holder on the stem of the toy-top. And, finally, the improved construction of the toy-top-holder offers the advantage of better securing and holding the coiled wire-spring and also the locking pin within the holder, thereby avoiding any danger of children's or operators' fingers becoming hurt by projecting parts, particularly by the fixed end of the wire-spring getting disengaged from its hold upon the surface of the holder.

All parts of the holder constructed according to this invention may be prepared by mechanical means, which parts, when fitted to each other, will constitute holders of exactly uniform shape and size and position of the parts relatively to each other, thus avoiding the considerable waste occurring in the manufacture of holders turned from wood.

To make my invention well understood, I have illustrated the same in the accompanying drawings, in which:

Figure 1 is a central vertical section of a holder or spring-twisting head for toy-tops, constructed according to this invention, and Fig. 2 is a horizontal transverse-section drawn on line A—B of Fig. 1.

The drawings show the article in a size somewhat enlarged as compared with the usual natural size, but of course the size may be varied in practice.

a, denotes the central or main hollow portion of the holder, which I prefer to construct of sheet-metal stamped from a blank and shaped, as indicated by dotted lines in Fig. 2, as an oblong with rounded-off edges and its longer sides slightly bent inward to afford a convenient and strong hold to the thumb and fore-finger when turning the holder against the resistance of the spring. The said oblong form of the main or central portion *a*, however, might be dispensed with and any other suitable shape be employed instead. To the upper and lower end of said main body *a*, cup-shaped caps *b*, are secured, the means of securing the same to the main body *a*, preferably consisting of tongues *j* projecting from the edges of the

metal and passed through corresponding slits in the said cup-shaped caps *b*, whereupon said tongues are bent down to lock the parts to each other in a well-known manner. The two caps *b*, are provided, each, with a central aperture for receiving the ends of a tube *d*, which incloses a central passage and which may be slotted in the direction of its length and the edges bent to the outside, as shown by d^1, said edges being cut away near their ends and the shoulders thereby formed supporting the caps *b*, whereby the said tube *d*, is prevented from being displaced in the direction of its length. The coiled wire-spring *e*, is located inside the said tube and thereby prevented from shifting to the sides, whereby a clear passage is afforded to the stem of the toy-top proper when passed through the spring *e*. The lower end *f* of said spring *e*, slightly projects from the bottom of the body *a*, and casing, to be engaged with the recess or lug formed in or upon the upper surface of the toy-top proper, not shown in the drawing. The opposite or upper end of the spring *e*, is led out of the side of the tube *d* and secured to a stud or pin *g*, which extends through the two caps *b*. Similar caps *c*, with their bottom turned outside, are secured to the rim of the caps *b*, thereby forming a closed casing at top and bottom of the main body *a*. Each of the said caps *c* has a central aperture in its bottom portion in alinement with the passage through the main body, to permit the passage of the stem of the toy-top therethrough when the twisting head is being used. The said pin or stud *g*, to which the upper end of the spring *e* is wound or secured, extends between the two caps *c*, and, thereby, is prevented from shifting in the direction of its length. This mode of securing the upper free end of the wire spring *e*, offers the particular advantage of effectually preventing said end from projecting to the outside, and thus injuring the fingers or hand of the operator in the rapid distention of the spring. The locking pin *h*, of the twisting-head is also contained within the holder, and projects from the lower face of the same being forced out to a limited extent by the pressure of a spring *i*, wound around said locking pin above a collar or flattened portion h^1 of said pin *h*. The use of said locking pin is the same as in twisting heads for toy-tops of other known constructions.

When the top-spinning device engages the top for the purpose of preparing the same for spinning, the upper stem of the top passes through and projects from the central sleeve or tube *d* and the locking pin engages a recess at the upper portion of the body of the top. The lower projecting end of the spring *f* also engages a recess or lock on the upper surface of the top. On turning the top with respect to the top-spinning device or holder or vice versa, the spring *e* is wound until it attains the necessary tension. Thereupon, by pressing one finger of the hand which holds the holder downwardly upon the stem which projects from the upper end of the central sleeve or tube *d*, the stem and the body of the top are pressed downward, thereby releasing the pin from the recess or other part of the top engaged by the same, the top being thereby free to be spun under the impulse given by the spring.

I claim as my invention:

1. In a top-spinning device, a central or main body provided with a passage extending therethrough and a coiled spring arranged in the same, a hollow casing secured to the top of the main body, a hollow casing secured to the bottom of the same, and a pin projecting through the main body and into the two hollow casings serving to secure an end of said spring, the said hollow casings having openings registering with the passage in the main body.

2. In a top-spinning device, a central or main body provided with a coiled spring centrally arranged therein, a hollow casing secured to the top of the main body, a hollow casing secured to the bottom of the same and a pin projecting through the main body and into the two hollow casings, the said hollow casings having openings in alinement with the spring in the main body, the coiled spring being secured to said pin at one end, and its free end extending beyond the lower hollow casing.

3. In a top-spinning device, a hollow central or main body and a pair of hollow casings secured one to each end of the main body, the main body and a casing being provided with a passage which extends entirely through the same, in combination with a coiled spring arranged within the passage, and a pin passing entirely through the main body and into the hollow casings and serving to secure an end of said spring.

4. In a top-spinning device, a hollow central or main body and hollow casings arranged one at each end of the same, in combination with a central tube passing entirely through the main body and into the hollow casings, said casings being provided with apertures in alinement with said tube, a coiled spring arranged within said tube, and having one end secured to a fixed part of the spinning device and its lower free end projecting from the tube.

5. In a top-spinning device, a hollow central or main body and hollow casings secured to opposite ends of the same, in combination with a central tube passing entirely through the main body and a coiled spring arranged within the said tube, and having one end secured to a fixed part of the spin-

ning device and its lower free end projecting from the tube.

6. In a top-spinning device, a hollow main body and a hollow casing secured at each end of the same, in combination with a tube passing through the main body, a coiled spring arranged within said tube, secured at one end to the spinning-device and projecting with its other end beyond the spinning device, a locking-pin arranged within the main body and projecting through the lower end casing, and a spring yieldingly holding the same in its projecting position.

7. In a top-spinning device, a hollow central main body and hollow casings arranged at each end of the same, in combination with a central tube traversing the lower casing and the main body and extending into the upper casing, the said upper casing having an opening registering with a central tube, a pin extending through the main body and into the hollow end casing, a coiled spring arranged within the central tube, secured at one end of the pin and projecting with its other end from the lower end casing, a locking-pin adapted to slide in the spinning device and projecting below the lower surface of the same and a spring for yieldingly holding the said locking-pin in its projecting position.

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

ERNST PAUL LEHMANN.

Witnesses:
HENRY HASPER,
WOLDEMAR HAUPT.