A. E. SANDSTROM.

DEVICE FOR SPINNING TOPS, &c.

APPLICATION FILED MAY 13, 1920.

1,384,972. Patented July 19, 1921.

Fig. 1.

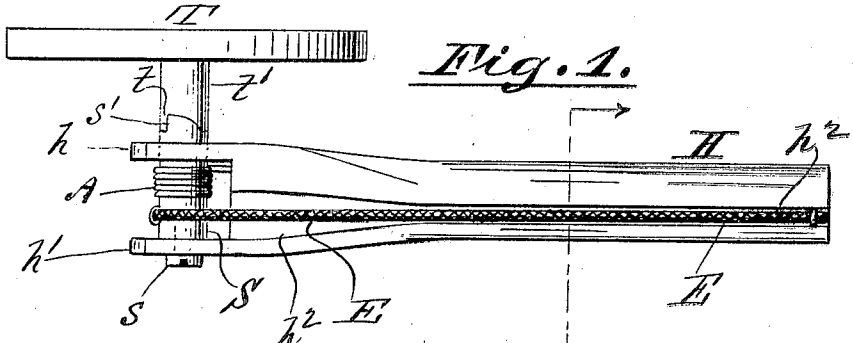


Fig. 2.

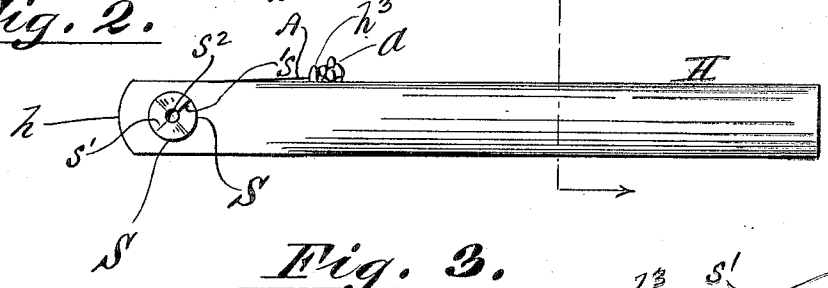


Fig. 3.

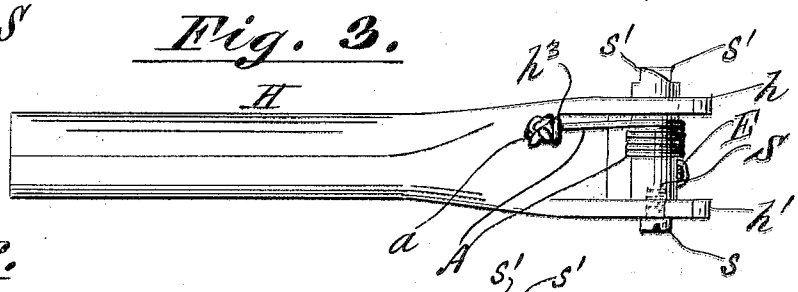


Fig. 6.

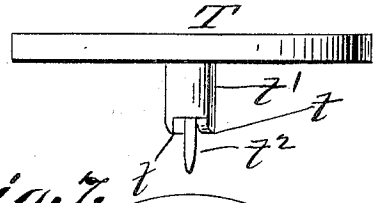


Fig. 4.

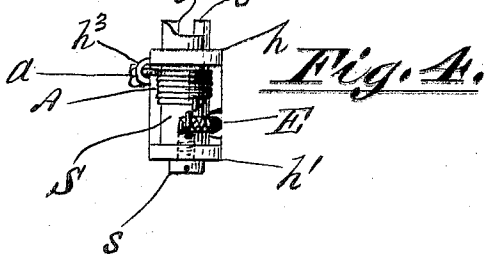
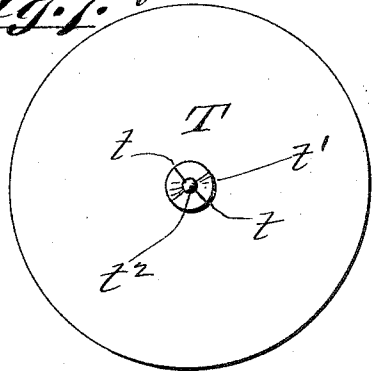


Fig. 7.



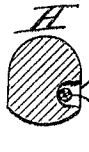


Fig. 5.

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By his Attorney
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UNITED STATES PATENT OFFICE.

AUGUST E. SANDSTROM, OF NEW YORK, N. Y.

DEVICE FOR SPINNING TOPS, &c.

1,384,972. Specification of Letters Patent. Patented July 19, 1921.

Application filed May 13, 1920. Serial No. 380,963.

To all whom it may concern:

Be it known that I, AUGUST E. SANDSTROM, a subject of the King of Sweden, having declared my intention of becoming a citizen of the United States, and a resident of the borough and county of Bronx, city and State of New York, have invented certain new and useful Improvements in Devices for Spinning Tops, &c., of which the following is a specification.

The object of my invention is to afford a simple, cheap, but effective device adapted to the spinning of tops, etc., whereby the labor of winding the rotating cord is reduced to a minimum, or substantially dispensed with, and the invention consists in the specific combination and arrangement of parts described and claimed, a distinctive feature being the use of an elastic resilient retractile spindle-rotating ligament in conjunction with said spindle, the latter being adapted for temporary engagement with the article to be spun, and also in conjunction therewith, of a flexible actuating ligament adapted to rotate the said spindle against the resistance of said elastic resilient spindle-ligament, whereby the latter is wound around the spindle to effect the retractile rotation thereof, and thereby energize the top or other article so placed in temporary engagement therewith, all as hereinafter more fully set forth.

In the accompanying drawings,

Figure 1, is an elevation of the left side of my top spinning device; with a disk top or wheel in engagement therewith;

Fig. 2, is a top view of the device;

Fig. 3, is an elevation of the right side of the implement;

Fig. 4, is a front end elevation thereof;

Fig. 5, is a transverse section of the handle taken upon plane of line 5—5, Figs. 1 and 2;

Fig. 6, is a side elevation of a top or wheel adapted for temporary engagement with my spinning device;

Fig. 7, is a view of the under side of said top or wheel.

The front end of the handle H, is bifurcated, being formed with the parallel extensions h, h', upon and between which is mounted the rotatable spindle S. Obviously the mounting of the spindle S, rotatably upon the handle H, may be effected by various mechanical expedients, so that I do not limit myself in this respect, the method shown in the drawings consisting in the use of a spindle of uniform diameter held in place by a shouldered screw s, the shank of which is journaled in the lower extension h', of the handle.

The upper end of the rotatable spindle S, extends above the upper extension h, of the handle, and is formed with means for temporary copulation with a top, wheel, or other article T, to be spun,—the latter being of course correspondingly formed for engagement with the spindle. Thus, in the construction shown in the drawing, the upper end of the spindle S, is formed with shoulders s', s', for engagement with coincidental shoulders t, t, on the stem t', of the top T,—the rear sides of the shoulders in each case being in the form of inclined planes, so that the shoulders on the opposed parts will automatically disengage themselves under certain conditions, as hereinafter set forth.

The stem t', of the top T, or similar article to be spun, may be formed with the usual spinning point or peg t^2, in which case the upper end of the spindle S, is formed with a central socket s^2, for the reception thereof.

E, is the elastic resilient retractile ligament, consisting preferably of a suitable length of rubber, elastic cord, or equivalent stretchable resilient medium, fastened at one extremity to the spindle S, and at the other to the rear portion of the handle H, which latter is formed with a longitudinal groove h^2, in which said retractile ligament E, is countersunk. This groove can be formed at comparatively small expense, and is much more convenient in arranging the elastic ligament than where the handle is formed with a bore therethrough, besides there is less friction on the ligament. Obviously this elastic resilient retractile ligament E, may consist in part of a coiled spring of relatively small diameter attached to the handle H, and provided with a wind cord for engagement with the spindle S, with like result, so that I do not limit myself to the use of a rubber spring for the purpose.

The flexible actuating ligament A, may consist of an ordinary cord or string of suitable size and strength, attached at one extremity to the spindle S,—around which it is wound normally in several convolutions,—its free end a, being knotted or other-

wise provided with a stop to prevent its passing through a retaining loop h^3, provided for the purpose on the side of the handle H.

The operation is as follows:—

The implement being held upright as in Fig. 1, in substantially horizontal position, the free end a, of the actuating ligament A, is pulled outward against the resistance of the retractile ligament E, thereby unwinding the convolutions of said cord A, from the spindle S, and stretching and winding the retractile ligament E, around the spindle S. While the actuating cord A, is held extended and taut, the top T, is positioned upon the upper end of the spindle, with the coupling shoulders in engagement. Upon the release of the actuating cord A, the retractile ligament E, contracts to normal length, thereby rotating the spindle S, rapidly, and causing its shoulders s', s', in engagement with the shoulders t, t, of the top T, to correspondingly rotate the latter. The momentum thus imparted to the top carries it out of engagement with the spindle S, as the latter slackens and stops,—the inclined rear surfaces of the coupling shoulders facilitating this action.

My spring implement is adapted not only for spinning so called peg tops, but also for aerial or flying tops or wheels, as well as for imparting motion to toy wheels of various kinds.

What I claim as my invention and desire to secure by Letters Patent is,

The combination of a rotatable top having an under stem formed with coupling cam shoulders and a spinning peg at its lower extremity, and a spinning device comprising a handle having a bifurcated end and formed with a longitudinal side groove, a rotatable spindle mounted on the bifurcated end of said handle and formed at its upper extremity with cam coupling shoulders for temporary engagement with those on the top stem, and also formed with an axial socket for the reception of the spinning peg on the top stem, a retractile elastic resilient ligament attached at one extremity to said spindle and to the handle at its other extremity, and positioned mainly in the aforesaid longitudinal groove in the side of the handle, and a flexible actuating ligament attached to said spindle and partially wound thereabout and by means of which the aforesaid elastic resilient ligament may be stretched and wound around the said rotatable spindle, as and for the purpose set forth.

AUGUST E. SANDSTROM.

Witnesses:

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LILLIA MIATT CARTER.