

(No Model.)

C. BARUS.
TOP.

No. 541,802.

Patented June 25, 1895.

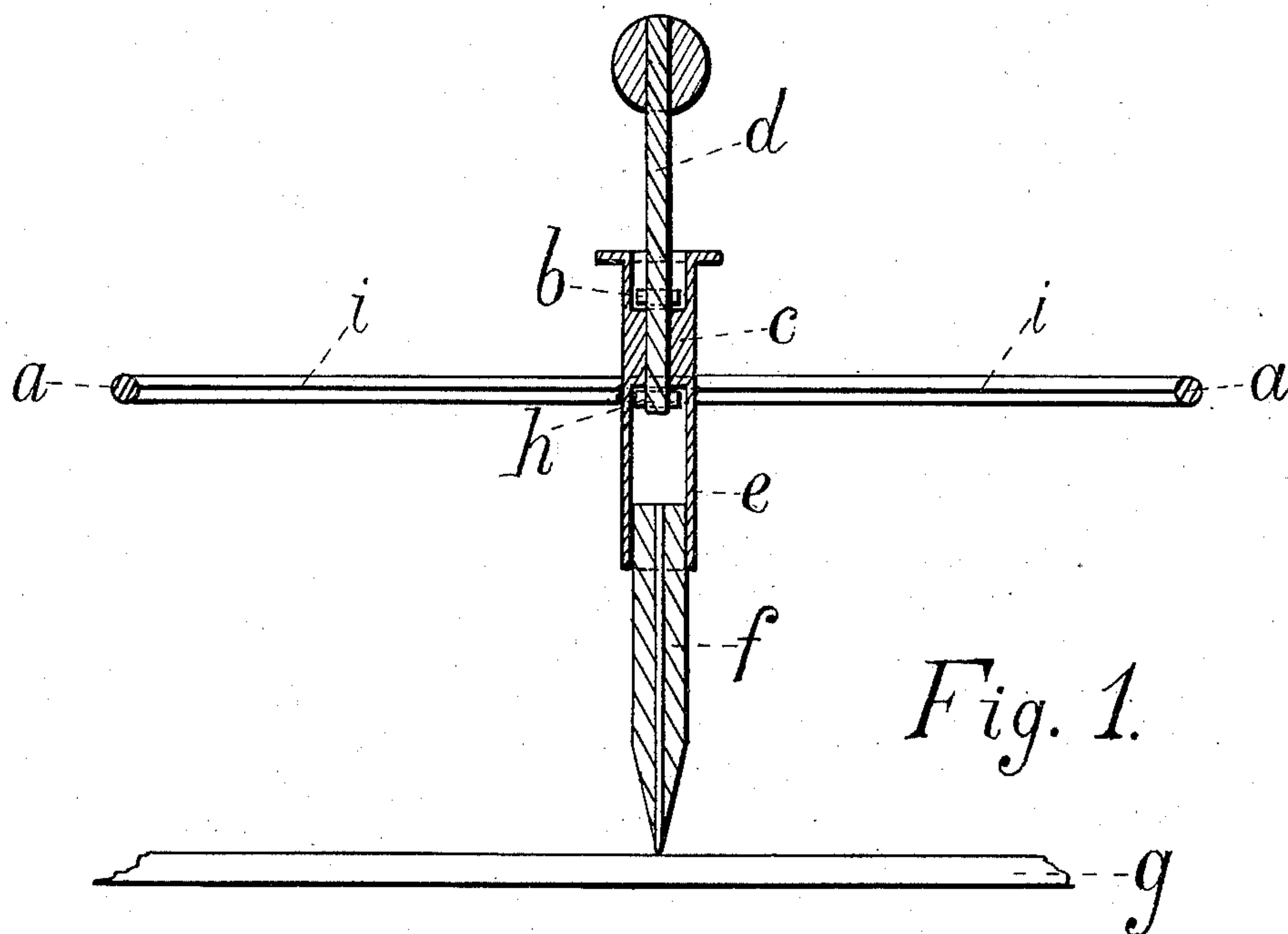


Fig. 1.

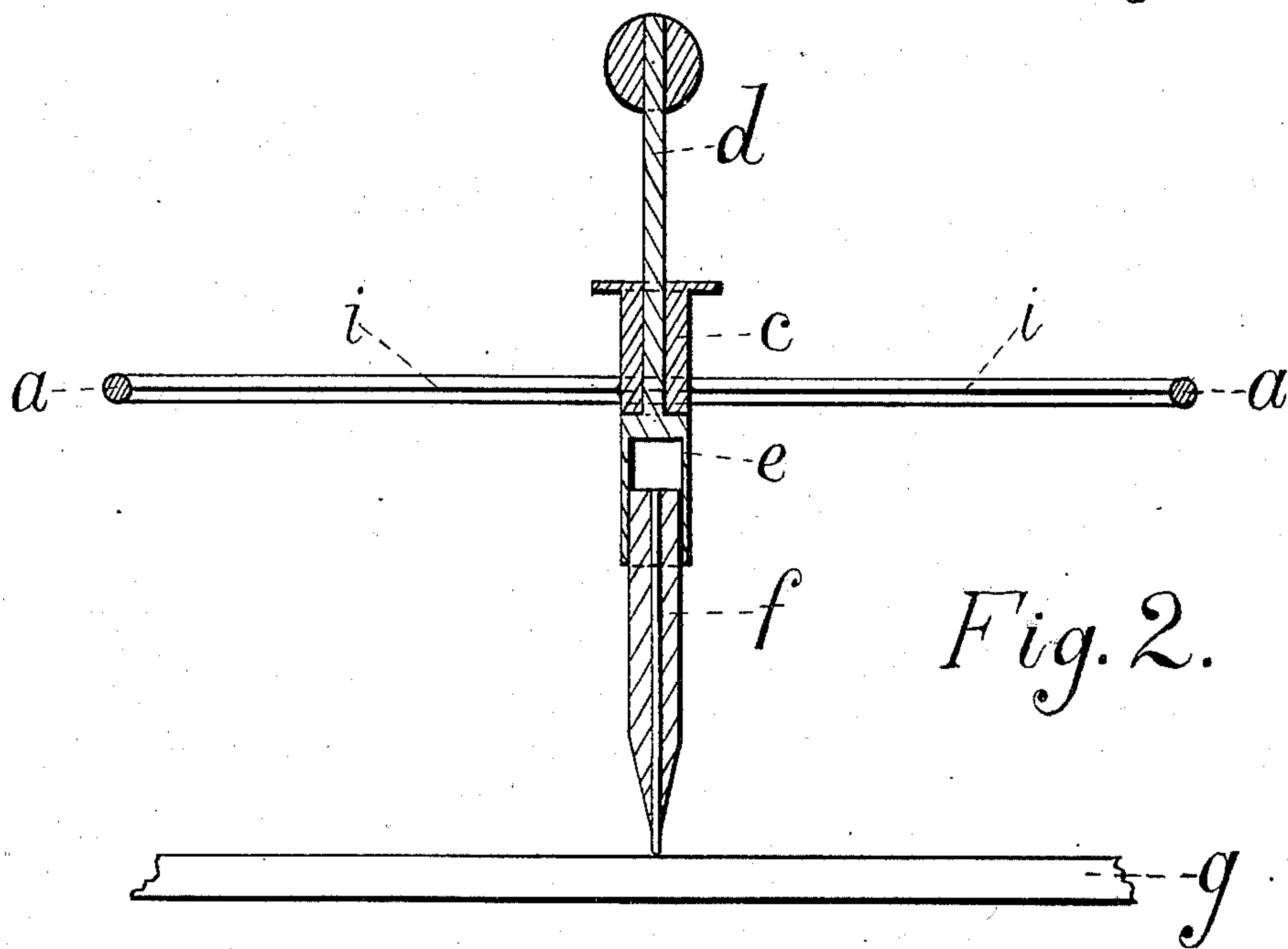


Fig. 2.

Witnesses.

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TOP.

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Application filed December 19, 1894. Serial No. 532,354. (No model.)

To all whom it may concern:

Be it known that I, CARL BARUS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented
5 an Improvement in Tops, of which the following is a specification, reference being had to the accompanying drawings, showing parts thereof.

My invention is a top, consisting of a form
10 of top to be hereinafter described provided at its lower end with a marking stylus (as for instance a lead pencil or a slate pencil), and a tablet (as for instance a smooth sheet of paper or a slate) on which the stylus is allowed
15 to mark during the spinning and rocking motions of the top. When the top is in rotation about its own axis of figure, and when this axis is placed obliquely to the plane of the tablet, the top as a whole swings in the well
20 known way (precession) about a movable axis, which in its turn is both in rotational and in translational motion. The stylus therefore traces a series of exceedingly beautiful and delicate curves, of an order ranging from com-
25 plex spirals to complex cycloids or curves having this appearance. The figure obtained depends among other things on the inclination of the tablet to the horizontal, on the form of the writing point, on the obliquity of the
30 axis of the top to the plane of the tablet, &c.

I give in Figures 1 and 2, sectional elevations of two forms of tops with which I have obtained good results, without however wishing to limit myself to these constructions.

35 Fig. 1. may be described as a wheel, and *a* is a heavy rim as of wire one-eighth inch thick, and six inches in diameter, *i i* a web as of tin plate joining *a a* with the hub *c*. This hub is axially perforated, and a round
40 rod *d*, preferably provided with a head and retained in place by two enlargements *h* and *b*, passes through the upper part of the perforation, for the purpose of serving as an axle

around which the wheel is free to rotate. The lower part of the hub *c* is in shape of a nipple
45 *e*, and serves to secure the pencil *f* by which the design is drawn on the tablet *g*. The exterior of the hub *c* is drum-shaped, so that a string may be wound around it for spinning
50 the top.

Fig. 2 shows a simpler construction. Here
55 *a a* is the heavy rim of a broad wheel, joined by the web *i i* to the hub *c*, the whole insuring slow and regular nutation. The hub *c* is drum shaped so that a string may be wound
60 around it for spinning the top. The axle around which the wheel is free to rotate, is a round rod *d* (preferably provided with a handle), and is rigidly joined at the lower end of the rod to a short end of tubing or nipple *e*,
65 large enough to receive an ordinary pencil *f* snugly. Finally *g* is a flat tablet on which the pencil *f* traces the figure. By removing the handle, the axle *d*, *e*, *f* can be withdrawn from the top for easier packing.

I have been informed that spools have been spun on sharpened pencils thrust through them; but what I believe to be new is the association of a pencil with a top adapted to act
70 as a writing instrument, in a way to trace the curves corresponding to the movement of the top, both in its translational or orbital, as well as in its precessional and nutational motion. Using the word "blunt" to mean "capable of
75 rolling," and to refer to a pivotal end of the top capable of rolling on a tablet while the top is spinning,

What I claim, and desire to secure by Letters Patent, is—

A toy consisting of a form of top, provided
80 at its lower end with a blunt pencil, all substantially as described.

CARL BARUS.

Witnesses:

A. HOWARD CLARK,
R. LUTHER REED.