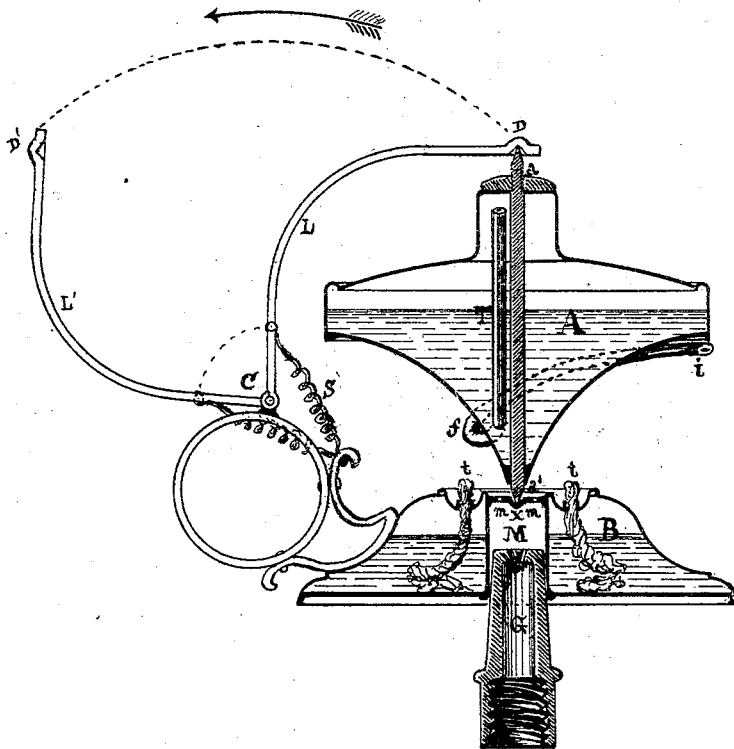


P. ELEY.

Improvement in Spinning-Tops.

No. 114,781.

Patented May 16, 1871.



Witnesses.

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Letters Patent No. 114,781, dated May 16, 1871.

IMPROVEMENT IN SPINNING-TOPS.

The Schedule referred to in these Letters Patent and making part of the same.

I, PHILIP ELEY, of the city of New York, in the county and State of New York, have invented certain Improvements in Spinning-Tops, of which the following is a specification.

Nature and Object of the Invention.

My invention relates to a spinning-top having the novel feature of possessing within itself a steam-power to make it revolve on its center of gravity, which renders it a self-acting toy or steam spinning-top.

Description of Drawing.

My drawing represents a sectional elevation through center of my improved spinning-top, and of the lamp for raising steam therein.

General Description.

A is the top, which may be made of any desired shape which fancy or taste will dictate, and of any suitable material.

The top A is made hollow and steam-tight, so as to act as a boiler, and it has at the top and bottom proper points, *a* and *a'*, to act as pivots for its motion.

T is a small pipe passing out at *f* near the bottom of the top A, and having a portion, *f i*, bent in a spiral manner around the under part of the top A.

The pipe T terminates at its end *i* by a small opening turned in the proper direction to make the top revolve by the reaction of the jet of steam issuing therefrom, on the principle of Hero's engine.

There may be one or more such pipes as T, and the object of the part *f i* thereof is to have perfectly dry steam issuing from said pipe or pipes.

B is a lamp for alcohol or other burning fluid.

The lamp B may be made of any shape or pattern, but it has a middle air-chamber, M, fitting snugly on a gas-burner, G, so that the gas issuing therefrom may enter the chamber M and pass out by small holes *m m*, to be ignited therefrom.

The wick-tubes *t t* are arranged outside of the chamber M, so that the lamp B may be used either as a spirit-lamp, or as a gas-furnace or burner, or both at the same time.

L is an arm arranged so as to swing or be pivoted from the center O, and having a spring, S, which retains it in either of the positions indicated in my drawing.

The arm L has at its top a cavity, D, for receiving the top point or pivot *a* of the top A.

Any other arrangement may be devised in place of

the arm L which will answer the same purpose, which is to have a frame or support for the upper point of the top A, to keep the same steady until it has attained the proper velocity required to keep it poised upon its lower point *a'*, and that support may be removed at pleasure, as shown by the letters L' and D' on my drawing.

Operation.

The top A, being partially filled with water, by heating said top and allowing it to cool with the end *i* of the pipe T dipping in water, is placed between the two bearings X and D. The lamp is now lit, either burning gas or spirit, or both, as already described, and steam is soon formed within the top A.

As the steam passes out through the pipe T it is dried perfectly in the part *f i* thereof, and, issuing from the small hole at *i*, the top will soon revolve freely between the two bearings D and X, in the manner of Hero's engine, with this important difference, however, that, by the special construction of my boiler or steam-top, when it has attained its full velocity, the arm L may be thrown back (as indicated by the letters L' and D') and the top A will continue to revolve and keep itself poised upon the point *a* in the cavity X, in the manner of an ordinary spinning-top, and the momentum it has is so great that it may be removed from the lamp and placed upon a table or floor, where it will spin a long time.

A steam-top being obtained, it is susceptible of being adapted to a great variety of fancy tops, which will have the great attraction over other tops that it will spin as long as heat is kept under it and there is water therein.

Claims.

1. A top self-revolving, by the power of steam, applied in the manner of Hero's engine, substantially in the manner herein set forth.

2. The top A, having the pipe T, with its superheating part *f i*, substantially as and for the purpose described.

3. The lamp B, with its gas-chamber M and movable frame L, or its equivalent, in combination with the top A, arranged so as to operate substantially in the manner and for the purpose specified.

PHILIP ELEY.

Witnesses:

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