

(No Model.)

C. M. KIMBALL.

TOP.

No. 272,707.

Patented Feb. 20, 1883.

Fig. 1.

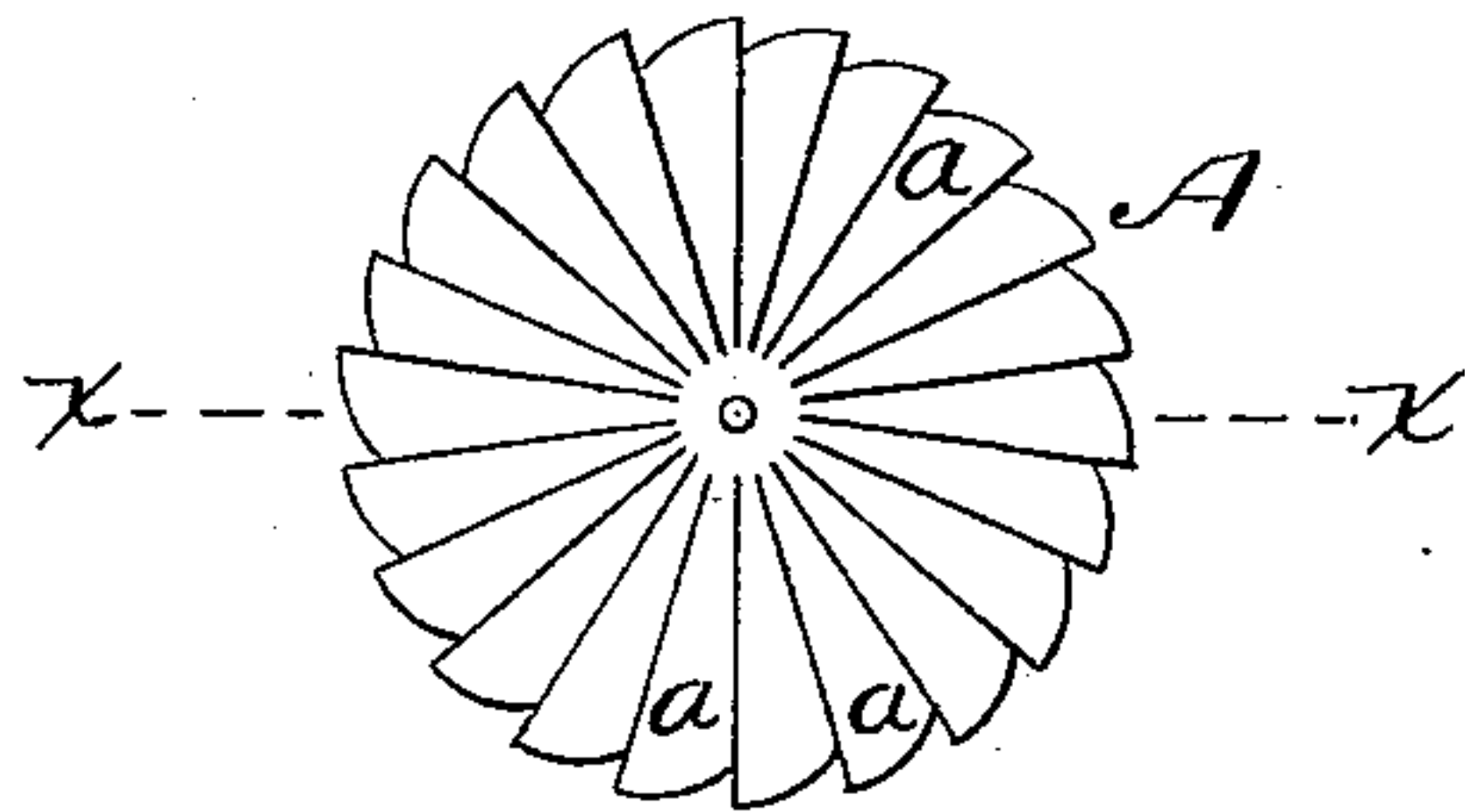
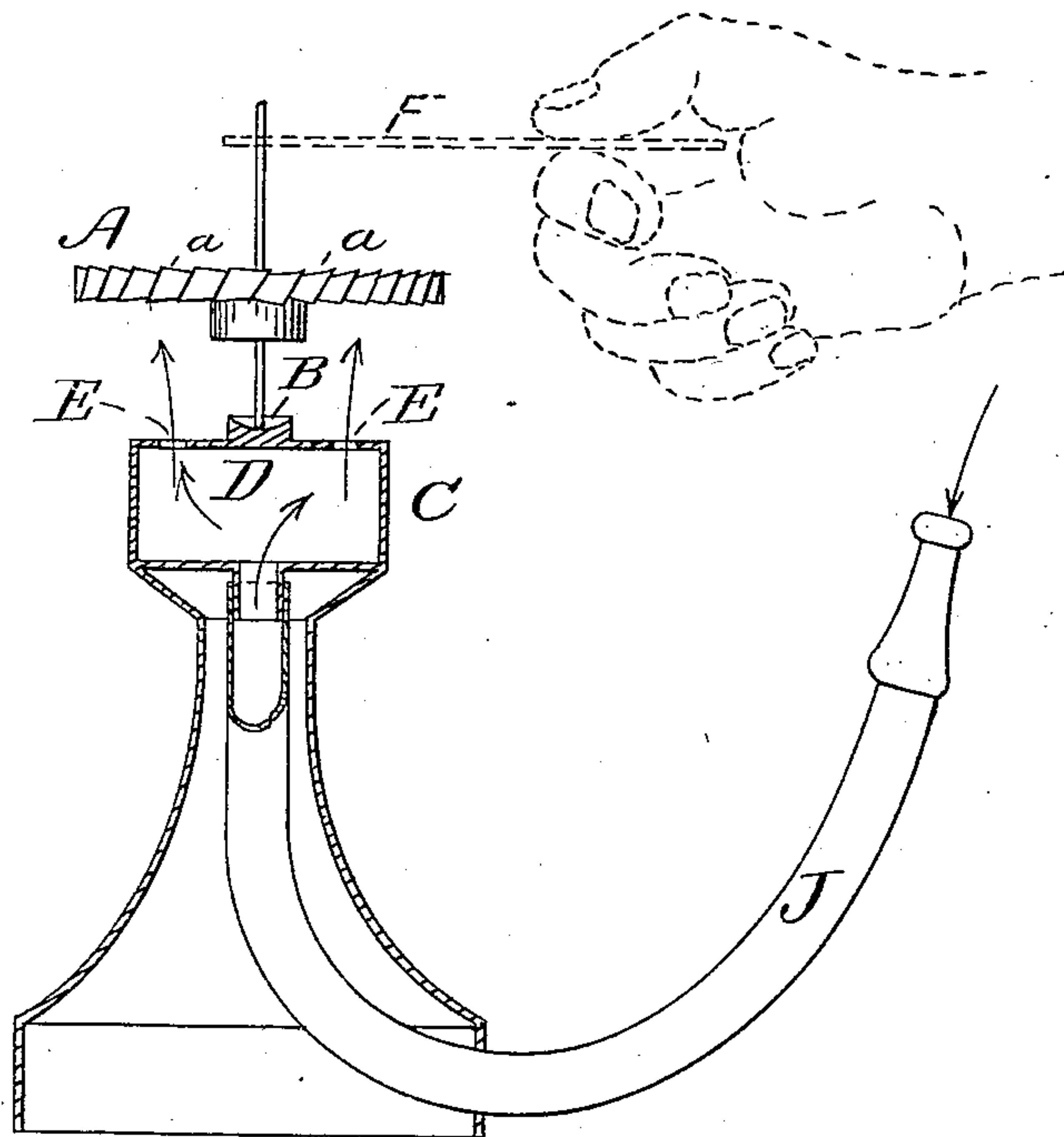


Fig. 2.



Witnesses.
Joseph Leutter
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UNITED STATES PATENT OFFICE.

CHARLES M. KIMBALL, OF TOLEDO, OHIO, ASSIGNOR TO HIMSELF AND
JOHN M. WHEELER, OF SAME PLACE.

TOP.

SPECIFICATION forming part of Letters Patent No. 272,707, dated February 20, 1883.

Application filed July 7, 1882. (No model.)

To all whom it may concern:

Be it known that, I, CHARLES M. KIMBALL, of Toledo, in the county of Lucas and State of Ohio, have invented certain Improvements in
5 Tops, of which the following is a specification.

This invention has for its object to provide an improved toy, adapted to subserve, also, a useful purpose as a lung testing or exercising apparatus.

10 To this end the invention consists, as a whole, in a top adapted to be rotated by the pressure of air or other fluid or vapor, a support or step for the spindle of the top, and one or more ports or passages in a structure or base sup-
15 porting the step, said passages being adapted to direct jets of air or other fluid, as vapor or gas, against the top, so as to rotate the latter, as I will now proceed to describe.

Of the accompanying drawings, forming a
20 part of this specification, Figure 1 represents a top view of a toy or apparatus embodying my invention. Fig. 2 represents a vertical section of the same on line *x x* of Fig. 1.

The same letters of reference indicate the
25 same parts in all the figures.

In carrying out my invention I provide a top, A, composed of a suitable spindle and a wheel affixed to the spindle, and having oblique blades *a*, or otherwise constructed, so
30 that it will be rotated by fluid-pressure against either of its sides. I also provide a concave recessed step, B, adapted to support the lower end of the top-spindle and prevent the top from moving away laterally while rotating.
35 The step B is supported on a base, C, in which is a chamber, D.

E E represent ports or small orifices in the base C, communicating with the chamber D, and so located with relation to the step B that
40 they will direct jets of air or other fluid from the chamber D against the side of the wheel of the top, as indicated by arrows in Fig. 2, thereby rotating the top. Before the top acquires sufficient momentum to enable it to
45 stand the upper end of its spindle should be supported by a removable device, F, as shown in dotted lines in Fig. 2, said device being pref-

erably a looped wire adapted to inclose the spindle. When the top is properly running the support F may be removed, and the top
50 may be kept continuously running by continuous or intermittent jets of fluid through the ports E E. The top is preferably operated by air blown from the lungs, a flexible or rigid tube, J, being provided, through which the
55 operator can blow into the chamber D. The lungs are thus usefully exercised. If desired, the chamber D may contain water, and steam may be generated therefrom to operate the top.

I do not limit myself to any particular num-
60 ber of ports E, as one or more may be employed. If desired, the ports may be arranged to direct the fluid downwardly upon the wheel of the top, instead of upwardly.

I claim—

1. A lung testing and exercising apparatus
65 composed of a top adapted to be operated by air-pressure, and means for directing air from the lungs against said top, as set forth.

2. The method herein described of spinning
70 or operating a top, consisting in placing the spindle of the top on a suitable step or support and directing a jet or jets of a suitable fluid under pressure against the top, so as to rotate the latter, as set forth.

3. As an article of manufacture, a top com-
75 posed of a spindle and a wheel attached to the spindle, and adapted to be operated by pressure of air or other fluid, as set forth.

4. The improved toy, composed of a top
80 adapted to be rotated by fluid or vaporic pressure, a support or step for the spindle of the top, and one or more ports or passages adapted to direct a fluid under pressure against one or
85 more points on the top, and thereby rotate the same, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 3d day of July, 1882.

CHAS. M. KIMBALL.

Witnesses:

T. McDONNELL,
JNO. M. WHEELER.