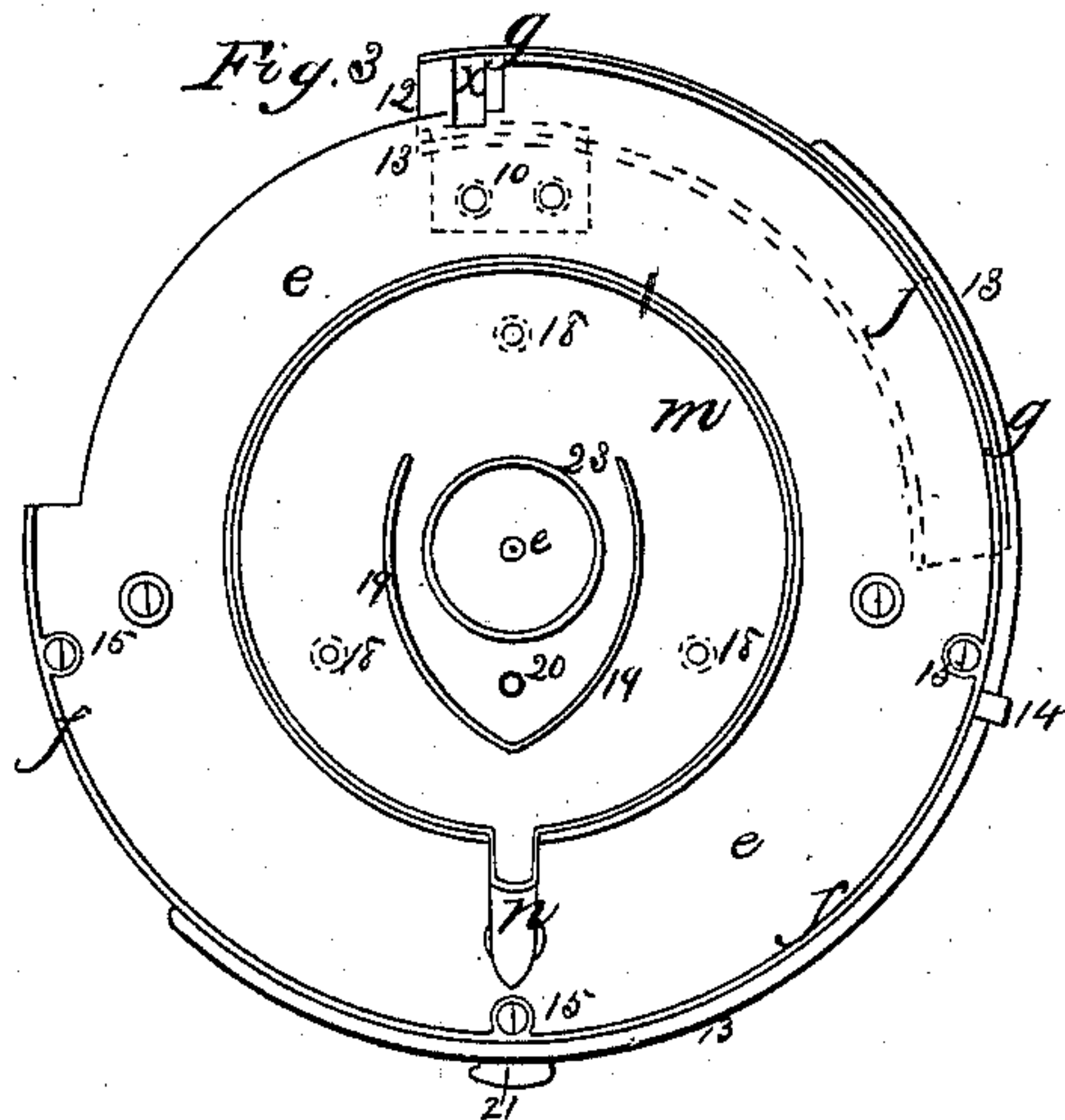
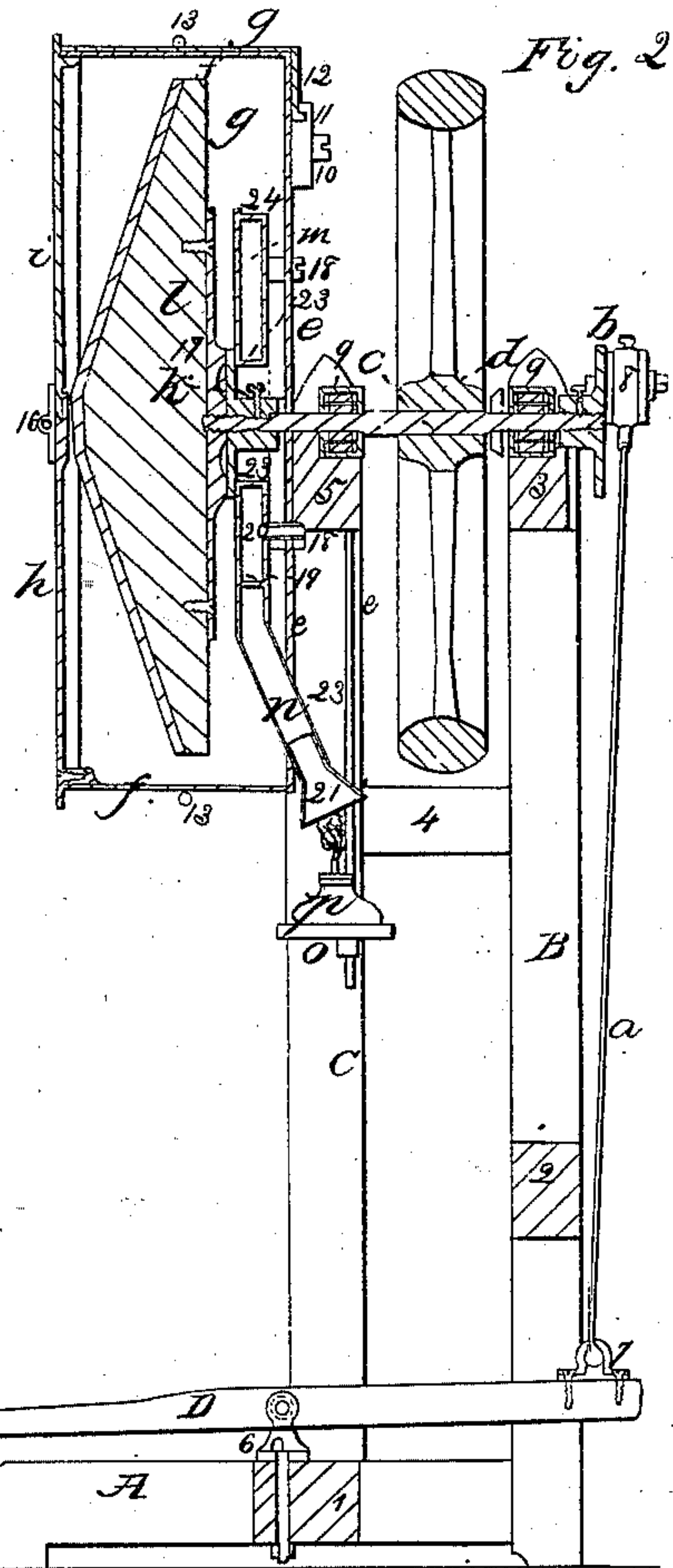
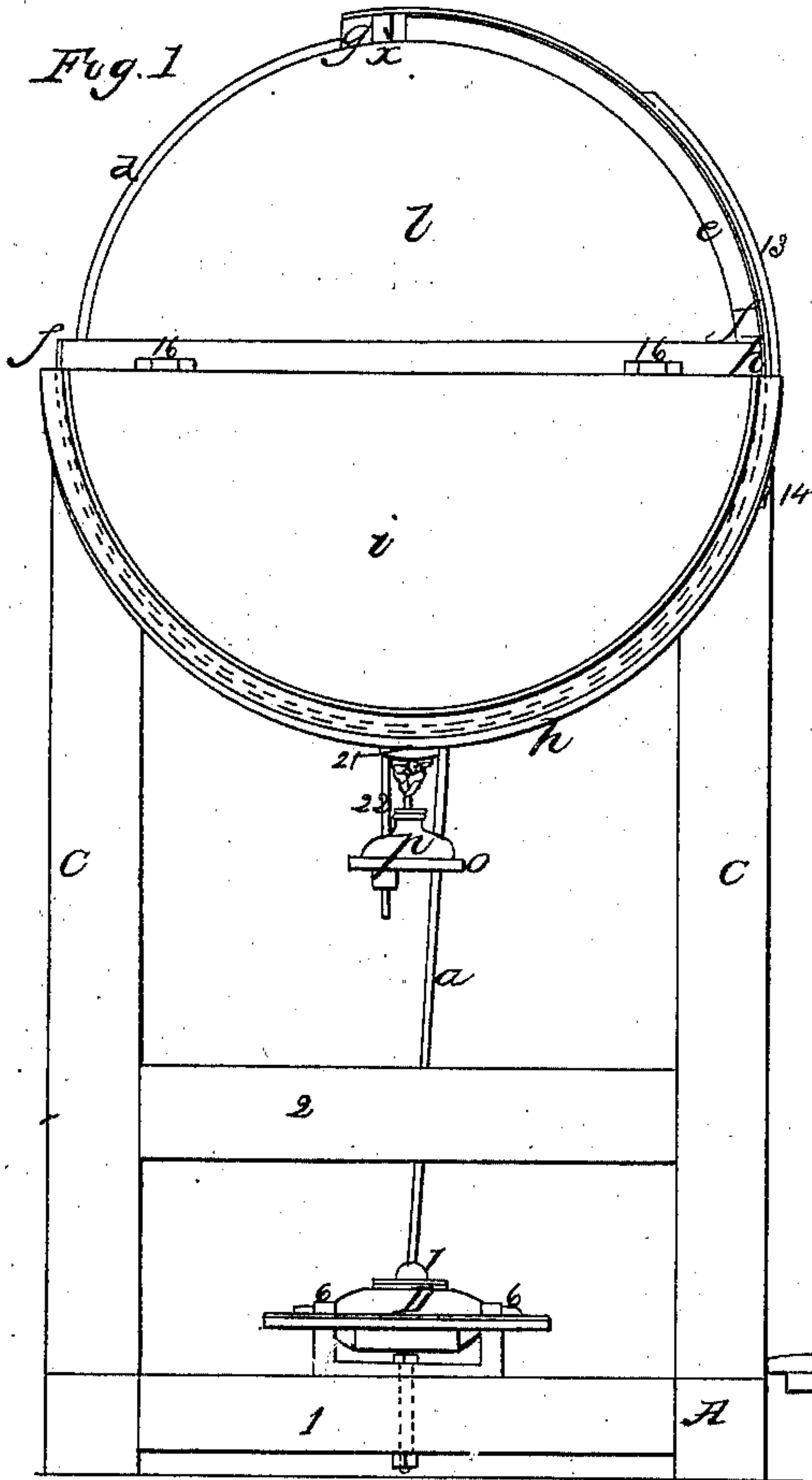


W. & W. H. Lewis,

Buffer for Daguerreotype Plates,  
No 8,235,  
Patented July 22, 1851.



Witnesses:

W. L. Larnelle  
Lemuel W. Sherrell

Inventor:

W. Lewis  
W. H. Lewis



# UNITED STATES PATENT OFFICE.

WILLIAM LEWIS AND WILLIAM H. LEWIS, OF NEW YORK, N. Y.

## IMPROVEMENT IN BUFFING APPARATUS FOR DAGUERREOTYPE-PLATES.

Specification forming part of Letters Patent No. 8,235, dated July 22, 1851.

*To all whom it may concern:*

Be it known that we, WILLIAM LEWIS and WILLIAM H. LEWIS, manufacturers of daguerreotype apparatus, of the city, county, and State of New York, have invented, made, and applied to use certain new and useful Improvements in Apparatus for Buffing Daguerreotype-Plates, by which improvements the buffer is warmed for use and other conveniences obtained, for which we seek Letters Patent of the United States; and we do hereby declare that the construction, operation, and effects of the said improvements are fully and substantially set forth and shown in the following description and in the drawings annexed to and making part of this specification thereof, in which—

Figure 1 is a front elevation of a buffing-machine fitted with our improvements; and Fig. 2 is a sectional elevation thereof, showing the interior parts in place that cannot be seen in Fig. 1; and Fig. 3 is a front elevation of the drum with section of heating-drum.

Like letters and numbers as marks of reference denote the same parts in each figure, as follows:

A is the foot-frame with a cross-tie 1.

B are back standards with a lower cross-tie 2 and a bearing-tie 3.

C C are front standards having each a tie 4 to the standards B, with a bearing-tie 5 at top.

D is a common treadle with journals 6, so set in a slot in the tie 1 that the treadle can be turned either side of the machine, so as to come convenient to the workman. The treadle takes the lower end of the pitman *a* by a ball-and-socket joint 7, (see Fig. 2,) the upper end of the pitman taking, by an anti-friction journal, a pin 8 in a face-plate *b*, which is on the back end of a mandrel *c*, set in anti-friction journals 9, and carries a fly-wheel *d* between the ties 3 and 5.

On the bearing-tie 5 is fixed the back plate *e* of an interrupted circular drum *f*, which goes about three-fourths round the plate *e*.

10 is a grooved plate (shown in dotted lines in Fig. 3) secured by screws to the plate *e*, the groove receiving a lip 11 on the edge of a flange 12 on one side of a movable segment *g*, which has a circular contractile spring 13 going through a guide-eye 14, and so that the workman can move the segment-plate *g* to complete the drum *f*, the lip 11 sliding in the

grooved plate 12, and the spring 13 drawing the edge of the plate 8 tight onto the edge of the drum *f* as they come in contact, and a small lug *x* on the plate 12 takes inside the edge of the plate *e* to form a guide to steady the plate *g* as it is moved around.

*h* is a half-cover secured by screws 15 to lugs on the inside and edge of the drum *f*.

16 are hinges on the cover *h* carrying the other half-cover *i*, which closes up to form a complete drum or circular box, inside of which is a box *k*, secured on the end of the mandrel *c*, and 17 is a plate screwed onto the nose of the mandrel, carrying a rotary face chuck or buffer *l*, which may be of any convenient form and covered with buff-leather or other suitable materials for polishing metallic surfaces; but these means are intended especially for daguerreotype-plates.

Behind the buffer *l* and around the box *k* is a circular drum *m*, formed of two flat rings connected by a ring or band 24 around the outside, and a similar ring 23 in the center opening, so as to form a tight drum, and inside this drum *m* is a division 19, and a small opening 20 receives a small pipe that passes outside through the back *e*. The drum *m* is attached to the back *e* by screws and washers 18, and connected to the lower end of the drum *m* is a pipe *n*, passing out through the back *e* and terminating with a funnel 21.

22 is a rod supporting a stand *o*, so fitted as to be turned around horizontally on the rod 22, and this carries a spirit or other lamp or heater *p*.

The uses and operation of this are as follows: In damp weather especially, and even at all times under ordinary circumstances, the leather composing the face of the buffer will receive moisture from the atmosphere, which prevents the requisite polish being obtained on daguerreotype-plates.

The main object of our improvements is to heat this buffer so as to dispel all moisture under any circumstances, and thereby render the buffer more effective. To effect this purpose the segment *g* is placed to close the drum *f*, and the cover *i* turned up so as to inclose the buffer. The spirit-lamp is then lighted, the heat of which passes into and heats the drum *m*, which heats and dries the buffer perfectly, so that on using the buffer the polishing is effected with ease and the



plate is left perfectly clean. The division 19 causes the heat to pass up inside the drum and then descend inside the division 19, and the hole 20 passes any vapor outside the drum, so as to prevent any condensation of the alcohol in the drum *f*, so as to render the buffer damp. It will be seen that the rotation of the buffer is effected by the treadle and parts, as usual, and also that the edge of the cover *h* forms a rest for the plate or other substance being polished, and that the sliding segment *g* enables the operator to work out to the very edge of the buffer, and the edge of the buffer may be also covered, if found convenient.

We do not claim heating the buffer, as that has been done by lamps operating on the plate on which the buffing material is stretched; but in that form the heat is uneven and the vapor from the spirit-lamp is liable to come in contact with the buffing material; but

What we claim as new and of our own in-

vention, and desire to secure by Letters Patent of the United States, is—

The inclosing drum constructed with the sliding segment or cover *g*, flange 12, and lip 11, sliding in the grooved plate 10 and retained by the spring 13 for the purposes specified, in combination with the drum *m* and pipe *n* to pass the heat from a spirit-lamp or other heater to the drum *m* for the purpose of heating the buffer, the drum *m* being fitted with a pipe or other means to pass any vapor from the spirit-lamp outside the case inclosing the buffer, substantially as described and shown.

In witness whereof we have hereto set our signatures this 23d day of January, 1851.

WILLM. LEWIS.

W. H. LEWIS.

Witnesses:

W. SERRELL,

LEMUEL W. SERRELL.