

No. 744,096.

PATENTED NOV. 17, 1903.

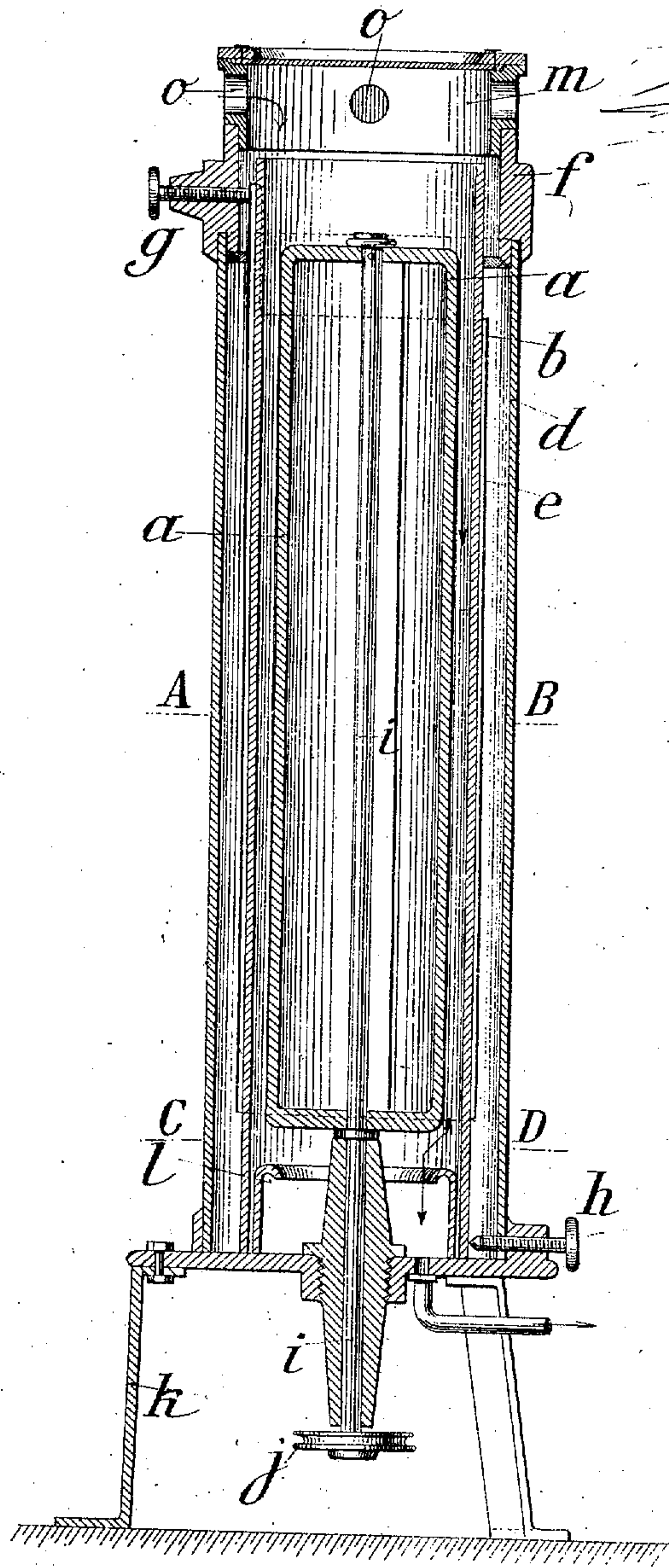
M. OTTO.
OZONIZER.

APPLICATION FILED MAY 29, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

N. M. Kuehne
Wm M. Golden Jr.

Fig. 3.

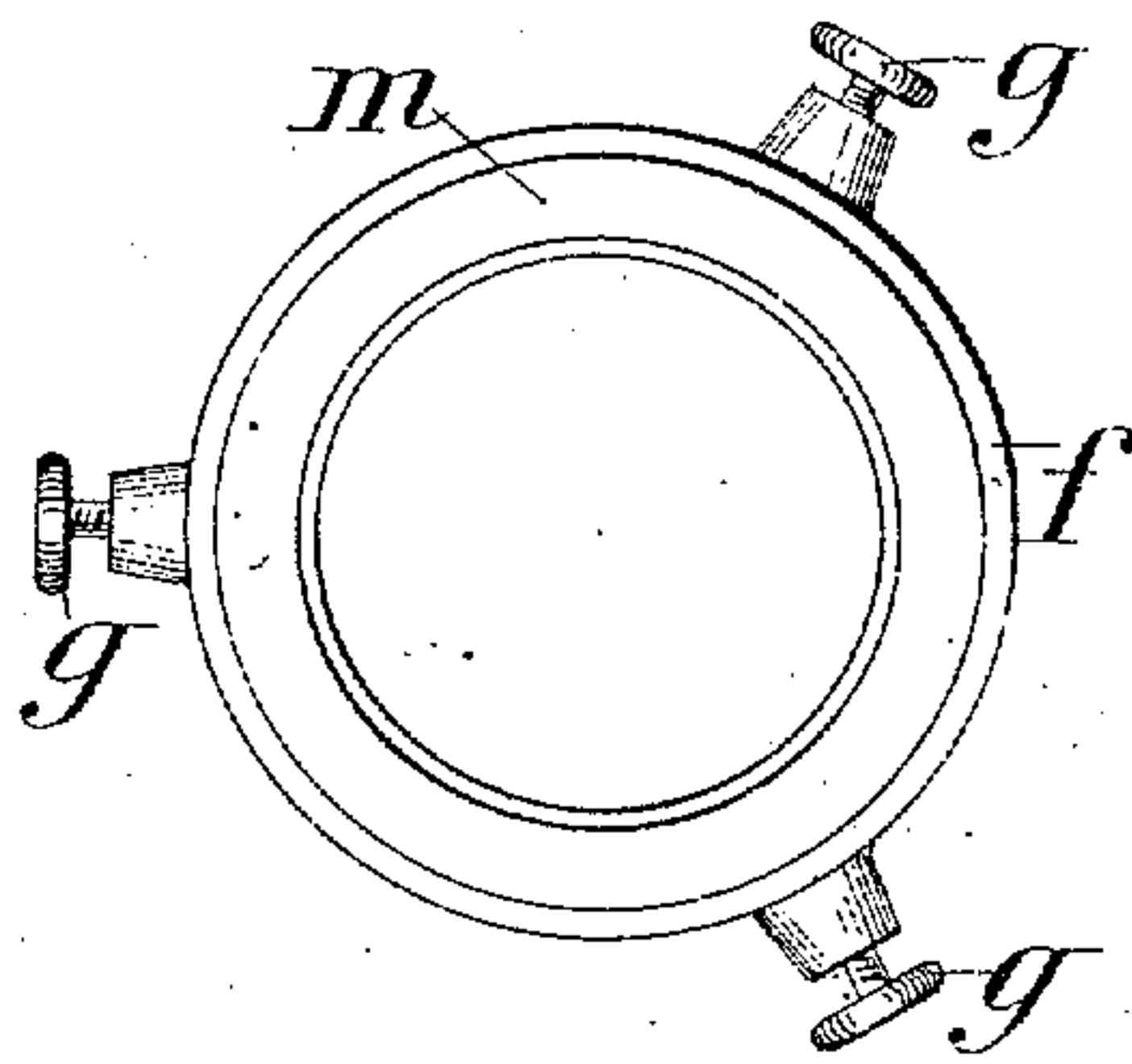


Fig. 4.

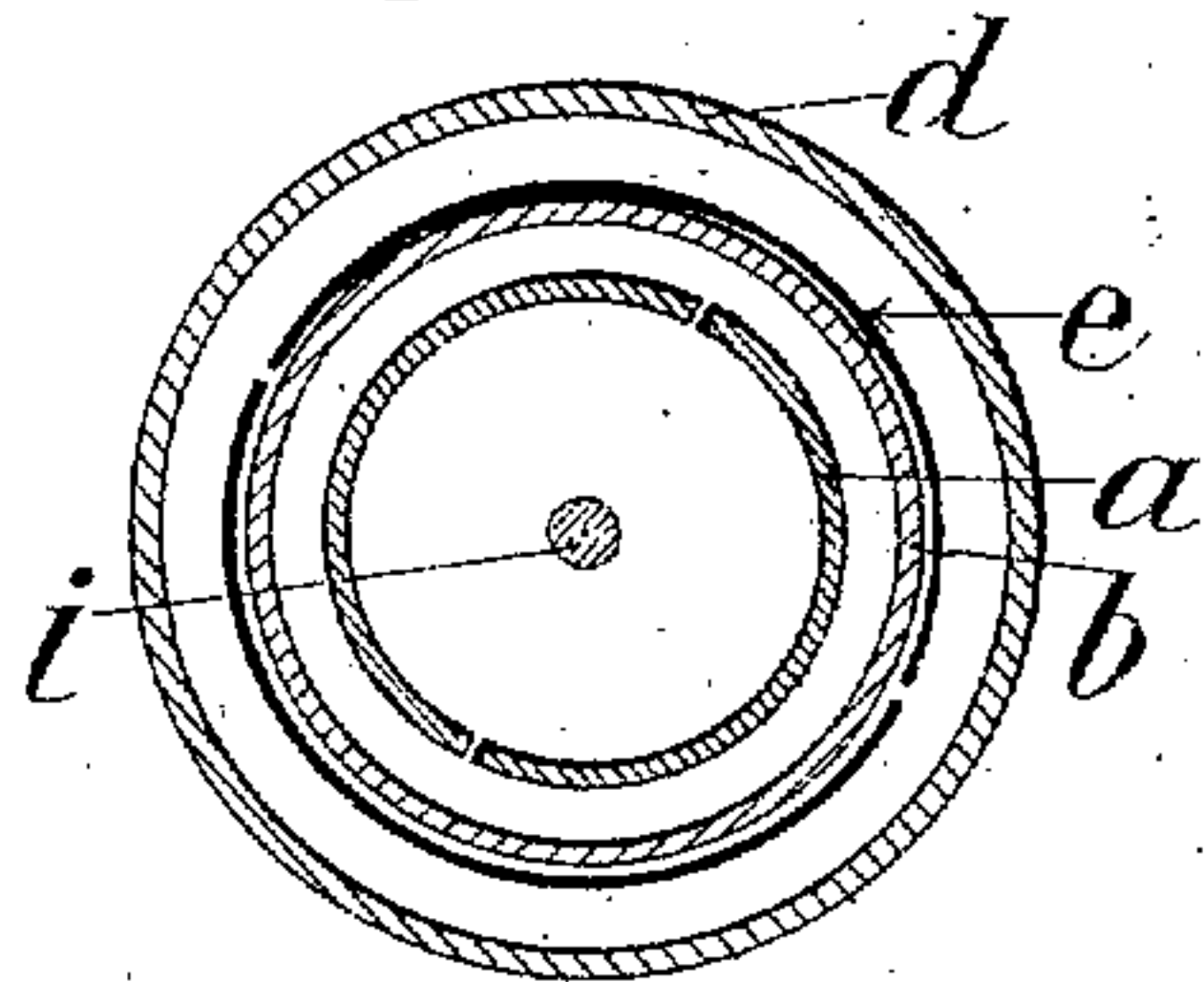
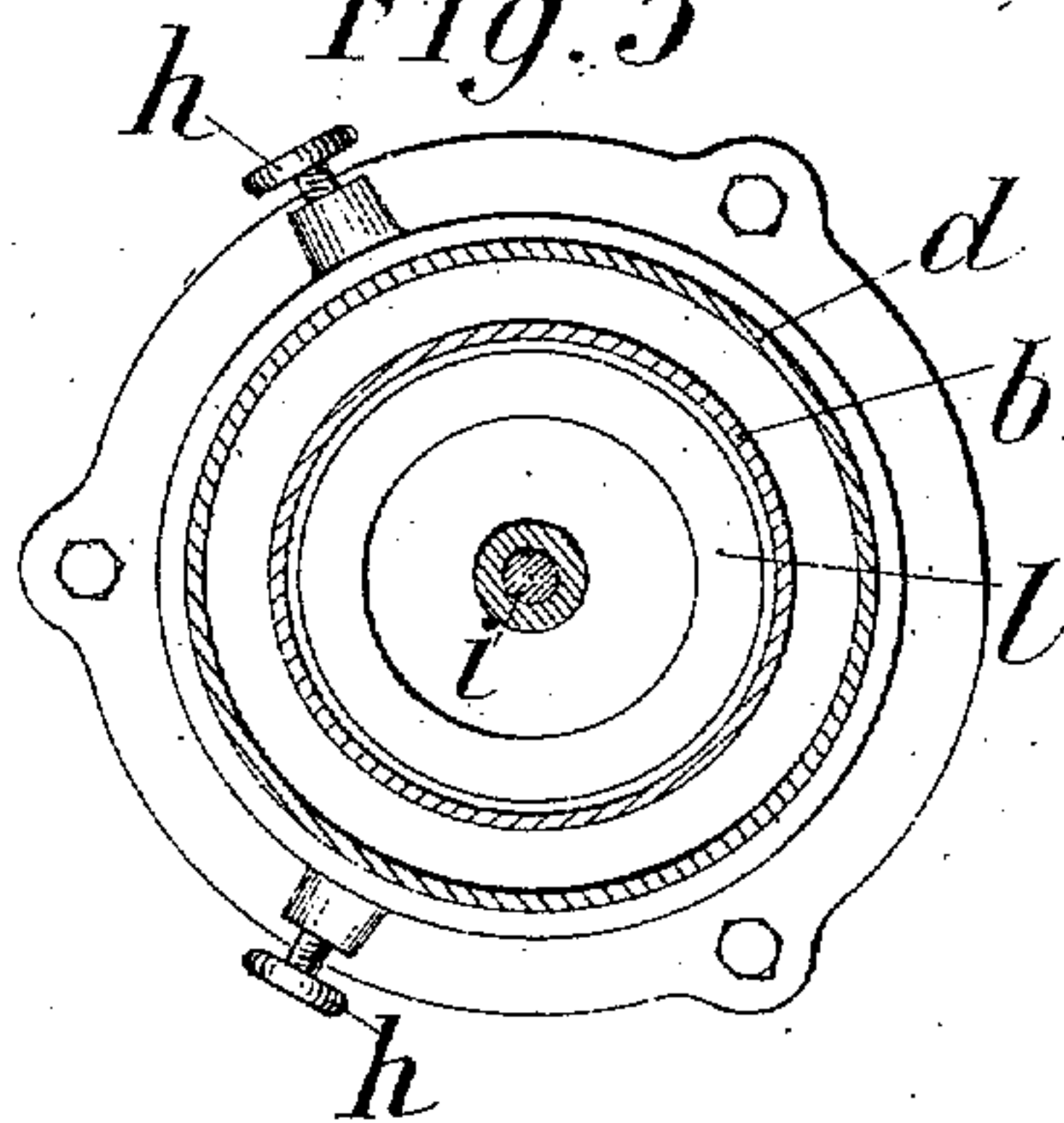


Fig. 5.



INVENTOR

Marius Otto

BY *Rubind*

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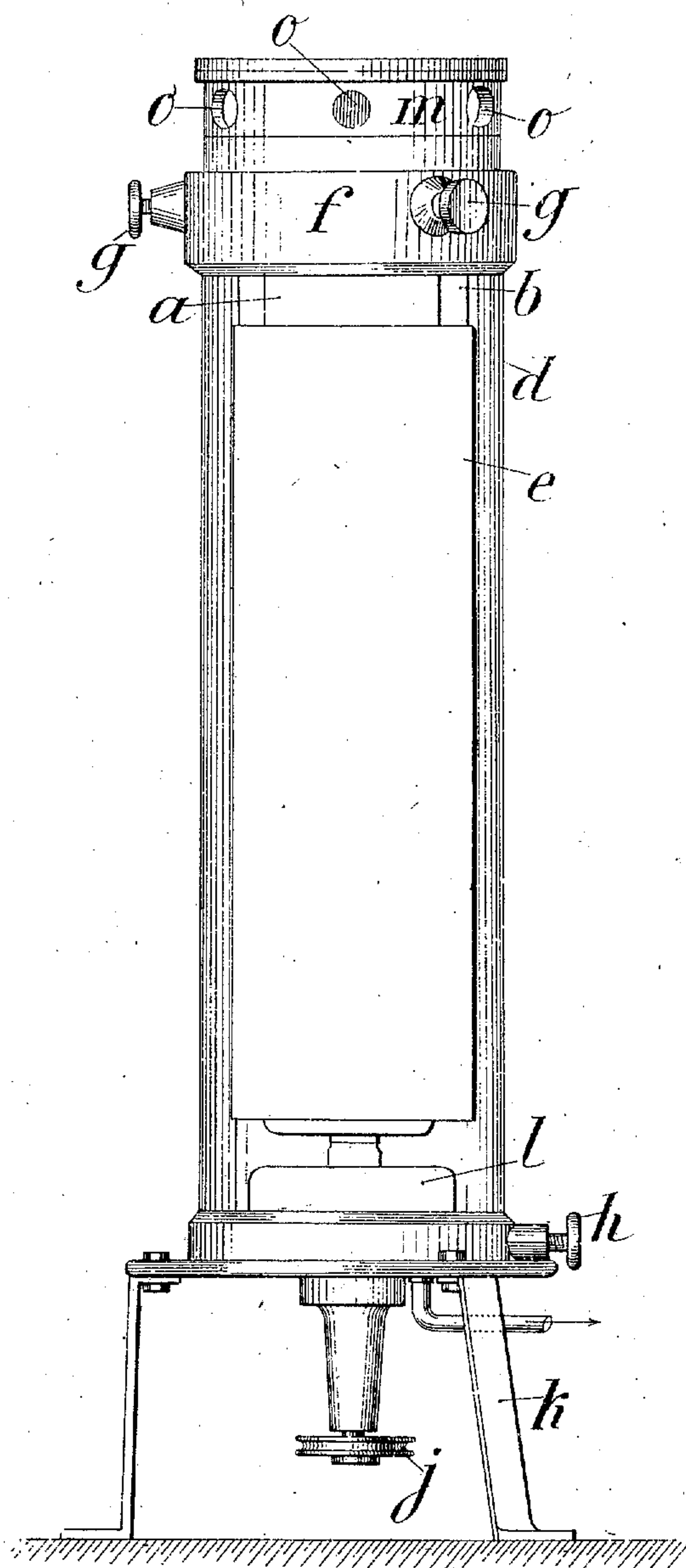
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OZONIZER.

APPLICATION FILED MAY 29, 1903.

NO MODEL.

2 SHEETS—SHEET 2.

Fig. 2.



WITNESSES

H. M. Kiehn
Wm. M. Golden Jr.

INVENTOR

Marinus Otto

BY *Richard L. ...*
ATTORNEYS

UNITED STATES PATENT OFFICE.

MARIUS OTTO, OF PARIS, FRANCE.

OZONIZER.

SPECIFICATION forming part of Letters Patent No. 744,096, dated November 17, 1903.

Application filed May 29, 1903. Serial No. 159,329. (No model.)

To all whom it may concern:

Be it known that I, MARIUS OTTO, doctor of science, of No. 5 Avenue du-Bois-de-Bologne, Paris, France, have invented a certain new and useful Ozonizer of Low Frequency Adapted to be Connected Directly to a Dynamo; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention which is the subject of the present application for a patent refers to an apparatus for providing small quantities of ozone from currents of low periodicity.

The invention is represented in detail in the accompanying drawings, in which—

Figure 1 is a longitudinal section through the axis of the apparatus. Fig. 2 is an outside elevation. Fig. 3 is a plan. Fig. 4 is a horizontal section through A B of Fig. 1. Fig. 5 is a horizontal section through C D of Fig. 1.

The complete installation comprises a group of charged electrodes which in the case of a continuous-current machine excites the field and supplies the electric current necessary for its working.

This machine is arranged in such a way that the number of periods is in general not more than a hundred per second. In the case of a sector with an alternating current the commutator mentioned above is replaced by a simple alternating-current motor. In each case the current of low frequency provided either by the commutator or by the sector is carried to a transformer, which raises the tension to several thousand volts and operates the ozone-generators. These generators (represented in detail on the drawings) are constituted as follows: A metallic cylinder *a*, either

bare or inclosed in a dielectric divided into portions separated along the generating-lines of the cylindrical surface, revolves around a vertical axis *i*, operated by a strap passing around the pulley *j*. This cylinder communicates with one of the poles of the high-tension transformer, which is connected to earth by a conductor fastened to one of the terminals *h*. A thin glass tube *b*, covered on the outside with a metallic conducting layer *e*, divided into portions separated along the generating-lines of the cylindrical surface and carefully insulated, communicates with the second pole of the high-tension transformer by a conductor fastened to one of the terminals *g*.

The air which is drawn in by a ventilator (not represented) enters the apparatus through the orifices *o* of the crown *m* and follows the course indicated by the arrows.

The electric sparks leap across the annular space between the two electrodes *a* and *b*.

The apparatus is completed by mechanisms for regulating it and setting it in motion.

I claim—

A rotary ozonizer comprising a glass cylinder *b* having upon its exterior surface a metallic electrode, a cylindrical sleeve of metal mounted to rotate within said glass cylinder and forming a second electrode, each of said electrodes being divided into portions separated along the generating-lines of the cylindrical surfaces in order to avoid short-circuiting, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

MARIUS OTTO.

Witnesses:

OTTO MUNK,
W. M. KUEHNE.