

(No Model.)

E. STRAUSS.  
OIL VAPOR HEATING APPARATUS.

No. 519,396.

Patented May 8, 1894.

Fig. 1.

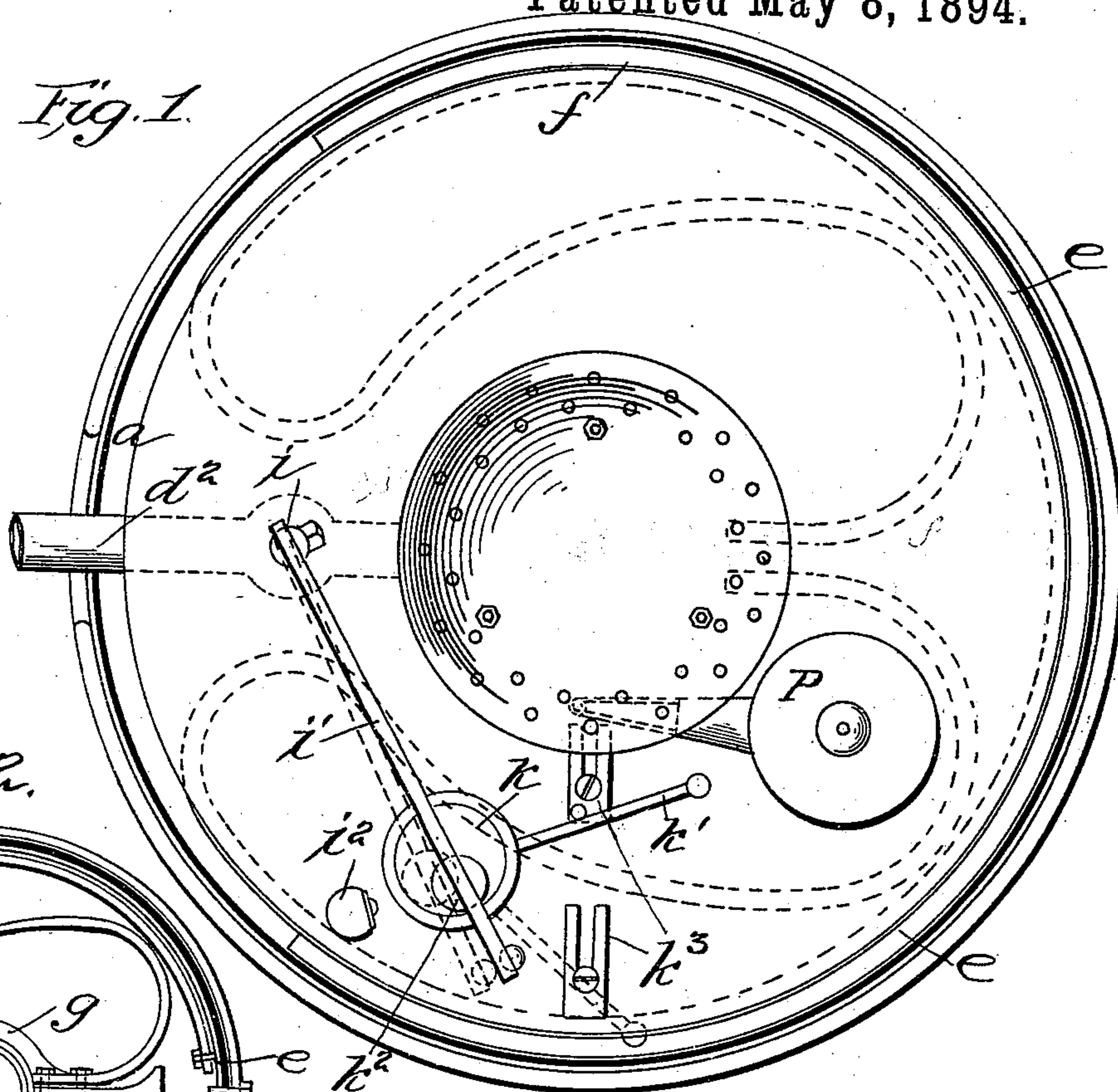


Fig. 2.

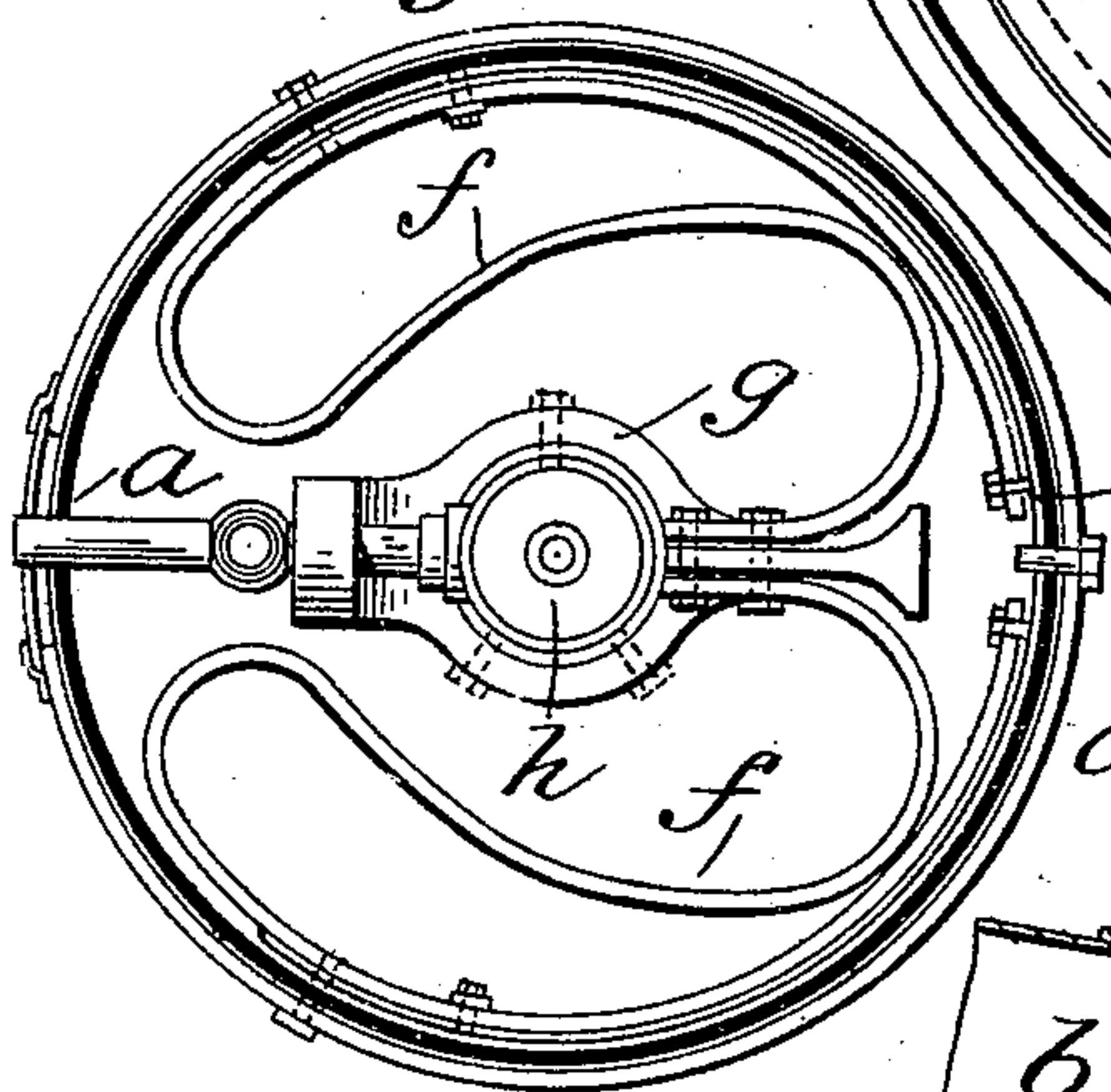
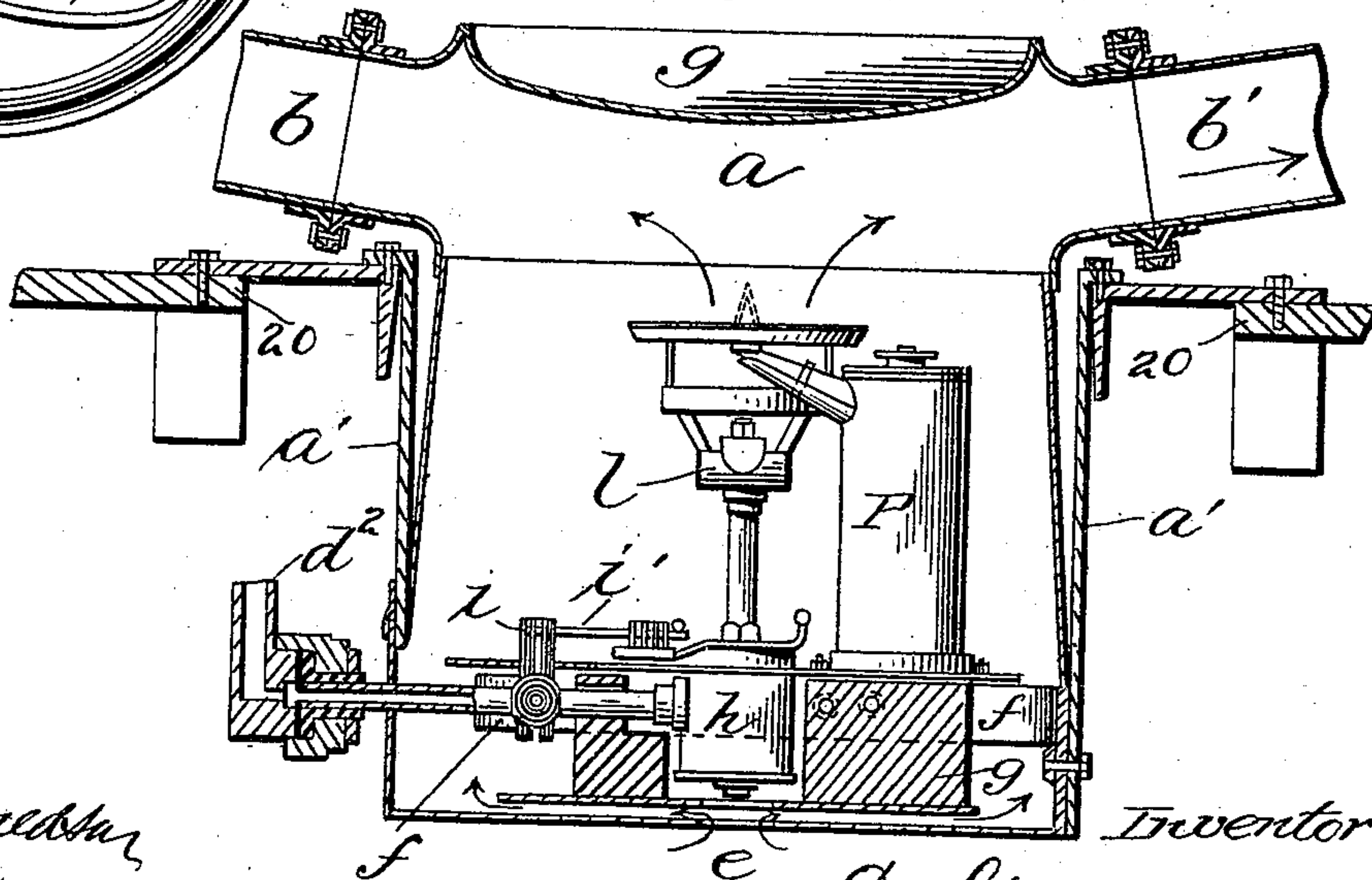


Fig. 3.



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# UNITED STATES PATENT OFFICE,

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## OIL-VAPOR HEATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 519,396, dated May 8, 1894.

Application filed January 23, 1893. Serial No. 459,467. (No model.)

*To all whom it may concern:*

Be it known that I, EMIL STRAUSS, a subject of the King of Prussia, and a resident of 64 Naunyn street, Berlin, in the Kingdom of Prussia and German Empire, have invented a certain new and useful Improvement in Oil-Vapor Heating Apparatus, of which the following is a specification.

The invention is particularly adapted for heating cars.

In the drawings Figure 1, is a plan view of the burner, the oil supply valve and the means for supporting the burner and vapor chamber. Fig. 2, is a similar view showing the S shaped springs and forked plate for holding the vapor chamber, and Fig. 3, is a vertical section through the casing containing the parts showing the burner and the flues.

The heating chamber *a*, Fig. 3, has tubes or conduits *b'* for conveying the heat to the parts desired, for instance they may extend under the seats. This chamber is held in a casing *a'* which may be secured to the car bottom at 20. The oil for the burner is fed through the pipe *d*<sup>2</sup>, and through a branch to the vapor chamber *h* of the burner. The branch is push jointed or connected by a cover nut (as shown) to the pipe *d*<sup>2</sup>. One or more strainers may be inserted at the joint. Fitted on the branch pipe is a supply controlling valve *i* which is operated by means of a lever *i'* which passes through a recess in a projection *k*<sup>2</sup> fitted eccentrically on a turnable disk *k*. The disk turns on a pivot pin secured in a plate. The disk *k* is turned by means of a lever *k'* between stops *k*<sup>3</sup>. The mechanism for turning the valve allows for a very nice adjustment in opening the valve and also consequently in

regulating the flame. If it is desired to turn the valve *i* completely off, the lever handle *i'* is lifted out of the recess in the projection and it is turned over to the back of the peg *i*<sup>2</sup>.

The chamber has a false bottom plate between which and the true bottom the entering air passes. The plate prevents the air passing directly up to the burner of the apparatus.

The ring *e* supports on its inner side two strong S shaped springs *f* which, in their turn, support a plate to which the burner and its accessories are secured. Between the ends of the spring *f* is a cast-iron fork-shaped plate *g* (see Fig. 2). The vapor chamber *h* is held in place in this fork by means of screws. Screwed into the upper end of the chamber *h* is the tube of the burner *l*. The S shaped springs furnish an elastic support for the burner and vapor chamber and prevent the flame from being put out from the jolting of the car.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In an oil vapor heating apparatus, a vapor chamber, the ring *e*, the forked plate *g* supporting said vapor chamber, the S shaped springs *f* connecting the forked plates with the ring *e* and the burner connected with the vapor chamber, substantially as described.

In witness whereof I hereunto set my hand in presence of two witnesses.

EMIL STRAUSS.

Witnesses:

W. HAUPT,  
MART. COEFT.