

No. 709,866.

Patented Sept. 30, 1902.

E. BOUCHAUD-PRACEIQ.  
CARBURETER.

(Application filed Mar. 29, 1901. Renewed Aug. 26, 1902.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1.

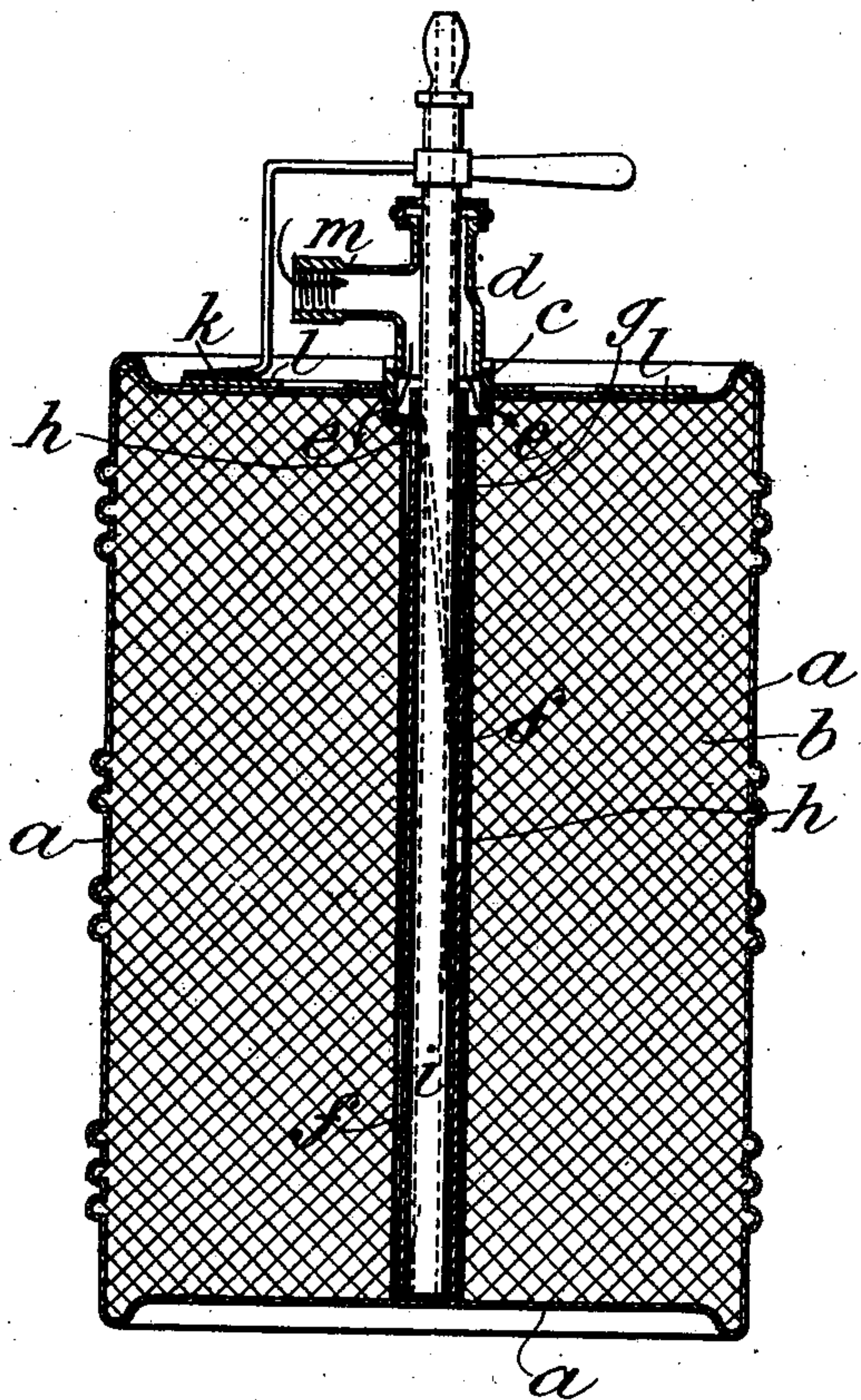
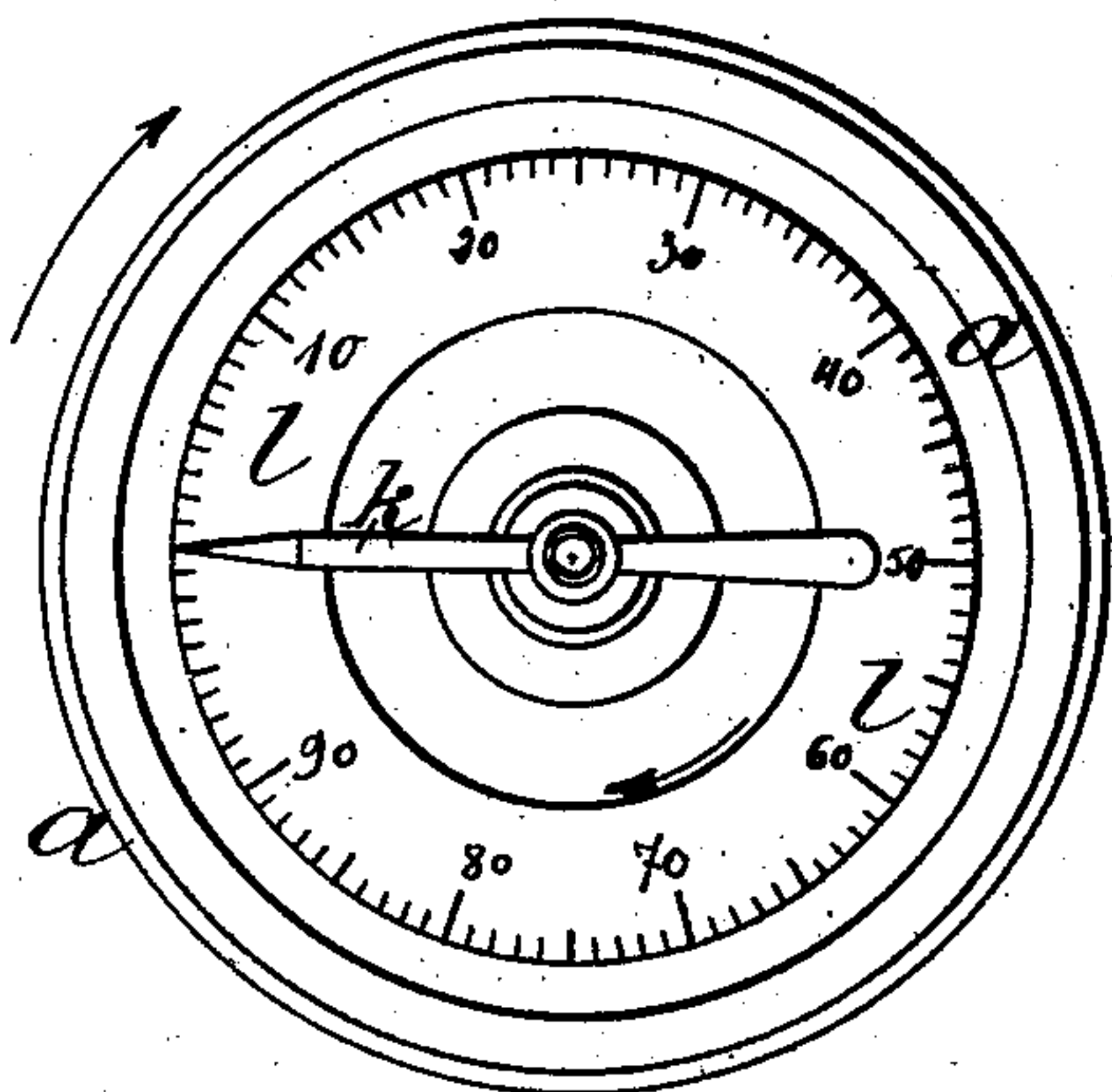


FIG. 2.



WITNESSES:  
*Fred White*  
*Thomas F. Wallace*

FIG. 3.

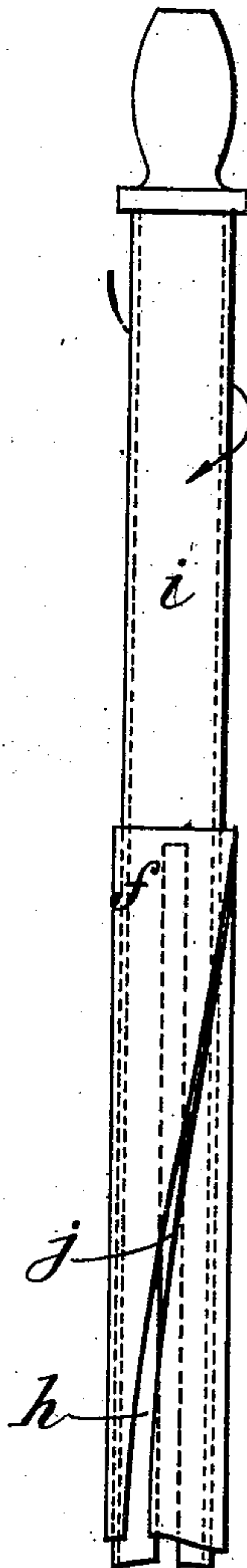
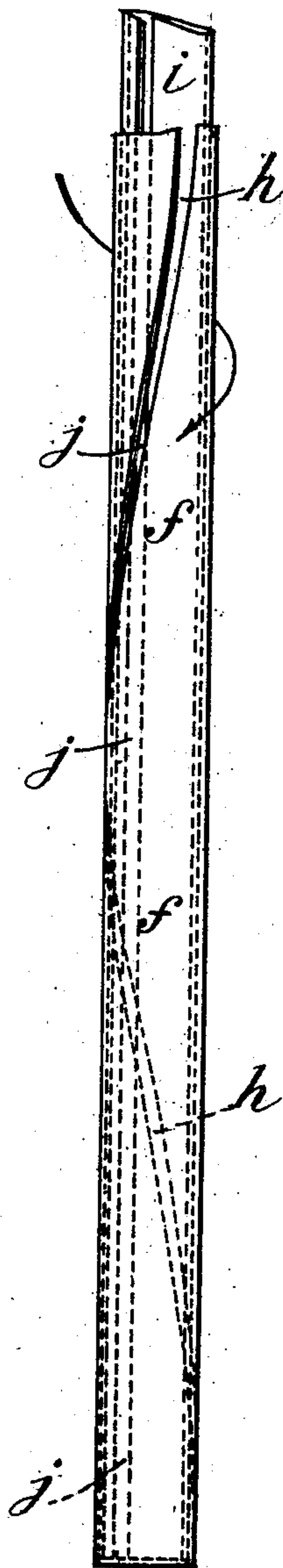


FIG. 4.



FIG. 5.



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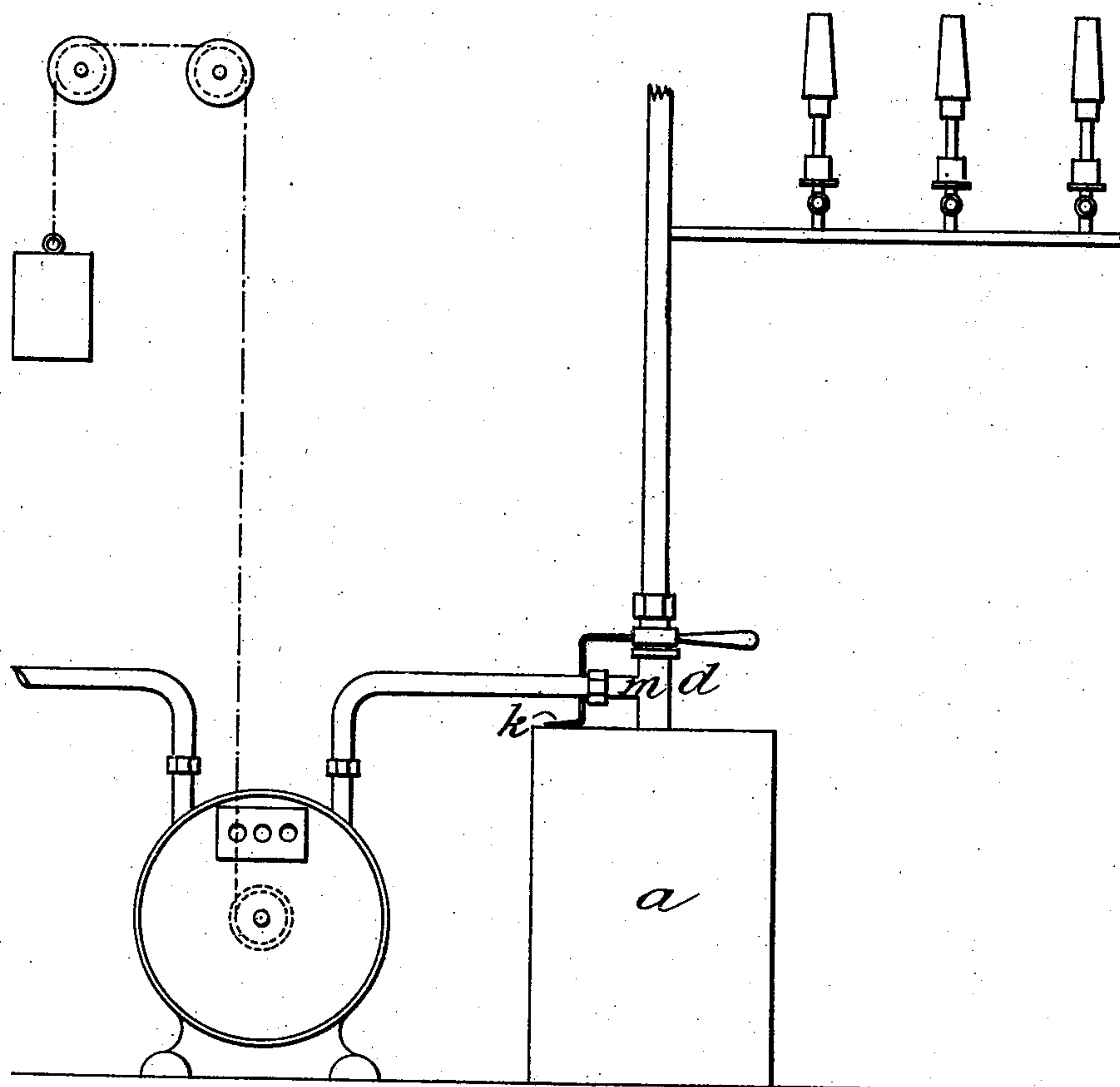
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FIG. 6



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# UNITED STATES PATENT OFFICE.

EDOUARD BOUCHAUD-PRACEIQ, OF ANGOULÊME, FRANCE.

## CARBURETER.

SPECIFICATION forming part of Letters Patent No. 709,866, dated September 30, 1902.

Application filed March 29, 1901. Renewed August 26, 1902. Serial No. 121,095. (No model.)

*To all whom it may concern.*

Be it known that I, EDOUARD BOUCHAUD-PRACEIQ, a citizen of the Republic of France, residing in Angoulême, Charente, France, have invented certain new and useful Improvements in Carbureters, of which the following is a specification.

This application for patent relates to a portable carbureting-receptacle incapable of explosion for containing a hydrocarbon, which is held in position by an absorbent material and yet is pervious to air. This receptacle is provided along its axis with a very long cock, the casing of which has a helicoidal opening of suitable width, while the plug is in the form of an inner tube and is provided with a rectilinear opening arranged along one of its generating-lines. The crossing or coincidence of these two openings determines the orifice for the entrance of carbureted air to the interior of the tubular plug, which also serves for the exit of the gas and is connected to the supply-pipe. It will be understood that according to the position of the plug relatively to its casing the passage produced by the crossing of the two openings (rectilinear and helicoidal) will be more or less removed from the bottom of the receptacle, and consequently the air to be carbureted will pass through a more or less thick layer of material. By this means the richness of the mixture can be determined with the greatest ease. Similarly by the mere inspection of the angle formed by the plug of the cock with the initial position the degree of exhaustion of the receptacle can be ascertained. A scale of hundredths provided on one of the ends of the receptacle and over which moves a pointer carried by the plug gives this latter indication by simply reading off the same. On the other hand, the gas-supply orifice in descending assumes varying positions and describes a circle in horizontal projection. The result of this is that the contents of the receptacle are drawn off in a rational and systematic manner. The admission of the air to be carbureted is effected by means of a crown or ring pierced with horizontal holes, which direct the air horizontally over the pervious material before it passes through the same in order to be carbureted.

The accompanying drawings illustrate my carbureting-receptacle in vertical section in Figure 1 and in plan in Fig. 2. Figs. 3 and 4 are respectively a part elevation and a horizontal section of the cock. Fig. 5 shows the lower part of the cock with the plug in another position. Fig. 6 illustrates by way of example an arrangement for illuminating with incandescent burners.

The receptacle *a*, containing the absorbent and pervious material *b*, is provided at one end with a union *c*, on which is attached the union *d*, that is formed with a side passage *m* for allowing admission of the outer air. A ring having horizontal holes *e* distributes the air over the material *b*. The cock is composed of a tubular casing *f*, attached at its upper part to the union *c*. It is surrounded with wire-gauze *g*. A slot or opening *h* is formed in the wall and has the shape of a helix of one turn less its own width in such a manner that when the cock is opened at the top it is closed at the bottom, and conversely. The plug *i* works with slight friction in the tube *f* and is formed with a straight slot *j* along one of its generating-lines. This plug serves for the exit of carbureted air which passes out through the upper part of said plug. It will be understood that by reason of this arrangement the carbureted air which has passed through the absorbent material *b* can only pass out through the orifice produced by the crossing of the two slots. This orifice will be situated at a greater or less height, according to the position of the rotating plug *i* relatively to the tubular casing. Likewise every position of the plug will correspond to a different position of the orifice. A pointer *k*, carried by the plug *i*, indicates on a dial *l*, which is divided into hundredths, the position of the plug relatively to the casing, and consequently the height of the outlet-orifice of the cock. By this means the degree of exhaustion of the receptacle can be ascertained. The air entering through the side passage *m* passes down the union *d* through the union *c* and then through the holes *e*, whence it is distributed horizontally over the pervious material *b*. The air then passes through the said material to the level of the supply-orifice, which it reaches by a horizontal path.

Having thus described the nature of this invention and the best means I know of carrying the same into practical effect, I claim—

5 A carbureter comprising a receptacle completely filled with porous material adapted to retain hydrocarbons and which is pervious to the passage of air to form a combustible mixture, and a cock consisting of two concentric  
10 tubes, the outer one being stationary and having a helicoidal opening and the inner one forming the rotating plug and having a straight groove, the crossing of which with

the helicoidal opening determines the level of the orifice, whereby said level can be varied by the turning of one tube relatively to the other. 15

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

EDOUARD BOUCHAUD-PRACEIQ.

Witnesses:

JULES ARMENGAUD, Jeune,  
J. ALLISON BOWEN.