

J. KAUFMANN.  
Improvement in Gas-Machines.

No. 127,245.

Patented May 28, 1872.

Fig. 1.

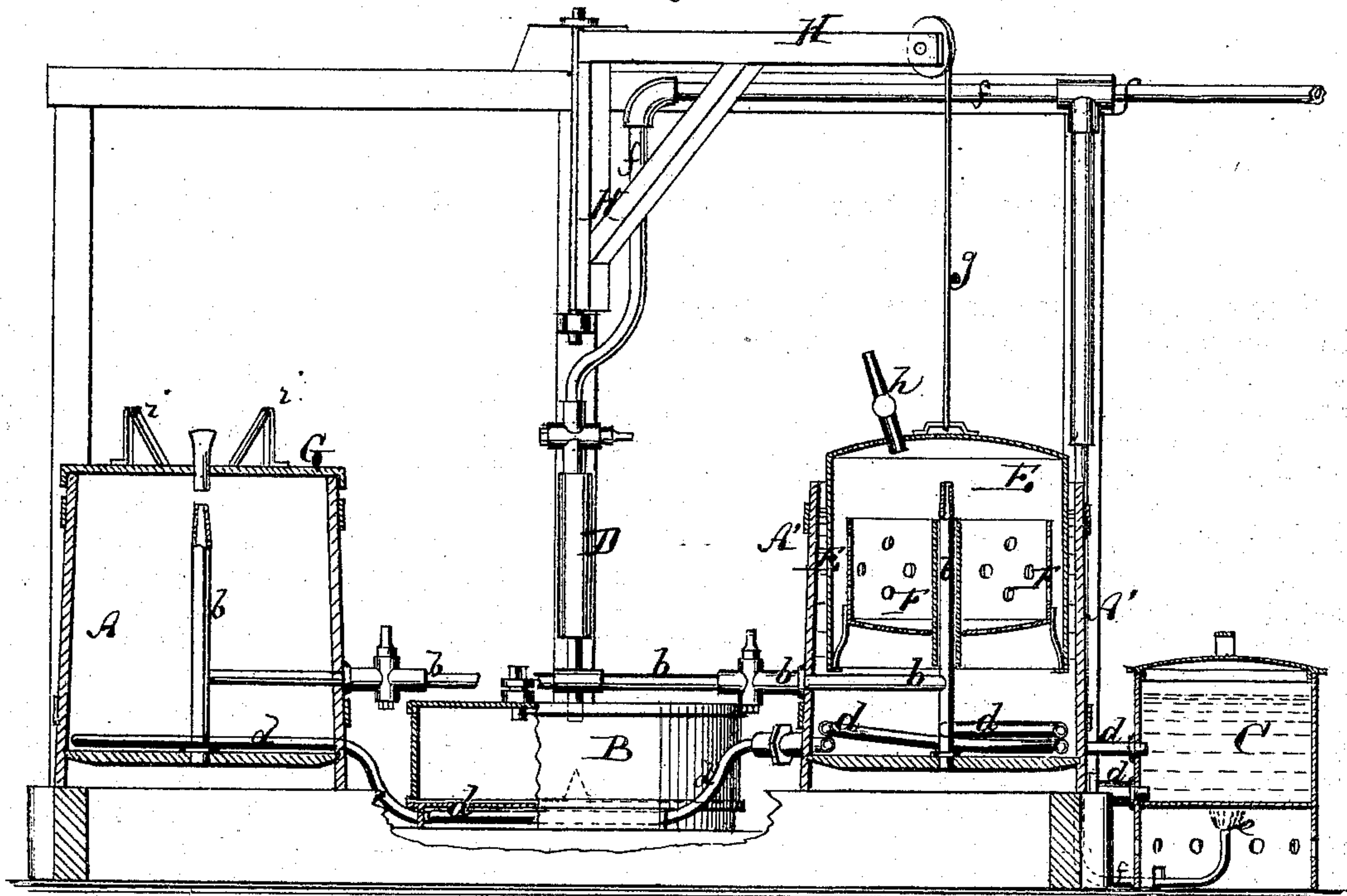


Fig. 2.

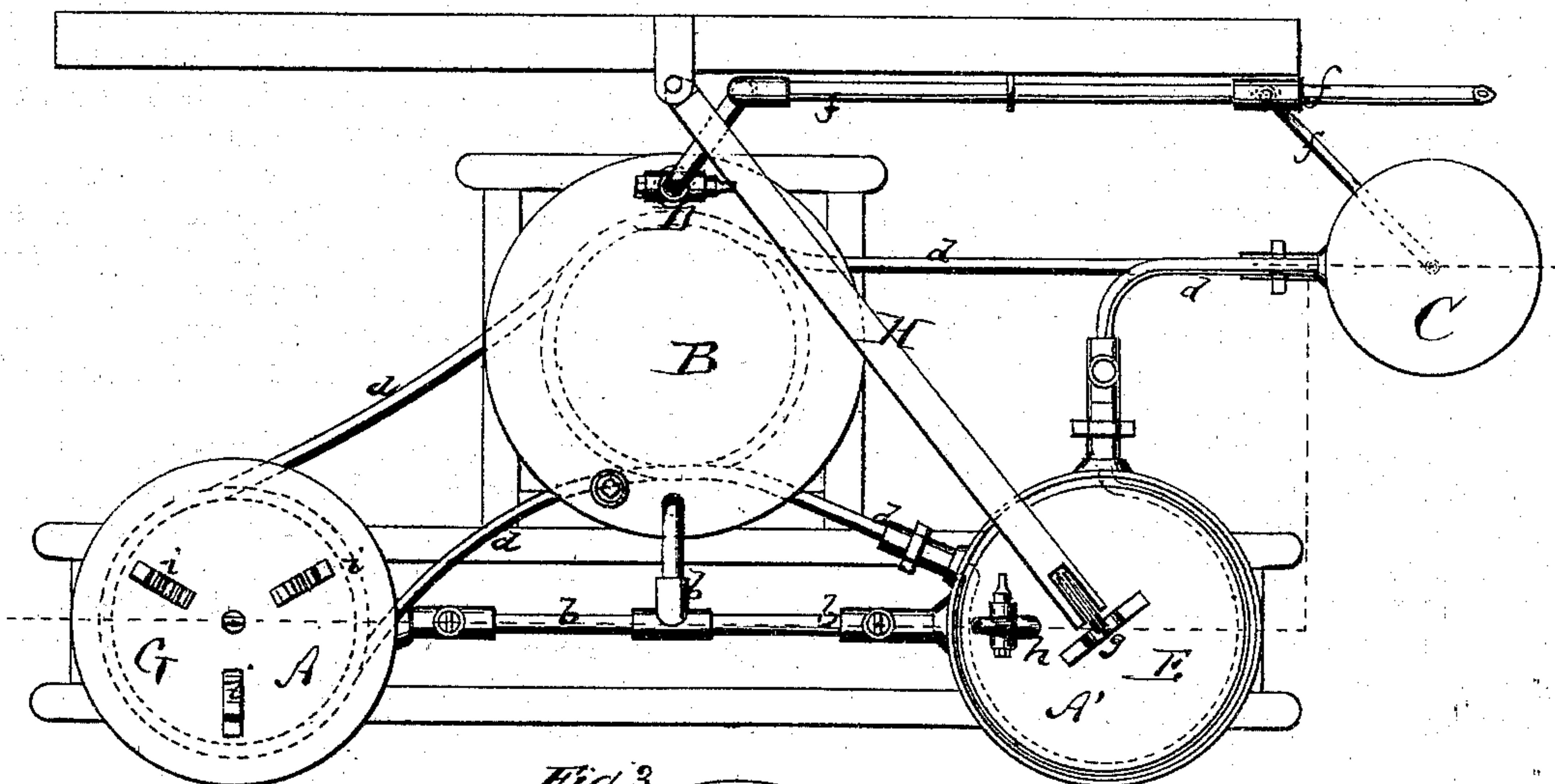
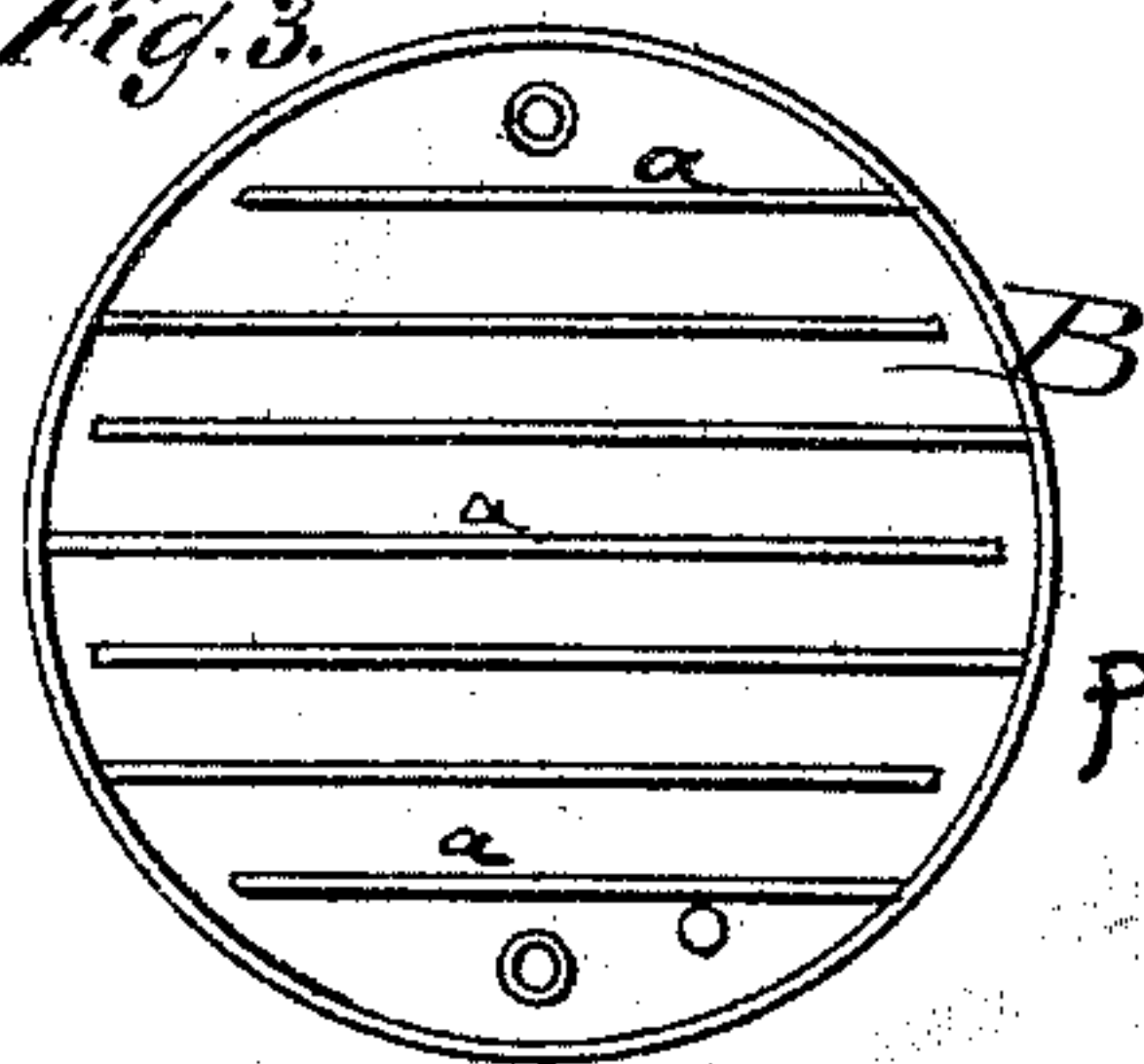


Fig. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOSEPH KAUFMANN, OF JACKSON, MISSISSIPPI.

## IMPROVEMENT IN GAS-MACHINES.

Specification forming part of Letters Patent No. 127,245, dated May 28, 1872.

Specification describing a new and Improved Gas-Machine, invented by JOSEPH KAUFMANN, of Jackson, in the county of Hinds and State of Mississippi.

Figure 1 represents a side elevation, partly in section, of my improved gas-machine. Fig. 2 is a top view of the same. Fig. 3 is a horizontal section of the carbureter.

Similar letters of reference indicate corresponding parts.

This invention relates to a new machine for generating illuminating gas from a mixture of hydrogen and carbon; and consists in a novel general arrangement and distribution of parts, as hereinafter more fully described.

A A' in the drawing are two cylindrical vessels, preferably made of wood, and lined on the inner side with asphaltum to resist the action of water and sulphuric acid. When thus made of wood, properly protected, these vessels are considerably cheaper than when made of metal. B is the gasoline-holder or carbureter. It is made of copper, and has a series of partitions, *a a*, as shown in Fig. 3, which have apertures at opposite ends, alternately, to cause the gases to pass it in a lengthened zigzag course. Between the partitions may be placed some cotton or other fiber to increase the evaporating surface. The vessel B is by pipes *b b* connected with the vessels A A', cocks in said pipes *b b* serving to establish or interrupt communication. C is a water-heater, to be used during cold weather. A hot-water or steam-pipe, *d*, leads from it to within the lower parts of the vessels A A' and back, to increase the temperature within said vessels, and then returns to the heater, thus keeping up a constant circulation. A gas-burner, *e*, supplied from the gas-pipes *f* is applied under the vessel C, and keeps the water therein heated.

D is a condenser, projecting from the vessel B, and connecting the same with the gas-pipes *f*. E is a gas-holder, weighted and suspended into one of the vessels A A'. This gas-holder is suspended by a rope, *g*, from a crane, H, and can be drawn up and carried to the other generator when desired. The holder E is weighted by an inner perforated tub, F, containing iron filings or shavings to a considerable extent. A cock, *h*, in the top of the holder E serves to admit or discharge air therefrom. That one of the vessels A A', in which the holder E is not suspended is closed on top by a cover, G, which may have projecting ears *i i*, for the support of the tub F when the same is to be inspected, or more or less weighted with iron filings or shavings.

In operation one of the vessels A A' is filled with a solution of sulphuric acid in the proportion of one part of the acid to fifteen parts of water. The holder E is then let down into such vessel, and the superfluous air discharged from it through the cock *h*. The vessel B being filled with gasoline is made to communicate with the operative vessel A or A'. The weight of the holder E will then serve to effect the requisite operation, and to force the gas through the pipe *f*. The other vessel A A', not used, serves as a reservoir.

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

The combination of the vessels A A', with the carbureter B, holder E, and weighted tub F, all arranged to operate substantially as herein shown and described.

JOSEPH KAUFMANN.

Witnesses:

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