

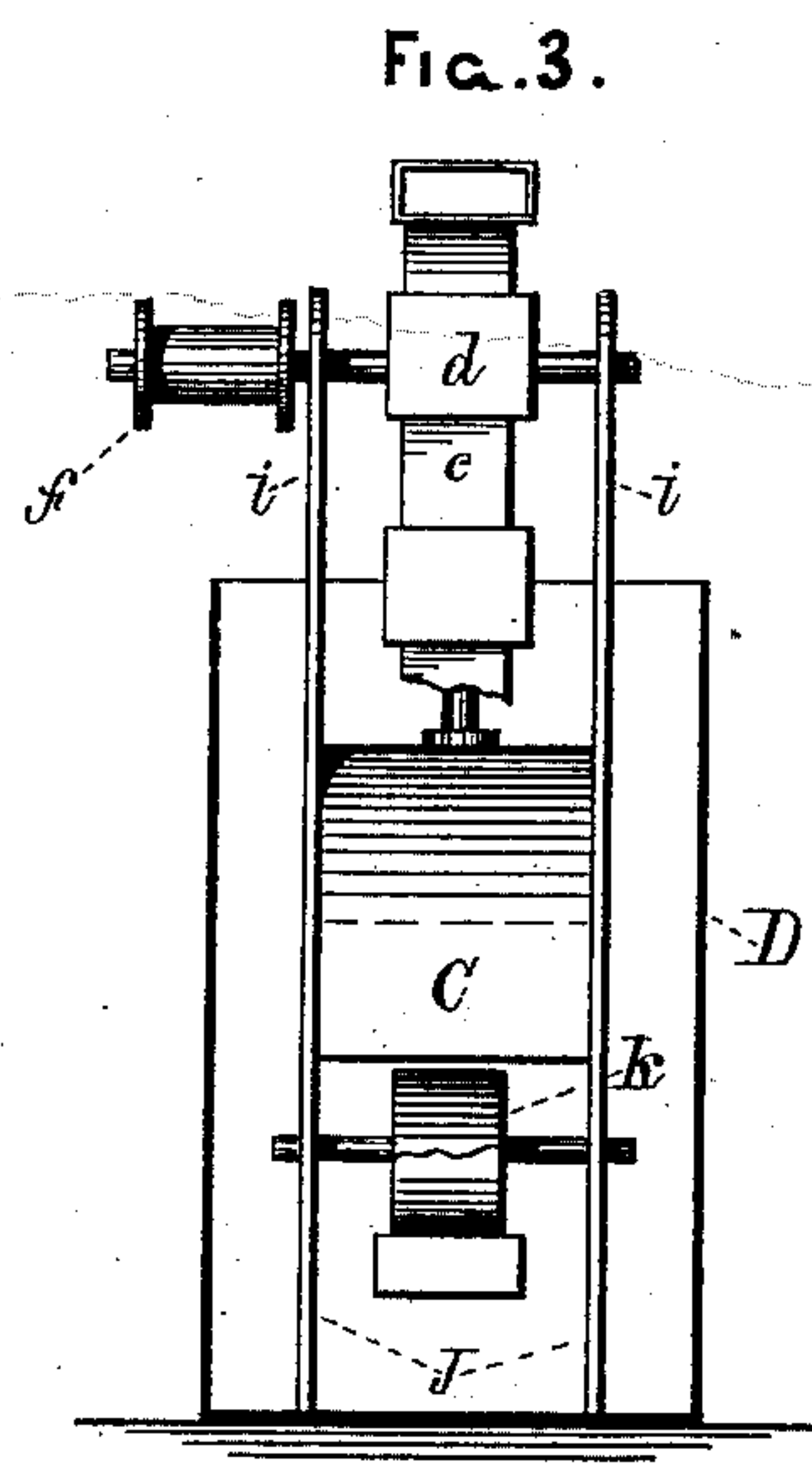
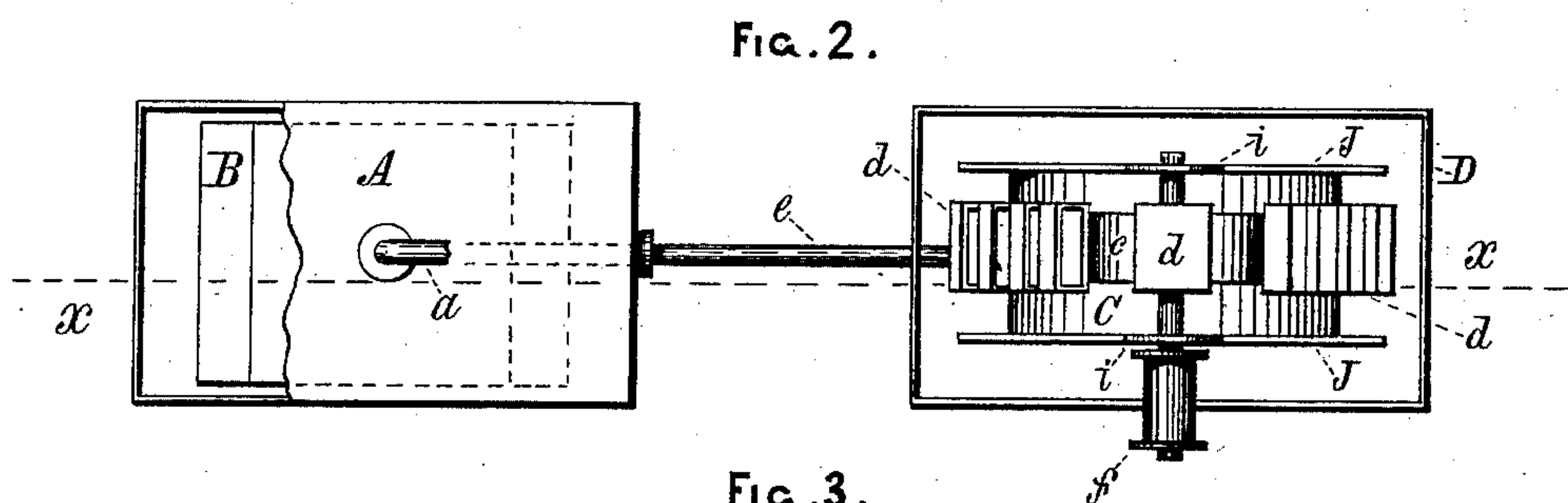
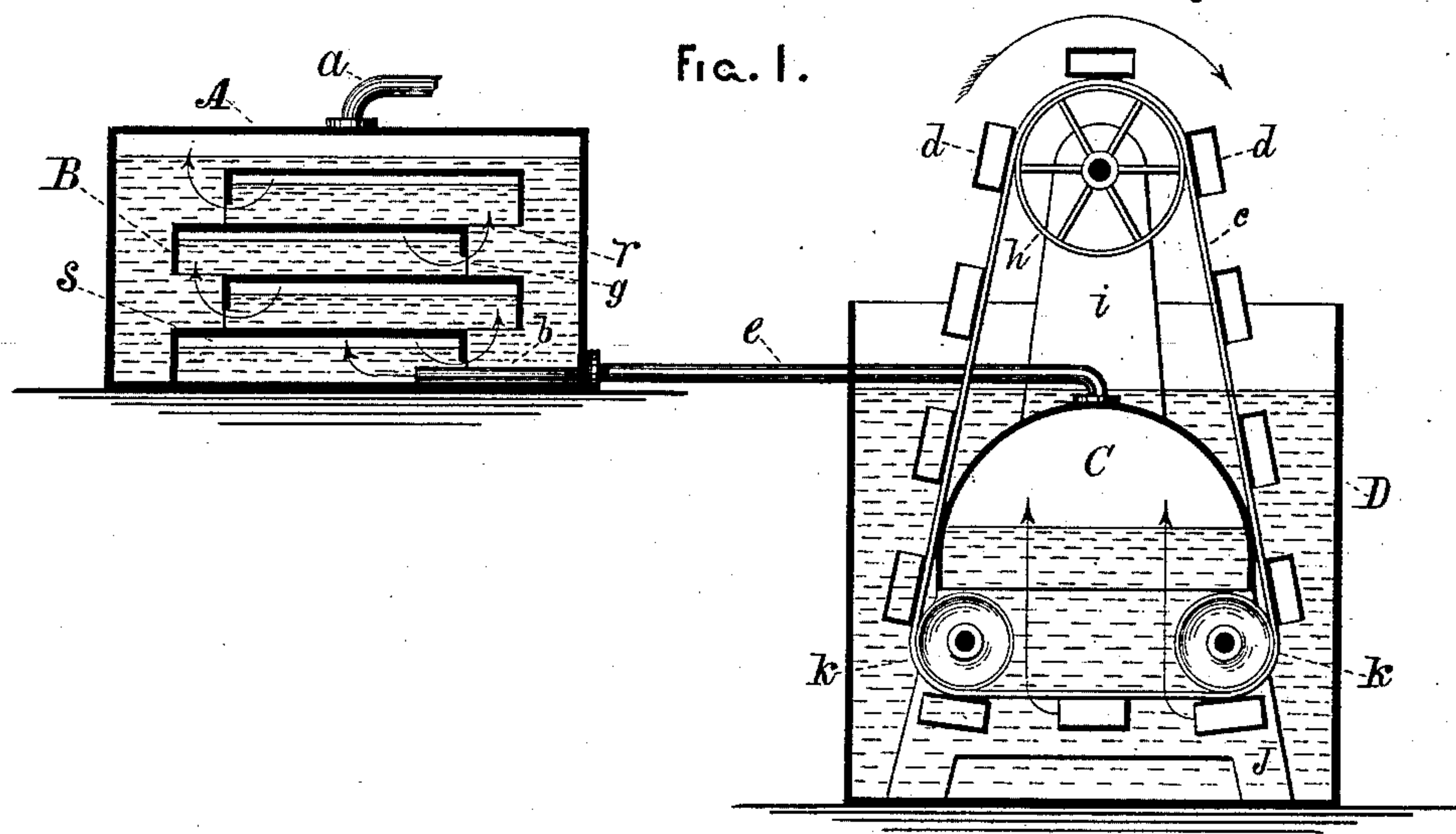
(No Model.)

B. T. STAUBER.

GAS MACHINE.

No. 362,234.

Patented May 3, 1887.



WITNESSES.

R. Newton.

A. W. Newton.

INVENTOR.

Benjamin T. Stauber,
By F. S. Davenport, Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN T. STAUBER, OF MOBERLY, MISSOURI.

GAS-MACHINE.

SPECIFICATION forming part of Letters Patent No. 362,234, dated May 3, 1887.

Application filed May 7, 1886. Serial No. 201,457. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN T. STAUBER, of Moberly, in the county of Randolph and State of Missouri, have invented a new and Improved Gas-Machine; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in gas-machines in which atmospheric air is forced over or through a body of gasoline, and by combining with the vapor thereof produces an illuminating-gas.

The object of my invention is to accomplish the most satisfactory results yet attained with the best machines of this class by an apparatus more simple in construction, and consequently less costly, than the machines heretofore employed for the same purpose.

With this end in view my invention consists in certain novel details of construction and combinations of parts, explained in the following specification, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a sectional side elevation of the gasoline-tank containing the carburetor in connection with the apparatus for producing the necessary supply of atmospheric air, all taken in the line *x x*, Fig. 2, the latter being a top view of the same. Fig. 3 is an end elevational view of the air-supplying apparatus.

A represents a gasoline-tank, preferably of rectangular form, in the top of which is inserted a pipe, *a*, for conveying the gas from the carburetor to wherever it is to be used. In the lower part of one end of the gasoline-tank is a pipe, *b*, for conveying air from the air-collector to the carburetor B, which consists of a series of shallow inverted pans superposed in such alternate order that the outlet-orifice *g* in the lower part of the end of each one will be directly under the inlet-orifice *r* of the overhanging end of the one immediately above it. This feature of my invention will be readily understood by reference to Fig. 1, in which the path of the air from each pan to the next above throughout the whole series is indicated by arrows.

In regard to the construction of the carburetor, it will be observed that the top or

roof of each pan constitutes the floor of the one immediately above it, so that the end that projects over forms a cap or hood adapted to receive the air-bubbles as they issue from the orifice in the end of the pan below, and flowing upward by their buoyancy issue in the layer of air, *S*, occupying the space between the surface of the liquid and the roof of each pan, said space being great or small, according to the force with which the air is driven by the pump or blower through the carburetor.

It will be observed that when the tank A is being filled with gasoline, as the upper edge of each orifice *g* is reached by the fluid, a volume of air is confined in each pan, and is compressed in the upper part thereof to a degree depending upon the superincumbent weight of the fluid, its displacement being effected by the influx of fresh air from below. It therefore follows that from the moment the air enters the bottom pan until it issues from the top one it must, in its long course of travel, pass through the body and over the surface of a large quantity of gasoline, and consequently become thoroughly charged with its vapor.

The pump or blower consists of a tank, D, partly filled with water, in which is submerged a bottomless air-chamber, C, supported upon the floor of the tank by the two downwardly-projecting sides, J J, and is provided on the top with an outlet-pipe, *e*, which communicates with the pipe *b* in the carburetor-tank. Projecting upward from the top of the chamber C are two standards, *i i*, in which is journaled a spindle carrying a pulley or sprocket-wheel, *h*, adapted to carry and propel an endless belt or chain, *c*, furnished with cups or buckets *d*, which are conducted by rollers *k k* under the open bottom of the air-chamber C. This apparatus may be actuated by the descent of a weight suspended by a rope passing over a series of sheaves and wound round a windlass secured to the spindle which carries the wheel *h*, (shown at *f*, Fig. 2,) or by any other suitable means.

The operation of the blower or apparatus for producing the supply of air is as follows: The wheel *h* being rotated in the direction indicated by the arrow, the buckets *d* are plunged mouth downward into the water in the tank D, carrying with them a volume of air equal to their internal capacity; but as soon as they

pass under the roller *k* into a horizontal position the air is discharged and flows in the direction of the arrows up into the air-space of the chamber or receiver C, from which it issues
5 by the pipe *e* into the carburetor, and then goes through the process already described.

It is obvious that numerous alterations in the construction and arrangement of the several parts of my machine might be resorted to
10 without departing from the spirit of my invention, and hence I would have it understood that I do not limit myself to the exact construction of parts shown and described, but consider myself at liberty to make such
15 changes as come within the spirit and scope of my invention.

I am aware that the pump or blower above described is not new, and therefore I do not claim it.

20 What I claim as new, and desire to secure by Letters Patent, is—

In a carburetor, the combination of the gasoline-tank with a series of inverted pans provided with side outlets, *g*, said pans being secured together, one directly upon the other, 25 in such order that the ends project alternately in opposite directions over the pans immediately beneath, the tank provided with an induction air-pipe projecting within the bottom pan, and an outlet-pipe on the top, all constructed and adapted to operate as and for the purpose set forth. 30

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of April, 1886.

BENJAMIN T. STAUBER.

Witnesses:

WM. B. STEWART,
O. G. BRISTOW.