

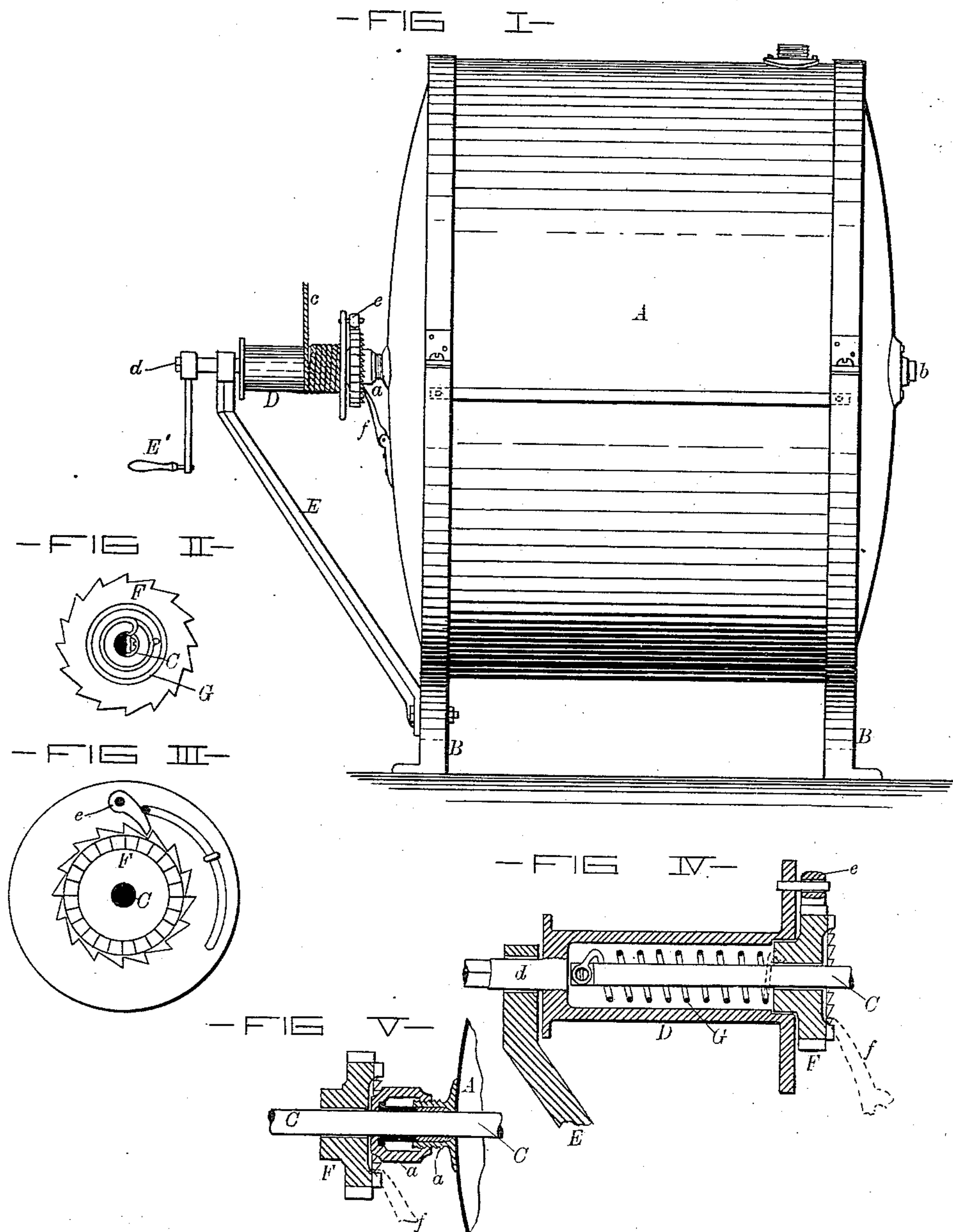
(No Model.)

C. M. KEMP.

GAS MACHINE.

No. 259,549.

Patented June 13, 1882.



- WITNESSES -

Daniel Fisher
A M Fitzhugh

- INVENTOR -

Clarence M. Kemp,
by G. H. H. Howard,
attorneys -

UNITED STATES PATENT OFFICE.

CLARENCE M. KEMP, OF BALTIMORE, MARYLAND.

GAS-MACHINE.

SPECIFICATION forming part of Letters Patent No. 259,549, dated June 13, 1882.

Application filed February 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE M. KEMP, of the city of Baltimore and State of Maryland, have invented certain Improvements in Gas-Machines, of which the following is a specification.

The object of this invention is to prevent the stoppage of the air-forcing wheel during the time required to rewind the driving cord or rope on the winding-drum; and it consists in the combination of elements, as hereinafter claimed.

In the further description of my said invention which follows, reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure I is an exterior side view of the improved machine. Figs. II, III, IV, and V are views of parts of the machine on an enlarged scale.

Similar letters of reference indicate similar parts in all the views.

A is the fluid-holding tank, supported by the frame B.

C is the driving-shaft of the air-forcing wheel, extending at one end through a packing-box, *a*, in the tank A, and supported at the other end in a cap, *b*.

D is the winding-drum, to which the winding cord or rope *c* is attached. The outer end of the drum D is provided with a spindle, *d*, which passes through a supporting-bracket, E, and is fitted with a winding-crank, E'. The inner end of the winding-drum D rests on the hub of a ratchet-wheel, F, adapted to be turned independently of the driving-shaft C, and movement in one direction only is communicated to the said ratchet-wheel from the winding-drum by means of a pawl, *e*.

G is a spiral spring, fastened to the outer end of the driving-shaft C and to the ratchet-wheel F, as shown in Figs. II and IV.

When the machine is in operation the weighted cord *c* effects the rotation of the winding-drum, and its movement is communicated to the driving-shaft through the medium of the spiral spring G, which is wound or coiled to a tension corresponding with the resistance offered by the air-forcing wheel. (Not shown in the drawings.) In winding the cord on the drum D rotation of the ratchet-wheel is prevented by the engagement of a pawl, *f*, with teeth on the face of the said wheel, and the air-forcing wheel is revolved by the reaction of the spiral spring, which is uncoiled to a limited extent.

I do not claim broadly a coiled spring to form the connection between the winding-drum and the shaft of the air-forcing wheel, as such means for effecting the rotation of the said forcing-wheel during the winding operation has been used in gas-machines and rotary blowers; but

What I claim is—

In combination with the tank A, rotary shaft C, and winding-drum D, having the pawl *e*, the ratchet-wheel F, with teeth on its periphery and inner face to engage respectively with the pawls *e* and *f*, as described, and coiled spring G, the same being wound around the said shaft, and forming the connection between the outer end of the said shaft and the outer face of the said ratchet-wheel, substantially as and for the purpose specified.

CLARENCE M. KEMP.

Witnesses:

W. S. WILKINSON,
WM. T. HOWARD.