

J. H. HAYWARD.
Gasometers.

No. 146,336.

Patented Jan. 13, 1874.

Fig 1

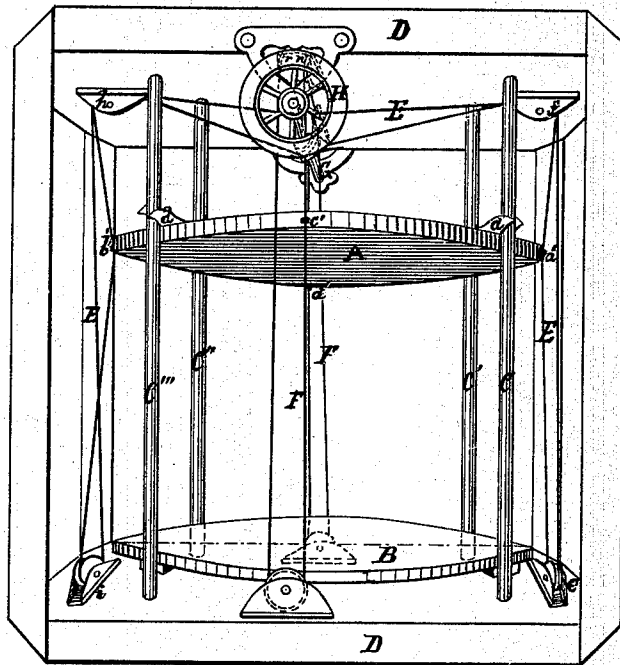
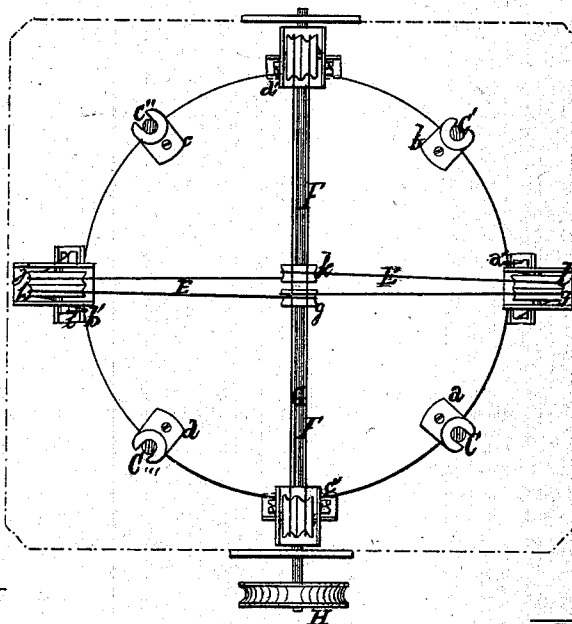


Fig 2



Witnesses.

B. S. Clark.

Wm. Bussey

Inventor

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UNITED STATES PATENT OFFICE.

J. HENRY HAYWARD, OF HUDSON CITY, NEW JERSEY.

IMPROVEMENT IN GASOMETERS.

Specification forming part of Letters Patent No. **146,336**, dated January 13, 1874; application filed April 25, 1873.

To all whom it may concern:

Be it known that I, J. HENRY HAYWARD, of Hudson City, county of Hudson, State of New Jersey, have invented an Improved Portable Gasometer, of which the following is a specification, reference being had to the accompanying drawings forming part thereof.

My invention relates to a portable gasometer, so constructed and arranged that it may be operated upon cars or other vehicles without the liability of the motion of the car or vehicle interfering with or obstructing the working of the gasometer.

Figure 1 is a side elevation of my invention. Fig. 2 is a plan of the same.

A is the movable head of the gasometer, and B is the base or bottom head. C C' C'' C''' are four supports or pillars, arranged about the gasometer within the frame D, which are traversed during the raising or lowering of the movable head A by the guides or stays *a b c d*, that are fixed upon the movable head, as shown. E is an endless belt or rope, which, commencing at the pulley *e* on the base of the frame D, passes up over the pulley *f* on the top of the frame, then across to and around the pulley *g* that is upon the shaft G, then to and over the pulley *h* that is on the opposite side of the top of the frame D, then down to and over the pulley *i* on the base of the frame, then up to and over the pulley *j*, then across to and around the pulley *k* that is upon the shaft G, then to and over the pulley *l*, and thence to and over the pulley *e*, the place of beginning, it being secured to the movable head A at *a'* and *b'*, as shown in the drawings. F is a second endless belt or rope, arranged on the opposite sides of the gasometer, constructed, applied, and operating in the same manner as the one above described, excepting that it runs directly across from one side pulley to the other at the top of the frame D, it being secured to the movable head A at *c'* and *d'*, as shown in the drawing. The movable head A is thus held suspended by the endless belts E and F, being attached to them at the several points, *a'*, *b'*, *c'*, and *d'*, as shown, and being properly weighted, if not in itself heavy enough, gives a quiet and even pressure upon the contained gas.

Upon one end of the shaft G may be placed a large pulley, H, to which are attached the weights employed in evenly balancing the movable head A, while upon the opposite end of the shaft a ratchet-wheel with a pawl may be placed, by means of which the movable head A can be regulated during its rising or lowering, or held stationary at any desired position in its ascent or descent.

The difficulty met with heretofore in the operation of a gasometer placed upon a car or other vehicle subjected to unequal and various external motion, has been that the movable head of the gasometer would be thrown out of equilibrium by the oscillation and jarring of the car, and thus in its descent become caught and its motion arrested, or caused to move down with an unequal motion by catching in the guides or ways, thus causing an unequal or unsteady discharge of the gas at the burners.

It is evident that in my invention these difficulties and faults are obviated by means of the endless belts E and F, arranged and operating as shown and described, which hold the movable head so suspended that the oscillation and jarring of the car cannot disturb its equilibrium, as a greater pressure upon any one point on the head A than is being sustained by the other portion would be instantly felt upon each and all of the points *a'*, *b'*, *c'*, and *d'*, when the belts E and F are fastened to the head A, thus causing the head A to continually maintain the same relative position to the other portions of the gasometer, and thus avoid any pinching of the guides *a b c d* upon the pillars C C' C'' C''', and consequent failure of the gasometer to perform its office.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a portable gasometer, the movable head A, and the endless belts E and F, one or more, combined, arranged, and operating substantially as and for the purpose specified.

J. HENRY HAYWARD.

Witnesses:

A. S. FITCH,
B. S. CLARK.