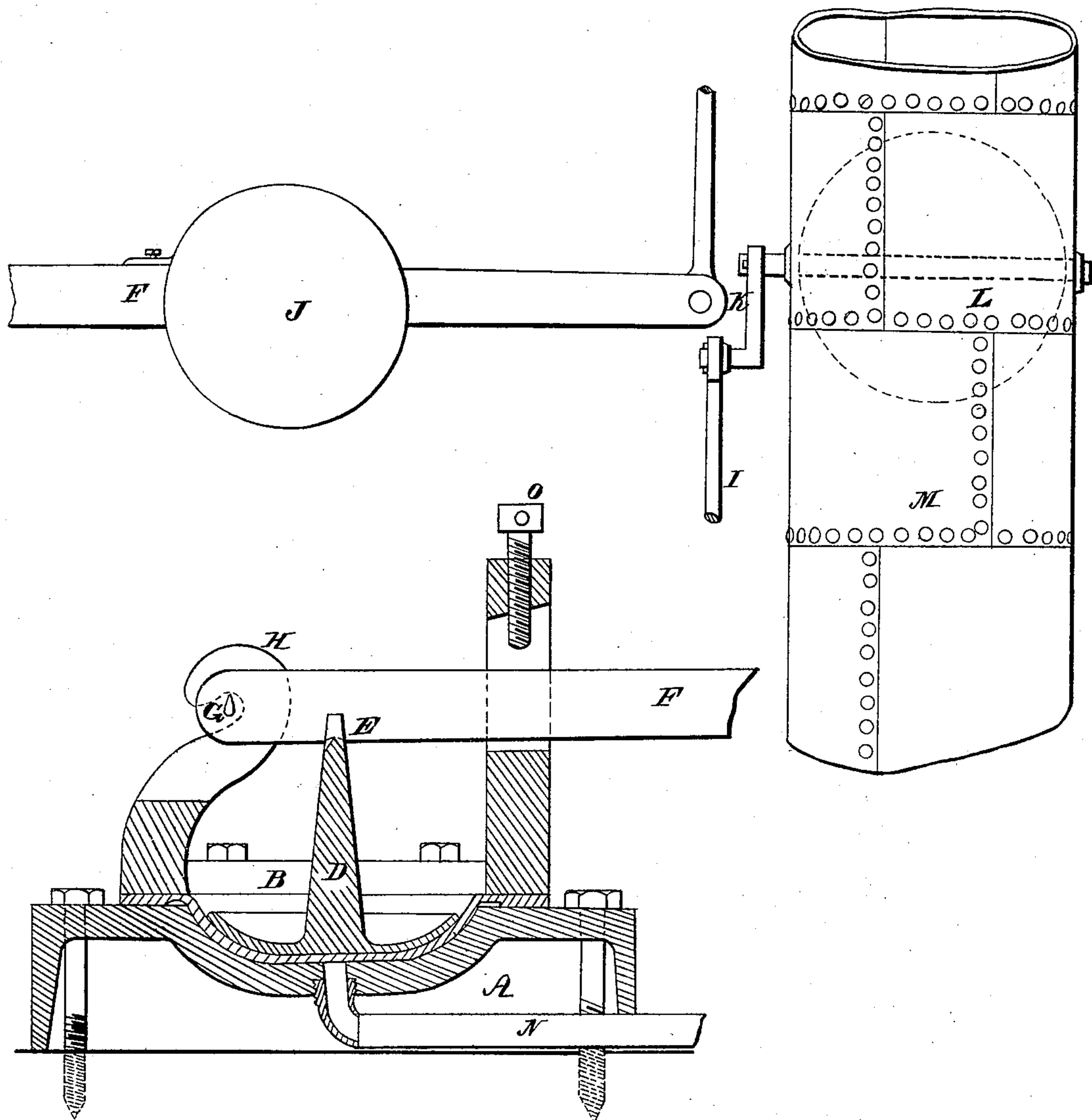


W. WEBSTER.
Draft Regulator.

No. 16,664.

Patented Feb. 17, 1857.



UNITED STATES PATENT OFFICE.

WILLIAM WEBSTER, OF MORRISANIA, NEW YORK.

DAMPER-REGULATOR FOR STEAM-BOILERS.

Specification of Letters Patent No. 16,664, dated February 17, 1857.

To all whom it may concern:

Be it known that I, WILLIAM WEBSTER, of Morrisania, in the county of Westchester and State of New York, have invented an
5 Improvement in Means for the Economizing of Fuel and for the Prevention of the Explosion of Boilers; and I do hereby declare that the following is an exact description of the same, reference being had to the
10 accompanying drawing, which makes a part of this specification.

The nature of my invention consists of the arrangement of the several parts as hereafter described.

15 To enable others to make and use my apparatus, I will refer them to the accompanying drawing which represents a vertical section.

20 A, represents a flexible diaphragm which is secured by and between two rim plates B and C, the plate B is a ring of metal and entirely separated from the operator.

25 D, represents the operator which in its arrangement or construction differs from all others used for this purpose it being made in one piece thereby dispensing with the necessity of all and every arrangement used for the guiding of the operator D. The bottom of the operator is convexed nearly or
30 quite as much as the plate C is dished or concaved. The upper end of the operator at E is forked and made with a Λ or knife edge at the bottom of the fork which fits into a corresponding transverse notch on the under
35 side of the weighted lever F.

G, represents the knife edges one of them being on each side of the lever and bearing against the under side of the bracket H. The free end of the lever is connected by means of a connecting rod I and crank K to
40 the damper L, which is hung within the flue chimney or stack M. N is a pipe which opens at one end underneath the diaphragm. O is a set screw on the top of the post P, which serves to limit the rising of the lever.
45

The apparatus is regulated by adjusting the weight J, on the lever according to the degree of pressure to which the steam is to be allowed to rise before the damper is actuated.
50

It will be perceived by the improved means I employ that it does very desiredly cheapen and simplify the general construction and arrangement when compared with those apparatus which are patented and
55 in use.

I wish it to be particularly understood I disclaim the use of any cylindrical casing for the inclosing of the piston and also the piston as described in the specification and
60 patented July 1st 1856. Not claiming any of the above, therefore,

What I do claim as my improvement and desire to secure by Letters Patent is—

The arrangement of the several parts as
described and for the purpose set forth.
65

WILLIAM WEBSTER.

Witnesses:

CHARLES F. WOOD,
JOHN S. HOLLINGSHEAD.