W. F. TALLMAN.

RELIEF APPARATUS FOR AIR COMPRESSORS.

No. 176,096. Patented April 11, 1876.

Fig. 1

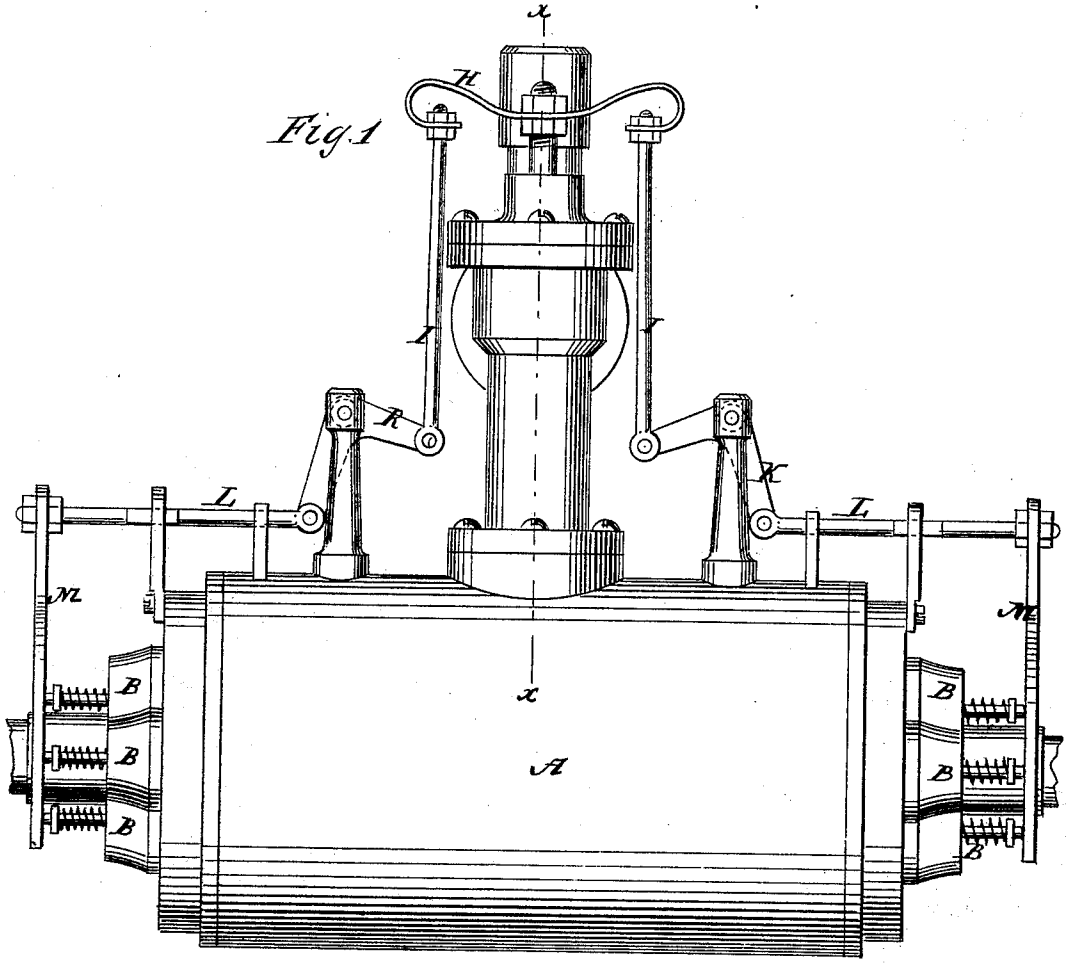
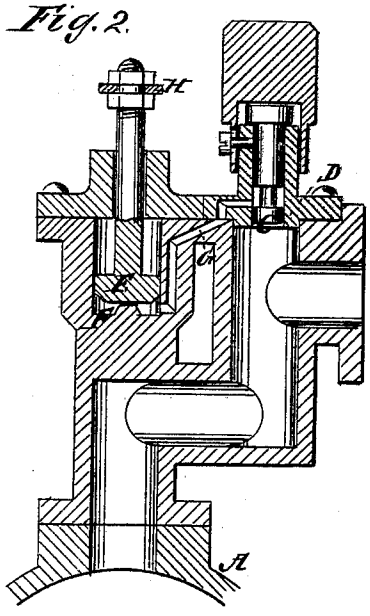


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM F. TALLMAN, OF MINEVILLE, NEW YORK.

IMPROVEMENT IN RELIEF APPARATUS FOR AIR-COMPRESSORS.

Specification forming part of Letters Patent No. **176,096**, dated April 11, 1876; application filed February 21, 1876.

To all whom it may concern:

Be it known that I, WM. F. TALLMAN, of Mineville, in the county of Essex and State of New York, have invented a new and Improved Relief Apparatus for Air Compressors, of which the following is a specification:

My invention consists of a weighted valve, in connection with the cylinder of an air-compressor, to be raised by the air when the pressure exceeds a certain limit, and a piston to which the air is admitted by said valve, and raised so as to stop the action of the receiving-valves of the compressor, with which it is connected for that purpose, and thus prevent the increase of the pressure unduly. The weighted valve falls when the pressure of air diminishes and opens an escape for the air from the piston, which then falls and allows the valves of the compressor to act again. The relief apparatus may be made to work special valves on the compressor instead of the receiving-valves.

Figure 1 is a side elevation of an air-compressor with my improved attachment, and Fig. 2 is a section of the attachment.

Similar letters of reference indicate corresponding parts.

A represents the cylinder of the air-compressor, and B the receiving-valve of the same. C is a weighted valve, which I arrange in the top of the pipe D, and E is a piston in a cylinder, F, connected with C by a small passage, G, so that when the air-pressure exceeds the desired limit the valve C will rise and admit air under piston E. The rod of the piston is connected, by the spring, cross-bar H, rods I, to bell-cranks K and the bars M, so that when it rises it holds the receiving valves so that they neither receive nor discharge air until the air-pressure falls below the pressure required, when the valve C will fall and allow the air to escape from under piston E, which will descend and let the receiving-valves act again. The rod of piston E may be connected with the receiving-valves by any other applied arrangement of apparatus, and the piston may be made to open another valve instead of the receiving-valves.

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

The weighted valve C and piston E, combined with the receiving valves or other valve of an air-compressor, A, substantially in the manner described, for regulating the pressure, as specified.

WILLIAM FOUVEL TALLMAN.

Witnesses:
WM. H. CARR,
JOHN W. CARR,
E. B. SPRAGUE.