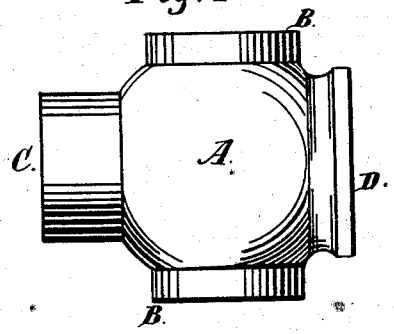
T. T. PROSSER.

Relief-Valve.

No. 165,119. Patented June 29, 1875.

Fig. 1.



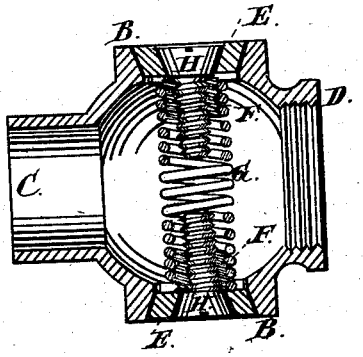
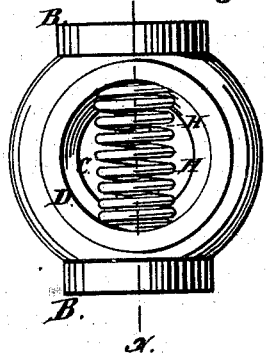


Fig. 2.

Fig. 3.



Witnesses:

Heinrich F. Bruns.
L. A. Bunting.

Inventor:

Treat. T. Prosser

UNITED STATES PATENT OFFICE.

TREAT T. PROSSER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN RELIEF-VALVES.

Specification forming part of Letters Patent No. **165,119**, dated June 29, 1875; application filed March 1, 1875.

To all whom it may concern:

Be it known that I, TREAT T. PROSSER, of Chicago, in the county of Cook and State of Illinois, have invented a Safety-Valve, of which the following is a specification, reference being had to the accompanying drawing, which forms a part hereof.

My invention consists in the combination of the valve and spring, as hereinafter fully described, by means of which the tension of the spring is regulated, so as to hold the valve to resist a certain pressure.

In the accompanying drawings, Figure 1 represents a side elevation of my safety-valve; Fig. 2, a transverse sectional view taken at the line *x x* in Fig. 3. Fig. 3 is an end elevation.

A represents a suitable valve case or coupling to carry the valve-seats B, and it may be constructed at C and D to make suitable connection to any pipe or nozzle where the safety-valve may be used. E are the valves, made so as to fit and pack in any of the ordinary ways to the valve-seats B. F F are plugs or cores within the spiral spring G. H are screws, which pass through the valves E, and screw into the cores. The ends of the spiral spring G are fastened to the cores F, into which the screws H screw.

It will be observed that by turning the screw H the tension of the spiral spring G is varied, and the pressure of the spring to hold the valves closed is regulated. The pressure within the pipe will not open the valves or either of them until the pressure upon the inner surface of the valve is greater than the tension of the spring G. When this occurs the valves or one of them opens and admits of an escape until the pressure is reduced, so as not to exceed the tension of the spring.

My safety-valve may be readily applied in the coupling-joint of the hose used for throwing water by steam-engines. The tension applied to the valves may be regulated, so as to admit of the escape of water, and prevent the hose from bursting. It may also be applied in all of the places where a steam safety-valve is required.

I claim—

The combination of the valves E, arranged opposite each other within the coupling, and spring G, as and for the purpose specified.

TREAT T. PROSSER.

In presence of—
L. A. BUNTING,
HEINRICH F. BRUNS.