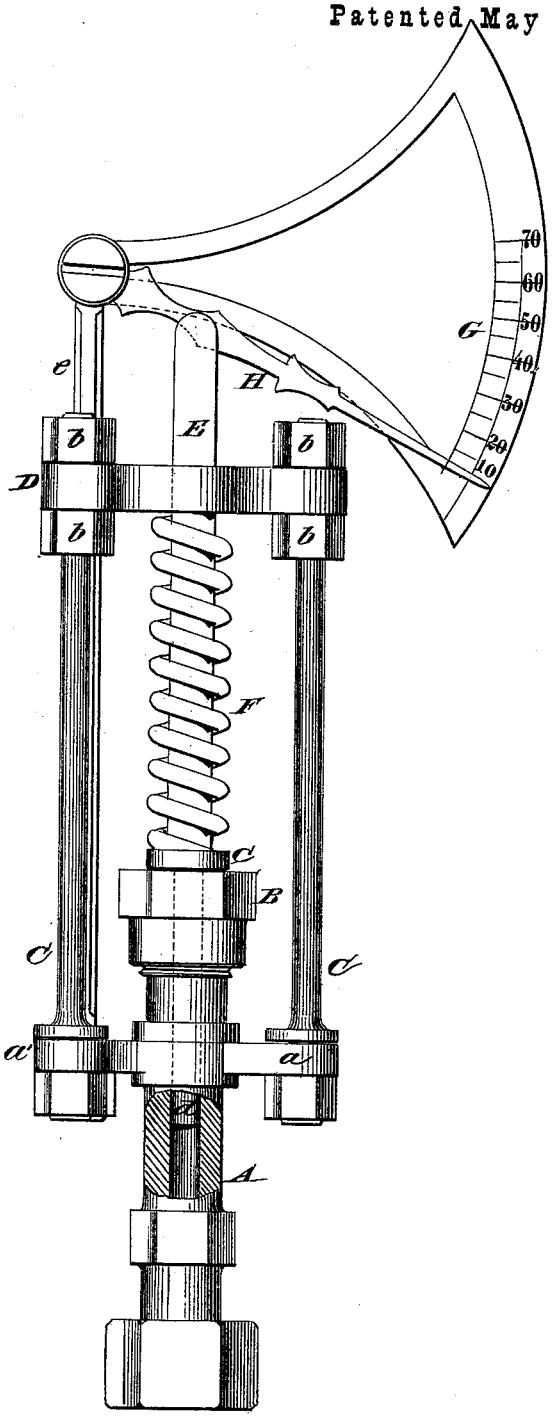
W. T. SNYDER.

PRESSURE-GAGE.

No. 190,790. Patented May 15, 1877.



WITNESSES:

Gustave Dietrich

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INVENTOR:

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BY

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UNITED STATES PATENT OFFICE

WILLIAM T. SNYDER, OF CATASAUQUA, PENNSYLVANIA.

IMPROVEMENT IN PRESSURE-GAGES.

Specification forming part of Letters Patent No. **190,790**, dated May 15, 1877; application filed March 12, 1877.

To all whom it may concern:

Be it known that I, WILLIAM T. SNYDER, of Catasauqua, in the county of Lehigh and State of Pennsylvania, have invented a new and Improved Hydraulic Pressure-Gage, of which the following is a specification:

My invention relates to gages for indicating pressure in hydraulic cylinders; and it consists of a solid piston of small area, whose outward motion is opposed by a strong adjustable spiral spring, and whose outer extremity is connected with an index that moves in front of a graduated arc.

In the drawing, which is a side elevation of my improved gage, having a part broken away to more clearly show the construction, A is a cylinder of small internal diameter, provided at its upper end with a stuffing-box, B, and having at its lower end a coupling for connecting it with the hydraulic cylinder in connection with which it is to be used.

Arms *a a'* extend laterally from the cylinder A, for receiving the studs C, which are secured thereto by nuts and extend beyond the stuffing-box B, parallel to the axial line of the cylinder A.

The outer ends of the studs C are threaded, and upon them a centrally-bored cross-bar, D, is placed between nuts *b*.

A rod, E, passes through the cross-bar D, and extends downward through the stuffing-box B into the cylinder A, and is reduced in size, forming a piston, *d*, that fits the said cylinder.

A collar, *c*, is formed upon the rod E, between which and the cross-bar D a spiral spring, F, is placed upon the said rod. A standard, *e*, is secured to the bar D, and supports a graduated arc, G, to which is pivoted an index, H, which is engaged by the upper end of the rod E.

As pressure is exerted on the piston *d* it is moved outward against the resistance of the spring F. This motion is multiplied by the index H, which indicates on the graduated arc the pressure per square inch in the hydraulic cylinder.

The spring F is adjusted so as to offer more or less resistance to the pressure by moving the cross-bar D by means of the adjusting-nuts *b*.

The advantages claimed for my improved gage are, that it is strong in all its parts, simple in its arrangement, and is therefore reliable and not liable to become inoperative, as are gages of ordinary construction.

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

The combination, in a pressure-gage, of the cylinder A, piston *d*, spring F, adjustable cross-bar D, index H, and the graduated arc G, substantially as herein shown and described.

WILLIAM T. SNYDER.

Witnesses:

WM. H. GLACE,

AUG. H. GILBERT.