

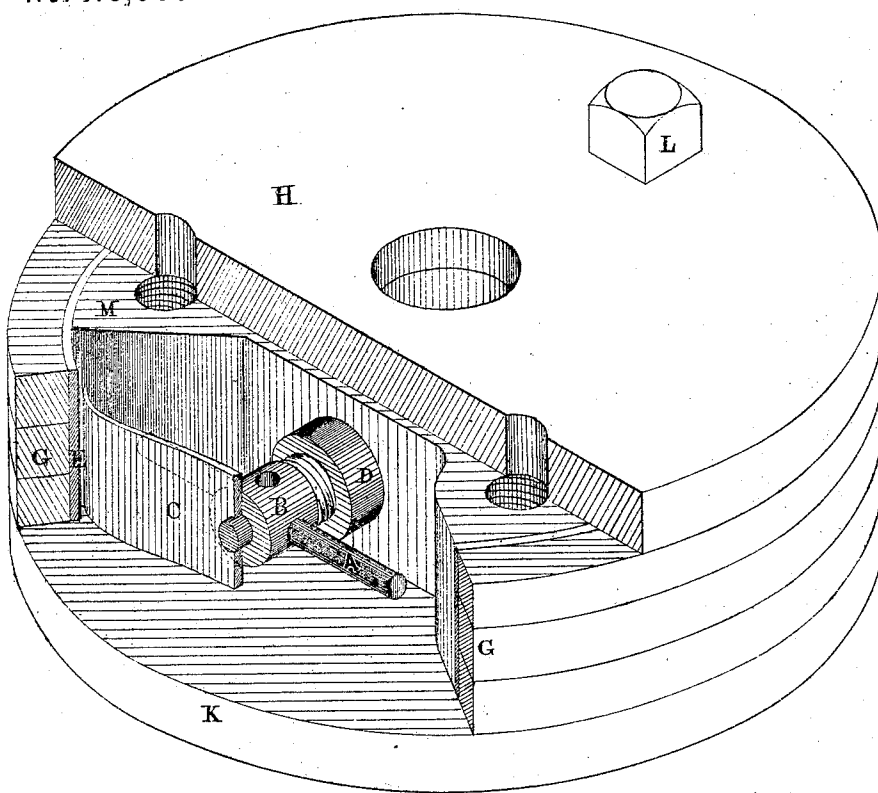
Case A.

[72.]

George F. Blake's Improved Piston.

No. 118,838.

Patented Sep. 12, 1871.



Inventor

Geo. F. Blake

Witnesses

E. R. Stansbury.
Chas. F. Stansbury.
attys.

UNITED STATES PATENT OFFICE.

GEORGE F. BLAKE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN PISTON-PACKINGS.

Specification forming part of Letters Patent No. 118,838, dated September 12, 1871.

To all whom it may concern:

Be it known that I, GEORGE F. BLAKE, of Boston, county of Suffolk, Commonwealth of Massachusetts, have invented certain Improvements in Pistons for Engines and Pumps, of which the following is a specification, referring to the accompanying drawing and to letters of reference marked thereon.

My invention consists in an improved adjustable packing for pistons, and an improved arrangement of screws for setting out the packing and dispensing with check-nuts.

In the drawing accompanying this specification my improved piston is shown in perspective and partial section.

G is the packing, consisting of square rings of canvas, formed by cementing together sheets of canvas until rings are formed which are square or nearly square in section. C is the spring for setting out the packing, shown in the drawing with one-half cut away to expose the adjusting-screw B. This spring C bears at its outer ends on the ring E, which presses on the inside of the packing G. The screw B is provided with holes in its head for the rod A to enter for the purpose of turning the same. This screw, instead of entering the body of the piston, is provided with a brass nut, D, let into the body of the piston for the purpose of relieving the screw from friction in turning, and preventing the same from becoming rusted into the iron of the piston so that it cannot be turned. By the use of pin A I do away entirely with check-nuts, for the said pin

cannot turn around when the piston is closed up, and at the same time the pin is always in place, ready to be used as a wrench to adjust the set-screws. Also, I obtain by this means a piston-packing having all desirable qualities, for the fibrous and compressible nature of the canvas makes it fit perfectly, although there may be irregularities in the bore of the cylinder, and being set out by springs C and screws B it is perfectly and easily adjustable if worn. By the use of the pin A check-nuts are dispensed with, as mentioned, and no other wrench is necessary to turn the screws, and the nut D reduces friction and prevents the screw from becoming rusted into the piston, as mentioned. It is not essential that the packing be formed of continuous rings, but it may be cut in several places and the different sections be made to "break joints" with each other, and the number of screws B may be more or less, as the piston is larger or smaller, or as convenient.

I claim—

As an improvement in pistons for pumps and engines, the combination and arrangement of the packing G, ring E, spring C, set-screw B, rod A, and nut D, all constructed and applied in the manner and for the purpose specified.

The foregoing specification signed and witnessed at Washington this 9th day of June, A. D. 1871.

Witnesses:

GEO. F. BLAKE.

CHAS. F. STANSBURY,
E. R. STANSBURY.