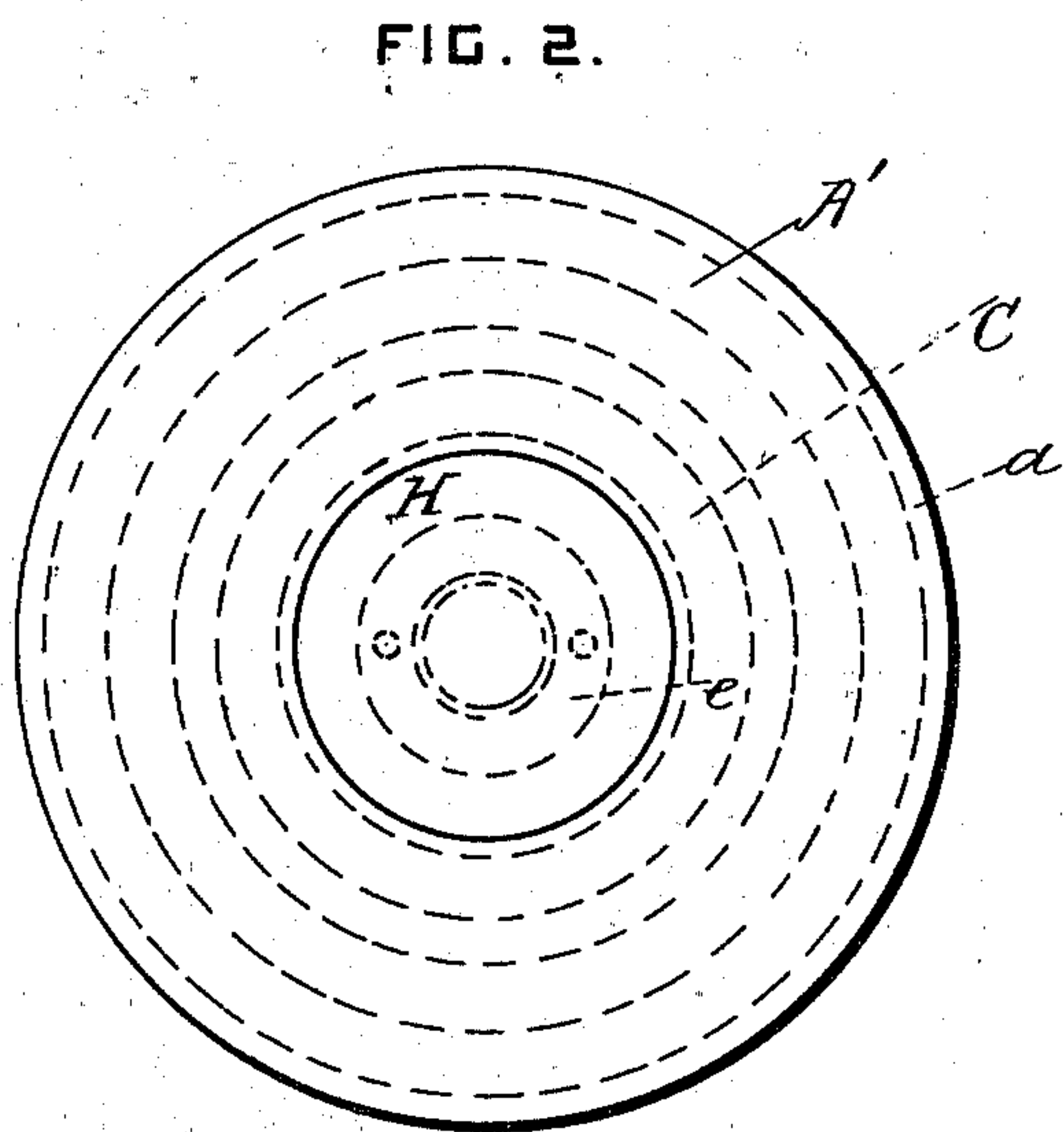
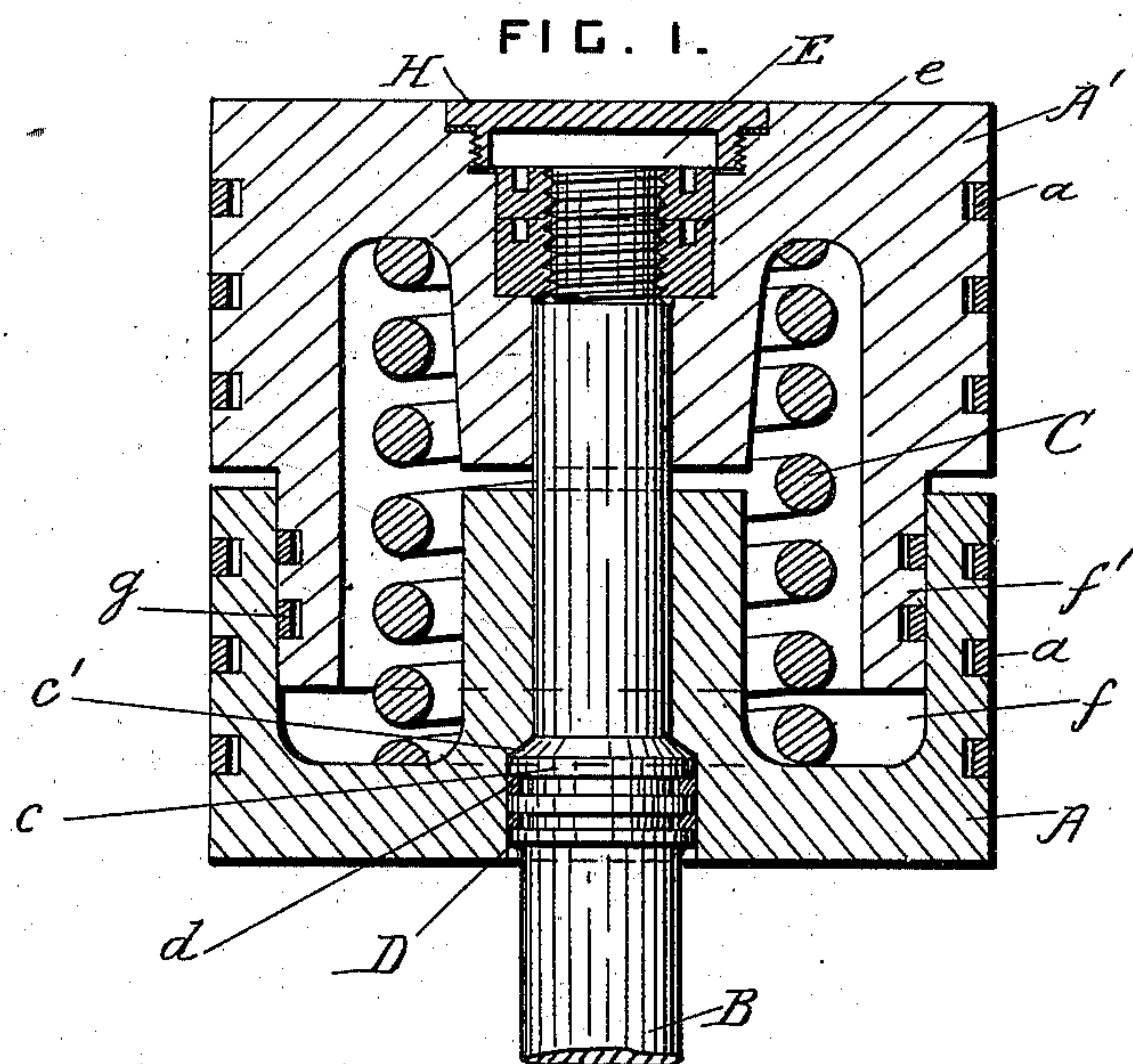


(No Model.)

E. H. ODERMAN.
PISTON.

No. 560,918.

Patented May 26, 1896.



Witnesses
J. Spring Pools
Henry W. Lepp

Inventor
Eric H. Oderman
By Attorney *Herbert W. Jenner*

UNITED STATES PATENT OFFICE.

ERIE H. ODERMAN, OF WAYNESBOROUGH, PENNSYLVANIA.

PISTON.

SPECIFICATION forming part of Letters Patent No. 560,918, dated May 26, 1896.

Application filed February 14, 1896. Serial No. 579,200. (No model.)

To all whom it may concern:

Be it known that I, ERIE H. ODERMAN, a citizen of the United States, residing at Waynesborough, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Pistons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to pistons; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a sectional view of the piston. Fig. 2 is a plan view of the piston.

The piston is formed of two separate disks A and A', mounted on a piston-rod B. Each disk A and A' is provided with packing-rings *a* of approved construction. The two disks are slidable upon the piston-rod and are pressed apart by a spring C. A single spiral spring is shown; but any approved form of spring or springs may be used. The piston-rod is provided with a collar *c*, having a beveled shoulder or seat *c'*. The collar *c* is slidable in a cylindrical recess D in the disk A, and is provided with packing or packing-rings *d*. The end of the piston-rod is screw-threaded and is provided with jam-nuts *e*, which are slidable in a recess E in the disk A'. The disk A is provided with a cylinder *f*, and the disk A' has a cylindrical projection *f'*, which is slidable in the cylinder *f*, and is provided with packing-rings *g* of approved construction.

H is a cap secured to the disk A' and covering the recess E and the end of the piston-rod.

This piston requires a minimum amount of clearance between it and the ends of the cylinder in which it works, as should either disk

strike an end of the cylinder it is forced back against the pressure of the spring C, and the end of the cylinder is not broken by the force of the blow. When single acting, only one of the disks need be slidable.

What I claim is—

1. The combination, with a piston comprising two disks of equal diameter, and a spring normally holding the said disks apart, of a single piston-rod operatively connected to both of the said disks, said rod being provided with means for normally holding the said disks at a prearranged maximum distance apart, substantially as set forth.

2. The combination, with a piston comprising two disks of equal diameter, and means for normally holding the two disks apart and permitting one to approach the other when it strikes an obstruction, of a single piston-rod operatively connected to both of the said disks, said rod being provided with means for normally holding the said disks at a prearranged maximum distance apart, substantially as set forth.

3. A piston comprising two disks, one of the said disks having a cylindrical projection slidable in a cylinder formed in the other said disk, and a spring normally holding the said disks apart.

4. The combination, with a piston-rod provided with a collar and jam-nuts, of a piston comprising two disks each provided with a recess and slidable on the piston-rod between the said collar and jam-nuts, a spring normally holding the said disks apart, and a cap secured to one disk over the end of the piston-rod, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ERIE H. ODERMAN.

Witnesses:

GUSTAV R. BROSTROM,
J. H. STONER.