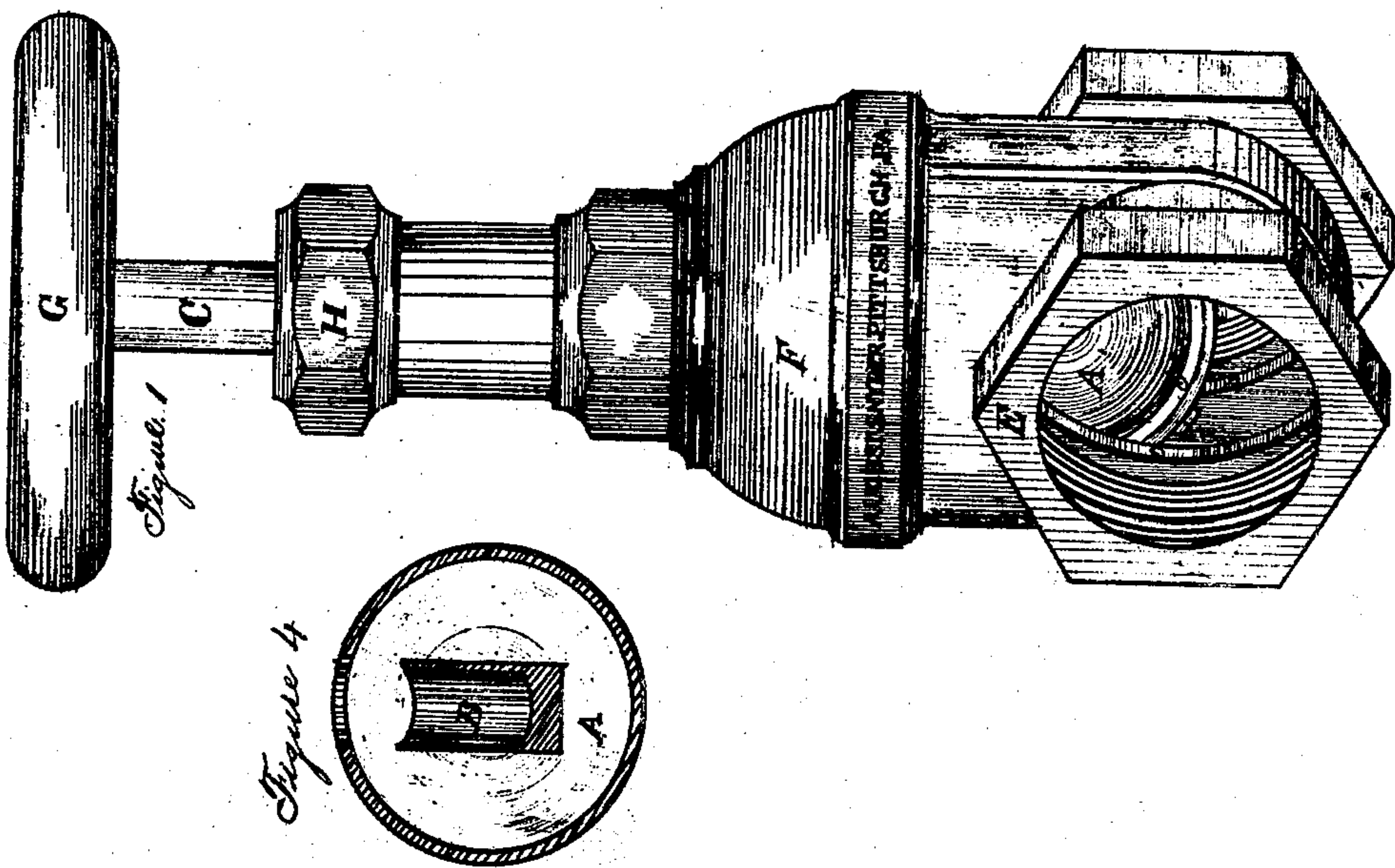
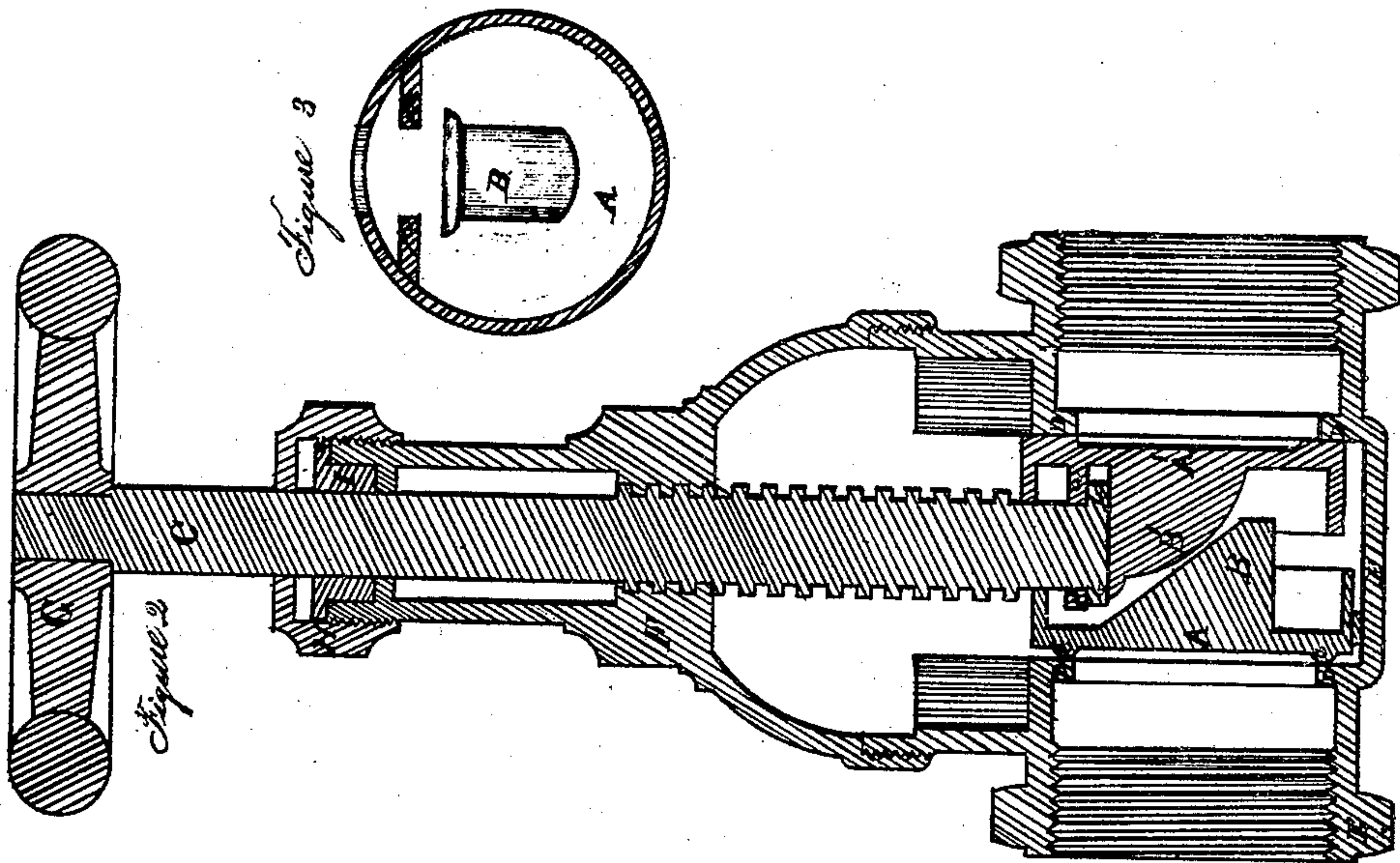


A. Snyder,

Stop Cock.

No. 103,937.

Patented June 7, 1870.



Witness
A. H. Baldwin
L. C. Stone

August Snyder

United States Patent Office.

AUGUST SNYDER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO AT-
WOOD & McCAFFREY, OF SAME PLACE.

Letters Patent No. 103,937, dated June 7, 1870.

IMPROVEMENT IN VALVES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, AUGUST SNYDER, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful method of constructing Steam-Valves or Stop-Cocks; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings making part of this specification.

The general principles and methods of constructing steam-valves or stop-cocks are so well known to all manufacturers that no description need be given here of the parts not affected by my invention, which consists specially of the novel method of constructing and operating the valve of such stop-cocks.

I make these valves in two parts, A A', of any suitable material, and in any convenient size or shape.

One of these parts or disks A' I hang upon the collar *b* of the stem C by means of the arms *a a*. These are made to fit around the collar *b*, and project sufficiently beyond the center of the collar to hold the other part or disk A, which is hung upon them.

On the inner surfaces of these disks A A', and near their centers, I form the lugs or projections B B', fitted to work against each other, and so regulated, as to size, that the disks A A' may touch or nearly touch each other as they hang loosely by and from the arms *a a*. These lugs may be made wedge-shaped and with flat surfaces, but I generally make them of about one-fourth radius, and with concave and convex surfaces working together, as shown in the drawings. Now, the two disks, A A', being suspended from the stem C in the manner I have described, it will be observed that the disk A hangs below the disk A' an eighth of an inch or more, so that, when the valve is closed, the disk A will first reach its place and become fixed to

its seat; the other disk A' being then pressed down by the stem C, the two disks are forced outward by the action of the lugs or projections upon each other, and fixed so firmly to their seats D D that neither steam nor liquid can escape.

One objection to the use of flat valves has been that the large surfaces required to be brought together in closing the valve were liable to become scratched or cut by the action of the steam or fluid, so as to cause the valve to leak, and also that sand or other impurities coming between the surfaces prevented the valve from closing tightly. This objection I obviate by forming on the face or outer surfaces of the disk A, a brail, *c*, of about an eighth of an inch in size, and a little larger in diameter than the hole which the valve is to close; as this disk comes first to its seat, the stem C will always cover the hole and close the valve, while the pressure from the other disk, in the manner described, will either crush or drive away any impurities from the small surface of the head, and, at the same time, will tend to close up any scratches or cuts made by the action of the steam or fluid.

Having thus described the nature and use of my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The lugs or projections B B' arranged upon the inner surface of the disks of the valve to move upon a single point of contact, all as and for the purpose shown and described.

AUGUST SNYDER.

Witnesses:

I. H. BALDWIN,
W. K. JENNINGS.