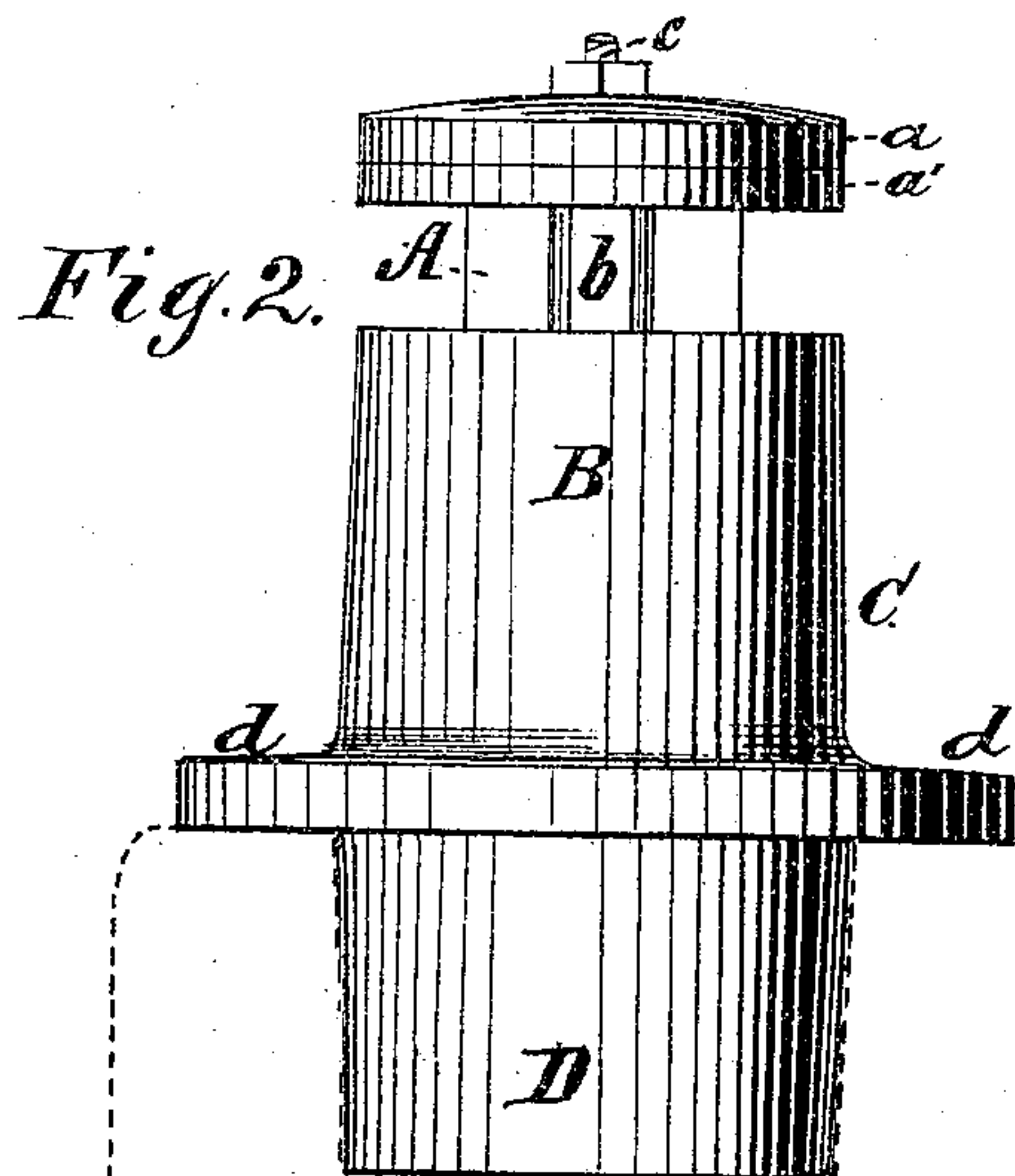
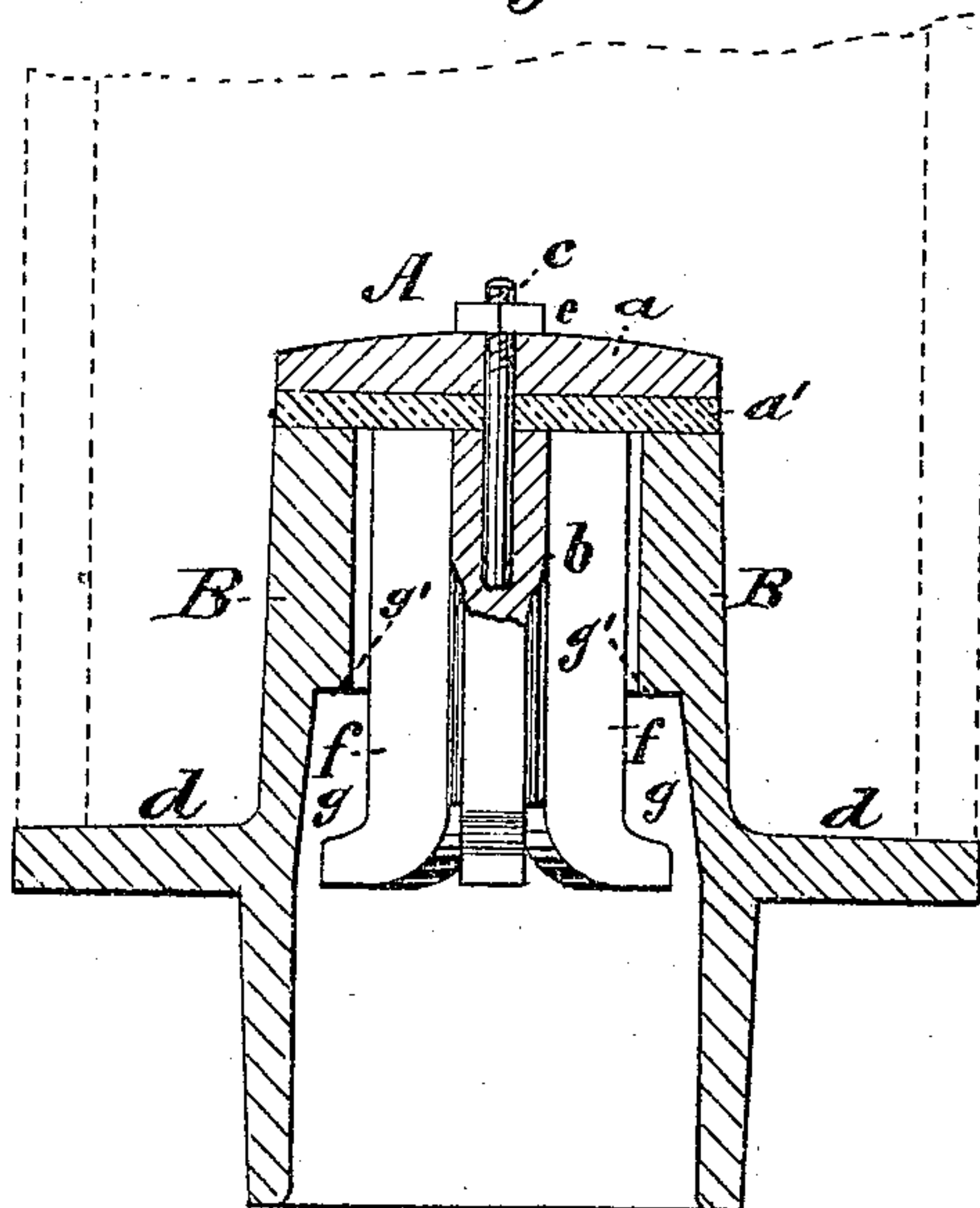


W. BARNES.  
Pump-Valves.

No. 141,309.

Patented July 29, 1873.

Fig. 1.



Witnesses:  
J. M. Atty.  
John A. Kemmer

Inventor:  
Wilson Barnes  
PER [Signature]  
Attorneys.

# UNITED STATES PATENT OFFICE.

WILSON BARNES, OF MAQUOKETA, IOWA.

## IMPROVEMENT IN PUMP-VALVES.

Specification forming part of Letters Patent No. **141,309**, dated July 29, 1873; application filed December 7, 1872.

*To all whom it may concern;*

Be it known that I, WILSON BARNES, of Maquoketa, in the county of Jackson and State of Iowa, have invented a new and useful Improvement in Pump-Valves; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification.

The invention consists in the improvement of pump-valves and valve-seats, as hereinafter described and pointed out in the claim.

Figure 1 of drawing is a sectional, and Fig. 2 a side, elevation.

A represents a poppet-valve, composed of cap *a* and compressible disk *a'*, clamped together by piece *b*, screw *c*, and nut *e*, and provided with the end-curved legs *f*. C is a tube, tapering from the middle to each end, and having the valve-seat B, the middle flange *d*, annular recess *g*, the shoulder *g'*, and drive-end D.

By this construction, as the valve A rises on the upward motion of the pump-piston, the curved ends *f*, passing up the recesses *g*, catch against the shoulders *g'* and limit the throw and opening of valve. The flange *d* regulates the distances to which the tube C may be driven, with its part D into wooden tubing. This enables the valve and seat to be readily applied, and makes it very efficient when at work.

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

The poppet-valve A *a a'*, provided with end-curved legs *f*, combined with tube C, having valve-seat B, flange *d*, and taper from middle to each end, as and for the purpose described.

WILSON BARNES.

Witnesses:

W. L. BALLARD,  
G. W. PAIN.