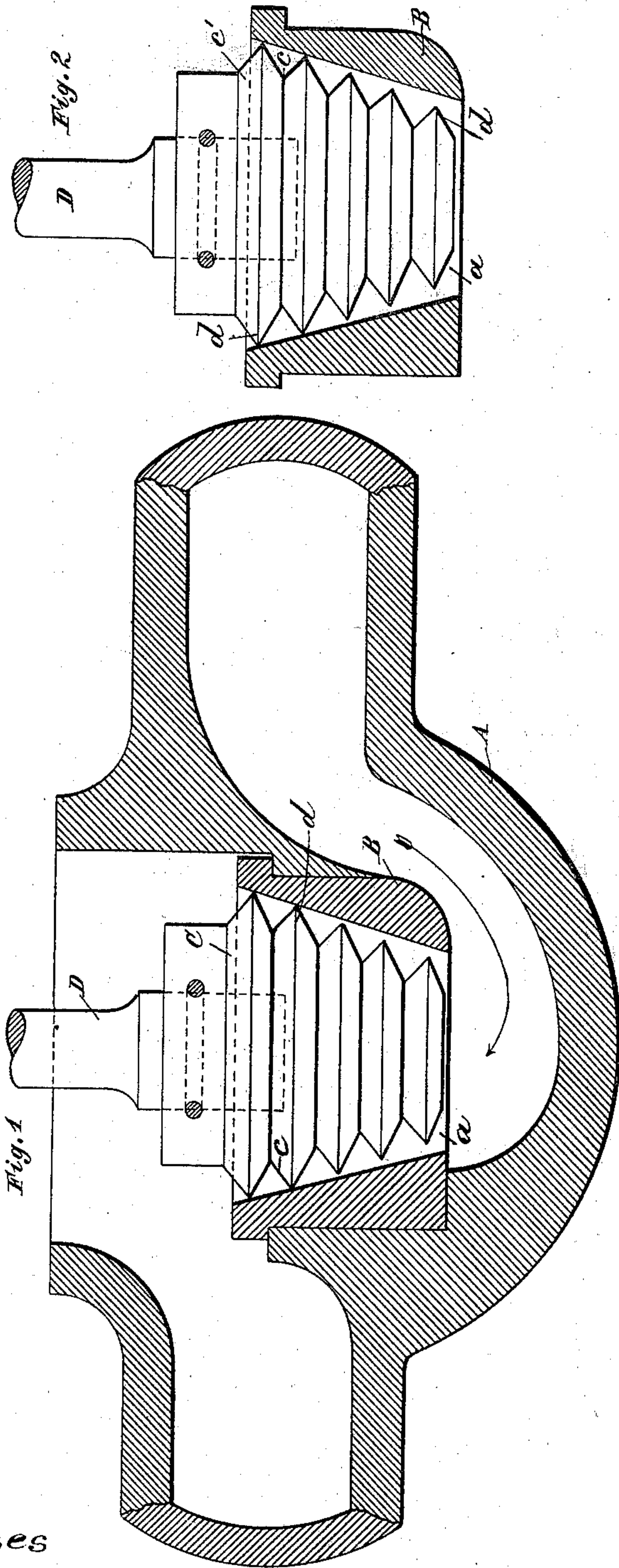


(No Model.)

D. A. SCHRÖPPEL.
CONE SHAPED TIGHTENING APPLIANCE.

No. 558,744.

Patented Apr. 21, 1896.



Witnesses

J. B. Stack
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UNITED STATES PATENT OFFICE.

DANIEL AUGUST SCHRÖPPEL, OF BRUNSWICK, GERMANY.

CONE-SHAPED TIGHTENING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 558,744, dated April 21, 1896.

Application filed July 10, 1895. Serial No. 555,513. (No model.)

To all whom it may concern:

Be it known that I, DANIEL AUGUST SCHRÖPPEL, a subject of the King of Prussia, German Emperor, and a resident of Brunswick, in the Kingdom of Prussia and German Empire, have invented a new and useful Improvement in Cone-Shaped Tightening Appliances, of which the following is a specification.

This invention is an improvement in valves; and its object is to so construct the seat and plug that they will be self-adjusting and make and maintain close joints without specially accurate grinding thereof, and will compensate for wear.

The invention therefore consists in the novel construction and combination of parts hereinafter described and claimed.

Referring to the drawings, Figure 1 is a longitudinal vertical section through a valve. Fig. 2 is a detail view of the plug and seat detached.

The valve-body A is of ordinary construction, and within it is fitted an annular valve-seat B, which is conically bored for the reception of the plug. The plug C is conical, but is formed with a series of regular grooves *c*, which produce thereon a series of V-shaped annular ribs *d*, as shown, the whole somewhat resembling a truncated cone.

The plug is fastened to the stem D and operated in the usual manner.

The sides of the bore of seat B are more oblique than the sides of the cone ribbed plug.

Hence only the upper ribs *d* will be in contact with the surface of the seat-bore, while the lower ribs are inoperative and do not come into service until the upper ribs are worn. Thus it will be seen that only the upper edge *d* comes into operation at first, and when by long use it is worn away, then the next lowermost rib comes into service. Another advantage of this form is that instead of the entire inner surface of the seat being worn simultaneously only that part thereof contacted by the ribs in actual service is worn. Thus fresh wearing-surfaces on the plug and seat are successively brought into service by this invention.

What I claim is—

1. In a valve, the combination of a seat having a conical bore and a conical plug, one of said parts being more oblique than the other and provided with a series of annular ribs, for the purpose and substantially as described.

2. The combination of the casing, the valve-seat having a smooth conical bore, and a conical plug having more oblique sides than the seat, and formed with a conical series of annular ribs, angular in cross-section, for the purpose and substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

DANIEL AUGUST SCHRÖPPEL.

Witnesses:

WILHELM SCHWIETHAL,
WILHELM BADER.