

No. 803,000.

PATENTED OCT. 31, 1905.

H. LENTZ.
MULTIPLE SEAT VALVE.
APPLICATION FILED MAR. 31, 1905.

Fig. 1.

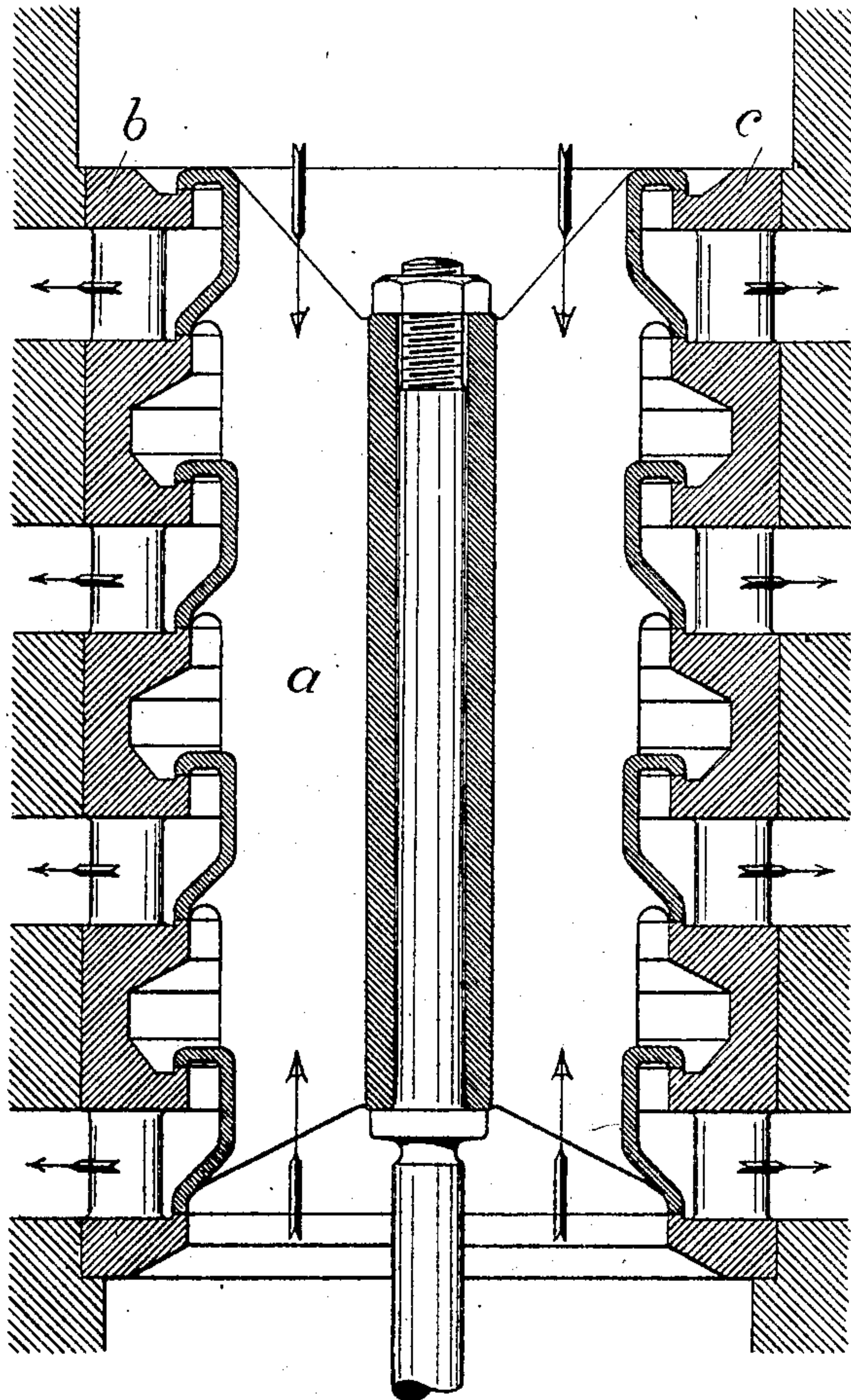
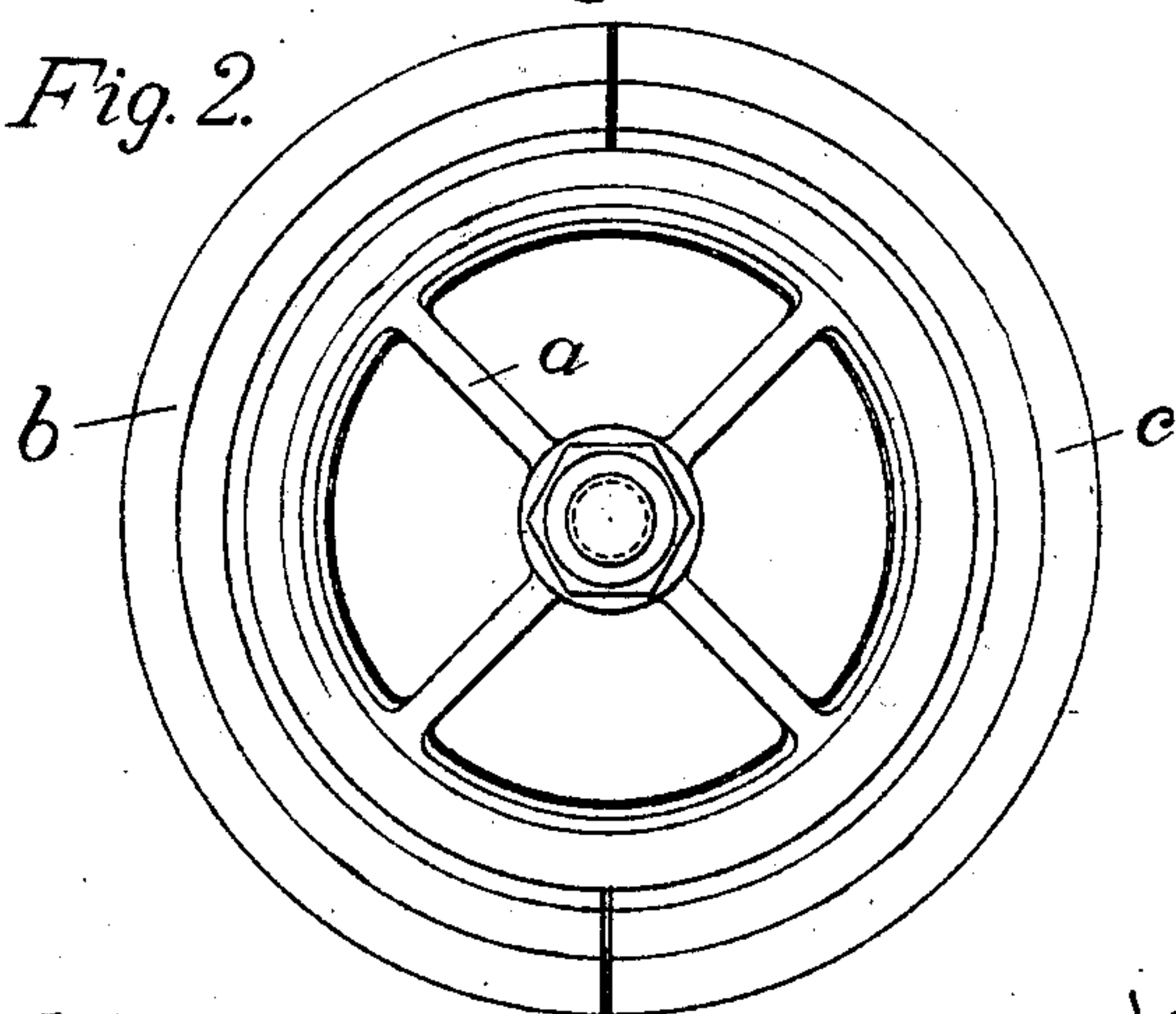


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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MULTIPLE-SEAT VALVE.

No. 803,000.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed March 31, 1905. Serial No. 253,111.

To all whom it may concern:

Be it known that I, HUGO LENTZ, a subject of the German Emperor, residing at 10/11 Potsdamerstrasse, Berlin, Germany, have invented a new and useful Improvement in Multiple-Seat Valves; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to multiple-seat valves and to a method of assembling the parts thereof.

In order to decrease the stroke of the piston or other part of a machine, multiple-seat valves—those having a plurality or succession of valves—have been provided. Prior to my invention, so far as I am aware, it has been the ordinary practice to provide the valve-box with successive seats each of which has a larger diameter than the preceding seat and to fit therein a valve-body provided with a succession of valves each of which has a smaller diameter than the preceding valve. Another prior structure has employed a plurality of valve-seats all of substantially the same diameter. While such a structure has the advantage of well-nigh perfect equilibrium, yet the cost thereof has heretofore been prohibitory, due to the fact that the valve and the valve-box or a part of the latter are cast jointly, so as to assure a close and maintained fitting of the parts.

My present improvements are illustrated in the accompanying drawings, wherein—

Figure 1 is a longitudinal section of one-half of a valve embodying my invention, and Fig. 2 is a bottom view of such a valve.

The drawings show a succession of valves of like diameter and a corresponding succession of valve-seats of like diameter. This structure is preferred because of the more perfect equilibrium thus obtained.

Referring to the drawings, *a* represents a tubular valve-body having four successive annular valves all of the same diameter. Said valve-body is inclosed within a valve-box, which is divided axially of the valve or otherwise built up in sections, such as *b* and *c*, and provided with a plurality of valve-seats all of the same diameter. The usual ports lead from such valve-seats.

As shown, the assembled parts are held together satisfactorily by being fitted within a casing or other part of the machine, and additional or applied attaching means are not necessary.

The assembling of the parts may be carried out in any desired manner. I preferably employ, however, a new method devised by me and which consists in dividing the valve-box lengthwise, fitting the parts *b* and *c* together, working the assembled parts of the box, and thereafter opening the box or removing one of its halves, then fitting the valve-body *a* into the box, and again assembling the parts of the box. The whole is then slipped into the casing of the machine and secured therein.

What I claim is—

In a multiple-seat valve, a valve-body having a succession of valves of like diameters, and a valve-box wherein said valve-body is incased, said valve-box being divided into sections axially of the valve and having a succession of valve-seats corresponding in number with the valves and all of like diameters.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HUGO LENTZ.

Witnesses:

KARL H. MERK,
LUDWIG LICHTENSTEINER.