

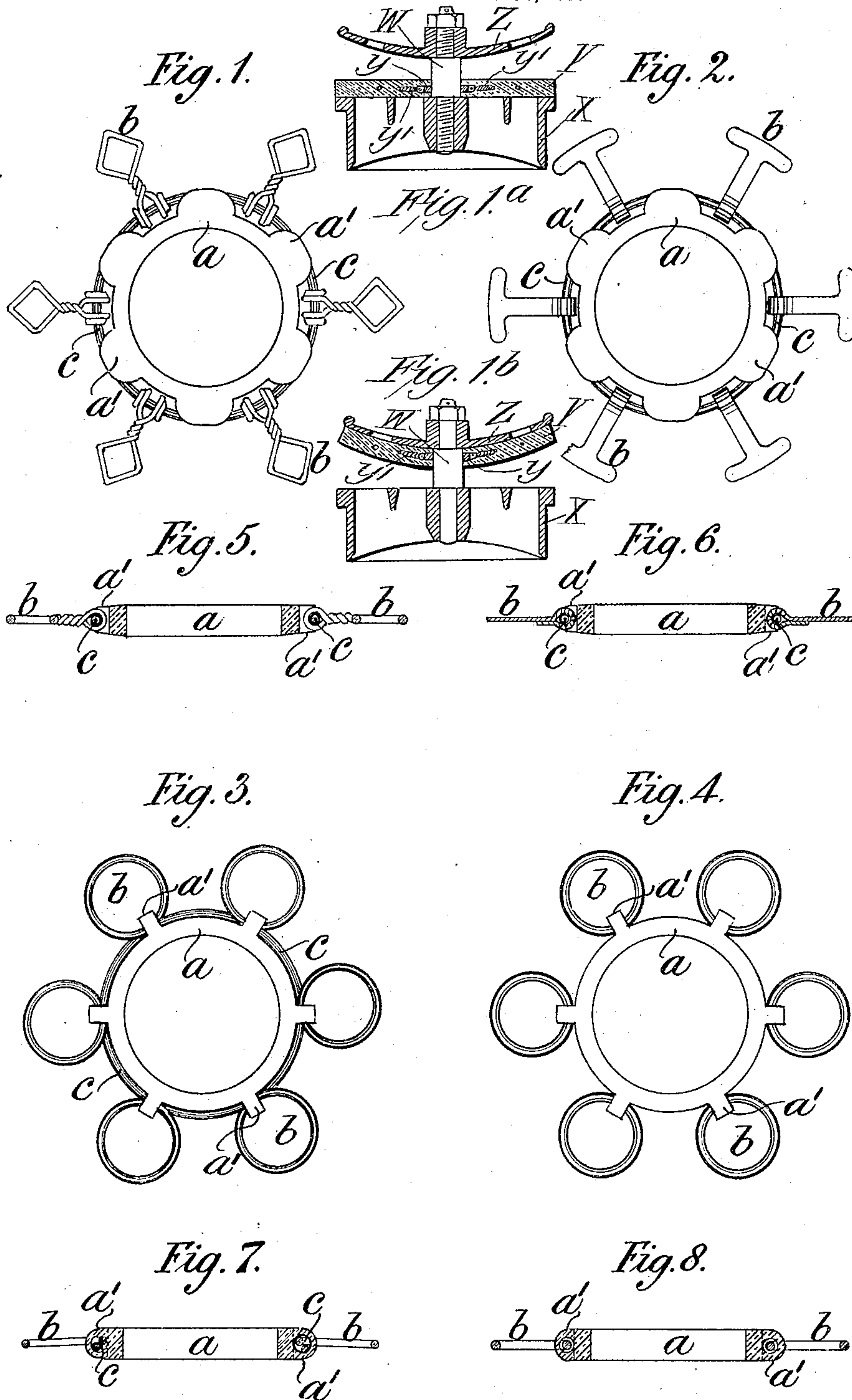
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PATENTED MAY 19, 1908.

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BUSH FOR VALVES.

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Witnesses

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UNITED STATES PATENT OFFICE.

FRANK TRENHAM FIEGEHEN, OF NEW CROSS, AND CHARLES RUSSELL CAMPBELL HART, OF
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BUSH FOR VALVES.

No. 887,782.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed October 7, 1907. Serial No. 396,338.

To all whom it may concern:

Be it known that we, FRANK TRENHAM FIEGEHEN, engineer, and CHARLES RUSSELL CAMPBELL HART, manager, subjects of the
5 King of Great Britain, residing, respectively, at 67 Jerningham road, New Cross, and 26 Brading road, Brixton, both in the county of Surrey, England, have invented new and useful Improvements in Bushes for Valves, of
10 which the following is a specification.

This invention relates to bushes for flexible valves such as are made of dermatin, india-rubber and the like. Such valves are frequently provided with a central bush consisting of a metallic ring embedded in the material. It is found however that such bushes
15 in course of time become loose and detached from the material of the valve.

According to this invention arms or the
20 like are hinged to the ring, such arms projecting radially outwards and being embedded in the material. The arms may be provided with T, circular or other shaped ends to give a better hold.

25 Figures 1 to 4 are plans of bushes constructed according to this invention and Figs. 5 to 8 are sections of the same. Figs. 1^a and 1^b show vertical sections of valves and valve seats with our improvements applied.

30 *a* is the central ring and *b* are arms hinged to it. In Figs. 1, 2, 5 and 6 the hinges consist of a wire *c* surrounding the ring and lying between lugs *a'* projecting from it. In Figs. 3, 4, 7 and 8 the arms *b* pass through holes in

the lugs *a'*. In Figs. 3 and 7 a wire *c* is employed which also passes through the holes in the lugs *a'*. 35

The bushes above described are also applicable to valves made of more or less rigid material such as fiber, hard dermatin and the
40 like, the arms in this case preventing the bush from working loose.

Although we prefer to make the arms of wire any other suitable material such as cord
45 may be employed.

In Figs. 1^a and 1^b X indicates a valve seat, Y a valve, *y* the bushing, and *y'* the arms hinged thereto. 45

Z is a stop for the valve which, in the present instance, is shown as curved or convex
50 and is held a suitable distance above the valve seat by a post W. The valve Y is free to slide on the post between the valve seat and the stop, and when the valve is open it bends and conforms to the convex surface of
55 the stop in the manner shown in Fig. 1^b.

What we claim is:—

1. A valve bush comprising a central ring with arms hinged to it.

2. A valve consisting of a body portion, a
60 central ring embedded in the body portion and arms hinged to the ring and also embedded in the body portion of the valve.

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