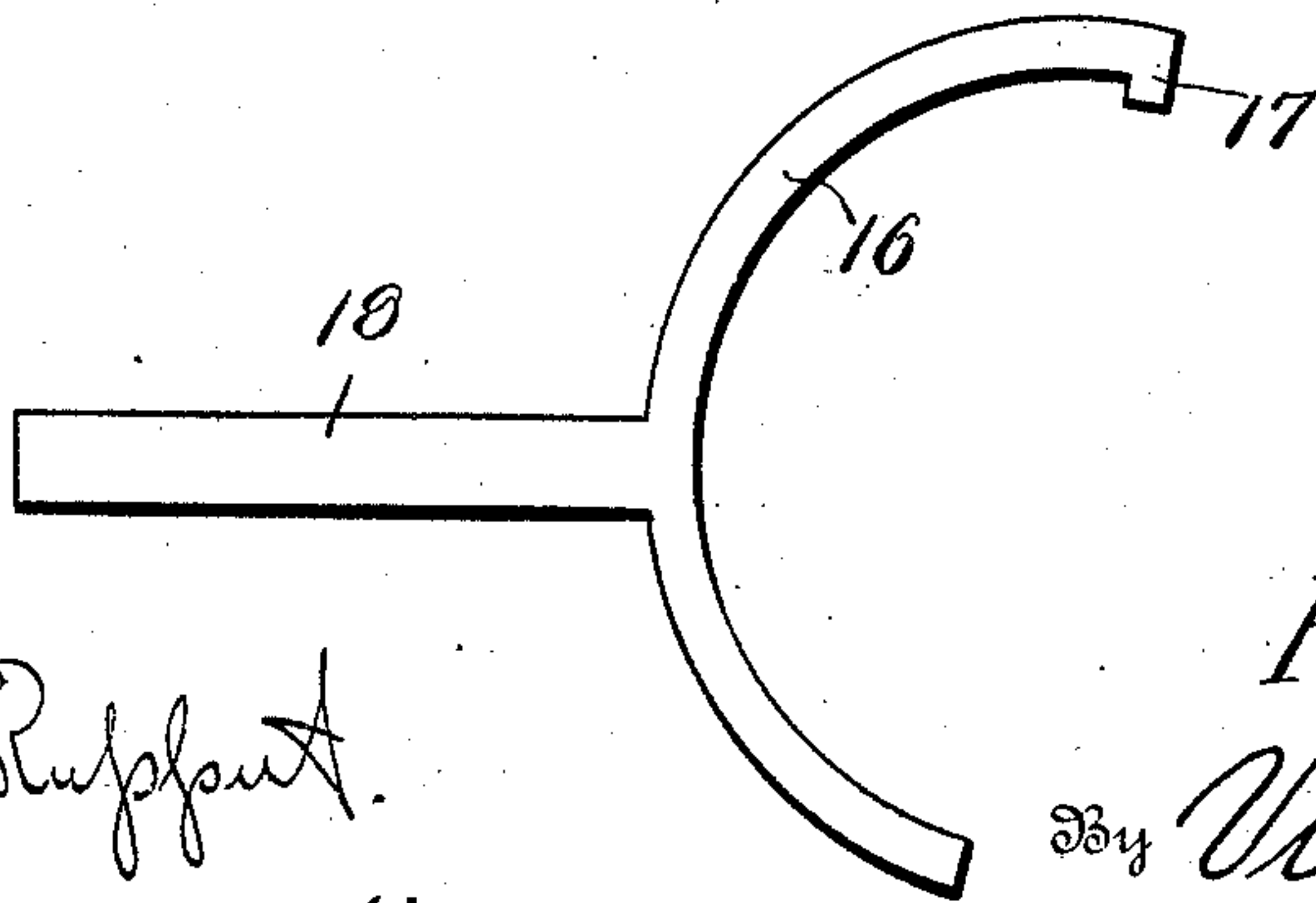
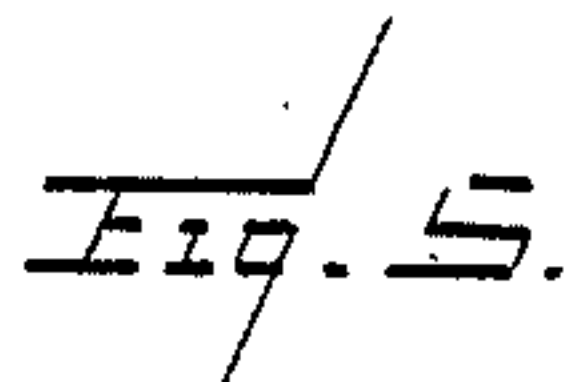
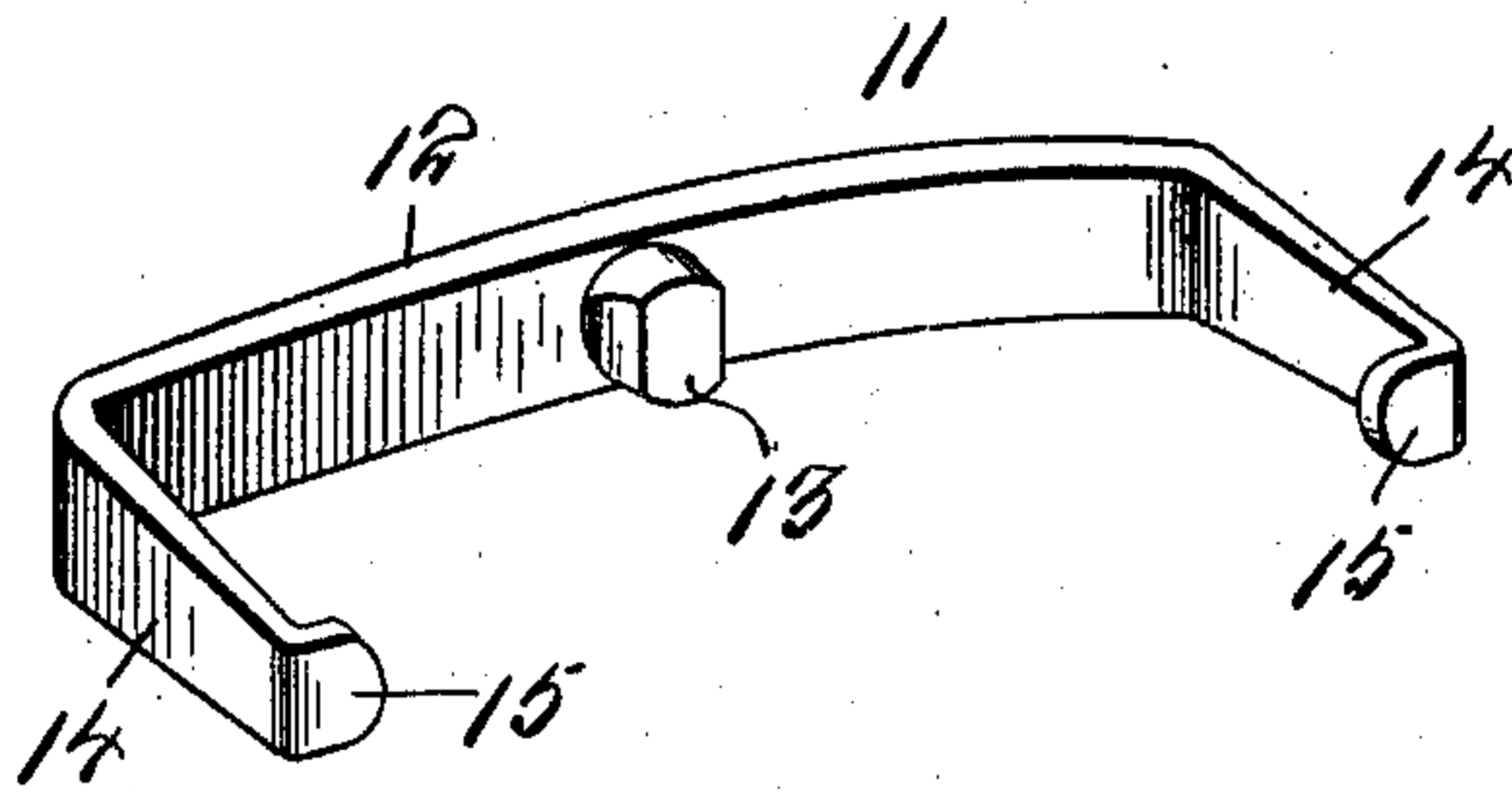
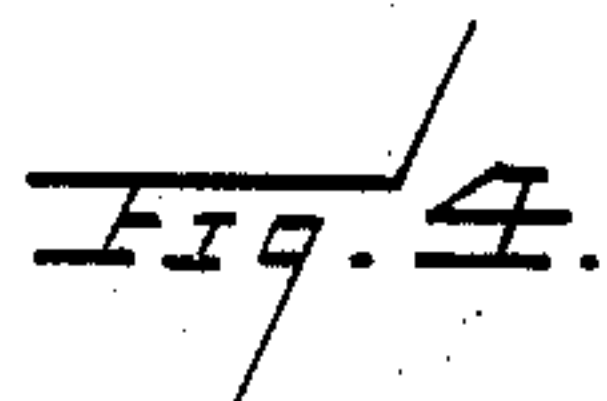
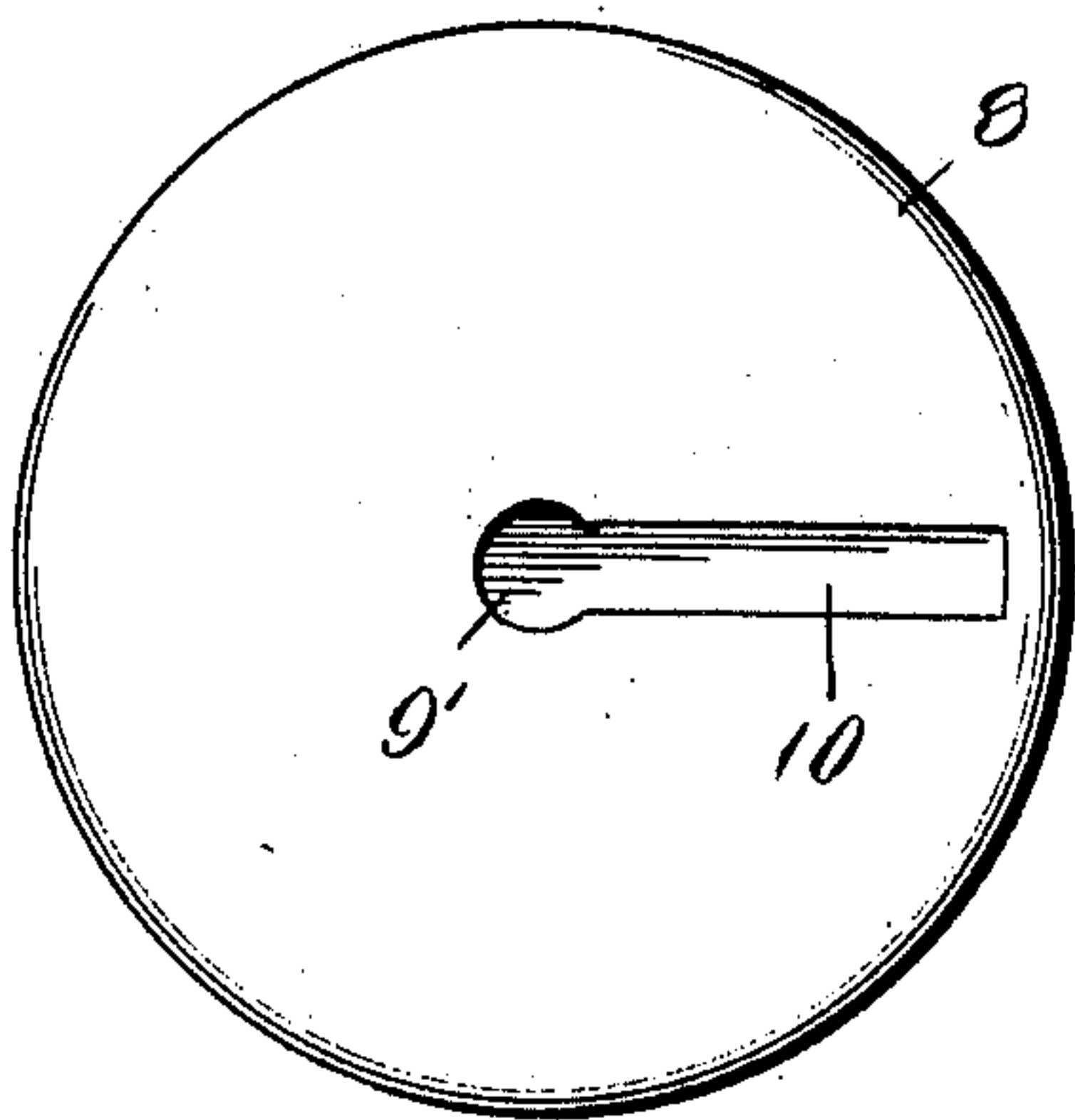
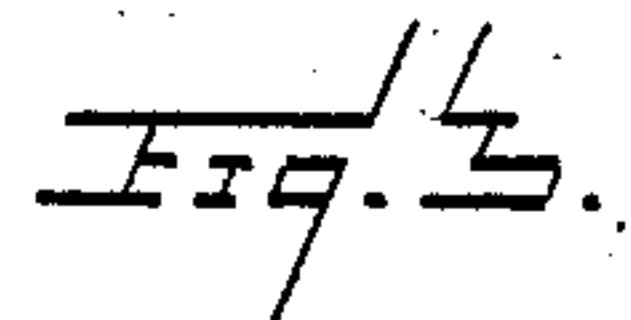


JAR CLOSURE.

976,623.

Patented Nov. 22, 1910.



Witnesses
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JAR-CLOSURE.

976,623.

Specification of Letters Patent.

Patented Nov. 22, 1910.

Application filed April 2, 1910. Serial No. 552,994.

To all whom it may concern:

Be it known that I, FRANCIS MARION BELLES, a citizen of the United States, residing at Shickshinny, in the county of Luzerne and State of Pennsylvania, have invented new and useful Improvements in Jar-Closures, of which the following is a specification.

This invention relates to jar closures or tops, and more particularly to that class adapted to be held upon the jar by a clamp.

The main object of the invention is to provide a jar closure operative to gradually and easily clamp the jar top in position and adapt the same to bear with an even pressure at all points upon the gasket or seal, thus effecting a perfectly air-tight closing of the mouth of the jar.

A further object of the invention is to provide a jar closure of the character described which shall be proof against slipping when in clamping position, thus obviating all liability of the loosening or detachment of the jar top.

The invention consists of the features of construction and arrangement of devices, hereinafter fully described and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a side elevation of a jar with my improved closure applied. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a plan view of the jar top or cover. Fig. 4 is a perspective view of the clamping yoke. Fig. 5 is a plan view of a jar opening and closing device.

Referring to the drawings, 1 designates a jar having the usual mouth or filling opening 2, upstanding rim 3 and annular external shoulder 4, the latter forming a support for the rubber sealing ring or gasket 5. The neck of the jar is provided at diametrically opposite sides with downwardly inclined grooves 6, terminating in horizontal or more gently inclined portions 7.

The top 8 of the jar may be made of glass, porcelain, or other suitable material and has a convex upper surface and is provided with a depending flange 9 to engage and rest on the ring or gasket 5 and to press the latter against the shoulder 4. Said top is also formed in its upper surface with a central circular recess 9' to which leads a radial groove 10, which groove merges at its outer end into the surface of the cap adjacent its

edge and gradually increases in depth toward the recess 9'.

A clamp 11 is employed to secure the top in jar-closing position and is of yoke form, as shown. The cross piece 12 of this clamp is provided with a depending central lug 13 to fit within the recess 9, said lug having its sides flattened for travel in the groove 10, by which the cross piece of the clamp is adapted to be engaged with and disengaged from the recess 9 by a radial sliding movement over the jar top.

The arms 14 of the yoke are provided at their lower ends with inwardly extending projections 15 to engage the inclined grooves 6, the distance between said projections being less than that of the diameter of the cap, whereby the necessity of employing the groove 10 for the sliding engagement described when the top is in position and the clamp is to be applied or removed will be apparent. In Fig. 5 I have shown what is commonly known as an opener consisting of a semi-circular band 16 having a lug 17 at one end thereof and a centrally disposed handle 18, by which it may be manipulated, which opener may be employed when it is desired to apply or remove a clamp which is difficult to adjust by the pressure of the hand alone.

In sealing the jar, the top or cap is placed in position with its flange resting upon the gasket and its groove 10 so disposed as to enable the clamp to be slid into place thereon and to bring the projections 15 into the upper ends of the inclined grooves 6. By then grasping and turning the clamp, whose lug 13 pivots in the recess 9, the projections 15 will be moved downwardly in the inclined grooves, thus drawing down the cap so that its flange compresses the gasket and forms an air-tight sealing connection therewith. By making the terminals of the inclined grooves horizontal or more gently inclined, the projections are permitted to enter the same when the top is turned to an excess degree without increasing the pressure on the gasket, while at the same time increasing the distance the clamp must be turned to a released position, whereby greater security against possible loosening of the cap is obtained. The clamping action of the yoke, is, however, in general amply sufficient to hold it firmly against casual retraction. By a reverse movement of the

clamp the top may be released to open the jar, as will be readily understood.

If it should be necessary to employ the device 16 when the muscular pressure of the hand alone is not sufficient to apply or remove a clamp, the curved portion of said device is placed about the jar with its end lug 16 engaging one of the arms of the clamp and its opposite end bearing against the other arm of the clamp, and turning pressure applied to said device by means of its handle 18 to rotate the clamp in one direction or the other, whereby said clamp may be easily applied and removed.

It will be seen from the foregoing description that my invention provides a simple and inexpensive construction of jar closure which may be conveniently manipulated and will produce a perfectly air-tight seal.

Having thus described the invention, I claim:—

The combination with a jar having inclined grooves or threads, of a cap having a convex top surface provided with a cen-

tral circular recess and a radial groove leading therefrom to the edge of the cap, said recess merging at its outer end in the convex face and gradually increasing in depth to the recess, a clamp comprising a yoke having its arms provided with projections for engagement with said grooves or threads, and a lug formed upon the cross bar of the yoke and depending therefrom for pivotal engagement with the recess and sliding engagement with the groove, said lug having a pair of diametrically opposite curved sides for pivotal motion and a pair of diametrically opposite flattened sides arranged at right angles to said curved sides, said flattened sides being adapted to engage the side walls of the groove to guide the yoke in its sliding movements.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS MARION BELLES.

Witnesses:

ALBERT SMITH,
HIRAM DIETRICH.