

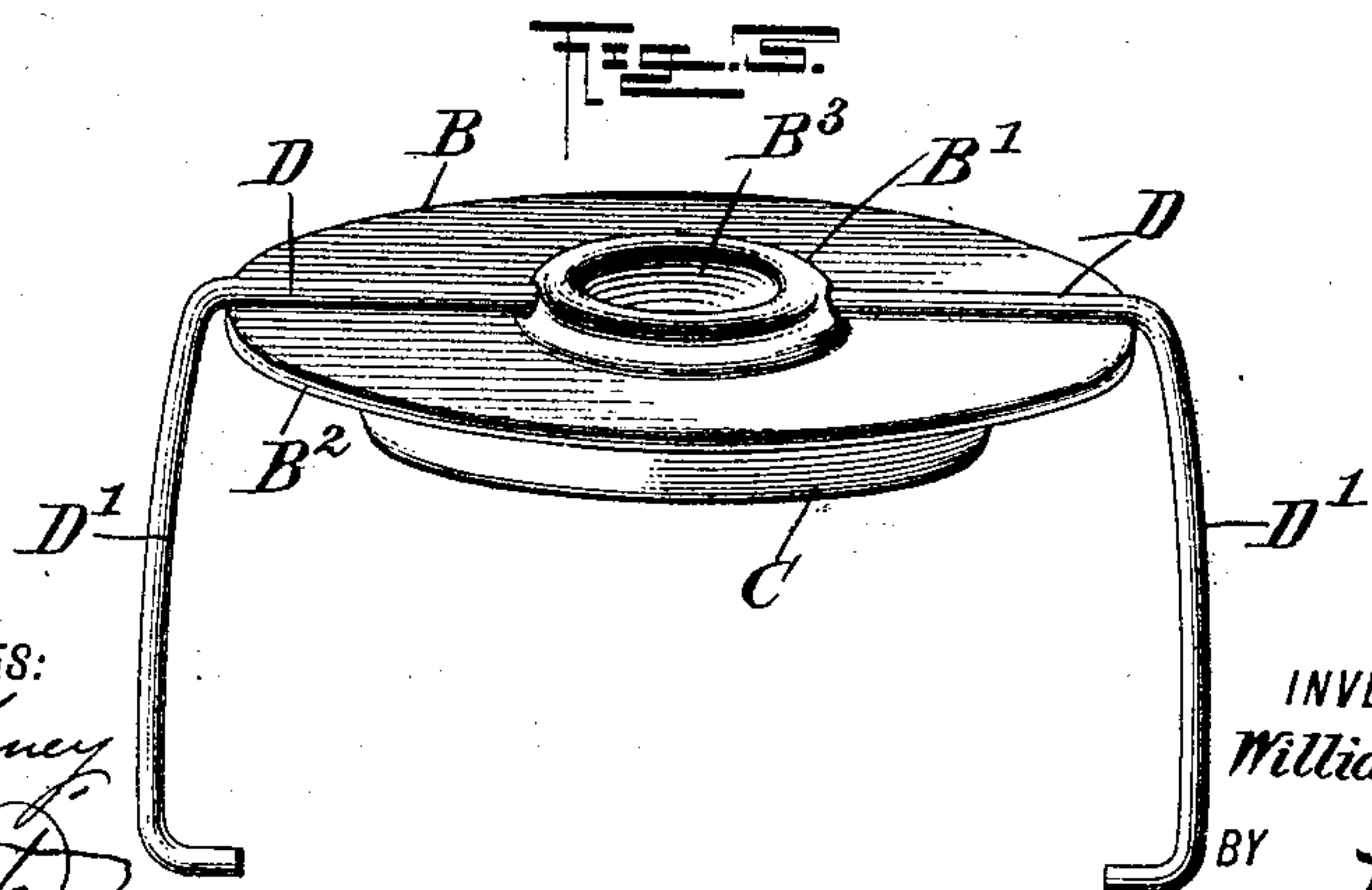
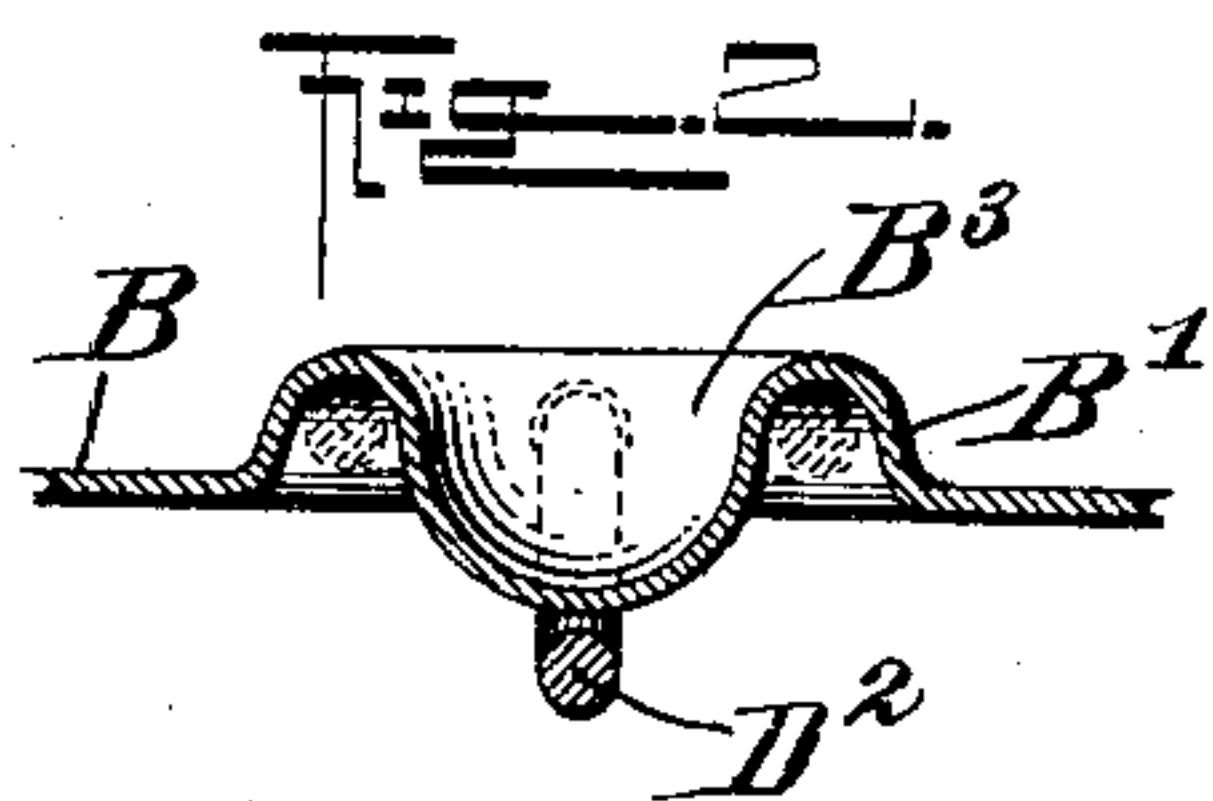
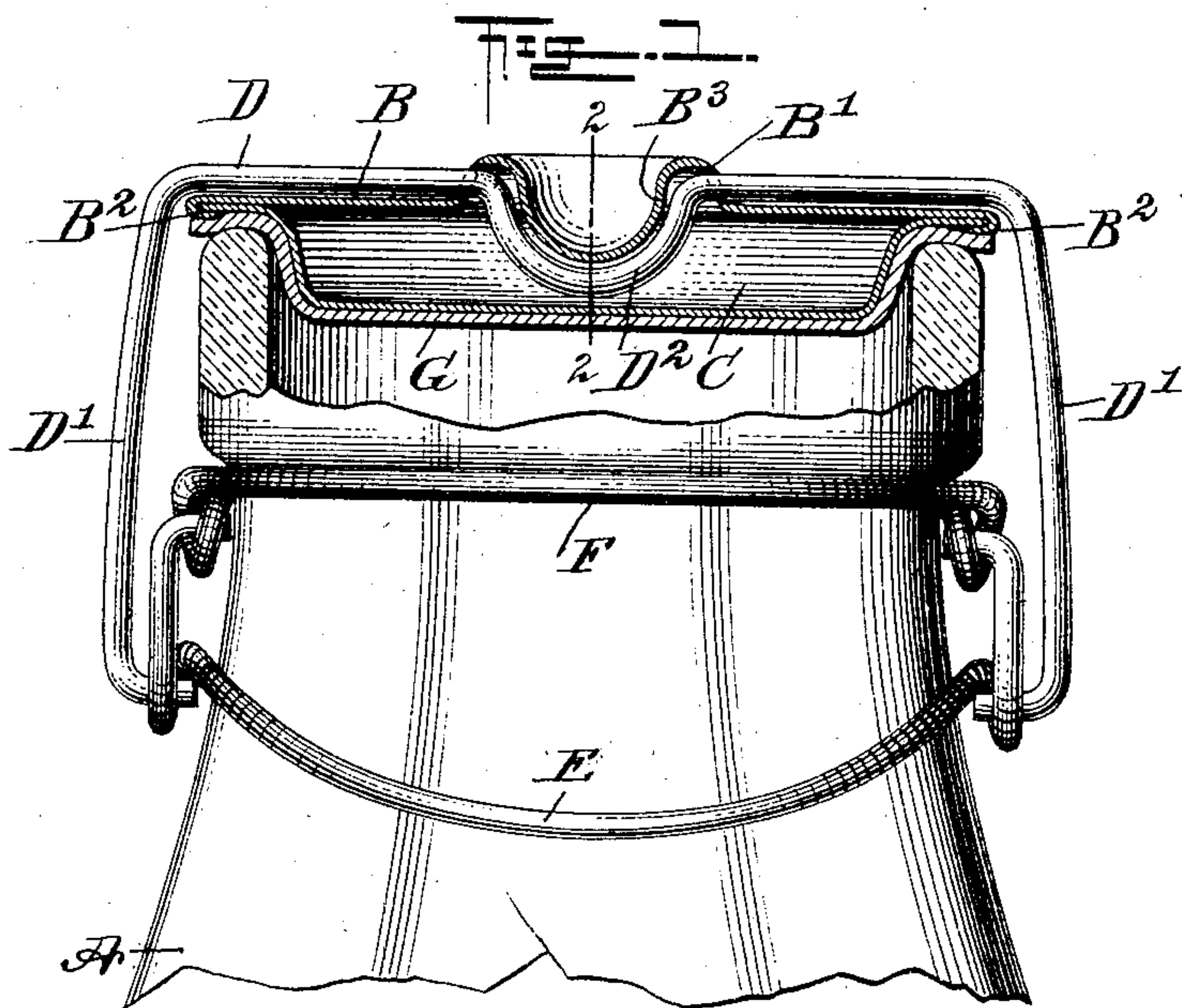
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W. H. SHEFFIELD.

BOTTLE CLOSURE.

APPLICATION FILED SEPT. 23, 1904.



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BOTTLE-CLOSURE.

SPECIFICATION forming part of Letters Patent No. 782,704, dated February 14, 1905.

Application filed September 23, 1904. Serial No. 225,585.

To all whom it may concern:

Be it known that I, WILLIAM HENRY SHEFFIELD, a citizen of the United States, and a resident of Hobart, in the county of Delaware and State of New York, have invented a new and Improved Bottle-Closure, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved bottle-closure, more especially designed for closing bottles containing milk and like liquids and arranged to properly connect the cap with the bail, to hold the bail on the cap against lateral movement, and to permit reuse of the cap by allowing regalvanizing or plating of old caps without danger of disconnecting or displacing the bail on the cap.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement as applied. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1, and Fig. 3 is a perspective view of the cap and its bail.

The bottle A is adapted to be closed by a cap having a top plate B and a bottom plate C, and the said cap is held in position on the mouth of the bottle A by a bail D, made U shape and fulcrumed at its depending side arms D' on an operating-lever E, fulcrumed on the usual support F, attached to the neck of the bottle. The top plate B of the cap is provided with an annular rising bearing B', in which is journaled at diametrically opposite points the middle portion of the bail D, and the outer edge of the said top plate terminates in a crimping flange B², crimped over the outer portion of the bottom plate C to fasten the latter in place on the under side of the top plate B. The central portion of the top plate inclosed by the rising rim B' is pressed downwardly to form a spherical depression B³, and

the middle part of the bail D is provided with a bend or crank D², conforming to the shape of the said spherical depression B³ to allow of turning the bail on swinging the side arms D' up in either direction until the bend D² abuts against the under side of the top plate B, adjacent to the spherical depression B³. (See dotted lines in Fig. 2.) The bottom plate C is made cup-shaped, as plainly indicated in Fig. 1, so as to form sufficient space between the top plate and the bottom plate for the bend or crank D² to swing in.

In using the cap on the mouth of the bottle A a disk G of prepared material is placed on the under side of the cap and pressed in contact with the top edge of the bottle by the crimped flange B², as will be readily understood by reference to Fig. 1. This prepared disk G prevents the contents of the bottle from coming in contact with the metallic bottom plate C of the cap to avoid contamination of the contents.

By having the top plate B provided with the rising flange or rim B' a convenient bearing is provided for the bail to turn in, and by having the bend or crank D² in the bail and confined between the bottom and top plates all lateral shifting of the bail in the cap is prevented and at the same time the bail is free to swing when manipulating the operating-lever E in the usual manner for opening or closing the bottle by the cap, it being understood that the operator cannot swing the cap upside down on the mouth of the bottle, as the cap has a limited swinging motion on the bail.

Caps constructed in the manner described are very strong and durable and not liable to get out of order, and by having the straight part of the middle portion of the bail bearing on the top plate B, as shown in Fig. 1, a firm pressure is exerted on the cap to hold the same in firm contact with the disk G, interposed between the cap and the top of the bottle A.

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

1. A bottle-closure provided with a cap comprising a cap-plate having a raised rim, and a bail having bearings in the said rim at

points approximately diametrically opposite each other, the bail portion between the said bearings being bent to form a stop for the bail.

5 2. A bottle-closure provided with a cap comprising a cap-plate having a central spherical depression, and a bail having bearings in the said plate and provided with a bent portion, conforming to the shape of the said depression, the top of the said depression limiting the swinging motion of the said bent portion.

15 3. A bottle-closure provided with a cap comprising a cap-plate having a central spherical depression, a bail having bearings in the said plate and provided with a bent portion, conforming to the shape of the said depression, and a closing-plate fastened to the cap-plate, between which plates extends the bent portion of the bail.

20 4. A bottle-closure provided with a cap comprising a top plate having a rising rim, a bottom plate, the plates being fastened together, and a bail having its bearing in the said rising rim, the middle portion of the said

top plate being spherically depressed and a part of the middle portion of the said bail being curved to conform to the spherical depression of the top plate.

5. A bottle-closure provided with a cap 30 and a bail, the cap comprising a top plate having a rising annular rim, in which the bail is mounted to turn, and a crimping flange on the outer edge of the top plate, the portion of the said top plate within the said rim being pressed to form a spherical depression, 35 and a bottom plate engaged at its outer edge by the said crimping flange, to fasten the plates together, the said bail extending with its middle portion between the said plates and 40 the said middle portion having a part bent to conform to the spherical depression in the top plate.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 45

WILLIAM HENRY SHEFFIELD.

Witnesses:

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I. W. HANAFORD.