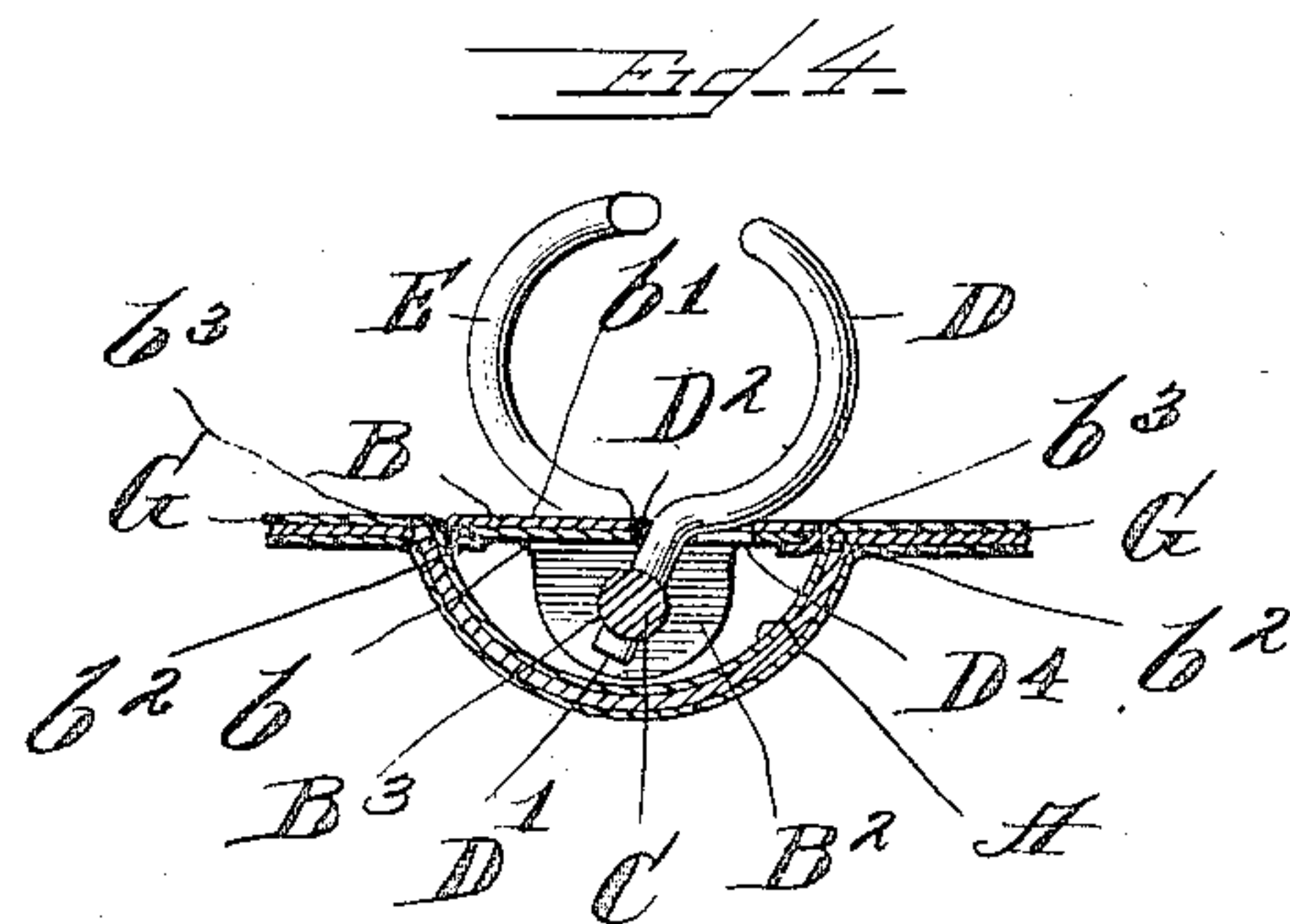
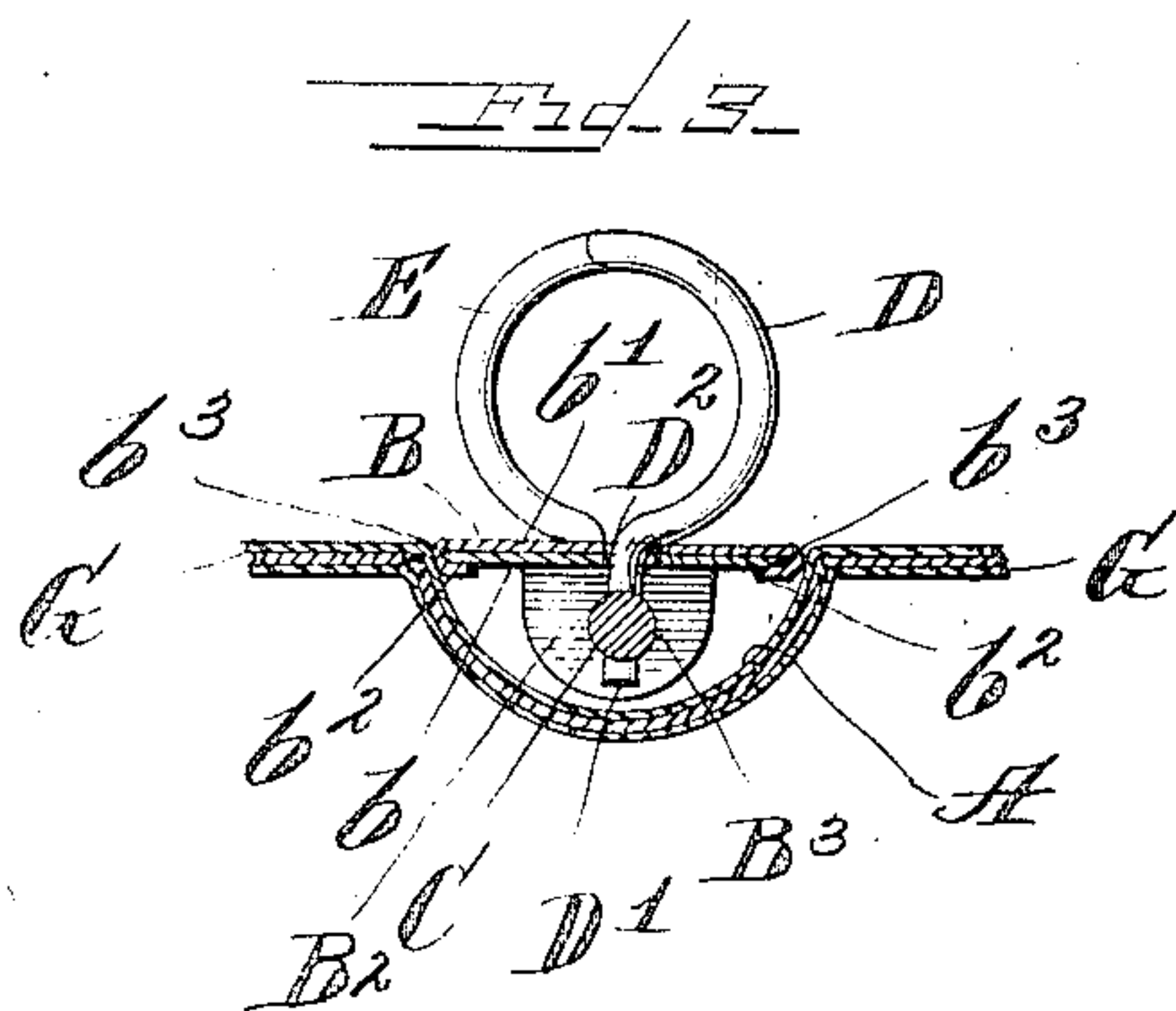
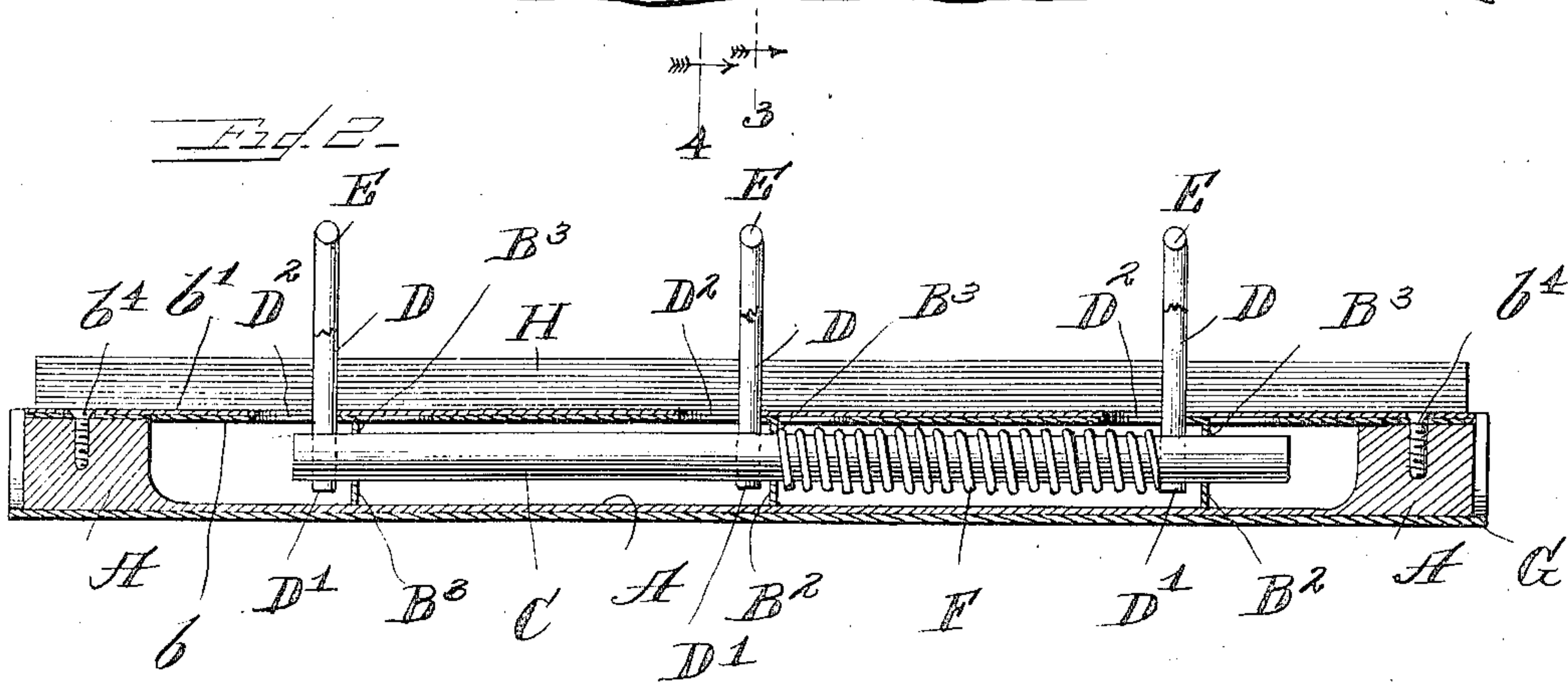
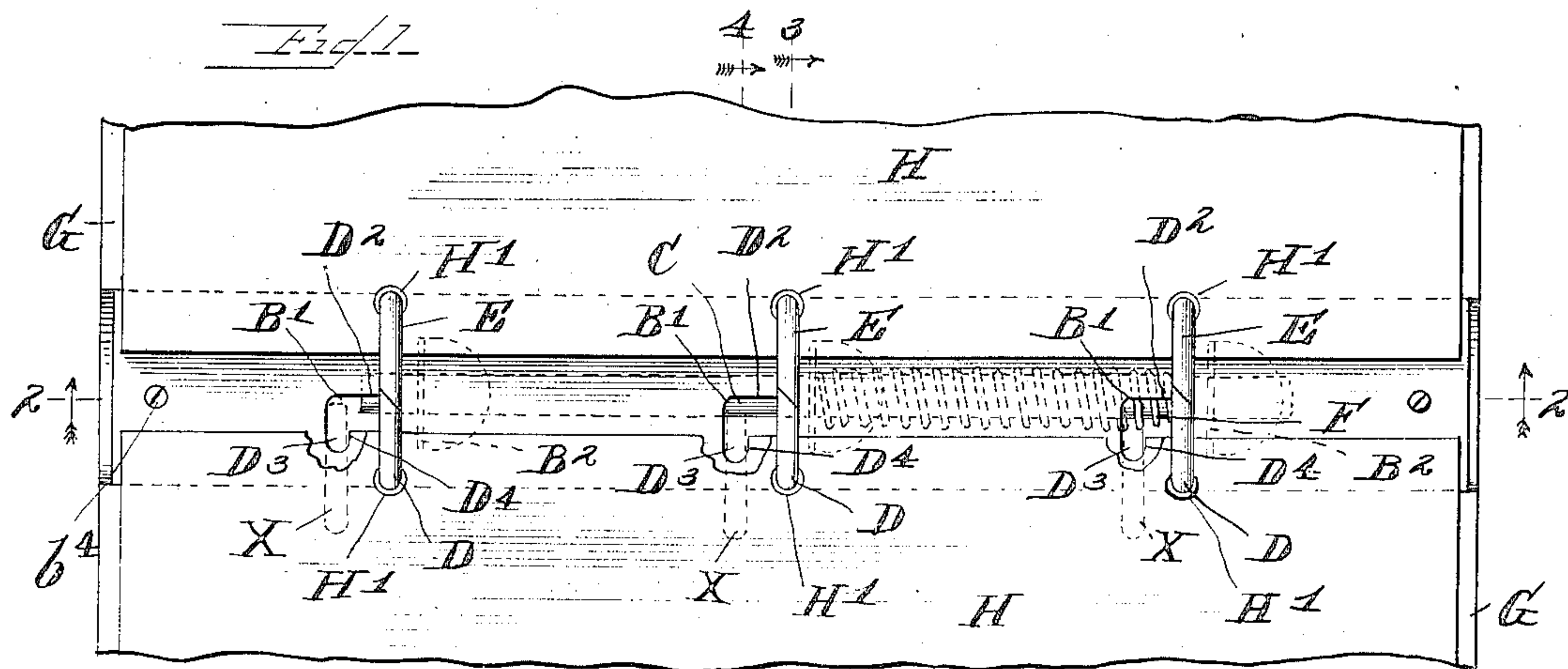


No. 812,397.

PATENTED FEB. 13, 1906.

J. P. BOEHNER.
BINDER FOR LOOSE LEAVES OF BOOKS.

APPLICATION FILED SEPT. 6, 1904.



WITNESSES

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JACOB P. BOEHNER, OF FREEPORT, ILLINOIS.

BINDER FOR LOOSE LEAVES OF BOOKS.

No. 812,397.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed September 6, 1904. Serial No. 223,552.

To all whom it may concern:

Be it known that I, JACOB P. BOEHNER, a citizen of the United States of America, residing at Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Binders for Loose Leaves of Books, of which the following is a specification.

My invention relates to a binder designed for holding loose leaves of paper of any kind and for any desired purpose in book form until the object for which they are held together is accomplished, when they may be readily detached from their holder and have other leaves expeditiously and conveniently substituted therefor; and it consists of certain new and useful features of construction and combinations of parts especially devised to that end, all as hereinafter fully described, and specifically pointed out in the claims.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a top plan view of a holder embodying my invention, its covers and leaves being wide open outward and broken away near the back thereof, the observer seeing the inside of the same. Fig. 2 is a partial section at the dotted line 2 2 in Fig. 1 of parts there shown. Fig. 3 is a partial section at the dotted line 3 3 in Fig. 1 of parts there shown. Fig. 4 is a partial section at the dotted line 4 4 in Fig. 1 of parts there shown, the semirings of the binder being in the positions indicated by the dotted lines X in the last-mentioned figure.

Like letters of reference indicate corresponding parts throughout the several views.

A is a trough-like back piece of the holder and is preferably substantially D-shaped in cross-section.

B is the back plate of the holder and has a plurality of L-shaped slots B' therein and transverse lugs B² thereon, the latter being provided with concentric circular bearings B³ extending therethrough. The back plate B is formed, preferably, of a lower thin metallic plate b, having the integral lugs B² stamped thereout and bent transversely outward therefrom, and a thin upper metallic plate b', secured thereto by turning the side portions b² of the latter closely over the edges b³ of the former, as clearly shown in Fig. 3. The completed plate B is next placed and secured upon the back piece A by means of screws b⁴ or in any other suitable manner.

C is a longitudinally-slidable rock-shaft,

mounted in the bearings B³ in the lugs B² of the back plate B.

D represents semirings corresponding in number with the L-shaped slots B' in the back plate B and rigidly secured by one end D' of each thereof to the rock-shaft C and projecting transversely therefrom and parallel to each other through the L-shaped slots B' in the back plate B and adapted to slide in the vertical arms D² of such L-shaped slots B' and to be rocked over into and detained in the horizontal arms D³ of such L-shaped slots B' by contacting the edges D⁴ thereof. E represents semirings, counterparts of and corresponding in number with the semirings D and fast mounted on the back plate B, parallel to each other and adjacent to the outer ends of the vertical arms D² of the L-shaped slots B'. F is a spring coiled about the shaft D and included between one of the lugs B² on the back plate B, and one of the semirings D, secured to such shaft C and normally acting through the latter to maintain the movable semirings D in operative relation to and engagement with their counterpart stationary semirings E, as shown in Figs. 1, 2, and 3, except that in Fig. 2 the free ends of the semirings D are broken away to show the semirings E back of such semirings D.

G represents covers connected with the back of the holder by means of the binding in the usual manner.

Whenever it is desired to place leaves H in the holder, the shaft C is slid endwise until the semirings D are opposite the horizontal arms D³ of the L-shaped slots B', when such semirings D are rocked over thereinto and detained therein by contact with the sides D⁴ thereof, Fig. 4 showing one of the semirings D in such position. The free ends of the semirings D E are next inserted through circular perforations H' in the leaves H, and the semirings D are swung out of engagement with the arms D³ of the L-shaped slots B', and the action of the spring F will then restore the semirings D to the positions shown in Fig. 1, thereby securing the leaves H operatively in their holder.

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

1. In a binder for loose leaves of books, in combination, a back plate having a plurality of L-shaped slots therein and transverse lugs thereon, the latter provided with concentric

circular bearings extending therethrough, a longitudinally-slidable rock-shaft mounted in the bearings in the lugs on the back plate, semirings, corresponding in number with the slots in the back plate and rigidly secured, by one end of each thereof, to the rock-shaft, and projecting transversely therefrom and parallel to each other through the slots in the back plate, and adapted to slide in the vertical arms of such slots and to be rocked over into and detained in their horizontal arms, semirings, the counterparts of and corresponding in number with the hereinbefore-mentioned semirings and fast mounted, on the back plate, parallel to each other and adjacent to the outer ends of the vertical arms of the slots therein, and a spring normally acting, through the longitudinally-slidable rock-shaft, to maintain the movable semirings in operative relation to and in engagement with their counterpart stationary semirings, substantially as described.

2. In a binder for loose leaves of books, in combination, a trough-like back piece, preferably D-shaped in cross-section, a back plate fast thereto and having a plurality of L-shaped slots therein and transverse lugs thereon, the latter provided with concentric circular bearings extending therethrough, a longitudinally-slidable rock-shaft mounted in the bearings in the lugs on the back plate, semirings, corresponding in number with the slots in the back plate and rigidly secured, by one end of each thereof, to the rock-shaft, and projecting transversely therefrom and parallel to each other through the slots in the back plate, and adapted to slide in the vertical arms of such slots and to be rocked over into and detained in their horizontal arms, semirings, the counterparts of and corresponding in number with the hereinbefore-mentioned semirings and fast mounted, on the back plate, parallel to each other and adjacent to the outer ends of the vertical arms

of the slots therein, and a spring normally acting, through the longitudinally-slidable rock-shaft, to maintain the movable semirings in operative relation to and engagement with their counterpart stationary semirings, substantially as described.

3. In a binder for loose leaves of books, in combination, a trough-like back piece A, preferably D-shaped in cross-section, a back plate B fast thereto and having a plurality of L-shaped slots B' therein and transverse lugs B² thereon, the latter provided with concentric circular bearings B³ extending therethrough, a longitudinally-slidable rock-shaft C, mounted in the bearings B³ in the lugs B² on the back plate B, semirings D, corresponding in number with the slots B' in the back plate B and rigidly secured by one end D' of each thereof, to the rock-shaft C, and projecting transversely therefrom and parallel to each other through the slots B' in the back plate B, and adapted to slide in the vertical arms D² of such slots B' and to be rocked over into and to be detained in their horizontal arms D³, semirings E, the counterparts of and corresponding in number with the semirings D and fast mounted, on the back plate B, parallel to each other and adjacent to the outer ends of the vertical arms D² of the slots B' therein, a spring encircling the rock-shaft C and serving therethrough to maintain the movable semirings D in operative relation to and engagement with their counterpart stationary semirings E, and covers G, connected with the back of the holder, substantially as described.

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

JACOB P. BOEHNER.

Witnesses:

PAUL WAGNER,
CLARENCE BRESSLER.