A. M. ZIEGLER.

SEPARABLE FASTENER.

APPLICATION FILED FEB. 1, 1906.

898,815.

Patented Sept. 15, 1908.

Fig. 1.

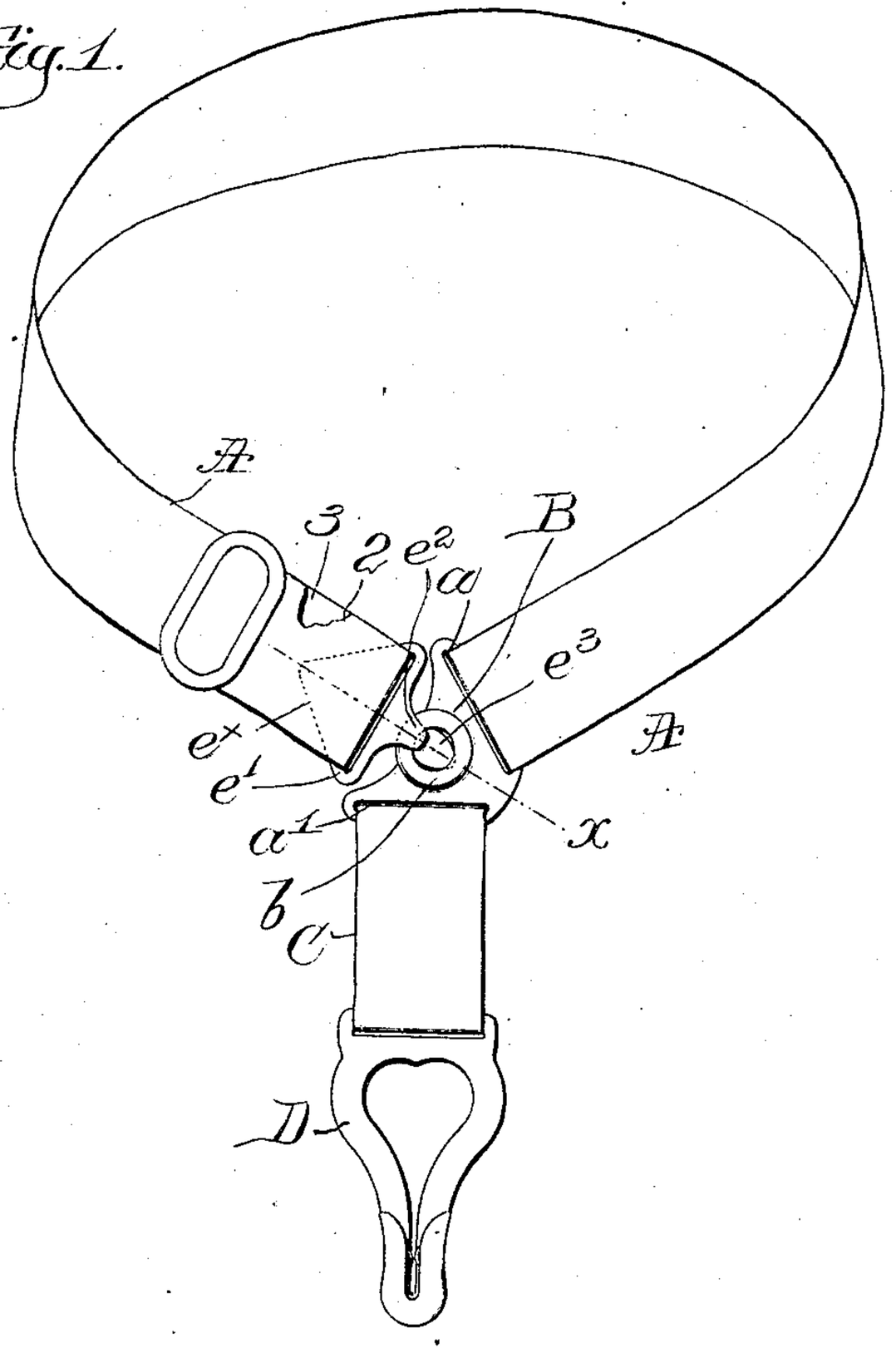


Fig. 2.

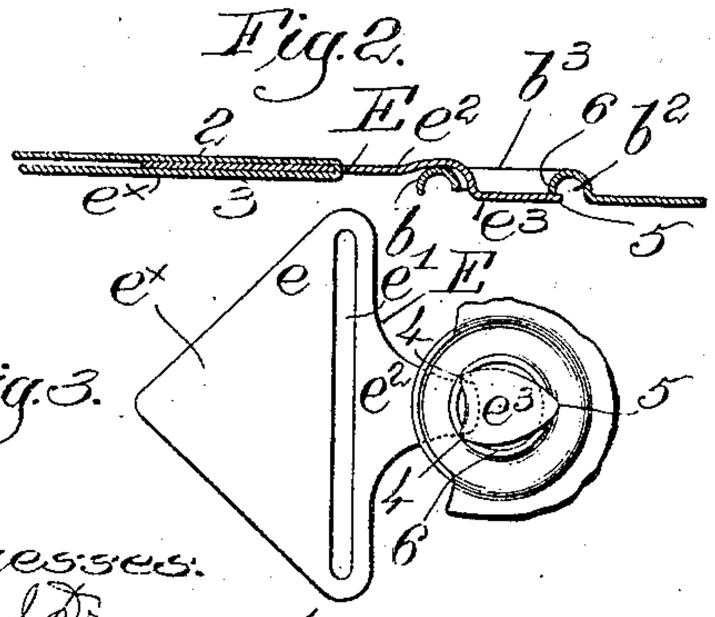
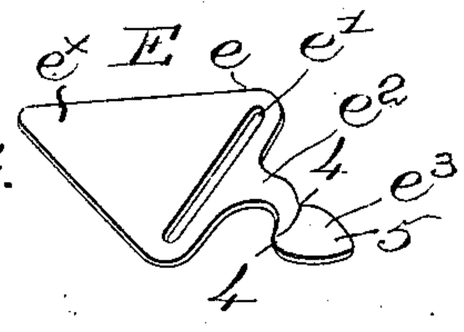


Fig. 3.

Fig. 4.



Witnesses:
Thomas J. Drummond
Edward H. Allen.

Inventor.
Alfred M. Ziegler,
by Dewey & Dewey Atty's.

UNITED STATES PATENT OFFICE.

ALFRED M. ZIEGLER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO A. ZIEGLER & SONS COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

SEPARABLE FASTENER.

No. 898,815. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed February 1, 1906. Serial No. 299,047.

To all whom it may concern:

Be it known that I, ALFRED M. ZIEGLER, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Separable Fasteners, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a novel separable fastener particularly adapted for use in a hose-supporter that may be easily manipulated and which will remain in operative engagement without any danger of being cast off.

My novel separable fastener comprises a metal frame adapted for attachment to the leg-embracing band, and from which frame depends the usual fabric-engaging catch, said frame having on its upper side an annular tubular raceway or track surrounding a circular aperture, the periphery of which is formed by the lower edge of the downturned inner wall of the raceway, together with an engaging plate slotted for the engagement therewith of the opposite end of the leg-embracing band, the engaging plate presenting a leg provided with a foot of a length from its heel to its toe in excess of the diameter of the circular lower edge of the inner wall of the raceway, the leg riding on the raceway when the two plates are connected.

The foot is sustained by the leg against the circular edge referred to, the construction being such that the foot when in its operative position lies flush with the under side of the metal plate or frame, the engaging plate being movable axially upon the circular bearing edge as will appear more clearly hereinafter.

The particular features in which my invention consists will be hereinafter fully described and designated in the claims at the end of this specification.

Figure 1 represents a separable fastener embodying my invention and applied to a hose-supporter; Fig. 2 is an enlarged section in the line x, Fig. 1; Fig. 3 an underside view of the parts shown in section, Fig. 2; Fig. 4 is a perspective view of the engaging plate.

The leg band A is shown as extended through a slot a in a metal frame B where said end is confined by stitches. The frame has a second slot a' in which is hung the pendant C which may be a piece of webbing that in turn sustains the fabric catch D that may be of any usual construction.

The metal frame or plate B is circularly apertured and constructed to present a concentric tubular raceway or track b on its upper side, the inner wall of the raceway terminating at its lower end in a circular bearing edge 6, substantially in the plane of the upper side of the frame, see Fig. 2.

As shown in Fig. 2 the raceway is concavo-convex in cross section, so that at the underside of the frame B it presents an annular space or clearance b^2 between the bearing edge 6 and the main portion of the frame.

The attaching plate E comprises a body e having a slot e' beyond which at one side is an extension $e^\times$ and at the opposite side a leg e^2 having a foot e^3. The extension $e^\times$, see Figs. 1 and 3, shaped as shown, forms a portion that may be readily grasped between the fingers in connection with the two portions 2, 3, of the web forming part of the adjustable end of the leg band. This extension also enables the foot to be readily tipped so that its toe 5 may be entered in the hole in the metal plate B from the upper side, as when attaching the two parts of the separable fastener together, and it also acts as a safeguard to maintain the parts in engagement.

The leg e^2 is shown as curved to ride on the transversely convex, annular raceway or track b, and to permit the foot e^3 to occupy a position below the plane of and parallel to the lower side of the extension of the attaching plate. The foot is of a length through its heel portions 4 and toe 5 a little in excess of the diameter of the hole through the metal plate B so that the toe may be first inserted in said hole preparatory to passing the entire foot through the hole after which the foot may be turned so that its heels 4 and toe 5 are sustained by the circular bearing edge 6 of the tubular part of the metal plate B, the leg at the same time resting on the top of the raceway or track. The under face of the foot is in the plane of the under side of the frame B, so that no unevenness is formed by the presence of the foot, the foot being flush with the frame when in position.

It will be observed that the top of the foot is free to turn axially for a limited distance to and fro on the edge 6, the annular clear-

ance b^2 permitting such movement, as will be clear from an inspection of Figs. 2 and 3, without interfering with the main part of the plate B, and the foot cannot be disengaged from the metal plate B except by tipping the foot so that the heels 4 may be first withdrawn from the hole in the metal plate B. The leg rests on the raceway or track which acts as a fulcrum for the leg and aids in keeping the upper side of the foot at its toe and heel seated against the circular edge 6. The attaching plate and the metal plate having been once engaged cannot be disengaged except by tipping the foot out of a plane parallel with the end of the circular edge 6 and consequently the parts cannot be accidentally disengaged in the use of the hose supporter. Further, the extension $e^{\times}$, acted upon by the web produces extra leverage that holds the foot in engagement with the metal plate.

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

1. A separable fastener comprising a circularly apertured metal plate having a concentric raceway with the lower circular edge of its inner wall above the plane of the lower side of the plate and laterally separated from the body portion of the plate, and an attaching plate having a leg and a foot, the latter in the line of its toe and heel being in excess of the diameter of the aperture and adapted to rest against the said circular edge substantially flush with the under side of the apertured plate.

2. A separable fastener comprising an apertured metal plate having a concentric circular bearing edge in the plane of the upper side of the plate, and an attaching plate having a leg and a foot, said foot being adapted to pass through the aperture and rest upon the bearing edge substantially flush with the under side of the apertured plate, the distance from the heel to the toe of the foot being greater than the diameter of the bearing edge.

3. A separable fastener comprising a circularly apertured metal plate having on its upper side an annular concentric raceway the lower edge of the inner, downturned wall thereof bounding the aperture, and an attaching plate having a leg provided with a foot adapted to pass through the aperture, the foot presenting diametrically opposite heel and toe portions to extend beyond and contact with the lower circular edge of the inner wall of the raceway, maintaining the plates connected.

4. A separable fastener comprising a circularly apertured metal plate having a concentric tubular raceway on its upper side, the lower circular edge of the inner wall thereof being substantially in the plane of the upper side of the plate, and an engaging plate having a leg curved to embrace the raceway and terminating in a foot to rest against said circular edge, the foot having heel and toe portions extended beyond the edge, the under faces of the foot and apertured plate at such time being substantially flush with each other.

5. A separable fastener comprising a metal plate having a hole, and an engaging plate slotted for the passage therethrough of a band, said plate having at one side of said slot an extension and at its other side a leg and foot.

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

ALFRED M. ZIEGLER.

Witnesses:
GEO. W. GREGORY,
MARGARET A. DUNN.