

No. 737,875.

PATENTED SEPT. 1, 1903.

M. D. SHIPMAN.
FASTENER.

APPLICATION FILED DEC. 26, 1902.

NO MODEL.

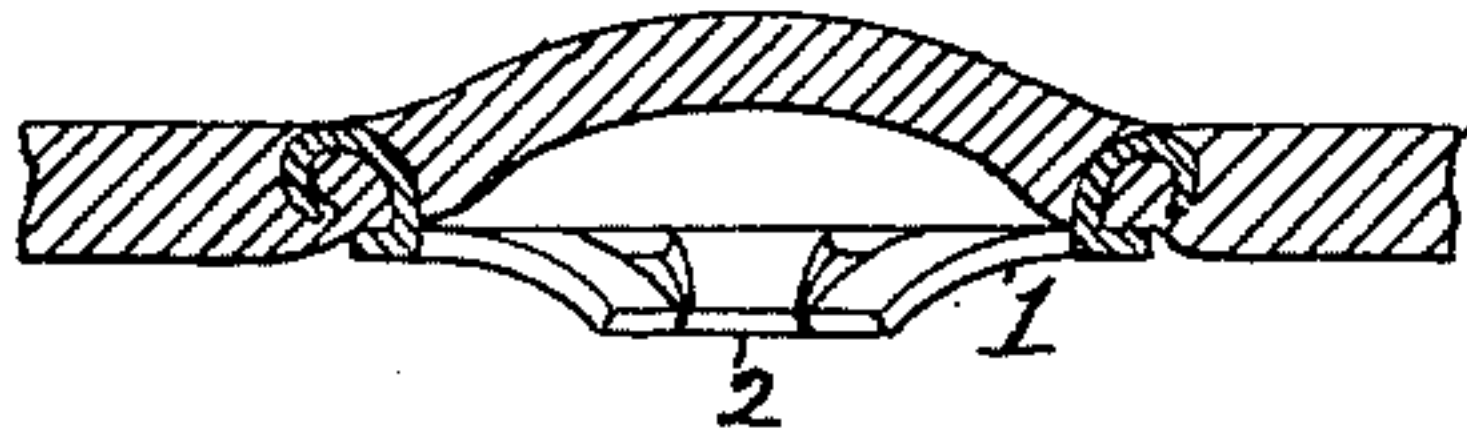


Fig. 1.

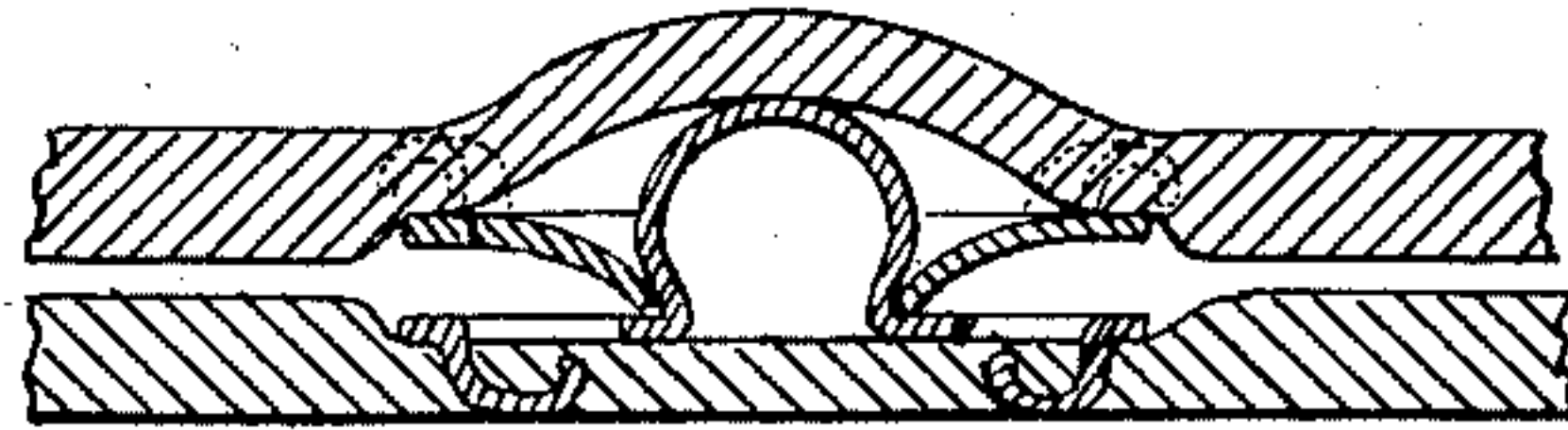


Fig. 4.

Fig. 11.

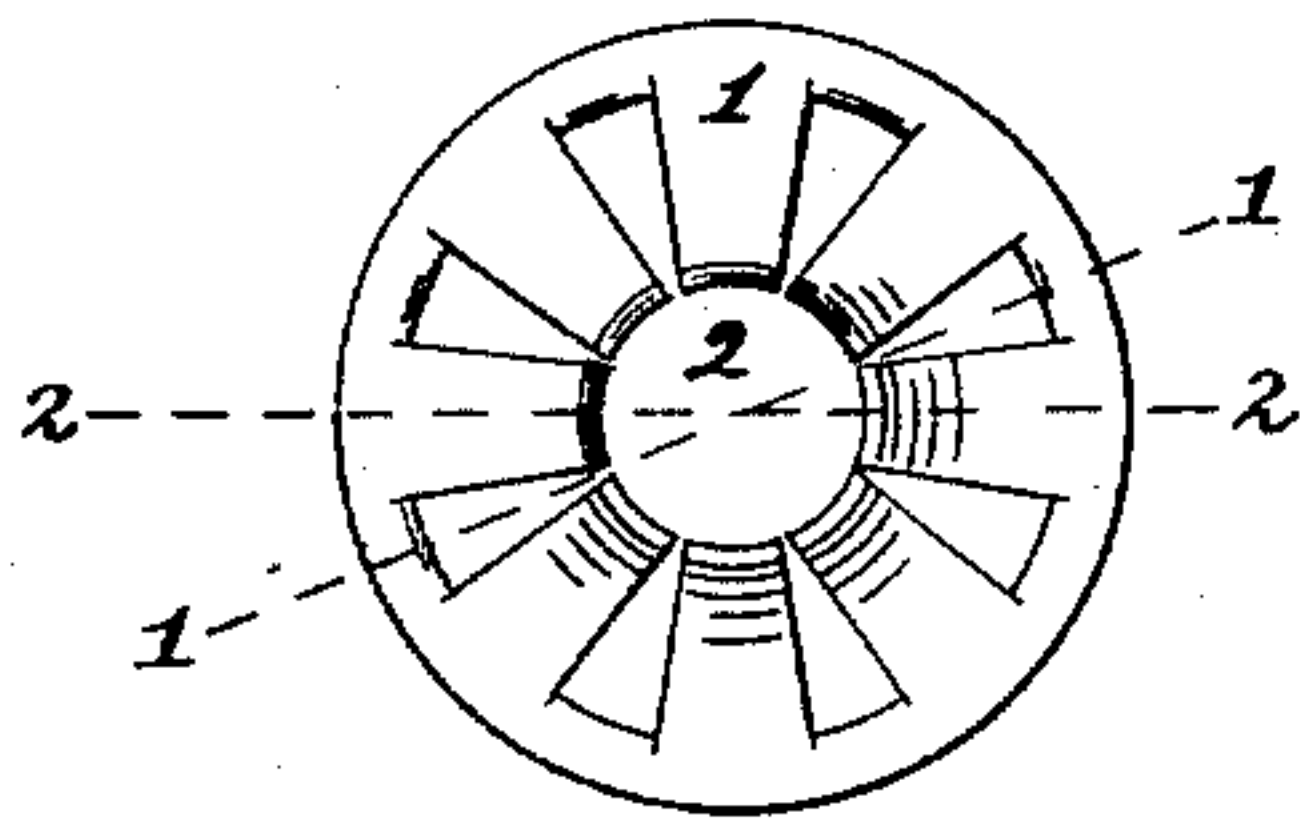


Fig. 2.

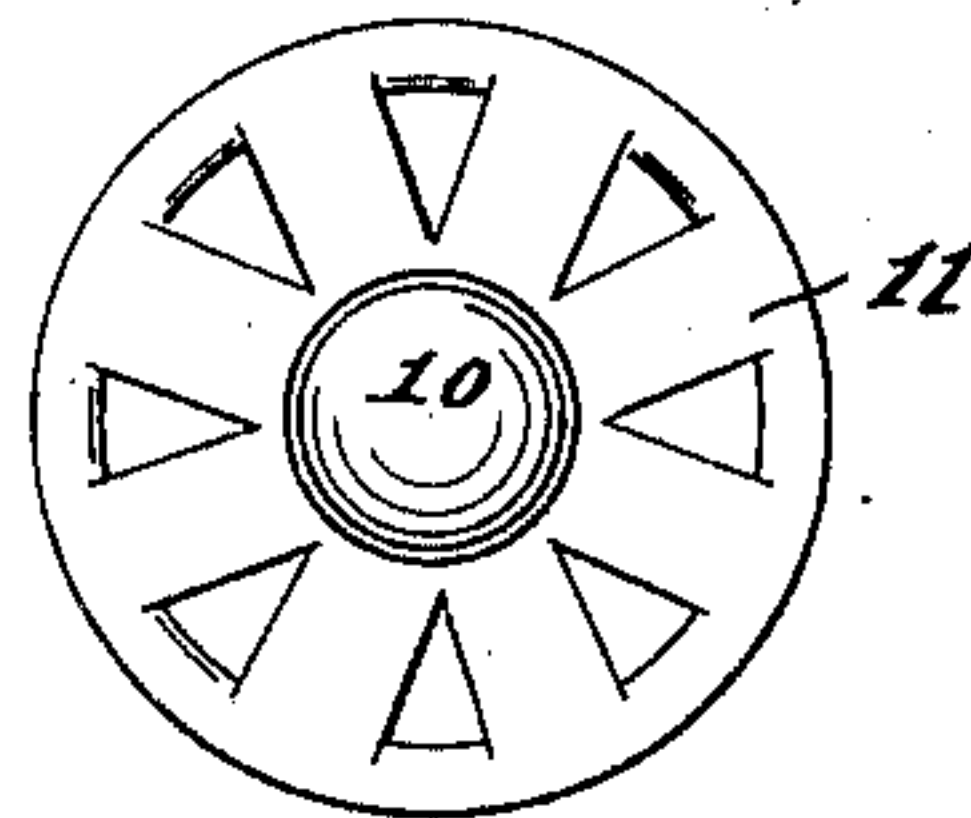
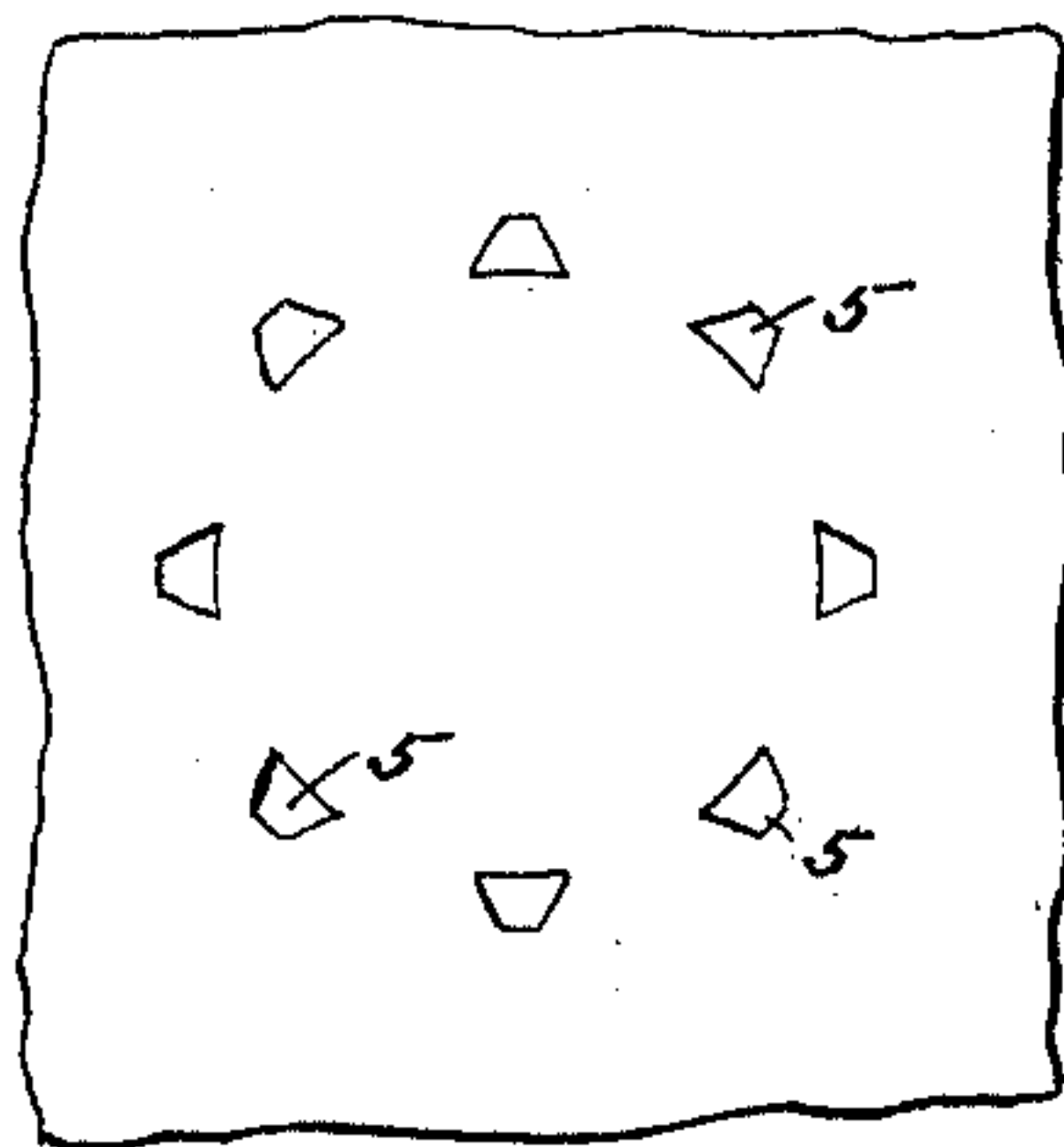


Fig. 5.

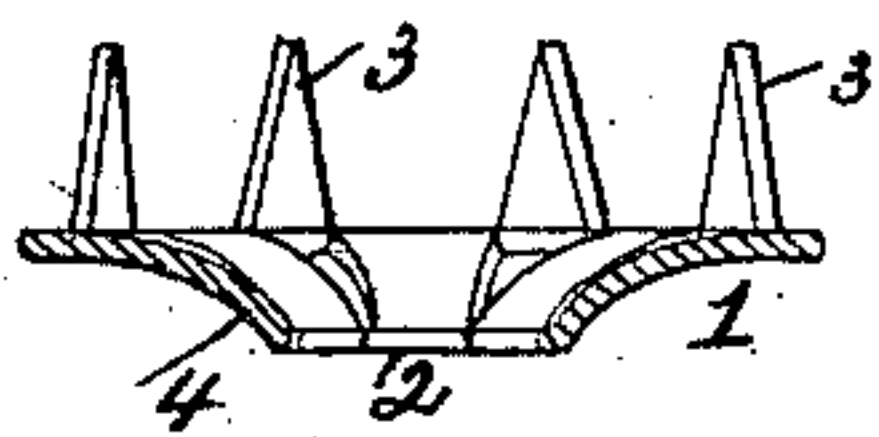


Fig. 3.

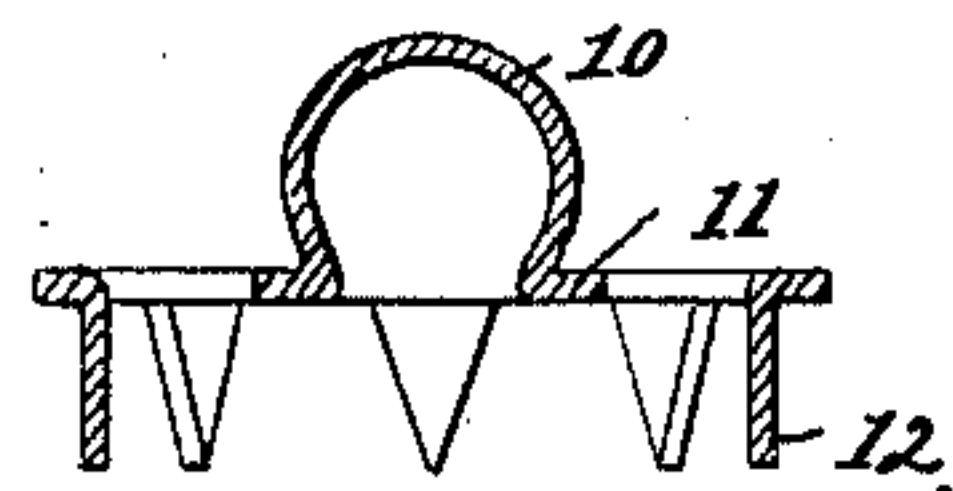


Fig. 6.

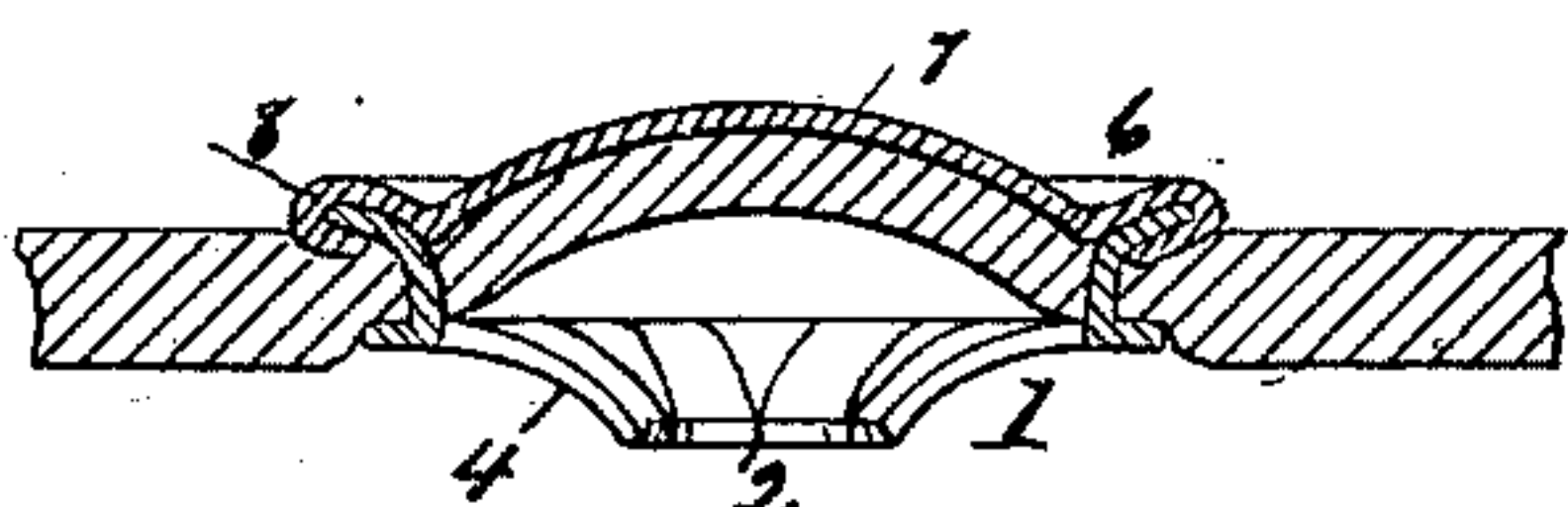


Fig. 9.

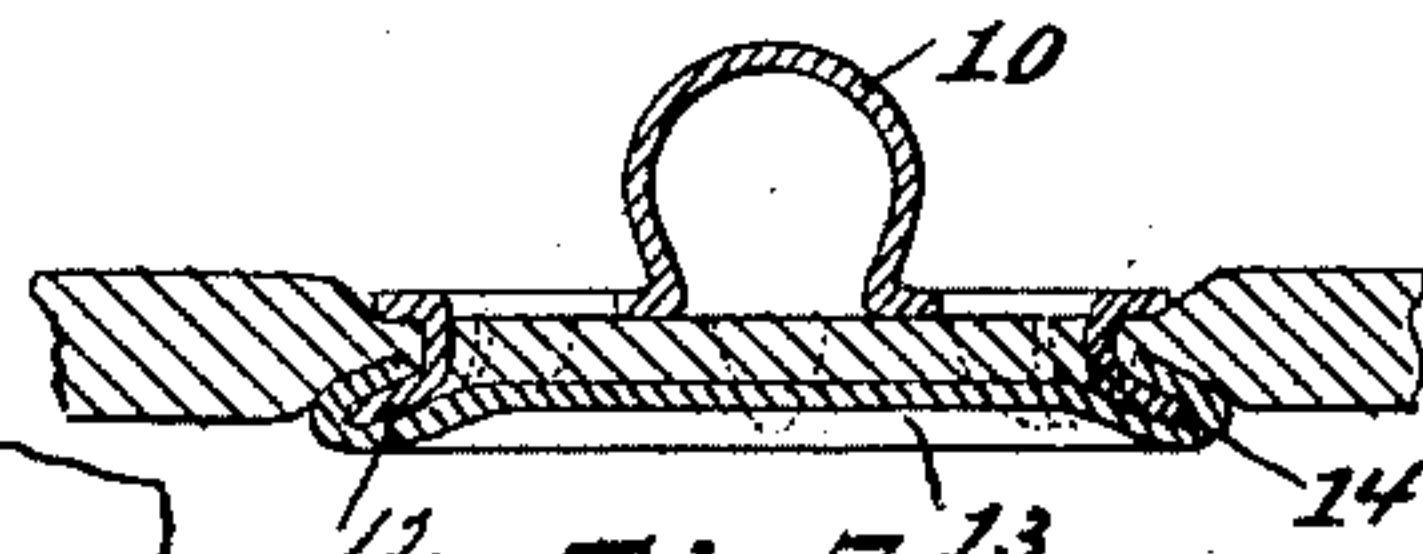


Fig. 7.

Fig. 10.

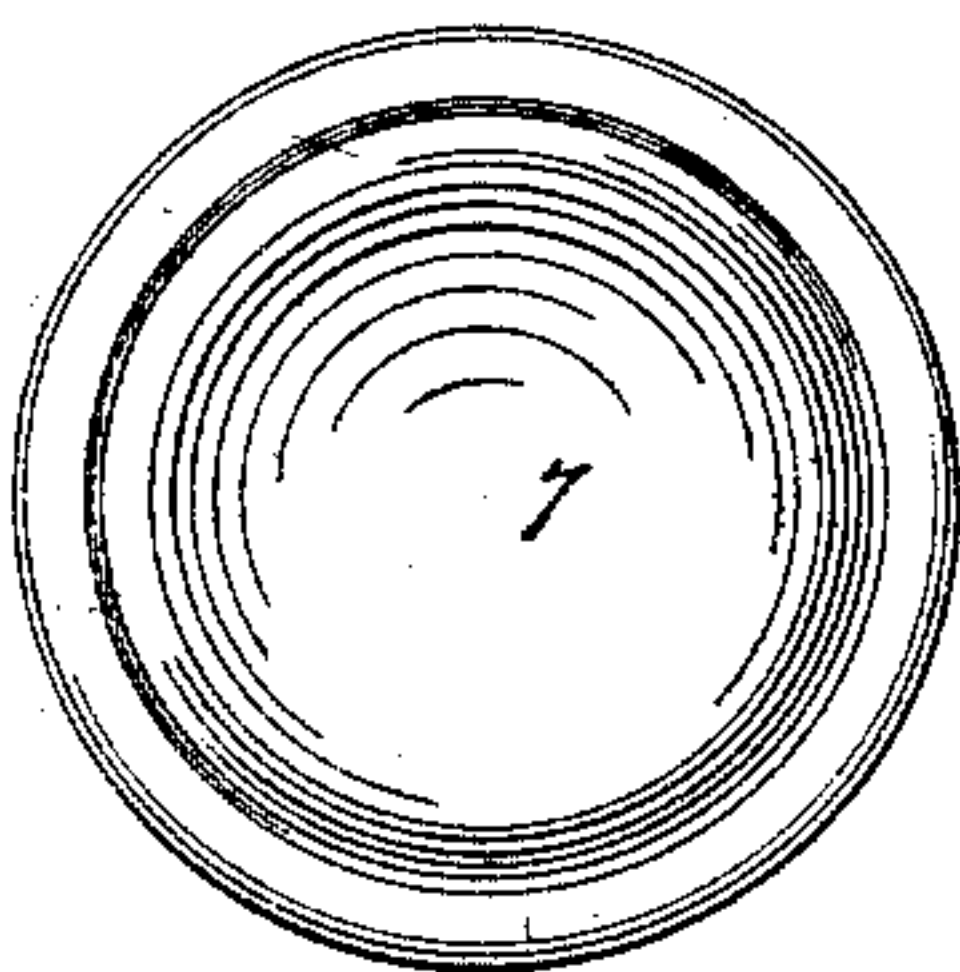


Fig. 12.

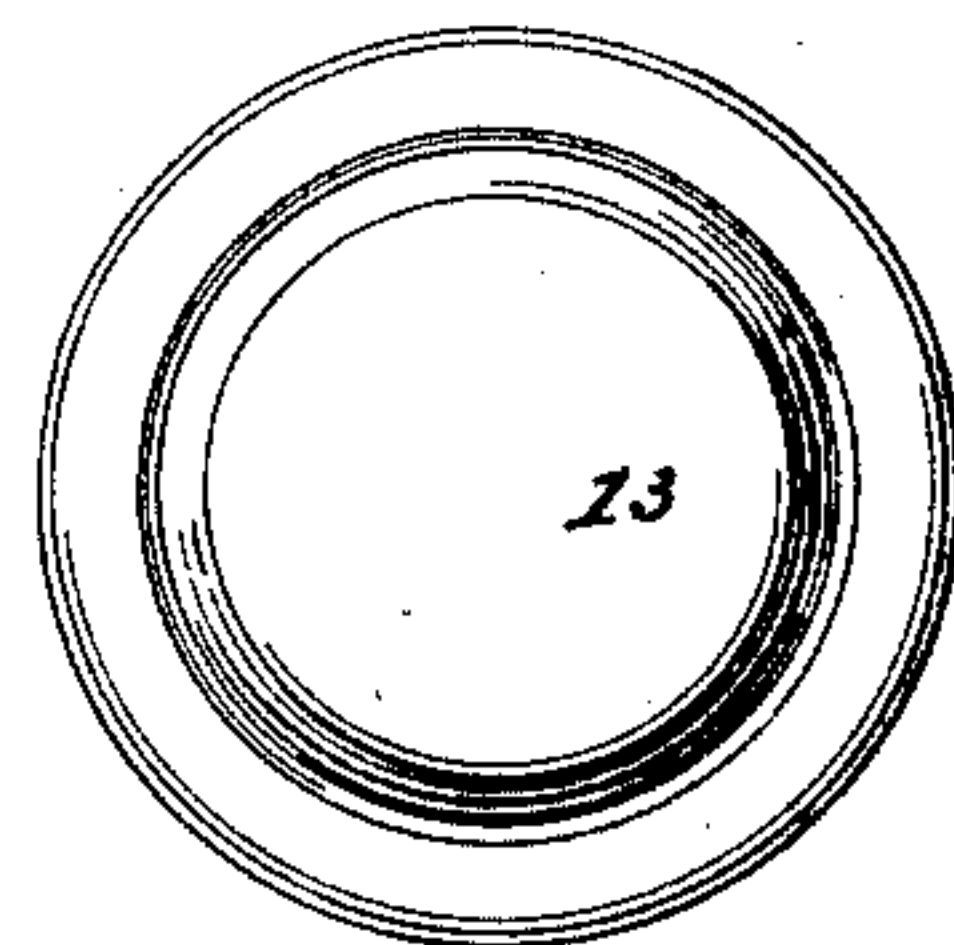
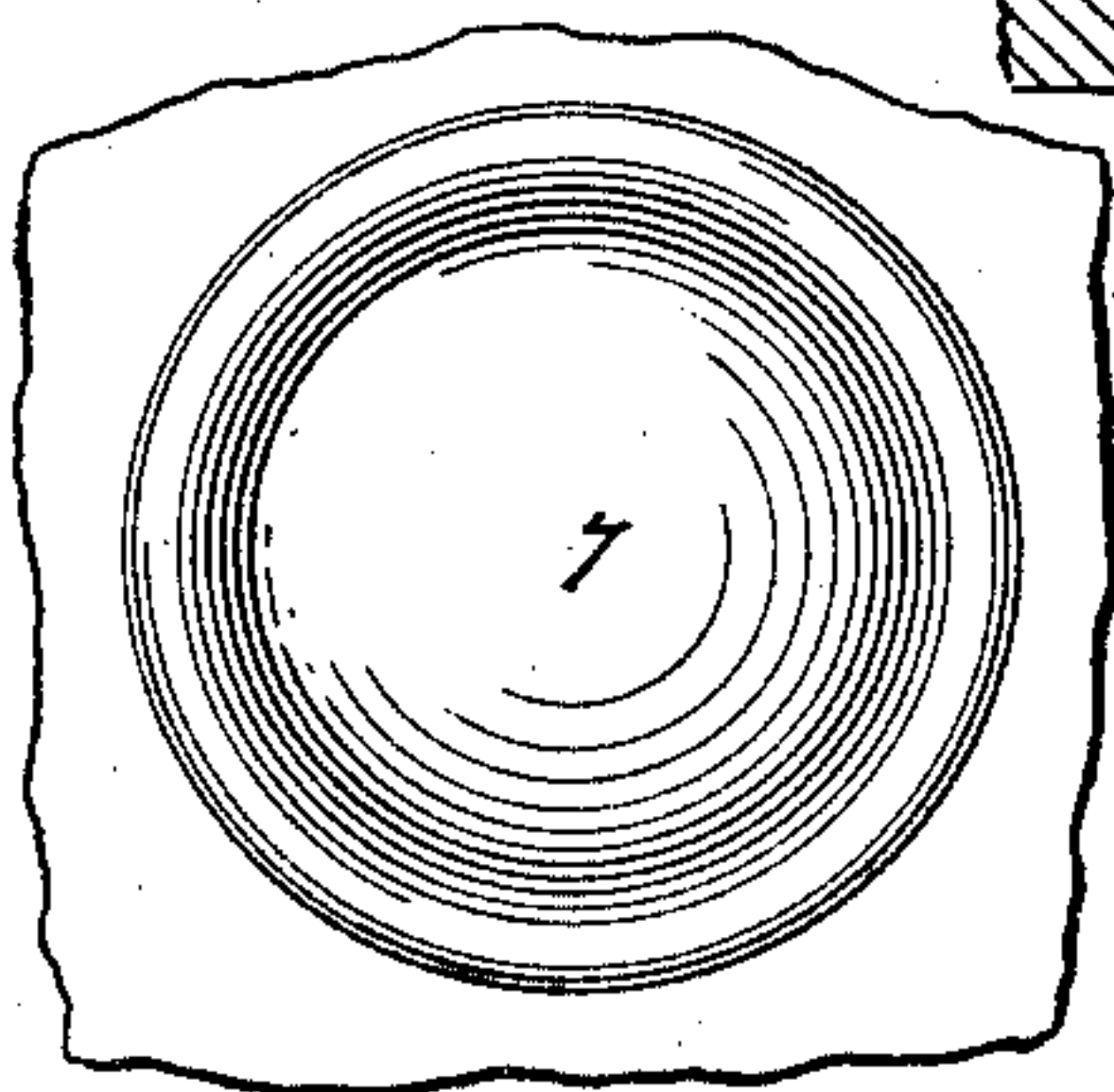


Fig. 8.

Witnesses.
G. W. Flannery
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Inventor.
M. D. Shipman
by H. B. Dower
Atty.

UNITED STATES PATENT OFFICE.

MADISON D. SHIPMAN, OF DEKALB, ILLINOIS, ASSIGNOR TO THE UNITED STATES FASTENER COMPANY, OF PORTLAND, MAINE.

FASTENER.

SPECIFICATION forming part of Letters Patent No. 737,875, dated September 1, 1903

Application filed December 26, 1902. Serial No. 136,593. (No model.)

To all whom it may concern:

Be it known that I, MADISON D. SHIPMAN, of Dekalb, in the county of Dekalb and State of Illinois, have invented a new and useful
 5 Improvement in Fasteners, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to ball-and-socket fasteners; and the objects of the same are to provide a simple and efficient button or fastener
 10 of few parts and which may be easily and securely attached to the fabric or material by means of a setting-tool of simple construction. I attain these objects by means of the construction illustrated in the accompanying
 15 drawings, in which—

Figure 1 is a central vertical section of a socket member of a fastener made in accordance with my invention secured to the fabric or material, said socket member being
 20 taken on line 1 1, Fig. 2. Fig. 2 is a plan view of the same socket member before it is attached to the fabric or material. Fig. 3 is a vertical section on line 2 2, Fig. 2. Fig. 4 is a central vertical section taken through a
 25 complete fastener or button made in accordance with my invention and attached to pieces of fabric or material. Fig. 5 is a plan view of the ball or stud member of my button or
 30 fastener before it is attached to the fabric or material. Fig. 6 is a central vertical section of the same. Fig. 7 is a central vertical section of the ball member secured to a piece of material by means of a back plate or anvil-
 35 plate. Fig. 8 is a plan view of the back plate or anvil. Fig. 9 is a vertical section taken through the socket member when secured to a piece of material by means of a top plate or anvil-cap. Fig. 10 is a plan view of the top
 40 plate or anvil-cap unattached to the material. Fig. 11 is a plan view looking down upon the material with the socket member attached as shown in Fig. 1 and showing the points or
 45 prongs on the socket member passed upward through the material and the terminal points curled and clenched within the material. Fig. 12 is a top plan view of the socket member
 secured to the material, as shown in Fig. 9.

Like numerals of reference designate like
 50 parts wherever they occur in different views of the drawings.

The numeral 1 designates the socket member of my fastener, said socket member being formed from a disk of sheet metal cut and struck up to the shape shown in Figs. 2
 51 and 3 and provided with a central opening 2 for the stud member and a series of attaching points or prongs 3, cut from within the body of the blank and bent at right angles
 60 thereto, as shown in Fig. 3, the portions of the blank intermediate the points forming spring-arms 4, which are curved downward to provide a resilient stud-catch or socket member. To secure this socket member to
 65 the material, the points or prongs 3 are forced up through the material by a suitable tool, the terminal ends of the prongs being curled and embedded within the material to form a complete socket member of finished appearance
 70 and consisting of but one piece of metal. When thus secured to the material, small portions 5 of the prongs are exposed upon the outside of the material to indicate the location of the socket member. If it should be
 75 desired to use a cap or top piece with this socket member, the construction shown in Fig. 9 may be adopted. The cap 6 has a curved top 7 and a clenching-recess 8 for the points 3. To attach the socket member as
 80 shown in Fig. 8, it is only necessary to force the prongs 3 through the material and against the anvil-surface in the clenching-recess 8 of the cap 6.

The ball member consists of a bulb 10, a base-flange 11, and the attaching-points 12,
 85 cut from within the base-flange and bent at right angles thereto. To attach this ball member to the material, the attaching-points are passed through the material and curled inward and the terminal ends embedded
 90 within the material, as shown in Fig. 4. It will be obvious that the attaching-points of either the socket member or the ball member may be curled either outward or inward, depending upon the thickness of material to
 95 which they are to be attached and other conditions. If it is desired to use a back plate or anvil for the points, the structure disclosed in Fig. 7 may be resorted to, in which the back plate is provided with a central de-
 100 pressed portion 13 and a circular clenching recess or anvil 14 for the terminal ends of the

attaching-points 12. The manner of attaching the ball member by a back plate or anvil will be apparent upon reference to Fig. 7.

The advantages arising from my construction are: Simplicity, efficiency, slight cost of production, reduction of cost of assembling parts, ease in attachment to the material, and slightly appearance.

My fastener can be made of two pieces of metal and will lie flat and obviate unsightly bulging of the material.

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

1. A socket member of a fastener formed from a single piece of a metal blank, said blank having a central opening, and integral attaching-prongs extending at right angles to the stud-catch or socket, said attaching-prongs being cut from within the body of the fastener.

2. A socket member comprising a single piece of metal having integral attaching-prongs extending upward and a stud-catch projecting downward, said attaching-prongs being cut from within the body of the blank.

3. A socket member made of a single piece of metal and having a downwardly-curved stud-catch and upwardly-extending attaching-prongs, said prongs being cut from within the body of the blank to form the resilient stud-catch.

4. A socket member made of a single piece of metal and having inwardly-curved resilient arms to form a stud-catch and upwardly-extending attaching-prongs, said prongs being cut from within the body of the blank to render the socket member resilient and to serve as the means for attaching the member to the material, substantially as described.

5. A socket member comprising a single piece of a metal blank having resilient arms forming a stud-catch, and attaching-prongs cut from within the body of the blank and clenched within the material to which the socket is attached, substantially as described.

6. A socket member consisting of a resilient stud-catch formed from a metal blank, prongs cut from within the body of the blank and forced through a piece of fabric or material to which the socket is attached and

clenched within a cap or anvil plate, substantially as described.

7. A stud member of a glove-fastener consisting of a single piece of a metal blank having a series of attaching-prongs, cut from within the body of the blank and bent at right angles to the base-flange, substantially as described.

8. A stud member comprising a single piece of metal having a ball or bulb, a base-flange, a series of attaching-points cut from within the flange, and said ball member secured to a piece of material by curling and embedding the points within the material, substantially as described.

9. A ball-and-socket fastener comprising a socket member, made of a single piece of a metal blank, a ball member formed from a single piece of a metal blank, each member having integral attaching-prongs cut from within the bodies of the blanks and adapted to be curled and clenched within the material to which the member is attached.

10. A ball-and-socket fastener, comprising a socket member formed from a single metal blank and having a resilient stud-catch and integral attaching-prongs cut from within the body of the member, a cap-plate provided with a clenching-recess; a ball member having integral attaching-prongs cut from within the body of said ball member, and a bottom plate or anvil, the prongs being upset within the bottom plate, substantially as described.

11. A fastener comprising a socket member made of a single piece of metal formed with upwardly-projected prongs, and a stud member formed of a single piece of metal having downwardly-projected prongs, said prongs being cut from within the body of the stud member, substantially as described and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 8th day of December, A. D. 1902.

MADISON D. SHIPMAN.

Witnesses:

EDWIN S. HUNT,
HENRY E. ROLFE.