No. 707,456. Patented Aug. 19, 1902.

M. D. SHIPMAN.

BUTTON AND PROCESS OF MAKING SAME.

(Application filed May 1, 1900.

(No Model.)

Fig. 1.

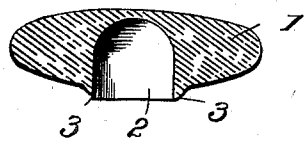


Fig. 2.

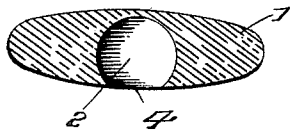


Fig. 3.

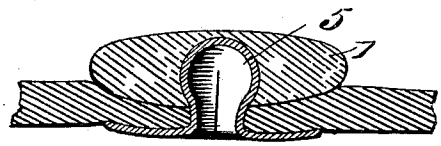


Fig. 4.

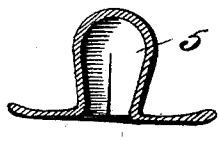


Fig. 5.

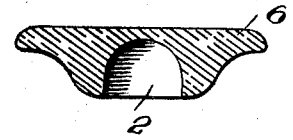


Fig. 6.

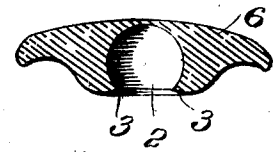
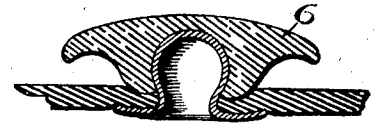


Fig. 7.



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Witnesses
Jno. Imrie
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UNITED STATES PATENT OFFICE.

MADISON D. SHIPMAN, OF DEKALB, ILLINOIS.

BUTTON AND PROCESS OF MAKING SAME.

SPECIFICATION forming part of Letters Patent No. 707,456, dated August 19, 1902.

Application filed May 1, 1900. Serial No. 15,103. (No model.)

To all whom it may concern:

Be it known that I, MADISON D. SHIPMAN, a citizen of the United States, residing at Dekalb, in the county of Dekalb and State of Illinois, have invented certain new and useful Improvements in Buttons and Processes of Making Same; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to buttons and processes of making them; and the objects of the same are to provide a plastic button-head with a recess upon the back or reverse side to form an upsetting or clenching surface for a fastener, eyelet, or stud-catch for a separable button.

Another object of my invention is to provide a button-head of plastic material which shall have a recess upon its under surface, said recess being provided with a contracted entrance-opening for the fastening means, whereby when pressure is applied to the outer surface of the button-head and the flange of the fastener said fastener is spread above the contracted entrance and within the recess to hold the button to the material.

I attain the objects of my invention by means of the construction shown in the accompanying drawings, in which—

Figure 1 is a central vertical section through a blank from which my button-head is formed. Fig. 2 is a similar view through the button-head when completed. Fig. 3 is a like view of said button-head secured to the material by a stud-catch to form a socket member of a separable fastening device. Fig. 4 is a section through the metallic stud-catch shown set in Fig. 3. Fig. 5 is a central vertical section through another form of blank for forming my button-head. Fig. 6 is a similar view through a button completed from the blank shown in Fig. 5. Fig. 7 is a central vertical section showing the button illustrated in Fig. 6 secured to a piece of material by an ordinary eyelet.

Like numerals of reference designate like parts in the different views of the drawings.

Referring to Fig. 1, the numeral 1 designates a blank for forming a button, said blank being composed of celluloid or similar plastic material having a recess 2 in its under face. In order to mold a recess having a contracted entrance, such as that shown in Fig. 2 at 3, special open dies are necessary, which render the operation expensive and slow. However, as shown in Fig. 1, lips 3 are formed which border the opening 2, and when said lips are forced inward the button-head takes the form shown in Fig. 2, with a contracted opening 4 somewhat smaller than the recess 2. Such a button-head may be used with a stud-catch 5, as shown in Fig. 3 and as shown separated from the head in Fig. 4. It will be understood, of course, that this stud-catch may be either of the resilient or non-resilient type. Instead of forming the lips 3 bordering the contracted opening in the recess 2 the same effect may be obtained in various ways—as, for instance, that shown in Fig. 5. The button-head blank shown in this figure has a plain flat top 6 and an opening 2 in its under face, said opening being of substantially equal extent from its opening to its upper wall or anvil in order that it may be molded by an ordinary die. When thus molded, the button-blank may be placed in a die which will give the proper curvature to the upper surface 6 and at the same time close in the lips 3 to form the contracted opening 4. Such a button may be secured to the material, as shown in Fig. 7, and may be used in connection with an ordinary buttonhole, if desired, or a resilient or non-resilient stud-catch may be used to secure the button to the material. As shown in Fig. 7, the button-head is secured to the material by a non-resilient bulb, and this bulb may be utilized as a catch for a resilient stud member. As shown in Fig. 3, the bulb 5 is slitted to make it resilient, and this may be used with a non-resilient stud member.

It will be seen from the foregoing that a button such as I have described is very simple in construction and by my improved process can be formed at comparatively slight cost, since the formation of the recess 2 can be made without expensive tools or dies and that the same may be formed at a single operation of the dies, molding a design upon

the outer face of the button and a recess 2 upon its rear face or back. The lips 3 are then turned slightly inward by a subsequent operation, completing the button, as shown in Fig. 2, or substantially the same process may be carried out to produce the button shown in Fig. 6 from the blank shown in Fig. 5, the subsequent operation merely forming a curved top upon the button to throw the lips 3 inward to contract the opening 4 for the stud-catch or fastening eyelet or rivet. To secure this button-head to the material, the fastener is passed through a perforation in the material and inserted in the recess 2 in the back of the button-head. Pressure is then applied to the top of the button-head and to the flange of the fastener until the parts assume the positions shown in Figs. 3 and 7, thus securely attaching the button to the material.

Having thus described my invention, what I claim is—

1. A plastic button having a fastener-clenching recess in its back surface, said recess having a smooth round inner wall and a contracted opening thereto, said button being secured to the material by a fastener having a closed upper end passed through the material into the recess and clenched by the inner wall of the recess, the contracted opening engaging the fastener on a line with the upper surface of the material, substantially as described.

2. A plastic button having a smooth round recess in its back surface to form an upsetting-anvil for a fastener, and a contracted entrance to said recess, to hold the fastener in place, in combination with a fastener having a closed upper end forced into the recess and spread against the wall of the recess, substantially as described.

3. The process of molding plastic buttons which consists in forming a fastener-clenching recess or anvil in the back surface of the button-blank, said recess being of equal extent from its entrance-opening to the round clenching-surface, at the base of the recess, and subsequently compressing the plastic material around the opening of said recess prior to the attachment of the button to the material by a fastener to form a contracted entrance to said recess, substantially as described.

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

MADISON D. SHIPMAN.

Witnesses:
SAML. A. DRURY,
H. GLENN PHELPS.