

W. W. DUNCAN.
DETACHABLE FASTENER.
APPLICATION FILED FEB. 2, 1910.

1,041,981.

Patented Oct. 22, 1912.

Fig. 1.

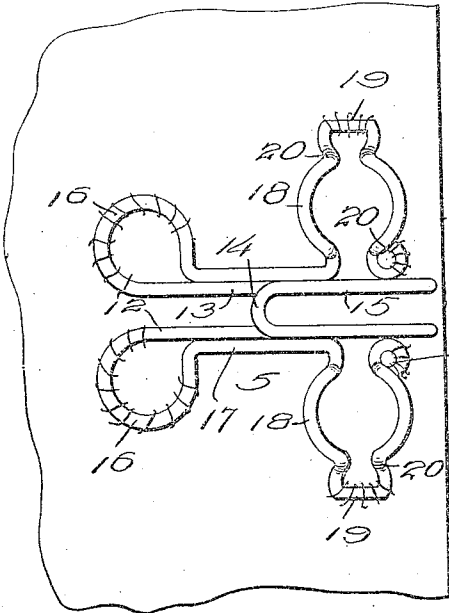
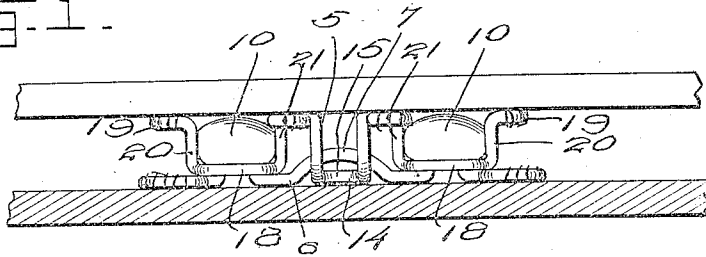


Fig. 2.

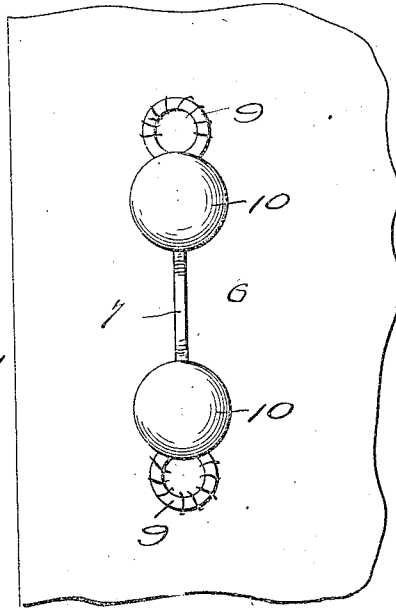


Fig. 3.

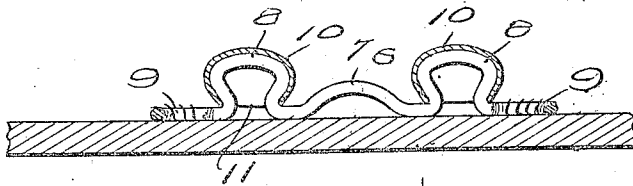


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

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DETACHABLE FASTENER.

1,041,981.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM W. DUNCAN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Detachable Fasteners, of which the following is a specification.

This invention relates to fasteners, and more particularly to detachable fasteners, and has for its object to provide a fastener including hook and eye elements and head and resilient socket elements so arranged that, after the hook and eye elements have been mutually engaged, the head and socket elements may be mutually engaged to prevent disengagement of the hook and eye, while the latter prevent casual disengagement of the ball and socket elements.

Another object is to provide a fastener of this kind which may be manufactured at a low figure and which will yet be highly efficient.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claim without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a view showing the two members of the fastener in mutual engagement, Fig. 2 shows the hook and socket members, Fig. 3 shows the eye and head member, Fig. 4 is a section through the eye and head member showing the manner in which it is made.

Referring now to the drawings, the present invention comprises a hook and socket member 5 and an eye and head member 6. The eye and head member is formed of a single length of wire including a slightly curved central portion 7 at opposite sides of which there are upwardly directed loops 8 occupying a common vertical plane, and beyond the loops the end portions of the piece of wire are bent to form horizontally disposed attaching eyes 9. The upper portions of the loops 8 are somewhat wider than their lower portions, as shown, and the loops are thus held within hollow metallic heads 10,

having openings 11 in their lower portions, through which the end portions of the loops extend. There is thus a head 10 located at each side of the portion 7 which forms a hook receiving eye of the usual type.

The member 5 includes a hook which is formed of a length of wire bent upon itself to produce parallel portions 12 and 13, connected by a bight 14. At a point spaced from the bight, the portions 12 and 13 are bent upon themselves to produce a hook 15, the bight 14 forming the bill of the hook. Beyond the bill of the hook 15, the portions 13 are curved outwardly and then inwardly toward their straight portions to form attaching eyes 16, and beyond these attaching eyes the portions of the wire are carried parallel to the portions 12 and 13 as indicated at 17 to points opposite the sides of the hook 15, where they are bent upwardly and outwardly as shown at 18 and then downwardly laterally and again upwardly to form eyes 19, beyond which they are curved upwardly and outwardly toward the hook 15 as shown at 20 adjacent to which they are bent downwardly as shown at 21 and again formed into attaching eyes. The portions 18 and 20 are thus oppositely disposed, and are oppositely curved to direct the concave surfaces toward each other, and thus at each side of the hook 15, there is formed a resilient socket A and these sockets are arranged to receive the heads 10 when the hook 15 is engaged beneath the eye 7. When it is desired to disengage the eyes A from the heads 10, it is only necessary to grasp the eyes 19 through the fabric to which these eyes are attached and squeeze them together, when the opposite side portions of the member 5 will be sprung with respect to each other upon the bight 14 as will be understood, and the sockets A will be disengaged from the heads. This result may be accomplished by reason of the fact that the eyes 19 lie in a plane below the plane of the sockets A as illustrated.

What is claimed is:

A two-part fastening device, comprising a hook member having portions of its material bent to form resilient sockets disposed upon opposite sides of the hook, attaching eyes formed integral with the sockets and arranged in a different plane so as to space the sockets from the material to which the

eyes are secured, an eye member having its ends provided with attaching eyes, an eye formed intermediate said eyes, upwardly directed loops disposed between the intermediate eye and the attaching eyes, and adapted to fit in the sockets when the intermediate eye engages the hook, said loops having rounded cap plates fitting thereon to more firmly engage said sockets of the hook member.

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

WILLIAM W. DUNCAN.

Witnesses:

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H. C. MARSH.