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ENVELOPE FASTENING.

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The objects of this invention are to provide a fastening for envelopes and the like which of itself will be inexpensive, which can be readily applied to the envelopes and which will be operable after the manner of a "snap fastener", enabling repeated use of the envelope.

An important novel feature of the invention is a special form of snap fastener embodying but two cooperating elements, a stud and a socket and each equipped with integral prongs by which the same is secured, one to the body and the other to the flap of the envelope.

Other novel features relate to a special reinforcement and to the method and apparatus by which both units of the fastener are simultaneously secured in place.

Various other features of the invention will appear as the specification proceeds.

The drawing accompanying and forming part of this specification shows by way of illustration, certain practical embodiments of the invention and it should be understood that the structure may be modified and the uses enlarged without departure from the true spirit and scope of the invention as hereinafter defined and claimed.

Figures 1 and 2 are perspective views of an envelope equipped with the invention, showing the same first in closed and then in open relation.

Figure 3 is an enlarged perspective view of the two fastener elements which are applied to the flap and body of the envelope.

Figure 4 is a cross sectional view of the fastener members as on line 4-4 of Figure 1.

Figure 5 is a perspective view of the invention as embodied in a spring clasp type of fastener.

Figure 6 is a broken sectional illustration of the special apparatus for applying the fastener elements.

Figure 7 is a fragmentary sectional view illustrating punch mechanism for applying the stud member of the fastener to the body of the envelope at the inside instead of to the outside of the envelope as in Figure 6.

The envelope shown may be of any usual or special construction, being indicated as having a closure or sealing flap 8 adapted to overlie the back portion 9. The fastening comprises the stud and socket members 10, 11 attached respectively to the back and flap

of the envelope, said members consisting in the first form shown, each of a flat disc or base 12, having an upstruck hollow central button or head 13 split across the top and partway down the sides of the same at 14 and having an annular indentation 15 near the end thereof providing a groove at the outside and a rib or shoulder at the inside. The structure, therefore, is such that the head of one member may be forced into the head of the other member so that the two will interlock as shown in Figure 4, being yieldingly held together by the tension of the split spring heads.

The stud member is shown formed with integral rearwardly extending pointed prongs or barbs 16 forced through and clinched at the inside of the envelope back and the socket member is shown formed with similar but forwardly struck prongs 17 forced through and turned over at the outside of the flap.

To reinforce the envelope, particularly when made of relatively light paper, folded reinforcement strips 18, 19 of paper or other material may be slipped over the edges of the back and the flap respectively before the clasp members are applied so that the prongs will penetrate both thicknesses of such strips and the body and the flap be thereby strengthened and reinforced inside and outside as well. These strips may be of any desired length, their positions and dimensions depending to a certain extent upon the size and location of the clasp members. The inside layer or fold of the flap reinforcement 19 is shown as longer than the outside layer and as extending to nearly the hinge line of the flap so as to act as a lever, stiffening and aiding the opening of the flap.

The same mode of attachment may be used with fasteners of the type shown in Figure 5 where the stud 20 of the body attached member of the clasp is yieldingly held by the ends 21 of a spring ring 22 held within the flange 23 of the socket member 24. This socket member like the fastener first described has forwardly bent prongs 25 to enter the material of the flap and the base of the stud member has rearwardly bent prongs 26 shown as struck out of the material of said base and designed to engage in the back wall of the envelope.

The fastener members may be applied to the envelopes as shown in Figure 6 where

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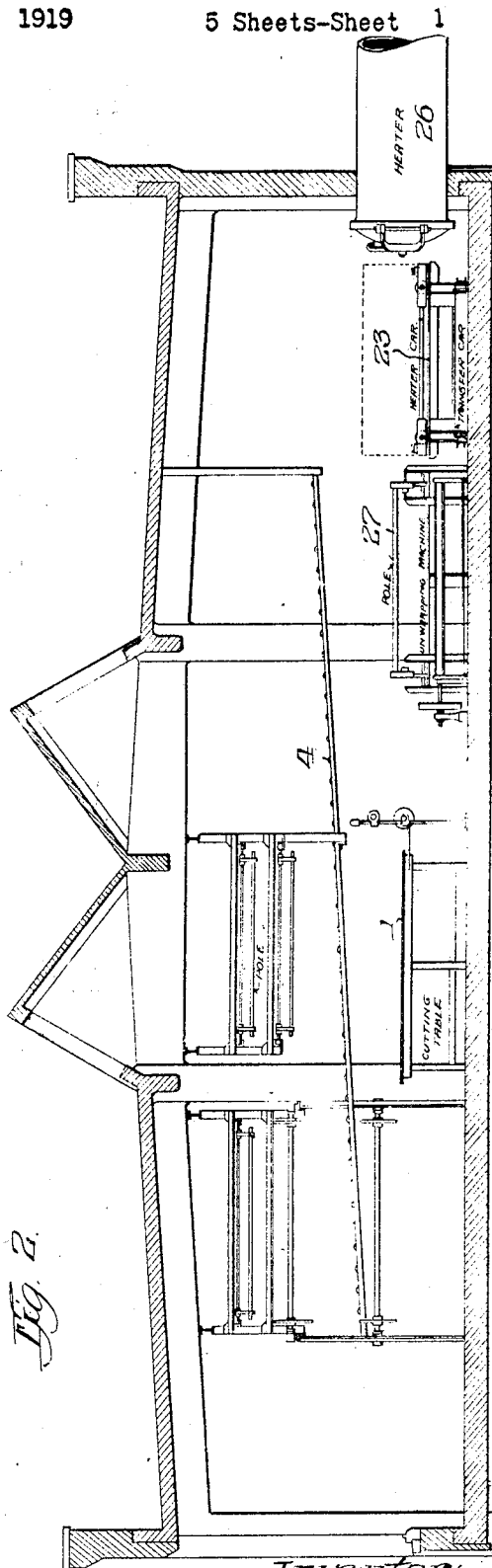
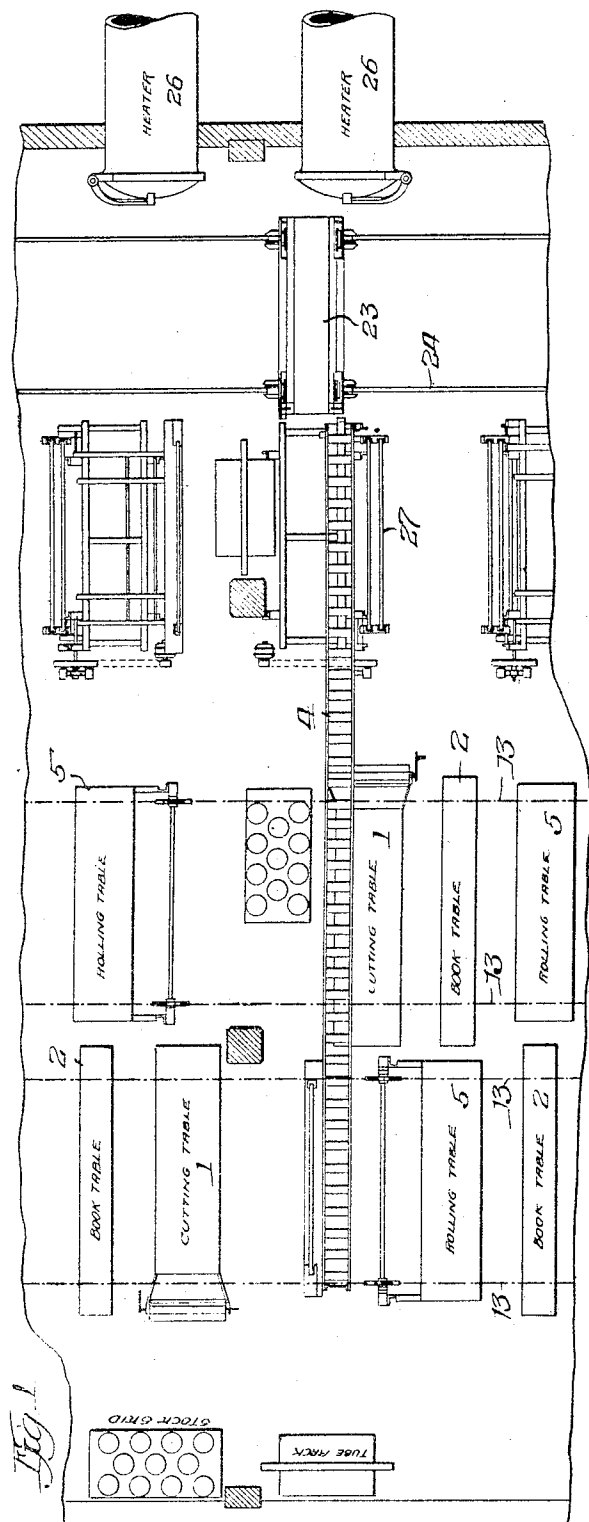
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APPARATUS FOR MANUFACTURING INNER TUBES

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5 Sheets-Sheet 1



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