May 29, 1928. 1,671,895

J. FRITZ

STAPLE

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Fig. 1,

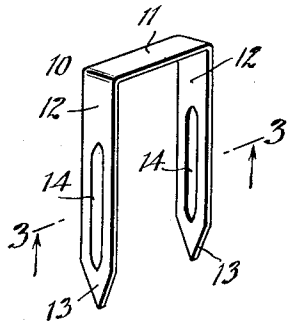


Fig. 2,

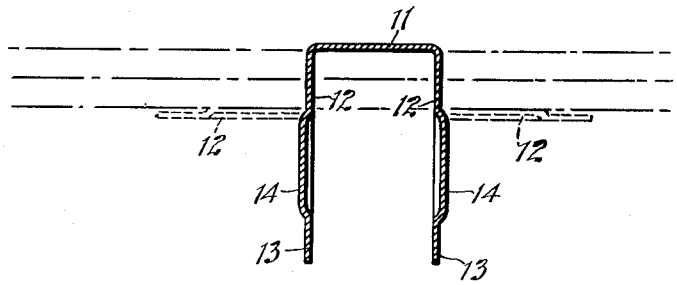
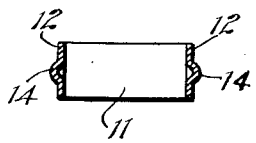


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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STAPLE.

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This invention relates to staples, and refers more particularly to staples such as are used for fastening portions of boxes produced from comparatively stout material, such as corrugated paper.

The principal object of the present invention is the provision of a staple whose legs or prongs are reinforced or ribbed to facilitate the piercing of the material, and which obviates bending of the legs or prongs in the piercing and fastening operation.

The nature of the invention and its distinguishing features and advantages will appear when the following specification is read in connection with the accompanying drawing, in which—

Figure 1 is a perspective view of a staple embodying the present invention.

Fig. 2 is a central vertical sectional view through the staple and showing the manner in which it is applied, the legs or prongs being shown in dotted lines in bent condition to illustrate the manner in which parts of a box, shown in dot and dash lines, are fastened together.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1, and looking in the direction indicated by the arrows.

It has been found in attempting to fasten together parts of a box made of comparatively stout material such as corrugated paper, that prongs of a staple of the usual kind bend in piercing the material to effect the fastening together of separate portions thereof, because the prongs lack the necessary strength or are not reinforced properly to permit impaling or piercing of the material.

In accordance with the present invention there is provided a staple 10 comprising a top bar or connecting portion 11 between legs or prongs 12. Each of the prongs 12 is provided with a pointed end 13. In order to reinforce each prong 12 to give greater strength and rigidity thereto, each prong is provided with a reinforcing rib 14. The rib 14 is provided by distending the material to provide in the length of each prong a concavo-convex formation. The rib 14 of each prong 12 extends to points short of the opposite ends of the prongs 12. The lower end of the rib 14 of each prong 12 terminates approximately one-eighth of an inch from the point of the prong, and approximately one-quarter of an inch from the juncture of the prong 12 with the top bar or connecting portion 11. Such provision and disposition of the ribs 14 on the prongs 12 respectively facilitates piercing of the material by the prongs 12, which will have the necessary rigidity and be prevented from bending in the middle, or at a point where no bend should occur. It is to be observed, however, that the reinforcing rib 14 as located on each prong, will not interfere with the bending of each prong after the prongs have been extended through the portions of the material to be fastened together. By referring to Fig. 2, it will be apparent that, each prong 12 may be bent on itself between one end of its rib 14 and the juncture between the prong and top bar 11. It will therefore be obvious that the staple can be used to fasten together flaps or folds of boxes whose combined thickness is approximately one-quarter of an inch, without affecting the ribs of the prongs 12.

The staple is stamped, bent and formed from a single piece of material, preferably of sheet metal.

I claim:

1. A staple stamped, bent and formed from a single piece of metal to provide ribbed prongs, the rib of each prong terminating short of the opposite ends of the prong.

2. A staple stamped, bent and formed from a single piece of material to provide prongs each having a concavo-convex rib, and the rib of each prong terminating short of the opposite ends of the prong.

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