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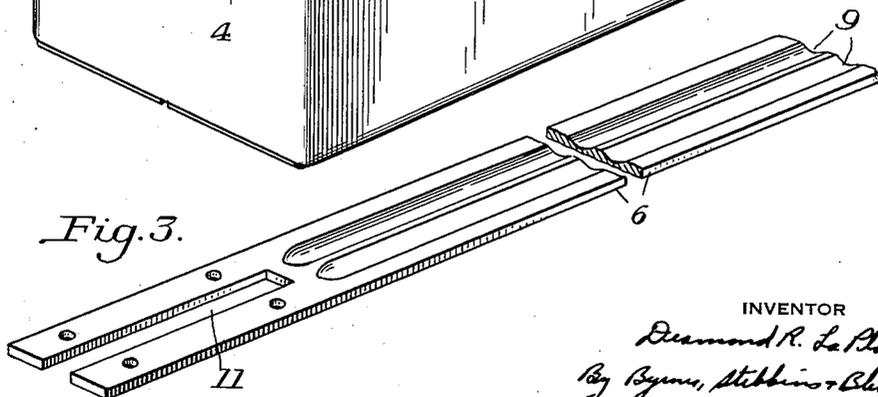
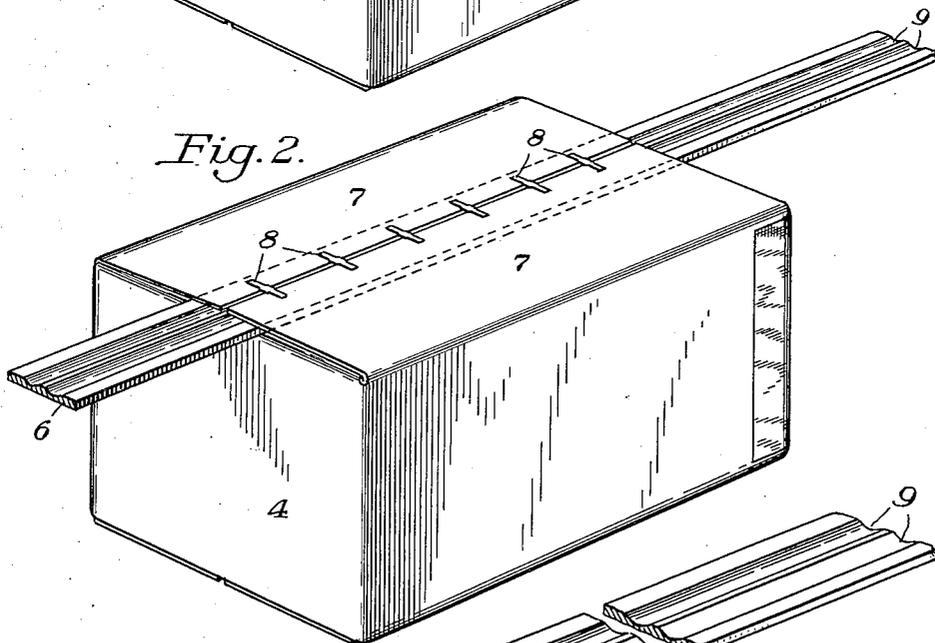
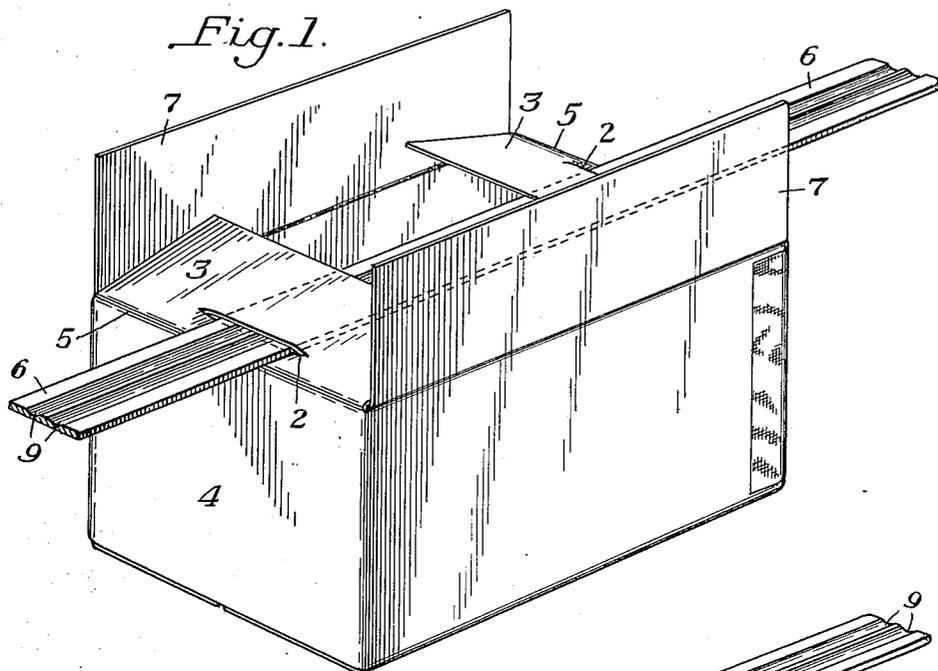
D. R. LA PLACE

2,057,782

APPARATUS FOR STAPLING CONTAINERS

Filed April 17, 1934

2 Sheets-Sheet 1



INVENTOR

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APPARATUS FOR STAPLING CONTAINERS

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2 Sheets-Sheet 2

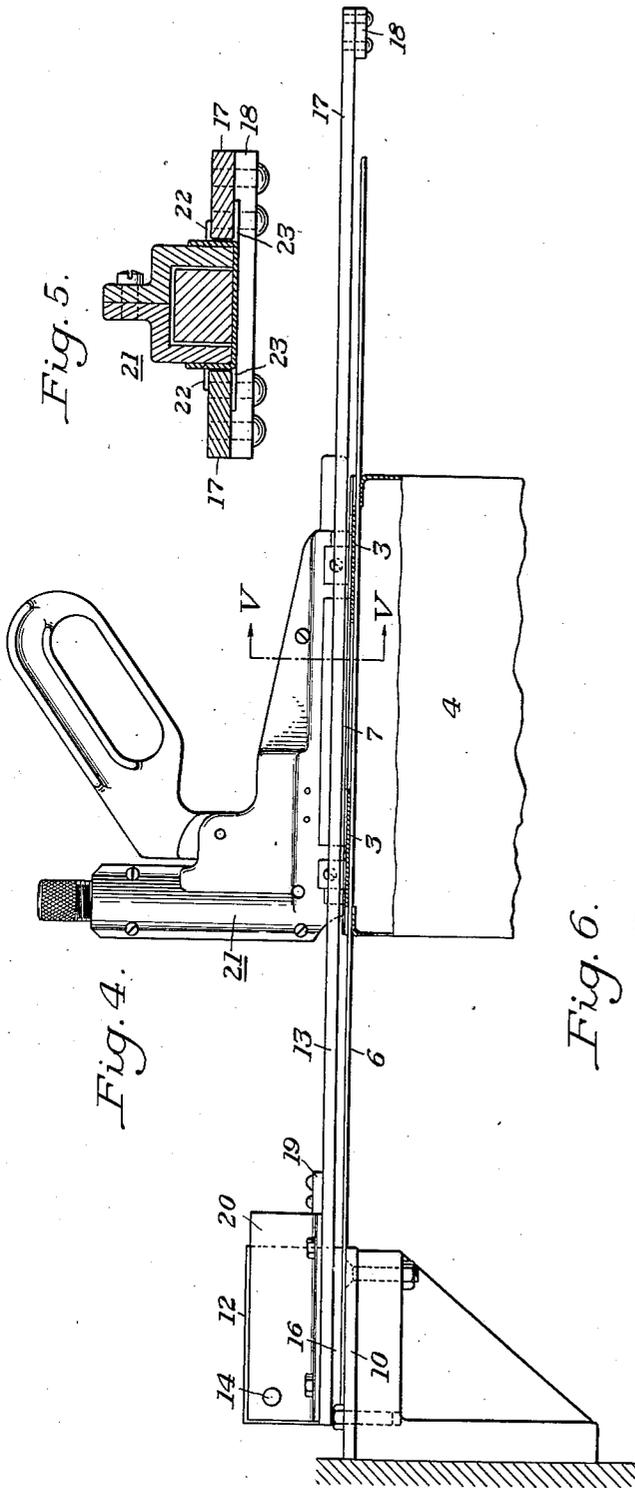


Fig. 5.

Fig. 4.

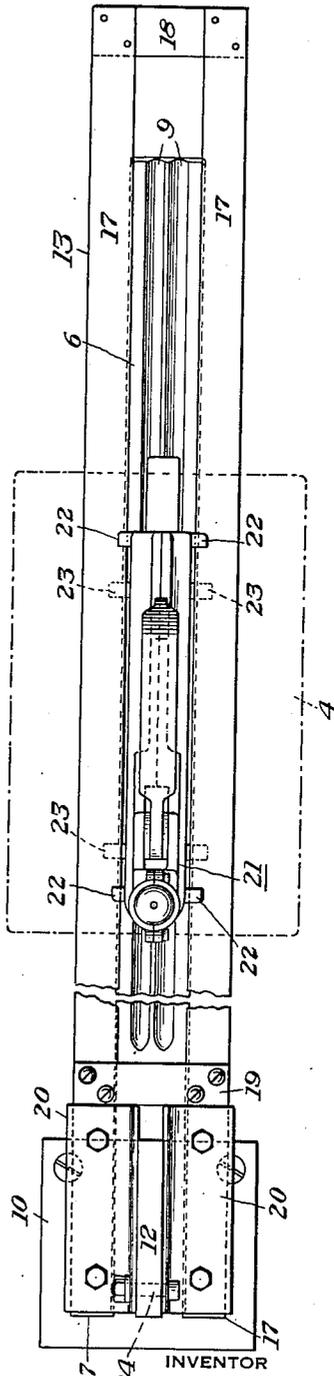


Fig. 6.

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# UNITED STATES PATENT OFFICE

2,057,782

## APPARATUS FOR STAPLING CONTAINERS

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Application April 17, 1934, Serial No. 720,978

2 Claims. (Cl. 1—15)

My invention relates to a novel apparatus for stapling containers, and more particularly to an apparatus for stapling the closures of packing containers with metallic fasteners.

5 Heretofore it has been customary to seal fiber shipping cases and containers of the conventional type by either gluing the flaps or by pasting a paper strip over the flaps at their meeting edges. It has long been desired to seal such  
10 containers or shipping cases with metallic fasteners, such as staples or rivets, but heretofore no satisfactory method or apparatus of effecting a sealing of the container by staples has been devised. Various types of wire stitching  
15 machines and stapling machines have been devised for stapling the bottom closures of containers but the stapling of bottom closures presents no particular problem in view of the fact that the container is, as a general rule, empty at  
20 the time it is desired to seal or staple the bottom closure. A few wire stitching machines have been devised for stitching the top closures of shipping cases, but such apparatus is cumbersome, large and expensive, and does not answer  
25 the requirements of the ordinary packer. These wire stitching machines are of such character that they cannot be readily moved from place to place, and are so expensive that it is impractical for a user to provide such stitching machines at all the necessary points in the packing establishment.

By my invention I provide a method and apparatus for accomplishing this long desired object of sealing a carton by staples. The method  
35 which I provide by my invention is quite simple in character and the apparatus necessary for carrying out this method is small and costs very little, and is of such character that it may be moved from place to place or a large number of  
40 the machines installed in a single packing establishment without necessitating a large expenditure of capital. By the method and apparatus which I provide, shipping cases or containers which have been either partially or completely filled may be sealed without destruction  
45 or defacement of any portion of the contents of the container. My invention is particularly adapted for sealing the top closures of containers, but it will be readily understood that my method and apparatus may also be used for seal-  
50 ing by staples the bottom closures of such containers.

In the accompanying drawings I have illustrated my invention and shown a preferred embodiment of the apparatus which I provide for

carrying it out. It will be understood, of course, that my invention is not limited to the use of the particular apparatus disclosed in the drawings and described hereinafter, and that it may be practiced by and embodied in other apparatus. 5

In the drawings,—

Figure 1 is a perspective view of an ordinary type container with the anvil in position for carrying out my invention;

Figure 2 is a perspective view of the container 10 shown in Figure 1 after it has been effectively sealed by stapling and prior to the withdrawal of the anvil;

Figure 3 is a perspective view of an anvil which may be used in carrying out my invention; 15

Figure 4 is a side elevational view of the apparatus which I provide and showing a container mounted on the anvil for stapling purposes;

Figure 5 is a sectional view taken along the line V—V of Figure 4; and 20

Figure 6 is a top plan view of the apparatus shown in Figure 4.

In accordance with my invention as shown in the drawings, a longitudinal slot or opening 2 is provided in oppositely disposed flaps 3 of the container 4. These openings 2 are preferably formed adjacent the fold line 5 of each flap, and are of sufficient length to receive an anvil 6 which is used for clinching the staples for sealing the carton. After the slits or openings 30 2 have been formed in the flaps, the anvil 6 is passed therethrough and the flaps 3 folded along their fold line to a substantially horizontal position. The flaps 7 are then folded to a substantially horizontal position above the flaps 35 through which the anvil 6 has been inserted, and a stapling machine is then passed along the meeting edges of the flaps 7 and staples 8 passed through these flaps. The staples 8 lying above the flaps 3 will, of course, penetrate these flaps 40 as well as the flaps 7 and will be clinched around these flaps by the anvil 6. The anvil 6 is preferably provided with parallel longitudinally extending recesses 9 for clinching the staples.

After the staples have been inserted the anvil 6 45 may be readily removed either by pulling the anvil through the openings or, in the event that the anvil itself is stationary, by sliding the box or carton along the anvil.

In the drawings I have shown my invention as 50 applied to the stapling of the top closure of a container. It will be understood, however, that my invention may be applied to the sealing of the bottom closure of a container as well as the top closure. 55

It will be understood that my invention may be practiced by the use of an anvil which is not mounted and by the use of a non-mounted stapling machine. I prefer, however, to mount the anvil and stapling machine in the manner shown in Figures 4 to 6, inclusive.

As shown in Figures 4 to 6, inclusive, one end of the anvil 6 is rigidly secured on the top of a bracket or shelf 10. The end of the anvil 6 to be rigidly mounted on the bracket or shelf is provided with a slot 11 to receive the vertical guide and pivot block 12 on which the stapling machine support and guide 13 is pivotally mounted by a pivot pin 14. The pivot block 12 is provided with a plate 16 on one end thereof by means of which it is secured to the bracket or shelf 10.

The stapling machine support and guide 13 is provided with parallel guide members 17 joined together at the free end by a cross plate 18 and at the mounted end by a cross plate 19. Each guide member 17 is provided with an angle plate 20 which is rigidly secured thereto and by means of which the guide members 17 are pivoted to the vertical guide 12 by the pivot pin 14.

A stapling machine 21 of conventional type is mounted on the parallel guide members 17 by means of horizontally extending top lugs 22 and horizontally extending bottom lugs 23. These lugs are secured to the sides of the stapling machine and may be in the form of U-shaped brackets adapted to support the stapling machine on the guides for movement therealong.

The details of the stapling machine 21 are not shown in the drawings and need not be described herein. It may be of any conventional type, such as shown and described in my Patent No. 1,655,275, issued January 3, 1928.

In carrying out my invention with the apparatus shown in Figures 4 to 6, inclusive, the carton 4 is first provided with the openings 2 and passed over the anvil 6, the flaps 3 and 7 being then folded to substantially horizontal position. The stapling machine and the guide carrying the same are in an elevated position when the carton is placed on the anvil, and after the container is

placed thereon the guide with the stapling machine thereon is moved about its pivot 14 to a position immediately above the container. The stapling machine is then slid along the guides and staples placed in the container at spaced points along the meeting edges of the uppermost flaps. The staples will not only join the two upper flaps together but will catch the lower pair of flaps also.

It can readily be seen from the above that the method and apparatus which I provide are relatively simple and the stapling of closures of containers can be readily carried out thereby. The apparatus, as stated above, is not at all costly, and may be mounted in such manner as to be movable from place to place in a packing establishment or, in view of the small cost thereof, a large number can be mounted at various desired points throughout the establishment.

While I have described a preferred method of carrying out my invention and a preferred embodiment of the apparatus which may be used in carrying out my invention, it will be understood that it may be otherwise embodied or practiced within the scope of the following claims.

I claim:

1. Stapling apparatus comprising a bracket having an upstanding pivot block thereon, angle plates secured on opposite sides of said block, a common pivot for said plates on said block, spaced parallel guide members secured at one end to said plates, and a cross plate connecting said guide members whereby they constitute a support for a stapling machine movable therealong.

2. Stapling apparatus comprising a bracket, an anvil rigidly secured to said bracket, a pivot block connected to said bracket, spaced apart guide members on opposite sides of said block, a common pivot for said members on said block, a cross piece connecting said guide members whereby the guide members constitute a support for a stapling machine which is movable therealong, said machine and anvil cooperating for stapling articles.

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