

Sept. 19, 1944.

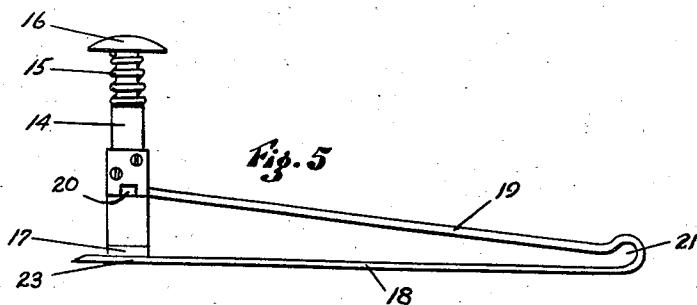
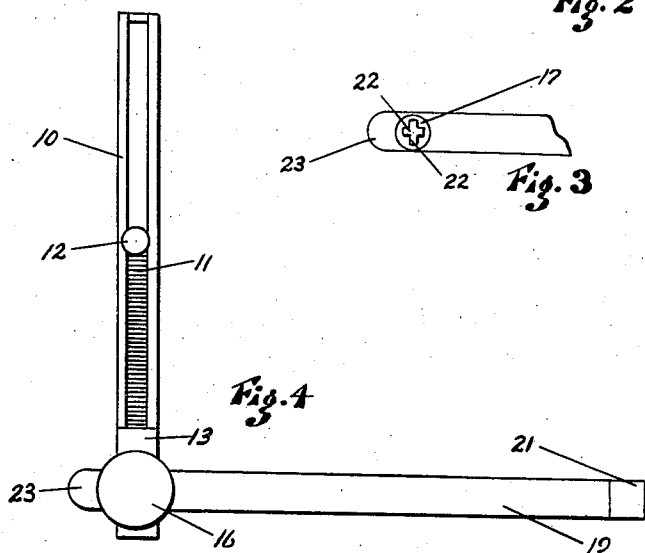
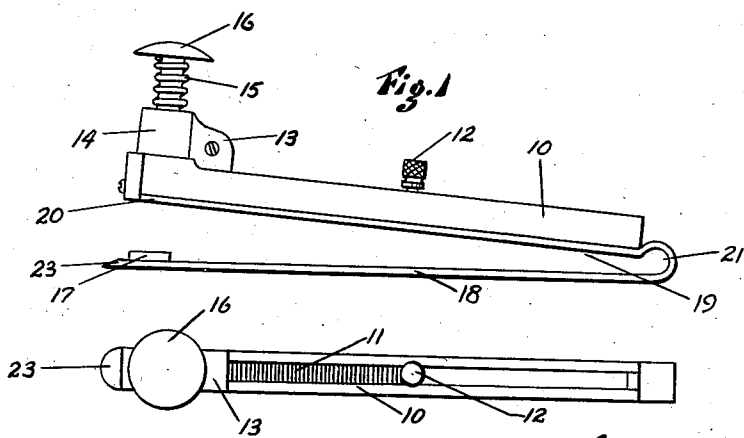
F. T. MASTERS

2,358,463

STAPLING DEVICE

Filed June 4, 1941

2 Sheets-Sheet 1



INVENTOR.

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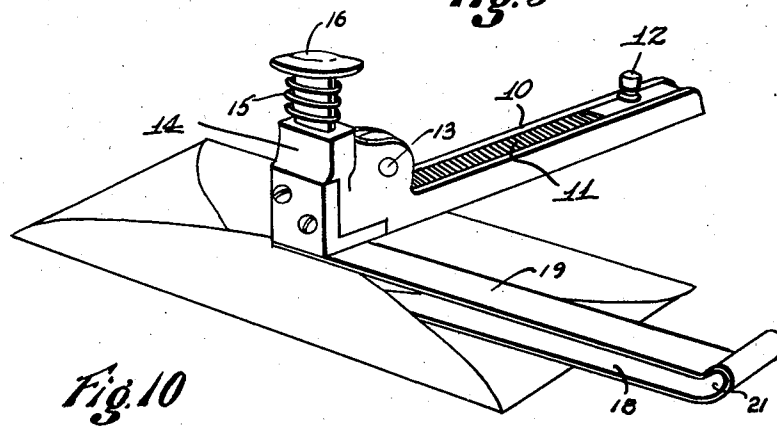
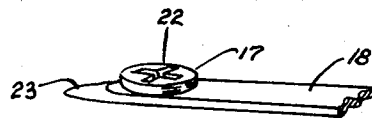
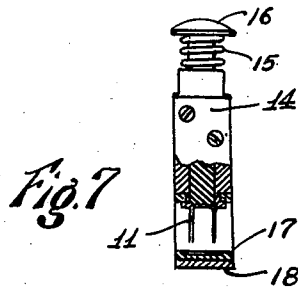
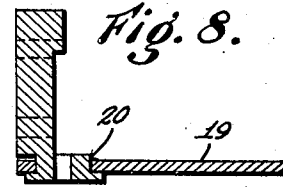
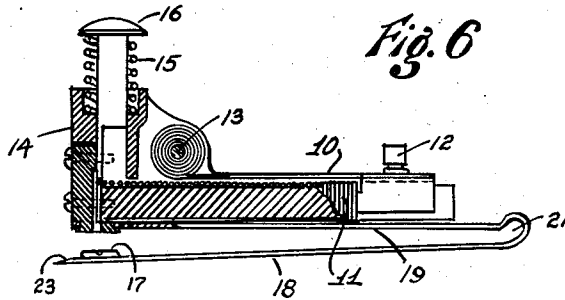
F. T. MASTERS

2,358,463

STAPLING DEVICE

Filed June 4, 1941

2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,358,463

STAPLING DEVICE

Frank T. Masters, Milwaukee, Wis.

Application June 4, 1941, Serial No. 396,613

2 Claims. (Cl. 1-3)

My invention relates to stapling devices, and more particularly to the type of device that is used for stapling sheets of paper with preformed staples fed to a clinching device by means of a feeding mechanism.

The object of my invention is to provide a means to permit inserting the anvil into a limited space between sheets of paper or the like to permit the clinched ends of the staples to be made inaccessible.

Another object of my invention is to provide a device that is equipped with a rotatable anvil so that the staples may be placed in a pre-determined position at right angles to one another.

Other and further objects of my invention will become more apparent as the description proceeds, when taken in conjunction with the drawings in which

Figure 1 is a side elevation of a conventional type of stapling device having a standard type of feeding mechanism but mounted on a resilient revolvable base.

Figure 2 is a top or plan view of the device shown in Figure 1.

Figure 3 is a fragmentary view of the anvil mounted near the depending end of the resilient base portion.

Figure 4 is a plan view of the device shown in Figure 1 with the resilient base projecting at right angle to the staple supporting and feeding mechanism,

Figure 5 is a front elevation of the device as shown in Figure 4,

Figure 6 is a fragmentary cross sectional side view of the device showing the staple driver action,

Figure 7 is a fragmentary cross sectional front view of the staple driver in its relation to the staple and anvil,

Figure 8 is a cross sectional view of the base mounting,

Figure 9 is a perspective view of a portion of the base showing the grooves in the anvil, and

Figure 10 is a perspective view of the entire device having the anvil inserted under the flap of an envelope.

Similar characters of reference indicate corresponding parts throughout the several views, and referring now to the same, the character 10 shows the body of the device acting as a guide and magazine support for a plurality of staples 11. There is a pusher pin 12 actuated by a coil spring in the enclosure 13 which feeds the staples to the driver enclosed in the housing. This staple driver 14 is shown as held in a raised position by

means of the spring 15 and when the strike plate 16 is forced down the staple driver in the housing 14 forces one of the staples 11 through the paper against an anvil 17. This anvil 17 is mounted on a resilient base 18 as shown. The base 18 has its upper support 19 pivotally mounted to the lower face of the staple driver 14 at 20 as shown in Figure 8. The upper support 19 and the base 18 are joined by means of the scroll 21 forming an integral part thereof. The anvil 17 is provided with a plurality of grooves 22 arranged in angular relation to one another and the entire base assembly may be pivoted at 20 to place one of the grooves 22 in direct alignment with the staple as forced down by the staple driver in the housing 14.

The lower member 18 of the resilient support has its projecting end tapered at 23 as shown which will permit the end to be inserted between sheets of paper or the like thereby conveying the anvil 17 to inaccessible spaces not accessible to a stapling device of the conventional type.

In operation it is obvious to any one familiar with the art that the narrow resilient base may be inserted into for example an envelope between the various portions constituting the closing structure and when the base is pivoted at 20 to a 45° or 90° angle in relation to the body 10, the grooves 22 in the anvil 17 which are arranged into a 45° or 90° pattern will correspond with the position of the pre-formed staple 11 will cause the ends of the staple 11 to be clinched or bent at a point inside of the envelope or the like thereby preventing anyone from bringing the ends of the staple to an open position to permit the removal of the staple without tearing the paper or leaving evidence of its being tampered with.

In the chosen embodiments of my invention there are exemplified various features not heretofore revealed in the prior art, I do not wish to be limited however to the specific structure shown for in the future practice of the art various modifications or changes may be incorporated in the structure without departing from the scope of the appended claims.

Having thus described my invention what I claim and desire to secure by Letters Patent in the United States, is:

1. In a stapling device of the character described, a staple magazine arm including a stapling head, a staple driver reciprocally supported in said head, staple feeding means in said arm for feeding staples to the driver, a resilient base mounting, means pivotally mounting said base to said arm for swinging movement about

an axis substantially normal to said base, an anvil carried by said base, said anvil having clinching grooves arranged in angular relation to each other and adapted to register with the legs of the staples when said magazine arm is set at different angles with respect to its base.

2. In a stapling device of the character described, a staple magazine arm including a stapling head, a staple driver reciprocally supported in said stapling head, a feeding means in said magazine for urging staples to said driver,

a resilient base mounting having means pivotally mounting said base to said magazine and having an end extended below said staple driver and therebeyond, an anvil on said end being mounted on said base in line with said staple driver, said anvil having clinching grooves arranged in angular relation to each other and adapted to register with the legs of the staples when said magazine is set at various angles with respect to its base.

FRANK T. MASTERS.