United States Patent

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a part interest

[54] **STAPLE REMOVER**
5 Claims, 3 Drawing Figs.

[52] **U.S. Cl.** **254/28**
[51] **Int. Cl.** **B25c 11/00**
[50] **Field of Search** 254/28; 227/63

[56] **References Cited**

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ABSTRACT: A device for removing the staples from papers stapled together, and the device including a staple storage chamber within which the used staples may be retained so to prevent the same from scattering about, and the storage chamber having a pivotally openable door so as to empty the used staples into a refuse receptacle.

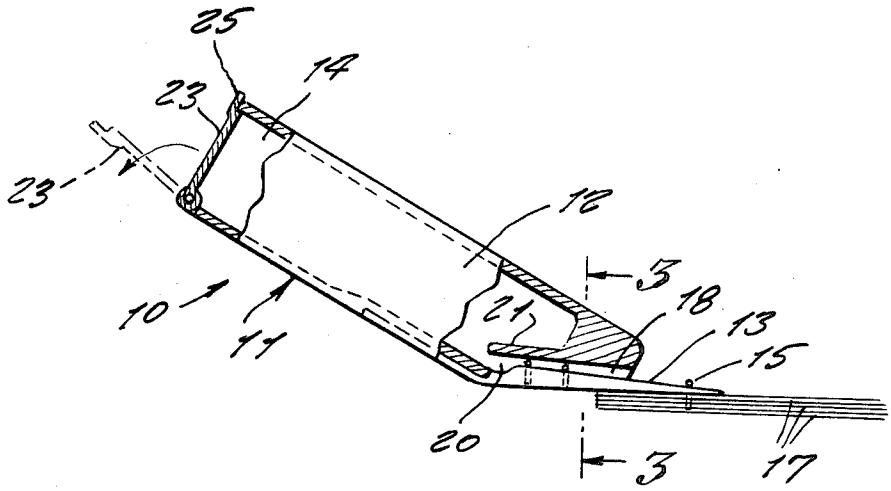
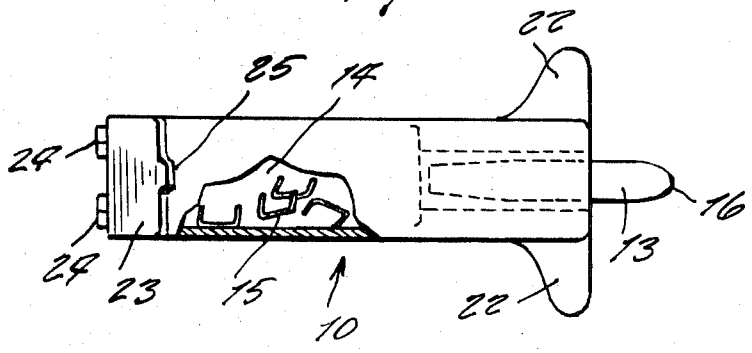


Fig. 1



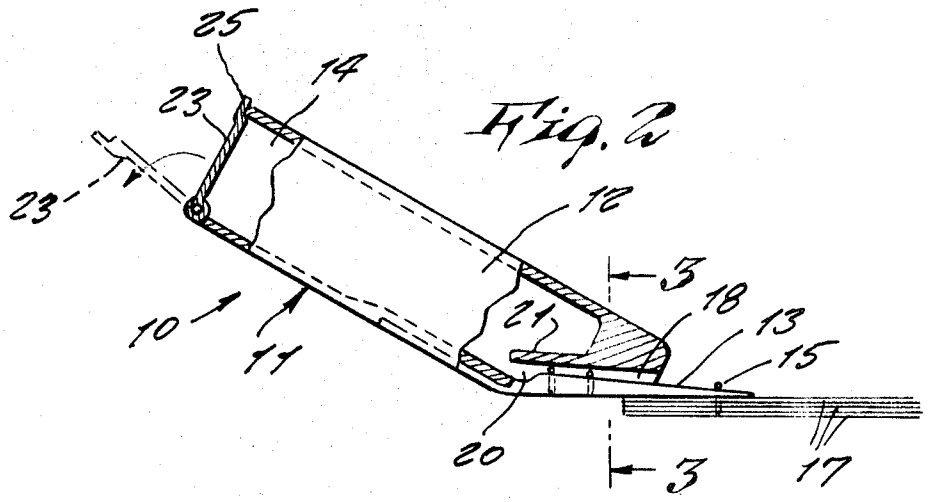


Fig. 2

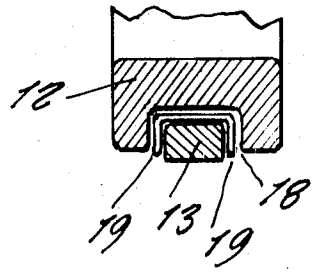


Fig. 3

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STAPLE REMOVER

This invention relates generally to staple pullers.

A principal object of the present invention is to provide an improved staple remover which besides removing a staple from a plurality of papers stapled together additionally includes a storage chamber within which the used staples may be retained after being pulled so as to prevent the used staples from becoming scattered and cluttering a premises as well as being a hazard to puncture a person's skin coming in contact therewith.

Another object of the present invention is to provide an improved staple remover wherein the staples enter the chamber before they are actually separated from the paper thereby assuring the same to be collected without becoming scattered about.

Still another purpose of the present invention is to provide an improved staple remover wherein the chamber has a normally closed door that can be opened so to provide access for dumping out the used staples into a refuse receptacle.

Other objects of the present invention are to provide an improved staple remover which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will be readily evident upon a study of the following specification and the accompanying drawing wherein:

FIG. 1 is a top elevation view of the present invention shown partly in cross section;

FIG. 2 is a side elevation view thereof shown partly in cross section, and shown in operative use; and

FIG. 3 is a cross-sectional view taken on the line 3—3 of FIG. 2.

Referring now to the drawing in detail, the reference numeral **10** represents a staple remover according to the present invention wherein there is an assembly **11** comprised of a body **12** having a tapered staple removal bar **13** integrally formed at one end thereof or alternately rigidly secured thereto.

The body **12** comprises an elongated member that can serve as a convenient handle by being grasped within the hand of an operator. The body **12** has a central chamber **14** therewithin and within which a plurality of used staples **15** may be stored until they can be conveniently discarded into a refuse receptacle. The body **12** may accordingly be made of rigid plastic material or any other desired substance.

The slanted removal bar **13** has a rounded forward end **16** which serves as a blade to be inserted under a staple **15** secured through a plurality of paper sheets **17**, as shown in FIG. 2 of the drawing. A channel **18** of U-shaped configuration is formed in the body **12** around the removal bar **13** so as to permit the staple **15** to move along the channel toward the central compartment **14** of the body **12**. It is to be noted that the forward end of the body **12** projects forwardly substantially enough so that the staple **15** enters the channel **18** before the feet **19** of the staple are disengaged from the papers **17**, thereby assuring that the staple is held captive by the device and prevented from being lost once it is disengaged from the papers. At the terminal end of the channel **18**, there is a depression **20** into which the staple drops after travelling the course of the channel and from which the staple can enter the compartment **14** by simply tilting over the body **12** so that the staples fall thereinto. An extending baffle or partition **21** over the rear portion of the channel **18** serves to prevent staples already within the chamber **14** from interfering with the normal rearward travel of staples moving along the channel **18** during a staple removing operation. It is to be noted that the removal bar is tapered so that as the staples advance rearwardly the feet **19** thereof are straightened thus effecting disengagement of the staple with the papers **17**.

A pair of sidewardly extending wings **22** may be formed upon opposite sides of the body **12** or secured thereto and which serve to maintain the device in a proper angle during operative use by maintaining the wings **20** parallel with the paper surface.

At the opposite end of the body **12**, a pivotable door **23** is mounted on hinges **24** and may be spring urged so as to be retained in a closed position over the end of the chamber **14**. A convenient extending tab **25** formed on the door **23** provides quick and easy access for flipping the door **23** when it is desired to open the same so as to dump the used staples **15** outwardly of the chamber **14** and into a refuse receptacle.

In operative use, it is now evident that as the device is moved horizontally forwardly across the upper surface of a paper **17**, the slanted removal bar is hooked under the staples **15** which are then moved rearwardly along channel **18** as the device continues to move forwardly, thus bringing the staples into the depression **20** adjacent the chamber **14**. Thus a device is presented wherein removed staples are likewise collected in a neat manner.

What I now claim is:

1. In an improved staple remover, the combination comprising, a main body serving as handle and having a used staple-receiving compartment therein, a staple-removing bar, means connecting said bar to said body at one end thereof, said means forming means communicating said compartment with said bar, said bar defining means for disengaging staples from paper or the like and permitting said staples to be moved into said compartment via said communicating means as said bar is moved under staples, thereby preventing loss and scattering of said staples about a premises.

2. The combination as set forth in claim **1** wherein said main body comprises a hollow member having a central chamber therewithin for storage of removed staples, said main body having a U-shaped channel defining said communicating means at said end around said bar to permit said staples to pass therethrough to said chamber.

3. The combination as set forth in claim **2** wherein said staple-removal bar is forwardly tapered toward a rounded knife edge receivable under said staple.

4. The combination as set forth in claim **3** wherein a forward portion of said main body has a pair of sidewardly extending wings, said wings having an underside which is parallel to the underside of said staple removal bar, said wings serving as guides for maintaining said staple remover at a proper angle during operative use.

5. The combination as set forth in claim **4** wherein an opposite, rearward end of said main body is provided with an access door normally maintained closed, said access door providing means for removing the used staples contained within said chamber.

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