Oct. 13, 1925. 1,557,121

M. VOGEL

STAPLE PACKAGE

Filed Nov. 28, 1923

Fig. 1.

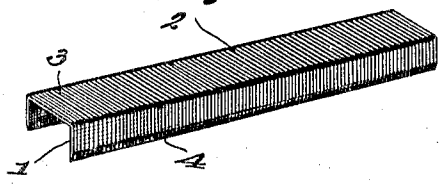


Fig. 2.

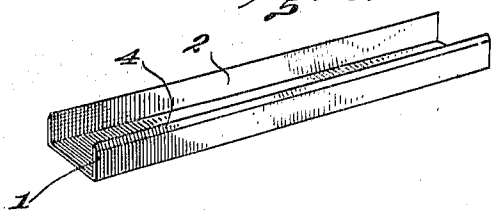


Fig. 4.

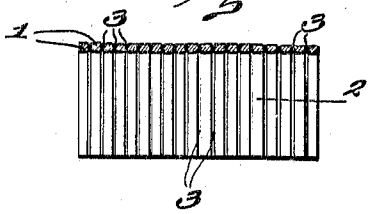


Fig. 3.

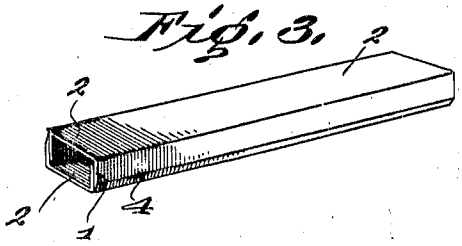


Fig. 5.

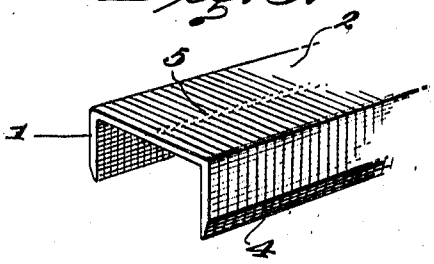
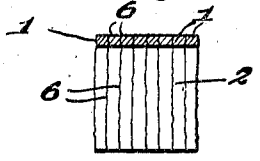


Fig. 6.



Inventor

Max Vogel

By D. Singer

Attorney

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UNITED STATES PATENT OFFICE.

MAX VOGEL, OF FRANKFORT-ON-THE-MAIN, GERMANY.

STAPLE PACKAGE.

Application filed November 28, 1923. Serial No. 677,478.

To all whom it may concern:

Be it known that I, MAX VOGEL, a citizen of the Republic of Germany, residing at Frankfort-on-the-Main, Germany, have invented a new and useful Staple Package, of which the following is a specification.

This invention relates to improvements in staple packages and especially relates to improvements in staple packages such as could be used in the stapling pliers for which Letters Patent of the United States No. 1,043,883, were granted to me November 12, 1912.

The principal object of the present invention is to provide a staple package by combining a desired number of single staples such as used in such stapling devices or pliers, in one bar, so that these staples can be readily handled, shipped, and inserted into the magazines of the stapling device without losing any of the staples, and in a minimum amount of time.

Another object of the present invention is to provide staple packages by combining the single staples in bars in such manner that the same can be readily separated from one another for use, one at a time, in the machine, without appreciable effort, and so that the pressure exerted when using the stapling device and especially the stapling pliers is very small. As such stapling devices are ordinarily used by girls, this is a feature of especial importance.

Another object of the invention is to assemble or combine a number of single staples in a single bar, so as to facilitate the pointing of the staples and enable such pointing to be done by grinding with a minimum amount of work after they have thus been combined in a bar.

Another object of the invention is to combine staples in bars so that the bars, which are U-shaped, can be arranged in pairs in inverted position toward each other and thus enable them to be packed in a minimum space or in a container of minimum size.

With the above and other objects in view the invention consists in the construction and arrangement of staple bars as hereinafter described and claimed.

In the accompanying drawings:—

Fig. 1 is a perspective view of a staple bar formed by combining or uniting a number of staples together in accordance with my invention.

Fig. 2 is a similar view of the same in reverse position.

Fig. 3 is a perspective view of two of my improved staple bars arranged together in inverted position for packing.

Fig. 4 is a sectional view of one of my improved staple bars on an enlarged scale.

Fig. 5 shows a modified form of my improved stapling bar in which the staples are secured together by spot welding.

Fig. 6 is a similar view of another modified form of the invention in which the staples are secured together by providing them with small irregularities on their sides and by pressing the staples so formed together.

In accordance with my invention I arrange and unite together a number of single staples 1 to form a bar 2. Any suitable number of the staples may be thus united and combined. Usually in practice each bar consists of one hundred staples, but this may be varied at will.

The staples are arranged side by side and in accordance with the form of my invention which has given most satisfactory results, the staples are united or combined together by means of an adhesive 3. When the staples have been thus combined to form a bar, the ends of the staples can be readily pointed, with minimum work, by grinding them at opposite sides of the bar, as at 4.

When packing the staples the bars are arranged together in pairs in inverted position toward each other, as shown in Fig. 3, thus effecting so compact a disposition of the bars that they can be stored or packed in minimum space or in a container such as a small paper box of minimum size.

In accordance with the form of my invention shown in Fig. 5, the staples which constitute the bar, are secured together by soldering, welding or the like as at 5.

In accordance with another form of my invention as shown in Fig. 6, the staples are secured together by providing them with small irregularities on their sides, as at 6, and by pressing the staples so formed together, so that the said small irregularities become united, thus forming the bar.

Staples thus assembled and secured to form a bar, in accordance with any of the foregoing forms of my invention can be readily used in stapling pliers or devices such as covered by my patent, hereinbefore identified, and inserted into the magazine of such stapling pliers, without losing any staples and in a minimum amount of time,

and are readily separated from the bar, one at a time, by the staple driver of the stapling device, without appreciable increased exertion on the part of the operator.

What is claimed is:—

A staple package for use in stapling machines comprising a unit consisting of staples detachably connected together formed by pressing together a plurality of individual staples arranged side by side and provided on their side faces with small irregularities which cause the individual staples to adhere to each other.

In witness whereof I affix my signature.

MAX VOGEL.