June 22, 1926. 1,589,683

W. T. CLINGER

OPENER FOR PAPER BOXES

Filed Dec. 11, 1924

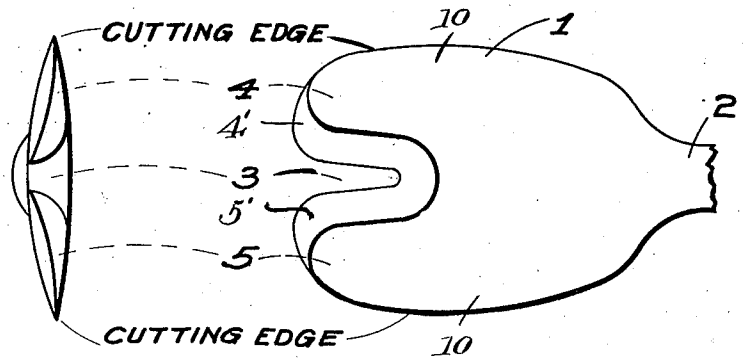


FIG 1

FIG. 2.

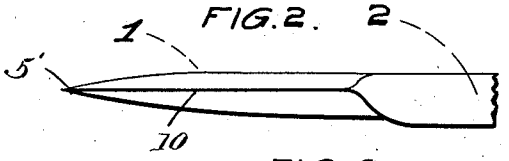


FIG. 3.

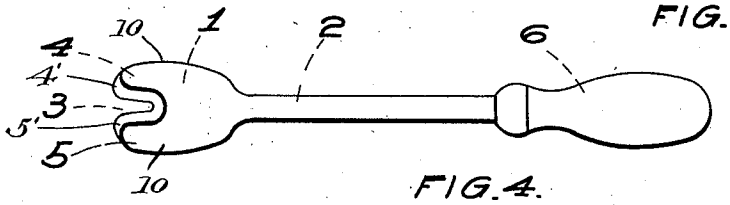


FIG. 4.

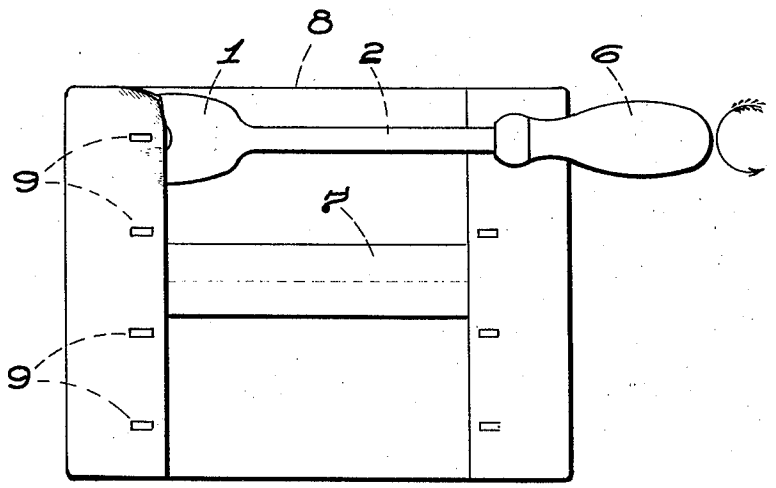


FIG. 5.

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Patented June 22, 1926. 1,589,683

UNITED STATES PATENT OFFICE.

WILLIAM T. CLINGER, OF OIL CITY, PENNSYLVANIA.

OPENER FOR PAPER BOXES.

Application filed December 11, 1924. Serial No. 755,254.

This invention relates to an improved tool that is especially adapted for the purpose of opening cartons and paper boxes which are now so extensively used for the reception and transportation of many different kinds of merchandise.

The construction of my improved box opener is clearly shown in the accompanying drawings and one way in which said tool may be used is also illustrated.

The various figures of said drawings are as follows:

Fig. 1 is an edge view of the forward end of the blade.

Fig. 2 is a plan view of the upper side or face of said blade.

Fig. 3 is a side-edge view of said blade.

Fig. 4 is an upper-face view of the complete tool.

Fig. 5 illustrates one method of applying the tool to use in opening a paper box having its members secured together by means of staples.

This tool comprises a comparatively wide blade 1, the shape of which is retuse at its forward end and the general shape of said blade may be aptly and accurately described by the term obcordate, a term commonly applied by botanists to a certain, inversely heart-shaped form of leaf, the rearwardly-extending shank of the tool corresponding to the stem of such a leaf.

The forward end of said blade 1 is deeply notched at 3 and upon each side of said notch is formed a lobe 4, 5.

Said shank 2 may be supplied with a handle 6, which, as shown in Figs. 4 and 5 is composed of wood, but it may be formed integrally with the shank if desired.

Said blade 1, taken transversely, is double-convex in form and the convexity of the under side is preferably greater than the convexity of the upper side or face. This shape is for the purpose of causing the blade to operate with greater facility and efficiency than it would otherwise do, as will presently be more fully pointed out.

The forward portions, 4′ and 5′ of the lobes 4 and 5 respectively, are formed into sharp, cutting edges, which are termed "forward cutting edges", the object of which will be presently set forth. The lateral edges 10 of said blade 1 are also formed into cutting edges which are continuous with and merge into said forward cutting edges; the object of said lateral cutting edges will also presently appear.

The lobes 4, 5, of blade 1 are also of double-convex shape longitudinally, for the purpose of causing them to effectually release the portion of the box to which the tool is being applied, from the securing action of the staple.

One method of using my improved box opener is illustrated in Fig. 5. In said figure a paper packing box is indicated at 8, and the securing staples for certain members of the box are shown at 9. When such a box is to be opened by means of my improved box opener, said sharp forward edges of said lobes 4 and 5 of the blade are thrust beneath the portion to be released, said lobes being positioned upon the respective sides of the staple. A twisting or turning strain is then exerted upon the handle 6 in the direction indicated by the arrow in Fig. 5, and this releases the adjacent portion of the box from the grip of the securing staple. This process may be repeated at as many of the staples as may be necessary to open the box. Inasmuch as portions of paper cartons and packing boxes of the kind here contemplated are secured together by means of glue or other adhesives in addition to the staples, 9, said lateral cutting edges of blade 1 materially facilitate the insertion of the blade between such glued portions, and the separation of the portions of the box where so attached together, as may be more readily understood by an inspection of Fig. 5. Said cutting edges,—both forward and lateral—are further adapted to the cutting of adhesive strips of fabric and paper, 7, which are used to cover joints formed by two adjacent edges of portions of the box.

It may now be readily seen why the convexity of the blade 1, as previously described, causes it to be much more easy of manipulation, and efficient in operation than a flat blade would be, and, furthermore, it will be readily understood how the sharp cutting edges of the blade 1 materially facilitate the insertion of the blade between overlying portions of the box to be severed, and into glued joints of such portions: Still further, it is obvious that the additional adaptation of said cutting edges, whereby adhesive strips employed as securing elements in the sealing and closing of paper cartons may be cut and severed along the joint to which

they are employed, enables all the features of this implement to co-operate in respect to the work to be done, and in furtherance thereof, thus producing a more facile, economical and efficient implement than has heretofore been produced, of this class.

I claim the following:

An opener for paper boxes comprising a metallic blade of deeply-notched, obcordate form, of double convexity in both its transverse and longitudinal dimensions, the forward and lateral portions of said blade being formed into cutting edges and the rearward portion thereof extended into a manipulating shank, for the purposes set forth.

In testimony whereof I affix my signature.

WILLIAM T. CLINGER.