(No Model.)

I. W. HEYSINGER.

STICK FOR HOLDING STAPLES, &c.

No. 349,094. Patented Sept. 14, 1886.

Fig. 1.

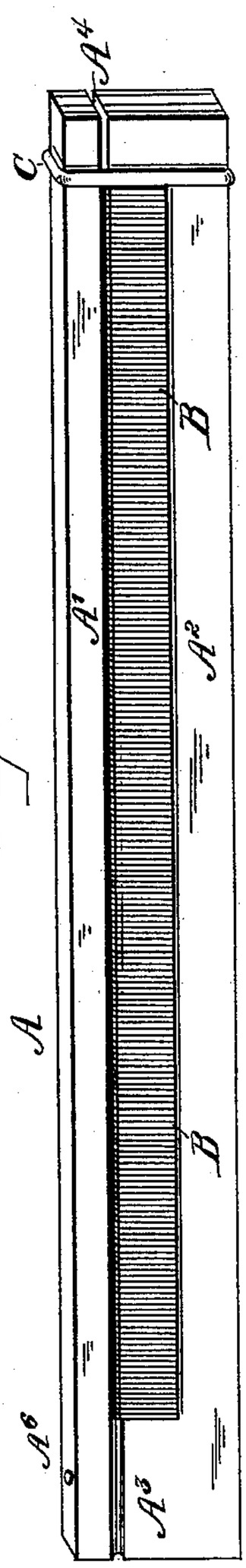


Fig. 2.

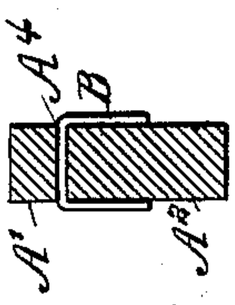


Fig. 2a.

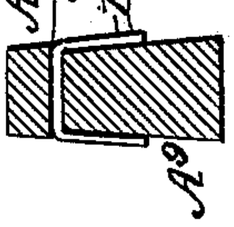


Fig. 3.

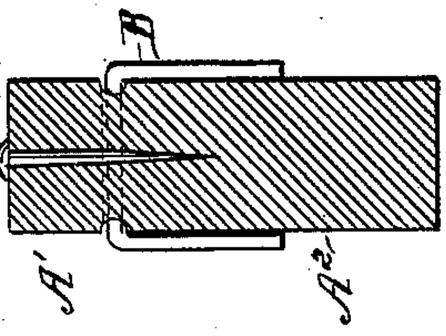


Fig. 4.

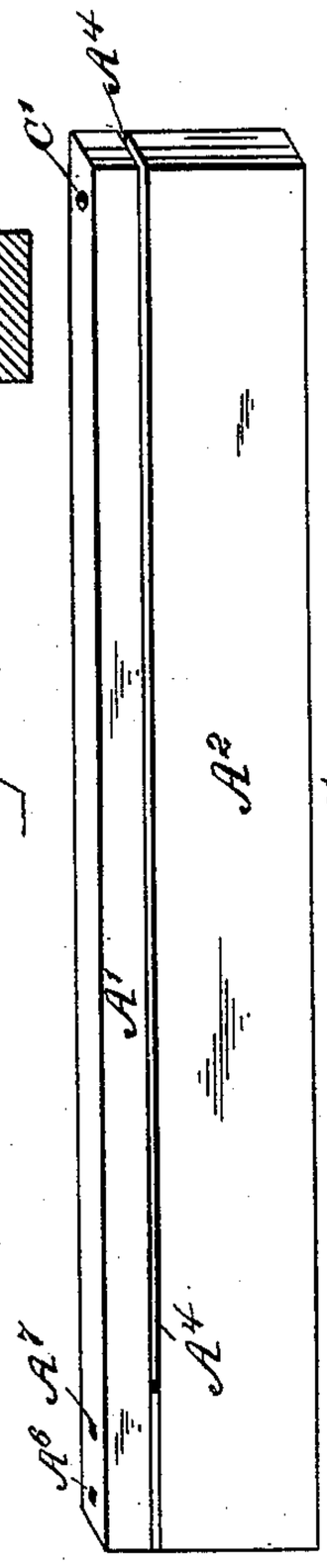
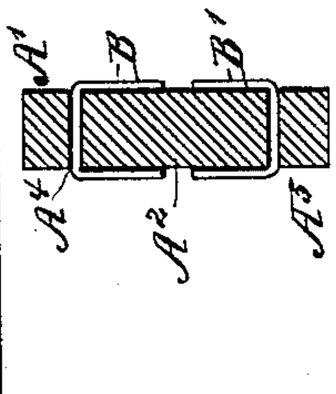


Fig. 5.



WITNESSES:

Jno. Nolan.

Joshua Pusey.

INVENTOR

Isaac W. Heysinger

UNITED STATES PATENT OFFICE.

ISAAC W. HEYSINGER, OF PHILADELPHIA, PENNSYLVANIA.

STICK FOR HOLDING STAPLES, &c.

SPECIFICATION forming part of Letters Patent No. 349,094, dated September 14, 1886.

Application filed April 17, 1886. Serial No. 199,176. (No model.)

To all whom it may concern:

Be it known that I, ISAAC W. HEYSINGER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Sticks for Holding Staples, &c., of which the following is a full, clear, and exact description, reference being had to the drawings accompanying and forming a part of this specification, in which—

Figure 1 is a side view, in perspective, of a stick, rod, or bar constructed in accordance with my invention, the same being loaded with staples and the end of the staple-slot secured by a band or cord for transportation. Fig. 2 is a transverse vertical section through the middle of Fig. 1. Fig. 2ª is a similar view of a bar adapted to carry staples with flaring legs and having the guard-flap extended out over sides of the staple. Fig. 3 is a transverse vertical section through the nail A^6 of Fig. 1. Fig. 4 shows a bar and its flap made of separate pieces, which I prefer to do in metal bars, fastened together by the nails or screws A^6 A^7, and having the free end of the flap secured by a nail, C′, instead of a band, as in Fig. 1. Fig. 5 shows a stick having a flap both above and below to accommodate a double row of staples, which may be of different lengths of leg or sizes.

The lettering in all the figures is uniform.

My invention relates to the construction of a stick, rod, or bar for carrying a load of staples lying in a series flatwise against each other, and which are adapted for use with the staple inserting and clinching machine which forms the subject of my application for Letters Patent filed February 25, 1886, and now pending in the United States Patent Office, although the stick which forms the subject of the present application may be used simply for more convenient transportation of staples for use in hand-fed machines, when the staples may be picked from the stick or bar separately, or for use with other self-feeding devices, either for single-feed or self-feed staple-inserting devices.

My invention consists, as will be seen upon reference to the drawings, of an elongated rod or bar, A, which I preferably make of wood, but which may be made of sheet or bar metal, of compressed paper, or of other suitable material. This bar A is made in its lower part of a supporting-piece, A^2, upon which the staples ride, as shown in Figs. 1 and 3, and is of a form and size to conform to the sides and crown of the staples B B B, which form a series along the same, lying flatwise against each other. To prevent this series of staples from dropping off when the bar is turned over, or from buckling up, and to insure their steady delivery at the end A^4 when placed for feeding in a machine as shown in my invention above referred to and now pending in the Patent Office, I provide a flap, A′, which is attached to the supporting-piece A^2 at one end, so as to leave an open groove, A^4, between the flap A′ and the support A^2 wide enough to insure easy travel of the staples along the said groove or slot, and at the other end the said flap is left free, so that a follower placed upon the stick A behind the series of staples will, by pressure, move them along the said slot A^4 and deliver them at the open end thereof; or, if the same open under a staple-driving plunger or against a laterally-reciprocating carrier, as shown in my application above referred to, the staples will be fed into the machine and driven by the plunger thereof.

When made of wood, I prefer to make the stick A of a single piece and saw the groove or slot A^4 with a smooth band or other saw; but if of metal I sometimes make the parts A′ and A^2 of separate pieces, as shown in Fig. 4, and secure them together by means of the screws or pins A^6 A^7, a block being interposed, as shown, to keep the slot open to the proper gage. When made of wood, and the slot A^4 sawed out, I prefer to drive a nail, A^6, into the head before sawing the slot, to obviate danger of splitting apart.

At A^3, Figs. 1 and 3, I show a groove in the sides of the stick on a line with the crown of the staples. This groove, which I form on each side, enables a follower, as shown in my other application, provided with indented sides, to be applied from behind to push up the string of staples. The follower, however, may be made to embrace the entire stick, clasping around its under side in whole or part, and in such case, or when used for simple transportation or for other reasons, no

such grooves A^3 A^3 may be required, and in Fig. 4 none such are shown. I usually prefer to use staples having their legs nearly parallel with each other, when my stick will have the form shown in cross-section in Fig. 2; but I sometimes use staples having flaring legs, when the form shown in Fig. 2^a will answer best.

In Fig. 2^a I show the flap A^5, made to overhang the lower piece, A^2, whereby the follower is enabled to ride along securely under the edges of the same, and no grooves A^3 A^3 are required.

In Fig. 5 I widen the supporting-piece A^2, so that I am enabled to string a series of staples along both the upper and the under sides, and I use a second flap, A^5, which secures the staples beneath.

I otherwise variously modify my stick by sloping the ends where the staples are delivered, or otherwise matching them to the tool with which they are to be used, by grooving their under sides to slide upon a guide-bar, to hold them fast, or by providing their under sides or rear ends with holes to enable them to be fixed in various positions for transportation.

These sticks, as an article of manufacture, are supplied already loaded with staples, for such uses as they may be applicable to.

In order to prevent the staples from running out of the slot A^4, I secure the open end thereof by applying a band or cord C, (see Fig. 1,) which I prefer to make of a light band of india-rubber, though a cord or a pasted strip of paper or muslin may be used. Instead of this band, when the sticks are not required to be especially smooth inside at the open end of the slot A^4, I sometimes drive a tack, C′, as shown in Fig. 4. I also fasten the ends of the flap in other equivalent ways. These staples B are placed upon the sticks as delivered from the staple-making machine automatically, so that they require no attention, and count themselves, as so many inches of stick hold so many staples of a given kind.

I usually make the sticks from eight inches to a foot in length, each one holding from one hundred and fifty to two hundred or more staples, such as are ordinarily used for fastening papers, &c. The sticks can of course be returned and refilled, being used over and over, like the bobbins used in weaving or spinning, and can be produced at a very low cost, so that no perceptible increase need be made in the selling-price of the staples.

My invention may also be used for headed nails, as well as staples.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a stick for holding metallic staples &c., consisting of an elongated staple-supporting piece, A^2, a guard-flap, A′, extending along above the same, attached thereto at one end and free at the other, and a slot, A^4, open at one end and closed at the other, substantially as described.

2. In combination with the staple-supporting piece A^2, adapted to carry a series of staples, B, the guide-flap A′, supported at one end of piece A^2, providing an open slot, A^4, extending forward from the point of attachment thereto, the said flap A′ extending along the piece A^2, and forming a longitudinal guide for the staples, substantially as described.

3. The staple holding and guiding stick A, having a longitudinal staple-supporting piece, A^2, adapted to be attached to a staple-inserting machine to deliver the staples thereto, and a rigid guide-flap, A′, formed integral with the said stick A, adapted to form a guide for the staples against upward displacement during the operation of delivery of the staples into the machine, substantially as described.

4. The stick for holding staples, &c., consisting of a longitudinal supporting-piece, A^2, flap A′, slot A^4, and grooves A^3 A^3, substantially as and for the purposes set forth.

5. As an improved article of manufacture, the staple-holding stick consisting of the support A^2, series of staples B, guard-flap A′, and band C, or its equivalent, substantially as and for the purposes described.

ISAAC W. HEYSINGER.

Witnesses:

J. LOREN HEYSINGER,

M. B. FENNINGER.