No. 839,836. PATENTED JAN. 1, 1907.

E. T. GREENFIELD.

STAPLE BLANK OR STRIP.

APPLICATION FILED NOV. 25, 1905.

Fig. 1.

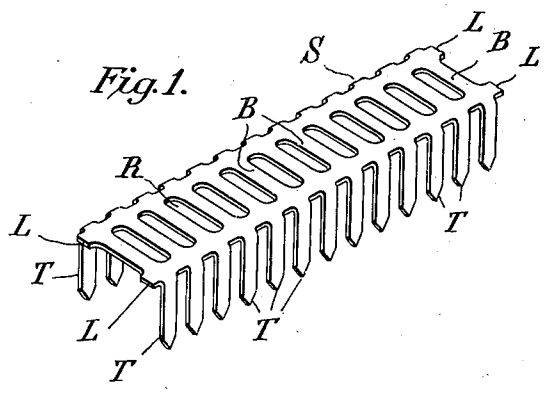


Fig. 2.

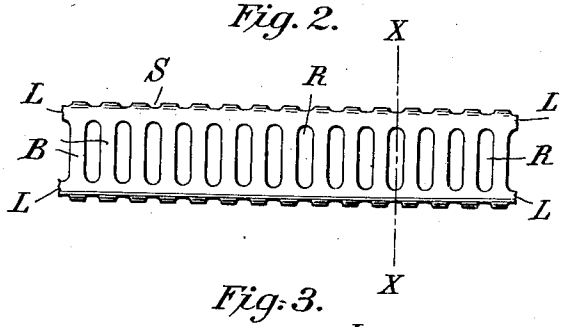


Fig. 3.

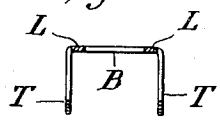
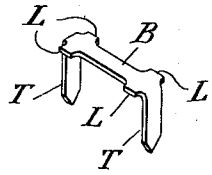


Fig. 4.



WITNESSES:

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STAPLE BLANK OR STRIP.

No. 839,836. Specification of Letters Patent. Patented Jan. 1, 1907.

Application filed November 25, 1905. Serial No. 289,023.

To all whom it may concern:

Be it known that I, EDWIN T. GREENFIELD, a citizen of the United States, residing at Monticello, county of Sullivan, and State of New York, have made a new and useful Invention in Staple Blanks or Strips, of which the following is a specification.

My invention is directed particularly to an improvement upon staple blanks or strips like that shown and described in patent to Washington I. Ludlow, No. 450,246, April 14, 1891; and it has for its objects, first, to provide a staple blank or strip of the character described in the before-mentioned patent in which the staples may be readily severed or cut from the strip with the application of as little energy as possible and in such manner that there shall be no bending or twisting of the blank or strip proper during the time that the staples are being thus severed; second, to provide a staple blank or strip of such a nature that the staples when severed therefrom shall possess greater binding-surface upon the material bound together thereby at the outer ends of the staples than was heretofore possible with existing staples severed from the staple blanks or strips; third, to materially strengthen the staples at the angular portions thereof or at those portions where the prongs or legs of said staples are bent downward; fourth, to provide a staple blank or strip with oblong openings extending between the interconnected staples in such manner that where such blanks are used in connection with staple-severing machines the feed thereof may be better effected than was possible with existing types of staple-strips heretofore in general public use.

My invention will be fully understood by referring to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved completed staple blank or strip. Fig. 2 is a plan view thereof. Fig. 3 is a sectional view taken on the line X X, Fig. 2; and Fig. 4 is a perspective view of a completed staple after it is severed from the strip.

Prior to my invention staple blanks or strips like that disclosed in the before-mentioned patent had been used and a staple blank or strip somewhat similar thereto had been devised by myself for use in connection with staple-severing machines like that disclosed in a prior patent, numbered 572,293, granted to me on the 1st day of December, 1896, in which improved staple-strip the staples proper were severed from each other to such an extent as to leave only a single central adjoining-web embracing as little metal as could be practically used, thereby minimizing the amount of energy required to sever the staples. Such improved staple-blanks have heretofore gone largely into public use, and the present invention is an improvement thereon to the extent that I substitute for the single central adjoining-web duplicate webs at the opposite sides of the completed strip, said webs constituting the metal left in the blank or strip after oblong openings have been cut out in the back of the strip and between the staples proper.

Referring now to the drawings, in which like letters of reference represent like parts wherever used, and first to Figs. 1 and 2, S represents the completed staple blank or strip, the same consisting of a series of staples in blank form having prongs or legs T T and backs B, the backs thereof being separated from each other in the blank or strip by oblong openings R R of sufficient width to enable the web to constitute strengthening lugs or parts L L at the angular portions of the staples when several or completed, said parts or lugs being also adapted to have relatively large surface bearing upon the material to be bound or held by such staples. Such a staple-blank has decided advantages over the staple blanks or strips hereinbefore referred to, first, in that the oblong openings R afford an accurate means of applying the feeding mechanism when said strips are used with staple-severing machines like that disclosed in my before-mentioned patent. In other words, in using my improved staple-strip heretofore extensively used, in which the staples are joined together by a centralized web or connecting part, it is necessary to use duplicate feeding-pawls in such machine to assure accuracy of feed, while with the present improved strip single feeding-pawl mechanism may be used and to such an advantage as to afford the most accurate feed. The improved strip also possesses the further advantage that by reason of the strengthening nature of the webs at the angular portions of the staple blank or strip there is relatively lit-

tle tendency to twist, a feature of objection which was of material importance in connection with the before-mentioned blank or strip.

Although the openings R R are preferably oblong, they may be of any desired conformation or shape so long as they separate the backs of the staples from each other and leave relatively thin webs at the side thereof to be cut away when used in a staple-severing machine.

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

1. As an article of manufacture a staple blank or strip embracing a series of staples interconnected only at the lateral or side edges of the back of such blank or strip.

2. As an article of manufacture a staple blank or strip embracing a series of staples united together only at the angular portions between the legs and the backs thereof and separated from each other by oblong openings.

3. As an article of manufacture a staple blank or strip embracing completed staples integrally connected only at the angles between the legs and backs thereof.

4. As an article of manufacture a staple blank or strip embracing a series of staples separated from each other by spaces between the legs and oblong openings between the backs extending to points relatively near the lateral edges of the strip.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN T. GREENFIELD.

Witnesses:

C. J. KINTNER,

M. F. KEATING.