

W. AVERY.

MANUFACTURE OF METALLIC NEEDLE CASES.

No. 313,797.

Patented Mar. 10, 1885.

FIG 1

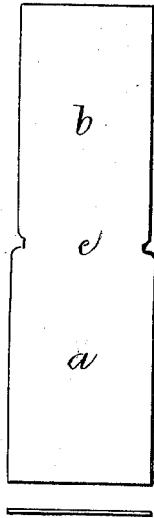


FIG 2.

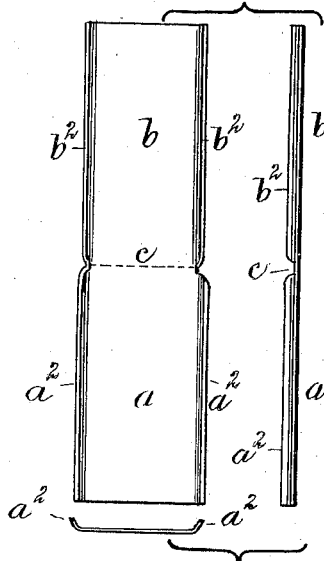


FIG 3.

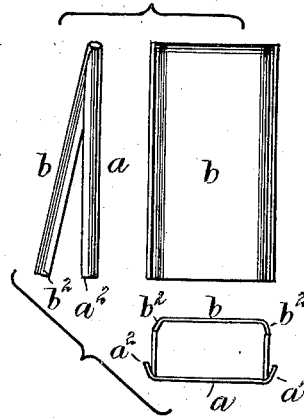


FIG 4.

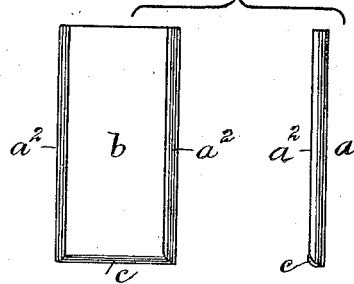
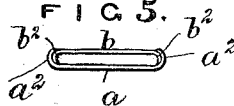


FIG 5.



Witnesses.

Richard Skerrett  
Arthur J. Powell

Inventor.

William Avery

W. AVERY.

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FIG 6.

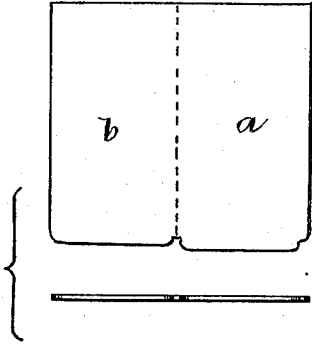


FIG 7.

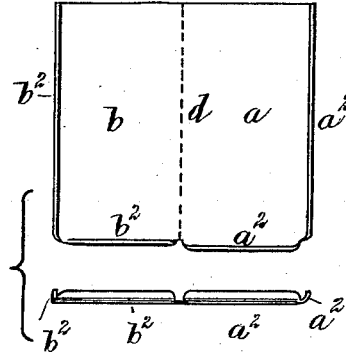


FIG 8.

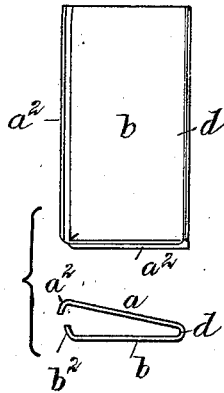
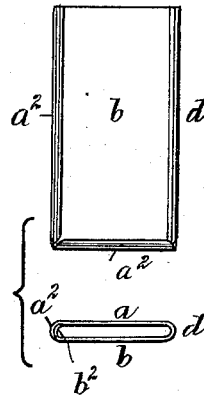


FIG 9.



Witnesses.

*Richard Bennett*

*Arthur J. Powell*

Inventor.

*William Avery*

# UNITED STATES PATENT OFFICE.

WILLIAM AVERY, OF REDDITCH, COUNTY OF WORCESTER, ENGLAND.

## MANUFACTURE OF METALLIC NEEDLE-CASES.

SPECIFICATION forming part of Letters Patent No. 313,797, dated March 10, 1885.

Application filed April 26, 1884. (No model.) Patented in England January 16, 1884, No. 1,534.

*To all whom it may concern:*

Be it known that I, WILLIAM AVERY, of the firm of William Avery & Son, of Headless Cross, near Redditch, in the county of Worcester, England, needle manufacturers, a subject of the Queen of Great Britain, have invented an Improvement or Improvements in the Manufacture of Metallic Needle-Cases, (for which I have made application for Letters Patent in Great Britain No. 1,534, dated January 16, 1884,) of which the following is a specification.

My invention consists in manufacturing flat metallic needle-cases, each from a single blank or piece of sheet metal, in the manner herein-after described.

I take a blank or strip of thin sheet metal somewhat more than twice as long as the case to be made. One half of this blank or strip is wider than the other half, the two parts or halves of unequal width being joined by a neck or contracted part, which contracted part in the finished needle-case constitutes the bottom of the case. The shaped blank or strip having been ornamented while in the flat, the longer edges of the wider half are raised at right angles and form flanges. The two halves of the blank are next doubled at the middle or contracted part, and are brought parallel to one another, the narrow half of the blank engaging with or passing between the raised edges or flanges on the wider half. The raised edges or flanges on one half of the partly-made case are next closed upon the edges of the other half of the case, so as to bind the two halves securely together. A flat metallic case is thus formed from one piece of sheet metal, the bottom of the case being made from the contracted part or neck at the middle of the blank, and the edges from the raised parts or flanges made at the edges of the blank, as before described.

The two halves of the blank may be joined side to side, instead of end to end.

Figure 1 of the accompanying drawings represents the blank of thin sheet metal from which the metallic needle-case is to be made. The halves of the blank are marked  $a$  and  $b$ , the half  $a$  being wider than the half  $b$ , the said halves being joined by the neck or contracted part  $c$ .

Fig. 2 represents the blank, Fig. 1, after its

longitudinal edges have been raised nearly at right angles to the body of the blank, so as to form flanges. The flanges on the longer edges of the half  $a$  are marked  $a^2 a^2$ , and those on the longer edges of the half  $b$  are marked  $b^2 b^2$ . The prepared blank, Fig. 2, is next folded at the middle or contracted part  $c$ , so as to bring the two parts  $ab$  of the blank parallel or nearly parallel to one another, the flanges  $b^2 b^2$  of the narrow half  $b$  of the doubled blank engaging with or passing between the flanges  $a^2 a^2$  of the wider half  $a$ .

Fig. 3 represents the blank after it has been so doubled; but in order the better to exhibit the flanges of the doubled blank the two parts  $ab$  are represented slightly separated from one another. The raised edges or flanges  $a^2 a^2$  of the wider half,  $a$ , of the partly-made case are next closed upon the raised edges or flanges  $b^2 b^2$  of the other half,  $b$ , of the case, so as to bind the two halves  $ab$  together and thereby complete the case, as illustrated in the finished needle-case shown in front elevation and edge view in Fig. 4 and plan in Fig. 5. A flat needle-case is thus made from a single blank or piece of sheet metal, the edges of the case being formed from the the raised parts or flanges  $a^2 a^2 b^2 b^2$  of the blank, and the bottom of the case from the contracted or neck part  $c$  of the blank.

Instead of joining the two halves of the blank from which the case is made end to end, they may be joined side to side with the same result.

Fig. 6 represents a blank of this kind,  $a$  being the wider part of the blank, and  $b$  the narrow part. The side and bottom edges of the blank having been raised, so as to form the flanges  $a^2 a^2$  and  $b^2 b^2$ , as represented in Fig. 7, the blank is doubled or folded at the dotted line  $d$ , so as to form the partly-made needle-case represented in end elevation in Fig. 8. The flanges  $b^2 b^2$  on the narrow half,  $b$ , of the doubled blank, Fig. 8, can now pass into or between the flanges  $a^2 a^2$  on the wider half,  $a$ , and by closing the side and bottom flanges  $a^2 a^2$  of the wider half,  $a$ , upon the side and bottom flanges  $b^2 b^2$  of the narrow half,  $b$ , the two halves  $ab$  are connected together and the needle-case completed, as illustrated in Fig. 9. In this modification the bottom of the case is formed by the closed bottom flanges, and one

edge of the case by the closed side flanges, and the opposite edge by the fold at  $d$ , where the doubling of the two halves of the blank takes place, as seen in the drawings.

5 I do not wish to be understood as claiming herein the method of making needle boxes or cases disclosed in my English Patent No. 58, of the year 1868. My present invention has for its object to improve that construction of  
10 boxes, whereby they are rendered practical in use in that the sides cannot separate or the box spring open when a paper of needles is introduced therein, as did the prior construction.

15 Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is—  
The method herein described of making

sheet-metal needle-boxes, which consists in 20 cutting a blank in a single piece of sheet metal with a central flangeless contracted neck,  $c$ , to form the two sides  $a$   $b$  and one end of the box, with one side,  $b$ , of a less width than and integral with the other side, then bending the 25 longitudinal edge of both of said sides to form the flanges  $a^2$   $b^2$ , then bending the blank at the contracted neck to bring the sides  $a$  and  $b$  parallel to each other with the edge of the flange  $b^2$  resting against the surface of the side 30  $a$ , inside its flange  $a^2$ , and finally pressing the two flanges one upon the other, substantially as shown.

WILLIAM AVERY. [L. S.]

Witnesses:

RICHARD SKERRETT,  
ARTHUR J. POWELL.