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Manufacture of Traveling Bag-Frames.
No. 137,339.

Patented April

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN THE MANUFACTURE OF TRAVELING-BAG FRAMES.

Specification forming part of Letters Patent No. 137,339, dated April 1, 1873; application filed December 9, 1872.

To all whom it may concern:

Be it known that we, James B. Blaks-Lee and Charles F. Blakslee, of St. Petersburg, in the county of Clarion and State of Pennsylvania, have invented a new and useful Improvement in Making Traveling-Bag Frames, of which the following is a specification:

For making the sheet-metal angle-bars comprising the frames for the top and ends of traveling-bags, we propose to take a flat strip of metal of the length required and wide enough for the two bars of a bag, and first punch the holes for sewing the cloth or leather portions of the bags to them, and shape the ends for the blanks of the hinges, to be subsequently completed for jointing the ends of the frames together; then bend the strip for the corners of the top and ends, and partly bend up the edges to form a double angle-bar around the corners and a short distance each way therefrom in dies of peculiar construction, specially devised therefor; then bend up the said edges still more by another set of dies more nearly approximating the double angle shape required; then complete the bending of the edges in one or more sets of dies; then reduce the balance of the strip between the corners, also between the ends and the corners to the double-angle shape in any ordinary or suitable bending-dies by one or more operations to each part, as required; then cut or split the double angle-bar along the middle lengthwise from end to end to make the pair of anglebars comprising the frame for the bag, and then complete the blanks for the hinge by bending the lips, provided on the ends for the purpose, to the shape required to form the knuckles, whereby we economize considerably in labor and time by having the dies contribute to the formation of both the bars of a frame at each operation. As one bar of the frame is required to shut inside of the other when the bag is completed, we cut the ends of the side of the strip which is to form the bar which shuts inside of the other a little shorter, when producing the forms thereon for its parts of the hinges, so that the parts of each bar for the hinges will coincide with each other exactly when the bars are put together. The dies which we use are male and female, in the form of right-angled blocks with beveled sides, each succeeding set used being more acute in the angles of the beveled sides than the preceding set, and the beveled sides are detachably connected to the middle portions for convenience in con-

structing and repairing them.

Figure 1 is a side elevation, and Fig. 2 a transverse sectional elevation, of the first pair of dies, which we use in forming the double anglebar, with the strip to be formed shown in dotted lines in Fig. 1. Fig. 3 is a side elevation, and Fig. 4 is a transverse sectional elevation, of the second set of dies. Fig. 5 is a side elevation, and Fig. 6 is a transverse sectional elevation, of the third set of dies. Fig. 7 is a side elevation, and Fig. 8 is a transverse sectional elevation, of a fourth set of dies. Fig. 9 is a plan view of part of the strip after being punched for sewing the leather or cloth to it, and having the hinge-blanks formed on the ends. Fig. 10 is a cross-section, showing the shape after the action of the first set of dies upon it. Figs. 11, 12, and 13 are cross-sections, showing the shape after each successive action by the other dies. Fig. 14 is a side elevation of the bar having the double-angle shape produced on the corners and the parts between the ends and the corners, with dotted lines indicating the form of the part between the corners when completed; and Fig. 15 represents the completed form of the ends for the hinges.

Similar letters of reference indicate corre-

sponding parts.

A and B represent the dies for bending the strip of metal at the corners and performing the first operation in bending up the edges. C represents the strip of metal, of which the frame is to be made, in dotted lines. D and E are rests each side of the dies for the straight parts of the strip when the dies have bent it down between them. Said rests are at right angles to each other and coincide with the right-angled sides of the dies. F is an adjustable gage-stop, against which one end of the strip is held while being acted on by the dies to govern the distance of the corner bend of the strip from the end. This gage will be shifted up or down to adapt the dies for making frames of different sizes. The middle portions a b of the dies are in the same form and width as the web d, connecting the two turnedframe.

up edges or flanges e of the completed double angle-bar; but the sides f g are beveled or oblique to them for turning up the edges of the strip as the dies come together. These sides f g we prefer to construct of separate pieces, and secure them to the parts a b, as shown by bolts h, to simplify the construction, and so they can be readily taken off and be refitted when they are worn. The sides f g of each succeeding set of the series are more oblique to the parts a b than the preceding set, considered in the order of their use, to effect the turning of the edges progressively.

The lines i, Fig. 9, indicate where the strip is bent up by the dies to form the angles, and the line j shows where the strip is split or cut to separate the double-angle bar into the two single angle bars or "jaws" constituting the

It will be seen that by turning the angles along the lines i the projections k, which are formed on the ends of the metal strips previous to the bending for making the knuckles of the hinges, are turned around parallel with the holes m in the ears n for the pivot or pintle, so that the said projections being coiled into the shape shown in Fig. 15, form eyes coinciding with the eyes m for the pintle.

The projection k of one side is formed next to the ear m, but the one on the other side is as distant from the ear as the width of the projections, so that they come side by side when the two bars of the frame are jointed together, as shown in Fig. 15. The bar or jaw which is to shut inside of the other when they

are jointed together has its ears n and eyes m formed a little higher up or nearer the corner of the frame than those on the bar which goes outside, as indicated in Fig. 9, so that they coincide when the jaws are arranged together.

In Fig. 14, C indicates the unbent portion of the strip of which the frame is made; J represents the corners joining the top end portions, and L represents the latter bent up in the double-angle shape ready for being split after the part C is finished.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The method of making the angle-bars for traveling-bag frames, by producing a double angle-bar from a plain flat strip, in the manner described, and separating it along the middle, substantially as specified.

2. The relative arrangement of the ears n, eyes m, and projections k of each part of the bar to hinge them together so that one will close within the other, substantially as specified.

3. Bending dies a b f g, constructed and arranged substantially as shown and described.

4. The combination of the rests E D, and the adjustable stop-guide F with the dies A B, substantially as specified.

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