

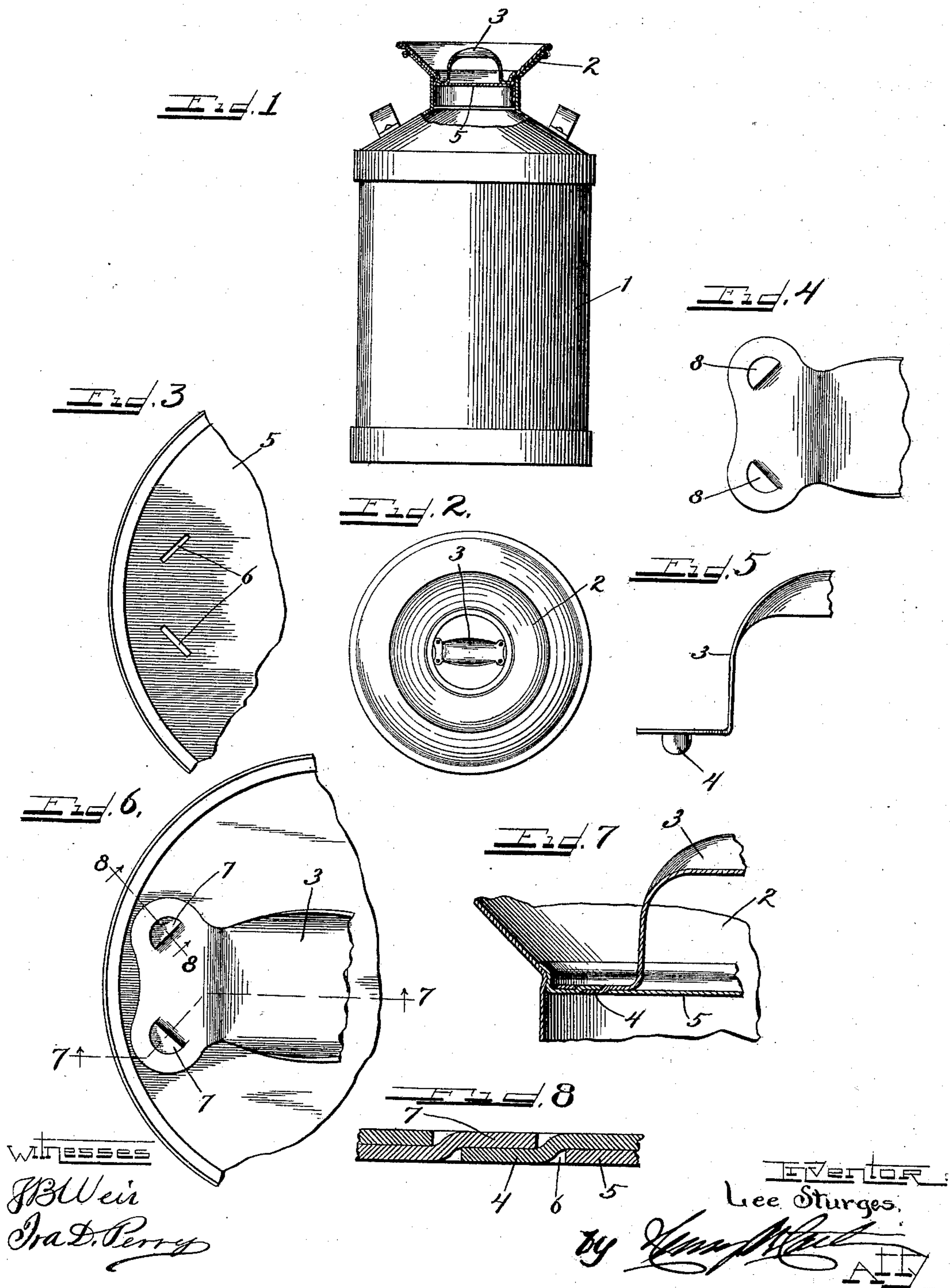
No. 654,423.

Patented July 24, 1900.

L. STURGES.
HANDLE FASTENING.

(Application filed Apr. 4, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

LEE STURGES, OF ELMHURST, ILLINOIS.

HANDLE-FASTENING.

SPECIFICATION forming part of Letters Patent No. 654,423, dated July 24, 1900.

Application filed April 4, 1900. Serial No. 11,421. (No model.)

To all whom it may concern:

Be it known that I, LEE STURGES, a citizen of the United States, residing at Elmhurst, in the county of Du Page, in the State of Illinois, have invented certain new and useful Improvements in Handle-Fastenings, of which the following is a specification.

This invention relates to improved means for securing metallic handles to sheet-metal vessels or covers, and is more particularly designed for fastening the handle to the cover of an ordinary sheet-metal milk-can.

The invention consists in the matters hereinafter set forth, and particularly pointed out in the appended claims, and will be fully understood from the following description of the construction illustrated in the accompanying drawings, in which—

Figure 1 is an elevation, partly in section, of an ordinary milk-can and cover, the handle of the latter being secured to the cover by my improved fastening. Fig. 2 is a top plan view thereof. Fig. 3 is a fragmentary plan detail on an enlarged scale, showing the slots provided in the top of the cover to receive the lips of the handle. Fig. 4 is a similar view of the corresponding end of the handle before it is secured to the cover. Fig. 5 is a detail side elevation thereof. Fig. 6 is a view similar to Fig. 3, but showing the handle in place on the cover. Fig. 7 is a sectional elevation thereof, taken on line 7 7 of Fig. 6. Fig. 8 is a greatly-enlarged section taken on line 8 8 of Fig. 6.

In said drawings 1 designates the can, 2 the can cover or stopper, and 3 the cover-handle, all of these parts being of any usual or suitable construction except as regards the improved means hereinafter described for fastening the handle in place. Such improved fastening contemplates the provision on the handle of downwardly-projecting lips 4, which are formed integral with the body of the handle by turning them down from the metal of the ends thereof, and the provision in the top wall 5 of the cover of correspondingly-located slots 6, made just large enough to receive said lips. Two of these lips are formed at each end of the handle, one at each side of and at an oblique angle to the longitudinal center of said handle. The handle is then placed upon the cover, with the lips 4 project-

ing downwardly through said slots, and said lips are then bent upward flat against the top of the cover under a pressure sufficient to force those portions 7 of the cover which lie directly above the lips 4 into the apertures 8, formed in the handle by the turning down of said lips, as better shown in Fig. 8. This substantially fills said apertures 8 and makes a substantially-smooth surface on the upper side of the ends of the handle and at the same time causes the lips 4 to sink into the under side of the cover-top, so as to afford a substantially even and smooth surface there also, while the resulting interlocking action caused by the closing in of the metal in the manner described affords a fastening which is equal or superior to the best riveted construction and much less expensive and a fastening which the subsequent tinning or other metal-coating operation will render water-tight.

The object of arranging the lips and slots at oblique angles to the longitudinal center of the handle is that said lips will be prevented from unfolding to their original positions while under any strain which tends to separate the handle from the structure to which it is secured, said strain causing a twisting strain on said lips instead of tending to unfold them to their original positions. To break the handle from the structure, the strain must be sufficient to break the metal either of the lips or the structure. It will thus be seen that the fastening means is exceedingly strong and is particularly adapted for use on milk-can covers, as these covers must fit tightly in the mouths of the cans, and the handles thereof are subjected to severe strains whenever the covers are detached from the cans.

It will of course be understood that while the improved fastening described is especially designed for and particularly advantageous in the connection set forth it is nevertheless not necessarily limited thereto, but may be employed in any other connection in which it may prove applicable.

I claim as my invention—

1. An improved fastening for sheet metal, comprising turned-down lips in one part inserted through slots in the other part and forced up against the same by pressure sufficient to sink said lips into said other part and

cause the latter to be forced up into the apertures formed by the turning down of the lips, said lips and said slots being arranged at an oblique angle to the line of strain on the fastening, whereby said lips will be prevented from unfolding to their original position under such strain, substantially as described.

2. An improved fastening for sheet metal, comprising turned-down lips in one part inserted through correspondingly - arranged slots in the other part and forced against the same, said lips and said slots being arranged at an oblique angle to the line of strain brought on said parts, whereby the lips will be prevented from unfolding under such strain.

3. The combination of a metal structure having oblique slots formed therein, with a metal handle provided at its ends with bendable lips arranged at oblique angles to the longitudinal center of the handle, said lips extending through the slots in the structure and being bent over and forced against the under surface of said structure to secure the handle in position, whereby a strain tending

to separate the handle from the structure will cause a twisting strain on the lips.

4. The combination of a metal structure having oblique slots formed therein, with a metal handle provided with integral bendable lips arranged at an oblique angle to the longitudinal center of the handle, openings of corresponding shape being formed in the handle adjacent the lips, said lips extending through the slots in the structure and being forced against the structure with sufficient pressure to force the metal thereof into the openings in the handle, whereby a strain on the handle tending to separate it from the structure will cause a twisting strain on the lips, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two subscribing witnesses, this 31st day of March, A. D. 1900.

LEE STURGES.

Witnesses:

HENRY W. CARTER,
N. R. BAILEY.