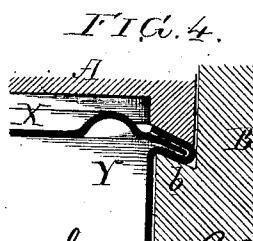
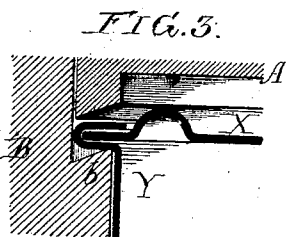
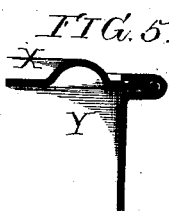
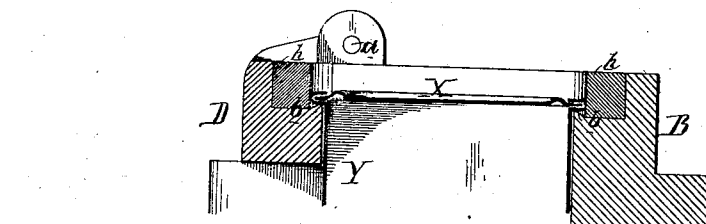


J. Le COMTE & G. H. PERKINS.
 Dies for Closing Seams of Sheet-Metal Cans.
 No. 155,320. Patented Sept. 22, 1874.



Witnesses, Harry Smith
 Thomas M. Strain

Joseph Le Comte and
 Geo. H. Perkins
 By their Atty.
 Howson and Son

UNITED STATES PATENT OFFICE.

JOSEPH LE COMTE, OF NEW YORK, N. Y., AND GEORGE H. PERKINS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THEMSELVES AND ATLANTIC REFINING COMPANY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DIES FOR CLOSING SEAMS OF SHEET-METAL CANS.

Specification forming part of Letters Patent No. **155,320**, dated September 22, 1874; application filed June 27, 1874.

CASE P.

To all whom it may concern:

Be it known that we, JOSEPH LE COMTE, of the city, county, and State of New York, and GEORGE H. PERKINS, of Philadelphia, Pennsylvania, have invented an Improvement in Mechanism for Closing the Joints of Sheet-Metal Cans, of which the following is a specification:

Our invention relates to mechanism for joining the heads and bodies of square sheet-metal cans; and the objects of our invention are to close the joints at all four sides of the head simultaneously, and to facilitate the introduction of the can into, and its removal from, the lower die, objects which we attain by subjecting the bent edges of the head X and body Y of the can to pressure between an upper movable die A and lower fixed die B, one side D of the latter being hinged at *a*, so that it can be moved out of the way to permit the introduction and withdrawal of the can, all as fully described hereafter, and as illustrated by the vertical section, Figure 1, and plan view, Fig. 2, of the accompanying drawing.

The joints between the heads and bodies of square sheet-metal cans—such, for instance, as those used for the transportation of petroleum—are generally of the character shown in the enlarged sectional views, Figs. 3 and 4, of the drawing, the edges of the body Y of the can being bent to a U-shape for the reception of the edges of the head X, and these edges being simply pressed together to close the joints. The joints, however, have generally been pressed, one at a time, between wheels in what is known as a “pinning-down machine,” whereas in our improved machine, which we will now proceed to describe, the whole of the four joints at each end of the can are closed simultaneously by pressure between dies.

The upper movable die A is secured to a guided plunger, (not shown in the drawings,) to which a vertical reciprocating movement is imparted, and the lower die, B, is secured to a suitable bed-plate, and has a central opening, *y*, of the size and shape of the can, and an in-

ternal shoulder, *b*, between which and the upper die, A, the edges of the can are pressed.

The die B may be made solid, but we prefer to construct the portion *h*, above the shoulder *b*, of a separate piece of steel, so that it can be readily removed and replaced when worn.

The said portion *h* may also be constructed in sections rendered adjustable on the die, so as to serve as gages for the edges of the can.

The operation of the dies in completing the joints will be readily understood on referring to Figs. 3 and 4, the pressure being exerted upon all four sides of the head simultaneously, while the latter and the body of the can are held so firmly between the dies as to prevent either part from yielding, so that the joints must be uniform and perfect. As the body of the can is flanged or bent at its lower as well as at its upper end, it cannot be dropped into the die B, but must be introduced and withdrawn laterally. Hence, it is necessary to make one side, D, of the die detachable, in order that it may be moved out of the way when the can has to be introduced or withdrawn, and we prefer to hinge it at *a a*, in the manner shown in Figs. 1 and 2, but this is immaterial, as the said piece D may be otherwise secured, if desired. When the piece D is simply hinged to the die, however, the center line of the hinge should bear the relation to the shoulder *b* shown in Fig. 1, so that the direct downward pressure of the die A on the portion of the shoulder formed upon the said piece D shall have a tendency to force the latter inward against the lower die, instead of outward, which would be the case if the arrangement were reversed.

It is not absolutely necessary in carrying out our invention that the dies should be shaped precisely as shown in Figs. 3 and 4, so as to bend the joints downward, as either of the joints shown in Figs. 5 and 6 can be formed by slightly modifying the shape of the dies.

We claim as our invention—

1. A machine for joining the heads and bodies of square sheet-metal cans, in which an upper movable die, A, is combined with a

lower fixed die, B, having one side, D, detachable, and provided with an internal shoulder, *b*, between which and the die A the bent edges of the body and head are pressed, all substantially as set forth.

2. The side piece D hinged to the die B, in the manner described, so that a downward pressure upon its shoulder *b* shall tend to force the said side piece inward against the die, all as and for the purpose set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOS. LE COMTE.

GEORGE H. PERKINS.

Witnesses:

JOSEPH MEEKS,
THURDON WRIGHT.