C. CLAUSSEN.

Machine for Wiring and Flanging.

No. 210,099. Patented Nov. 19, 1878.

Fig. 1.

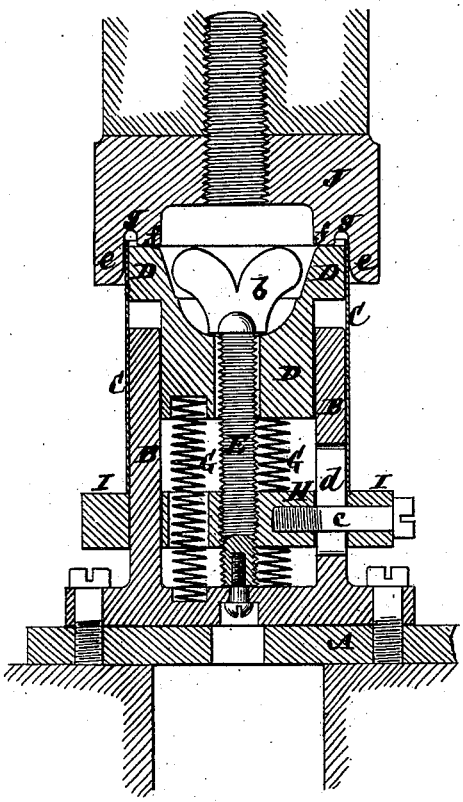


Fig. 2.

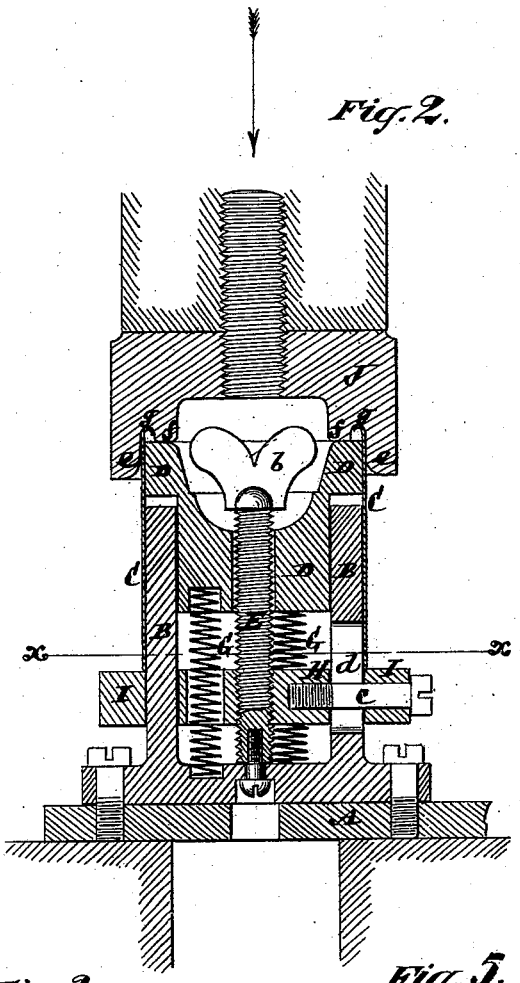


Fig. 4.

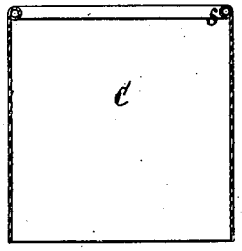


Fig. 3.

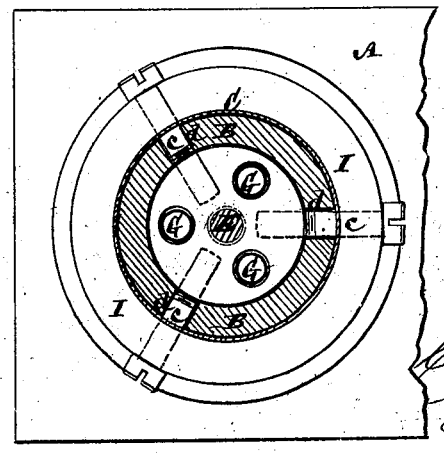
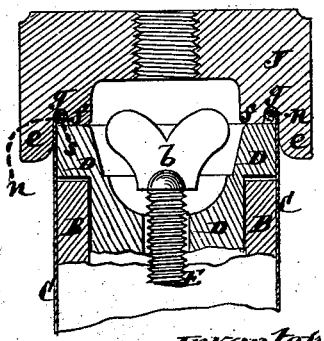


Fig. 5.



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CHRISTIAN CLAUSSEN, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR WIRING AND FLANGING.

Specification forming part of Letters Patent No. **210,099**, dated November 19, 1878; application filed October 12, 1878.

To all whom it may concern:

Be it known that I, CHRISTIAN CLAUSSEN, of the city and State of New York, have invented certain Improvements in Apparatus for Fashioning and Stiffening the Ends of Sheet-Metal Can-Bodies and other articles, of which the following is a description, reference being had to the accompanying drawing, forming part of this specification.

This invention has for its object fashioning and stiffening the ends of sheet-metal can-bodies and other articles by turning over in an inwardly direction the edges of said ends; and the invention consists in certain combinations of devices, whereby increased facilities are afforded for accomplishing said work with accuracy and dispatch, free from all marring or breaking of the inwardly-turned-over edge, and admitting of the ready adjustment of the devices to can-bodies or articles of different length.

In the accompanying drawing, Figures 1 and 2 represent vertical sections of an apparatus or combination of devices constructed in accordance with my invention, and showing the same at different stages in the operation, as applied to rounding and turning inward the mouth end of a sheet-metal can-body. Fig. 3 is a horizontal section on the line *x x;* and Fig. 4, a vertical or longitudinal section of the can-body after its removal from the apparatus, and with its mouth end turned inward and rounded. Fig. 5 is a vertical section, in part, of the devices shown in Figs. 1 and 2, with a stiffening-wire introduced within the turned-in edge of the mouth end of the can-body.

A is a sliding base, designed to fit within or on the bed of a power or other press, and made capable of being drawn in and out, to facilitate the placing or removal of the work and its proper adjustment under the follower of the press. Secured on this sliding base A is a hollow mandrel, B, of the same exterior dimensions as the interior of the body C of the can, which fits snugly over it. This mandrel B is open at its upper end, and receives within it a rising and falling extension, D, which is controlled by the combined action of a screw, E, and one or more springs, G. The screw E is attached at its lower end to the bottom of the hollow mandrel B, and is fitted to work through a screw-threaded follower, H, within said hollow mandrel, and to pass freely through the mandrel-extension D, within which the head *b* of the screw bears, to limit the upward movement of the mandrel-extension as against the upward thrust of the springs G.

The screw-threaded follower H is prevented from turning, and is connected with a follower, I, on the outside of the hollow mandrel B, by screws *c*, passing through slots *d* in the side of the hollow mandrel, or by any other suitable means, so that the followers H and I, which virtually form but a single follower, move in concert.

J is an upper mold or die, which is screwed or otherwise secured to the follower of the press, and is constructed on its under face with a continuous outer-side rim or lip, *e*, of a size to receive within it the upper end of the body C of the can, and with a continuous less prominent inner rim or lip, *f*, which is separated from the outer lip, *e*, by a continuous groove, *g*, having a rounded upper surface, and bounded on its sides by the lips *e* and *f*.

In the operation of these devices, the can-body C is first slipped over the hollow mandrel B and extension D thereof until its lower end rests on the follower I. The screw E is then adjusted by its head *b* until the upper end of the can-body is brought into proper relation with the upper surface of the mandrel-extension D, to provide for turning inward and rounding, as required, the edge of said upper end of the can-body by the action of the mold or die J. The upward or downward adjustment of the outside follower, I, by the screw E provides for adapting the devices to different depths or lengths of can-bodies.

After the can-body has been adjusted as required on the hollow mandrel B and its extension D, the slide A is moved forward to bring said parts B and D under and in line with the mold or die J, and the latter then brought down to receive within the inner wall of the outer lip, *e*, the upper end or edge of the can-body and upper portion of the mandrel-extension D, as shown in Fig. 1. This action is continued until the upper or mouth edge of the can-body is forced into and rounded by the groove *g* and inner lip, *f*, of the mold or die J,

the mandrel-extension D receding by the pressure of the die J on it during such action, and the springs H serving to break shock and to insure an elastic but steady operation, which will prevent any marring of the inwardly-bent and rounded edge of the can-body.

Fig. 2 represents the several parts in position during the act of bending the edge of the can-body, and Fig. 4 shows the latter after its mouth or edge has been completely bent.

If desired, a stiffening-wire may be inclosed within the inwardly-bent and rounded mouth edge *s* of the can-body by laying a wire in a broken circular form on the upper surface of the mandrel-extension D, and within the upper edge of the can-body, before commencing to bend said edge, when, on bringing down the mold or die J, said wire *n*, as shown in Fig. 5, will be picked up by the bent edge *s* of the can-body within the groove *g*, and be snugly incased by said edge.

By bending inward and rounding the mouth edge of the can-body after the latter has been closed longitudinally, a most perfect and smooth finish is obtained for said edge, which is not only stiffened so as to preserve its form after the lid has been removed, but which admits of a close-fitting slip-lid being used, and the means which I have described for thus bending the edge of the mouth of the can operate most advantageously to effect the desired result.

I claim—

1. The combination of a stationary mandrel, a longitudinally-movable end extension of said mandrel, of like exterior dimensions with the mandrel, one or more springs arranged to force outward the mandrel-extensions, and a movable mold or die constructed to bend inwardly and to round the exposed end or edge of the can-body or article, substantially as specified.

2. The combination of the adjustable outside follower, I, with the mandrel B, the mandrel-extension D, forced outward by one or more springs, and the mold or die J, constructed to round and turn inward the exposed end edge of the article carried by the follower I, mandrel B, and mandrel-extension D, essentially as described.

3. The combination, with the stationary mandrel B, of the mandrel-extension D, supported by one or more springs, the screw E, constructed to act as a stop to said extension against outward thrust by said spring or springs, and the inside and outside followers, H I, actuated by said screw, substantially as specified.

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