No. 888,264. PATENTED MAY 19, 1908.

C. J. RHODES.

DOUBLE SEAMING MACHINE FOR CANS.

APPLICATION FILED NOV. 20, 1905.

3 SHEETS—SHEET 1.

FIG. 1A

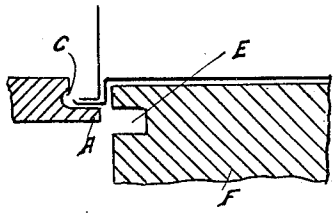


FIG. 2A

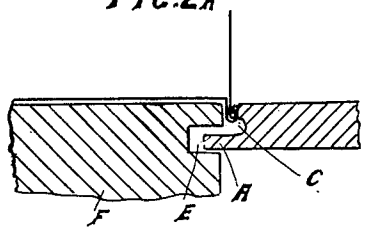


FIG. 1.

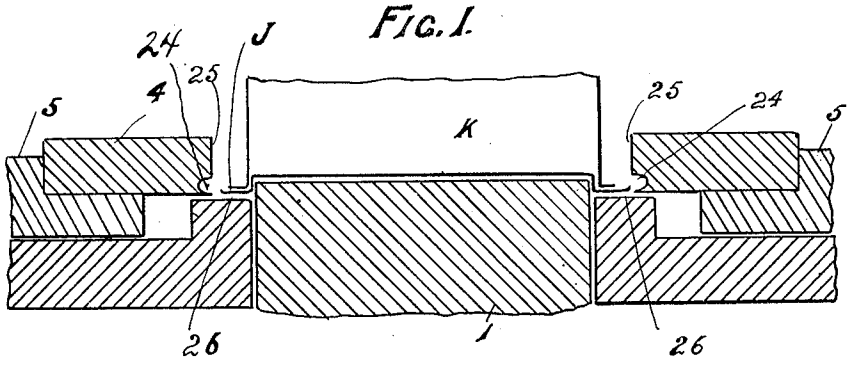
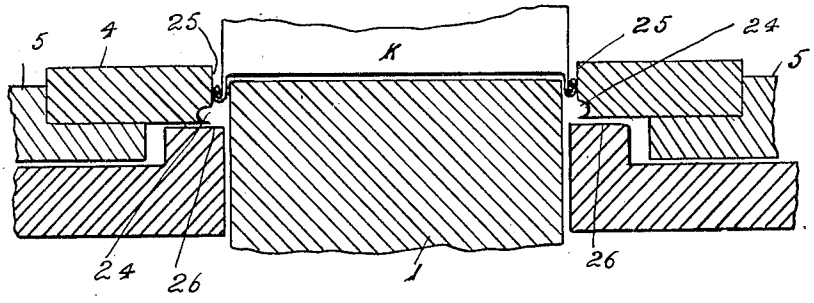


FIG. 2.



Witnesses
Philip Terrell
James F. Yeomans

Inventor
Charles Joseph Rhodes
by David P. Moore
Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

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3 SHEETS—SHEET 2.

FIG. 4.

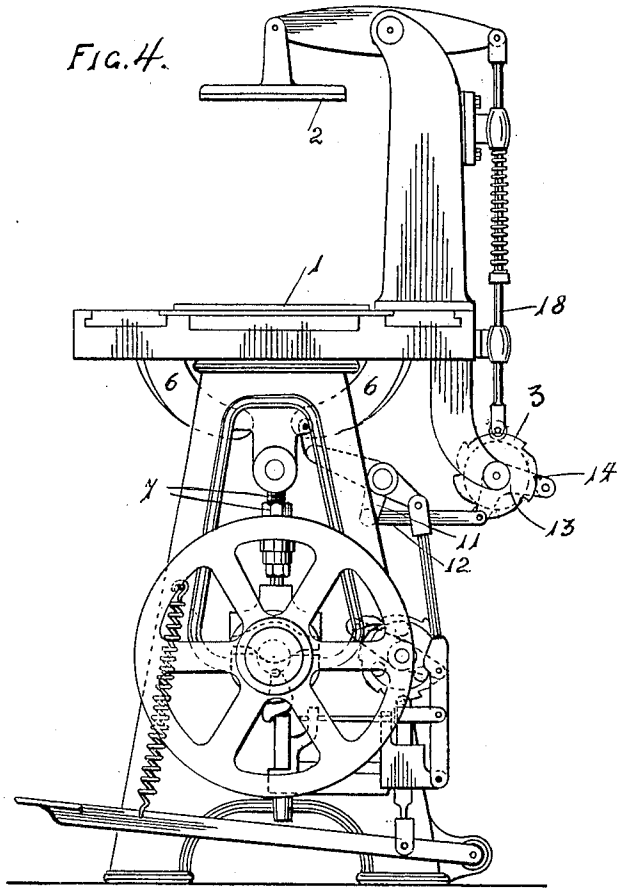
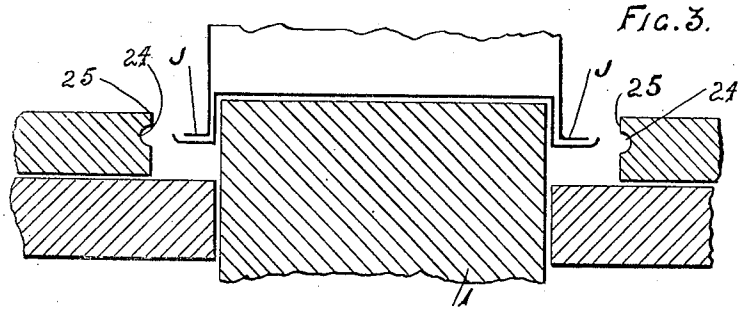


FIG. 3.



Witnesses
Philip Terrell
James K. Yeomans

Inventor
Charles Joseph Rhodes
by David R. Moore.
Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

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3 SHEETS—SHEET 3.

Fig. 6.

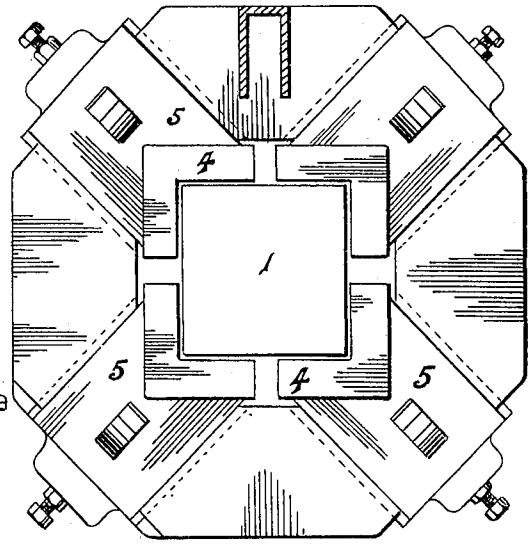
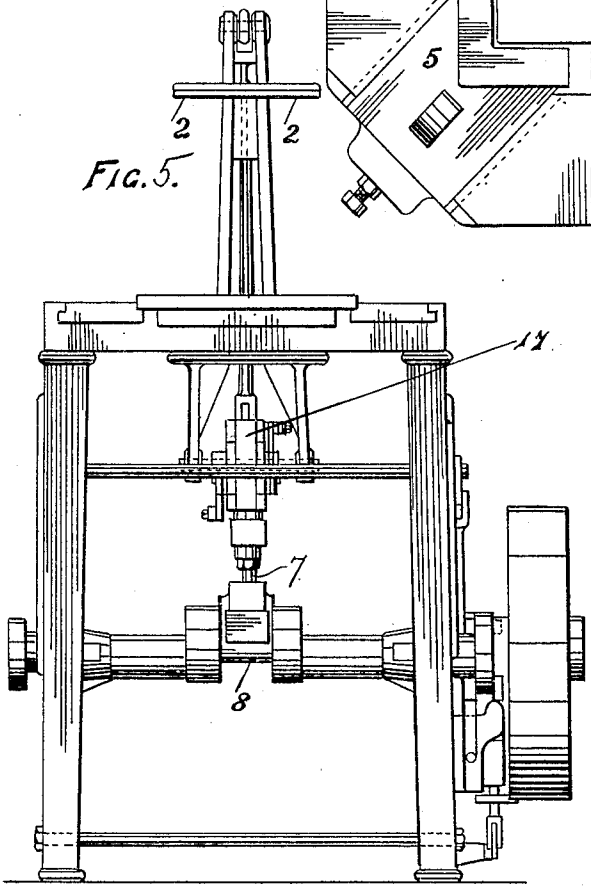


Fig. 5.



Witnesses:
Philip Terrell
James H. Yeomans

Inventor
Charles Joseph Rhodes
by David P. Moore
Attorney

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES JOSEPH RHODES, OF WAKEFIELD, ENGLAND.

DOUBLE-SEAMING MACHINE FOR CANS.

No. 888,264. Specification of Letters Patent. Patented May 19, 1908.

Application filed November 20, 1905. Serial No. 288,142.

To all whom it may concern:

Be it known that I, CHARLES JOSEPH RHODES, a subject of the King of Great Britain, residing at Grove Iron Works, Wakefield, in the county of York, England, have invented certain new and useful Improvements in Double-Seaming Machines for Cans, of which the following is a description, reference being had to the accompanying drawings and the letters and figures of reference marked thereon.

The invention relates to double seaming machines for cans, and especially for cans which are square or oblong.

The object of my invention is to provide a supporting block for the can, which will support the can during the seaming operations of the machine, and which shall be so constructed that all liability of the can being locked to said supporting block will be avoided.

In the drawings which show by way of illustration one embodiment of my invention,—Figure 1 is a sectional view, showing the bed or table, the supporting block and the folding jaw in retracted position; Fig. 1[A] is a detail sectional view of a supporting block and folding jaw which is old in the art, the jaw being in retracted position; Fig. 2 is a view similar to Fig. 1, showing the jaws in position for flattening the seam; Fig. 2[A] is a view similar to Fig. 1[A], showing the jaw in position for flattening the seam; Fig. 3 is a view similar to Fig. 1, showing a modified form of folding jaw; Fig. 4 is a side view of a machine embodying my invention; Fig. 5 is a front view of the same; and Fig. 6 is a plan view of the table with the standard in section, and showing the jaws and devices for operating the same.

The machine shown in the drawings is in general of the well known construction, and embodies a table or support in which are formed ways. In said ways are mounted slides 5 carrying at the forward ends, jaws 4, which operate to fold or curl the edges of the can. The slides 4 are reciprocated in the ways in the table by the usual levers 6, which extend beneath the table and are suitably connected to the reciprocating crosshead 17. Said crosshead is connected by a link 7 to crank 8 on the main shaft, which is mounted in suitable bearings in the frame supporting the table.

A supporting block 1 is provided for the can. Said block is so constructed as to receive and fit the outer depressed face of the closing end for the can. As shown in Fig. 1, the closing end of the can is placed upon said supporting block with the flange J close to the upper surface 26 of the table. The can body K with an outwardly extending flange is then placed upon the closing end of the can. The jaws 4 are provided with the usual folding or curling recess 24, and as they move forward the edges of the can body and the closing end are rolled together. As a means for flattening the seam, the jaws 4 are provided with a flat part 25. The supporting block is raised in the usual manner, so that on the second reciprocation of the jaws 4 the flat portion 25 thereof will contact with and flatten the seam, as shown in Fig. 2.

The usual clamping down plate 2 is employed. Said plate is carried by a lever mounted on a standard supported by the table. Said lever in turn is connected to a rod 18 coöperating with a cam carried by the ratchet disk 3. Said ratchet disk is intermittently rotated by a rock lever 13, and a pawl 14. Said rock lever is connected to a link 12, which in turn is connected to a lever 11 operated by the cross head 17. These parts are of the usual construction, and will not need further description.

It will be noted that my supporting block for the closing end of the can and the can body is constructed so that it is of substantially the same cross sectional area for a distance considerably below the plane of the movement of the jaws. By this construction of supporting block, I am able to provide a machine that is very efficient in operation, and remedy certain defects in machines of this type in the prior art. The manner by which this is accomplished will be made more clear by a brief reference to the prior art, as shown for example in Figs. 1[A] and 2[A]. In said figures, the jaws C are provided with a forwardly projecting member A, on which the flanges of the can rest.

The supporting block F is necessarily provided with a recess E to receive said projecting portion A of the jaw. As the jaw moves forward to curl the flanges of the can, it often occurs that the can will be forced around into the recess E slightly, but sufficiently to lock the can to the supporting block. By my improved form of supporting block, it will be apparent that the locking of the can to said block cannot occur for the reason that said block is as small in cross section at its upper

or supporting end, as at any other point where contact with the can body may occur.

In Fig. 3, I have shown a slightly modified form of jaw. The flat portion is below the curling recess. In this form the supporting block is raised for the first operation, and is lowered for the second or flattening operation.

Having now described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A machine for double seaming, including in combination a reciprocating jaw, having on its operating face a curved recess to fold the edges of the head and body of the can upon each other to form the seam at the first movement of the jaw, and having a flat portion to flatten the folded seam at the second movement of said jaw, means for operating the jaw, and a supporting block for supporting the can, said supporting block having a surface located entirely inside of the inner position of the operative face of said jaw, and coöperating therewith to fold said edges, whereby all liability of locking the can to said supporting block when closing the seam, is avoided.

2. A machine for double seaming, including in combination reciprocating jaws, each having on its operating face a curved recess to fold the edges of the head and body of the can upon each other to form the seam at the first movement of the jaws, and having a flat portion to flatten the folded seam at the second movement of the jaws, means for operating said jaws, and a supporting block for supporting the can, and coöperating with said jaws to fold the edges, said supporting block being of substantially the same cross sectional area, for a distance considerably below the plane of movement of said jaws, whereby all liability of locking the can to the supporting block when closing the seam, is avoided.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

CHARLES JOSEPH RHODES.

Witnesses:

E. C. STONEHOUSE,

WM. STANGER.