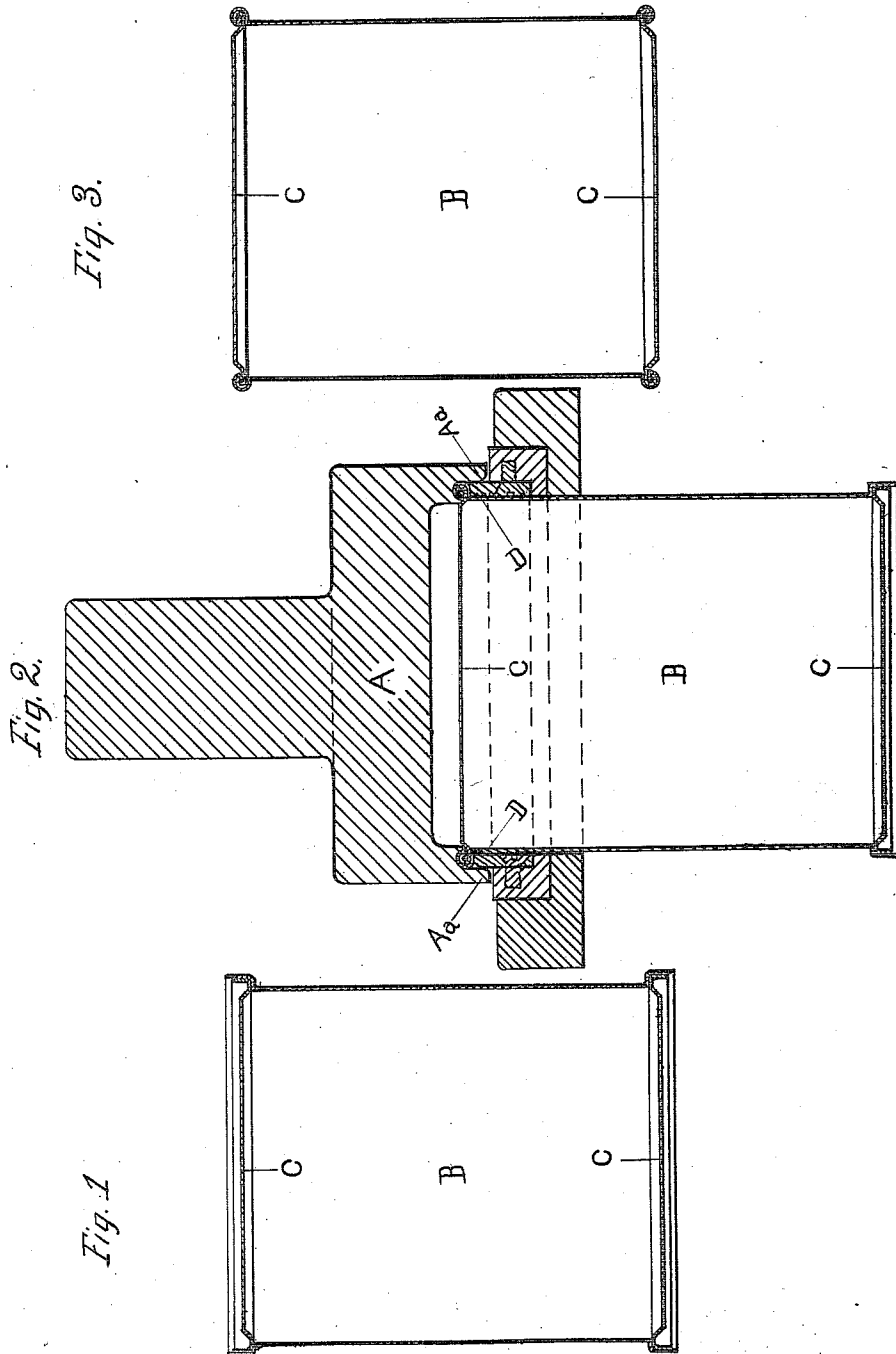


L. C. SHARP.
APPARATUS FOR SEAMING THE HEADS UPON CANS.
APPLICATION FILED NOV. 26, 1906.

983,001.

Patented Jan. 31, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

LEE C. SHARP, OF PLATTSMOUTH, NEBRASKA.

APPARATUS FOR SEAMING THE HEADS UPON CANS.

983,001.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed November 26, 1906. Serial No. 345,260.

To all whom it may concern:

Be it known that I, LEE C. SHARP, a citizen of the United States, residing in Plattsmouth, Cass county, and State of Nebraska, have invented a new and useful Improvement in Apparatus for Seaming the Heads Upon Cans, of which the following is a specification.

My invention relates to the improvement of affixing the covers to sheet metal cans having annular offset walls at their ends, by means of a seaming head having an outward vertical and downward projecting flange, the seaming head operating in conjunction with a narrow thrust ring or chuck surrounding the can body and forming a seat for the offset rim of the can, the width of the said thrust ring being essentially not greater than the seat formed by the said annular offset on the can body, the seaming head and thrust ring working in close relation to each other to prevent any radial enlargement of the rim or seam of the can while being operated upon.

The object of my improvement is to curl the offset wall of the can body and cover inwardly and downwardly, truly, and tightly into a dense contact securing a seam of wire-like section, greatly stiffening the seam of the can, and to dispose the said seam to a position outside the circumferential diameter of the can body, my thrust ring which engages the annular offset of the can body and which receives the thrust of the seaming operation, is essentially of a width equal to the seat of the offset of the annular can rim, and of a height sufficient to permit the down projecting flange portion of the seaming device to work adjacent thereto inclosing the seam and preventing thereby any radial enlargement thereof and to prevent any portion of the seam to escape from its confines. The upper portion or face of the thrust ring being practically flat prevents any tendency of the can body receding from the extreme pressure of the seaming operation. Curling the walls of the annular offset inwardly and downwardly under rigid confinement results in strong smooth seams and are condensed to the extent that hermeticity may be depended upon. In my system herein described the annular walls of the can body are rolled inwardly and downward upon the can cover the seam being completed in one operation, a saving in time with an increased output over double

seaming methods requiring two or more operations to complete the seam. In my method herein described the seam is sustained and confined into solid engagement with the thin thrust ring which supports the seam outside the circumferential diameter of the can body, a feature which permits either cover being applied by the same device or both covers simultaneously if desired and securing thereby a close, stiff, and wire-like hermetic closure without the use of solder, but nevertheless if the covers are desired to be soldered it may be done with great facility from the fact that the can may remain in an upright manner while the solder is being applied. Whether the can is filled or not makes no difference as the contents lie away from the seam and no scorching can occur, besides this system provides a can which may be filled with the top entirely open admitting thereby whole fruits, vegetables, etc., which could not be admitted through the cap hole of an ordinary can and in fact eliminating the usual caps and capping operations. I attain these objects in the mechanism illustrated in the accompanying drawings in which—

Figure 1, shows a sectional view of a can body with its ends offset and the accompanying covers inserted therein ready to receive the affixing operation. Fig. 2, shows the can body and cover inclosed in the supporting or thrust ring. Fig. 2, also shows the downward projecting flange of the closing device and its relation to the seam and thrust ring at the finish of the operation, Fig. 3, shows the can complete having both ends attached by the same means.

Referring to Fig. 2, A represents the closing head, A^a represents the downward projecting flange of the closing head, B represents the annular offset can body, C, represents the can cover, d, the thin supporting thrust ring showing its relation to the seaming head, the finished seam resting thereon and showing the rigid support thereto.

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

1. An apparatus for seaming the head to a can, the body of which can is formed at its end with an annular enlargement projecting outward and thence upward, the apparatus comprising a thrust ring and a seaming head, said thrust ring having a straight inner wall extending to the upper

extremity of the ring and adapted snugly to engage the straight side of the can and the ring having a substantially horizontal upper edge adapted to bear under the outwardly projecting part of the said enlargement, and said seaming head acting to roll the said enlargement into a seam with a corresponding flange on the head of the can.

2. An apparatus for seaming the head to a can, the body of which can is formed at its end with an annular enlargement projecting outward and thence upward, the apparatus comprising a thrust ring with a straight inner wall extending to the upper extremity of the ring and adapted snugly to engage the straight side of the can and the ring having a substantially horizontal upper edge adapted to bear under the outwardly projecting part of the said enlargement of the can to support the same, and a seaming head adapted to work against the upwardly extending part of the said enlargement to roll the same into a seam with a corresponding flange on the head of the can, the width of the thrust ring equaling, but not exceeding the width of said outwardly projecting portion of the enlargement and the seaming head having an annular flange inclosing the upper part of the ring to confine the seam.

3. An apparatus for seaming the head of a can, the body of which can is formed at its end with an annular enlargement projecting outward and thence upward, the apparatus comprising a thrust ring with a straight inner wall extending to the upper extremity of the ring and adapted snugly to engage the straight side of the can and to bear under the outwardly projecting part of the enlargement and a seaming head adapted to work against the upwardly extending part of said enlargement to roll the same into a seam with a corresponding flange on the head of the can, the width of the thrust ring equaling, but not exceeding the width of said outwardly projecting portion of the enlargement and the seaming head having an annular flange inclosing the upper part of the ring to confine the seam.

4. An apparatus for seaming the head to a can, the body of which can is formed with

an annular enlargement projecting outward and thence upward and said body being straight or uniform in diameter from the enlargement inward toward the middle of the can, the apparatus comprising an annular thrust ring with a straight inner wall extending to its upper edge snugly engaging and retaining the said straight or uniform portion of the body and with a width or thickness at its upper end equaling, but not exceeding, the width of the outwardly projecting portion of the said enlargement of the can body under which said upper end of the thrust ring bears to sustain said enlargement, and a seaming head adapted to work against the upwardly extending part of the said enlargement on the can body to roll the same into a seam with a corresponding flange on the head of the can, whereby a roll seam is formed lying substantially outside of the diameter of the can.

5. An apparatus for seaming the head to a can, the body of which can is formed with an annular enlargement projecting outward and thence upward and said body being uniform in diameter from the enlargement inward toward the middle of the can, the apparatus comprising an annular thrust ring with a straight inner wall extending to its upper edge snugly engaging and retaining the said straight or uniform portion of the body and with a width or thickness at its upper end equaling, but not exceeding the width of the outwardly projecting portion of the said enlargement of the can body under which the upper end of the thrust ring bears to sustain said enlargement, and a seaming head adapted to work against the upwardly extending part of the said enlargement on the can body to roll the same into a seam with a corresponding flange on the head of the can, whereby a roll seam is formed lying substantially outside of the diameter of the can, the seaming head having an annular flange inclosing the seam and the upper part of the thrust ring, to confine the seam during its formation.

LEE C. SHARP.

Witnesses:

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