

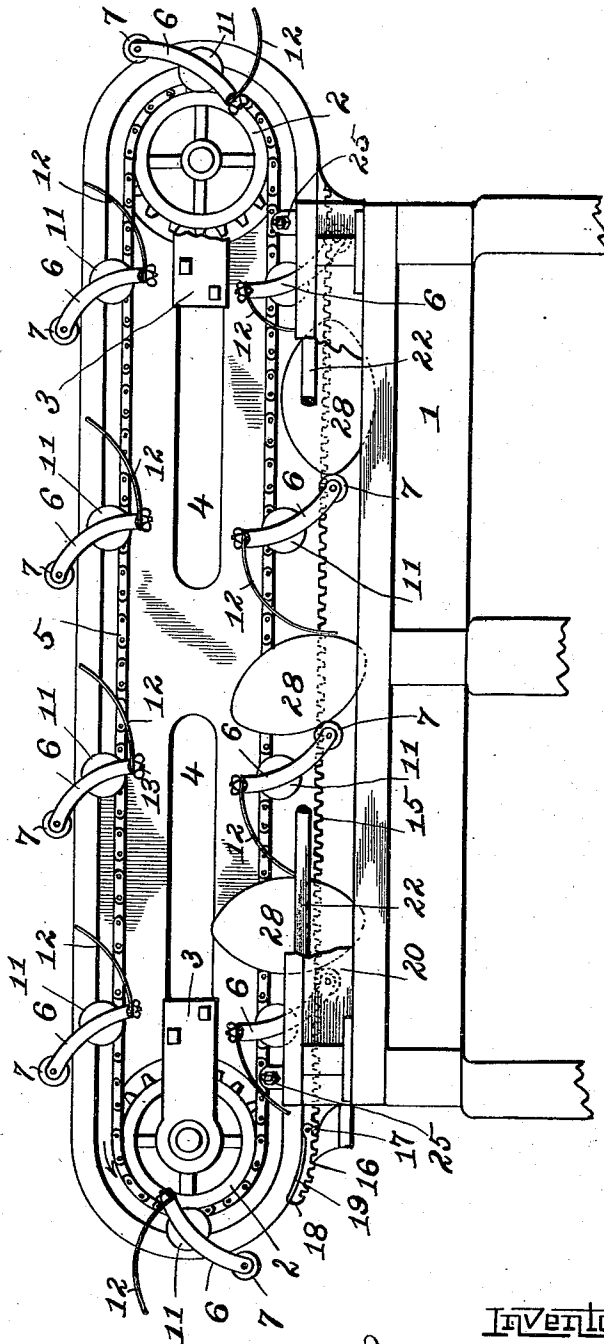
(No Model.)

2 Sheets—Sheet 1.

J. L. ASHLEY & W. E. McDERMOTT.
CAN SOLDERING MACHINE.

No. 567,442.

Patented Sept. 8, 1896.



WITNESSES—

G. A. Pankerschmidt
A. M. Fidler.

INVENTORS

James L. Ashley and
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By Edwin S. Clarkson
att'y

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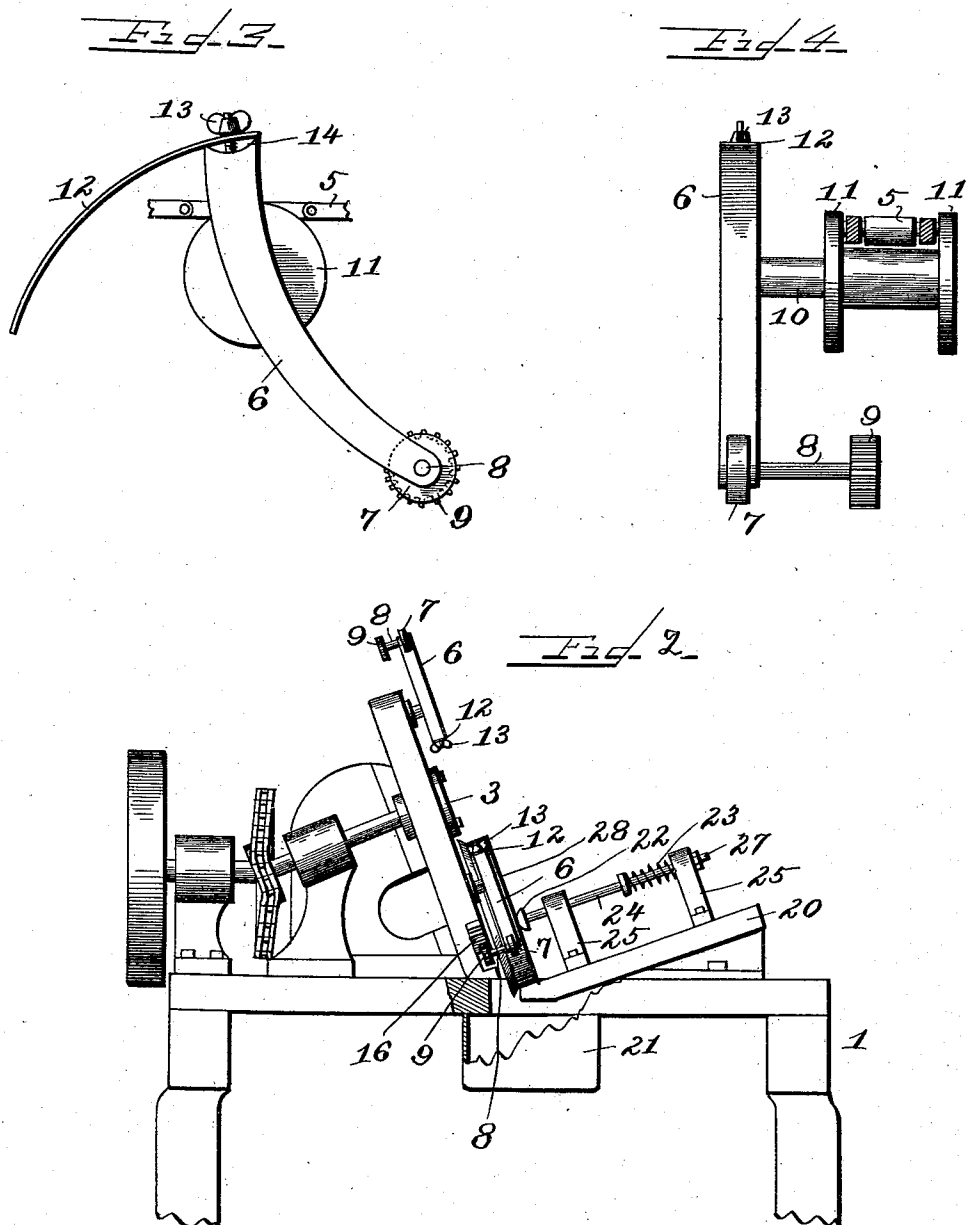
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G. A. Tauberschmitt,
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INVENTORS

James L. Ashley and
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UNITED STATES PATENT OFFICE.

JAMES L. ASHLEY AND WILLIAM E. McDERMOTT, OF BROOKFIELD,
WASHINGTON.

CAN-SOLDERING MACHINE.

SPECIFICATION forming part of Letters Patent No. 567,442, dated September 8, 1896.

Application filed November 8, 1895. Renewed August 1, 1896. Serial No. 601,402. (No model.)

To all whom it may concern:

Be it known that we, JAMES L. ASHLEY and WILLIAM E. McDERMOTT, citizens of the United States, residing at Brookfield, in the county of Wahkiakum and State of Washington, have invented certain new and useful Improvements in Can-Soldering Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to machines for soldering end seams of cans, and is of that class which comprises a molten-solder bath, a track, and can-holders mounted on an endless chain which receive, automatically rotate, and carry the cans through the solder and discharge them from the machine. Our machine is a universal one. That is to say, it is equally as well adapted to solder oval as it is round cans.

The invention will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a front elevation of my invention. Fig. 2 is an end view of the same, parts being broken away. Fig. 3 is a side elevation of the carrier detached from the machine. Fig. 4 is a front elevation of the same.

1 represents the frame of the machine; 2, sprocket-wheels journaled in sliding brackets or plates 3, said plates being mounted in slots 4, which are formed in the frame of the machine.

5 is an endless chain or link belt which is passed around the sprocket-wheels 2, said belt being adjusted to the proper tension by sliding the adjusters 3 in the proper direction in slots 4.

6 is the carrier, the lower end of which is split, in which is journaled a small roller 7.

8 is a shaft extending through the split end of the carrier. On the outer end of the shaft 8 is journaled a pinion 9. The roller 7 is also journaled on the shaft 8.

10 is a stud projecting laterally from one side of the carrier and provided with two

shoulders or collars 11, between which the endless belt 5 is suitably secured.

12 is a spring secured on the upper end of the carrier 6 by means of a thumb-screw 13, the upper end of the carrier being cut in, as at 14, whereby a greater tension may be given to spring 12, if desired, as will be obvious to those skilled in mechanics without further explanation.

15 is a rack suitably secured to the frame of the machine.

16 is a small section of rack hinged to the main rack 15 at 17, the frame of the machine being cut away at 18, in which is secured a spring 19 of suitable pattern, the section of rack 16 being normally in line with the rack 15.

20 is the bottom guide on which the can revolves.

21 is the solder-bath, and 22 is a front guide for the can which causes a slight friction overcoming a possible slip. Irregularities in the can are provided for by the spring 23, which is coiled around the rod 24, extending laterally from the guide 22, said rod being loosely secured in standards 25, which are secured on the bottom guide 20. An adjustable collar is secured on the rod 24, against which one end of the spring 23 is seated.

27 is a nut on the end of rod 24.

28 is the can.

The operation is as follows: The can, being introduced into the machine, is caught by the carrier and comes into contact with friction-roller 7, the spring 12 of the preceding carrier holding the can against said roller. The belt 5 being started causes the carriers to move, the pinion 9 engaging the rack from whence it takes its motion, whereby the friction-roller is revolved in the same direction as that of the carrier, thus revolving the can in the solder-bath. The front guide 22 presses lightly against the can, thus causing a slight friction to overcome any possible slip. The spring 23 allows of movement of the guide 22, which might otherwise prevent the can from rotating. The hinged rack 16, in connection with the spring 19, is used to adjust the cogs and obviate the possibility of jamming with the pinion 9.

What we claim, and desire to secure by Letters Patent, is—

1. In a can-soldering machine of the character described, a series of carriers, a friction-roller journaled in the lower end of each of said carriers, a tension-spring secured to the upper end of each of said carriers, the tension-spring of one carrier acting in conjunction with the friction-roller of the following carrier.
2. In a can-soldering machine of the character described, a carrier, a rack, a second rack hinged to one end of said rack, a spring holding the hinged rack normally in line with the first-named rack, and means connecting said rack with the carrier.
3. In a can-soldering machine, a series of carriers, a friction-roller journaled in the lower end of each of the carriers, a tension-spring secured to the top of each of said carriers, a shaft extending laterally from said carriers, the tension-spring of one carrier acting in conjunction with the friction-roller of the following carrier, a pinion journaled on said shaft, a rack adapted to be engaged by

said pinion and an endless belt, to which the carriers are secured, and means to operate the same.

4. In a can-soldering machine, an endless link belt, sprocket-wheels adapted to engage said belt, a carrier having a friction-roller at its lower end and a tension-spring secured to its upper end, a shaft extending laterally from said carrier, a pinion journaled on said shaft, means securing the carrier to the endless belt, a rack, a second rack hinged to the first-named rack, a spring holding said second rack normally in line with the first-named rack, a lower guide, a solder-bath, and a front guide consisting of a rail, rods secured to said rail and loosely mounted in suitable standards, a coiled spring and an adjustable collar on said rod, all combined and operating as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES L. ASHLEY.

WILLIAM E. McDERMOTT.

Witnesses:

A. M. SMITH,

H. BARROWS.