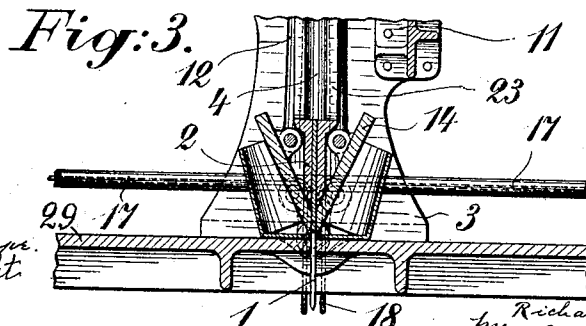
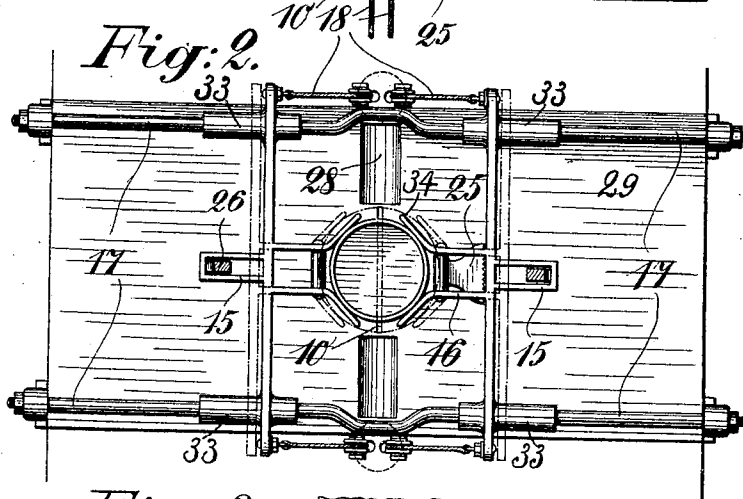
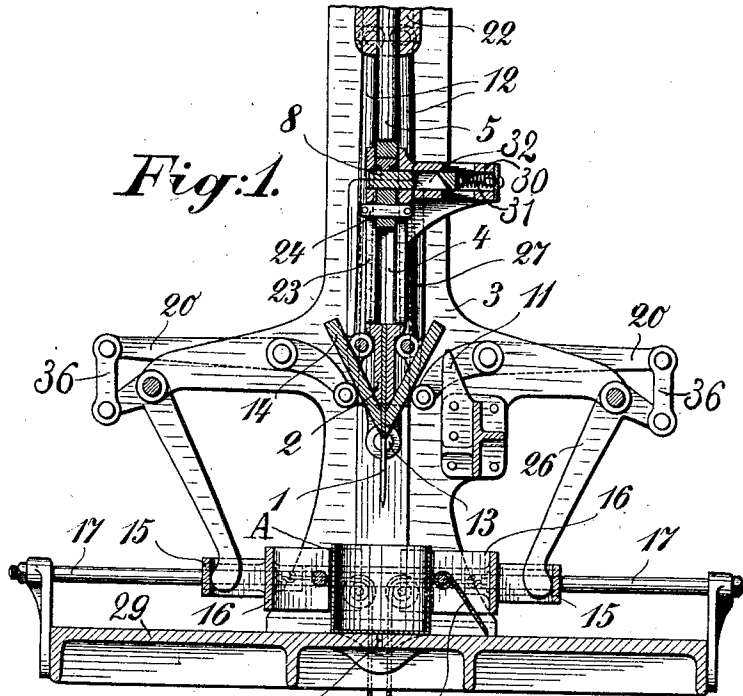


No. 809,512.

PATENTED JAN. 9, 1906.

R. VON DER LINDE.  
MACHINE FOR CUTTING AND PRESSING CANISTERS, &c.  
APPLICATION FILED MAY 20, 1905.

2 SHEETS—SHEET 1.



Witnesses:  
Arthur Grosse.  
Fred. Konficht.

Inventor.

Richard von der Linde  
by Frank Bressend Atty

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Fig. 4.

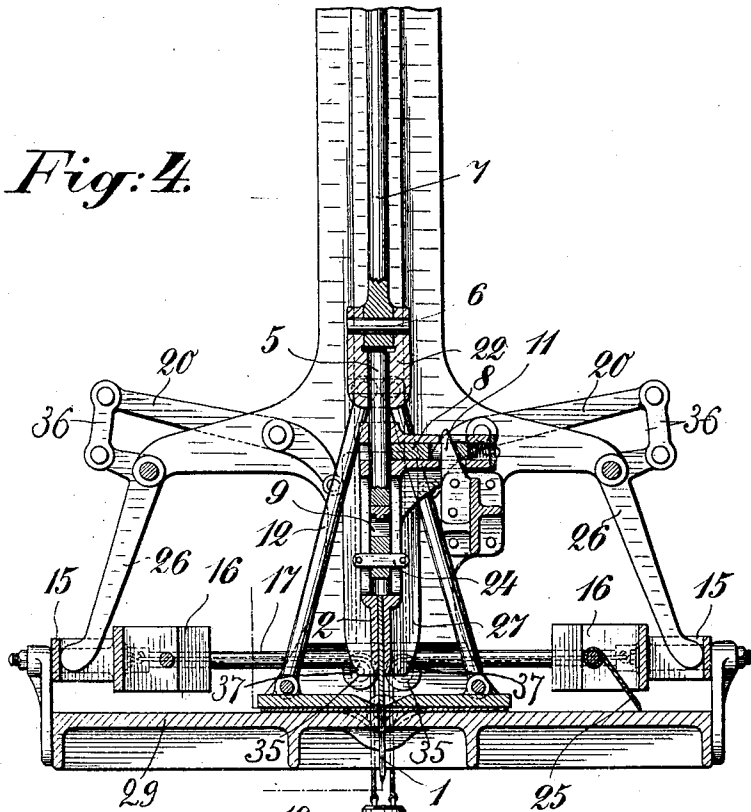


Fig. 5.

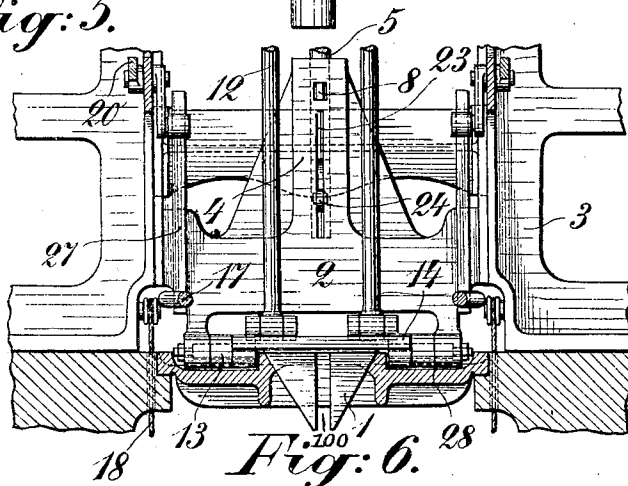
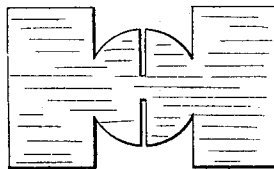


Fig. 6.



Witnesses:  
Arthur Zumpfe.  
Fred. Hofmeyer

Inventor:  
Richard von der Linde  
by Drahtschneidwerk AG

# UNITED STATES PATENT OFFICE.

RICHARD VON DER LINDE, OF CREFELD, GERMANY.

## MACHINE FOR CUTTING AND PRESSING CANISTERS, &c.

No. 809,512.

Specification of Letters Patent.

Patented Jan. 9, 1906.

Application filed May 20, 1905. Serial No. 261,314.

*To all whom it may concern:*

Be it known that I, RICHARD VON DER LINDE, a subject of the German Emperor, residing at Crefeld, in the Kingdom of Prussia, Germany, have invented a new and useful Machine for Cutting and Pressing Canisters, &c., of Tin and Similar Metals, of which the following is a full and complete specification.

This invention relates to a machine for cutting old sheet-metal cans and flattening the cut cans, so that they will occupy the smallest space for shipping and transporting purposes.

In the accompanying drawings, Figure 1 is a vertical section through my improved machine for cutting and flattening sheet-metal cans; Fig. 2, a horizontal section on line A B, Fig. 1. Figs. 3 and 4 are sections similar to Fig. 1, showing the parts in different positions. Fig. 5 is a cross-section on line C D, Fig. 4; and Fig. 6 is a plan of a cut and flattened can.

The numeral 1 indicates a knife or cutter fixed to a cross-head 2, which reciprocates vertically in standards 3. The knife 1 consists of two wedge-shaped sections which are separated from each other by a slot 100. The cross-head 2 is provided with an upper tubular extension 4, into which a rod 5 is slidably fitted. The latter is adapted to be coupled to extension 4 by a bolt 8, slidably in a suitable bearing 30 of said extension and adapted to enter a perforation 9 of rod 5. Bolt 8, influenced by a spring 31, is provided with a perforation 32, adapted to be engaged by a wedge 11, secured to the frame of the machine. The upper end of rod 5 is provided with a slide 22, which is connected by a bolt 6 to a pitman 7, that receives motion by a suitable crank. (Not shown.) To slide 22 are pivoted the upper ends of a pair of links 12, the lower ends of which are connected to a pair of pressure-plates 14, arranged at both sides of the knife 1 and hinged to cross-head 2, as at 13. Said hinge is adapted to enter a recess 28 of the table 29, which supports the can, while knife 1 is accommodated by a slot 10 of said table when cross-head 2 is in its lowermost position.

The cans to be cut and flattened are automatically fed and centered below the knife 1 by the following mechanism: To the frame of the machine are secured a pair of parallel rods 17, upon which slide the bearings 33 of a pair of reciprocating grippers 16, having di-

verging ends or jaws 34, which are adapted to seize and center cans of different diameters. To the grippers 16 are secured ropes 18, running over idlers 35 and carrying a weight 19, that tends to draw the grippers to the center of the machine. Each gripper is provided with an eye 15, engaged by an elbow-lever 26, which in turn by a link 36 is connected to one arm of a double lever 20. The other arm of lever 20 is adapted to ride along a rail 27 of cross-head 2, such rail having an inwardly-curved lower end 37.

For removing the cut and flattened can A in manner hereinafter described there is pivoted to one of the grippers 16 a pointed finger 25, adapted to engage the flattened can.

The operation is as follows: The can A to be cut and flattened is placed, in manner hereinafter described, below the cutting-knife, the parts assuming the position shown in Fig. 1. Pitman 7 will now descend so as to lower slide 22 and rod 5, which movement will be transmitted to cross-head 2 and cutter 1. The latter in descending will cut through the cylindrical body and the bottom of the can, leaving a part of the latter uncut, corresponding to the width of slot 100. During the last part of this downward movement wedge 11 will enter perforation 32 of bolt 8, thereby withdrawing the latter from perforation 9 of rod 5, so that rod 5 and slide 22 are free to continue their descent, while cutter 1 remains stationary. The further descent of slide 22 will by links 12 depress and spread the pressure-plates 14, which will thus swing downward on their pivot 13 to gradually flatten the previously-cut can-body, Figs. 3 and 4. The descent of slide 22 will further bring rails 27 into engagement with levers 20 to lower their inner ends. This movement of levers 20 will be transmitted by links 36 to elbow-levers 26, so as to bring grippers 16 into their outermost position, Fig. 4. Slide 22 and rod 5 are now raised, so as to swing pressure-plates 14 into their upper terminal position. After the parts have assumed this position the further ascent of slide 22 will by links 12 and plates 14 raise cross-head 2. This movement will cause eye 32 of bolt 8 to be disengaged by wedge 11, so that the bolt will enter perforation 9 of rod 5 by the action of spring 31. During the last part of said upward motion the inwardly-curved edges 37 of rails 27 will engage levers 20, so as to allow grippers 16 to move toward the center of the machine by the action of

weight 19. While the parts are in the position shown in Fig. 4, an uncut can is placed in front of the left gripper. The subsequent inward movement of this gripper will take the  
 5 can along, which in advancing will bear against the previously-flattened can and push the same under the pointed finger 25 of the right gripper. When the grippers are again  
 10 moved outwardly, such finger will take the flattened can along, so as to withdraw the same from the operating mechanism. The flattened cans are finally removed by hand or otherwise.

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

1. A machine for cutting and flattening sheet-metal cans, provided with a knife for cutting the can, and with a movable pressure-  
 20 plate for flattening the cut can, substantially as specified.

2. A machine for cutting and flattening sheet-metal cans, provided with a divided knife for cutting a can, and with means for  
 25 flattening the cut can, substantially as specified.

3. A machine for cutting and flattening sheet-metal cans, provided with a divided

knife for cutting a can, and with a pair of hinged pressure-plates adapted to flatten the  
 30 cut can, substantially as specified.

4. A machine for cutting and flattening sheet-metal cans, provided with a divided knife, a pair of vertically-movable hinged pressure-plates, and means for spreading said  
 35 plates, substantially as specified.

5. A machine for cutting and flattening sheet-metal cans, provided with a pair of reciprocating grippers adapted to center a can, a knife for cutting the can, and a pair of  
 40 hinged pressure-plates adapted to flatten the cut can, substantially as specified.

6. A machine for cutting and flattening sheet-metal cans, provided with a pair of reciprocating grippers adapted to center a can,  
 45 a knife for cutting the can, a pair of hinged pressure-plates adapted to flatten the cut can, and a finger pivoted to one of the grippers and adapted to engage the flattened can,  
 50 substantially as specified.

Signed by me at Crefeld, Germany, this 6th day of May, 1905.

RICHARD VON DER LINDE.

Witnesses:

W. BRUCE WALLACE,  
 MARGARET WALLACE.