

958,549.

F. SEITZ.
CAN CAPPING MACHINE.
APPLICATION FILED FEB. 6, 1909.

Patented May 17, 1910.

4 SHEETS—SHEET 1.

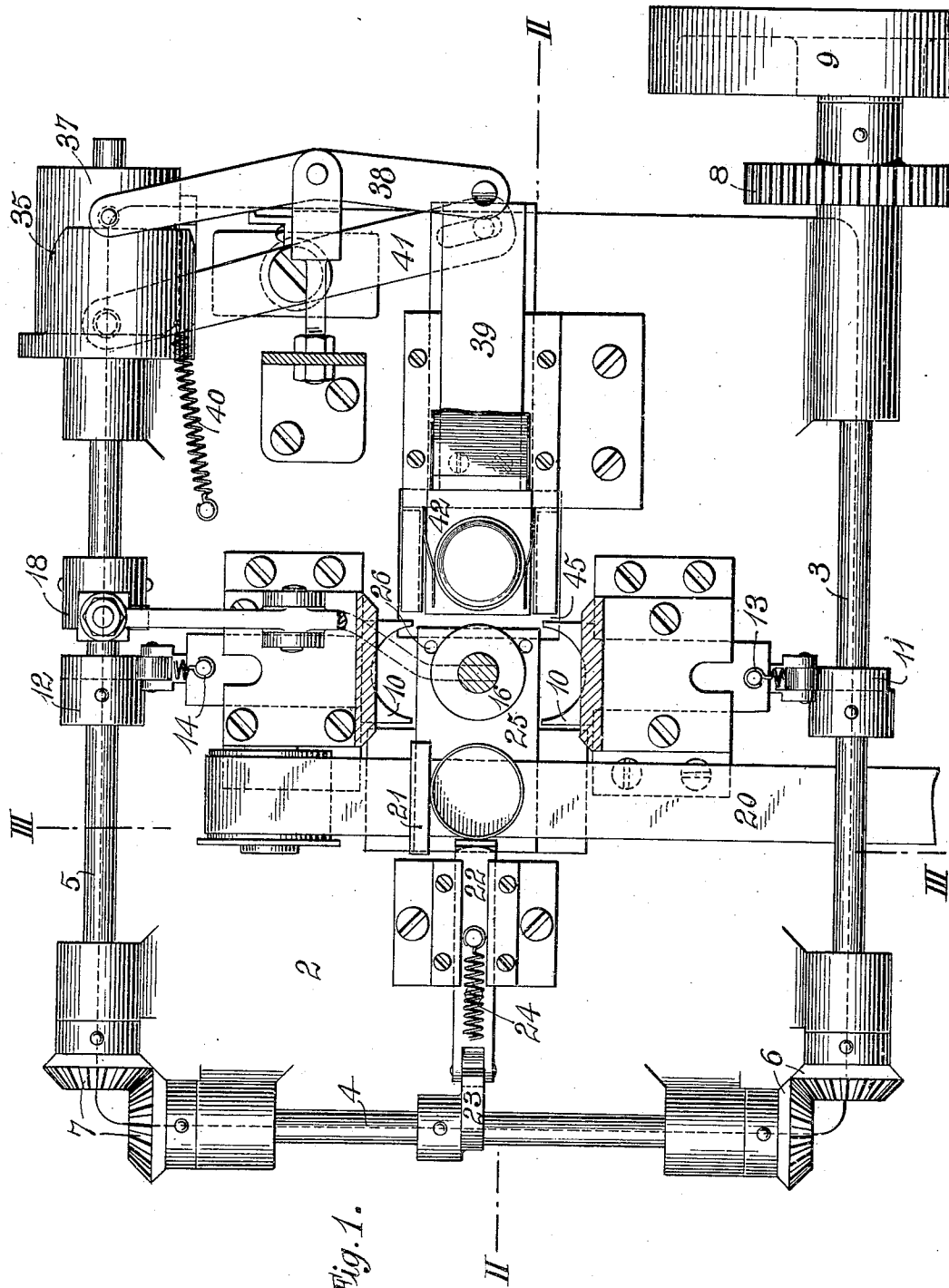


Fig. 1.

Witnesses:
Clarence O. Kern.
Ernest Murphy.

Inventor
Frederick Seitz
By his Attorneys
Bakewell, Byrnes & Pammel.

958,549.

F. SEITZ.
CAN CAPPING MACHINE.
APPLICATION FILED FEB. 5, 1909.

Patented May 17, 1910.

4 SHEETS—SHEET 2.

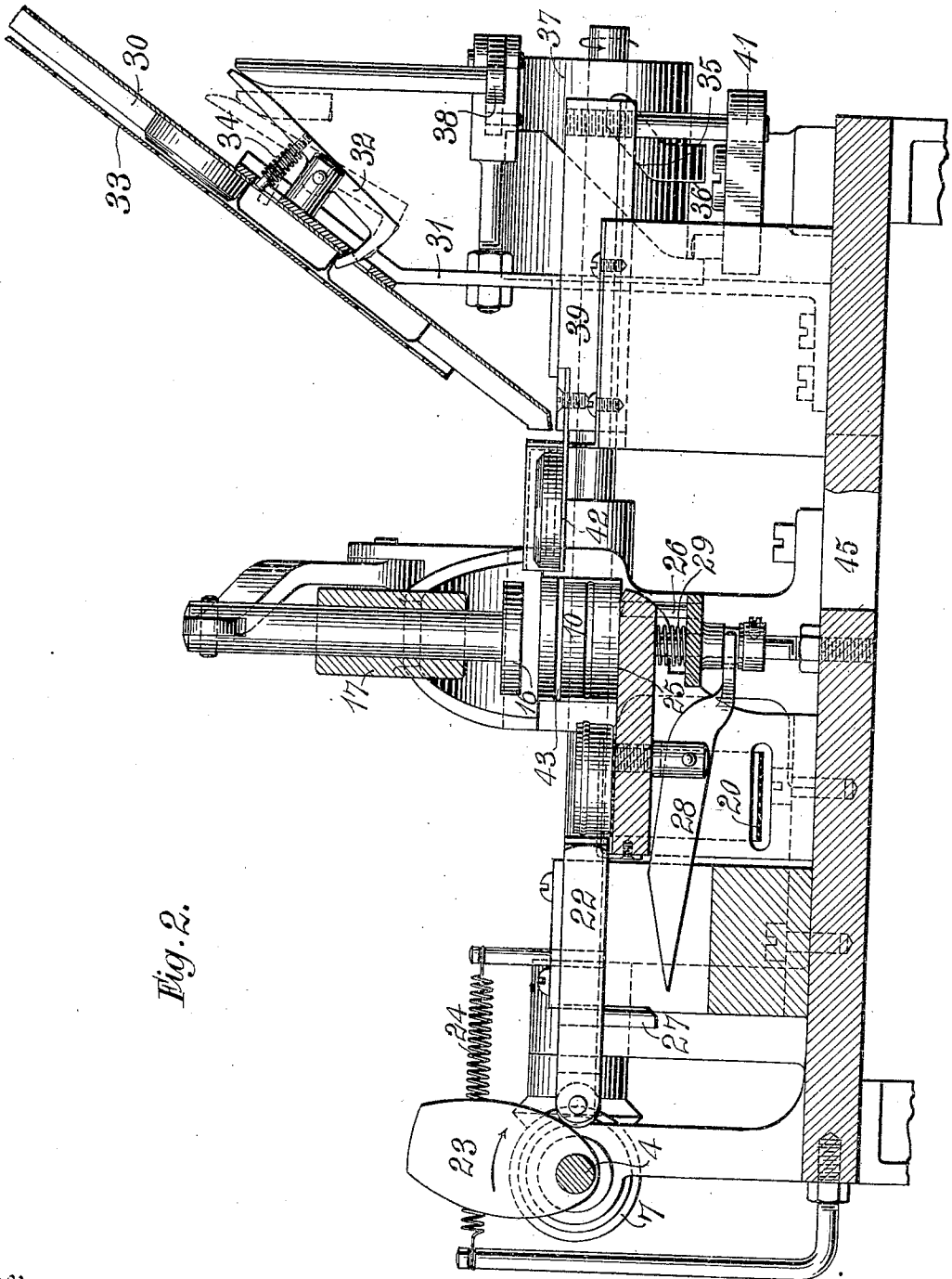


Fig. 2.

Witnesses:
Charles B. Hunt.
Eugene H. Murphy.

Inventor
Frederick Seitz
By his Attorneys
Baker, Byrnes & Parnell

F. SEITZ.
CAN CAPPING MACHINE.
APPLICATION FILED FEB. 5, 1909.

958,549.

Patented May 17, 1910.

4 SHEETS—SHEET 3.

Fig. 7.

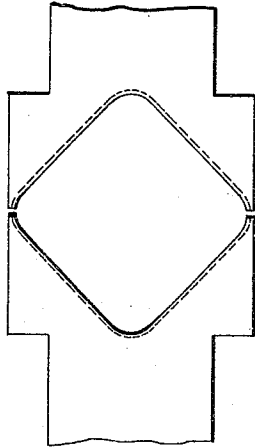
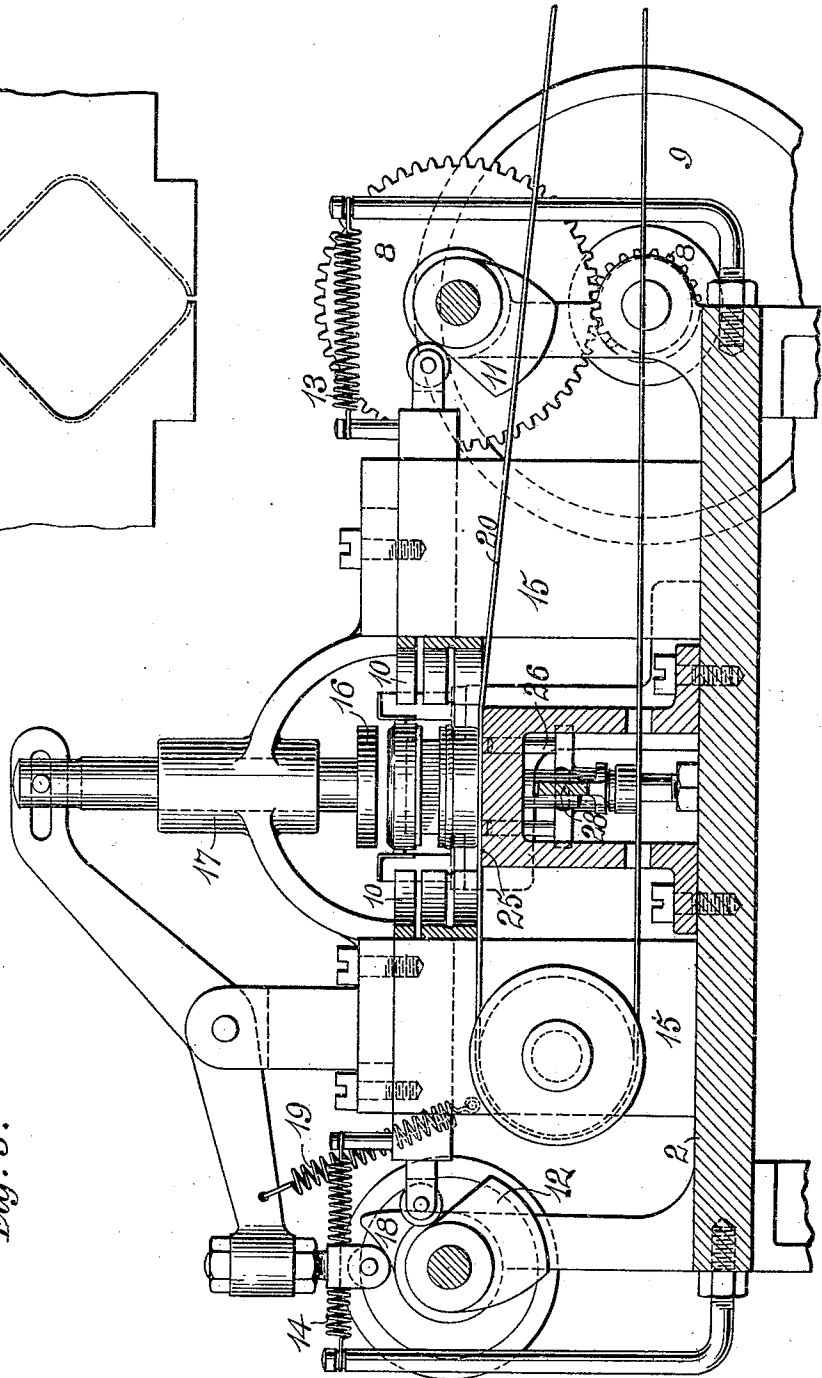


Fig. 3.



Witnesses:
Charles D. ...
Eugene H. Murphy.

Inventor
F. Seitz
By his Attorneys
Baker, Byrd & Pomeroy

958,549.

F. SEITZ.
CAN CAPPING MACHINE.
APPLICATION FILED FEB. 5, 1909.

Patented May 17, 1910.
4 SHEETS—SHEET 4.

Fig. 5.

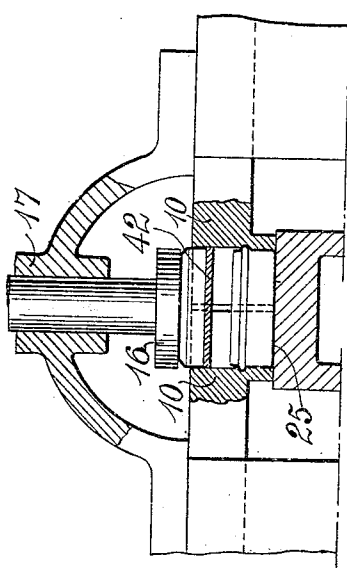


Fig. 6.

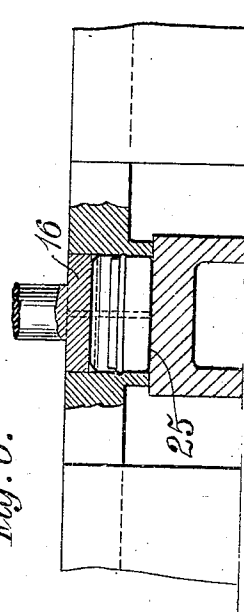
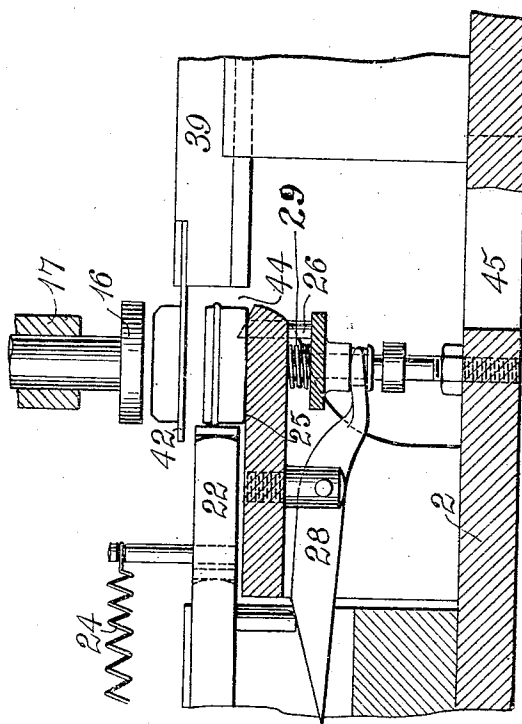


Fig. 4.



Witnesses:
Clarence D. Kent.
Eugene H. Murphy.

Inventor
Friedrich Seitz
By his Attorneys
Bakerwell, Byrnes & Parmelee

UNITED STATES PATENT OFFICE.

FREDERICK SEITZ, OF RENSSELAER, NEW YORK, ASSIGNOR OF ONE-THIRD TO
VALENTINE DICKHAUT AND ONE-THIRD TO HENRY DICKHAUT.

CAN-CAPPING MACHINE.

958,549.

Specification of Letters Patent. Patented May 17, 1910.

Application filed February 5, 1909. Serial No. 476,309.

To all whom it may concern:

Be it known that I, FREDERICK SEITZ, of the city and county of Rensselaer, State of New York, have invented a new and useful
5 Improvement in Can-Capping Machines, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a machine embodying my invention; Figs. 2 and 3 are
10 vertical sections of Fig. 1 on the lines II—II and III—III, respectively; Figs. 4, 5 and 6 are details of the capping mechanism; and Fig. 7 is a modified form of the centering
15 mechanism.

My invention relates to capping cans and provides a machine which correctly centers the can caps and bodies and thus enable the use of caps and bodies which need not be of
20 close and accurate fit.

It furthermore enables conveyance of the full can bodies to the machine and their capping without any danger of spilling their contents, which is usually incident to
25 the operation of other can capping machines.

Further advantages are the speed and rapidity of operation of the machine, and its simple and economical construction.

2 is the frame upon which are mounted
30 the driving shafts 3, 4 and 5, suitably connected by the gears 6 and 7, and which are driven through the gears 8 by the wheel 9. The wheel 9 may be actuated by hand or by other motive power. The dies 10 are
35 reciprocated by the cams 11 and 12 which are positioned on the shafts 3 and 5, and by the springs 13 and 14, the cams 11 and 12 acting to advance the dies 10 while the springs 13 and 14 retract them. These dies
40 are positioned in the supports 15, which are shown as bolted to the frame 2. Located above the dies is the plunger 16 which reciprocates vertically through the sleeve 17 and which is actuated downwardly by the
45 cam 18 mounted on the shaft 5 and which is raised by the spring 19 when released by the cam 18.

20 is an endless belt, for carrying the can bodies, which is driven by any suitable
50 means, and 21 is a guard which prevents the can bodies from being carried by the capping device. Suitably mounted above the endless belt 20 is the pusher 22 which is advanced by the cam 23 and retracted by the
55 spring 24. In the floor 25 of the capping

device are located the stops 26 which are reciprocated by the post 27 positioned on the pusher 22 through a pivoted arm 28 and a spring 29 located under the floor 25. These stops 26 act to prevent the can bodies from
60 being shoved so far across the floor 25 as to escape engagement by the dies 10. The chute 30 through which the can caps are supplied is mounted on the standard 31.

32 is a stop device by which the feed of
65 the can caps is regulated and the perforations 33 in the top of the chute 30 enable the operator to see the progress of the can caps. The stop device 32 is actuated by the spring 34 and by the cam surfaces 35
70 and 36 of the cam 37 through the arm 38.

Below the chute 30 is the slide 39 which is reciprocated by the spring 40, lever 41 and the cam surface 35 of the cam 37. The fore part of the slide 39 consists of a plate
75 42 suitably attached thereto and which is adapted to advance the can cap under the plunger 16 where it is gripped by the upper portion of the dies 10 which have suitable
80 slits 43 to permit the passage of the plate 42 therethrough. The passage 44 between the plate 42 and the floor 25 is provided for the ejection of the capped cans. The opening 45 is provided for the removal of the
85 cans upon their ejection from the floor 25 through the passage 44.

The operation of my machine is as follows: The can bodies are advanced on an endless belt 20, the travel of which is suitably timed to the operation of the rest of
90 the machine, and are prevented from passing the pusher 22 and the floor 25 by the guard 21. The pusher 22 shoves the can body immediately in front of it onto the floor 25 between the jaws of the dies 10. The stops
95 26 hold the body from falling off the floor through the passage 44 until it is gripped by the dies 10. When the pusher 22 is retracted the spring acts to withdraw the stops 26 so that they will not interfere with
100 the movement of the dies or of the capped can across the floor. The can caps or tops are fed into the chute 30 and are one by one, through the operation of the stop 32, permitted to drop down the chute onto the plate
105 42 of the slide 39. After the can body has been pushed between the jaws of the dies 10, the plate 42 carries forward the can cap between the jaws and over the can body, the jaws then advance while the pusher 22 is
110

simultaneously retracted and grip both the body and the cap and while thus gripped, the plate 42 returns to its former position, and the can cap drops down on the can body.

5 This centers both body and cap correctly and the plunger moves down and forces the cap onto the can body. As the plunger strikes the cap the jaws are withdrawn. The cap is preferably driven onto the can
10 body by the plunger at the moment of release of the cap and body by the gripping jaws. The plunger is then raised and the succeeding can body pushes the capped can off the floor into a suitable receptacle or
15 conveyer through the passage 44.

Fig. 7 shows a modification of the jaws of the dies 10 which enables the capping of a rectangular can.

Boxes or cans of any description which
20 use a slip cap may be covered by the use of my machine by providing jaws of suitable shape.

It will be seen that many variations and changes may be made in the construction
25 and operation of the machine which is herein shown and described without departing from my invention, since

What I claim is:

1. In a machine for applying slip covers
30 to cans and receptacles, a single pair of gripping dies, mechanism for feeding a single line of cans, a feeder arranged to directly engage and move each can successively to a position between the jaws, mechanism
35 for actuating the jaws and means for forcing the cap downwardly upon the can while the latter is relatively stationary, substantially as described.

2. In a machine for applying slip covers
40 to cans, a pair of gripping jaws, arranged to engage the can and the cap, means for feeding a single line of cans, a reciprocating feeder arranged to directly engage each can of the line successively and push it to
45 a place between the jaws, means for feeding a succession of caps to a position over the can, mechanism for actuating the jaws and a pusher device arranged to force the cap down upon the can while the latter is
50 relatively stationary, substantially as described.

3. In a machine for applying slip covers to cans, a single pair of gripping jaws, mechanism for reciprocating the same toward
55 and from each other, means for feeding a single line of cans past one side of the jaws, a feeder arranged directly to engage each can successively and push it to a point be-

tween the jaws, mechanism for feeding the caps and forcing them downwardly upon
60 the cans, and an ejector mechanism, substantially as described.

4. In an apparatus for applying slip covers to cans, a pair of reciprocating jaws raised to engage the body and a cap feeder
65 entering recesses in said jaws, substantially as described.

5. In a mechanism for applying slip covers to cans, a pair of reciprocating jaws arranged to engage both the can and the
70 cap, a cap feeder movable through recesses in the jaws and a pusher arranged to force the cap downwardly on the can while the latter is relatively stationary, substantially
75 as described.

6. In an apparatus for applying slip covers to cans, a pair of reciprocating jaws arranged to fit the can body, a stationary rest between the jaws, movable stops on the
80 rest on floor arranged to stop the can body in the proper position between the jaws, and a feeder arranged directly to engage each can body and force it from a line of bodies against the stops, substantially as described.

7. In an apparatus for applying slip
85 covers to cans, a pair of reciprocating jaws arranged to fit and grip the can body, a floor on which the can rests between them, a continuous feeder at one side arranged to carry a row of can bodies, a side pusher
90 arranged to engage each can and push it on the floor between the jaws, mechanism for feeding the caps successively to a point above the can bodies and a top pusher arranged to force the caps downwardly on
95 the cans while resting on the stationary floor.

8. In an apparatus for applying slip covers to cans, a pair of horizontal reciprocating jaws, a floor between them having
100 a stopping mechanism, a feeder at one side of the jaws arranged to carry a single row of cans, a pusher arranged to push the cans successively upon the floor and against the stop mechanism, a chute having a feeding
105 mechanism arranged to feed the caps successively into position and a reciprocating top plunger arranged to force the caps downwardly upon the can body while rest-
110 ing on the stationary floor.

In testimony whereof, I have hereunto set my hand.

FREDERICK SEITZ.

Witnesses:

VALENTINE DICKHAUT,
DANIEL HAYNE.