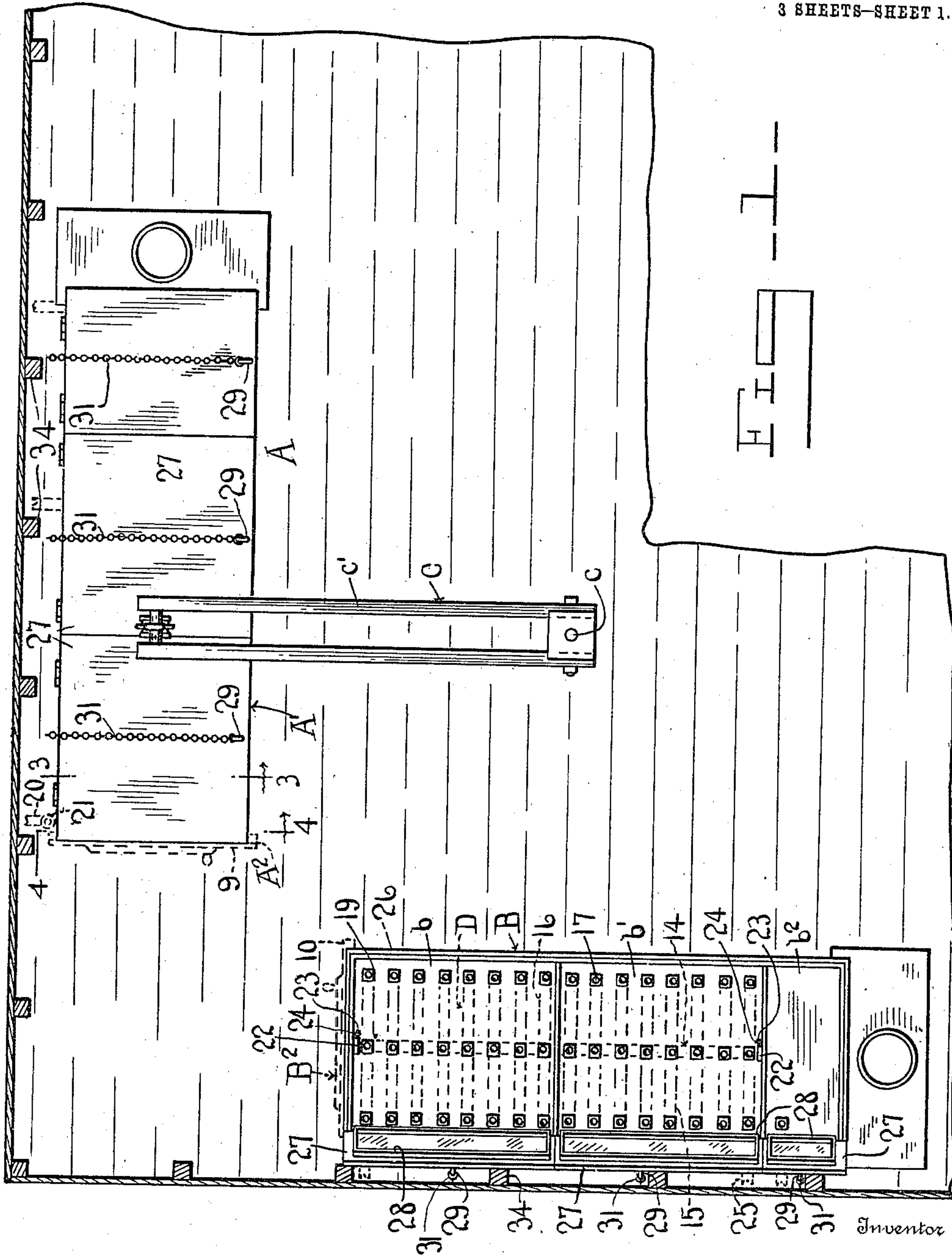


A. N. PETERS.
 APPARATUS FOR PROCESSING CANNED GOODS.
 APPLICATION FILED MAR. 5, 1909.

976,286.

Patented Nov. 22, 1910.

3 SHEETS—SHEET 1.



Witnesses

L. B. James
 H. C. McCarty

Albert N. Peters

By

Handwritten signatures of attorneys

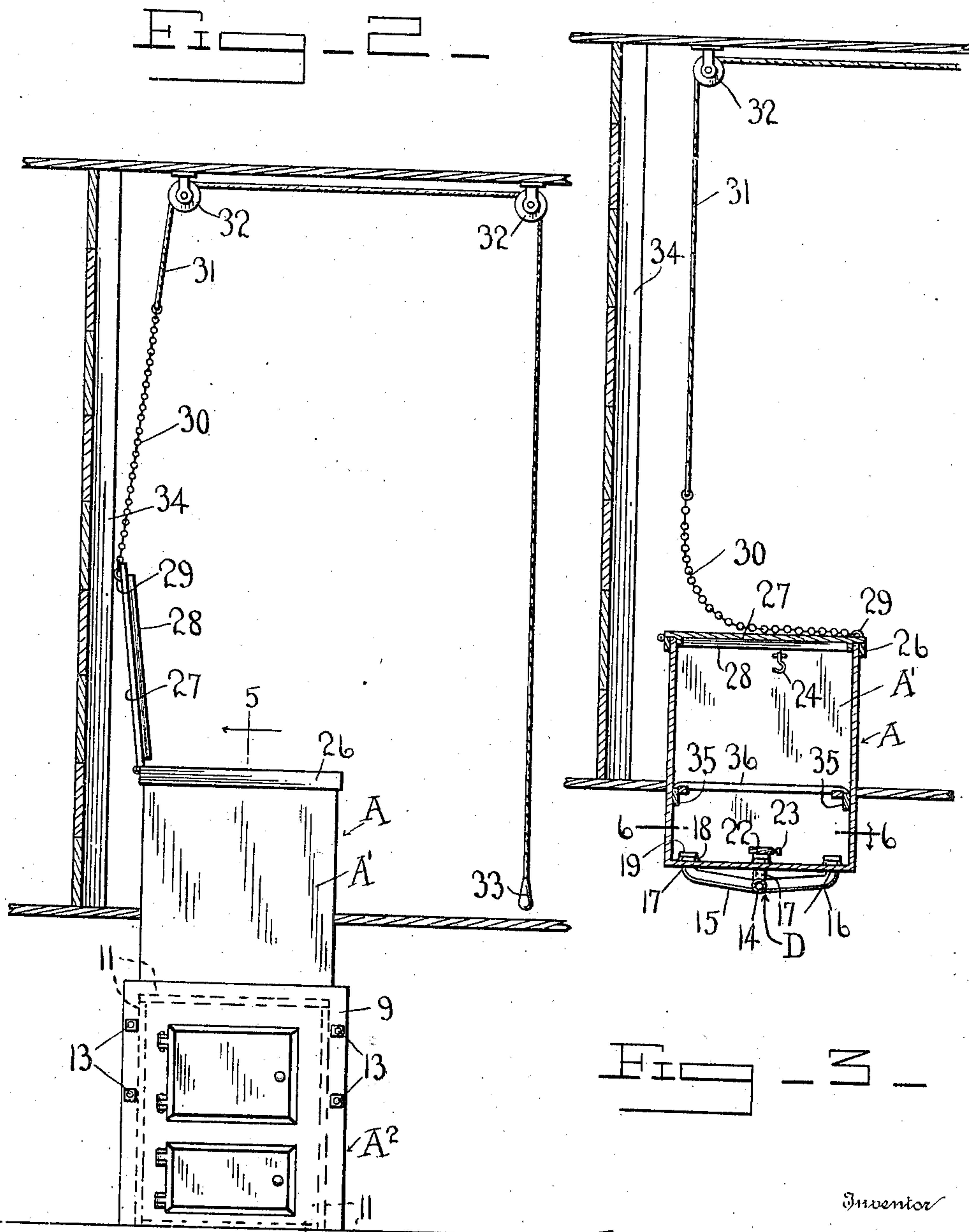
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By *Charles Chandler*

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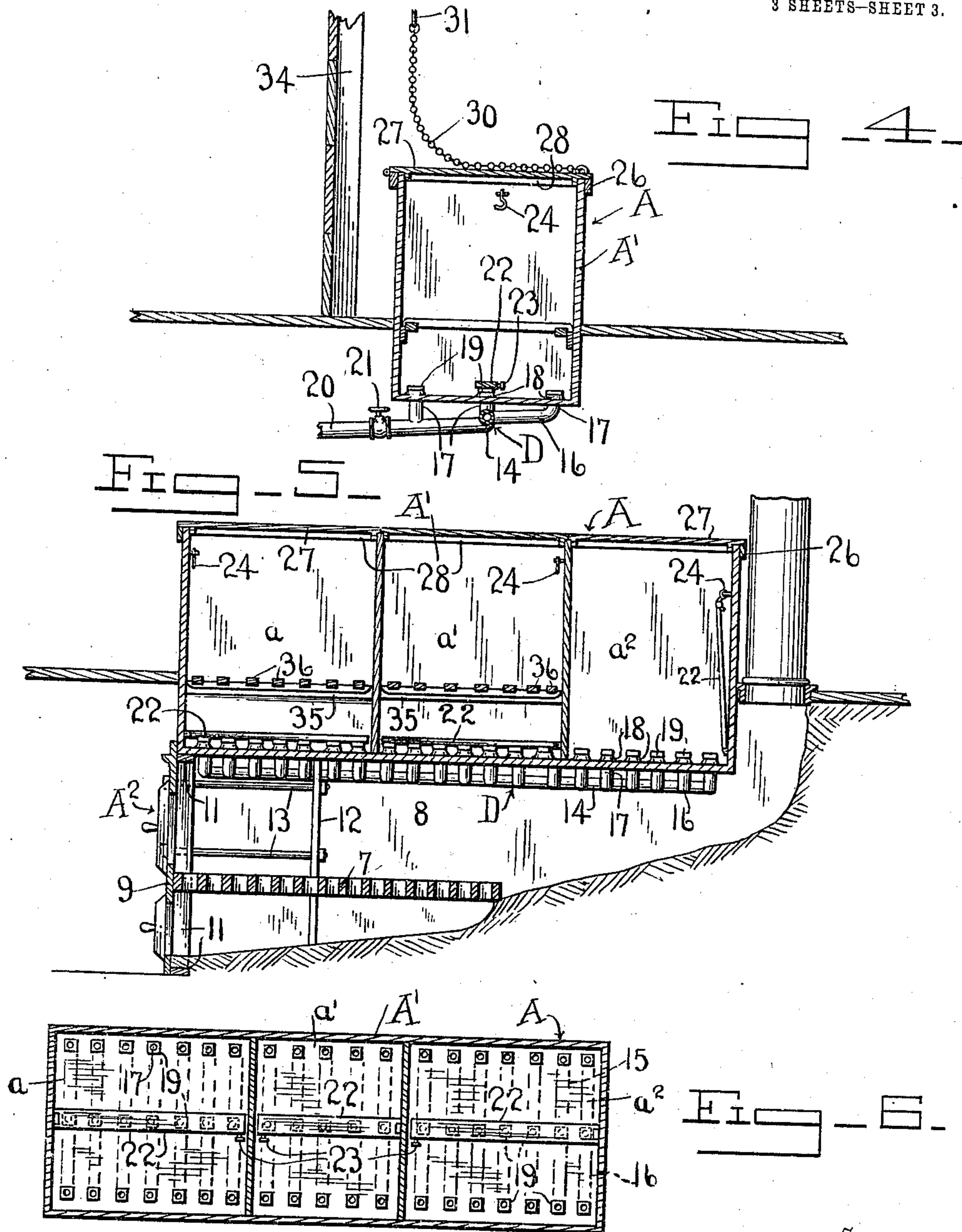
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Inventor

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Witnesses

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By *Charles Chandler*

Attorneys

UNITED STATES PATENT OFFICE.

ALBERT N. PETERS, OF GALENA, MISSOURI.

APPARATUS FOR PROCESSING CANNED GOODS.

976,286.

Specification of Letters Patent.

Patented Nov. 22, 1910.

Application filed March 5, 1909. Serial No. 481,234.

To all whom it may concern:

Be it known that I, ALBERT N. PETERS, a citizen of the United States, residing at Galena, in the county of Stone, State of Missouri, have invented certain new and useful Improvements in Apparatus for Processing Canned Goods; and I 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.

The present invention has reference, generally, to improvements in apparatus for processing canned goods, and more especially in the furnaces and vats associated therewith, it being the chief object of the invention to provide an extremely simple and inexpensive combined vat and furnace having a highly-improved system of heating pipes located beneath each of the several compartments or tanks of the vat, devices for controlling the flow of water through the pipes during the time that the compartments are being drained, improved steam-tight lids for the compartments and devices for raising and lowering the lids.

The invention also resides in certain improvements in the construction of the vats themselves, whereby the latter are materially strengthened and rendered more durable, and their period of life correspondingly extended.

The preferred embodiment of the invention is illustrated in the accompanying drawings in which corresponding parts are designated by the same reference characters throughout the several views.

Of the said drawings, Figure 1 is a plan view of the complete apparatus, the lids of the compartments of one vat being shown in raised or open position, and those of the compartments of the other vat in lowered or closed position. Fig. 2 is an end elevation of one of the combined furnaces and vats. Figs. 3 and 4 are transverse vertical sections taken respectively on the lines 3—3 and 4—4 of Fig. 1. Fig. 5 is a fragmental longitudinal section taken on the line 5—5 of Fig. 2. Fig. 6 is a horizontal section taken on the line 6—6 of Fig. 3, showing the arrangement of the heating pipes.

Referring to the drawings, and more particularly to Fig. 1, it will be seen that the apparatus comprises essentially, two separate sections A and B arranged at right-angles to each other, and a crane C located at a

point equi-distant from both sections. Each section consists, in turn, of a combined vat and furnace, the vats of the two sections being designated A' and B', respectively, and the furnaces A² and B². The two vats differ in the size and arrangement of the various compartments or tanks of which they are composed, while the two furnaces are practically identical. Hence, a description of one of the furnaces will suffice.

In each furnace, 7 designates the grates, 8 the fire boxes, and 9 and 10 the left and right hand end members, each of said end members having formed on its inner face four reinforcing ribs 11 arranged in spaced relation to and parallel with the edges thereof, said ribs joining each other at their ends and thereby giving to the complete reinforcement the general shape of a rectangle. The top members of these reinforcements serve to support the vats, which rest thereupon, as shown. The end members of the furnace are further braced by means of metal posts 12, whose lower ends are embedded in the foundation, the posts being connected to said members by bolts 13.

The vat A' of the main or larger section A is divided into three separate compartments or tanks a, a' and a² the two tanks a and a' being designed for use as exhaust tanks, and the tank a² as a scalding tank. The vat B' is likewise comprised of three tanks b, b' and b², of which the left hand end and central tanks b and b' are used for cooking purposes, and the right hand end tank b² merely as a water tank.

Beneath the bottom of each tank, and within the fire-box of the corresponding furnace, is disposed a separate system D of heating pipes. Each system comprises a main pipe 14, spaced pairs of lateral branch pipes 15 and 16 which extend in opposite directions, and a series of vertically-extending branch pipes 17. The pairs of branch pipes 15 and 16 have their free outer ends upbent, as shown, the upbent portions being fitted in threaded bushings 18 formed upon the tank bottoms, the projecting terminals of said bent portions having nuts 19 threaded thereon. The upwardly extending branch pipes 17 are connected to the tanks in the same manner. Each main pipe has further connected thereto a drain pipe 20 provided with a valve 21.

The free ends of the various branch pipes project into the interior of the tanks, as

above stated, and the mouths of the central or vertical branch pipes 17 of each system are designed to be covered at times by means of a flat metal strip 22 hinged at one end to the adjacent end wall of the corresponding tank and having its opposite end provided with a button or similar device 23 adapted to be engaged by a latch 24 pivoted to said end wall, when the strip is in vertical position thereagainst. Therefore, it will be obvious that when the valve of the drain pipe of any one of the tanks is open, the closing strip of that tank may be released from engagement with its latch and swung downwardly, so as to rest upon and close the mouths of the corresponding series of pipes 17 and thus force the water to flow out from the tank through the branch pipes 15 and 16, thereby cleaning the same. The tanks themselves can be thoroughly cleaned by the water entering thereinto through the central branch pipes when the closing strips are in their raised position. The tank b^2 of the vat B' is also provided with a valved drain pipe 25.

The vats A' and B' are each provided at their upper edges with a continuous reinforcing strip 26 which extends completely therearound and is riveted to the sides thereof in any preferred manner. The several tanks of both vats are arranged to be closed by heavy metal lids 27 hinged to the upper edges of the rear side members thereof, the under face of each lid being formed with a depending rectangular rim 28 which fits snugly in the top of the corresponding tank when the lid is in closed position. In order to permit the lids to be readily raised and lowered, each lid has secured to its front edge a ring 29 to which is attached one end of a chain 30 whose other end is fastened to a cable 31 trained over a pair of pulleys 32 and provided with a handle 33. Each combined chain and cable has a length sufficient to extend to any desired room of the building in which the apparatus is located, so as to permit all of the lids to be raised by an operator stationed in such room. This arrangement permits the lid of any one of the tanks to be raised or lowered without appreciable effort, as will be apparent. In raising the lids they are allowed to swing far enough back to rest against the studding 34 of the room or rooms in which the tanks are located. The chains are designed to rest upon the lids of the tanks when the same are in their closed position, the combined weight of the chains and the lids being sufficient to hold the same against displacement.

The exhaust tanks a and a' of the vat A' have the inner faces of their side members provided with horizontal strips of metal 35

which run the entire length of said members and are disposed, in practice, almost eleven inches from the bottoms of the tanks, the depth of each tank being preferably 36 inches. These strips are designed to support a series of slats or cross bars 36 upon which the exhaust crates (not shown) are in turn designed to rest, the slats being spaced a slight distance apart from each other. When it is desired to raise the strip 22 in any of the tanks provided with the bars 36 these bars are first removed and then the strip swung up to the position indicated in the tank A^2 in Fig. 5.

The crane C which is utilized in the ordinary manner for transferring the various crates from one tank to another, may be of any preferred type for which reason an extended description thereof is omitted, the essential parts of the crane being the pivoted mast C and lever c' .

The various steps incidental to the canning of the goods, *i. e.*, scalding, exhausting, cooking, etc., are carried out in their regular order and in the usual manner.

What is claimed is:—

1. In a canning apparatus, the combination of a tank; a system of heating pipes located therebeneath and including a main pipe and a plurality of series of branch pipes having their mouths opening through the tank bottom; a swinging member connected at one end to one of the walls of the tank and arranged to rest in one position upon the mouths of one series of branch pipes, to close the same, and in the other position directly against said wall; and means for retaining said member in the latter position.

2. In a canning apparatus, the combination of a tank; a system of heating pipes disposed therebeneath and including a main pipe and side and central series of branch pipes having their mouths entering through the tank bottom; a valved drain pipe communicating with said main pipe; and a swinging member connected at one end to one of the walls of the tank and arranged to rest in vertical position against said wall, and in horizontal position upon the mouths of the central series of branch pipes, to close the same, when the valve in the drain pipe is open for causing the liquid contained in the tank to drain through the side series of branch pipes.

In testimony whereof, I affix my signature, in presence of two witnesses.

ALBERT N. PETERS.

Witnesses:

ALBERT W. BENTLEY,
FRANK DOUGLAS.