S. J. COCHRAN.

CANNING APPARATUS.

APPLICATION FILED JULY 13, 1914.

1,133,430.

Patented Mar. 30, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

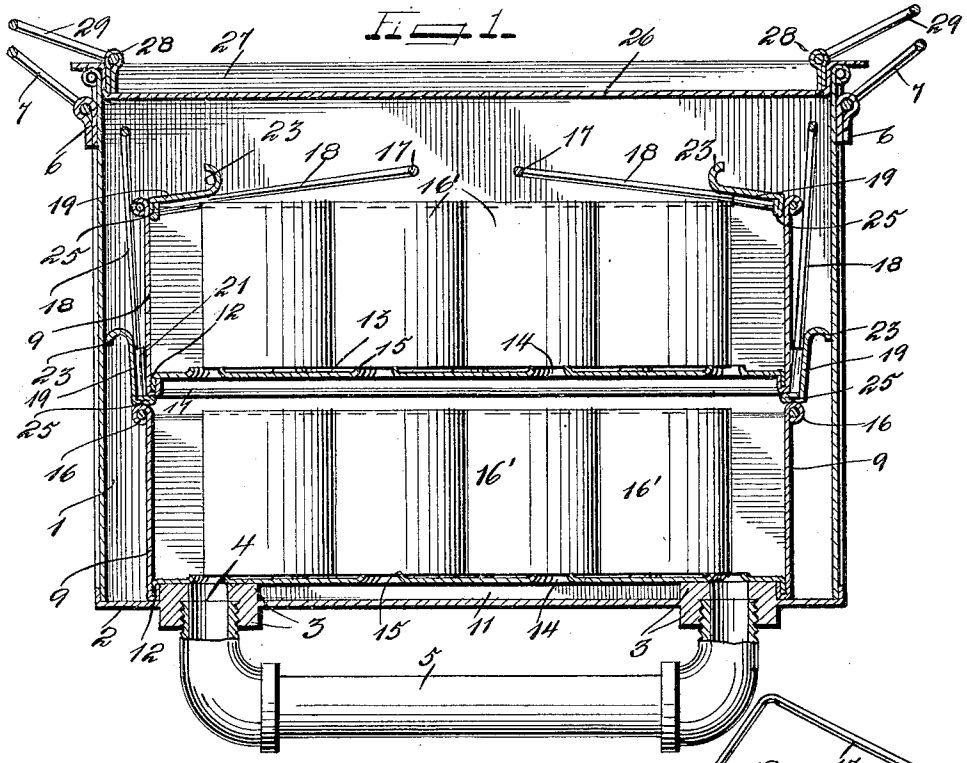
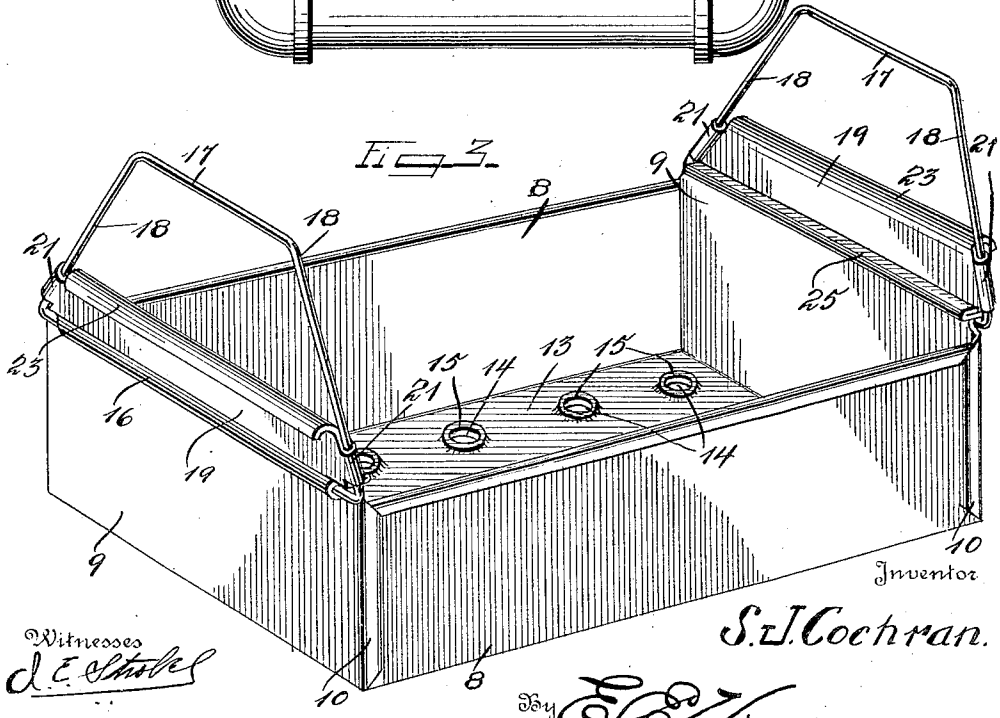


Fig. 3.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

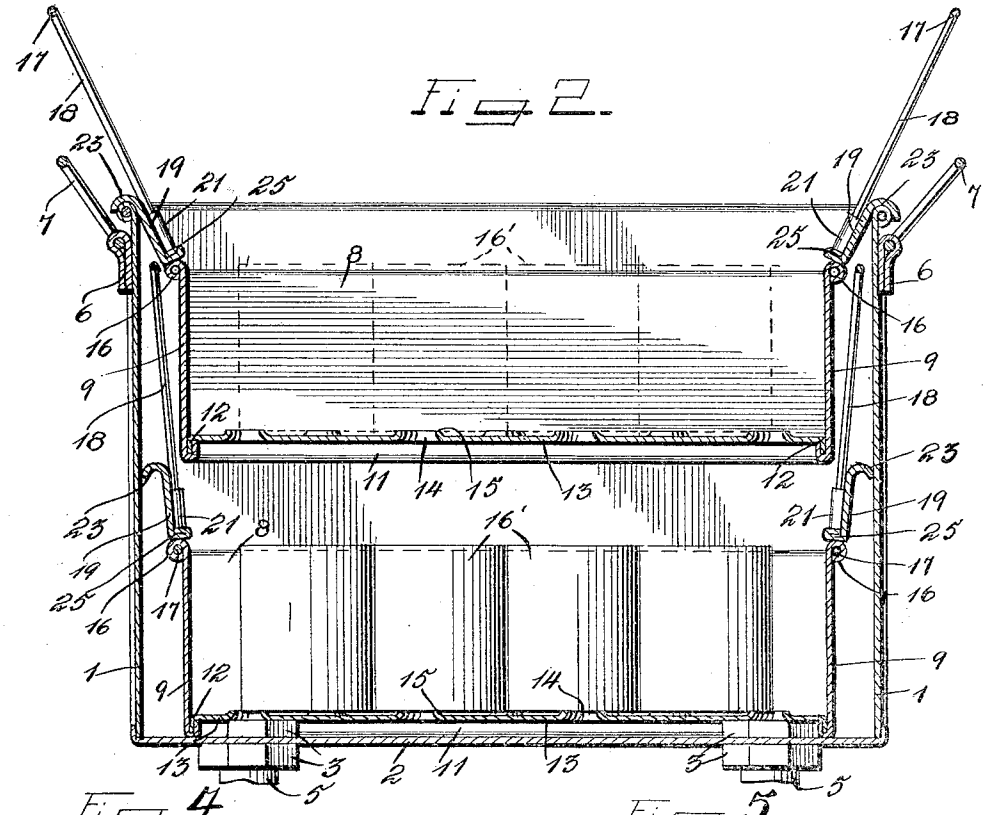


Fig. 4.

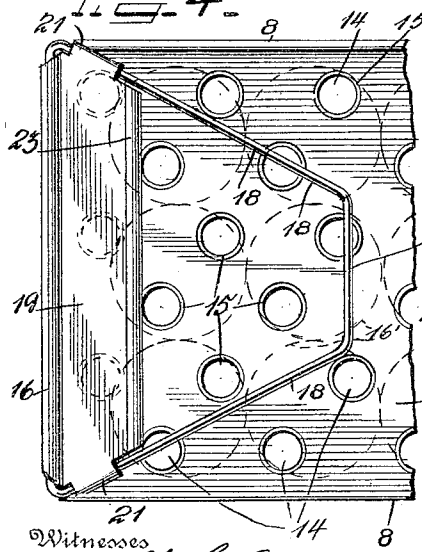


Fig. 5.

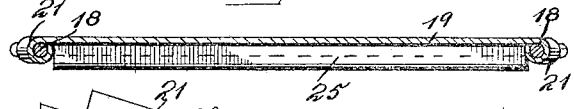


Fig. 6.

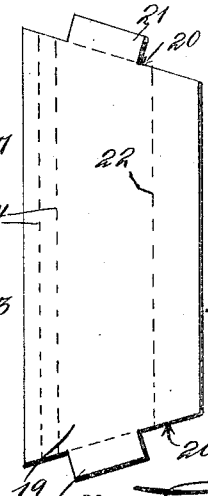
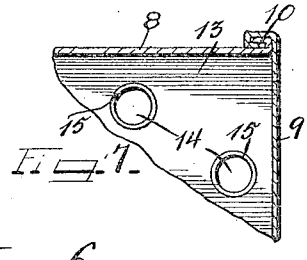


Fig. 7.



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UNITED STATES PATENT OFFICE.

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CANNING APPARATUS.

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To all whom it may concern:

Be it known that I, STEPHEN J. COCHRAN, a citizen of the United States of America, residing at Hot Springs, in the county of Garland and State of Arkansas, have invented certain new and useful Improvements in Canning Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a canning apparatus and has for its special object the production of a device which is adapted to contain and support in a desired position, a number of cans or other receptacles, containing material which is desired to be preserved in such a manner as to allow the cans to be easily heated for cooking the contents thereof.

Another object of this invention is the production of a tray for the canning apparatus which is provided with a plurality of lifting bails which are so formed as to carry a plurality of reinforcing plates in such a manner as to allow the plates to hook over the upper portions of the container or boiler for supporting the tray adjacent the upper portion thereof.

Still another object of this invention is the production of a plurality of supporting plates secured to the bails which are formed to support the tray adjacent the upper portion of the container but which may be swung to an inoperative position of the bails when it is desired to place a tray at the lower portion of the boiler and then be positioned so as to efficiently support an upper tray above the lower tray.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a central vertical section taken through the canning apparatus, illustrating the manner in which the same is used. Fig. 2 is a central vertical section through the canning apparatus showing one of the trays supported by the upper portion of the container or boiler. Fig. 3 is a detailed perspective view of one of the trays having the pivotally secured bails. Fig. 4 is a plan view of one end of the tray showing the bails carried by this end folded thereon. Fig. 5 is a longitudinal section taken through the supporting plate of one of said bails showing the same engaging the bails. Fig. 6 is a plan view of the blank from which one of the supporting plates is formed. Fig. 7 is a fragmentary sectional view through one corner of the tray.

Referring to the accompanying drawings by numerals 1 designates the side walls of the container or boiler which are provided with a bottom 2 having the enlarged bodies 3 in which there are formed central passages 4. These bodies 3 are formed adjacent each end of the boiler and are adapted to carry the pipe 5 through which the water may pass and be heated for efficiently circulating and heating the water carried within the boiler or container. The upper portions of the sides 1 are provided with the bail-ears 6 to which the bails 7 are pivotally secured for providing a simple and efficient means for lifting the boiler to a desired position. It will be seen that when this boiler is positioned upon the stove or other heating member the pipe 5 will depend there-below into the blaze or fire. This will cause the pipe to be heated to a higher degree than the bottom 2 of the boiler and thereby cause the water to circulate and to be heated.

In order to efficiently support a plurality of cans or other members within the boiler for cooking their contents, there is provided a plurality of trays which are adapted to be positioned within the boiler when desired. Each tray comprises side walls 8 and end walls 9, these end walls 9 extending for a spaced distance above the side walls 8 for the purpose of securing these walls at their corner portions. Each wall is provided with an interlocking hook so formed as to engage a hook formed upon the opposite wall for holding the corners in firm engagement as shown at 10 in Fig. 7. These walls are provided with a downwardly extending supporting hook 11 which is adapted to engage a depending flange 12 formed upon the outer edge of the bottom 13. In this manner it will be seen that the bottom 13 will be sufficiently supported and will still allow sufficient space under the bottom of the tray for the water to easily circulate as disclosed in Figs. 1 and 2. This bottom 13 is also provided with a plurality of apertures 14 having upwardly extending necks 15 formed thereupon. When the cans 16'

are placed upon the tray, the side walls 8 and 9 will prevent the cans from falling from the tray while the upwardly extending necks 15 will hold the cans at a spaced distance from the upper face of the bottom 13 thereby allowing the water to pass through the apertures 14 whereby the circulation of the water around the bottom of the cans will not be interfered with by the lower portions of the cans. It will also be noted that since the bottom 13 is positioned at a spaced distance from the bottom 2 of the boiler, there will be provided sufficient room for the accommodation of the bodies 3 without causing the trays to rest upon the bodies or in any other manner interfere with the efficient operation of the lower tray.

In order to facilitate the lifting of the trays from the interior of the boiler for supporting the trays upon the upper portions thereof, each tray is provided with an upwardly rolled sleeve 16 formed upon the upper edge of each end wall 9 which carry the bails 17. Each of these bails 17 passes through the sleeves and converge toward their upper portions thereby providing converging side portions 18. By pivotally securing these bails 17 within the sleeves 16 it will be seen that the tray may be easily lifted or when so desired, the bails may be swung downwardly so as to rest adjacent the upper portion of the tray. Each bail is provided with a supporting plate 19 which is provided with the converging end edges 20 to conform in contour to the shape of the side portions 18 of the bails 17. A tongue 21 extends from each end of the plate 19 and is rolled about the side portions 18 for efficiently securing the plate thereto. The plate is then folded along the scored line shown at 22 in Fig. 6 so as to provide a longitudinally extending supporting lip 23. The opposite edge of the tray 18 is folded upon the scored line 24 to provide an inwardly extending shelf 25. When this plate is secured upon the bail, it will be seen that the shelf 25 will extend inwardly while the lip 23 being formed in the opposite direction, will extend outwardly so as to overhang the outer portions of the tray when desired. When this device is in use, the boiler may be placed upon the stove and the water may be placed therein. As soon as the water has become heated, the device is ready for use. The first tray may then be placed adjacent the upper portion of the boiler at which time the bails 17 thereon may be swung outwardly then by lowering the tray, the longitudinally extending lips 23 will engage the upper edge of the walls 1 of the boiler. Since these plates are fixedly secured to the bails 17, the tray will be supported. The cans 16′ may then be prepared and placed upon the tray until the same has been filled. The walls 8 and 9 will insure the retaining of the cans upon the tray. The bails 17 may then be swung inwardly releasing the lips 23 from engagement with the walls 1 of the boiler. The tray may then be lowered down into the interior of the boiler so as to rest upon the bottom 2 thereof. The heated water may easily circulate in the bottom 13 of the tray and through the aperture 14 formed therein so as to circulate around and under the cans 16′ for cooking the contents thereof. The next tray may then be carried upon the upper portion of the boiler at which time the trays will assume the position disclosed in Fig. 2. As soon as the second tray has been filled the bails may then be swung inwardly and the second tray lowered. The upper tray will then rest upon the shelves 25 formed by the plates carried upon the bails of the lower tray thereby supporting the upper tray at a spaced distance from the upper portion of the lower tray. Since the end walls 9 extend for a spaced distance above the side walls 8 of each tray, when the second tray is carried above the lower tray sufficient space will be provided between the upper portions of the side walls 8 and the lower tray and the lower portions of the upper tray to allow the circulation of water there-between. The bails carried by the upper tray may then be swung so as to rest upon the cans 16′ carried by the second or upper tray as disclosed in Fig. 1. The bails of the lower tray will extend upwardly but will not interfere with the upper tray nor will they extend to the upper portion of the boiler or container. After the trays have been positioned so as to assume the position disclosed in Fig. 1, the cover 26 may be placed upon the upper portions of the boiler or container. The top portion of this cover is provided with the retaining flanges 27 extending for a spaced distance there-above, whereby the body will be positioned below the upper portions of the flanges and will allow the cans to be placed thereon for preparing while the cans carried by the trays are carried within the boiler for cooking their contents. It will be seen that by the use of the upwardly extending flanges 27 any danger of the cans sliding from the cover 26 will be eliminated. This cover may be also provided with bail-ears 28 for carrying the bails 29. It is of course obvious that if so desired, the cover 26 may be dispensed with and the device will operate as efficiently as it does when the cover is in position.

It is to be noted that the bails and supporting plates of each tray are formed similar in all respects thereby providing interchangeable trays. It will also be seen that the flanges of the upper tray may be swung downwardly upon the upper portions of the tray or may be easily engaged

for lifting the tray from the upper portions of the lower tray. The bails of the lower tray are extended upwardly so as to be easily engaged for lifting the lower tray from the boiler. From this description it will be seen that it is immaterial which tray is positioned within the boiler first owing to the fact that the trays operate in a similar manner.

From the foregoing description it will be seen that an efficient canning apparatus has been produced in which a plurality of cans may be positioned for efficiently cooking their contents. It will also be seen that the tray members positioned within the boiler are provided with simple and efficient means for supporting the same upon the upper portions of the boiler while the cans are being prepared and which may be then folded to an inoperative position upon the upper portions of the tray or which may be positioned to carry the upper tray as desired.

What I claim is:—

1. A device of the class described comprising a tray, bails pivotally secured to said tray, supporting plates carried by said bails, said supporting plates provided with outwardly bent longitudinally extending lips, said lips being adapted to fit upon the upper portion of the boiler, the lower portions of said plates being provided with an inwardly extending integral shelf, said shelves and bails being adapted to support an upper tray thereon at a spaced distance above the upper portion of the lower tray whereby sufficient space will be provided for the free circulation of water within the boiler.

2. A device of the class described comprising a tray, said tray provided with a plurality of walls, a pair of said walls extending for a spaced distance above the remaining walls and terminating in rolled sleeves, pails pivotally secured within said sleeves and provided with converging side portions, plates positioned between the side portions of said bails, said plates comprising bodies having integral rolled tongues extending therefrom and engaging the side portions of said bails whereby said plates will be fixedly secured to said bails, each plate provided with a longitudinally extending outwardly bent lip extending between said converging sides of said bails, said sleeves being adapted to fit upon the upper portions of a boiler for supporting the tray for allowing free access thereto, the lower portion of each plate being provided with an inwardly extending integral shelf, said bails being adapted to be swung slightly inwardly whereby the shelves may support a second tray above the first tray at a spaced distance above the side portions of the tray for allowing the free circulation of water within the tray.

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

STEPHEN J. COCHRAN.

Witnesses:
W. A. DAVIS,
S. L. PEARCY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."