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C. E. CHESSER ET AL
ADJUSTABLE DEEP-WELL COOKER

2,485,698

Filed July 24, 1946

2 Sheets-Sheet 1

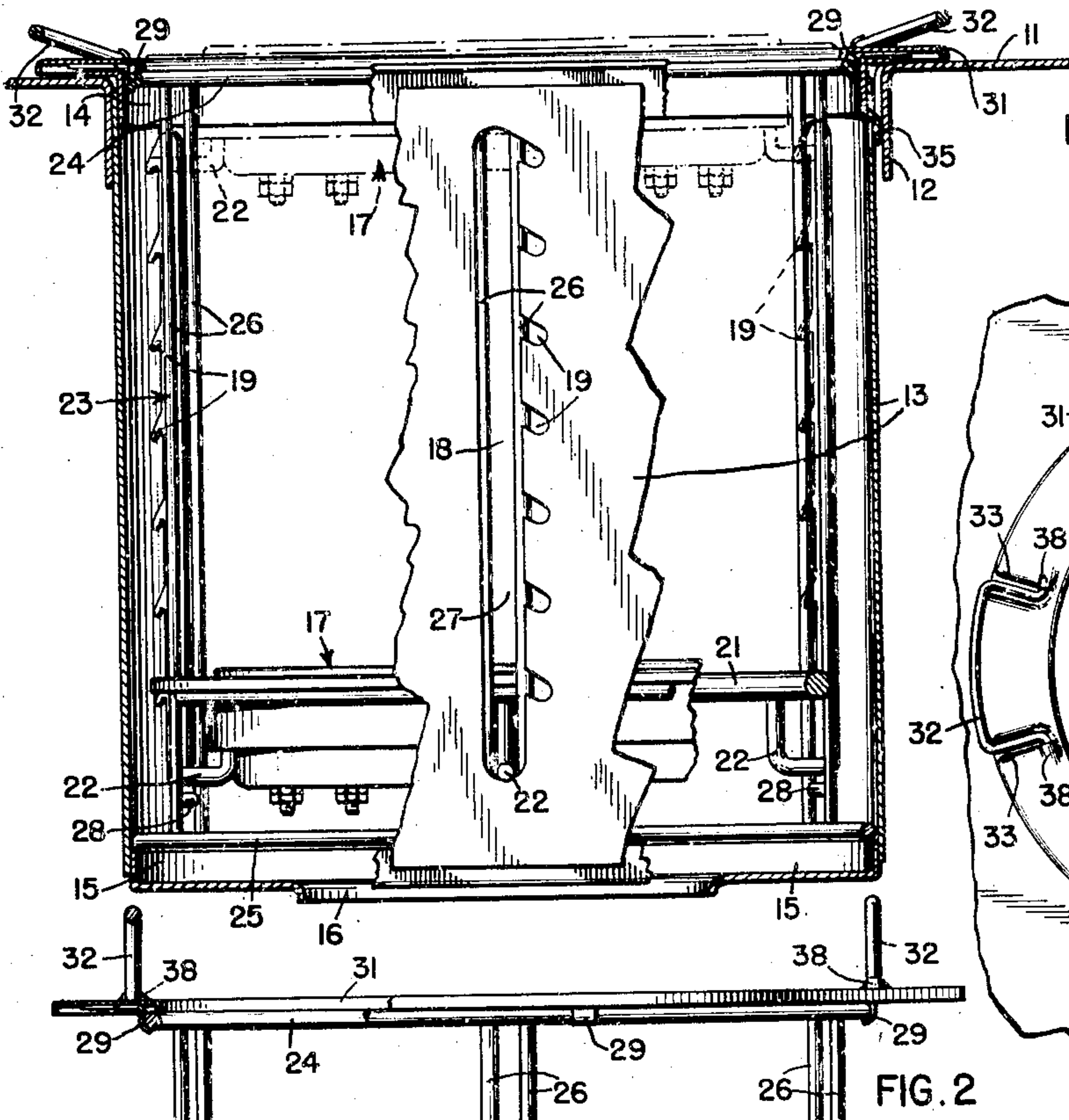


FIG. 1

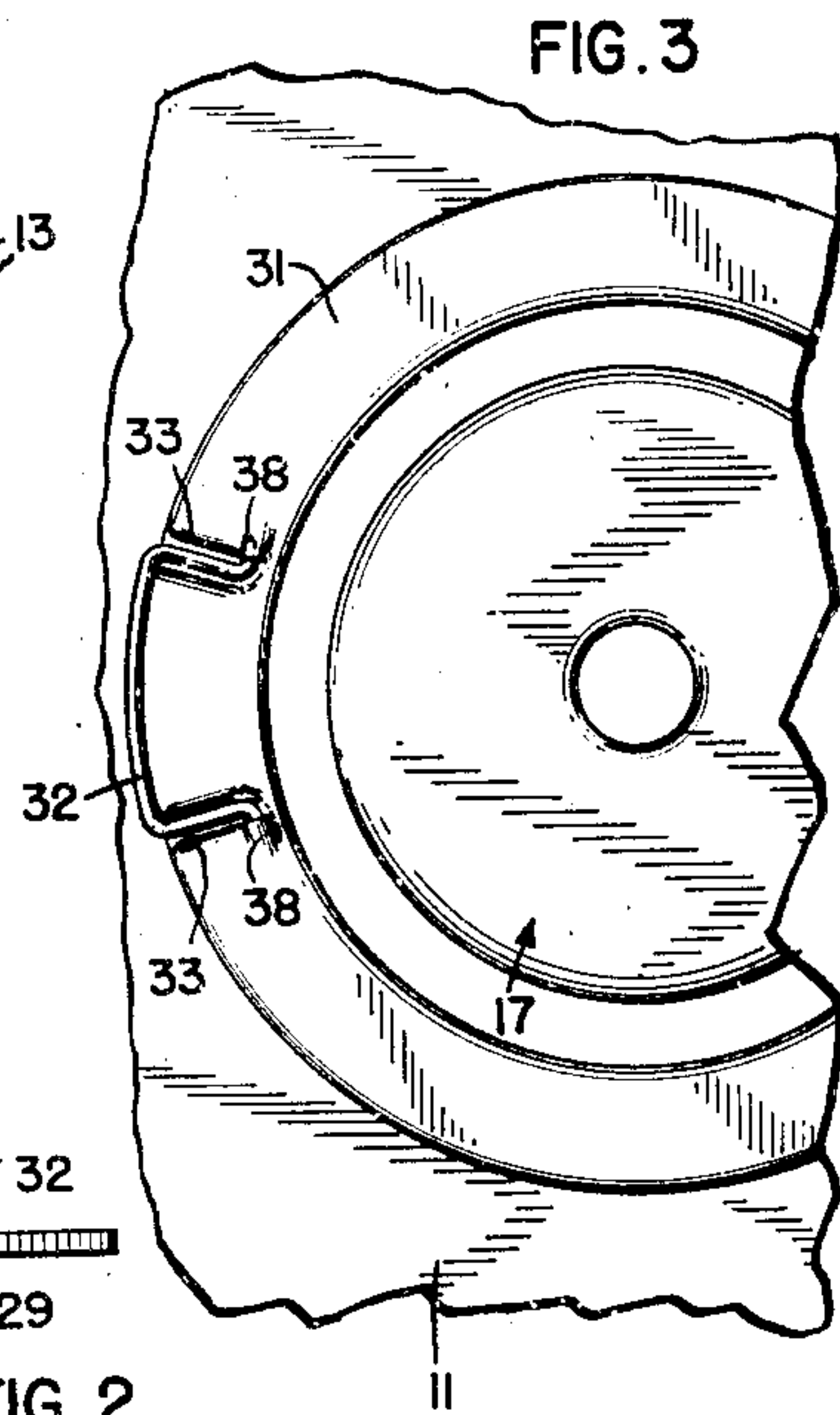


FIG. 3

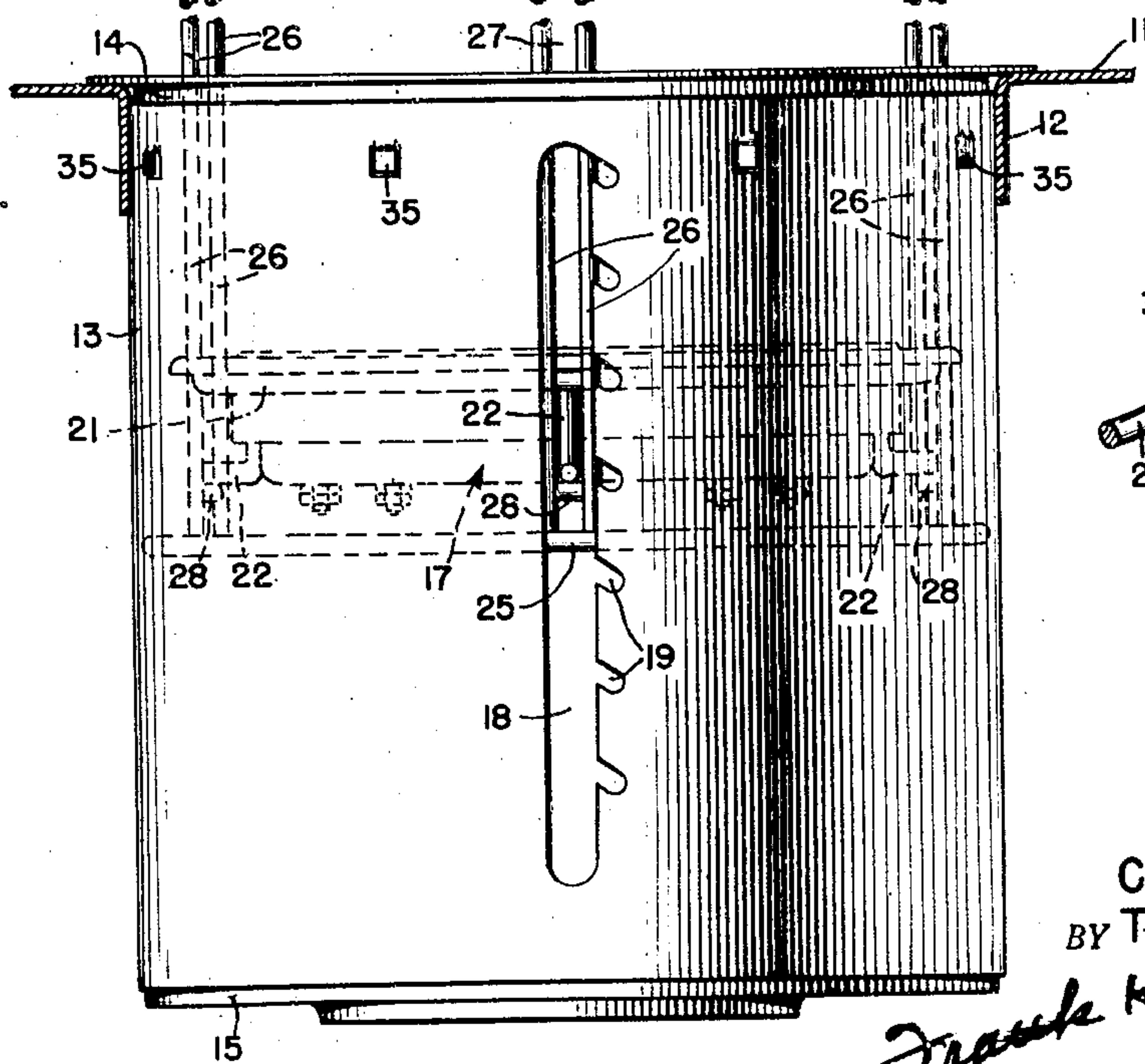


FIG. 2

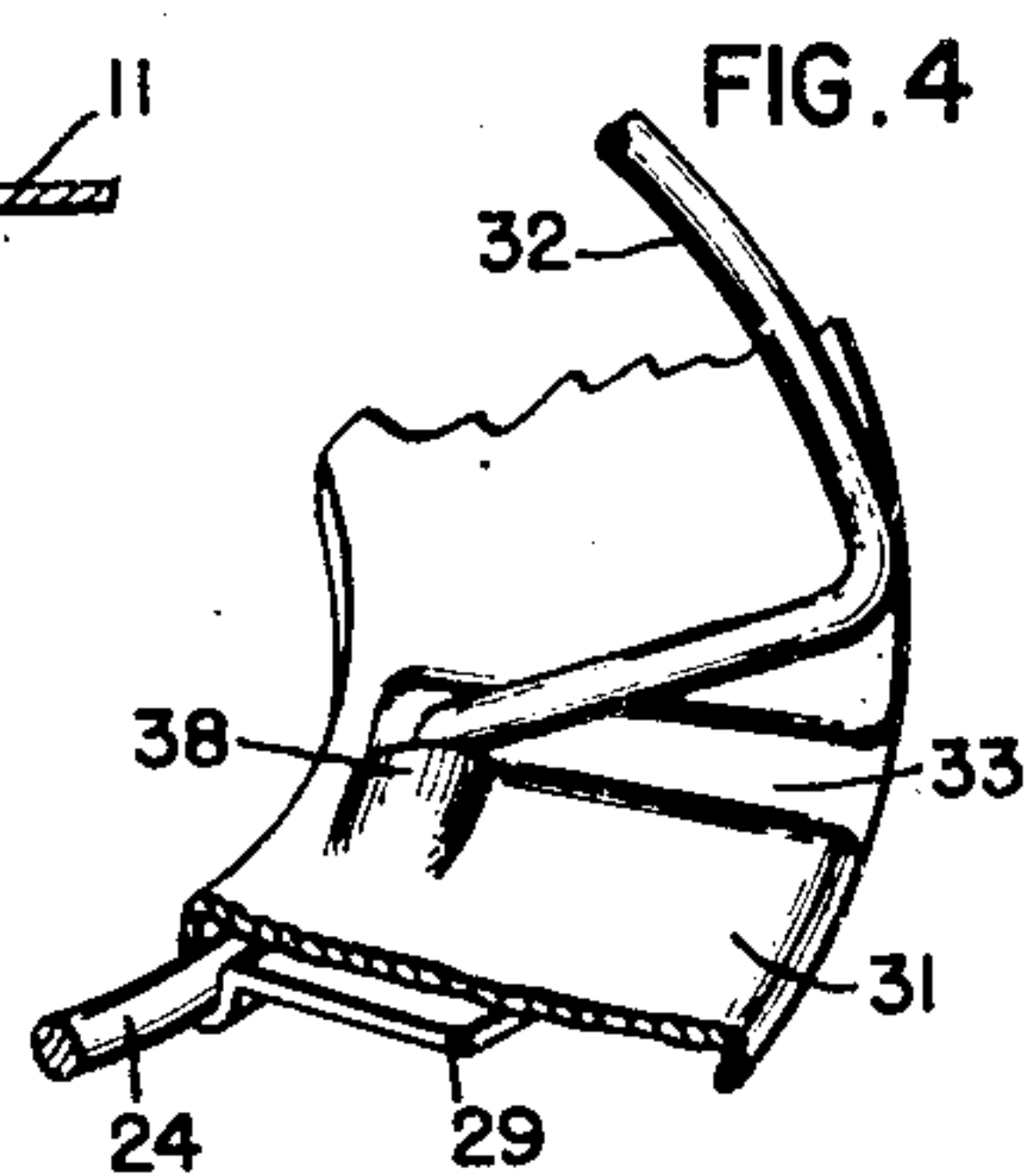


FIG. 4

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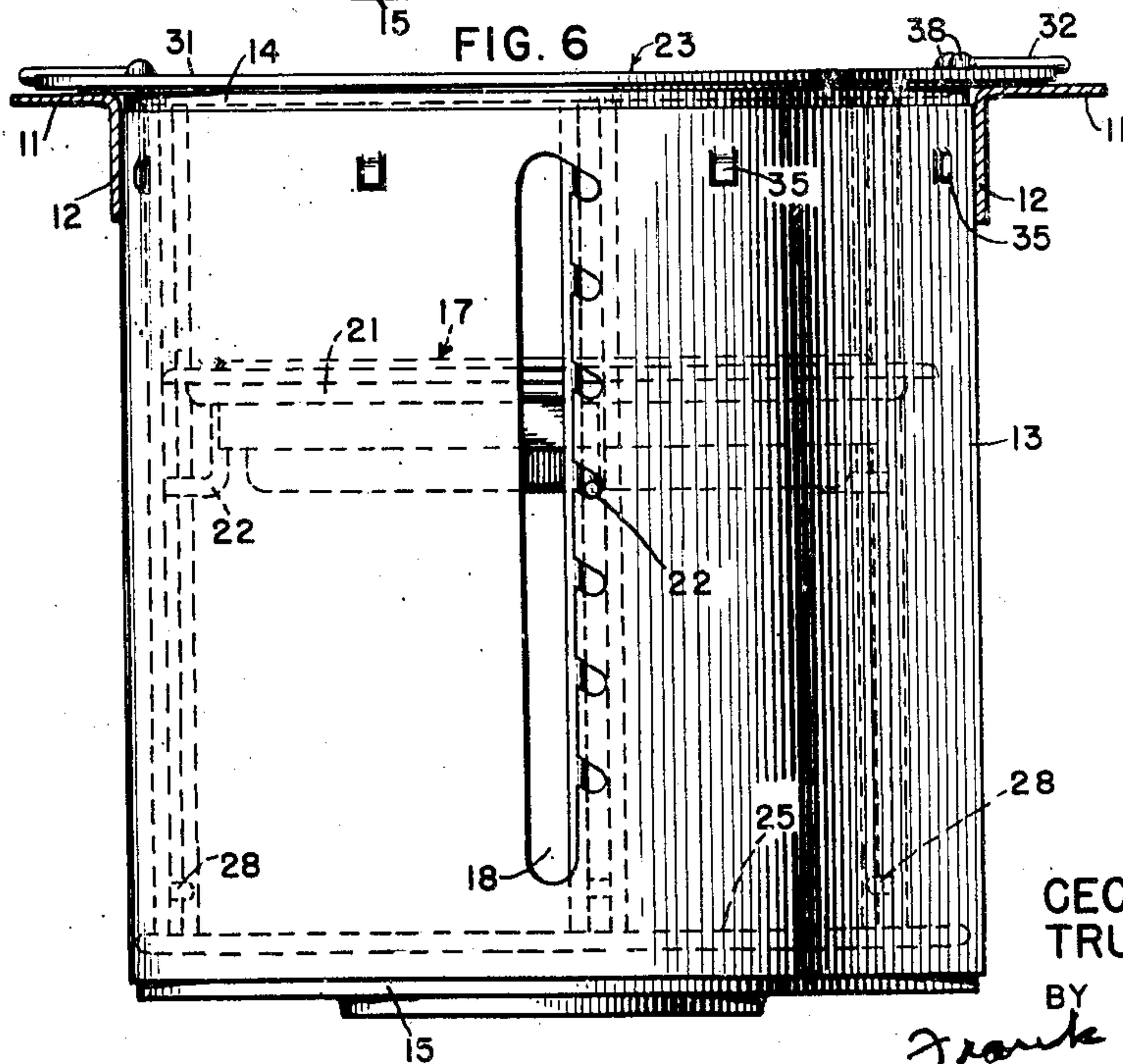
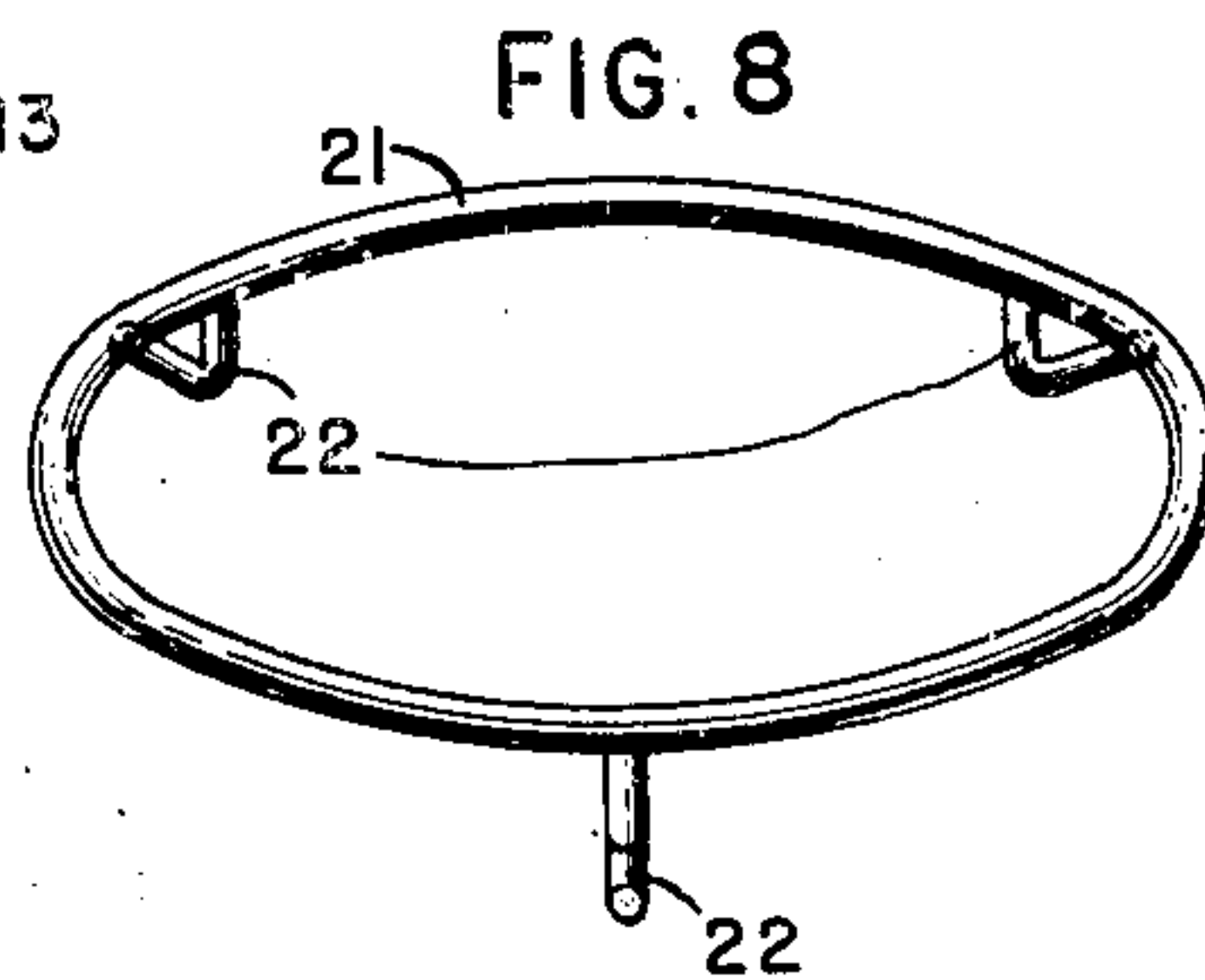
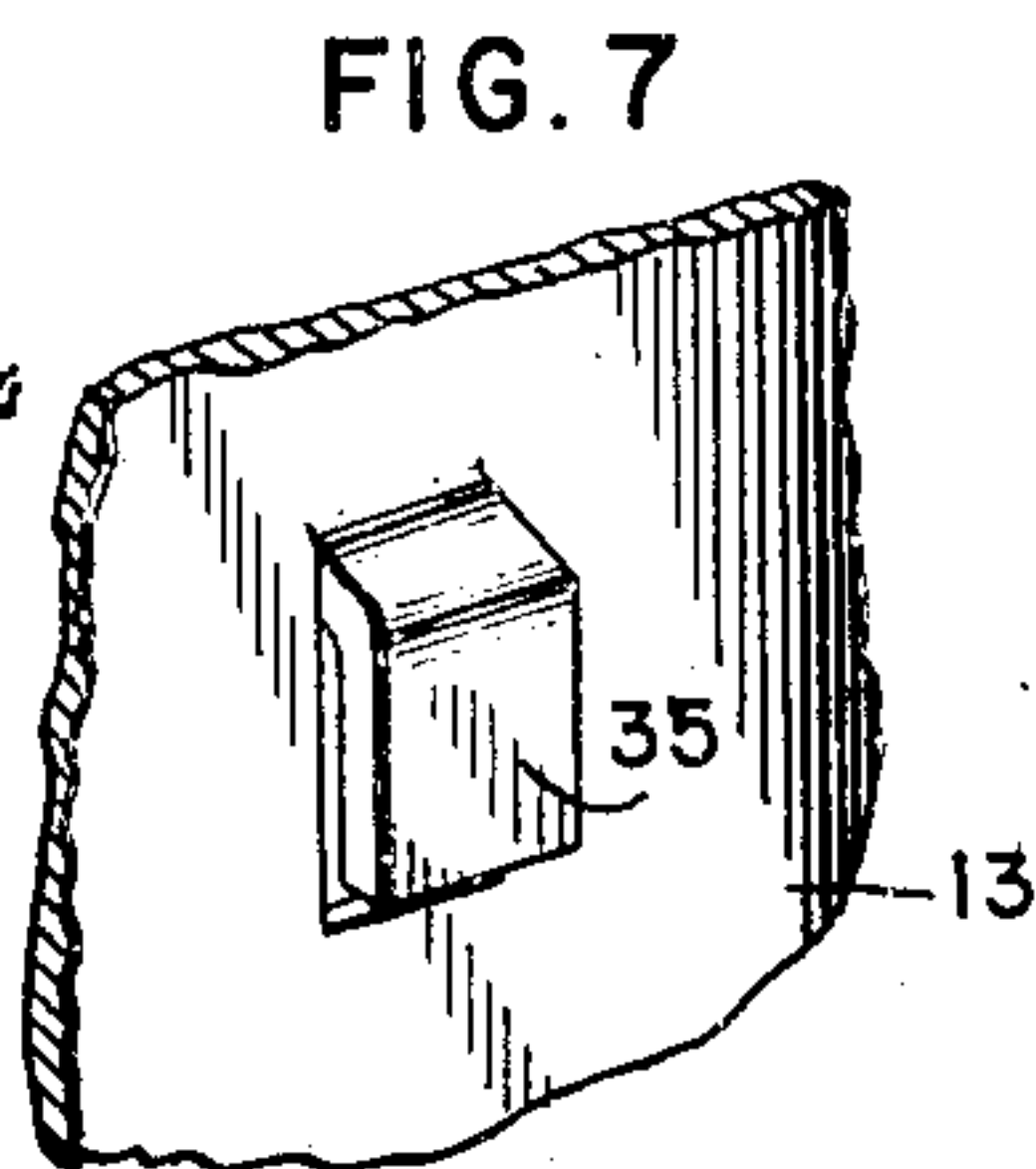
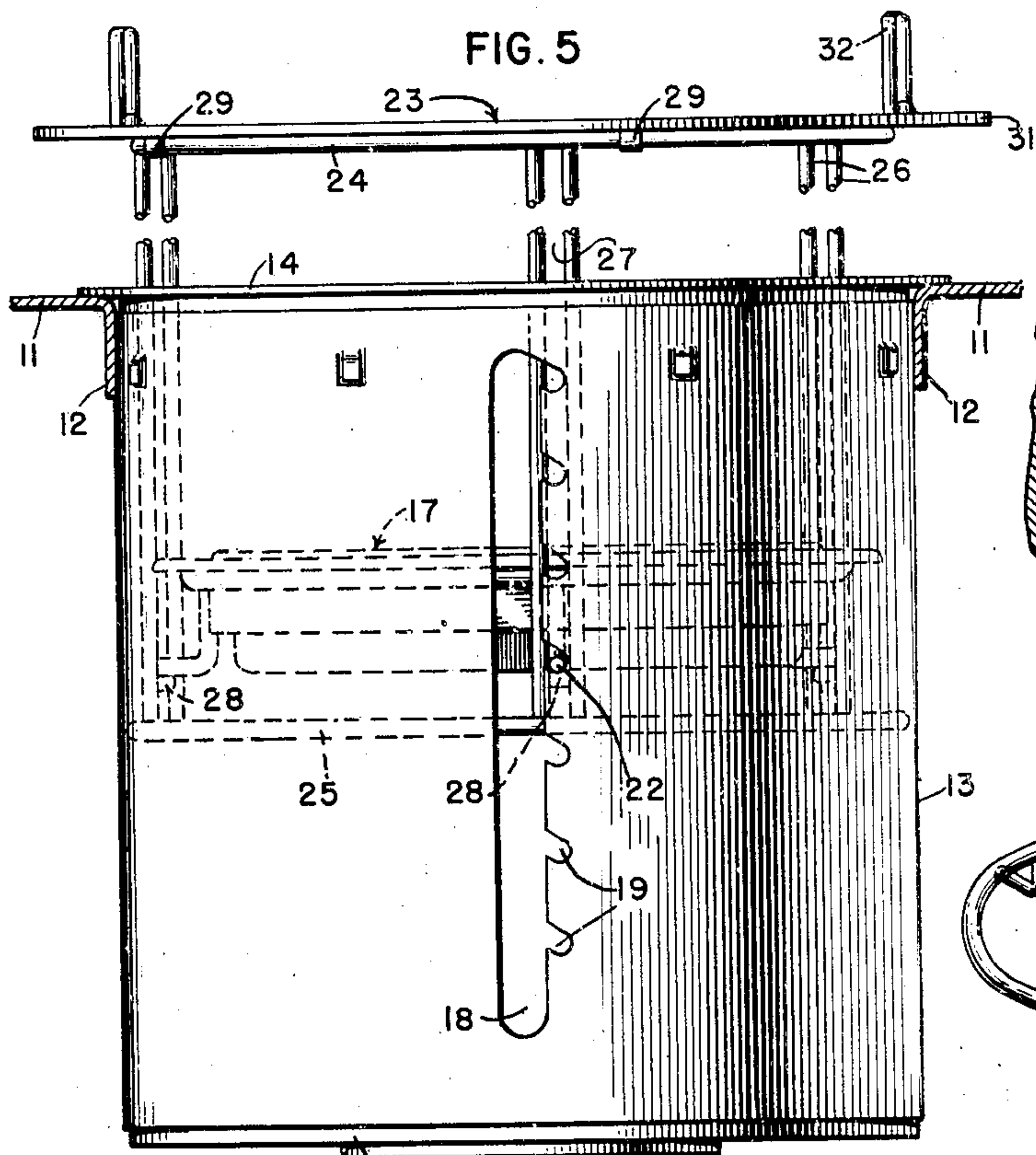
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ADJUSTABLE DEEP-WELL COOKER

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2 Sheets-Sheet 2



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2,485,698

ADJUSTABLE DEEP-WELL COOKER

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Application July 24, 1946, Serial No. 686,010

7 Claims. (Cl. 219—37)

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This invention pertains to oven cooking apparatus and more particularly to a surface receding or well type of cooker heating unit.

Apparatus of this class is well known in connection with electric cooking ovens, and there is provided in accordance with the present improvement, a deep well cooking apparatus wherein the heating plate and certain elements of the supporting structure are rendered adjustable as to surface level so as to permit variations in the depth of cavity, whereby cooking vessels may be supported under variable conditions.

The primary object of the present invention is to provide a deep well heating apparatus in which the heating unit is vertically adjustable in predetermined incremental amounts to thereby assume variable levels with respect to the top and bottom of the well.

Another object of the invention is to provide in a deep well cooking apparatus adjusting facilities for variably positioning the heating unit or plate at predetermined levels.

For a more comprehensive understanding of the invention, reference will now be had to the particular details of construction described in the following detailed specification taken in conjunction with the accompanying drawings, wherein:

Fig. 1 is a transverse sectional view with a part in elevation, of the electric oven structure according to the present invention, showing the apparatus applied, and the adjustable heating plate thereof in its lowermost submerged level;

Fig. 2 is an elevational view similar to Fig. 1 but illustrating the heating plate raised to an intermediate level;

Fig. 3 is a top view of the electric oven structure according to the present invention;

Fig. 4 is a fragmental perspective view of the flange and handle structure of the heating plate supporting frame;

Fig. 5 is a side elevation of the deep well oven structure featured in Figs. 1 and 2 showing an intermediate condition of operation;

Fig. 6 is a side elevation of the same structure with the operation of Fig. 5 completed;

Fig. 7 is a detailed perspective view of one of the pressed-out detenting and adjustment portions; and

Fig. 8 is a perspective view of the spider ring 21 with its integral latch projections.

Having reference now more particularly to the accompanying drawing, the reference character 11 designates the table top of a conventional type of cooking stove or oven having a recess defined

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by a downwardly extending flange 12. A cylindrical sleeve 13 is adapted to be received within the opening defined by the cylindrical wall 12 of the oven. Secured to the upper edge or rim of the sleeve 13 is a brim portion 14 adapted to overlie the adjacent edge of the table top 11 to thus support in a depending manner the sleeve 13. To the lower edge of sleeve 13 is secured by welding or other suitable means, a bottom member 15 which is provided with a central clean-out and vent opening at 16 generously proportioned to provide ample clearance for electric cable connection (not shown) which may be attached to the heating plate unit generally designated 17.

Sleeve 13 is provided with three vertical slots 18, preferably equally spaced around the circumference of the sleeve 13, and extending substantially the full height of the sleeve as best indicated in Figs. 1, 5 and 6. Slots 18 are provided along corresponding edges thereof with a series of downwardly and diagonally directed seating notches 19.

Adapted to support an adjustable heating unit 17 is a spider ring 21 provided with three integral prong-like projections 22. Prongs 22 cooperate with notches 19 to control the elevation or level to which the heating unit 17 is adjusted to afford variation in depth of cavity, whereby cooking vessels may be supported under variable conditions accordingly.

An elevator generally designated 23 is provided to raise and lower the ring 21 to adjust the surface level of the heating unit 17. The elevator 23 comprises an upper ring 24 and a lower ring 25 spaced apart a predetermined distance, commensurate with the depth of the cavity or well formed by the sleeve 13, by a plurality of pairs of rods 26, equal in number to the number of prongs 22. The rods 26 and rings 24 and 25 are preferably integrally connected together by welding, although any mode of securement may be used.

The rods 26 of each pair are, in turn, spaced apart to provide a track or guideway 27 for the prongs 22. Spanning each guideway 27 and positioned adjacent to the ring 25 is a crossbar or abutment 28 adapted to engage the prong 22 when the elevator is manipulated. Attached to the ring 24 by means of a plurality of clamping elements 29 is a rim portion 31 of sufficient width to overlap the brim 14 and top 11 of the stove.

The rim flange or cover ring 31 is provided at two diametrically opposed points with ear facilities 38 for mounting a pair of handles 32, said

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facilities including also nesting grooves 33 so conformed as to allow the handles 32 to lie substantially flush with the surface of the rim 31. The sleeve 13 is provided around the upper portion thereof with pressed-out portions 35 which wipe against the flange 12 to retain the sleeve frictionally and compensate for the clearance between sleeve 13 and well 12.

During use of the deep well cooker, according to the present invention, the sleeve 13 is disposed within the well or recess defined by the wall 12 with the brim 14 resting upon the stove top 11. The elevator 23 is depressed and within the sleeve portion 13. Through the instrumentality of handles 32 the framework or elevator 23 is raised and lowered, and when the prongs 22 are in register with any one of the notches the framework 23 is rotated counterclockwise sufficiently to bring all of the prongs 22 into the then adjacent notches 19, which level is determined, for example, by the height of the cooking vessel to be placed upon the heating unit 17. Thereafter the framework or elevator is again dropped into the position indicated in Fig. 6 as the spider ring 21 holds the heat unit 17 in its adjusted position.

Although a specific embodiment of the invention has been shown and described, it is understood that such modifications are contemplated which come within the purview of the appended claims.

What is claimed is:

1. In an adjustable level surface heater for cooking ranges, an outermost cylindrical jacket supported in total submergence from the table top of a range and having a plurality of vertical slots equally spaced circumferentially, each slot having a series of laterally extending ledge supports in communication therewith, a heating unit, a cylinder-like member nested within said jacket and surrounding said heating unit including manipulation means disposed at said table top surface, a support for said heating unit including extremities extending into said vertical slots and receivable upon said ledge supports, said extremities being engageable by said cylinder-like member whereby to be lifted to different

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levels and rotated into engagement with said ledge supports, said cylinder-like member including portions having vertical clearance about their engagements with said support extremities so as to be submergible after each variable level placement of said heating unit and its said support.

2. The combination set forth in claim 1 in which said manipulator means comprises a ring member having pivotable handles that may be held erect or be made to lie prone so as to be out of interference with said heating unit during table top surface level adjustment thereof.

3. The combination set forth in claim 1 in which said cylinder-like member is outlined in metal wire defining said vertical clearance portions.

4. The combination set forth in claim 1 in which said vertical slots in said cylindrical jacket are three in number and in which said support extremities are correspondingly three in number, one for each of said slots.

5. The combination set forth in claim 1 in which said ledge supports are formed by side-wardly and downwardly extending notches communicating at different levels with said vertical slots in said cylindrical jacket.

6. The combination set forth in claim 1 in which said cylindrical jacket is formed with incised and outwardly distented tabs adapted to have frictional impingement against skirting flanges of a table top opening.

7. The combination set forth in claim 1 in which said heating unit support is an annular wire ring to which are welded L-shaped extensions which comprise said extending extremities.

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REFERENCES CITED

The following references are of record in the file of this patent:

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Certificate of Correction

Patent No. 2,485,698

October 25, 1949

CECIL E. CHESSER ET AL.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows:

Column 4, line 3, for the word "about" read *above*;

and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 21st day of March, A. D. 1950.

[SEAL]

THOMAS F. MURPHY,
Assistant Commissioner of Patents.