

E. RIZK.
HOG OILER.

APPLICATION FILED AUG. 9, 1916.

Patented Sept. 25, 1917.

1,241,023.

FIG. 1

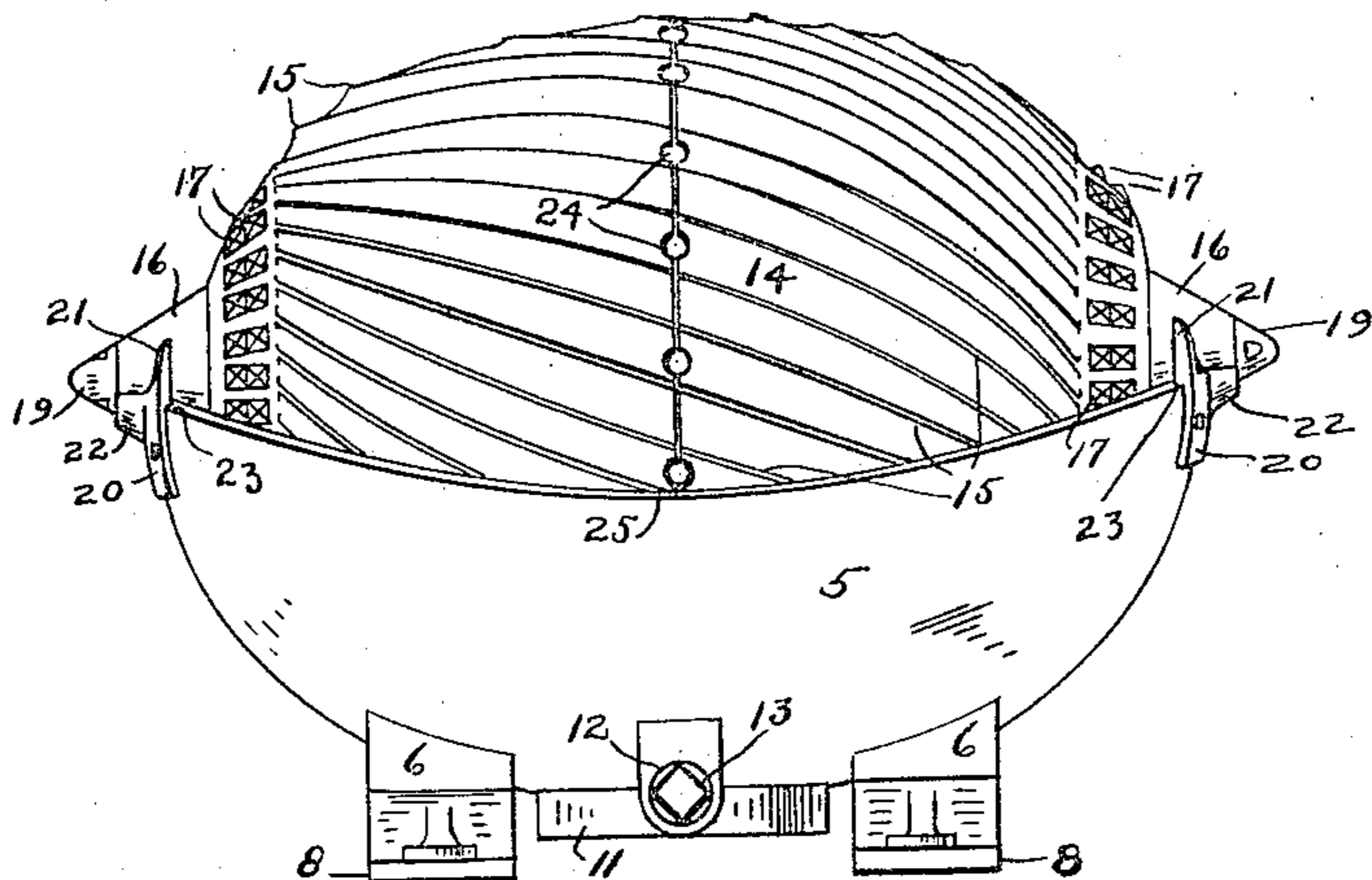


FIG. 2

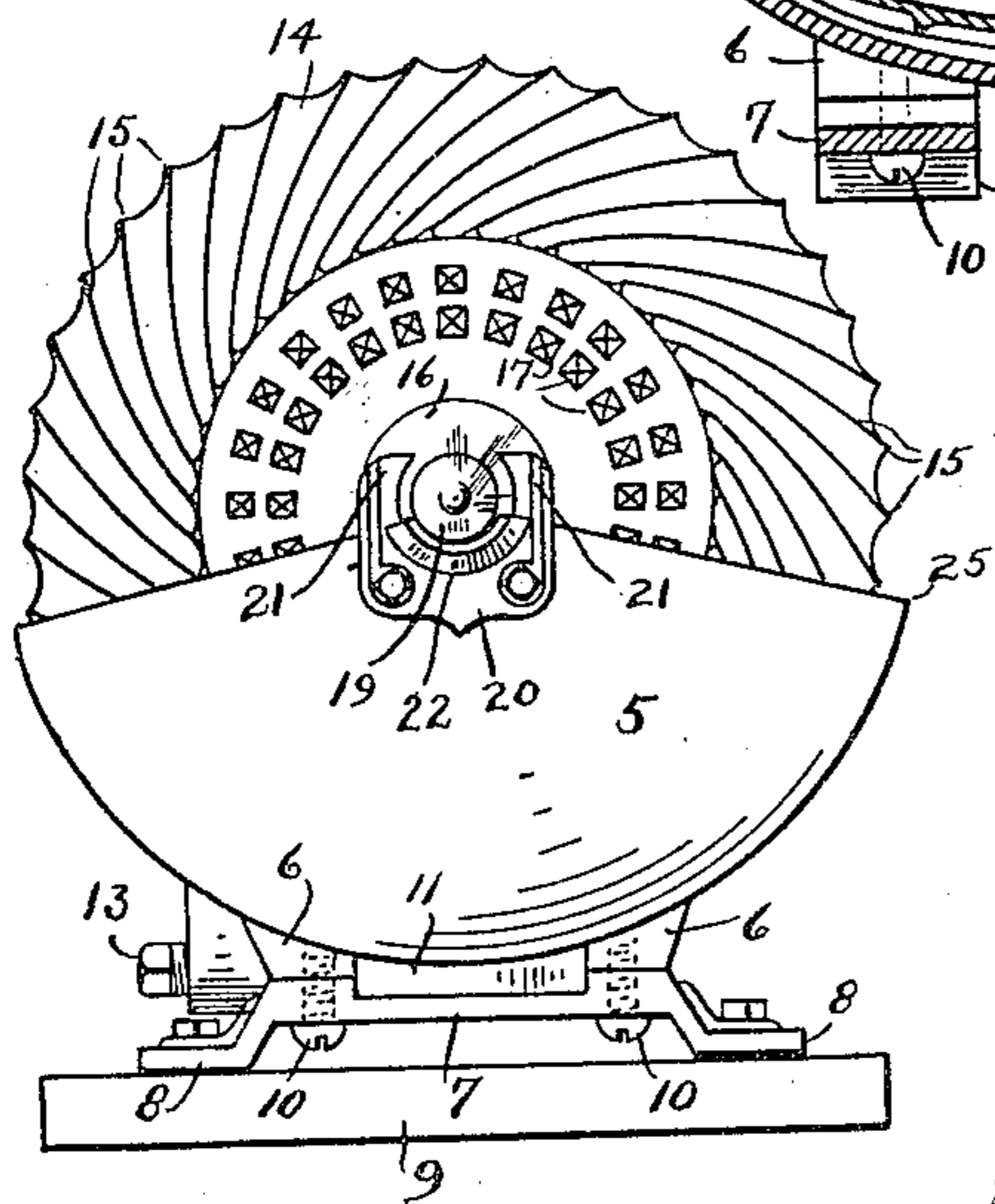
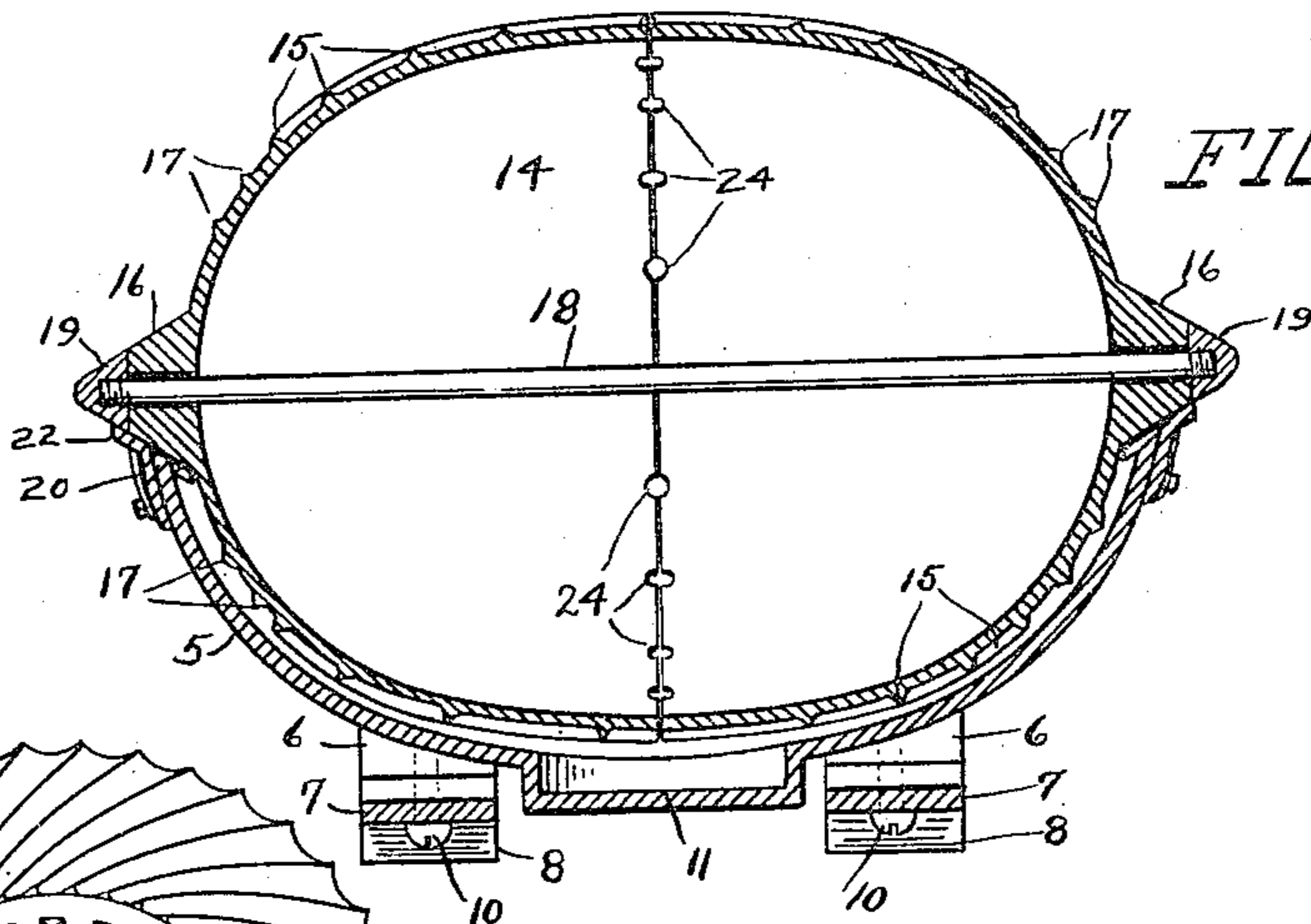


FIG. 3

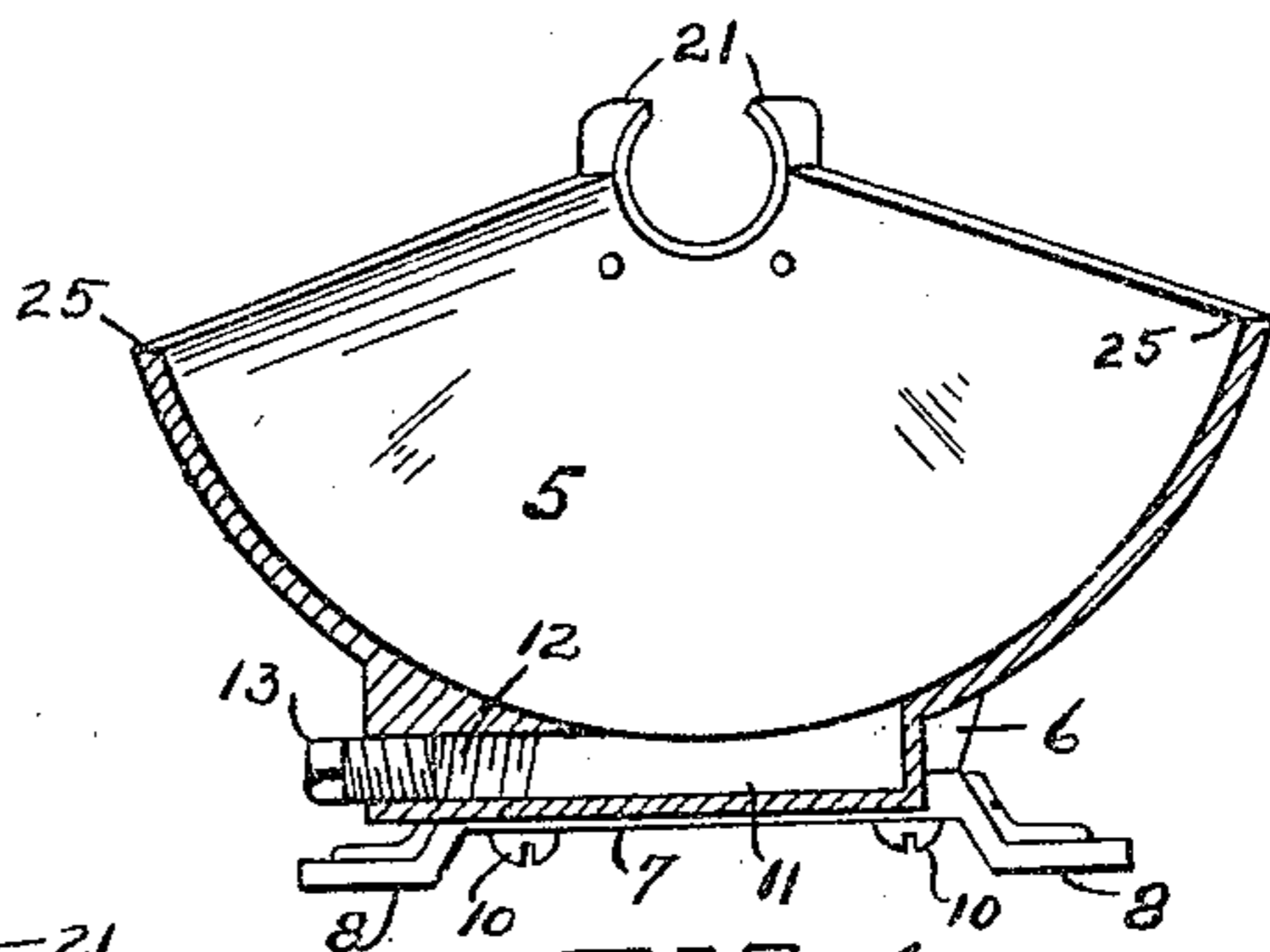


FIG. 4

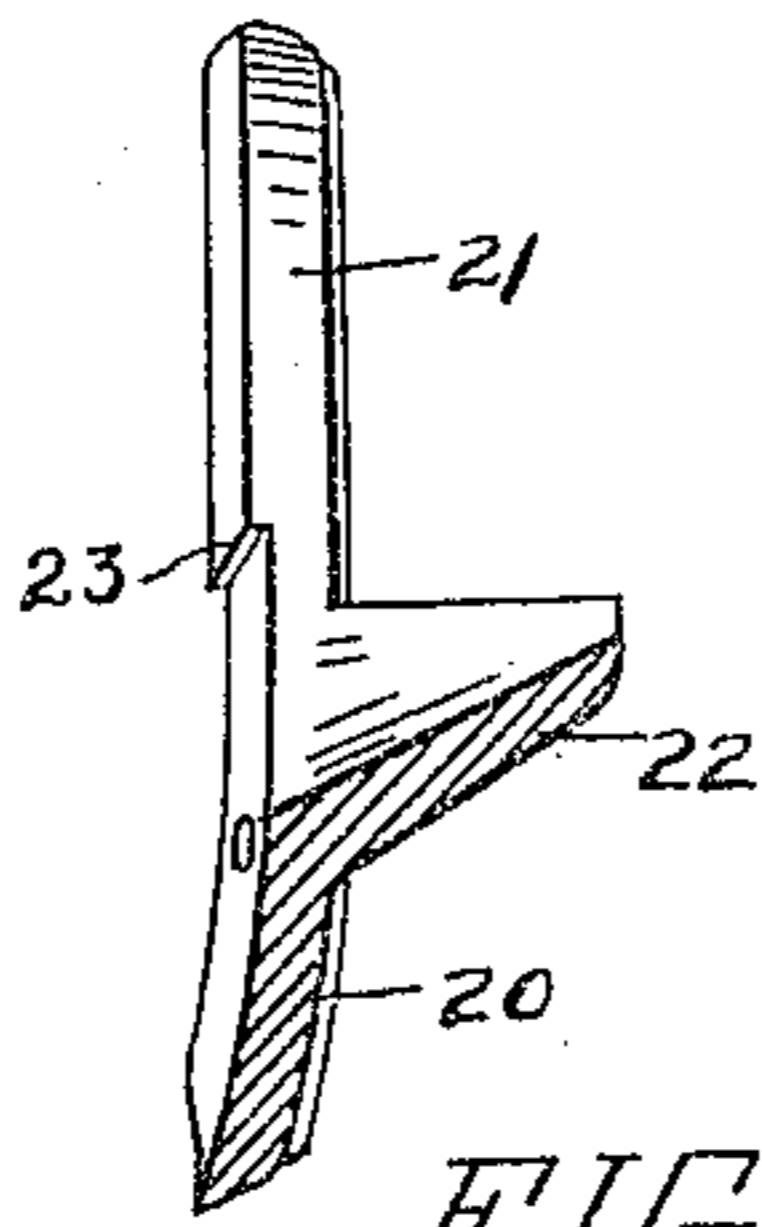


FIG. 5

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UNITED STATES PATENT OFFICE.

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HOG-OILER.

1,241,023.

Specification of Letters Patent. Patented Sept. 25, 1917.

Application filed August 9, 1916. Serial No. 113,893.

To all whom it may concern:

Be it known that I, ELIAS RIZK, a citizen of the United States, and a resident of Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Hog-Oilers, of which the following is a specification.

The present invention relates to rubbing and oiling means for animals.

The invention has for its primary object the production of an improved device against which hogs may rub, and embodying certain novel features of construction whereby the animals will cover those portions of their bodies which come in contact with the device, with oil, to alleviate irritation and eliminate vermin.

Another object of the invention is the production of an improved hog-oiler embodying certain novel features wherein the cost of construction and operation are reduced to the minimum.

A further object of the invention is the production of a hog-oiler embodying certain novel features of construction and arrangement of parts, adapted to thoroughly oil the hogs and waste but a minimum amount of oil.

The invention further contemplates a hog-oiler embodying improved means for applying oil to and relieving irritation of the hogs' ears.

With these and other objects in view, the invention, consisting in the construction, combination and novel arrangement of parts, will be fully understood from the following description, reference being had to the accompanying drawings, which form a part of this application and in which like characters of reference indicate corresponding parts throughout the several views, of which,—

Figure 1 is a side elevation of a hog-oiler constructed in accordance with the invention, Fig. 2 is a longitudinal section of the same; Fig. 3 is an end elevation of the same mounted upon a platform; Fig. 4 is a central transverse section of the trough; and Fig. 5 is an enlarged vertical transverse section of one of the bearings.

Although I have illustrated and hereinafter described the preferred embodiment of the invention, I would not be understood as being limited to the specific structure chosen for illustration, for various alterations and

modifications, in the details of construction and arrangement of parts, may be made without departing from the spirit and scope of the invention as defined in the appended claims.

Referring now to the illustrations, 5 is an oil-receptacle preferably semi-ellipsoidal in general contour, and formed integrally with two pairs of base blocks, 6, disposed on opposite sides of the transverse axis of the trough, each pair being arranged transversely to the trough. The said blocks rest upon bars, 7, provided with feet, 8, adapted to be bolted, or otherwise secured to a platform, 9. The bars are secured to the blocks by bolts, 10, which pass through the bars and are threaded into the blocks.

The center of the bottom of the trough is provided with a cupped depression, 11, for the reception of sediment. The depression communicates with an outlet opening, 12, whereby the sediment may be conveniently removed from the trough. The opening is normally closed by a threaded plug, 13.

The trough incloses the lower portion of a horizontal roller 14, formed with helically disposed peripheral ribs, or vanes, 15, disposed at a sharp angle to the axis of the roller, that is, an angle of 45 degrees, or less. The ends of the roller are provided with conoidal journals, 16, inclosed by suitable bearings at the ends of the trough, which rotatably support the roller in spaced relation to the trough.

The roller is preferably a hollow ellipsoid having helical peripheral ribs, 15, and annular rows of studs, or projections, 17, on its end portions. The roller is cast in halves, the meeting plane of which is transverse to the axis of the roller. The halves of the roller are secured by a rod, 18, which protrudes through the journals, 16, of the roller and has conical nuts, 19, threaded on its ends and into firm engagement with the journals, to secure the roller halves and form the apexes of the journals.

The bearings each include a plate, 20, which conforms to the shape of, and is bolted or otherwise secured to the end of the trough, and is formed with ears, 21, curved partially around the journals. The plate is also formed with a concave flange, 22, which supports the journal. The inner side of the ears, 21, may be provided with shoulders, 23, which rest on the edge of the trough.

The contiguous edges of the halves of the roller are provided with notches, preferably semi-circular, and the notches of each half register, respectively, with the notches of the other half, to provide the perforations, 24.

The upper edges of the intermediate portions of the sides of the trough, are cut downwardly, as at 25, in order that the sides of the roller may be easily engaged by the animals.

In operation oil of any suitable kind, being first placed in the trough, enters the roller through the perforations, 24, and as the roller is turned, by the hog rubbing thereagainst, the roller is coated with the oil and thus communicated to the body of the animal.

The purpose of the helical vanes is manifold. They afford a very attractive surface for the animal to rub; they serve to lift the oil when the roller is revolved; and also coact with the body of the animal to turn the roller, either when the rubbing is vertical or horizontal, inasmuch as the vanes are inclined at a sharp angle to the roller axis.

When rotation of the roller is discontinued the oil remaining on the surface thereof, drains from the helical ribs, between the studs and thence into the receptacle, and a portion of the oil flows between the ears, 21, and covers the journals.

It is evident that the conical projections on the ends of the roller, which protrude through the bearings, afford convenient and attractive parts against which the animals rub and oil their ears, and other portions of their body, which are not easily placed in contact with other parts of the device.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is,—

1. A hog-oiler comprising an oil receptacle and a rotatable roller having its lower part below the oil level, the roller having helically-inclined peripheral ribs disposed at a sharp angle to the roller axis.

2. A hog-oiler comprising a suitable oil receptacle, and a hollow, horizontally-rotatable pervious roller therein having helically-inclined peripheral ribs disposed at a sharp angle to the roller axis.

3. A hog-oiler comprising an oil receptacle, a rotatable horizontal roller therein, conical journals on the ends of the roller, and bearings on the receptacle to support the journals, said journals being extended a distance through the bearings, and said bearings comprising plates on the receptacle having upright ears on opposite sides of and curved partly over the journals.

4. A hog-oiler comprising an oil receptacle an ellipsoidal roller therein, having helically-inclined peripheral ribs inclined at an acute angle to the roller axis, conical journals on the ends of the roller, and bearings on the receptacle to support the journals, the journals being extended a distance through the bearings.

5. A hog-oiler comprising an oil receptacle, an ellipsoidal roller therein having inclined peripheral ribs inclined at an acute angle to the roller axis, said roller comprising duplicate abutting halves, the meeting faces of the halves being transverse to the roller axis, conoidal journals on the ends of the roller, a rod extending axially through the roller, conical nuts threaded on the ends of the rod to secure the halves, each to the other, and form apexes on the journals, and bearings mounted on the receptacle to support the journals, the apexes being extended through the bearings.

6. A hog-oiler comprising an oil receptacle, an ellipsoidal roller therein having helically-inclined peripheral ribs inclined at an acute angle to the roller axis, said roller comprising duplicate abutting halves the meeting faces of the halves being transverse to the roller axis, conoidal journals on the ends of the roller, a rod extending axially through the roller, conical nuts threaded on the ends of the rod to secure the halves, each to the other, and form apexes on the journals, and bearings for the journals comprising plates mounted on the receptacle and having upright ears disposed on opposite sides of and curved partly over the journals, and concave flanges to support the under sides of the journals.

In testimony, whereof, I have hereunto set my hand this 3rd day of August, 1916.

ELIAS RIZK.