

No. 744,367.

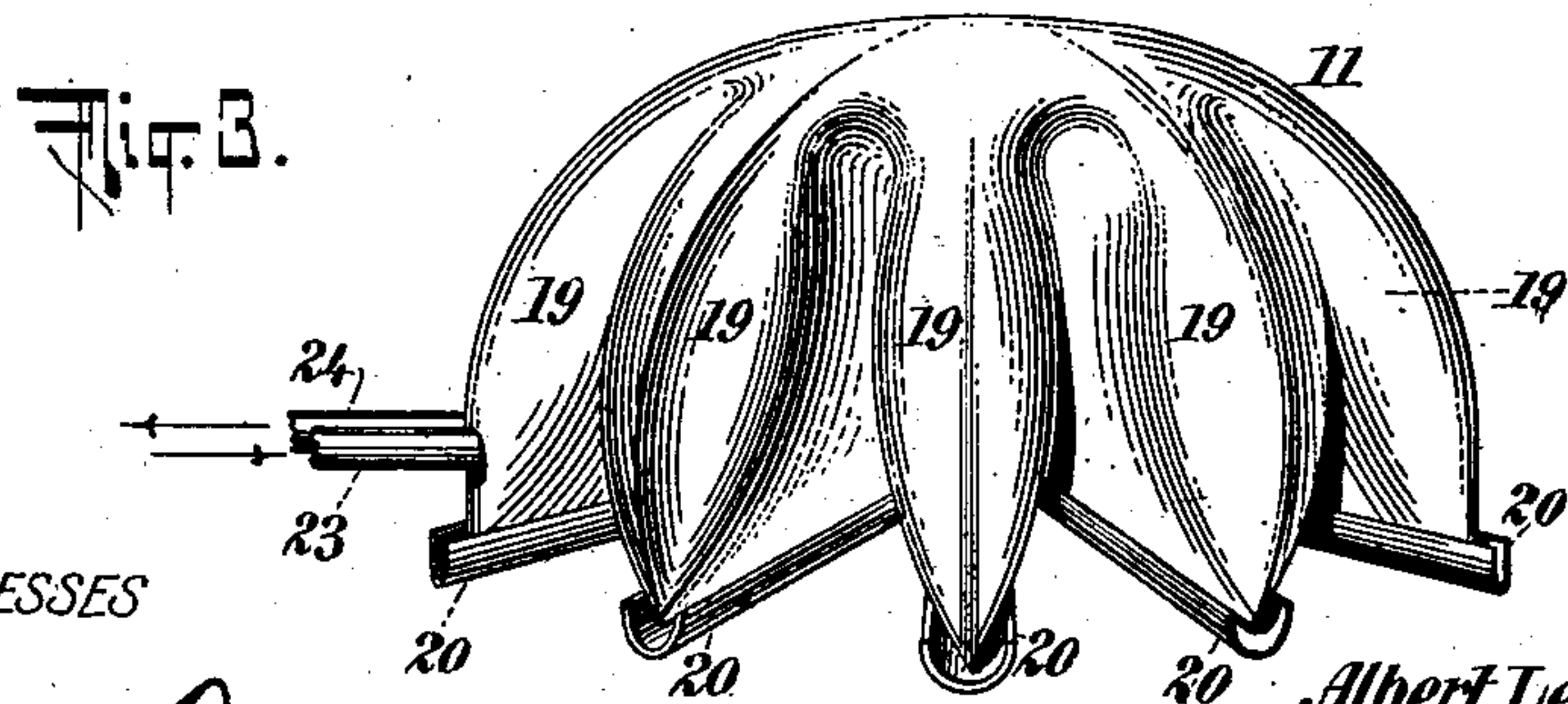
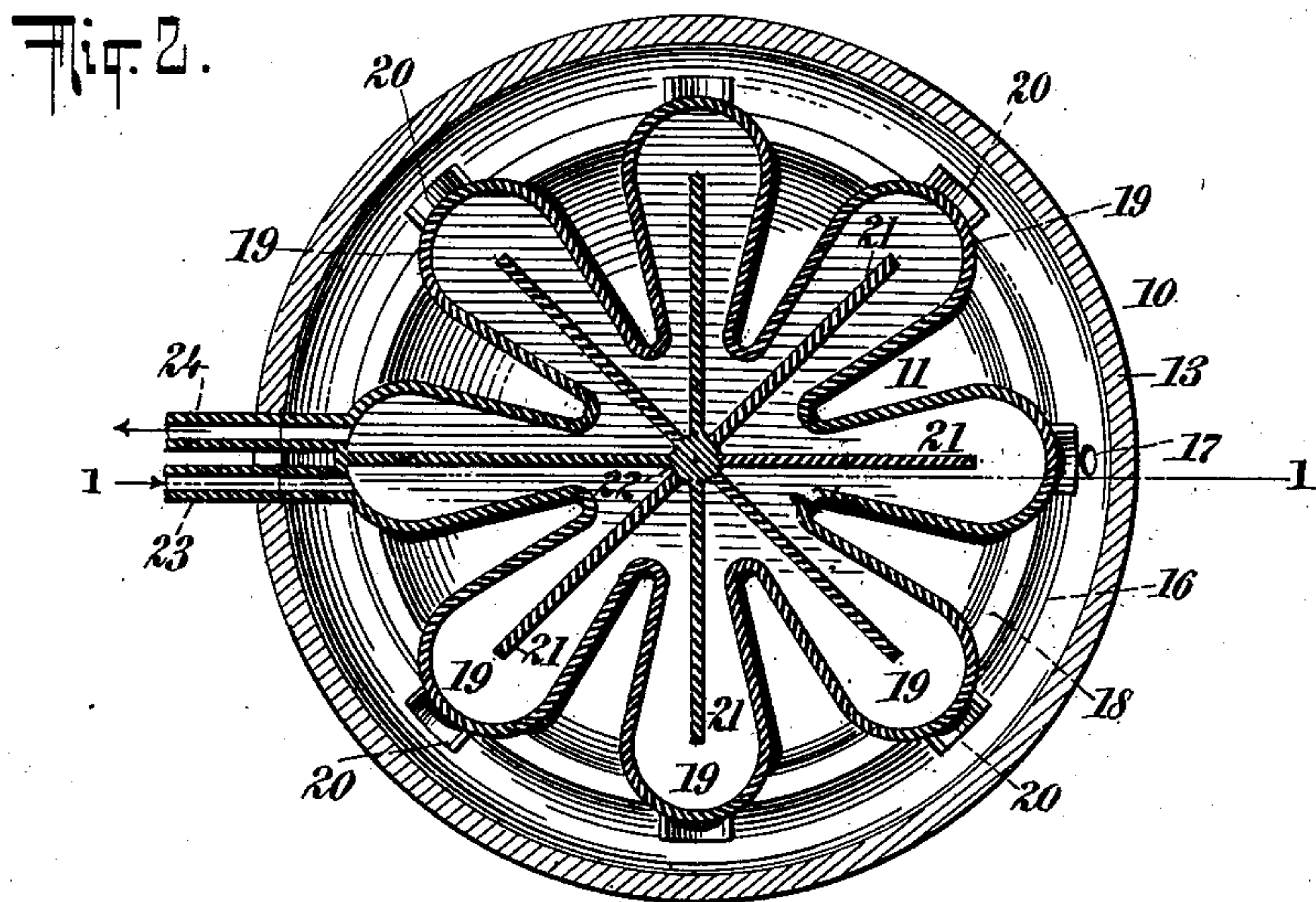
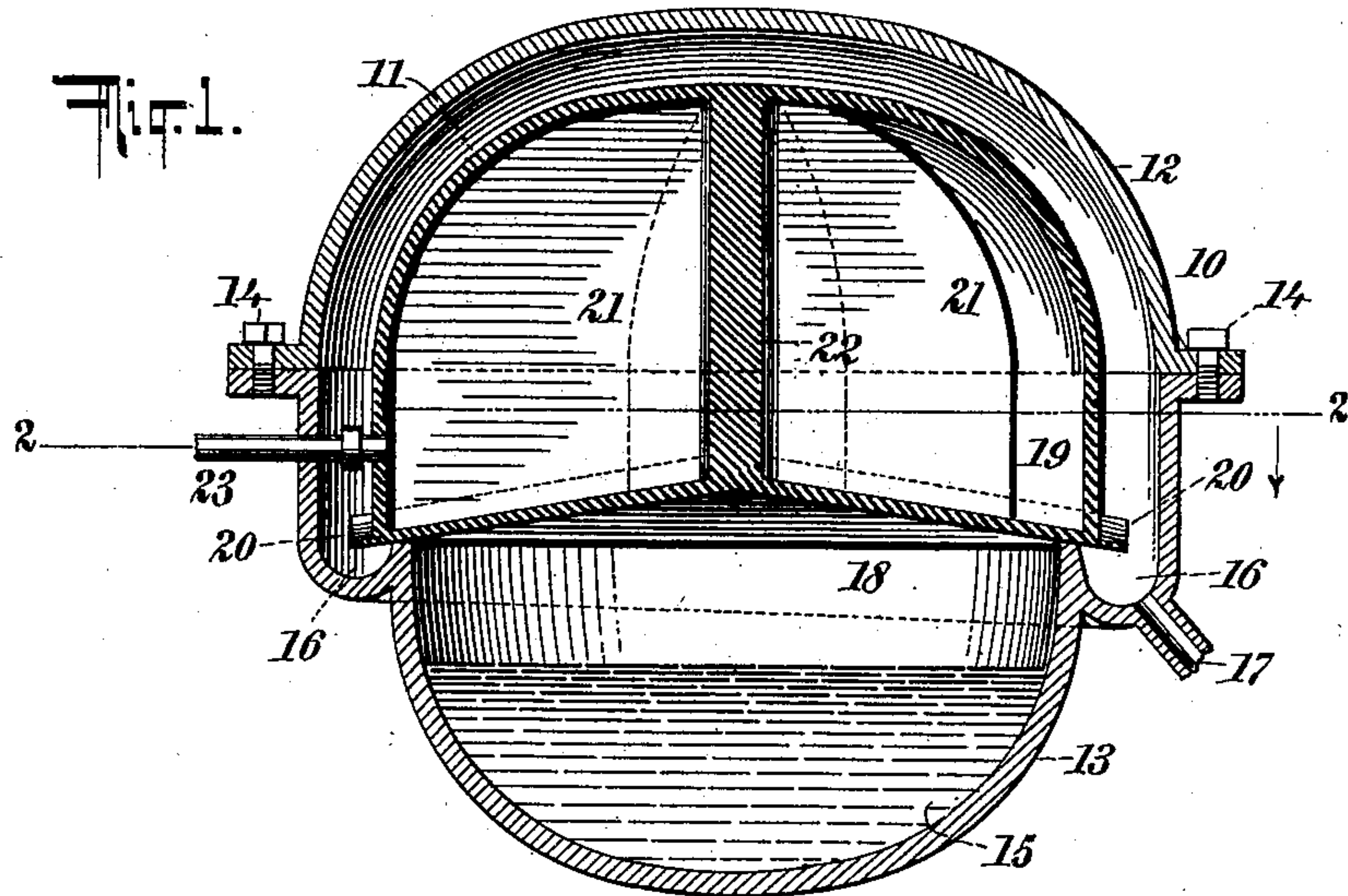
PATENTED NOV. 17. 1903.

A. LE C. DE LAUTREPPE.

STILL.

APPLICATION FILED MAR. 28, 1903.

NO MODEL.



WITNESSES

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STILL.

SPECIFICATION forming part of Letters Patent No. 744,367, dated November 17, 1903.

Application filed March 28, 1903. Serial No. 149,975. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LE COCQ DE LAUTREPPE, a citizen of France, and a resident of New York, in the county of New York
5 and State of New York, have invented certain new and useful Improvements in Stills, of which the following is a specification.

The invention relates to improvements in stills or condensers; and it consists in the
10 novel features, arrangements, and combinations of parts hereinafter described, and particularly pointed out in the claims.

The object of the invention is to provide a novel construction of still affording maxi-
15 mum cooling and evaporation surfaces and in which the greatest capacity with the minimum amount of fuel may be secured.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying
20 drawings, in which—

Figure 1 is a substantially central vertical section through a still constructed in accordance with and embodying my invention, the
25 section being on the dotted line 1 1 of Fig. 2. Fig. 2 is a horizontal section of same on the dotted line 2 2 of Fig. 1; and Fig. 3 is a detached perspective view of the condenser, constituting an interior portion of the still.

30 In the drawings, 10 designates the casing of the still, and 11 the condenser portion thereof, this condenser being detachably mounted within the casing 10 and the said casing being composed of the upper and lower
35 sections 12 13, suitably flanged and adapted to be secured together by bolts 14. The upper section 12 is in the nature of a hood or dome, and the lower section 13 serves as a receptacle for a liquid 15 and is formed with
40 the annular inclined trough or gutter 16 for receiving the products of condensation and leading the same to a suitable outlet or delivery-pipe 17. The trough or gutter 16 is formed between the upper side walls of the
45 section 13 and the interior vertical annular flange 18, as is clearly illustrated, and the upper edges of this flange 18 constitute an appropriate support for the condenser 11.

50 The condenser 11 is of special configuration and construction and comprises an exterior shell having a series of radial sections

19, each of somewhat elliptical form when viewed from its outer edge and each constituting at its interior a chamber communicating with the general chamber of said con- 55 denser. Each of the sections 19 furnishes evaporation-surfaces, and each section 19 is separated by a space from the adjoining sections 19, so that the ascending vapors may freely pass between said sections and move 60 laterally along the surfaces thereof. The sections 19 taper or converge toward their upper and lower ends and also taper or converge inwardly, radially considered, and the lower contracted edges of the sections 19 65 inclined downwardly and outwardly on diverging lines and are equipped with the troughs or gutters 20 to receive the products of evaporation from the exterior surfaces of said sections 19 and convey the same to the 70 gutter 16, whence said products pass to the delivery-pipe 17. The condenser 11 is of a general outline harmonizing with the interior outline of the upper portion of the casing 10, as illustrated in Fig. 1, and within the con- 75 denser 11 is provided the series of radial partitions 21, extending from a central post 22 into the several sections 19, as shown in Fig. 2, and one of which sections 19 is provided with an inlet-pipe 23 and an outlet-pipe 24, 80 and said section so provided with such pipes having its partition 21 extended outwardly to the outer edge of the section, so as to effectually separate the incoming current of the cooling agent from the outgoing current 85 thereof, while the partitions 21 in the other sections 19 do not at their outer edges extend to the outer edges of the sections 19, but stop short thereof, so that the cooling agent may circulate into and around the extreme outer 90 ends of said sections. The partitions 21 serve as means for directing and guiding the cooling agent on its passage from the inlet-pipe 23 and through the condenser 11 and to the outlet-pipe 24, and it will be observed upon 95 reference to Fig. 2 that the cooling agent entering through the pipe 23 will be by the partitions 21 compelled to make a complete circuit along both of the inner sides of each of the sections 19 of the condenser before it can 100 escape through the outlet-pipe 24, the cooling agent being thus compelled to reach and move

against all of the inner surfaces of the condenser 11.

The condenser 11 of the form and construction presented affords on its exterior maximum condensation-surfaces, and with this condenser having the series of radial partitions 21 the greatest efficiency may be secured.

In use the liquid 15 to be evaporated will be placed within the lower section 13 of the exterior casing 10, and the condenser 11 will find a support upon the flange 18, and the whole will be inclosed by the upper section or dome 12. The heat will be applied to the lower section of the casing 10, and the ascending vapors will pass along the exterior surfaces of the condenser 11, and the latter being cooled by the circulation of the cooling agent the products of condensation will travel down the same and enter the troughs or gutters 20, passing thence and by means thereof to the main trough or gutter 16, the latter also receiving any products of condensation which may pass down the inner walls of the upper portion of the casing 10.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The still comprising the exterior casing and inner condenser, the latter comprising a shell or casing having the series of radial sections 19 containing the partitions 21, with an inlet and an outlet for a cooling agent to said condenser, and means for collecting the products of condensation; substantially as set forth.

2. The still comprising the exterior casing having the trough 16 leading to a delivery 17, and the inner condenser composed of the radial sections 19 containing the radial parti-

tions 21 and having at their lower edges the troughs 20 leading to said trough 16, with an inlet and an outlet for the cooling agent to said condenser; substantially as set forth.

3. The still comprising the exterior casing having the trough 16 leading to a delivery 17, and the inner condenser composed of the radial sections 19 having at their lower edges the troughs 20 leading to said trough 16, with means for compelling the circulation of a cooling agent through the interior of said condenser; substantially as set forth.

4. In a still the condenser 11 comprising a shell having the series of radial sections 19 contracted at their lower edges, the troughs at the lower edges of said sections, and means for compelling the circulation of a cooling agent through the interior of the condenser, with means for receiving the products from said troughs; substantially as set forth.

5. The still comprising the exterior casing forming in its lower part the receptacle for the liquid, the condenser 11 mounted within said casing over said receptacle and comprising the shell having the series of radial sections 19, the inlet and outlet to and from said condenser for the passage of the cooling agent to and from the same, and means for collecting the products of condensation passing downward from the exterior walls of said sections 19; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 26th day of March, A. D. 1903.

ALBERT LE COCQ DE LAUTREPPE.

Witnesses:

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CHAS. C. GILL.