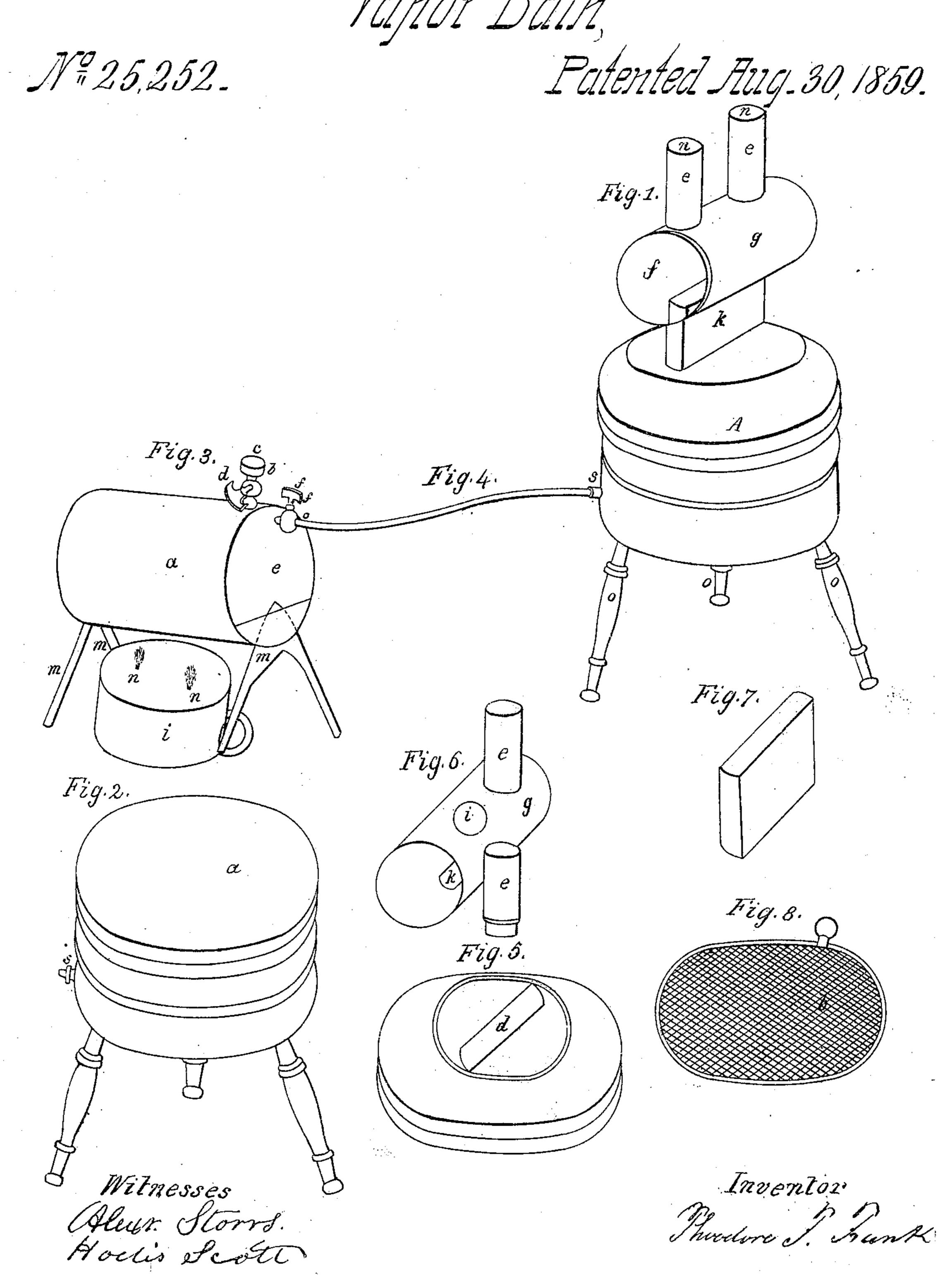
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## UNITED STATES PATENT OFFICE.

THEODORE F. FRANK, OF ISCHUA, NEW YORK.

## OPHTHALMIC VAPOR APPARATUS.

Specification of Letters Patent No. 25,252, dated August 30, 1859.

To all whom it may concern:

Be it known that I, THEODORE F. FRANK, of Ischua, in the county of Cattaraugus, in the State of New York, have invented a new 5 and Improved Apparatus, which I call the "Ophthalmothological Vapor - Bath," for Producing Medicated Vapor for the Treatment of Diseased Eyes; and I do hereby declare that the following is a full and exact 10 description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the construction of the apparatus which I call 15 the ophthalmothological vapor bath to be used in the process of disengaging the medical properties from drugs by steam, and bringing the medicated vapor produced therefrom into an applicable condition to

20 the eye.

To enable others to make use of my invention I will proceed to describe it, and

its construction and operations.

Instead of medicating diseased eyes with 25 crude drugs mixed with lard, alcohol or any other vehicle, and making anodyne opium or some other narcotic applications mixed with lard, according to the former practice which always to a greater or less extent ac-30 cording to its density and substance seems of itself to irritate and inflame the eyes when inserted into or applied in the usual way; I use the ophthalmothological vapor bath consisting of a small boiler with a vul-35 canized rubber tube extending therefrom, through which the steam is conveyed to a reservoir, where the medicated vapor is produced, and from thence emitted through an open cylinder or cooling department to and 40 through the eye tubes to the diseased eyes, as represented by Figure one (1) in the annexed drawing. And I do hereby declare, that the following is a full, clear, and exact description of the construction and operation of 45 the same, reference being had to the annexed drawings making a part of this specification in which—

Figures one (1), three (3) and four (4) form a representation or perspective view of 50 the entire apparatus in working condition, in which Fig. one (1) represents the reservoir cooling department and eye tubes where the medicated vapor is produced, and from thence emitted through the open cylin-55 der or cooling department to and through the eye tubes, to the diseased eyes, in which

letter "A" represents the reservoir; letter "k" represents a tube inserted into the cover of the reservoir, through a corresponding aperture, the upper end of which tube is 60 inserted into an aperture in the open cylinder or cooling department "G"; letter "g" is the open cylinder or cooling department, open at each end for the admission and circulation of cold air, in which letter "f" rep- 65 resents the open end; letters "E" "E" represent the eye tubes, which are inserted into the open cylinder or cooling department, through which the medicated vapor is conveyed through the apertures marked "n" "n" 70 in the eye tubes, to the eyes; letter "s" represents a tube attached to the reservoir, and to which the vulcanized india rubber tube is attached. Letters "o" "o" "o" represent legs.

Fig. four ("4") represents a vulcanized india rubber tube, one end of which is attached to reservoir, as represented at letter "S", the other to the boiler as represented at letter "O" for communicating steam 80

from the boiler to the reservoir.

Fig. "3" represents a small boiler in which letter " $\bar{a}$ " represents the side view thereof; letter "b" represents a funnel, constructed for the admission of water or spir- 85 its into the boiler. Letter "c" represents the open cup at the top of the funnel, and into which water or spirits are poured. Letter "d" represents a cock so constructed as to prevent the escape of steam and admit 90 the passage of liquids into the boiler. Letter "f" represents a cock constructed in such form that by turning will allow the escape of steam, from the boiler into tube Fig. "4" at the aperture in the boiler as represented 95 at letter "o." Letter "e" represents the head of the boiler. Letters "m" "m" "m" represent legs of the boiler. Letter "i" represents a spirit lamp, in which letters "n" "n", represents the wick and blaze by 100 which means the boiler is heated by placing the lighted lamp under the boiler as represented at Fig. (3).

Fig. "2" represents a separate view of the reservoir, in which letter " $\alpha$ " represents 105 the opening at the top, and letter "b" represents a very fine sieve, made to fit opening "a" and which is inserted therein, and let down upon a shoulder about one inch above tube "s"; upon this sieve drugs are placed 110 of the kind and quality desired, and the cover, and all the parts connected, are at-

tached, as represented at Fig. "1", when the steam is emitted into the reservoir below the drugs, and by the action of the steam upon the drugs medicated vapor is produced.

5 Fig. "5" represents a separate view of the cover for the reservoir, in which letter "d" represents the opening into which a tube, letter "k" is inserted.

Fig. "7" represents a separate view of

10 the tube lastly above mentioned.

Fig. "6" represents a separate view of the open cylinder, or cooling department, together with the eye tubes "e" "e".

The reservoir and cooling department are 15 to be manufactured, of metal, glass, or earthenware according to the nature of the medicines used.

The advantages gained by the use of the ophthalmothological vapor bath in the treat-20 ment of the eye when diseased consists in the application to the eye of medicated vapor, of an agreeable temperature so as to be borne without pain or inconvenience to the patient. Inflammations, pains, and all other 25 diseases of the eye are without any disagree-

able sensations to the patient alike successfully treated by this process; whereas under the old system of practice medicines are introduced into the eye, in the form of salves and washes or some kind of crude substance, 30 which if inserted into the healthy eye, would in a greater of less degree, produce pain, inflammation or other injurious results.

All kinds of remedies can be applied by my system of treatment, tonic, astringent, 35 stimulant, and anodynes. Water or some other appropriate liquids may be used in the boiler, so as to disengage the medical properties from the drug or mineral substance employed in the treatment.

What I claim as my invention and desire

to secure by Letters Patent is—

The ophthalmothological vapor bath, constructed and operating as hereinbefore described for producing medicated vapor.

## THEODORE F. FRANK.

Witnesses:

GEORGE CHAMBERLIN, Bela Norton.