

Jan. 23, 1951

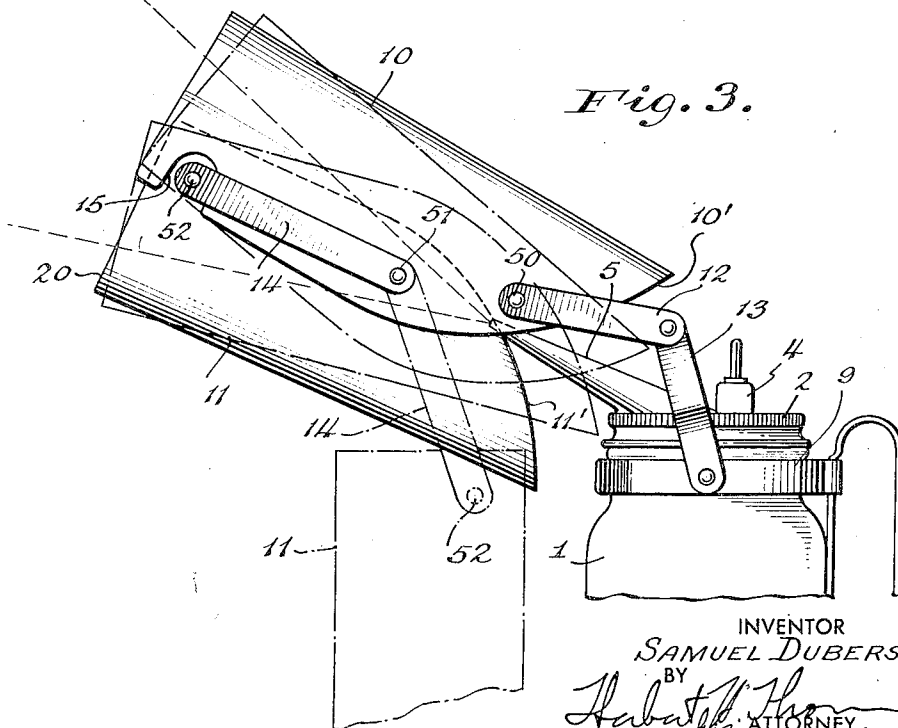
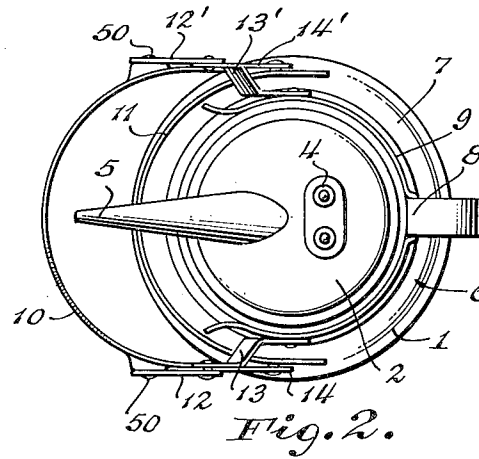
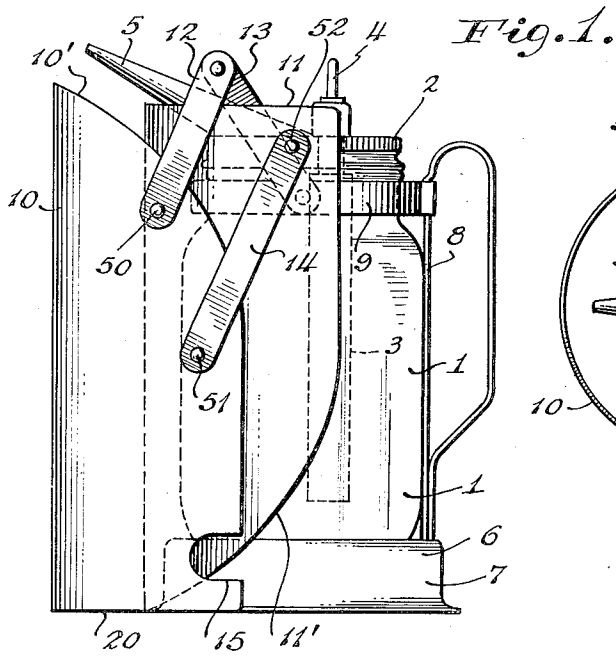
S. DUBERSTEIN

2,538,934

STEAM HOOD FOR VAPORIZERS

Filed May 27, 1946

2 Sheets-Sheet 1



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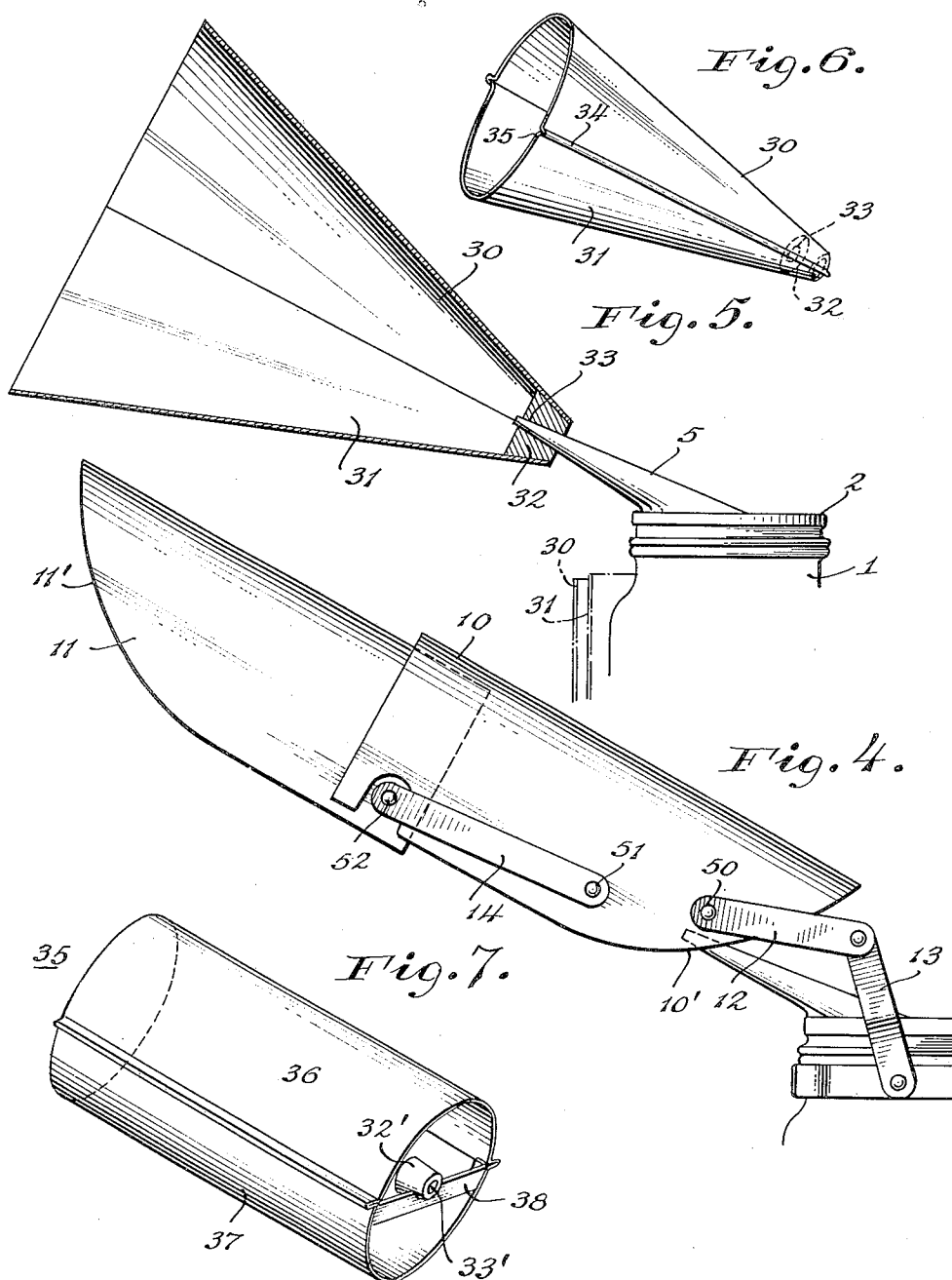
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STEAM HOOD FOR VAPORIZERS

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2 Sheets-Sheet 2



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STEAM HOOD FOR VAPORIZERS

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tion of New York

Application May 27, 1946, Serial No. 672,556

5 Claims. (Cl. 128-192)

1 This invention relates to steam vaporizers of the type commonly used in the sick room to relieve respiratory ailments. More particularly, my invention constitutes an improvement upon the auxiliary hoods or guiding shields for the steam plumes discharged from such vaporizers, a prior type of such hood being shown in my prior joint patent with N. Lawner, No. 2,123,509, dated July 12, 1938 for Electric Vaporizers.

An object of the present invention is to improve the hood so that a greater concentration of steam may be secured for the patient to breathe. This is accomplished by constructing the hood so as to completely enclose the steam plume instead of shielding it only at the top as in the prior invention. In addition to securing a shield which completely encloses the plume, I also so design the same so that it may be folded against the main container so that the whole may be packed readily for shipping or storing in almost as small a space as the prior simple type of shield. In one form of my invention, it may be so folded as to form an extra long shield for special uses.

Referring to the drawings, in which several forms of my invention are shown,

Fig. 1 is a side elevation of my improved complete shield with the parts folded in a position for shipment or storage;

Fig. 2 is a plan view of the same;

Fig. 3 is a side elevation of the same showing the hood in use and enclosing the steam plume, and also showing by dotted lines several different positions the parts may assume;

Fig. 4 shows a further shape the shields may assume if the patient is located at a distance from the vaporizer;

Fig. 5 is a vertical section of a modified form of shield in which the shield is conical shape and fits directly on the spout of the vaporizer;

Fig. 6 is a perspective view of the form of shield shown in Fig. 5;

Fig. 7 is a side elevation of a still further form of the invention in which the shield is in the form of a split hollow cylinder as in Fig. 1, but is detachably mounted on the spout as in Fig. 5.

The vaporizer itself may be of any suitable form, being shown as comprising a glass jar 1 having a detachable top 2 to which is secured the heating electrodes 3, which project downwardly into the water in the jar and through which electrodes electric current is supplied by means of the prongs or terminals 4 projecting above the top. On the top is also a conical spout 5 or nozzle through which the steam is discharged. The device may be used either with or without added

2 medicine which may be placed either in the container 1 or in a separate container, not shown, as more fully described in my prior Patent No. 2,123,509 for Electric Vaporizer.

5 The jar is shown as normally held in an open-work sheet metal stand 6, having a base 7, one or more uprights 8 and a top spring ring 9 open at the front to receive the jar.

My improved shield is made in two or more complementary parts which when in place form a funnel for the guidance of the steam plume. As shown the parts are in the form of upper and lower hollow sheet metal half-cylinders 10 and 11 preferably rounded or tapering at one end 10' and 11' of each. The upper half is hinged to the top ring 9 through a plurality of pivoted links 12, 13, 12', 13', connected to points 50 located near the rear end of this shield. The pivot points being sufficiently tight to hold the shields in adjusted position, but not too tight to interfere with ready adjustment. The bottom half is hinged at each side to the top half at intermediate points 51 through other links 14, 14', hinged to the bottom shield at points 52 near the front thereof. All pivots also being sufficiently tight to hold the shields in the adjusted position. Links 14 and 14' are pivoted to the upper shield at points intermediate its ends. In one operating position, as shown in full lines in Fig. 3, the upper and lower shields form a hollow generally cylindrical shield around the steam plume with the upper edge of the lower half fitting within the lower edge of the upper half. The points of attachment or hinges 51 of the links 14 to the lower shield enter slots or cut-out portions 15 on each side which are formed for this purpose in each under edge of the upper shield. If a cone-shaped shield is desired the tapered parts of the shields adjacent the steam spout are pressed partially together, as shown by dotted lines in Fig. 3, thus spreading the open ends.

If a longer shield is desired, the two parts may be folded as shown in Fig. 6, in which case both shields lie above the steam plume, but the lower half extends beyond the upper half so as to give a shield of almost twice the length obtained when the shield is folded as shown in Fig. 3. In this case also, the pivot points 51 connecting the normally lower shield to the links 14, lie within the cut-out portions 15.

For shipment and also for storage the two shields are readily folded as shown in Fig. 1. To accomplish this purpose, the lower shield may be first folded within the upper shield with the tapered end 11' which faces inwardly in Fig. 3

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and opposed tapered end 10' of shield 10 reversed so as to lie adjacent the squared end 20 of the upper shield. The two shields are then rotated downwardly on the links 12, 13 to clear spout 5 so that the shields interfit and partially enclose the vaporizer in the front. This forms a very compact arrangement which may be packed in almost as small a space as that occupied by the half shield device of the prior art.

Figs. 5 and 6 show a very simple form of the invention in which a generally conical shaped shield is employed. In this case also, the shield is made of two parts 30 and 31. The parts in this case being separable so that they may be taken apart, removed from the vaporizer and folded against the same for shipment, as shown in dotted lines in Fig. 5. One of the halves of the shield is fitted with a metal attaching member 32 having a conical shaped opening 33 to fit over the steam spout 5 and to hold the part in place when in use. The two halves are provided with inter-fitting edges 34 and 35 so that one half may be readily detached from the other by sliding or bending.

Still a third form of the invention is shown in Fig. 7. In this form the shields when in use are in the shape of a cylinder 35. The cylinder is again split into two parts 36 and 37 so that it may be separated and folded against the container for shipment and storage. In this case one end of one of the halves is provided with a cross bar 38 to which the member 32' containing the conical hole 33' is secured for mounting on the steam spout as in Fig. 5.

From the foregoing, the operation of my invention and its utility will be readily apparent.

Since many changes could be made in the above construction and many widely different embodiments could be made without departing from the scope thereof, it is intended that all matter contained in the above description and shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A two part steam directing means for vaporizers comprising a pair of hollow, complementary half-cylinders, a double link hinging one part adjacent one end to the vaporizer and a link hinging the other part adjacent one end to the first part at an intermediate point in such manner that the two parts may be folded to form complementary guides for the steam plume or alternatively folded one within the other to lie against the vaporizer for shipment.

2. A steam directing metallic shield for vaporizers, comprising a curved semi-cylindrical half

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shield pivoted to the vaporizer, a complementary half shield, a link pivoting the latter to said first half at a point adjacent the near end of the latter and at an intermediate point on the first half, whereby the second half may form either a cylindrical guide complementary to the first half or be folded forwardly upside down to form an extension of the first half shield.

3. A two part steam directing means for vaporizers, comprising a pair of hollow half-cylinders, a pair of hinged links on each side of one part for hinging it to the top of the vaporizer, a link on each side of the cylinders hinging them together, said link being pivoted near the middle of the first-mentioned part and near one end of the second-mentioned part, whereby the two parts may be folded to form complementary guides for the steam plume or to form an extended upper guide for said plume, or folded one within the other to lie against the vaporizer for shipment.

4. A steam directing means for vaporizers, comprising a first or upper curved shield, a pair of links at each side thereof pivoting it to the vaporizer, with its concave side normally facing downwardly, a second or lower complementary shield, a link at each side thereof adjacent the near end, and attached to the first shield near its middle with its concave side normally facing upwardly, whereby the second shield may form either a lower guide complementary to the first shield or alternatively folded within the first shield and both shields folded against the side of the vaporizer.

5. A steam directing means for vaporizers as claimed in claim 2, wherein the first half has a cut-out portion within which the pivot connecting the second half to its link lies when the two halves are folded to form an extended shield.

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REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
1,514,682	Wilson	Nov. 11, 1924
2,329,536	Hettinger	Sept. 14, 1943

OTHER REFERENCES

Advertisement of American Sundries Co. on advertising page 28 of Journal American Medical Association for January 7, 1933.