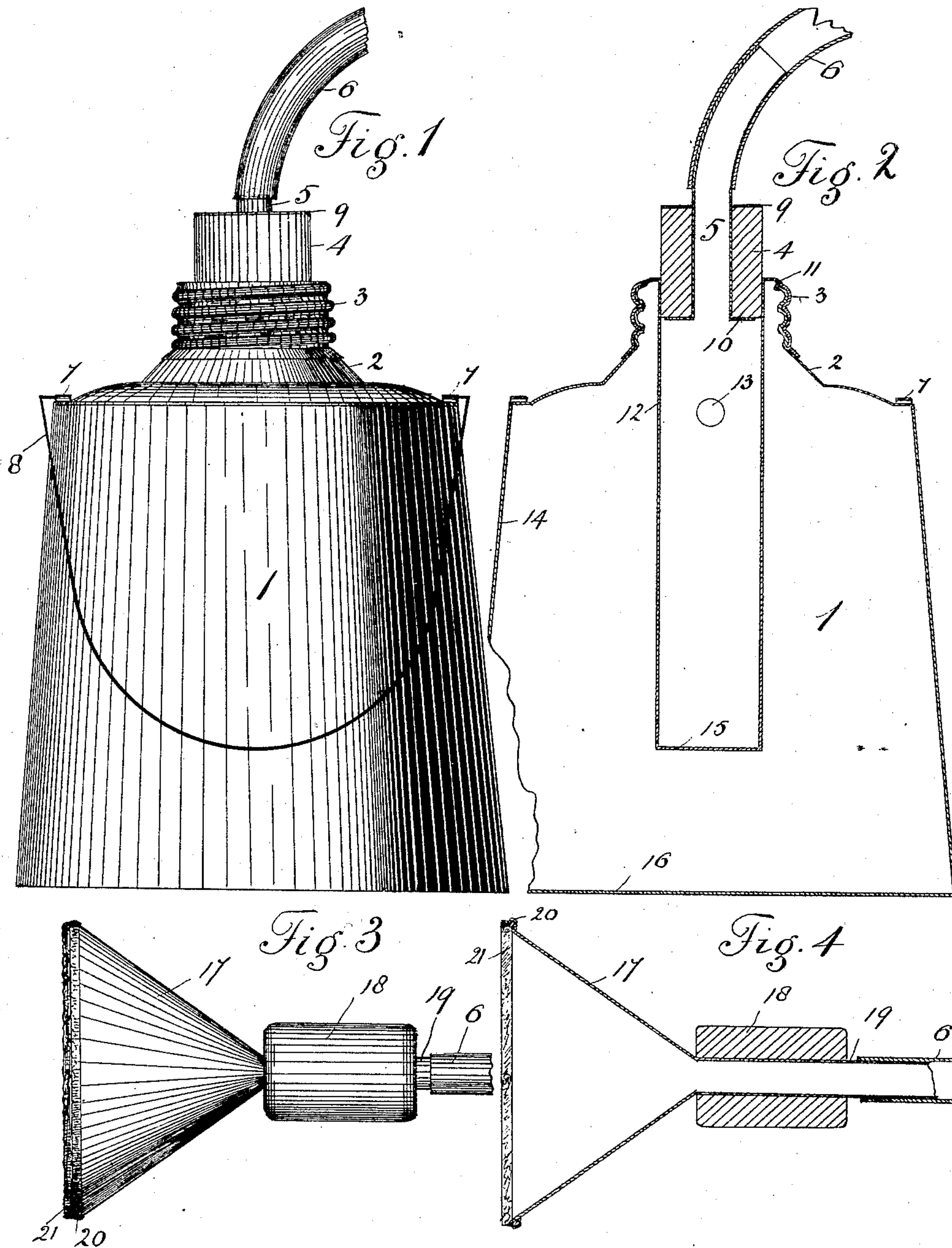


(No Model.)

J. S. KINNEAR.  
INHALER.

No. 433,597.

Patented Aug. 5, 1890.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN S. KINNEAR, OF GOLDEN, COLORADO.

## INHALER.

SPECIFICATION forming part of Letters Patent No. 433,597, dated August 5, 1890.

Application filed February 26, 1890. Serial No. 341,829. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. KINNEAR, a citizen of the United States, residing at Golden, in the county of Jefferson and State of Colorado, have invented certain new and useful Improvements in Inhalers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a new and improved form of inhaler; and the object of my improvement is to provide a device of the class stated adapted for the vaporization and volatilization of medicinal remedies and for the administration of the vapors of the same in a more or less diluted form, as may be desired, to the nasal passages as well as to the throat and lungs, to produce an inhaler which shall be of simple construction, economical in cost, easily and safely operated, reliable, durable, and efficient for the purpose intended.

To these ends my invention consists of the features more particularly hereinafter described and claimed.

In the drawings is illustrated an embodiment of my invention, in which drawings—

Figure 1 is a side elevation of my improved device; Fig. 2, a vertical section taken through its center, a portion of the wall being broken away for lack of space; Fig. 3, an elevation of the piece of my improvement adapted to fit over the nose; Fig. 4, a longitudinal section of the same.

In the views, the reference-numeral 1 designates a bucket or vessel of suitable size and material having walls 14. This bucket or vessel is provided with ears 7 and a bail 8. The top 2 may be secured to vessel 1 by soldering or in any suitable manner, or it may be made separate and distinct from and be removably secured thereto, as in the ordinary covered pails, or it may be made integral therewith, as shown in the drawings. Within this cover is formed a suitable aperture surrounded by a threaded collar or short tube 11, secured to the cover.

12 designates a suitable receptacle wherein is placed the remedy or medicine which it is

desired to volatilize and the vapor of which it is desired to administer to the nose, throat, and lungs. This receptacle consists of a tubular-shaped still small enough to enter the aperture surrounded by collar 11 and adapted to extend considerably below said aperture, said receptacle being provided at its upper extremity with a flange or collar 3, secured therearound and extending first outwardly from the receptacle and then downwardly, forming in effect a kind of canopy around the top of the receptacle and being threaded, the threads thereof being adapted to engage the threads of collar 11. In the wall of said receptacle or still and near the upper extremity thereof is placed one or more apertures 13, thus forming an exit or vent for the escape of the steam or vapor formed in vessel 1.

The reference-numeral 4 designates a stopper adapted to close the upper extremity of still 12 hermetically on the outside and having a suitable tube 5, passing therethrough and secured therein by suitable plates or washers 9 and 10, soldered or otherwise secured thereto. This stopper is made, preferably, of india-rubber or other resilient material, adapting it to close tightly the upper extremity of still 12. Though tube 5 is preferably curved, as in Figs. 1 and 2, it may be straight or of any shape desired.

Tube 5 is connected to the piece which fits over the nose by a suitable tube 6, which is preferably composed of india-rubber or other suitable flexible or pliant material. This nose or mouth piece is shown in elevation in Fig. 3 and in section in Fig. 4, and consists of a flattened funnel-shaped piece 17, made of tin, glass, vulcanite, or other suitable material, and having a tube 19 extending from its apex, said tube being adapted to fit in flexible tube 6. Surrounding tube 19, near the apex of funnel-shaped nose-piece 17, is a large piece of cork, wood, or other material, which is a good non-conductor of heat, forming a convenient handle 18, and being adapted to be grasped by the hand of the operator while using my improved device. Around or on the edge of funnel-shaped nose-piece 17 is secured, by gluing, pasting, or by sewing through apertures made in the edge thereof, or in any other suitable manner, a piece of felt, flannel, cotton, or other soft downy material 21, adapt-



ing it to fit closely to the face without pain-  
ing the same and preventing the escape of  
the vapors arising from the remedy contained  
in receptacle or still 12.

5 In the use of my improved device water or  
other suitable liquid is placed in bucket 1,  
care being taken that there be not enough to  
enter receptacle or still 12 through apertures  
13 when said still is in operative position.  
10 Receptacle or still 12 is then placed through  
the aperture surrounded by collar 11 and the  
cap or canopy 3 screwed down upon collar 11.  
It will be observed that now there is no es-  
cape for the vapors arising from the liquid in  
15 bucket 1 except through vent or vents 13 and  
thence through tube 6. The remedy or medi-  
cine—as, for example, oil of tar—the vapors of  
which it is desired to administer to the patient  
is placed in receptacle or still 12, stopper 4,  
20 with its connections, placed in position, and  
heat applied to the contents of vessel 1 in any  
suitable manner and to any desired degree.  
As a matter of fact, the contents of vessel 1  
will become heated and give off vapor before  
25 a degree of heat sufficient to cause the con-  
tents of still 12 to send off vapor in a propor-  
tionate profusion has been communicated  
thereto, thereby allowing the vapors of the  
remedial contents of receptacle or still 12 to  
30 be applied to the mucous lining of the throat  
and nose in a diluted form at first. As this  
process proceeds, the contents of still 12 grad-  
ually arrive at the same temperature as the  
contents of bucket or vessel 1. If the medi-  
35 cine is in a solid form, it has been transformed  
to a liquid, and thus the vapors arising in  
gradually-increasing quantities from the re-  
medial medicine and mixing with the compara-  
tively constant quantity arising from the con-  
40 tents of bucket 1 and passing through aper-  
tures 13, gradually raise the mixture, which  
passes through tube 6, and is inhaled by the  
patient through the nose-piece 17 to its maxi-  
45 gradual increase in strength of the vapors

will have a tendency to accustom the mucous  
lining of the throat and nose to the stronger  
vapors without rendering it raw and making  
the treatment disagreeable, injurious, and  
painful, thereby rendering the treatment more 50  
pleasant and advantageous than by the use  
of ordinary inhalers.

Having thus described my invention, what  
I claim is—

1. In an inhaler, the main vessel 1, provided 55  
with a close-fitting cover, having an aperture  
surrounded by a threaded collar 11, the in-  
ner vessel or still 12, adapted to fit within the  
aperture in the cover, said still being pro-  
vided with an aperture 13, and a threaded 60  
canopy 3, adapted to screw upon collar 11, the  
stopper 4 and tube 5 passing therethrough,  
substantially as described.

2. In an inhaler, the main vessel 1, the medi- 65  
cine-receptacle 12, adapted to fit within ves-  
sel 1 and provided with apertures 13 and  
threaded canopy 3, the stopper 4, adapted to  
seal tightly the upper extremity of recepta-  
cle 12, said stopper being composed of india-  
70 rubber or other good non-conductor of heat  
and having a tube 5 passing therethrough,  
said tube being secured therein by washers  
9 and 10, and the nose-piece 17, connected to  
the inhaler by the flexible tube 6, substan- 75  
tially as described.

3. The combination, with a suitable inhaler,  
of a tube connected therewith and adapted  
to carry the vapors therefrom, said tube being  
provided with a suitable nose or mouth piece  
17, located at its outer extremity, and a handle 80  
18, attached thereto and suitably located there-  
on, said handle being formed of cork or other  
material being a good non-conductor of heat,  
substantially as described.

In testimony whereof I affix my signature 85  
in presence of two witnesses.

JOHN S. KINNEAR.

Witnesses:

AL. TOWNSEND,  
A. S. PETTIT.