

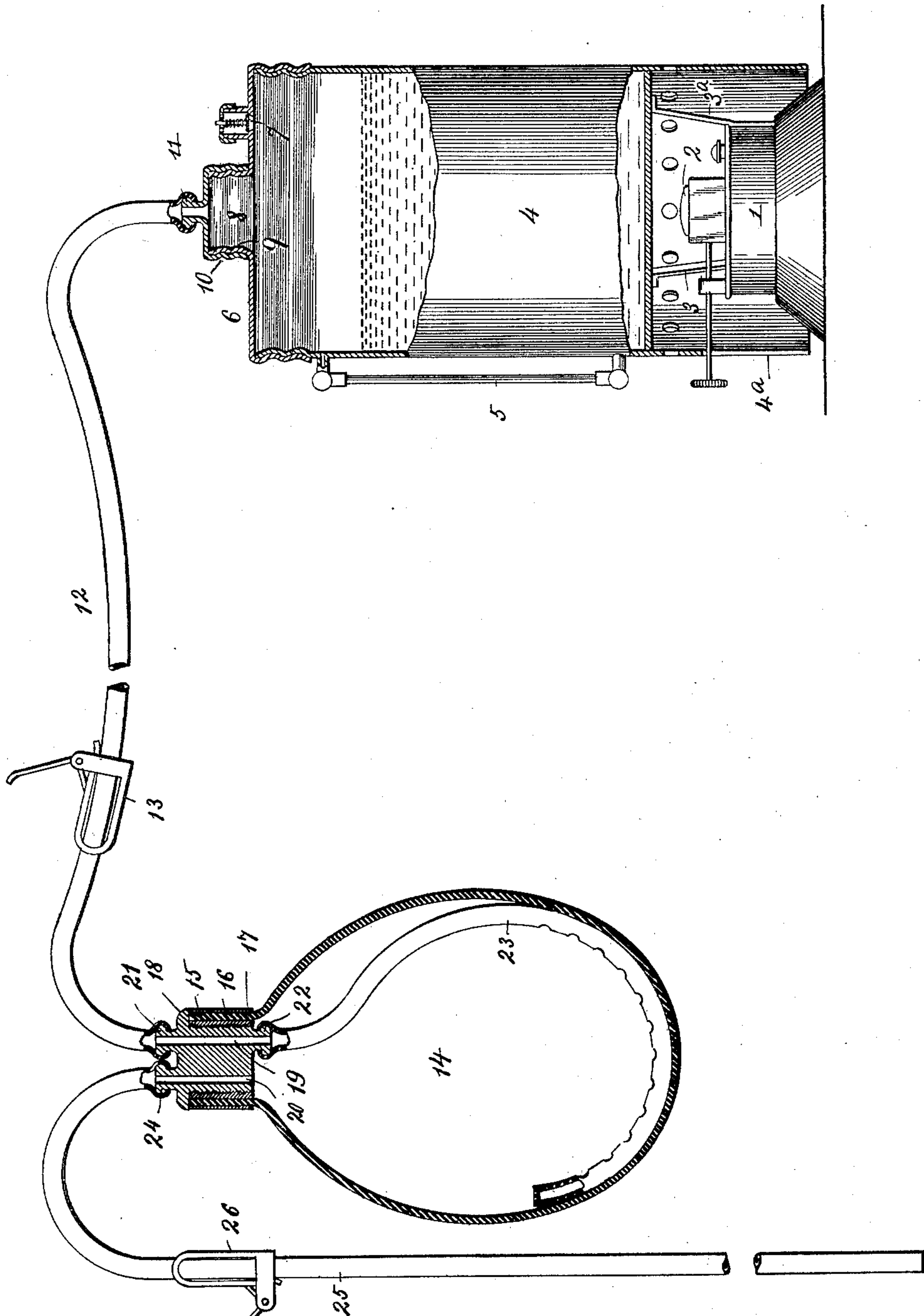
No. 703,351.

Patented June 24, 1902.

T. O'DONNELL.  
WARMING BAG.

(Application filed Sept. 23, 1901.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

TERENCE O'DONNELL, OF KANSAS CITY, MISSOURI.

## WARMING-BAG.

SPECIFICATION forming part of Letters Patent No. 703,351, dated June 24, 1902.

Application filed September 23, 1901. Serial No. 76,210. (No model.)

*To all whom it may concern:*

Be it known that I, TERENCE O'DONNELL, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Warming-Bags, of which the following is a specification.

My invention relates to that class of devices for the purpose of imparting warmth to the human body, and more especially to that class of such devices which aim to maintain the required temperature for several hours without requiring further attention on the part of the patient or nurse; and my object is to produce an apparatus of this character which is easily controlled, which may be used with perfect safety, and which is of simple, durable, and cheap construction.

To this end the invention consists in certain novel and peculiar features of construction and combinations of parts, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawing, which represents a view in side elevation of a steam bag and generator and connections between the same for conducting live and condensed steam to and from the former.

Referring to the drawing in detail, 1 designates an alcohol-lamp or its equivalent provided with an adjustable wick 2 for regulating the size of the flame and the volume of heat produced, and 3 arms projecting upward from and supporting directly over the same a cylinder 4, adapted for the generation of steam, and in order that the volume of water contained therein may be ascertained at any time it is provided with a water column or gage 5.

6 is a screw-cap forming the top of the cylinder, and 7 a pop or safety valve therein. Centrally the cap is also provided with an opening 8, surrounded by a threaded neck 9, closed by a threaded cap 10, having a flanged or lipped nozzle 11, whereon one end of a flexible tube 12 is detachably secured, said tube having within a short distance of its opposite end a clamp-valve 13 for compressing said tube, and therefore closing its passage.

14 designates a rubber or equivalent bag having an open neck 15, secured within a

metallic collar 16 and lined with an internally-threaded ring 17.

18 designates a hard-rubber or equivalent plug screwed into ring 17 and provided with passages 19 and 20, communicating with the interior of the bag. Passage 19 extends through a flanged nipple 21, to which is detachably secured tube 5, and also through a similar nipple 22, to which is detachably secured a perforated distributing-tube 23, located within the bag, for a purpose which hereinafter appears. Passage 20 extends through a nipple 24 at the outer end of the plug and is detachably engaged by a flexible escape or drain tube 25, arranged to discharge into any suitable vessel when the passage of said tube is not closed by a valve or clamp 26, located contiguous to the bag, and therefore within convenient reach of the patient.

In the practical operation of the device the cylinder is charged with the required volume of water and the lamp-wick ignited, the flame therefrom being concentrated on the bottom of the cylinder or vessel by the perforated flange 4<sup>a</sup>, depending from the latter, this flange obviously preventing the flame from being blown aside by drafts from door or window. As the generation of the steam begins the valve 13 is opened and the bag placed upon the patient's body, where it soon becomes inflated under the pressure of the steam. Valve 26 is then opened to permit the surplus steam to escape, it being desirable that the capacity of tube 25 shall be proportioned to the volume of steam generated, so that the pressure in the bag shall be approximately the same as long as the lamp is in operation. Should the bag become too hot, the patient or nurse can lower the temperature by closing valve 13 for a time. Should the temperature fall too low, it can be raised by closing valve 26 for a short time, and should the pressure within the cylinder or vessel endanger the latter, the tubes, or the bag the pop-valve will automatically open and remain in such condition until the pressure has fallen to the proper degree.

From the foregoing it will be apparent that the heat in the bag can be maintained at practically a uniform temperature with but little attention from the patient or nurse and that owing to the extreme lightness of steam as



compared with water the patient is enabled to sustain the bag for hours with the greatest convenience and comfort, it being well known that it is fatiguing and exhausting for a delicate patient to sustain the comparatively heavy hot-water bag for long periods at a time.

From the above description it will be apparent that I have produced a warming-bag embodying all of the features of advantage incident to an ordinary hot-water bag and other advantages, such as a continuous application of uniform heat and light pressure on the patient's body, and which may be modified in minor particulars without departing from the essential spirit and scope or sacrificing any of the advantages of the invention.

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

In an apparatus of the character described, a steam-generator, a steam-bag, a plug secured in the neck of the steam-bag and provided with a pair of passages communicating therewith, one of which has a nipple at each end, and the other a nipple at its outer end, a flexible distributing-tube within the bag and connected with the inner nipple of the plug, a flexible tube connected to the other nipple of the same passage and to the generator, a valve controlling said tube, and a flexible tube connected to the nipple at the outer end of the other plug-passage, and a valve controlling said tube, substantially as described.

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

TERENCE O'DONNELL.

Witnesses:

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