MEANS FOR ADMINISTERING OXYGEN DURING RESUSCITATION

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Filed Dec. 29, 1959, Ser. No. 862,696

2 Claims. (Cl. 128-29)

The present invention relates to improvements in mouth-to-mouth resuscitation, such as is necessary for assisting and/or restoring breathing in unconscious persons.

In prior mouth-to-mouth resuscitation methods the person performing the treatment, that is, the rescuer blows his breath intermittently into the patient's mouth and lungs. Such action is in effect an exhaling predominance of the carbon dioxide into the patient's lungs and is the widely accepted treatment to breathe a patient in emergency situations. However, during this treatment an excess of carbon dioxide may accumulate in the patient and it is an object of this invention to supply oxygen simultaneously with the exhaled breath of the rescuer or administering person as he blows his exhaled breath into the patient's mouth to more rapidly restore the normal oxygen and carbon dioxide levels in the patient.

Another object is to provide in combination, a mouth-to-mouth breather tube and an auxiliary intake nipple connectable to an extraneous source of oxygen. This source may be derived from a receptacle loaded with a gaseous medium, such as oxygen through a connection for coupling said receptacle to said nipple of the breather tube, and a manually operated valve may be provided to control the release of oxygen from the receptacle into the breather tube and thence into the mouth and respiratory system of the patient.

A further object is to provide a novel medicament administering adaptor for any type of mouth-to-mouth resuscitation tube or the like.

With the above and other objects in view, the invention particularly relates to the construction, arrangement and combination of parts hereinafter described and particularly defined in the appended claims.

In the drawings like parts throughout the several views are given like numerals and are thus identified in the following detailed description:

FIGURE 1 is a side perspective view of one form of resuscitation tube including a laterally extending nipple for connection to the outlet of a pressurized receptacle loaded with gaseous medium, such as oxygen.

FIGURE 2 is an elevation view of one form of receptacle loaded with a medicament or a gaseous medium such as oxygen at a suitable pressure range with a section of connecting tube for coupling the outlet tube of the receptacle to a resuscitation tube nipple, and illustrating one form of the nipple prior to insertion in the said tube.

FIGURE 3 is a perspective view of another form of resuscitation tube wherein the tube is S-shaped as distinguished from the straight tube of FIGURE 1 and is formed with a lateral intake nipple intermediate the ends thereof.

FIGURE 4 illustrates a novel adapter for a resuscitation tube with a connecting conduit to a pressurized container of oxygen.

FIGURE 5 is a section view taken on line 5--5 of FIGURE 4, and

FIGURE 6 is a cross-section view of another form of the present invention showing a check valve in the lateral intake nipple to eliminate any outlet leakage at the nipple when the tube is used with or without the addition of oxygen.

Referring to the drawings in detail and first with particular reference to FIGURE 1, there is shown a section of straight tube 10 with a nipple 11 mounted in the wall of the tube and angularly projecting from the exterior thereof.

The nipple 11 projects from tube 10 at any suitable angle, such as from ninety degrees or less depending upon the direction of gaseous flow desired for the gaseous media to be supplied through said nipple into the bore of the tube 10. However, when the nipple is mounted to project at right angles to the tube bore, the gaseous media, such as oxygen flows into the tube and may be given direction by the rescuer blowing through the tube into the patient's mouth.

As illustrated in FIGURE 2 the nipple 11 is coupled by a flexible conduit 12 to a pressurized container 13 loaded with gaseous media, such as oxygen. In this embodiment the nipple is formed with a sharp tip 11a to pierce the tube wall so that the same may be used with any type of mouth-to-mouth resuscitation tube. This container 13 is provided with a manually controlled valve 14, which permits a controlled release of oxygen into the plastic mouth-to-mouth resuscitation tube 10, through the nipple 11. The valve 14 may be a straight flow valve or a valve of the meter chamber type such is used in connection with aerosol dispensing containers.

FIGURE 3 is another embodiment of the device using an S-shaped resuscitation tube 15 with an intermediate shield 16 and a nipple 17 adapted to connect to the hollow stem of a valve mounted in the top of an oxygen container, see FIGURE 2.

Another form of the present invention is illustrated in FIGURE 4, and comprises a flattened resuscitation tube 18 of S-shape or of any other form preferably with an intermediate shield 19. In this form the tube 18 may be any standard or known type without a nipple as in the above-described forms of invention, and instead of the nipple, an oxygen administering means, such as an adaptor 20 formed of flat plastic tube relatively smaller than the bore of the resuscitator tube 18 is provided. This adaptor tube 20 includes a clip A. The clip A comprises a curved elongated section 23 and a reversely looped end 22 likewise curved, in the provision of a relatively shorter curved section, which nests against the exterior wall of the concave portion of the tube 18 in the provision of a space to receive the wall of the resuscitator tube 18.

The adaptor tube 20 is used by inserting the elongated section thereof into one end of the resuscitator tube 18, until the rim 24 of the tube 18 abuts the height of the looped end 22, whereby the adaptor tube 20 clips onto the resuscitator tube and the free end 25 of the adaptor tube section 21 couples to the valve oxygen container by means of the conduit 26, which is preferably flexible to facilitate free manipulation and movement of the coupled oxygen unit with respect to the relative positions of the patient thereof.

The oxygen unit may be of the type illustrated and described in prior U.S. Patents 2,788,784 and 2,872,923 issued to Herbert M. Birch and Daniel H. Gattone, assigned to assignee of the present invention.

The nipple 27 shown in FIGURE 6 includes a check valve 28 of any suitable type. For example, a typical "Schroeder Valve," well-known in the art may be used, in which instance the interior of the nipple 27 is threaded to threadedly receive the valve mechanism in the same manner as such valves are insertable in the tubular valve step of an automobile inner tube.

If a Schroeder valve is used, then the coupling conduit is fitted with a valve stem depressor to thereby open the valve during the oxygen intake operation.

Thus there is provided a novel improvement in means for mouth-to-mouth breathing, whereby a proper balance...
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of carbon dioxide and oxygen levels is restored more efficiently and more rapidly than heretofore possible.

It is to be expressly understood that various features and principles of each of the embodiments of the invention above described or referred to may be utilized or substituted in the other embodiments.

While the present invention has been described in detail with respect to certain particular examples, it will be understood by those skilled in the art after understanding the invention, that various changes and further modifications may be made without departing from the spirit and scope of the invention and reference should be had to the appended claims to determine the scope of this invention.

What is claimed is:

1. Means for breathing an unconscious person and simultaneously supplying oxygen comprising an elongated tube, connecting means supported on the wall of the tube and projecting exteriorly therefrom and means for coupling said connecting means to a source of gaseous medium, such as oxygen, said connecting means being of tubular form with an external diameter relatively smaller than the internal diameter of said elongated tube and having a rigid reversely bent end to form a clip, whereby the said connecting means clips on the wall of the said tube.

2. Means for breathing an unconscious person and simultaneously supplying oxygen comprising an elongated breather tube, a connecting means supported on a wall of the tube and projecting exteriorly therefrom and means for coupling said connecting means to a source of gaseous media, such as oxygen, said connecting means comprising a tube having a rigid reversely bent end to form a clip, whereby the said connecting means clips on the wall of the said tube, said clip comprising an elongated section relatively smaller in outer diameter than the internal bore of said elongated breather tube and said clip having a relatively shorter section outside the said breather tube.

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