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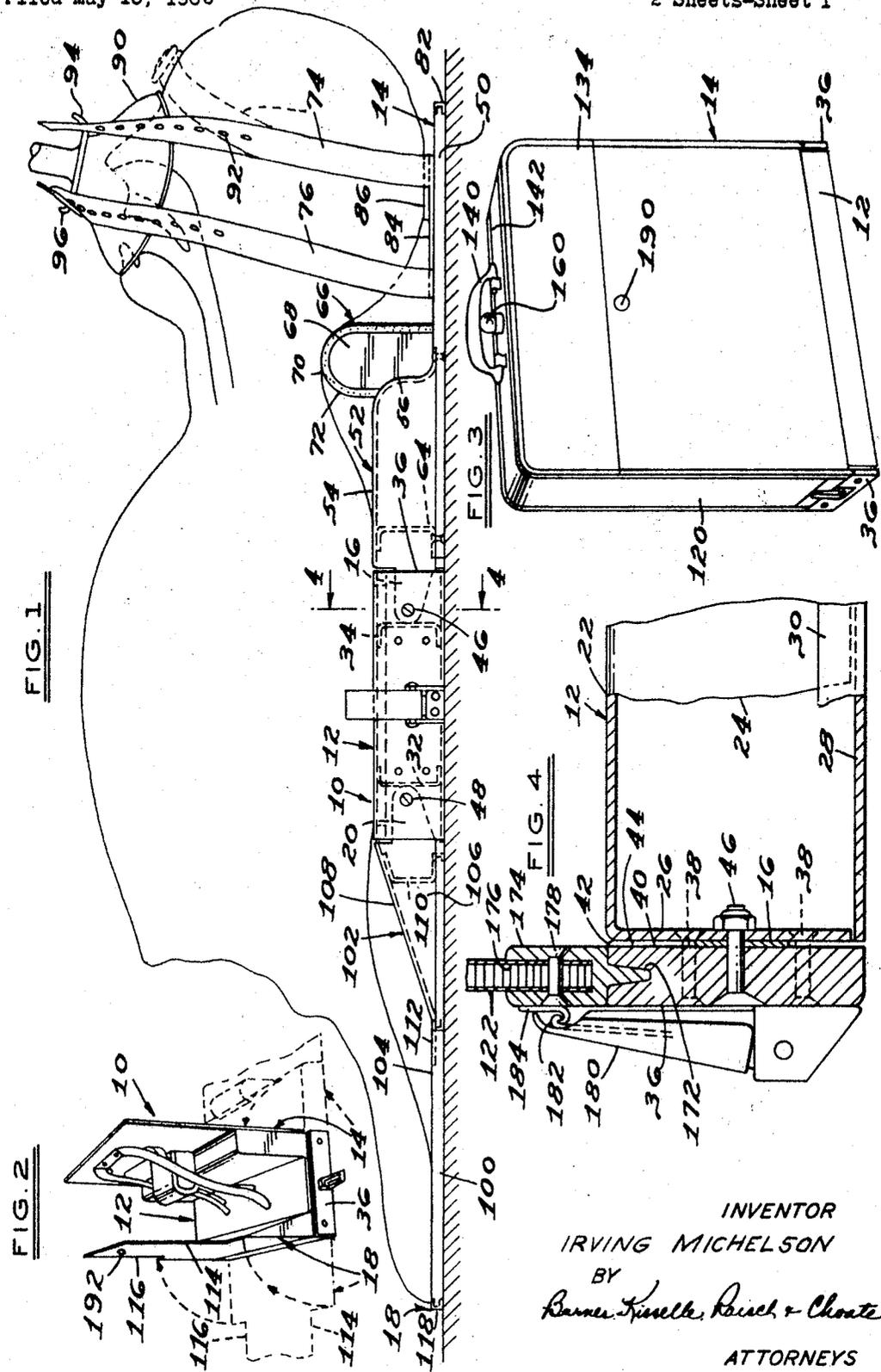
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CARDIOPULMONARY RESUSCITATION APPARATUS

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**CARDIOPULMONARY RESUSCITATION
APPARATUS**

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ABSTRACT OF THE DISCLOSURE

A three-section base for supporting a patient in a supine position for application of cardiopulmonary resuscitation emergency procedures. A U-shaped stand mounts detachably on the center section of the base and the sections of the base are hinged together so that they may be folded up to form with the stand a suitcase-like carrying case. The base has a rigid headrest disposed at a lower elevation than the main platform of the base, and a rigid neck rest is located between the headrest and platform and at a higher elevation than the platform. Head straps are secured to the headrest to pull down and hold the head of the patient securely against the headrest, thereby supporting the neck of the patient in an upwardly arched position and thus moving the tongue and mandible of the patient upwardly and opening the air passage in the back of the throat of the patient. Cardiopulmonary resuscitation equipment including a chest compressing plunger is carried in a compartment provided at the upper end of the stand so that heart and lung resuscitation procedures may be applied simultaneously, the base and stand maintaining the equipment and patient in proper position for both procedures.

The present invention relates to cardiopulmonary resuscitation apparatus.

Certain emergency measures are now recognized as effective for cardiopulmonary resuscitation of persons who have experienced sudden and unexpected cessation of respirations and functional circulation from such common causes as heart attacks, drowning, electric shock, sensitivity, asphyxia, etc. If external cardiac massage and pulmonary resuscitation assistance are given to such a person within the first four to six minutes from the moment his heart stops beating and he ceases to breathe, there is a good possibility of bringing him back to life.

Normally such a clinically dead patient lying flat on his back has his throat closed to the passage of air. If the rescuer has been adequately trained in artificial ventilation of the lungs, he will immediately open the airway between the nose or mouth and the trachea (bronchial tubes) by cleaning the mouth of any debris and then tilting the head as far back as possible by lifting up the neck with one hand and pushing the forehead down with the other. This moves the tongue and mandible upwardly, dislodging them from their position of obstructing the air passage in the back of the throat. However, this important initial procedure is a two-handed operation and thus for best results requires the full time attention of one rescuer just to maintain proper patient posture for artificial ventilation while also applying expired air artificial respiration. Moreover, if the rescuer has not been adequately trained, he may fail to properly position the patient for artificial ventilation and thereby seriously impair the chances for successfully resuscitating the patient.

Recently, semi-automatic and automatic machines have been developed for performing both artificial ventilation and external heart compression which offer a number of advantages over manual artificial ventilation and circula-

tion techniques. Such heart resuscitating units employ a power driven actuator operable to exert a rhythmic downward force on the breastbone of a heart arrest victim to alternately compress and release the victim's heart and thereby cause it to pump blood. However, such apparatus is neither as compact nor as portable as is desired, and does not satisfactorily maintain proper patient posture for artificial ventilation.

Accordingly, it is an object of the present invention to provide improved cardiopulmonary resuscitation apparatus capable of achieving and reliably maintaining an open airway in a patient, whether unconscious or conscious, so that air or oxygen may be administered without the need for an attendant to hold the neck and jawbone up and the forehead down.

Another object is to provide a portable and compact support, herein termed a "base," which is adapted for use in the field or hospital to properly position and support a prone patient for heart and lung resuscitation techniques, whether applied manually or by mechanical apparatus, and which is collapsible to facilitate storage and transport thereof.

Still another object is to provide a portable heart resuscitator unit incorporating a base of the above character and adapted to house all of the necessary heart and lung resuscitation equipment in a self-contained carrying case no larger than an average suitcase and hence which is readily stored or transported, and which is quickly opened and set up for immediate use on a "sudden death" patient.

Still another object is to provide a heart resuscitator unit of the above character which is versatile, economical, readily adjustable to different size patients and simple to operate.

Other objects as well as features and advantages of the present invention will become apparent from the following detailed description taken in conjunction with the accompanying drawings wherein:

FIG. 1 is a side elevational view of the base of the resuscitation apparatus of the invention shown unfolded to operative position and with a patient secured in prone position on the base ready for resuscitation efforts.

FIG. 2 is a perspective view of the base illustrating the same folded up to its collapsed position for storage or transport.

FIG. 3 is a perspective view of the portable resuscitation apparatus of the invention illustrating the base assembled to and folded up with the stand of the invention to form therewith a compact carrying case.

FIG. 4 is a fragmentary view taken partially in section on the line 4—4 of FIG. 1.

FIG. 5 is a fragmentary perspective view on an enlarged scale of one side of the base and stand, these two parts being shown separated to better illustrate the manner in which they are assembled.

FIG. 6 is a perspective view of the complete resuscitator unit with the base unfolded and the stand attached to the base ready for use.

Referring to FIGS. 1 and 2, the resuscitation apparatus of the present invention includes a base 10 which is approximately 18" to 24" wide and about 2' to 3' long. Base 10 may be made as one solid piece for use solely as a supine patient support, but preferably is made in three sections hinged together, as illustrated herein, comprising a center section 12, a front panel 14 hinged by a pair of ears 16 to section 12, and a rear panel 18 hinged by a pair of ears 20 to section 12.

Preferably center section 12 is of hollow, box-like construction, formed for example of die stamped aluminum sheet material in two principal parts; a top piece having a top wall 22 and integral side walls 24 and end walls 26 (FIG. 4), and a bottom piece having a bottom

wall 28 and upturned integral side flanges 30 adapted to receive walls 24 thereagainst. The top and bottom pieces may be joined together either by welding or riveting. A pair of reinforcing channel members 32 and 34 (FIG. 1) are disposed within section 12 spaced laterally apart and extending longitudinally between the ends thereof, and are secured to walls 22 and 28 by suitable means such as flush rivets along the flanges of the channels. A pair of solid aluminum blocks 36, each substantially coextensive with end walls 26 of section 12, are secured one to each wall 26 by rivets 38. The rear face 40 (FIG. 4) of each block 36 has a projection 42 disposed centrally thereof (FIG. 5) abutting wall 26 to provide spaces 44 between wall 26 and block 36 adjacent each end of the block for receiving hinge ears 16 and 20 respectively, the ears being pivoted on section 12 by bolts 46 and 48 which extend through block 36 and wall 26.

Front panel 14 comprises a flat, rectangular member 50 preferably consisting of a honeycomb core faced by two sheets of aluminum to provide a lightweight, high strength sandwich construction. Panel 14 also includes a platform 52 which may be a die-formed aluminum sheet having a top wall 54 and a front wall 56 bent downwardly from wall 54 terminating in a horizontal mounting flange 58 which seats on the upper face 60 of member 50. End flaps 62 are integrally attached to the opposite edges of wall 54 and each have one of ears 16 extending integrally from the inner edge thereof. A channel member 64 extends within platform 52 adjacent the inner edge thereof between flaps 62 and is secured at its top and bottom flanges respectively to wall 54 and member 50 to provide reinforcement along the inner edge of platform 52 (FIGS. 1 and 5).

As best seen in FIGS. 1 and 6, a neck support 66 is mounted on panel 14 and comprises a block 68 suitably contoured to seat against front and top walls 56 and 54 of platform 52 and to overlap onto the upper face 60 of member 50. Block 68 is suitably attached to member 50 as by screws inserted therethrough into the block. Support 66 is suitably shaped to comfortably cradle the back of the neck of a patient at a predetermined elevation above the elevated surfaces 54 and 22 and even further above the elevation of surface 60. In the embodiment disclosed herein, block 68 has a semicylindrical upper surface 70 extending laterally of the base and is covered by suitable padding such as vinyl covered foam padding 72 secured by adhesive over the front, top and rear surfaces of block 68.

A set of forehead straps 74 and 78 and cheek straps 76 and 80 are attached to panel 14 at a predetermined position between support 66 and the front edge 82 of member 50. Preferably the straps are made from a single piece of resilient material blanked out in the shape of an H so that the straps are joined by a central portion 84 (FIGS. 1 and 6). The straps are secured to member 50 by a mounting plate 86 which overlies approximately the front half of portion 84 between straps 74 and 78 and is secured by screws or rivets to member 50 to clamp the straps to the base. Straps 74-80 are adapted for attachment to a conventional anesthesia or respiration face mask 90 (FIG. 1), and for this purpose may be provided with rows of holes 92 running from the ends of the straps a suitable distance inwardly therefrom adapted to receive the hook-like prongs 94 and 96 normally provided on the mask.

Rear panel 18 also comprises a flat, generally rectangular member 100 with a tapering platform 102 which extends from one side of panel 18 to the other and slopes upwardly from the flat upper face 104 of member 100 to the inner edge of panel 18 flush with wall 22 of center section 12. Platform 102 as illustrated herein is constructed from a piece of die-formed sheet aluminum with triangular end flaps 106 which are bent downwardly perpendicular to the sloping top wall 108 of the platform 102, flaps 106 each having one of the ears 20 integral and co-planar therewith. A reinforcing channel 110 (FIG.

1) is inserted between wall 108 and member 100 adjacent the inner edges thereof and its flanges are riveted to wall 108 and member 100. Platform 102 also has a flange 112 along its outer edge which is bent to lie parallel against member 100 and is riveted thereto. As best seen in FIG. 2 the side edges of member 100 are notched out at 114 and 116 from the outer edge 118 of member 100 inwardly to the point where wall 108 meets member 100 to thereby provide clearance spaces for receiving the usual bed rails or cot rails normally provided on wheeled ambulance cots when the base is laid in its proper patient supporting position on the cot.

Base 10 as thus far described may be used alone as a positioning and posturing support for a patient undergoing heart-lung resuscitation procedures, whether applied manually or by known mechanical resuscitation apparatus. Preferably, however, base 10 is used in conjunction with a stand 120 (FIGS. 3-6) which cooperates with base 10 to provide a compact portable unit which is completely self-contained and capable of providing fully mechanized heart-lung resuscitation to a human patient.

Stand 120 comprises a pair of parallel side walls 122 and 124 equal in width to center section 12 which are spaced apart and rigidly interconnected by a cross wall 126 spaced about 14" from the lower ends of walls 122 and 124 and secured by corner braces 128 and 130 to the side walls. Walls 122 and 124 are adapted to seat on blocks 36 which in turn are outboard of the side edges of panels 14 and 18 so that the panels can be folded up between the side walls of the stand as described subsequently herein. A U-shaped sheet metal member 132 equal in width to walls 122 and 124 is secured along its lower edges to these walls and its central section 142 extends over top wall 126 about 6" therefrom. Sheet metal panels 134 and 136 are suitably attached to wall 126 and member 132 to close the front and rear sides of the space therebetween and are reinforced around their edges by right angle corner molding strips 138. A carrying handle 140 is hingeably secured to surface 142 of member 132 centrally thereof and is adapted to swing from an upright carrying position (FIG. 3) to a rest position (FIG. 6).

The compartment defined between wall 126, member 132 and panels 134 and 136 is adapted to house known mechanical resuscitation equipment (not shown), such as an electric motor and associated drive mechanism for operating an air pump connected by a coupling 150 to a flexible air hose 152 which in turn is connected to a face mask 90. Preferably coupling 150 is mounted on the underside of wall 126 near side wall 124, and a hose clip 154 is mounted to the underside of wall 126 near the other side wall 122 for supporting the hose when not in use as shown in FIG. 6. Walls 126 and 142 are also provided with centrally disposed apertures through which a known type of vertically reciprocable actuator extends, which for example may be in the form of a plunger 156 carrying a chest compressing head 158 at its lower end and a manipulating knob 160 at its upper end. It is also to be understood that plunger 156 may be mechanically driven by the same electric motor which drives the air pump via apparatus such as that disclosed in United States Patent 3,254,645. Alternatively a heart-compressing cylinder and piston arrangement such as that disclosed in United States Patent 3,209,747 may be similarly housed in the upper compartment of stand 120. Since such apparatus does not form a part of the present invention, the same is not shown herein. However, the present invention does contemplate that, regardless of the type of actuator used, it be mounted vertically to extend downwardly through the center of wall 126 so that its position relative to base 10 is predetermined as will become apparent subsequently herein.

Stand 120 is adapted to be readily and securely attached to base 10 by means of interconnecting structure best seen in FIGS. 4, 5 and 6. For this purpose the upper edge of each block 36 is formed with a V-shaped groove 170

adapted to receive a complementary shaped tongue 172 dependent from an extruded rail 174, there being two such rails secured one to each bottom edge of walls 122 and 124. As best seen in FIG. 4, each rail 174 has an upwardly opening groove 176 adapted to receive the associated wall 122, 124 therein, these parts being joined by rivets 178. A pair of conventional packing case or luggage type toggle latches 180 are centrally mounted one on the outer face of each block 36. Each latch 180 cooperates with a pair of locking strips 184 one mounted on each rail 174 for securing stand 120 to base 10. Preferably strips 184 extend the full width of the associated walls 122 and 124. Latch 180 may comprise a commercially available toggle latch such as that known in the trade as Camlock Model 51-L, and has an adjustable hook 182 (FIGS. 4 and 5) articulated through a toggle arrangement to the base of a latch so that the hook may be swung upwardly to latch over strip 184, the hook 182 being drawn downwardly by forcing the latch to closed position as best seen in FIG. 4. When thus secured tongue 172 seats tightly in groove 170 and stand 120 is held securely to base 10. To shift stand 120 fore and aft relative to base 10, as when adjusting the head 158 of plunger 156 relative to the breastbone of a patient secured to the base, latches 180 are released so that rail 174 of stand 120 is free to slide along end blocks 36. The stand can then be quickly locked in adjusted position by reclamping the stand to the base with latches 180.

When stand 120 is secured as described above to base 10, the same forms therewith a complete heart-lung resuscitation apparatus which can be closed into a suitcase-like carrying case as shown in FIG. 3. This is accomplished merely by pivoting panels 14 and 18 upwardly toward one another to the upright positions thereof shown in FIG. 2, whereupon these panels form closures for the space defined between side walls 122 and 124, top wall 126 and the center section 12 of the base. Suitable magnetic latches or conventional cabinet hardware (not shown) are provided on the inner sides of panels 14 and 18 to cooperate with similar hardware mounted on the inner sides of walls 122 and 124 to releasably lock the panels in their upright closed position. In addition, a hand hole ferrule 190 is provided in front panel 14, and another ferrule 192 (FIG. 2) in rear panel 18, to facilitate opening of the panels.

The above described embodiment of base 10 is adapted to support and properly position a patient for application of emergency measures in cardiopulmonary resuscitation, either independently of stand 120 or in conjunction therewith. In either case base 10 is unfolded to extend panels 14 and 18 to their horizontal operative position illustrated in FIG. 1, and the patient is laid on base 10 such that the back of his head rests on plate 86, the back of his neck on support 66, his upper back area on center section 12 and his buttocks on panel 18. Essentially all that is required to so position the patient is to place the back of his head on plate 86 and his trunk centrally on section 12 and panel 18, and this will automatically position the patient's neck and chest relative to the support 66 and platform surfaces 54, 22, 108 and 104 of the base.

If oxygen or air supply equipment is available, the next step is to place the mask 90 over the mouth and nose of the patient and to fasten the same by drawing straps 74 and 78 upwardly around the sides of the patient's head and fastening them to the forward hook 94 of the mask. This pulls the patient's head down securely onto plate 86 and, due to the fulcrum provided by support 66, thereby raises the chin of the patient. When the patient is thus secured to the base the weight of his body will hold his chest properly positioned on the base. With the head tilted backwardly and the neck raised, the patient's airway is widely opened and maintained in this condition solely by base 10. This important action alone may be sufficient to allow some victims to breathe if they have effective spon-

taneous heartbeat, or circulation by external cardiac compression. The cheek straps 76 and 80 are then attached to mask 90, but need not be fastened as tightly as the forehead straps 74 and 78 since straps 76 and 80 merely help maintain the mask in loosely sealed relation against the face rather than to position the head of the patient.

With the patient thus secured on base 10, the rescuer need not devote his attention to maintaining the proper artificial ventilation posture of the patient. Hence he can concentrate on applying manual closed chest heart resuscitation techniques, and if he must work alone, also applying mouth-to-mouth, mouth-to-nose or mouth-to-airway adjunct (S tube) lung ventilation techniques. If base 10 is being used in the field, the same provides a firm support over uneven or soft ground, and the same is true when the base is used over a mattress. When help arrives, the patient may be bodily moved by lifting him, while still secured on the base, onto a stretcher and into an ambulance, without thereby jeopardizing the open airway condition of the patient during such handling and transport of the patient.

Preferably base 10 is constructed according to the following dimensional relationships: neck support 66 is positioned approximately 6", $\pm\frac{1}{2}$ ", from the forehead straps 74 or 78 to the center line of support 66; the vertical distance from surface 60 to the top of support 66 should range between about 3" to 4 $\frac{1}{2}$ "; and the vertical distance from the top wall 54 of platform 52 and the top wall 22 of the center section 12 to the underside of the base should be approximately 2 $\frac{1}{4}$ ", $\pm\frac{1}{2}$ ". In the embodiment of the base disclosed herein, the overall length of base 10 when extended is approximately 36" and the overall width approximately 22".

Base 10 also cooperates with stand 120 as described previously to provide a posturing support for the patient to insure an open airway condition. Base 10 also supports stand 120 securely in an upright operative position as illustrated in FIG. 6 wherein the chest compressing plunger 156 is automatically positioned over the breastbone of the patient for external chest compression. In addition, base 10 provides a collapsible framework which folds up into the compact carrying case shown in FIG. 3 to provide a completely portable and self-contained lung and heart resuscitation unit. In using base 10 with stand 120, the front and rear panels 14 and 18 are first unlatched from the stand and dropped to the extended horizontal position as shown in FIG. 6, and then stand 120 is detached from the base by releasing latches 180 on either side of the stand so that the stand may be lifted clear of the base. The patient is then placed on the base and his head secured thereto as described previously. Then stand 120 is lowered onto center section 12 with tongues 172 inserted in grooves 170, slid back and forth on blocks 36 as required to bring plunger head 158 into vertical alignment with the breastbone of the patient, and then the stand is secured in this position by clamping it to the base with latches 180. The stand 120 fits outside the arms of the patient and brings the face mask 90 and hose 152 into convenient position so that it may be quickly unclipped and mask 90 secured over the nose and mouth of the patient. Heart and lung resuscitation is then commenced by means of the mechanical equipment housed within the upper compartment of stand 120 to effect resuscitation of the patient and to maintain him in a resuscitative condition until further cardiopulmonary resuscitation therapy can be rendered by a qualified physician.

Due to the portability and compactness of the combined base and stand resuscitation apparatus of the invention, it is ideally suited for use in the field as a prime piece of life saving equipment. Once mechanical resuscitation has been initiated by the equipment, both the patient and the equipment can be lifted as a unit onto a stretcher and the equipment maintained in operation while the patient is in the ambulance enroute to the hos-

pital and through further handling until such time as the attending physicians at the hospital have completed their post emergency procedures involved in cardiopulmonary resuscitation. When the resuscitation equipment is no longer needed, the patient may be removed by first detaching stand 120 and lifting it clear of the patient and then sliding the base sideways from beneath the patient with a minimum amount of bodily movement.

From the foregoing description, it will now be apparent that the invention provides improved heart and lung resuscitation apparatus which is economical, reliable and easily operated for effecting resuscitation efforts in a minimum of time and with maximum continuity from inception of resuscitation efforts until recovery of the patient. When the base or combined stand and base are not in use, they may be stored in a minimum of space with the components well protected against damage and dirt.

It is to be understood that the embodiments of the base 10 and stand 120 as disclosed herein may be constructed of suitably rigid plastic or other materials in lieu of the illustrated aluminum sheet metal and honeycomb sandwich construction without departing from the spirit and intended scope of the invention as defined in the appended claims.

I claim:

1. A base for supporting a patient in a supine position for application of cardiopulmonary resuscitation emergency procedures, said base being dimensioned to underlie at least the head and upper torso of the patient and having a flat undersurface adapted to rest flat upon a supporting surface, a rigid headrest having a head receiving surface defining a portion of the upper surface of said base disposed at a predetermined first elevation from the undersurface of said base for supporting the head of the patient, a rigid platform having an upper torso receiving surface defining a portion of the upper surface of said base adapted to underlie and support the shoulders and chest of the patient at a second elevation spaced above said first elevation, a rigid neck rest disposed intermediate said headrest and platform having a neck receiving surface defining a portion of the upper surface of said base disposed at a third elevation spaced above said second elevation and adapted to underlie and support the neck of the patient in an upwardly arched condition, and head strap means secured to said headrest in the area of said head receiving surface of said headrest adapted for securing the head of the patient against the headrest, said neck rest, said headrest and at least a portion of said platform adjacent said neck rest being fixedly interconnected to prevent relative movement therebetween, said neck rest being oriented relative to said headrest such that upon so securing the head of the patient it is tilted backwardly while the neck is arched upwardly to thereby move the tongue and mandible of the patient upwardly and thus open the air passage in the back of the throat of the patient.

2. The combination set forth in claim 1 wherein said base comprises a front panel, a center section and a rear panel, said headrest, neck rest and said portion of said platform being mounted on said front panel, said center section comprising a box-like rectangular member having an upper surface flush with the upper torso receiving surface of said portion of said platform on said front panel and forming therewith said platform, said rear panel having a built-up portion adjacent said center section and sloping downwardly therefrom to a flat portion having an upper surface disposed generally at the elevation of said head receiving surface of said headrest, said front and rear panels being hinged to said center section for pivotal movement from positions extending horizontally in opposite directions from the front and rear faces of said center section to upright positions generally above the front and rear faces of said center section.

3. The combination set forth in claim 2 wherein said

center section of said base has mounting means affixed to each of the opposite sides of said center section of said base, and further including a resuscitator unit comprising a generally inverted U-shaped frame superimposed on said center section and having upright side members aligned with said mounting means affixed to said opposite sides of said center section, means detachably securing said side members of said frame to said mounting means, and means mounted in said frame for performing cardiopulmonary resuscitation.

4. The combination set forth in claim 1 wherein the distance between said first and third elevations is on the order of 3" to 4½" and said head strap means is spaced approximately 6" from the center line of said neck rest.

5. A portable cardiopulmonary resuscitation unit comprising a base made up of a center section and front and rear panels hinged to opposite sides of said center section for pivotal movement between positions extending horizontally in opposite directions away from said center section and upright positions wherein said panels are disposed generally parallel to one another above the opposite sides of said base, a stand detachably mounted on said center section comprising a pair of parallel upright side members having a width coextensive with the width of said base, a hollow compartment structure extending between and rigidly interconnecting said side members at the upper ends thereof and means detachably mounting the lower ends of said side members on the opposite end edges of said center section of said base, said front and rear panels forming closure panels for the front and rear sides of said stand when pivoted to said upright positions thereof, and cardiopulmonary resuscitation equipment housed in said compartment including a vertically movable chest compressing plunger dependent from said compartment structure above said center section.

6. The combination set forth in claim 5 wherein said mounting means comprise blocks fixed to the opposite sides of said base and rail means on the lower ends of said side members engaging said blocks to permit sliding movement of said stand lengthwise of said base but operable to restrain lateral movement of the stand relative to the base, and latch means on said end blocks and side members releasably interengaged with one another and detachably clamping said stand on said base to prevent said sliding movement.

7. The combination set forth in claim 6 wherein said rail means and said blocks have cooperative interengaging tongue and groove means extending lengthwise of said base, and said latch means comprises a toggle clamp and a latching strip secured one to said side member and the other to said block, said strip extending in the direction of sliding movement of said stand and having a length at least coextensive with the range of said sliding movement, said strip being engageable by said toggle latch for drawing said stand down on said end blocks to firmly interengage said tongue and groove means.

8. The combination set forth in claim 5 wherein said compartment structure comprises first and second horizontal walls extending between said side members, said first wall being disposed substantially flush with the upper edge of said front and rear panels when folded upwardly against said side members, said second wall being spaced above said first wall and having a carrying handle secured centrally thereof on the exterior surface thereof, front and rear vertical panels closing the sides of the space defined between said first and second walls to thereby define said hollow compartment housing said resuscitation equipment, said chest compressing plunger extending through said first wall from said compartment into the space below said first wall, said plunger carrying a chest compressing head on one end thereof disposed between said first wall and said base, said mounting means permitting sliding movement of said stand lengthwise of said base for adjusting the position of said plunger head relative to said base, said center section and front panel

forming a platform adapted to underlie and support the shoulders and chest of a patient disposed in a supine position thereon when said front panel is pivoted to the generally horizontal position thereof aligned with said center section, said front panel having a headrest portion offset downwardly from the elevation of said platform and disposed adjacent the free end of said front panel and a neck rest disposed intermediate said headrest and platform an offset upwardly from the elevation of said platform adapted to underlie and support the neck of the patient in an upwardly arched condition when said front panel is in said aligned position, and head strap means secured to said front panel adapted for securing the head of the patient against the headrest, said neck rest being oriented relative to said headrest and center section such that upon so securing the head of the patient it is tilted backwardly while the neck is arched upwardly to thereby move the tongue and mandible of the patient upwardly and thus open the air passage in the back of the throat of the patient and the patient is thereby located on said platform with his chest generally beneath said head of said plunger.

9. The combination set forth in claim 8 wherein said first and second walls each have a centrally disposed aperture, said apertures being vertically aligned with one another and said plunger extending therethrough, the

upper end of said plunger opposite said one end thereof being disposed above said second wall in all positions of said plunger and carrying hand grip means thereon.

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