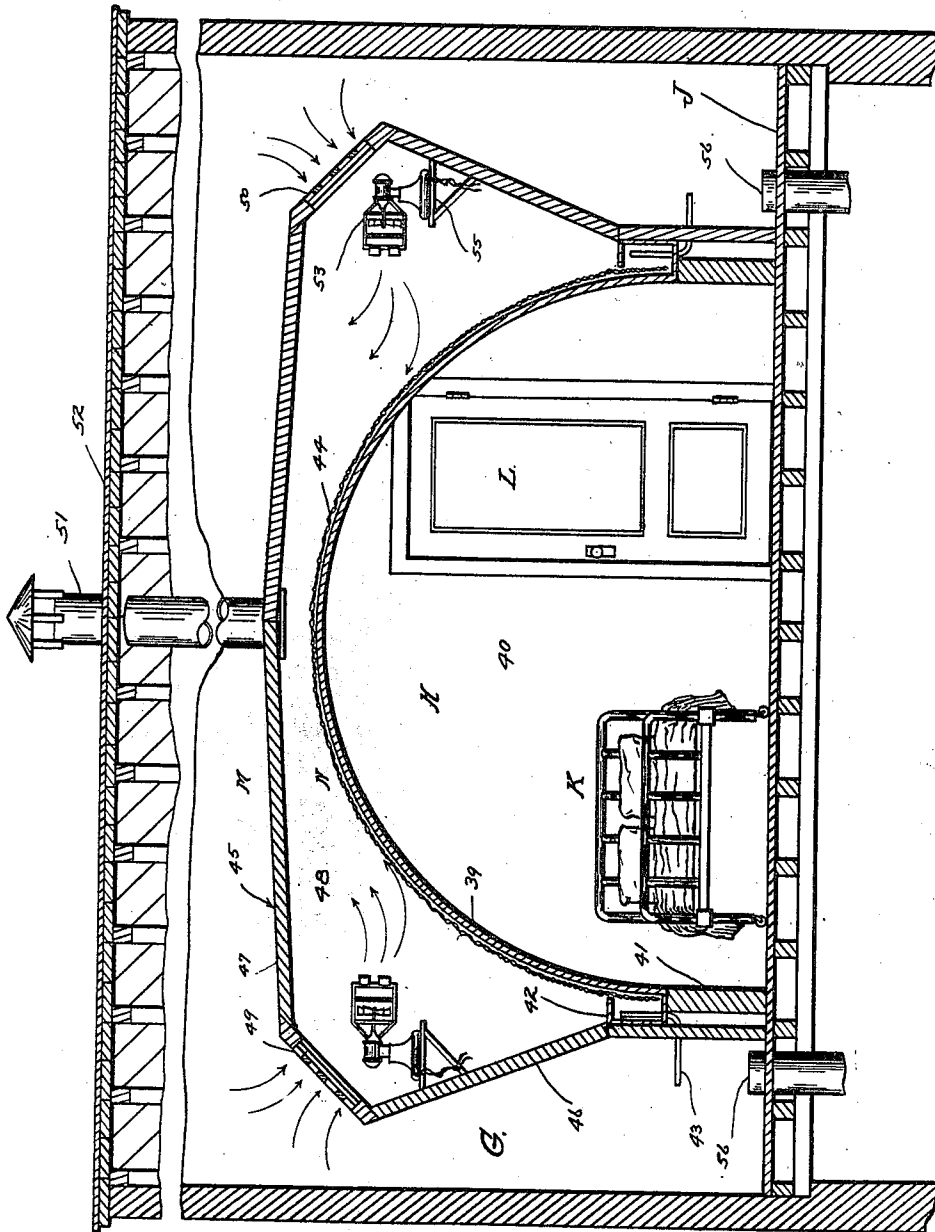


R. N. RICHARDSON.
SLEEPING COMPARTMENT.
APPLICATION FILED MAR. 4, 1919.

1,375,417.

Patented Apr. 19, 1921.



Inventor,
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By

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UNITED STATES PATENT OFFICE.

ROBERT N. RICHARDSON, OF LOS ANGELES, CALIFORNIA.

SLEEPING-COMPARTMENT.

1,375,417.

Specification of Letters Patent. Patented Apr. 19, 1921.

Original application filed August 22, 1917, Serial No. 187,633. Divided and this application filed March 4, 1919. Serial No. 280,546.

To all whom it may concern:

Be it known that I, ROBERT N. RICHARDSON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Sleeping-Compartments, of which the following is a specification.

This invention relates to cooling devices for sleeping compartments, and it has for its primary object to provide a device or structure or installation of this character whereby evaporation of water at or in connection with the walls of the compartment may be utilized to obtain a cooling effect within the compartment.

Further objects consist in the provision of simple and inexpensively constructed and efficient means for cooling sleeping compartments and the like, in hot weather.

Other objects and advantages will appear in the following description, and the invention consists in the novel and useful provision, construction, inter-relation, combination, association and relative arrangement of parts, members and features, all as hereinafter described, shown in the drawing and finally pointed out in claim.

The present invention was originally disclosed in application for U. S. patent for beds and sleeping compartments, filed by me August 22, 1917, Serial No. 187,633, from which application the present subject-matter was divided.

The drawing is a fragmentary vertical sectional view, broken at its top portion, of the sleeping compartment embodying the invention.

The parts in the drawing are designated by reference characters.

Referring with particularity to the drawing, G designates a house, other building structure or inclosure in which is provided sleeping compartments H including the floor J of the structure G. A bed K is disposed within the compartment H and a door L opening into the compartment is provided. This construction including the hereinbefore described elements comprises a sleeping compartment, but may be varied and otherwise constructed as desired, within a fair interpretation of the invention. There is provided a cooling means generally designated M which houses or covers the bed K. This means M includes a preferably metal semi-

cylindrical canopy or wall 39 which, as shown is closed at its ends by the walls 40 of the structure G or compartment H. This canopy 29 is supported along its longitudinal edges upon walls 41, and exteriorly of the canopy 39 at the lower edges thereof are provided reservoirs 42 adapted to contain water. There are provided drain pipes 43 for the reservoirs 42 and suitable means not shown may be provided to fill said reservoirs.

A means N is provided for distributing moisture over the outer surface of the canopy or wall 39. This means comprises a sheet 44 of absorbent material or wicking and said sheet is mounted upon the outer surface of the wall 39 with its lower edges disposed within the reservoirs 42.

There is provided a means for causing the circulation of air around and over the canopy or wall 39 so that the evaporation of the moisture and the subsequent cooling action will be effectively provided. This means constitutes a housing 45 comprising side walls 46, and a sectional top wall 47, the end walls of the housing being provided by the walls of the structure G or compartment H. This housing 45 provides a space 48 around the canopy 39. There are provided air intake openings 49 and 50 located on opposite sides of the housing in the upper wall 47 thereof. These openings 49 and 50 permit air to enter the space 48 and to circulate around the canopy 39. An air flue 51 communicates with the space 48 and is attached to the wall 47 of the housing and the roof 52 of the structure G, said flue 51 extending through the roof. The flue 51 provides for a circulation of air in the space 48, and to cause the air to be thoroughly distributed throughout the entire space there are provided oscillatory fans 53 and 54 which are located on opposite sides of and within the housing 45. Suitable stands 55 support the fans upon the walls 46 of the housing. Extending up through the floor J of the structure G are air inlet pipes 56 which communicate with the basement or space beneath the structure G and provide for the introduction of cool air to the interior of the structure G. Inasmuch as there is provided a suction through the action of the fans 53, it being noted that said fans are located adjacent to the openings 49 and 50, the air will be

readily thrown or sucked through the pipes 56 into the structure G and through the openings 49 and 50 into the space 48.

In the operation of this form of the invention, assuming that the compartment H is occupied and water is contained in the reservoirs 42, the evaporating action will take place when the wick 44 has distributed the moisture over the outer surface of the canopy or wall 39 by capillary attraction, and the cooling of the atmosphere interiorly of the canopy or within the compartment H is thus provided. The fans 53 and 54 may be controlled by suitable means not shown and when operated provide for expeditious evaporation of the moisture upon the canopy. The oscillation of the fans insures a complete and thorough evaporation and causes air from the space within the structure G to be drawn through the openings 49 and 50 into the space 48 between the housing 45 and the canopy 39. Air will escape through the flue 51 and in this way a thorough circulation of air within the space H is provided.

With reference to the foregoing description and accompanying drawing, it will be seen that I have provided inexpensive and effective apparatus for cooling and keeping cool sleeping inclosures in order that occupants thereof may sleep in comfort in extremely hot weather.

It is to be understood that although the hereinbefore described and illustrated ap-

paratus is the preferred form of my invention, yet various changes as to details of construction, size, shape, and proportion of parts may be resorted to when required, depending upon conditions, concurrent with the adoption of the invention, without sacrificing any of the advantages of the invention, and the spirit and scope thereof as herein disclosed.

Having thus disclosed my invention, I claim and desire to secure by Letters Patent:

An apparatus of the character disclosed, including an arched wall, walls associated with and closing the ends of the arched wall, a door-way in one of said last named walls, and means for producing evaporation in intimate association with the arched wall, including a housing enveloping and being spaced from the arched wall, said housing having an air intake opening and an air outlet opening therein, means for moistening the outer surface of the wall, and means within the space between the housing and wall for producing currents of air and directing the currents over the outer moistened surface of the wall.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT N. RICHARDSON.

Witnesses:

J. SHUTT,
EDNA TURNER.