Nov. 22, 1960 R. L. NEWMAN 2,961,524

HEATED ANIMAL PAD

Filed July 13, 1959

FIG. 1.

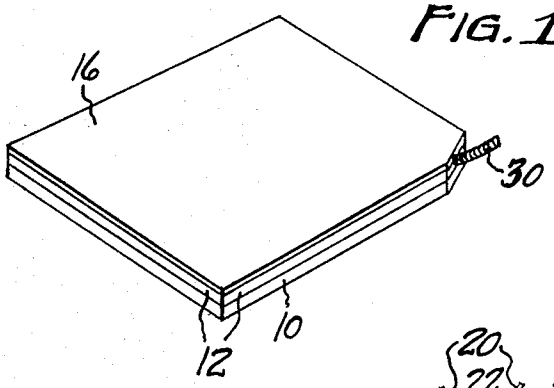


FIG. 2.

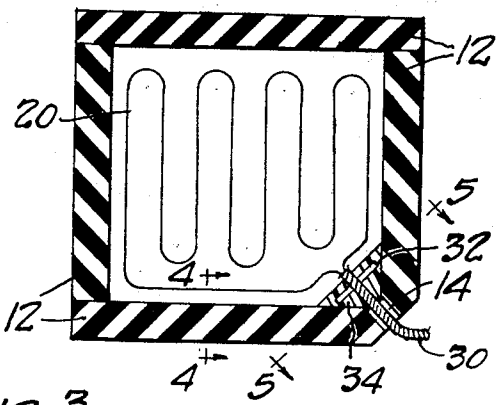


FIG. 3.

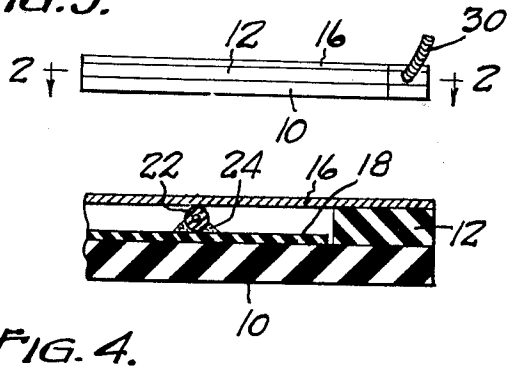


FIG. 4.

FIG. 6.

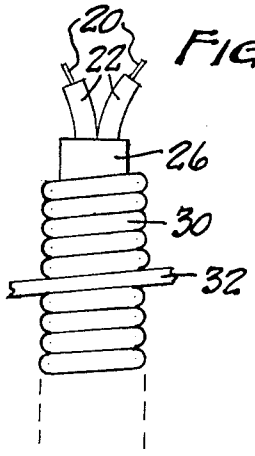
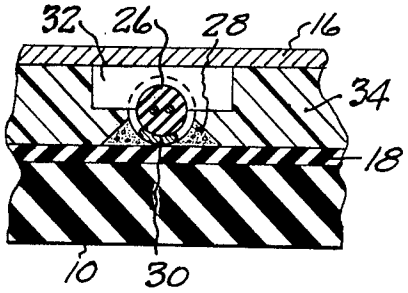


FIG. 5.



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HEATED ANIMAL PAD

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1 Claim. (Cl. 219—19)

This invention relates to a heated animal pad, and more particularly to a device which may be used as a bed by a domestic animal, such as a dog or a cat.

The primary object of this invention is to provide a device of this character which is inexpensive, light in weight, safe, substantially indestructible and substantially waterproof.

A further object is to provide a device of this character having an electrical heating element mounted therein in fully protected position and fully insulated relation and having an electric lead sheathed in an elongated metal protective flexible tubular member projecting a substantial distance from the pad and serving to protect the lead against damage in the handling and from chewing by the animal.

A further object is to provide a device of this character having an electric heating element and a flexible electric lead sheathed within a flexible coiled wire tube having one end thereof anchored effectively to the pad.

Other objects will be apparent from the following specification.

In the drawing:

Fig. 1 is a perspective view of the device;

Fig. 2 is a horizontal sectional view of the device taken on line 2—2 of Fig. 3, with electrical parts illustrated schematically;

Fig. 3 is an edge view of the device;

Fig. 4 is an enlarged fragmentary detail sectional view taken on line 4—4 of Fig. 2;

Fig. 5 is an enlarged fragmentary sectional view taken on line 5—5 of Fig. 2; and

Fig. 6 is an enlarged detail view of the sheath for the electrical lead and the means for anchoring the same in the device.

Referring to the drawing which illustrates the preferred embodiment of the invention, the numeral **10** designates a base panel which is preferably formed of rigid material, such as composition board highly compressed and of the type known as hardboard. The base may be formed of other materials, however, such as plywood, wood, hard rubber or synthetic resin material. If desired, the base may rest upon feet or pads (not shown) formed of rubber or other cushioning material. One or more strips **12** positioned at the margin of the base **10** and of equal thickness serve to define a cavity or recess at the top of the base, and this margin is preferably formed of the same material as the base **10**. The margin will preferably be substantially continuous except for the provision of an opening **14** therein for purposes to be described. A top panel **16**, preferably formed of rigid aluminum sheet stock, rests upon the marginal strips **12** and spans the cavity to define a completely enclosed unit except for the opening **14**. The parts **10**, **12** and **16** are preferably cemented together so as to provide sealed joints between the parts and thereby render the construction substantially moisture proof. It will be understood that any suitable means for securing together the constituent parts of the structure may be employed.

A sheet of electrical insulating material, such as Fiberglas, cloth or synthetic resin having fiber glass bonded therein, is provided within the cavity resting upon the base **10** and may be cemented or otherwise secured in place. An electrical heating element **20**, consisting of an elongated electric resistance wire sheathed in an insulated sleeve **22**, is positioned within the cavity of the device in any suitable arrangement, such as that illustrated in Fig. 2. The arrangement will be such as to provide a predetermined spacing between adjacent runs of the heating element to insure substantially uniform heating of the top plate **16** when the heating element is energized. The position of the heating wires will preferably be determined by cementing the same at **24** to the insulation **18**, as illustrated in Fig. 4. The opposite ends of the electrical resistance wire enter an insulating sheath **26** of flexible character constituting a lead and provided with a conventional electrical connector (not shown) adapted for electrical connection with an electrical outlet. The sheath **26** may be cemented to the insulation panel **18**, as seen in Fig. 5, at **28**. An elongated portion of the sheath **26** is encased within a flexible metal tube at the portion thereof which extends through the opening **14**. Preferably the length of this metal tubing will be such that it will project several feet from the device. The metal sheath will preferably constitute a tightly coiled wire **30** snugly embracing the insulation sheath **26**.

Means are provided to anchor one end of the metal tubular sheath **30** to the pad structure. Such means preferably constitute a metal plate **32** notched at its center, as seen in Fig. 5, to fit around the insulation **26**. The plate **32** will preferably be thin enough to permit it to be wedged between adjacent convolutions of the coiled spring wire **30**, as seen in Fig. 6, adjacent to but spaced a number of convolutions from the end of the wire tube **30**. The wire tube **30** projects through the opening **14** and into the cavity of the device, as illustrated in Fig. 2. This permits the metal plate **32** to be somewhat elongated and to bear against the inner faces of the marginal strips **12** spaced from the opening **14**. A body of insulation material **34**, such as synthetic resin, is introduced in the cavity in a position to seal the inner end of the opening **14** and thereby prevent the entry of moisture into the interior cavity of the device. This body is preferably sufficient in size to imbed the plate **32** therein and thus enhance the strength thereof as a means to prevent pulling of the tubular sheath **30** from the device. It will be understood that the positioning of the insulation wire, the anchoring of the sheath for the lead of that wire and the introduction of the material **34** will preferably be done after assembly of the marginal strips **12** to the base **10** but before assembly of the cover plates **16** upon the marginal strips **12**.

The heating elements **20** will be selected of such resistance value as to produce the desired heat generation when the wires are energized by electrical current from the usual household electrical wiring circuit. The resistance value of the wire **20** used for an indoor model will preferably be less than the resistance value of a unit intended for use in an outdoor location, as in a dog house. In each instance it is preferred that the resistance value of the wire employed be low enough so that the device may be operated continuously during cold weather without overheating. Alternatively, wire having a higher resistance value may be employed if a thermostat (not shown) is connected in the portion thereof located within the device so as to respond to the temperature being generated and thereby deenergize the element if execessive heat is generated.

The use of the aluminum top plate provides uniform heat transfer throughout substantially the entire area of the top of the pad structure. Also, the use of aluminum

is important from the standpoint of its resistance to corrosion when exposed to moisture. The top plate may be provided with a covering of felt or other fabric (not shown) where intended for indoor use. If used, a covering should be relatively thin so as to provide minimum resistance to heat penetration.

The entire exterior surface of the pad, as at the parts **10**, **12** and **16**, may be enameled or painted to assist in rendering the same waterproof. The enameled surface also expedites washing or cleaning of the device when desired. Such washing is feasible by reason of the sealed character of the construction which insures that moisture cannot penetrate into the cavity of the device.

The use of the flexible metal tubing **30** to encase the lead of the device protects the lead without substantial limitation upon location or position thereof. Furthermore, use of the metal tubing discourages chewing of the lead by the dog, and especially by a young puppy. The protective sheath will preferably be of such length that it covers all portions of the lead in reach of the dog, especially in cases where the lead is run upwardly to an overhead position from the pad. For this purpose the tubing **30** may project a distance of approximately thirty inches from the pad.

The construction of the device renders it substantially unbreakable in the event the dog moves it in play or in the event it is accidentally kicked or struck during movement of persons therearound.

While the preferred embodiment of the invention has been illustrated and described, it will be understood that changes in the construction may be made within the scope of the appended claims without departing from the spirit of the invention.

I claim:

A heated animal pad comprising an enclosure having top, bottom and marginal walls, an insulated electric heating element positioned fixedly within said enclosure and connected to a flexible elongated lead, said enclosure having a passage for said lead, a flexible tubular sheath for said lead, said sheath constituting a wire coil having close spaced convolutions, a rigid member wedged between adjacent convolutions of said wire coil and projecting laterally therefrom within said enclosure for engagement with a wall adjacent to the inner end of said passage.

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