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(54) PROTECTIVE COVER FOR REMOTE CONTROL DEVICES

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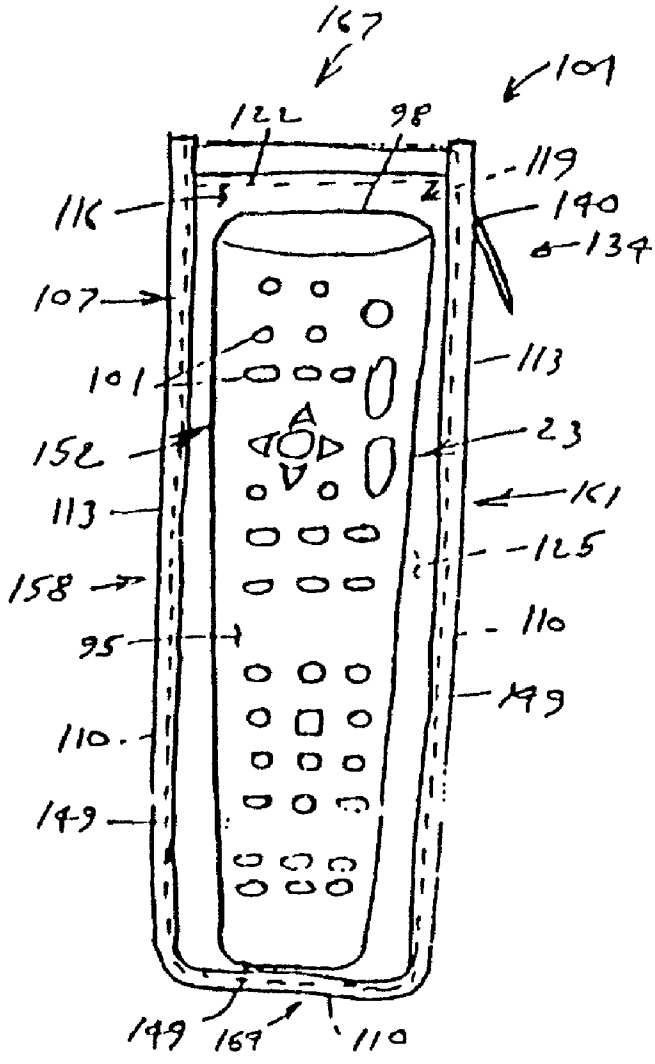
(57) **ABSTRACT**

A protective cover for remote control devices used for remotely operating televisions, VCR's, and music systems. The protective cover includes a thin, flexible main cover which is formed in a folded, elongate U-shaped configuration, interconnected at opposite pairs of longitudinal edges by a pair of flexible, expandable side panels. The main cover includes a transparent front through which the push buttons are visible and operable, a transparent top disposable adjacent the emitter cover through which the emitter of the remote control device can luminesce, a bottom panel, and a back panel. The remote control device is insertable into and removable from the protective cover using an extension of the top which forms a flap which is overlappable about a portion of the back of the protective cover to retain the remote control device, and secured using mating patches of a hook and loop fastener. Other versions of the protective cover do not utilize a flap, but rather include a zipper which is mounted to slit side zipper or back of the remote control device.



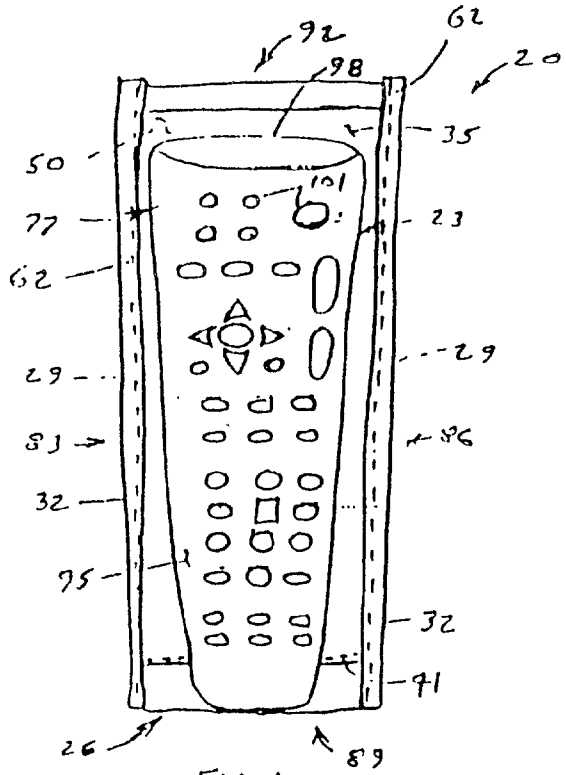


FIG. 1

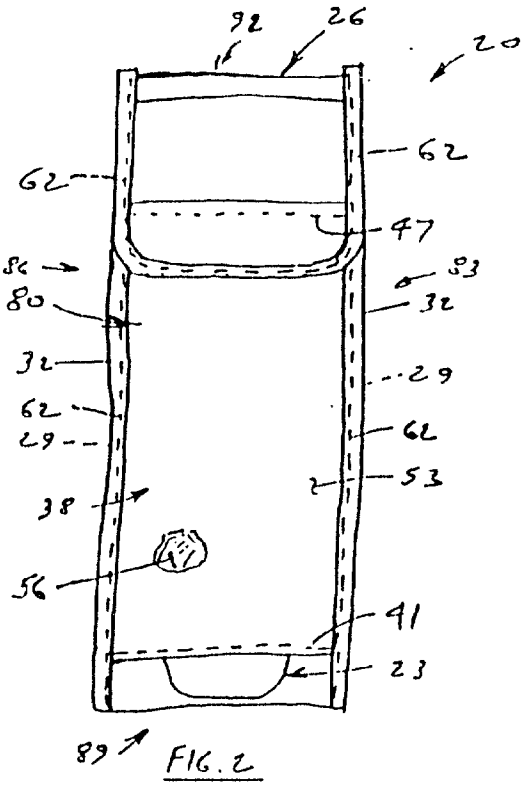


FIG. 2

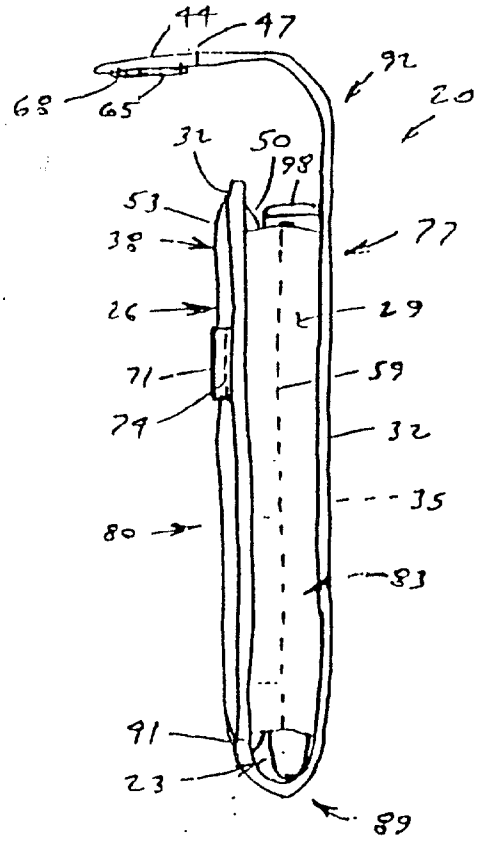


FIG. 3

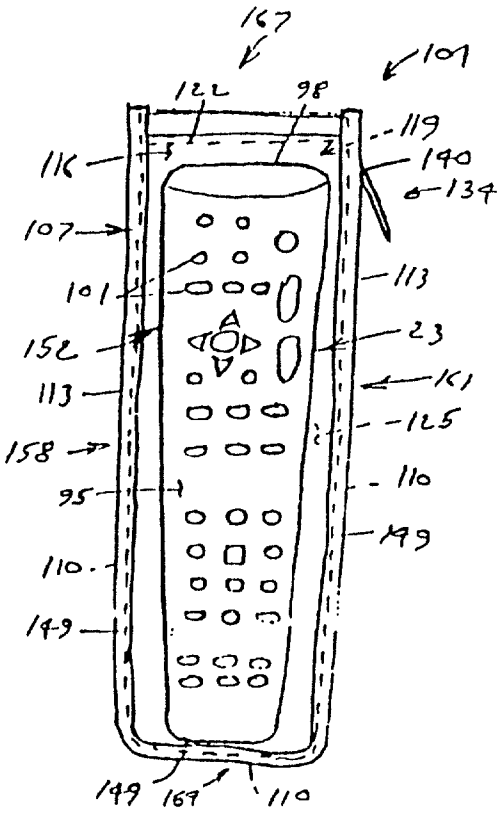


FIG. 4

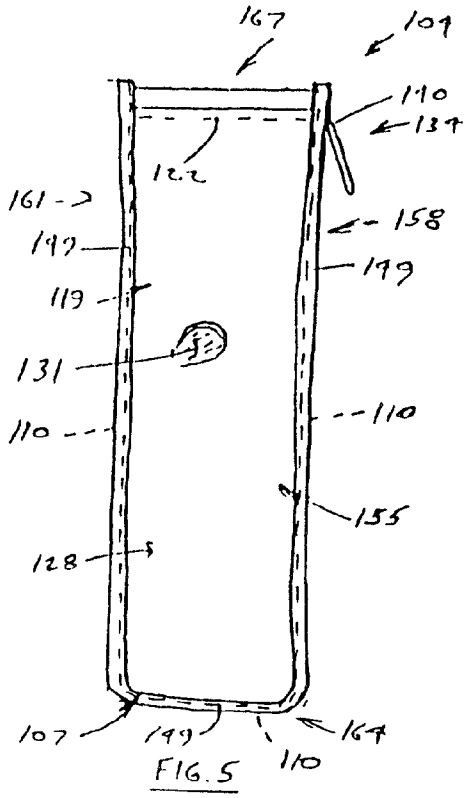


FIG. 5

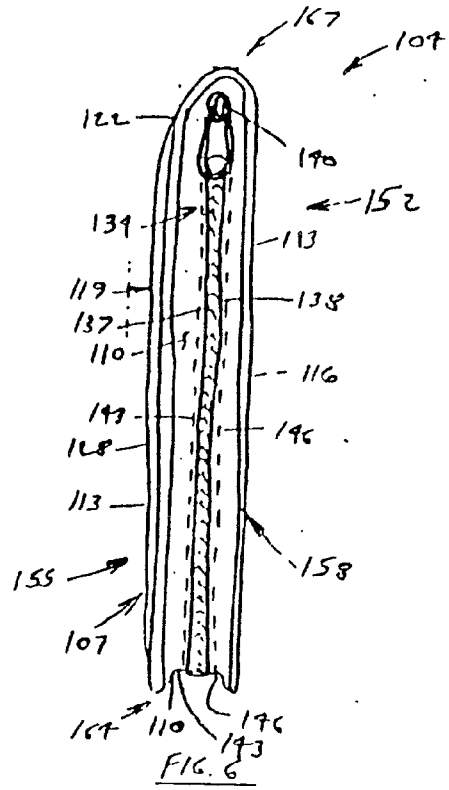


FIG. 6

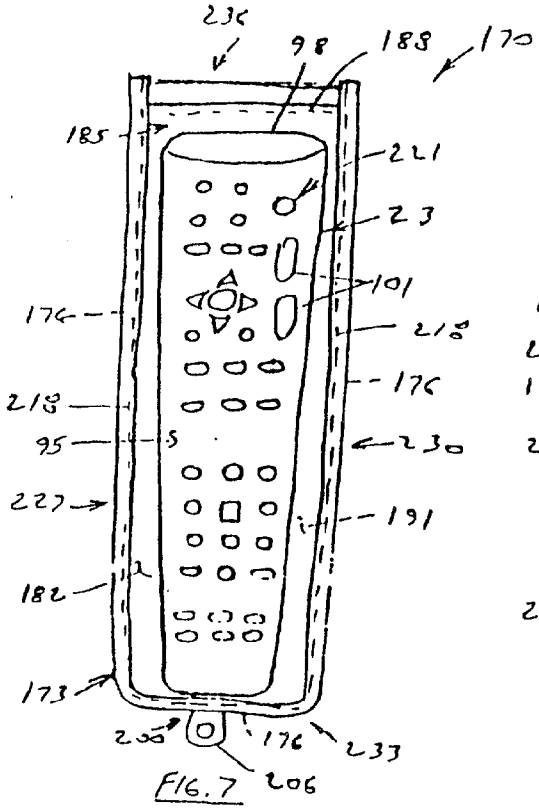


FIG. 7

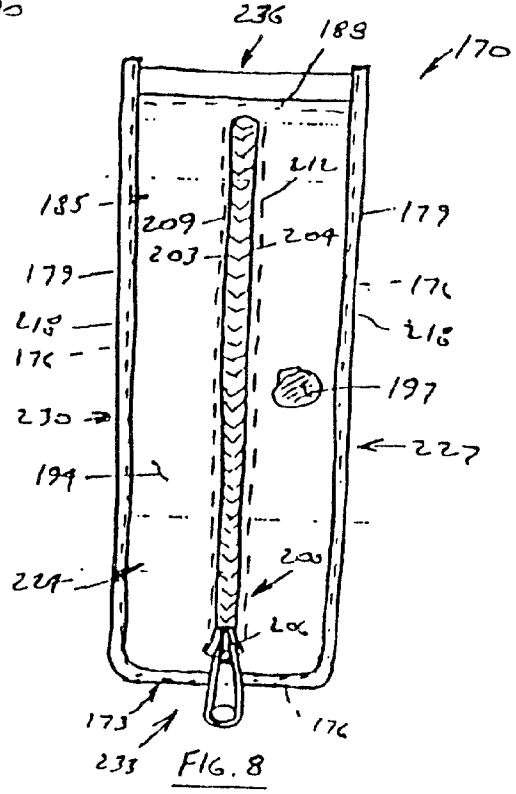
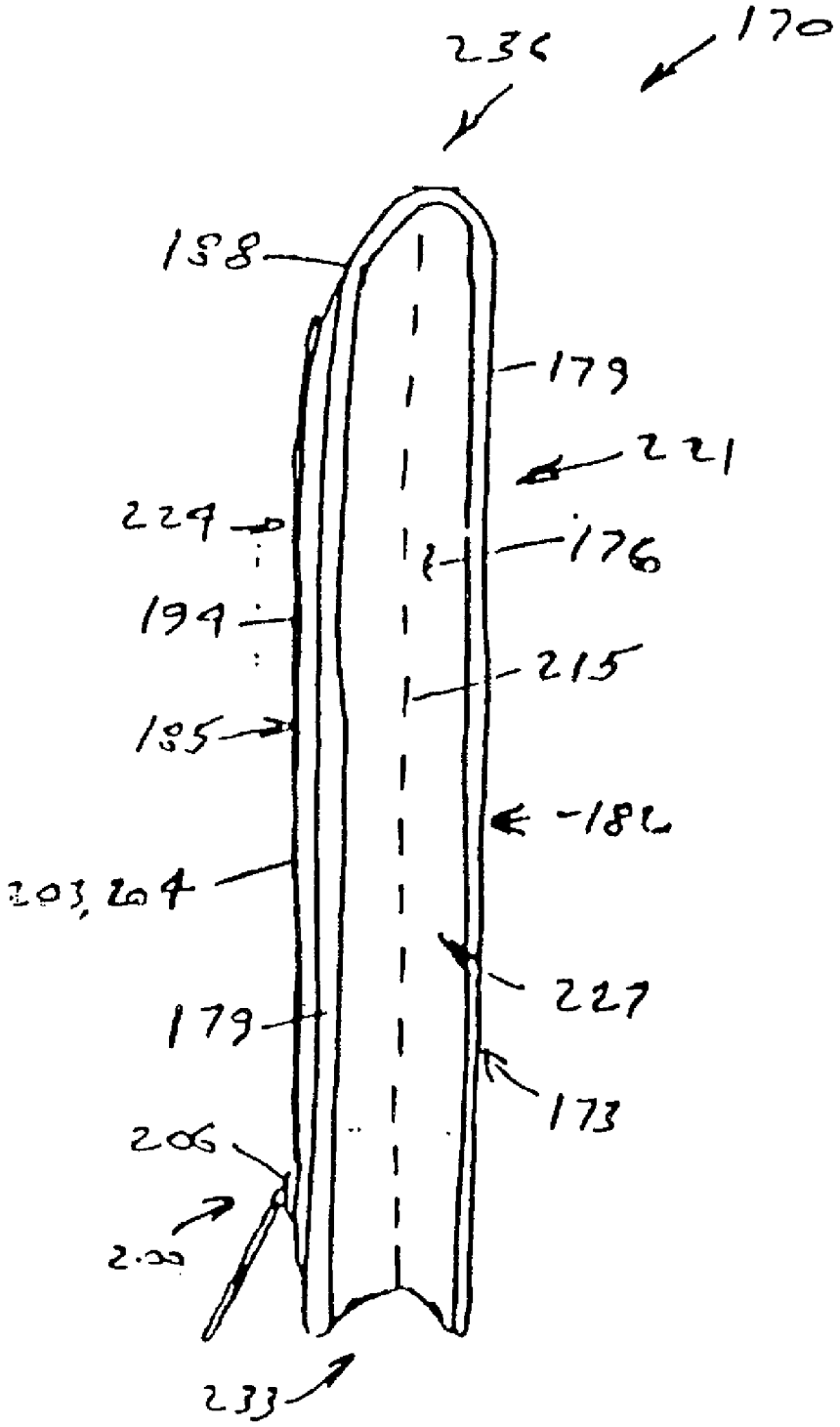


FIG. 8


170
236
158
179
221
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176
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215
185
182
203, 204
227
179
173
206
200
233

FIG. 9

PROTECTIVE COVER FOR REMOTE CONTROL DEVICES

BACKGROUND OF THE INVENTION

[0001] 1. Field

[0002] The present invention relates to covering structures, and more particularly to protective covers for electronic devices such as remote control devices used with televisions, VCR's, and stereo music equipment.

[0003] 2. State of the Art

[0004] Remote control devices to control electronic appliances such as televisions, VCR's, and stereo music systems have become increasingly popular in recent years. The use of a remote control device permits the user of the particular appliance to remain in a comfortable position on the couch, in a lounge chair, in bed, or even on the floor and operate the appliance. Such remote control devices include a casing through which a plurality of push buttons extend. The user depresses and releases the specific push buttons which control the function which is desired to be controlled. The remote control device sends a coded infrared signal indicative of the instructions desired by the user via an infrared diode or emitter which is located behind a tinted, transparent emitter cover disposed at the front end of the remote control device. A corresponding infrared light sensor of the appliance senses the signal, which is decoded by the appliance and the decoded instructions are executed.

[0005] A major problem with remote control devices is their vulnerability to damage due liquids which can short out the electronics contained within the casing. While some remote control devices are designed to be resistant to liquids, the majority are not. This is specially true in the age of an ever growing number of persons which eat and drink while using their remote control device. An equally big problem is damage caused by dropping the remote control device. Such shock can break the casing and the electronics are also vulnerable such as by breaking electrical connections.

[0006] There is a need for a protective cover specifically designed for remote control devices which protects them from damage due to fluids and shock.

SUMMARY OF THE INVENTION

[0007] The present invention is a protective cover for remote control devices. The remote control devices are of the type having a casing with a transparent emitter cover and a plurality of push buttons which extend through the casing. The push buttons are used to manually control the functions of the remote control device and signal an emitter of the remote control device which sends commands via a non-visible, infrared light which shines through an emitter cover to signal a device to be remotely controlled such as a television as to the desired commands. The protective cover comprises a thin, flexible main cover having a transparent front panel, and a pair of flexible side panels. The main cover is disposed in a folded, generally elongate U-shaped configuration to form a transparent front through which the push buttons are visible and operable by depressing them, a transparent top end disposable adjacent the emitter cover through which the emitter can luminesce, a bottom panel, and a back panel. Respective edges of the side panels are affixed to pairs of opposing longitudinal edges of the main cover to comprise respective opposite sides of the protective cover. The remote control device is insertable into the protective cover and the protective cover is closable thereabout so as to be operable therein while being protected by the protective cover.

THE DRAWINGS

[0008] The best mode presently contemplated for carrying out the invention is illustrated in the accompanying drawings, in which:

[0009] **FIG. 1** is a front elevational view of a first embodiment protective cover according to the present invention as used with a remote control device for televisions;

[0010] **FIG. 2, a** rear elevational view of the first embodiment protective cover and the remote control device;

[0011] **FIG. 3, a** side elevational view of the first embodiment protective cover and the remote control device, but showing the flap of the cover in an open position;

[0012] **FIG. 4, a** front elevational view of a second embodiment protective cover according to the present invention as used with the remote control device for televisions;

[0013] **FIG. 5, a** rear elevational view of the second embodiment protective cover and the remote control device;

[0014] **FIG. 6, a** side elevational view of the second embodiment protective cover and the remote control device showing the zipper which extends around thre sides of the cover; and

[0015] **FIG. 7, a** rear elevational view of a third embodiment protective cover and the remote control device which has a rear zipper.

DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENTS

[0016] As best shown in FIGS. **1-3**, therein is shown a first embodiment protective cover, generally designated at **20**, as used for protecting a remote control device **23** such as used for remotely controlling a television or a VCR (not shown).

[0017] The first embodiment protective cover **20** comprises a flexible main cover assembly **26** and a pair of side panels **29** which are all connected together by a flexible circumferential edging **32**. The main cover assembly **26** includes an elongate transparent panel **35** to which is affixed an opaque padded back panel assembly **38** at a sewn seam **41**, and an opaque closing tab **44** at a sewn seam **47**. The back panel assembly **38** includes respective inner and outer back panels **50** and **53** between which is sandwiched a foam pad **56**. The side panels **29** each include a longitudinal crease **59** formed therein which forms a V-shaped cross-section which can extend when under lateral tension. The main cover assembly **26** and the side panels **29** are joined together by the edging **32**, which is folded over to form a flattened U-shape and sewn together at a sewn circumferential edge seam **62**. A hook pad **65** is affixed to the closing tab **44** at a sewn circumferential seam **68**, and a mating loop pad **71** is affixed to the outer back panel **53** at a sewn circumferential seam **74**. The hook pad **65** and the loop pad **71** are releasibly interconnectable hook and loop connector pads such as known under the trade name VELCRO™. This forms the protective cover **20** with a clear front **77**, an opaque back **80**,

opaque sides **83** and **86**, a clear bottom **89**, and a clear top **92**. The remote control device **23** includes a tapered casing **95** having a tinted transparent emitter cover **98**, and a plurality of push buttons **101** which extend through the casing **95**. The push buttons **101** control the functions of the remote control device **23** which sends commands via an non-visible, infrared light (not shown) which shines through the emitter cover **98** to signal the television or VCR as to the desired commands. The remote control device **23** fits within the protective cover **20** by grasping the closing tab **44** and pulling outwardly to remove the hook pad **65** affixed thereto from the mating loop pad **71** affixed to the outer back panel **53**. The remote control device **23** is placed within the protective cover **20** with the push buttons **101** juxtaposed the clear front **77** and the emitter cover **98** closely adjacent the clear top closing tab **92**. The closing tab **44** is then replaced such that the hook pad **65** and the mating loop pad **71** are re-engaged to retain the remote control device **23** within the protective cover **104**. The infrared light shines through the emitter cover **98** and the clear top **92**.

[**0018**] A second embodiment protective cover **104** is shown in FIGS. **4-6**, as used for protecting the remote control device **23**. The protective cover **104** comprises a flexible main cover assembly **107** and a flexible zippered three-side panel **110**, which are connected together by a flexible circumferential edging **113**. The main cover assembly **107** includes an elongate transparent panel **116** to which is affixed an opaque padded back panel assembly **119** at a sewn seam **122**. The back panel assembly **119** includes respective inner and outer back panels **125** and **128** between which is sandwiched a foam pad **131**. The three-side panel **110** includes a longitudinal zipper **134** having a pair of interlockable tracks **137** and **138**, and a handled closure member **140**, with a pair of closely adjacent creases **143** and **146** formed therein which forms a modified V-shaped cross-section, having a flattened apex, which can extend when under lateral tension. The main cover assembly **107** and the three-side panel **110** are joined together by the edging **113**, which is folded over to form a flattened U-shape and sewn together at a sewn circumferential edge seam **149**. This forms the protective cover **104** with a clear front **152**, an opaque back **155**, opaque sides **158** and **161**, a opaque bottom **164**, and a clear top **167**. The remote control device **23** fits within the protective cover **104** by grasping the handled closure member **140** and unzipping the zipper **134**. The remote control device **23** is placed within the protective cover **104** with the push buttons **101** juxtaposed the clear front **152** and the emitter cover **98** closely adjacent the clear top **167**. The zipper **134** is they re-zipped to retain the remote control device **23** within the protective cover **104**. The infrared light shines through the emitter cover **98** and the clear top **167**.

[**0019**] A third embodiment protective cover **170** is shown in **FIG. 7**, as used for protecting the remote control device **23**. The protective cover **170** comprises a flexible main cover assembly **173** and a flexible three-side panel **176**, which are connected together by a flexible circumferential edging **179**. The main cover assembly **173** includes an elongate transparent panel **182** to which is affixed an opaque padded back panel assembly **185** at a sewn seam **188**. The back panel assembly **185** includes respective split inner and outer back panels **191** and **194** between which is sandwiched a split foam pad **197**, and a longitudinal zipper **200** having a pair of interlockable tracks **203** and **204**, and a handled closure member **206**. The zipper **200** is affixed to the inner and outer panels **191** and **194**, and to the foam pad **197** at a pair of sewn seams **209** and **212**. The three-side panel **176** includes a longitudinal crease **215** formed therein which forms a V-shaped cross-section which can extend when under lateral tension. The main cover assembly **173** and the three-side panel **176** are joined together by the edging **179**, which is folded over to form a flattened U-shape and sewn together at a sewn circumferential edge seam **218**. This forms the protective cover **170** with a clear front **221**, an opaque back **224**, opaque sides **227** and **230**, a opaque bottom **233**, and a clear top **236**. The remote control device **23** fits within the protective cover **170** by grasping the handled closure member **206** and unzipping the zipper **200**. The remote control device **23** is placed within the protective cover **170** with the push buttons **101** juxtaposed the clear front **221** and the emitter cover **98** closely adjacent the clear top **236**. The zipper **200** is they re-zipped to retain the remote control device **23** within the protective cover **170**. The infrared light shines through the emitter cover **98** and the clear top **236**.

[**0020**] Many changes can be made to the protective cover while staying within the same inventive concept. For example, the materials used for the main cover assemblies, the side panels, the three-sided panels, and the circumferential edging can be sheet plastic, woven cloth or plastic, plastic coated fabric, or any other suitable material, which can be treated with waterproofing materials if required. The foam pads can be any of the standard types including polyurethane foam of the open or closed cell variety. While sewn seams are shown, heat sealing can be employed, as well as adhesive sealing or any other such process suitable for the particular materials.

[**0021**] Whereas this invention is here illustrated and described with reference to embodiments thereof presently contemplated as the best mode of carrying out such invention in actual practice, it is to be understood that various changes may be made in adapting the invention to different embodiments without departing from the broader inventive concepts disclosed herein and comprehended by the claims that follow.

I claim:

1. A protective cover for a remote control device, the remote control device being of the type having a casing with a transparent emitter cover, a plurality of push buttons which extend through the casing to manually control the functions of the remote control device, and an emitter which sends commands via an non-visible, infrared light which shines through an emitter cover to signal a device to be remotely controlled such as a television as to the desired commands, the protective cover comprising:

a thin, flexible main cover having a transparent front panel;

a pair of flexible side panels; and

wherein said main cover is disposed in a folded, generally elongate U-shaped configuration to form a transparent front through which the push buttons are visible and operable by depressing them, a transparent top end disposable adjacent the emitter cover through which the emitter can luminesce, a bottom panel, and a back panel, respective edges of said side panels being affixed to pairs of opposing longitudinal edges of said main

cover to comprise respective opposite sides of the protective cover, the remote control device being insertable into the protective cover and the protective cover closable therearound so as to be operable therein while being protected by the protective cover.

2. The protective cover according to claim 1, further comprising a foam pad connected to the outer back panel which provides cushioning for the remote control device.

3. The protective cover according to claim 2, further comprising an inner back panel affixed to the outer back panel with the foam pad sandwiched therebetween.

4. The protective cover according to claim 3, wherein the side panels are expandable and contractible fit remote control devices of differing thicknesses.

5. The protective cover according to claim 4, wherein the respective side panels are expandable and contractible by each having formed therein at least one longitudinally extending crease which forms respective of said side panels into a V-shaped cross-section and which can extend when under lateral tension.

6. The protective cover according to claim 1, wherein side panels are expandable and contractible fit remote control devices of differing thicknesses.

7. The protective cover according to claim 6, wherein the respective side panels are expandable and contractible by each having formed therein at least one longitudinally extending crease which forms respective of said side panels into a V-shaped cross-section and which can extend when under lateral tension.

8. The protective cover according to claim 1, wherein the main cover assembly and the side panels are joined together by an edging which is folded over to form a flattened U-shape and affixed together at a sewn circumferential edge seam.

9. The protective cover according to claim 1, wherein the main cover includes an outer back panel which is opaque over most of its surface area.

10. The protective cover according to claim 9, wherein the side panels are opaque.

11. The protective cover according to claim 9, wherein a bottom of the protective cover is transparent.

12. The protective cover according to claim 1, wherein the protective cover is closable by using an extension of the front panel forms a closable flap which is wrapable over the remote control device contained within the protective cover and removably connectable to the outer back panel using a closing device.

13. The protective cover according to claim 12, wherein the closing device comprises respective mating patches of a hook and loop fastener, one of said patches being affixed to the closable flap and the other being affixed to the outer back panel.

14. The protective cover according to claim 12, further comprising a foam pad connected to the outer back panel which provides cushioning for the remote control device.

15. The protective cover according to claim 14, further comprising an inner back panel affixed to the outer back panel with the foam pad sandwiched therebetween.

16. The protective cover according to claim 12, wherein the side panels are expandable and contractible fit remote control devices of differing thicknesses.

17. The protective cover according to claim 12, wherein the respective side panels are expandable and contractible by each having formed therein at least one longitudinally extending crease which forms respective of said side panels into a V-shaped cross-section and which can extend when under lateral tension.

18. The protective cover according to claim 12, wherein the main cover includes an outer back panel which is opaque over most of its surface area.

19. The protective cover according to claim 1, wherein the protective cover is closable by using a zipper having a pair of interlockable tracks and a handled closure member, said zipper being affixed at a slit through at least one of the panels for inserting and removing the remote control device therethrough.

20. The protective cover according to claim 19, wherein the panel having the slit to which the zipper is affixed is the outer back panel.

21. The protective cover according to claim 20, further comprising a foam pad connected to the outer back panel which provides cushioning for the remote control device, and an inner back panel affixed to said outer back panel with said foam pad sandwiched therebetween.

22. The protective cover according to claim 20, wherein the side panels are expandable and contractible fit remote control devices of differing thicknesses.

23. The protective cover according to claim 19, further comprising a three-side panel which includes the pair of flexible side panels which are interconnected by a bottom panel.

24. The protective cover according to claim 23, wherein the panel having the slit to which the zipper is affixed is the outer back panel.

25. The protective cover according to claim 24, further comprising a foam pad connected to the outer back panel which provides cushioning for the remote control device, and an inner back panel affixed to said outer back panel with said foam pad sandwiched therebetween, said

26. The protective cover according to claim 24, wherein the side panels are expandable and contractible fit remote control devices of differing thicknesses.

27. The protective cover according to claim 23, wherein the panel having the slit to which the zipper is affixed is the three-side panel.

28. The protective cover according to claim 27, wherein the three-side panel has a longitudinal length, and wherein the slit and the zipper extend substantially along an entirety of said longitudinal length.

29. The protective cover according to claim 27, further comprising a foam pad connected to the outer back panel which provides cushioning for the remote control device.

30. The protective cover according to claim 29, further comprising an inner back panel affixed to the outer back panel with the foam pad sandwiched therebetween.

31. The protective cover according to claim 27, wherein the three-sided panel is expandable and contractible fit remote control devices of differing thicknesses.

32. The protective cover according to claim 31, wherein the three-sided panel is expandable and contractible by having formed therein a pair of longitudinally extending creases formed therein closely adjacent along opposite sides of the zipper which forms said-three-sided panel into a modified V-shaped cross-section having a flattened apex which can extend when under lateral tension.

33. The protective cover according to claim 19, wherein the main cover includes an outer back panel which is opaque over most of its surface area.

* * * * *