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Kawaguchi

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[54] **REAR PROJECTION TYPE TELEVISION UNIT**

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[73] **Assignee:** Pioneer Electronic Corporation, Tokyo, Japan

63244091 4/1990 Japan H04N 5/74

[21] **Appl. No.:** 859,252

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The Trooper, American Video Communication, 1986.

Related U.S. Application Data

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Attorney, Agent, or Firm—Sughrue, Mion, Zinn, Macpeak & Seas

[63] Continuation of Ser. No. 631,317, Dec. 21, 1990.

Foreign Application Priority Data

[57] ABSTRACT

Jul. 13, 1990 [JP] Japan 2-74631[U]

[51] **Int. Cl.⁵** H04N 5/72; H04N 5/64; H04N 5/655

A rear projection type television unit comprises a television body having an outer casing in which electric and optical parts are accommodated and a front panel detachably attached to a front portion of the television body so as to entirely cover the front portion thereof. The television of the structure described above is accommodated in a wall structure of a chamber so that the front surface of the front panel lies on the same level as that of a front surface of the wall structure when the television body is accommodated in a wall structure. The television unit is safely and stably supported in the recessed portion formed in the wall structure by support members such as angle members secured to the side portions of the television body by engaging the same with support members secured to the wall structure.

[52] **U.S. Cl.** 348/789; 312/7.2; 348/787

[58] **Field of Search** 358/231, 237, 254, 60, 358/245, 249, 248; 312/7.2, 263, 265.1; 455/346-351; H04N 5/72, 5/64-5/655

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8 Claims, 3 Drawing Sheets

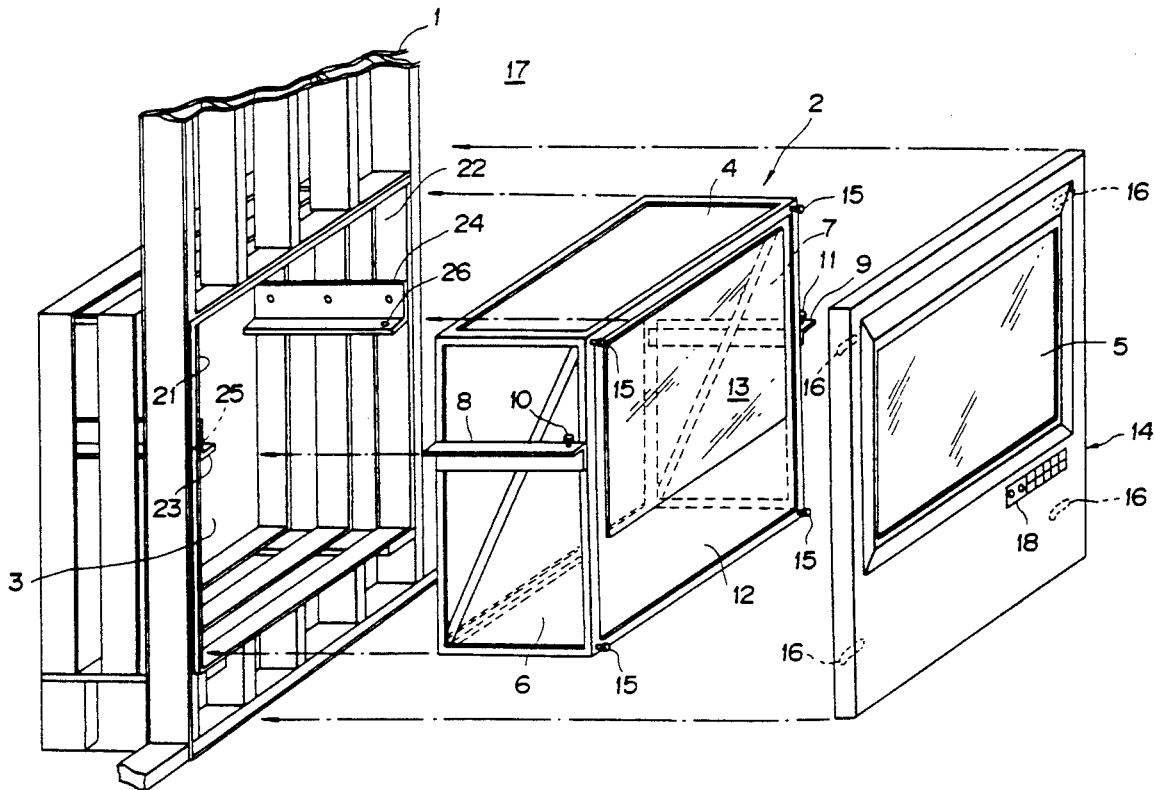


FIG. 1

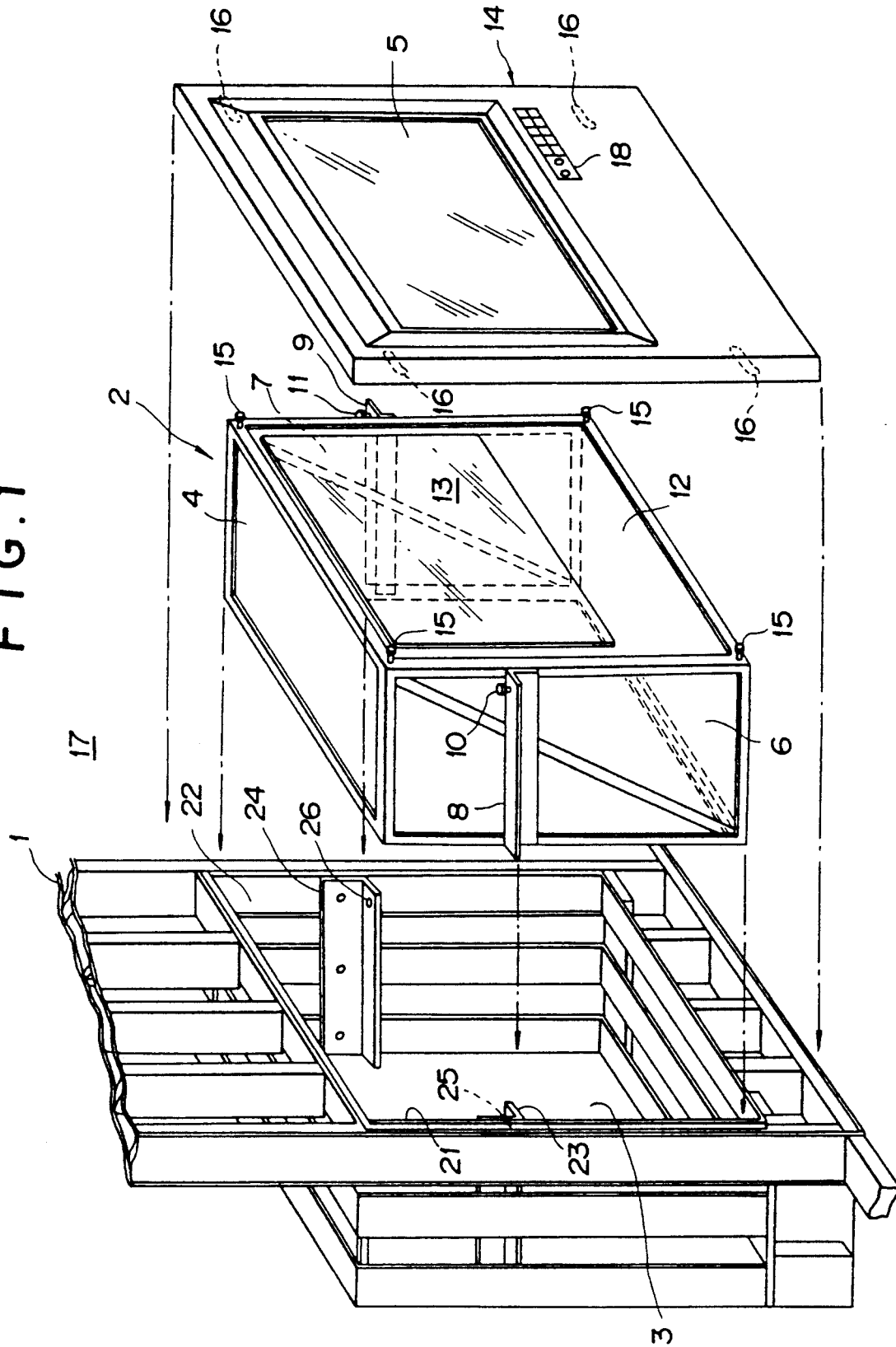


FIG. 2

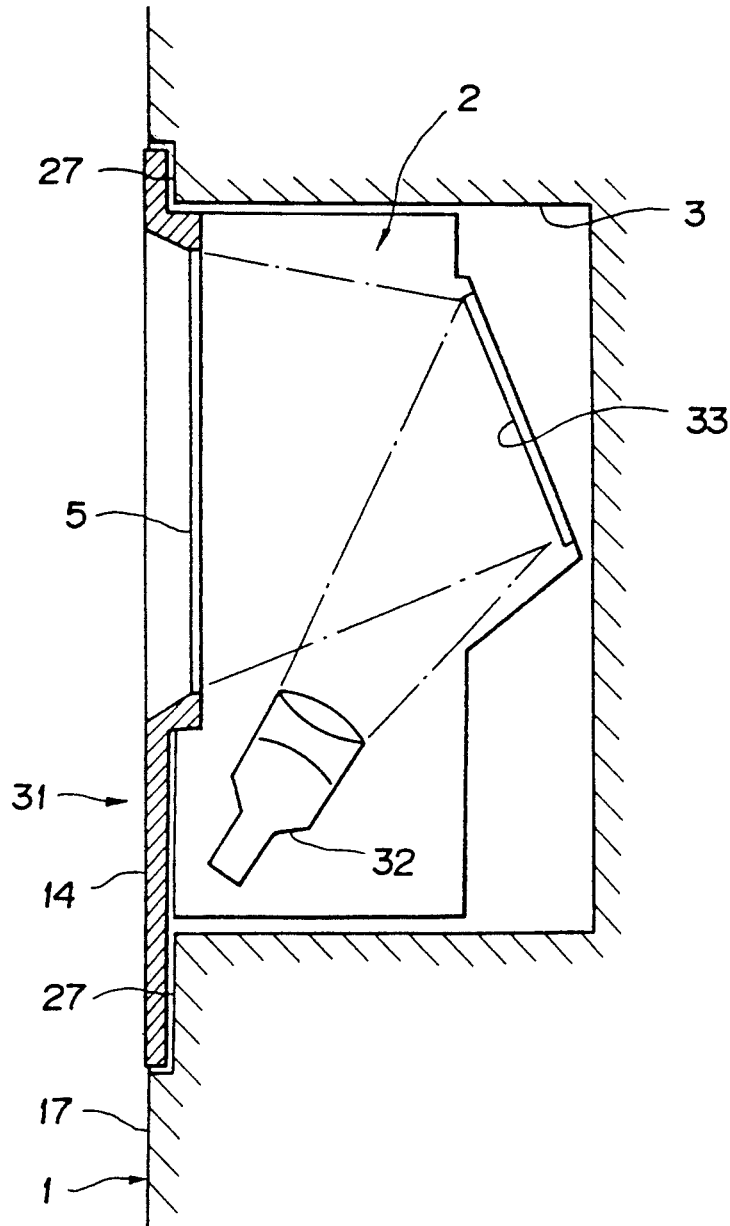
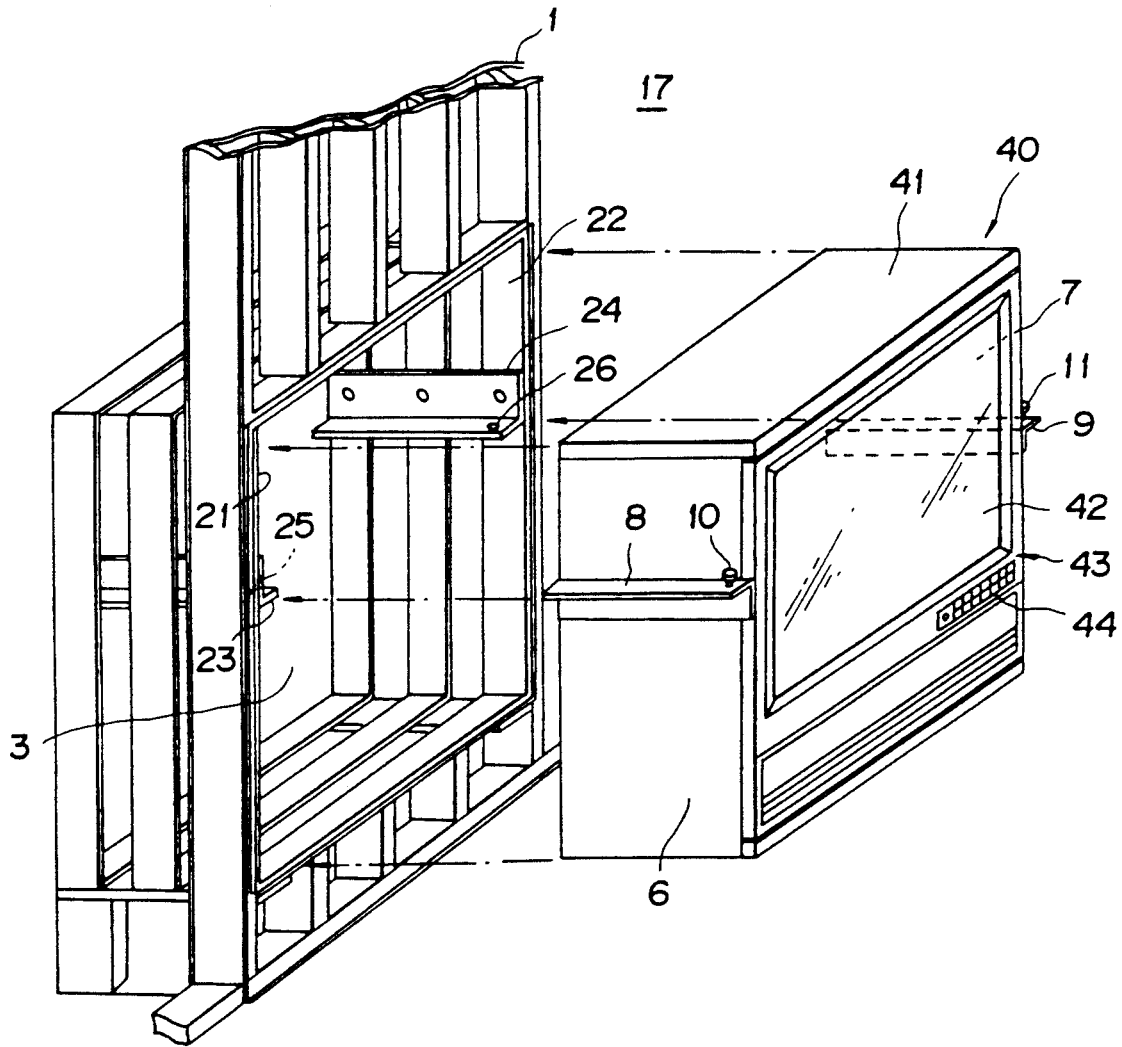


FIG. 3



REAR PROJECTION TYPE TELEVISION UNIT

This is a continuation of application Ser. No. 07/631,317 filed Dec. 21, 1990.

BACKGROUND OF THE INVENTION

This invention relates to a rear projection type television unit particularly capable of being accommodated in a wall structure of a house and the like.

A rear projection type television unit generally includes cathode ray tubes (CRT) respectively for projecting red (R), green (G) and blue (B) colors and color light beams emitted from the respective CRT are irradiated on the rear surface of a screen attached to a cabinet of the body of the television to thereby form or realize a color image on the front surface of the screen. Such rear projection type television unit is set in a chamber of ordinary domestic houses or business building.

However, the rear projection type television unit of this kind has generally a large size cabinet, thus occupying substantial space for the setting thereof in the room of the house, thus being inconvenient. Moreover, when such a large size television unit is set in an ordinary house, it may be impossible to observe the television screen with a suitable predetermined distance being kept between a viewer and the screen of the television unit.

Furthermore, in another aspect, the cabinet or front panel of the television cannot be usually exchanged with another one even in a case where various decorations provided on the surface of the cabinet or front panel do not match with the decorations or interiors in the room, thus being also inconvenient.

SUMMARY OF THE INVENTION

An object of this invention is to substantially eliminate defects of drawbacks encountered in the prior art described above and to provide a rear projection type television unit having a front panel to be detachably secured to a television body so as to match with decoration or interior in a room in which the television unit is arranged.

Another object of this invention is to provide a rear projection type television unit disposed in a wall of a room so as to effectively utilize a space in the room.

These and other objects can be achieved according to this invention, in one aspect, there is provided a rear projection type television unit comprising a television body having an outer casing in which electric and optical parts are accommodated and a front panel detachably attached to a front portion of the television body so as to entirely cover the front portion thereof.

In another aspect, there is provided a rear projection type television unit of the type which is accommodated in an accommodating portion formed in a wall structure of a chamber, comprising a television body having an outer casing which is accommodated in the wall structure and in which electric and optical parts are accommodated and a front panel detachably attached to a front portion of the television body so as to entirely cover the front portion thereof, the front panel having a front surface lying on the same level as that of a surface of the wall structure when the television body is accommodated in the accommodating portion.

In a preferred embodiment, the television unit further comprises supporting members such as angle members for supporting the television body to the wall structure

and the supporting members are engaged with members secured to the wall structure.

According to the rear projection type television unit of the structure described above, the front panel is detachably secured to the front portion of the television body, so that the panel can be exchanged with another one in conformity with decoration or interior of the chamber in which the television unit is disposed. In another aspect, the rear projection type television unit is accommodated in a recessed portion formed in the wall structure of the chamber in a manner such that the television body is first accommodated in the wall structure and then the front panel is attached to the front portion of the television unit so that the front surface of the front panel lies on the same level as that of the wall surface, thus the space of the chamber being effectively utilized. The television unit can be exactly and stably positioned in the recessed portion of the wall structure by engaging the support members secured to the outer surface of the television body to the support members secured to the wall structure. This invention may be also effectively utilized for the commercially sold rear projection type television unit.

In another aspect, there is provided a rear projection type television unit comprising a rear projection type television, an accommodating portion formed in a wall structure, the accommodating portion accommodating the rear projection type television and supporting members for supporting the rear projection type television in the accommodating portion.

In a preferred embodiment, the rear projection type television comprises a panel having a screen and not detachably secured to a body, and the supporting members comprise first angle members secured to the rear projection type television and second angle members secured to the accommodating portion, the first angle members being supported to the second angle members.

According to the rear projection type television unit of the structure described above, a commercially sold rear projection type television can be accommodated in the wall structure of the chamber.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of this invention and to show how the same is carried out, reference is now made, by way of preferred embodiments, to the accompanying drawings, in which:

FIG. 1 is a developed perspective view of a rear projection type television unit according to one embodiment of this invention;

FIG. 2 is a brief sectional view showing a condition in which the television unit shown in FIG. 1 is accommodated in a wall structure; and

FIG. 3 is a view similar to that of FIG. 1 representing another embodiment according to this invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIGS. 1 and 2 represent a first embodiment of a rear projection type television unit according to this invention.

Referring to FIG. 1, reference numeral 1 denotes a wall structure of a chamber of an ordinary domestic house or business building and a recess having substantially rectangular structure is formed in the wall structure 1 as an accommodating portion 3 for receiving or accommodating a body 2 of a rear projection type television unit. The television body 2 comprises an outer

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