

June 23, 1953

M. J. MORRIS

2,643,373

MOUNTING OF CATHODE-RAY TUBES FOR TELEVISION RECEPTION

Filed July 21, 1950

2 Sheets-Sheet 1

FIG. 1

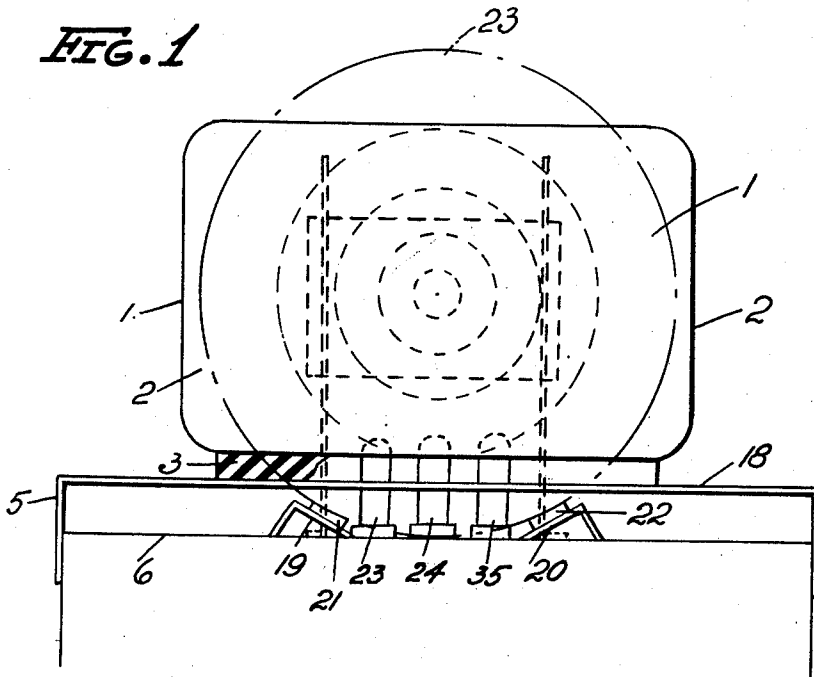
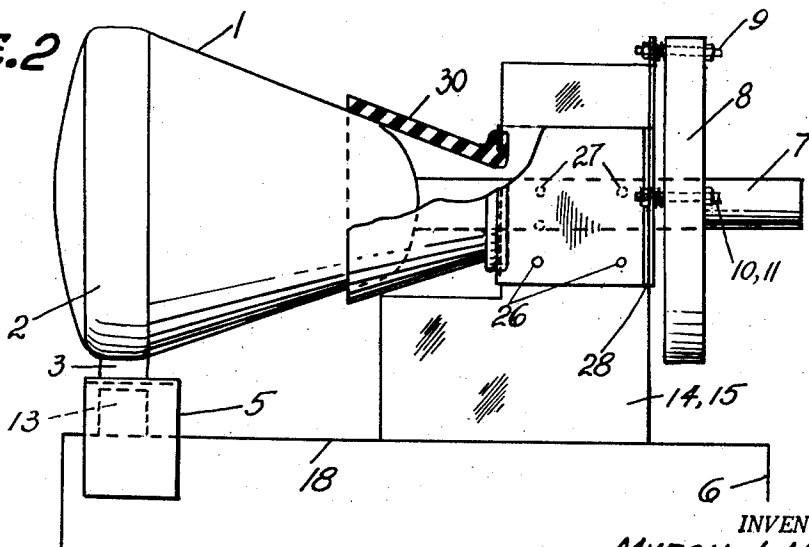


FIG. 2



INVENTOR.
MYRON J. MORRIS
BY *Theodore H. Hapley*
ATTORNEY

June 23, 1953

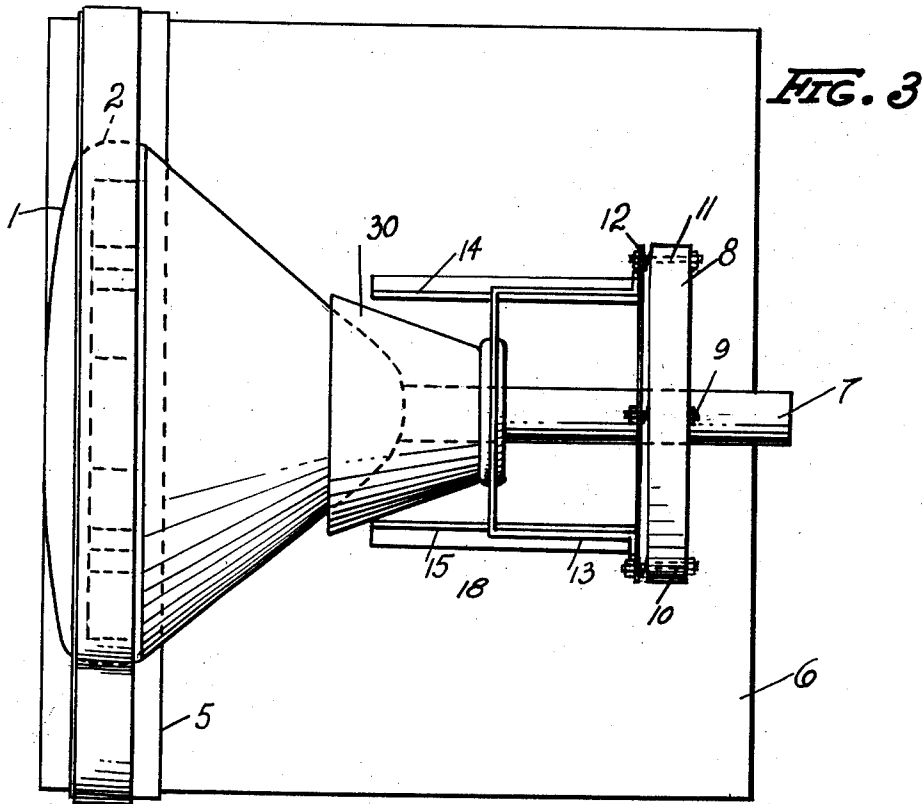
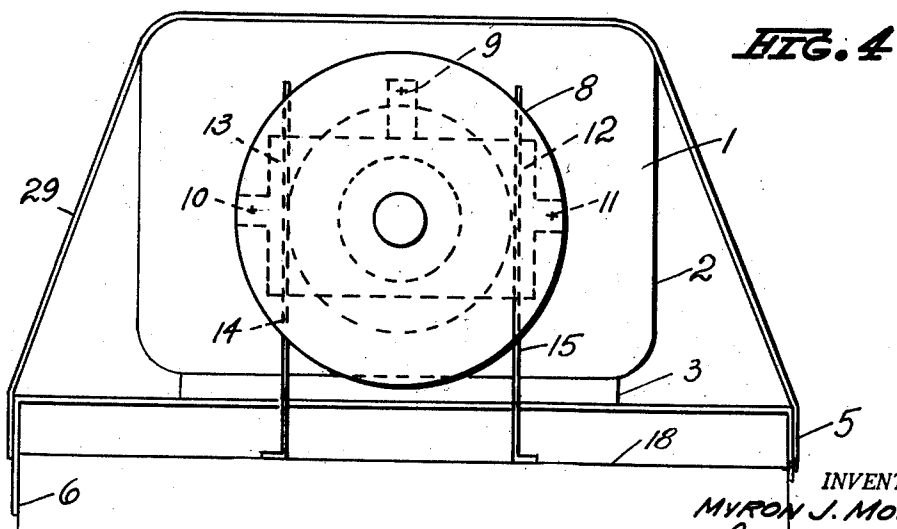
M. J. MORRIS

2,643,373

MOUNTING OF CATHODE-RAY TUBES FOR TELEVISION RECEPTION

Filed July 21, 1950

2 Sheets-Sheet 2



INVENTOR.
MYRON J. MORRIS
BY *Theodore H. Hapner*
ATTORNEY

UNITED STATES PATENT OFFICE

2,643,373

MOUNTING OF CATHODE-RAY TUBES FOR
TELEVISION RECEPTIONMyron J. Morris, Yonkers, N. Y., assignor to Tele
King Corporation, a corporation of New York

Application July 21, 1950, Serial No. 175,216

1 Claim. (Cl. 340—367)

1

This invention relates to a cathode ray tube mounting and more specifically to the mounting of a cathode ray tube in a television receiver.

One of the difficulties in present-day manufacture of television receivers on a mass production scale is the adaptation of a given television chassis to different types and sizes of cathode ray tube or kinescope.

One of the objects of the invention is a telescope mounting for the neck of the cathode ray tube, which is supported on the top of a chassis to permit horizontal as well as vertical adjustment corresponding to cathode ray tubes of different diameters and different lengths of neck.

Another object of this invention is a neck support for a cathode ray tube which is hollow so as to provide electric screening for circuit elements arranged therein in order to save space on the top of the chassis.

Still another object of the invention is an arrangement of hollow sheet metal elements disposed telescopically, forming an adjustable support for the neck of a cathode ray tube and open on one side to permit placement of circuit elements therein.

A further and more specific object of the invention is a telescopic mounting arranged to form a support for the neck of a cathode ray tube mounted on the rear side of a chassis, adjustable in height, while the screen carrying front portion of the cathode ray tube is mounted in relative fixed position on the front side of the chassis.

A more specific object of the invention is to support or enclose at least partially in the top element of a telescopic neck mount the deflection elements of the cathode ray tube such as magnetic coils, while the bottom element encloses at least partially certain circuit elements supported on the chassis and electrically screened from certain other circuit elements arranged on the chassis.

Still another object of the invention is a mounting system which permits the alternative mounting of quadrangular and round type cathode ray tubes on one and the same chassis.

These and other objects of the invention will be more fully apparent from the drawings enclosed herewith in which Figures 1 and 2 represent front and side views, respectively, of a cathode ray tube mounting embodying certain features of the invention; Figures 3 and 4 are corresponding top and rear views.

In Figures 1, 2, 3, and 4, part 1 represents a cathode ray tube of quadrangular type. The

2

front section 2 of tube 1 is mounted on rubber cushion 3 and supported on a bridge portion 5 of sheet metal or the like, which in turn is attached to a metal chassis 6 containing circuit elements arranged inside and outside thereof in a manner well known in the art.

The neck portion 7 of tube 1 is surrounded by a deflection coil system 8 which is adjustably mounted at points schematically indicated in Figure 4 at 9, 10, 11, and in a manner immaterial for the invention, on supporting plate 12, which in turn is attached to the flanges of a U cross section outer telescope top member 13, which is adjustably placed over and attached to another inner telescopic bottom member consisting of sheet metal flaps 14, 15 having flanges attached to the top 18 of chassis 6 by screws or in any other appropriate manner. In this way, it is possible to adapt the height of the upper telescopic support 13 to necks of cathode ray tubes of different heights and at the same time to adjust the horizontal position of the lower telescopic supports 14, 15 along the top 18 of chassis 6 to tube necks of different lengths without being required to change the chassis and the system of mounting.

The invention also permits of placing a round type cathode ray tube on chassis 6. This is made possible by the provision of angular metal pieces 19, 20 (Figure 1), under bridge 5, which are welded, riveted, or otherwise permanently attached to metal top 18.

By inserting rubber cushions as schematically indicated in dotted lines at 21, 22, a round type cathode ray tube will be supported on chassis 6, as schematically indicated at 23, without substantially changing the construction of the chassis.

The telescoping members 13, 14, and 15 form a hollow structure in order to permit the placing therein of circuit elements such as tubes or condensers schematically indicated at 23, 24, and 25 in Figure 1. This is to save space on the top 18 of chassis 6, and also to afford electrical protection for elements 23, 24, and 25 by the screening action of the metal wall formed by the lower telescope members 14, 15.

In order better to fix the relative position in height of members 13, 14, 15, the side flaps of 13 are provided with inward dimples 26 fitting into any one of pairs of holes or receivers 27 (Figure 2) of side walls 14, 15. Connections 26, 27 permit accurate setting of U-shaped member 13 on side walls 14, 15, after which member 13 may be permanently attached to side walls

3

14, 15 by screws connecting flanges 28 to deflection support plate 12 or in any other appropriate manner.

Attachment of the front part 2 of tube 1 is secured by a flexible band 29 extending over the top of tube front 2 and attached with its ends to the sides of bridge 5. The neck portion of tube 1 is supported on and protected by a conical rubber sleeve 30 supported in a front opening of top telescope member 13.

The invention, of course, is also applicable to the mounting of cathode ray tubes for radar purposes and generally to any other types of electronic discharge tube without exceeding the scope of this invention.

I claim:

In a cathode ray tube supporting structure for a television receiver, a chassis and a pair of telescoping members, one supported on the chassis and the other supported on the first one in several vertically adjustable positions for supporting the cathode ray tube at adjustable

4

heights, said chassis at its front portion having permanently attached thereto angular elements permitting support of a round screen cathode ray tube, and a bridge element extending over said angular elements and also attached to said chassis at the sides thereof for supporting a quadrangular screen cathode ray tube, said first telescoping member being also adjustable along said chassis in a horizontal direction.

MYRON J. MORRIS.

References Cited in the file of this patent

UNITED STATES PATENTS

15 Number	Name	Date
2,165,779	Blain	July 11, 1939
2,428,928	Cain	Oct. 14, 1947
2,451,832	Keim	Oct. 19, 1948
2,458,368	Kamin et al.	Jan. 4, 1949
20 2,471,154	Keim	May 24, 1949
2,484,345	Hinz	Oct. 11, 1949
2,505,736	Herscher et al.	Apr. 25, 1950