

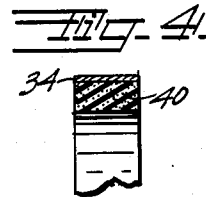
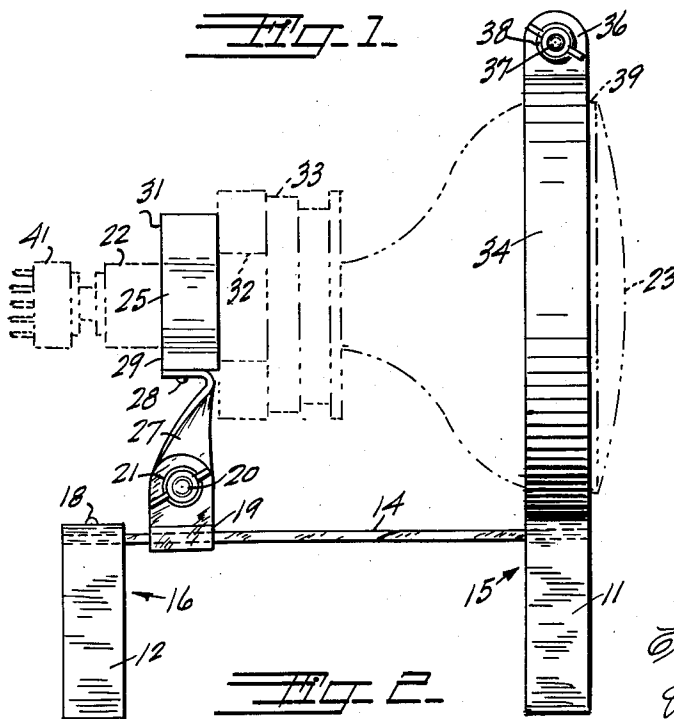
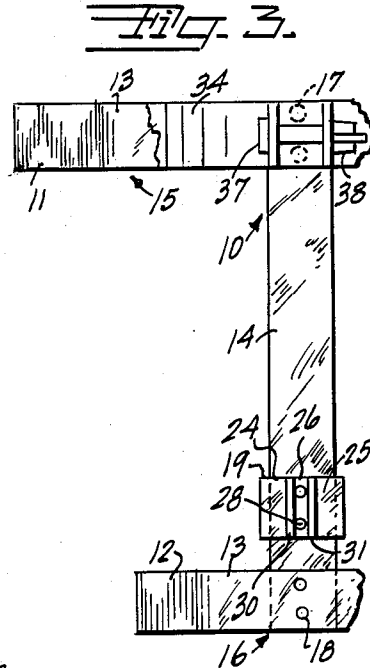
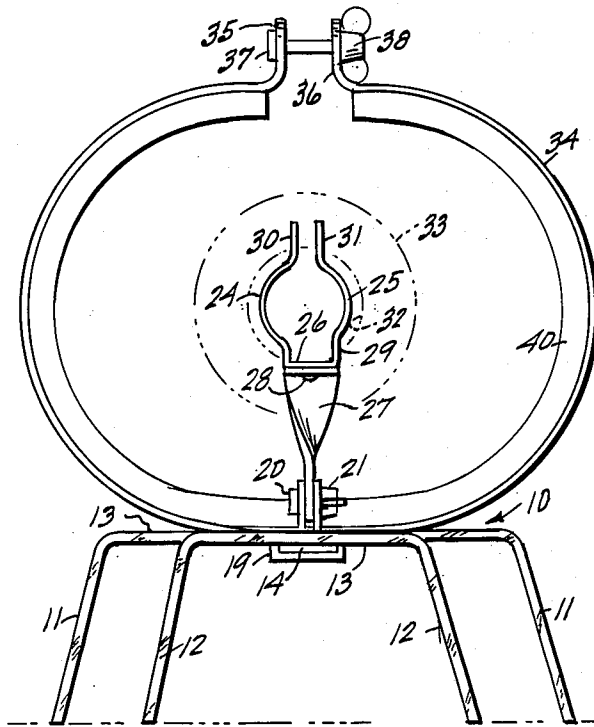
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E. W. HERRINGTON

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CATHODE RAY PICTURE TUBE TEST TOOL

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INVENTOR.

Erwin W. Herrington
BY *Philip A. Rudell*
Attorney

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CATHODE RAY PICTURE TUBE TEST TOOL

Ervin W. Herrington, 127 Gleason Ave., Vallejo, Calif.

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5 Claims. (Cl. 178—7.8)

This invention relates to improvements in the method and means for testing picture tubes and circuits, particularly as applied to television circuits and apparatus, and is customarily carried out by laying the picture test tube on some surface such as a table or bench, applying the core and connecting to the circuit of the television set. With this crude method the test picture tube is not properly protected or supported, the core may not be properly located on the neck of the tube or change position, and may be within undesirable range of magnetizable material such as nails, screws or steel filings, therefore such conditions of testing are undesirable and may readily be inaccurate.

It is to overcome the undesirable features and possible inaccuracy that the present invention was developed, and which provides a resilient support for the test picture tube to prevent possible marring or damage, as also means for maintaining the core of the television set in proper position, while also maintaining these elements clear of all magnetizable materials, while expediting the test through greater convenience and exact positioning.

The objects and advantages of the invention are as follows:

First, to provide a tool for suitably supporting a cathode ray picture test tube for convenient and accurate testing of television circuits and apparatus and to protect the tube from damage or marring.

Second, to provide a tool as outlined in which the cathode ray picture test tube is resiliently supported about the screen frame with interposed highly resilient cushioning material of substantial thickness to prevent shock with consequent detrimental effect on the tube.

Third, to provide a tool as outlined with adjustable combined support for the neck of the tube and retaining means for the core for maintenance in proper position on the neck of the tube.

Fourth, to provide a tool as outlined which is simple in construction, economical to manufacture and convenient to use, and entirely free of magnetizable material.

In describing the invention reference will be had to the accompanying drawings, in which:

FIG. 1 is a rear end elevation of the invention.

FIG. 2 is a side elevation with the cathode ray picture test tube and the core shown in position and indicated in broken lines.

FIG. 3 is a fragmentary top plan view showing one side with part of the screen frame clamp broken away.

FIG. 4 is a fragmentary view showing a section through the cushioned screen frame clamp member.

The invention is constructed throughout of nonmagnetizable material, such as aluminum, magnesium, or a suitable thermoplastic, and consists of a frame 10 which is suitably supported in an elevated position such as by the front legs 11 and rear legs 12 for suitable spacing from any magnetizable material that may be in or on the supporting surface for the tool, the respective front and rear members 15 and 16 being illustrated as consisting each of a strip of nonmagnetizable material, the cross members 13 of which form the support surfaces, the ends being turned down as shown to form the legs; but not so limited as the entire frame can be formed to any suitable shape by casting or molding.

A slide bar 14 is fixed at its opposite ends to the central portions of the respective front and rear cross members 13 as indicated at 17 and 18, and a sleeve 19

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is slidable on this slide bar and has an upwardly projecting pair of spaced ears and which sleeve is clamped in adjusted position on the slide bar by the clamp screw 20 and thumb nut 21 which are also formed of non-magnetizable material.

The resilient supporting means for the neck 22 of the cathode ray picture test tube 23 consists of a pair of upwardly projecting fingers 24 and 25 having a common base 26 by which it is fixed to a depending leg 27 as indicated at 28, and which is adjustably clamped between the pair of spaced ears of the sleeve, the fingers being oppositely arcuately formed intermediate their height to resiliently grip about the neck of the tube. The portions 29 of the resilient supporting means for the neck extending downwardly from the arcuately formed portions to the cross member 26, and the parallel portions 30 and 31 projecting upwardly from the arcuate portions are sufficient to span the bore 32 in the core 33 as is clearly indicated in FIGS. 1 and 2, thereby providing for retention and alignment of the core 33 in proper position while coincidentally supporting the neck of the picture tube.

Fixedly mounted on the front member 15 is a band 34 which is formed of a resilient non-magnetizable material, the terminal ends 35 and 36 of which are bent upward to form ears which are provided with passages for the clamp screw 37, which through the medium of the thumb nut 38 can be adjusted to suitably resiliently secure the tube by its screen frame with interposed highly resilient cushioning material 40 of considerable thickness and which may consist of sponge rubber or latex foam of other suitable highly resilient material.

It will be noted that the fingers 24 and 25 are not provided with any clamping means other than the inherent resiliency of the material, their more important function being retention of the core 33 in proper position on the neck of the tube.

Since the plug end 41 of the tube is no larger in diameter than the neck, the tube can be inserted through the front with the core 33 in place on the neck.

I claim:

1. Support and positioning means for the neck and core of a cathode ray picture tube, comprising a slide bar, a sleeve slidable on the slide bar and having an upwardly projecting pair of ears, a pair of spring fingers oppositely arcuately formed and having upper and lower parallel extensions to span the bore in the core and with the intermediate portion of the fingers formed to lightly grip about the neck of the picture tube, and said spring fingers being adjustably clamped between said ears.

2. In a cathode ray picture test tube tool having a front member and a rear member, a slide member connecting said front and rear members, and a flexible band centrally mounted on said front member and adjustable to resiliently hold the front end of a picture test tube; combined supporting means for the neck of the picture tube, and positioning and retaining means for the core of the picture tube, comprising a slider adjustable on said slide member, and opposed arcuate spring fingers forming an extension upwardly from said slider for supporting the neck of the tube with the spring fingers having extensions to span the passage in a core mounted on the neck to retain the core in predetermined adjusted position.

3. In a cathode ray picture test tube tool having a slide bar and support means for each end thereof, for support in an elevated position, and having a resilient clamp member intermediately fixed to one end of said slide bar and including adjustable means for resiliently securing the front end of a picture tube therein; adjustable neck supporting and core positioning and retaining means comprising a sleeve slidable on said slide bar

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and having an upward extension terminating in opposed arcuate spring fingers to lightly grip and support the neck of the picture tube, with the support means for the slide bar having height sufficient for supporting the picture tube in non-responsive relation to any magnetizable materials in or on a supporting surface.

4. A structure as defined in claim 3, said support means for each end of the slide bar comprising each a strip of non-magnetizable material having each a central portion to which the slide bar is fixed, with the remaining end portions bent down to form legs.

5. A structure as defined in claim 3, said sleeve including a portion slidable on said slide bar and terminating above the slide bar in spaced ears, and clamping means cooperative between said ears for securing

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said sleeve in adjusted position, and a second portion comprising a depending portion having an eye at the lower end for clamping between said ears, in angularly adjusted position and with said fingers projecting upwardly from the depending portion and having extensions above and below the resilient arcuate spring fingers to span the bore in a core and retain the core in adjusted position on the neck of the picture tube.

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