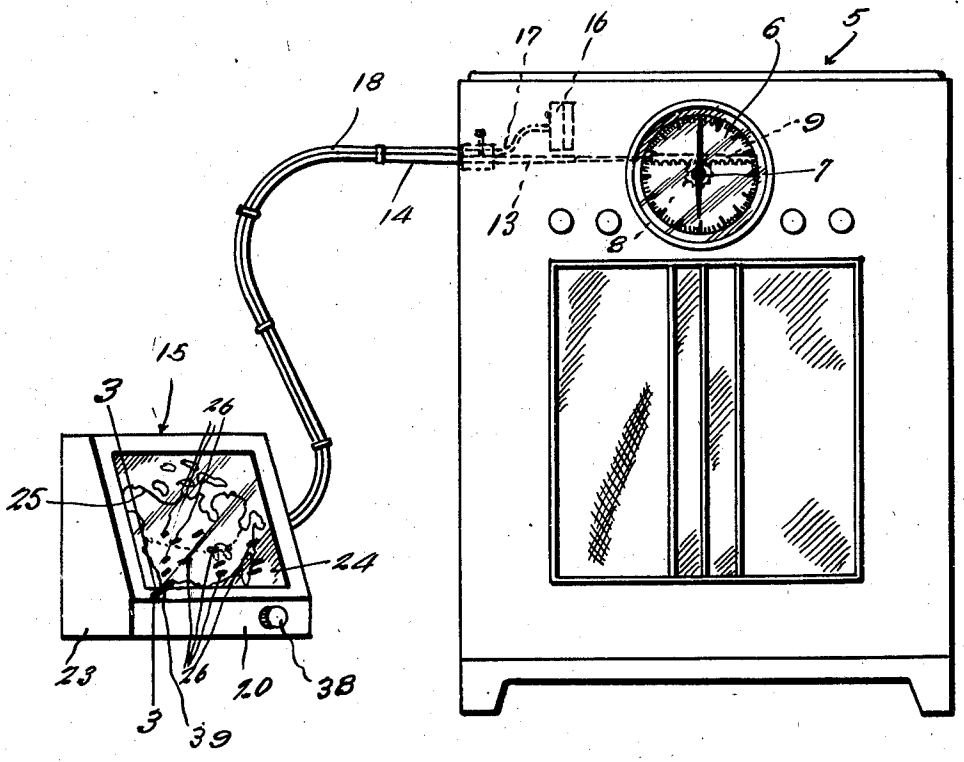
April 11, 1939. M. BASNICKI 2,154,024

RADIO RECEIVER TUNING APPARATUS

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Fig. 1.



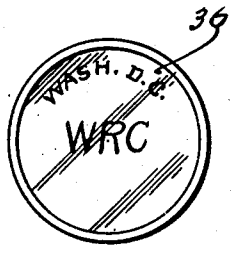


Fig. 2.

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Fig. 3.

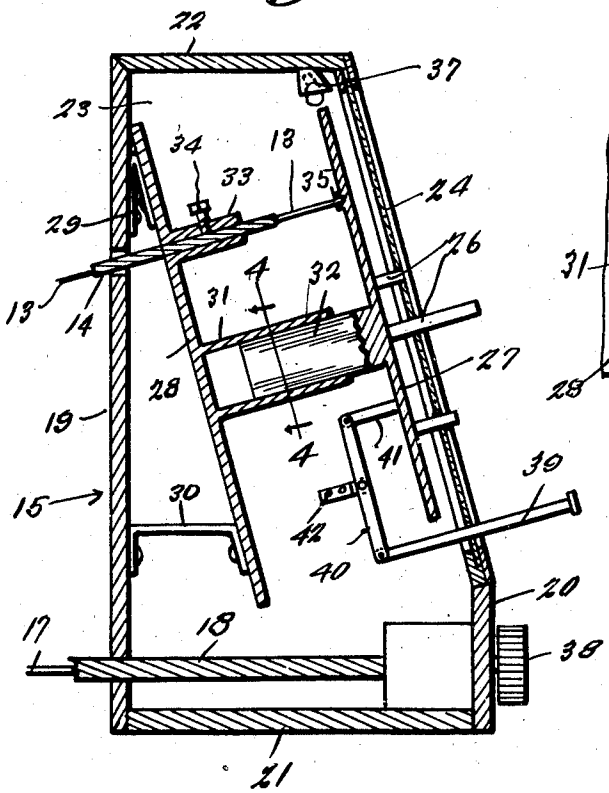


Fig. 4.

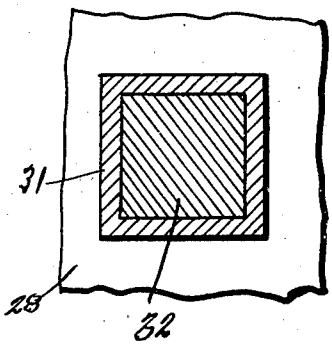
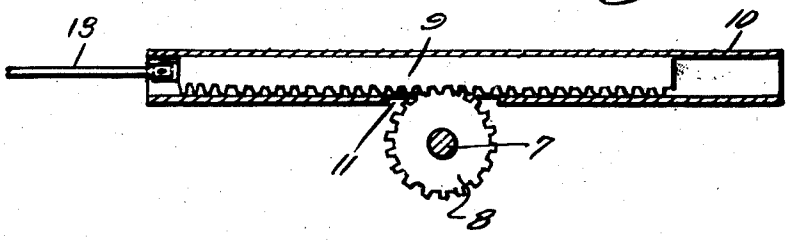


Fig. 5.



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2,154,024

RADIO RECEIVER TUNING APPARATUS

Michael Basnicki, Picture Butte, Alberta, Canada

Application December 16, 1937, Serial No. 180,259

4 Claims. (Cl. 74—10)

This invention relates to new and useful improvements in radio apparatus and more particularly to a novel tuning mechanism for radio receivers.

The principal object of the present invention is to provide a tuning mechanism for receivers wherein stations can be selected conveniently by observing their geographical location on a panel board whereon push rods are located at the geographical locations of the broadcasting stations.

Another important object of the invention is to provide a remote tuner for radio receivers wherein push rods are employed for selecting the broadcasting stations.

Other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a front elevational view of a radio receiver showing the remote control device in perspective and electrically connected with the receiver.

Figure 2 is an end elevational view of one of the push buttons.

Figure 3 is a vertical sectional view taken substantially on the line 3—3 of Figure 1.

Figure 4 is a cross sectional view taken substantially on the line 4—4 of Figure 3.

Figure 5 is a longitudinal sectional view through the rack and gear means on the receiver.

Referring to the drawings wherein like numerals designate like parts, it can be seen in Figure 1 that numeral 5 generally refers to a conventional receiver having the tuning dial 6 through which the tuning shaft 7 extends. On this tuning shaft 7 (see Figure 5) is located the gear 8 which meshes with the rack 9 slidable through the guide structure 10. This guide structure 10 is provided with an opening 11 in the bottom thereof through which the gear 8 extends.

Extending from the rack 9 is the elongated rod 12 which connects to the flexible shaft 13 extending through the conduit 14 to the selecting mechanism generally referred to by numeral 15. In the receiver 5 is the volume control unit 16 which has the flexible shaft 17 extending therefrom and through the conduit 18 to the selecting device 15.

The selecting device 15 consists of the case made up of the back wall 19, short front wall 20, bottom wall 21, top wall 22 and end wall 23. Extending from the top of the short front wall to the top 22 is the inclined pane 24 on which is a representation of a map as denoted by numeral 25 in Figure 1. At important locations, that is, geographical locations on this map and where important broadcast stations are located, openings are formed in the panel 24 through which push rods 26 extend. It will be observed in Figure 3, that these push rods are all of different lengths. In other words, each station has a push rod of a different length from any other station push rods and all of these push rods extend from the slidable plate 27 located at the inside of the case and which is located entirely behind the map 25.

Rearwardly of the plate 27 is the plate 28 inclined in the same manner as the plate 27, but fixed to the back wall 19 by suitable brackets 29 and 30. Extending forwardly from this inclined plate 28 is the guide structure 31 within which the guide block 32 is slidable, this block 32 being of polygonal cross section as is the guide 31 and preferably formed integral with or otherwise secured to the plate 27. The plate 28 is provided with the tubular formation 33 through which the conduit 14 extends and this carries a set screw 34 which is driven against the conduit 14 to properly secure this end of the conduit to the plate 28. The flexible shaft 13 extends through this conduit 14 to connect as at 35 to the plate 27.

Each of the push rods 26 is provided with an identification plate 36 at the outer end thereof (see Figure 2).

Obviously the push rods 26 are forced inwardly depending upon the station selected and the plate 27 will only be moved as far as the push rod is forced inwardly and consequently the shaft 13 will always be moved in accordance with the length of the push rod 26 to the end that the rack 9 will be moved a certain distance in rotating the shaft 7 in order that the same action is obtained as when a radio receiver is manually operated in tuning at the receiver.

Suitable illuminating means 37 can be provided in the case to illuminate the panel 24 from the inside.

The tuning shaft 17 is controlled by the knob 38 on the wall 20, and in the event the reception is not clear when selection is made by one of the buttons 26, the plunger 39 can be operated for further adjusting the plate 27. The plunger 39 operates the rocker 40 which is connected by the arm 41 to the plate 27, the rocker being mounted on the bracket 42.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

1. The combination with the tuning unit of a radio receiver, of means to operate said unit to tune in different broadcasting stations selectively comprising a casing having a front panel apertured at different locations thereon, a plate mounted in said casing behind said panel for movement in different degrees into different set positions to tune in different stations, a flexible shaft operatively connecting said plate to said unit for operation of the unit in correspondence with the degrees of movement of the plate, and a plurality of push rods of different lengths operative in said apertures to move said plate in different degrees respectively, said panel having thereon a geographical map, and the apertures in said panel being located relative to the map in accordance with the geographical locations of the broadcasting stations.

2. The combination with the tuning unit of a radio receiver, of means to operate said unit to tune in different broadcasting stations selectively comprising a casing having a front panel apertured at different locations thereon, a plate mounted in said casing behind said panel for movement in different degrees into different set positions to tune in different stations, a flexible shaft operatively connecting said plate to said unit for operation of the unit in correspondence with the degrees of movement of the plate, a plurality of push rods of different lengths operative in said apertures to move said plate in different degrees respectively, and manipulative means for moving said plate independently of said rods.

3. The combination with the tuning unit of a radio receiver, of means to operate said unit to tune in different broadcasting stations selectively comprising a casing having a front panel apertured at different locations thereon, a plate mounted in said casing behind said panel for movement in different degrees into different set positions to tune in different stations, a flexible shaft operatively connecting said plate to said unit for operation of the unit in correspondence with the degrees of movement of the plate, a plurality of push rods of different lengths operative in said apertures to move said plate in different degrees respectively, and manipulative means for moving said plate independently of said rods comprising a rocker mounted in said casing and operatively connected to the plate, and a plunger slidably mounted in said panel and operatively connected to the rocker.

4. Apparatus for use in operating the tuning unit of a radio receiver comprising a casing having a front panel apertured at different locations thereon, a plate mounted in said casing behind said panel for movement in different degrees into different set positions, a flexible shaft extending from said plate and adapted to be operatively connected to said unit for operation of the latter in correspondence with the degrees of movement of the plate, a plurality of push rods of different lengths operative in said apertures to move said plate in different degrees, respectively, said panel having thereon a geographical map, and the apertures in said panel being located relative to the map in accordance with the geographical locations of broadcasting stations.

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