The PHILIPS 23TX401A SUPER-ONTVANGER is a 23 inches B/w television with VHF UHF motor driven channels selectors and in response to an initiating impulse which may be remotely produced.

In accordance with a further feature of the invention, facilities are provided for automatically rotating the channel selector shaft of the tuner . The motor driven facilities will rotate the shaft until the next active channel is encountered. In order to permit the user to preselect any of the 4 available channels as active channels within his receiving area, facilities are provided for designation of a channel as an active or inactive channel by manipulation of the fine tuning knob of the tuner.

More particularly, when the user wishes to designate a channel as an inactive channel, he rotates the station selector shaft to this particular channel and then rotates the fine tuning knob in a particular direction until a stop is encountered. When this occurs the motor driven facilities are set up so that they will not stop the channel selector shaft on this particular channel selecting position. In this manner the tuner can be set up so that it can be stopped only on a few desired channel positions which are active in the particular receiving area and thereafter the motor driven facilities will function to stop the tuner only at these selected channel positions. However, these positions can be changed at will by merely manipulating the fine tuning control knob of the tuner in the manner described above.

It is a still further object of the present invention to provide a new and improved television tuner wherein motor driven facilities are provided for rotating the channel selector shaft of the tuner to desired channel selecting positions and wherein designation of particular channel positions as active channels can be accomplished by the user by manipulation of the conventional fine tuning knob of the tuner.

It is another object of the present invention to provide a new and improved television tuner which includes a single fine tuning impedance together with facilities for automatically adjusting the value of this impedance in each channel selecting position of the main tuning shaft of the tuner.

It is still another object of the present invention to provide a new and improved television tuner wherein a new and improved memory fine tuning mechanism is provided which cooperates with motor driven facilities for permitting the user to select which of the available channels will be selectable as active channels.

It is a further object of the present invention to provide a new and improved television tuner having fine tuning means which is settable to control the remote operation of the tuner.

Tuning is obtained with rotatable drum selectors for VHF and variable rotatable capacitor for UHF. A rotatable drum containing twelve pre-defined channel-specific filters determines the received channel, where the inductors of the input matching, the channel filter and the LO tank circuit are changed. The tuner is divided into two chambers for maximum isolation between the sensitive RF input and the mixer-oscillator-IF section with its much larger signals. Also on the drum there are eventually two separate sub-modules.
It's completely based on tubes technology.
With this concept, which essentially turned the tuner module into a kind of Lego building block construction, many different tuners became possible. Depending upon the country of destination and its associated standard and IF settings, the required filter modules would be selected. Service workshops and tv fabricants could later even add or exchange modules when new channels were introduced, since every inductor module had its individual factory code and could be ordered separately. As a consequence more versions of the tuner were produced, covering at least standards B, B-for-Italy, C. E, F and M.

The principle of the drum tuner. On an axis two times 12 regularly spaced channel-specific filter modules are mounted. In front are twelve channel filter modules for both the channel filter and LO tank circuit tuning. Seven contacts are available, and one module is shown removed. The second row contains 12 modules with five contacts for the input filter circuit. In the tuner module the front section (for mixer-ocillator and channel filter) is separated by a metal shield from the rear RF input and pre-amp section. [Philips Service "Documentatie voor de kanalenkiezers met spoelenwals", 1954]

Examples of the filter modules as used in the drum tuner. Left the 5-contact input filter, right

the 7-contact BPF and LO tank filters. In both modules the coils are co-axial for (maximum) mutual coupling.

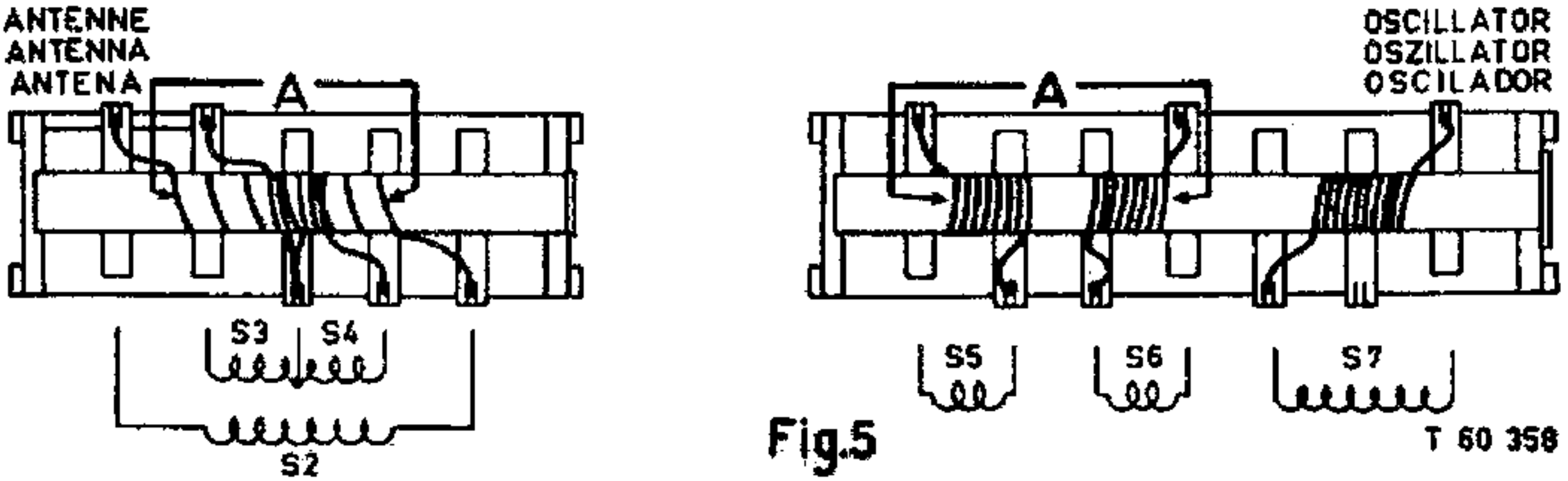

Fig.5