

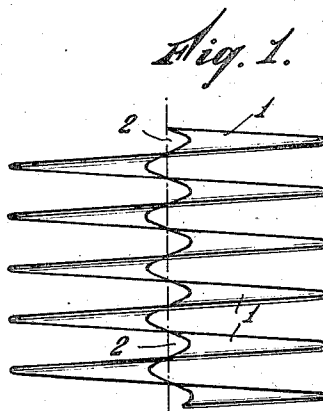
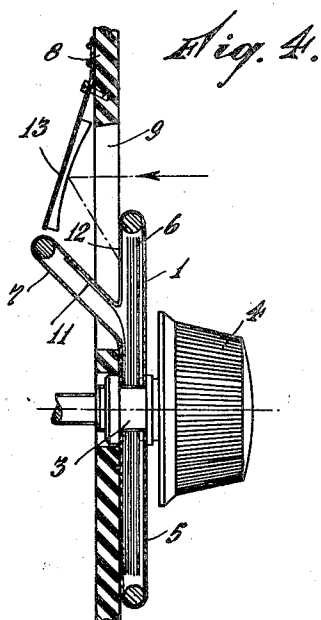
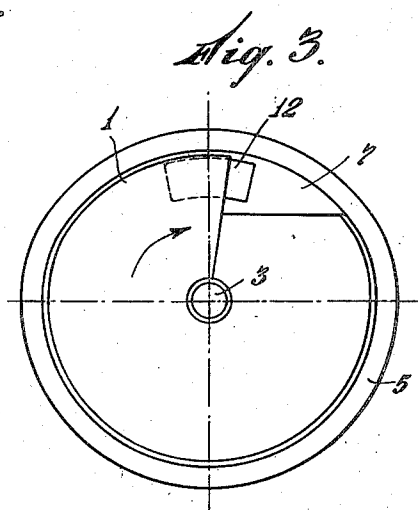
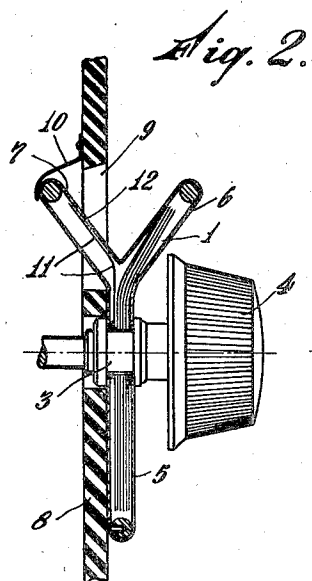
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TUNING SCALE

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TUNING SCALE

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This invention relates to a tuning scale or exact regulation device which while particularly adapted for use in radio receiving sets or instruments whereby an absolutely correct setting can be obtained, may also be used for similar purposes on instruments or apparatus of general utility in which a fine adjustment is desired, with the possibility existing of exact scale readings being obtained. Thus, for example, the invention may be applied with facility to micrometer screws for gaging wires and the like. The large number of broadcasting stations now in existence and the close spacing of these stations on the frequency bands has given rise to the necessity in contradistinction to the prior art practice, of constructing the tuning scales in such manner that the tuning knob must be completely rotated many times in order to cover the wave range, so that a suitable transmission between the spindle of the adjusting knob and that of the adjustable tuning-member must be provided for.

The drawback of this type of tuning scales is that in general their dimensions necessarily become quite large, especially if these scales also contain on their dials the names of the various stations.

By my invention I produce a simple tuning scale which occupies very little room and which has the advantage that without material change it can be arranged on any existing apparatus.

In the device according to invention the graduation is arranged on a helical strip of suitable material which is rigidly connected to the spindle driving the member to be regulated, said strip being arranged in a housing which is split about a part of its circumference in such manner that when said spindle is rotated the strip passes from one portion of the fork into the other portion, the portion of the strip to be read thus being disposed in the portion of the housing in question, behind a window therein.

The construction may be such that the main portion of the housing is entirely flat and so that above the said split portion of the housing there is a window disposed in its back, said window being made visible with the aid of a mirror which may be attached to the back of the front-plate of the radio set. Preferably the second leg of the fork is bent rearwardly.

In the drawing two embodiments are illustrated solely by way of example.

Fig. 1 shows the strip on which the graduation is arranged, which may be provided with the names of the stations.

Fig. 2 is a vertical longitudinal section through the device of Fig. 1.

Fig. 3 is a rear elevation, looking on the scale, and in which the back-plate is removed.

Fig. 4 is a vertical section similar to Fig. 2, through another embodiment.

In Fig. 1, the strip 1 is of paper or any other suitable solid and somewhat resilient material, and is shown as being helical. If desired, this strip may also be made of metal, and may be composed of interconnected parts. On the strip the graduations may be of the desired type, for example, in wave-lengths, and for example in wave-lengths the names of corresponding stations may be included or omitted, as desired. The strip 1 is provided with a central aperture 2 (Fig. 1) by means of which it can be mounted on the spindle 3 on which it is made fast in any suitable manner. The spindle 3 is shown as provided with knob 4 and extends through a housing 5 of suitable material, this housing preferably having a detachable back-wall for the introduction of the spindle 3 and the strip 1. The housing 5 is so shaped that its upper portion is divided into two forked portions 6, 7 which branch off from the lower portion. In the construction according to Fig. 2 the strip 1 is disposed in such manner that it lies in the portions 5 and 6 of the housing, the portion 7 being initially empty. According to this embodiment an aperture 9 is formed in the front-plate 8 in order that the portion 7 can extend into the interior of the housing. The tuning scale may then be mounted in the usual manner on the exterior surface of the front-plate 8. The remaining portion of aperture 9 may be closed at the back of the front plate 8 by a cover 10 against which a lamp may be disposed for illuminating the scale.

If the knob 4 is rotated in one direction (towards the left in the drawing), then due to the spring-action of the strip 1, which is bent due to the shape of the portion 6, the end 11 of said strip will pass into the portion 7 and past the window 12 disposed in the front of that portion, whereby the graduation will become visible to an observer in front of the apparatus.

If the knob 4 is rotated further the strip 1 will likewise unroll farther and farther from the portion 6 and will roll up in the portion 7, whereas, if the knob is rotated in the opposite direction, the strip 1 in like manner returns from the portion 7 into the portion 6. Although the strip 1 occupies a very small space its available length may be quite large, and it is possible to form the strip of such length that the entire

range of wave-lengths which are employed may be displayed thereon in proper position.

Fig. 3 illustrates the rear of the device, the back-plate being removed so that the portions 5 and 7 can be seen from the rear.

In Fig. 4 a somewhat modified embodiment is shown, wherein the necessity is avoided that the portion 6 of the housing 5 protrude from the frontplate 8. In this case the portion 6 is disposed in the face of the housing 5 so that the entire housing lies closely against the front plate. According to this embodiment the portion 7 into which the strip 1 unrolls is bent backwardly through the aperture 9 of the front plate 5. The sight aperture 12 is disposed in the back-wall of the portion 6 of the housing and the strip 1 contained therein becomes visible to an observer in front of the frontplate through the mirror 13, it being possible to arrange a scale-illuminating lamp, not shown, in a suitable place relative to the mirror or scale.

The remainder of the device according to Fig. 4 operates in the same manner as that of Figs. 1-3.

The device according to my invention may be applied to all tuning members which have a sufficiently powerful transmission. Moreover it may be used with all instruments in which a correct scale reading is desired.

I claim:

1. A tuning scale for radios and the like, com-

prising a spindle for driving a member to be regulated, a helical strip, divided into graduations, fast on said spindle, a housing forked into two diverging parts over a portion of its circumference, and in which said strip is housed, and a window formed in one of said parts, through which the part of the strip to be read may be viewed, the two diverging parts having a lip therebetween so that when said spindle is rotated the strip passes from one of the two diverging parts into the other.

2. A tuning scale for radios and the like, comprising a front panel for the radio, a spindle for driving the part of the apparatus to be regulated, a housing set into said panel and enclosing said spindle, a helical strip divided into graduations, fast on said spindle and disposed in said housing, said housing being substantially flat and having a branch portion forking rearwardly thereof, the main portion and the branch portion having a lip therebetween, a window in the rear of the main portion above the lip, and a mirror disposed on the rear of said first panel above said window, so that the window may be viewed from in front of said housing, the main portion and the branch portion being so related that when the spindle is rotated the strip passes from one portion into the other and so that the portion of the strip to be read will lie under said window.

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