

March 10, 1942.

D. J. CROWLEY ET AL

2,275,507

COMBINED ARTICLE OF FURNITURE AND RADIO RECEIVING SET

Filed Dec. 16, 1940

2 Sheets-Sheet 1

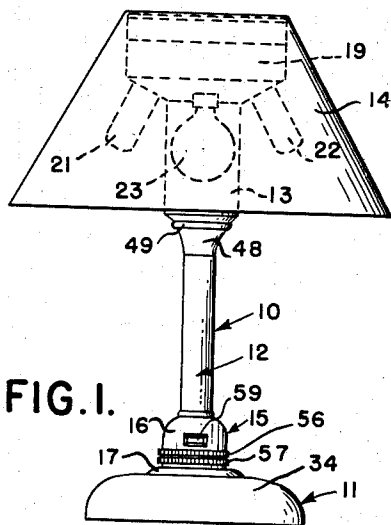


FIG. 1.

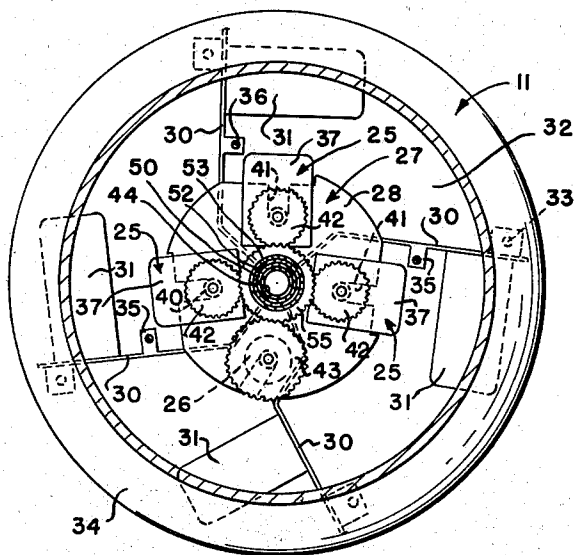


FIG. 3.

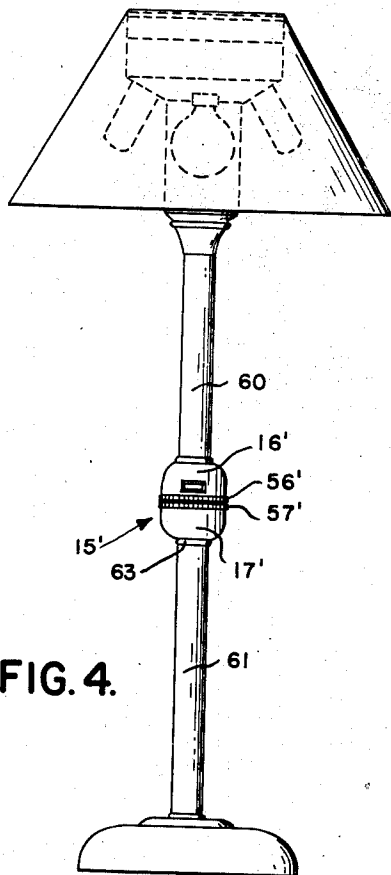


FIG. 4.

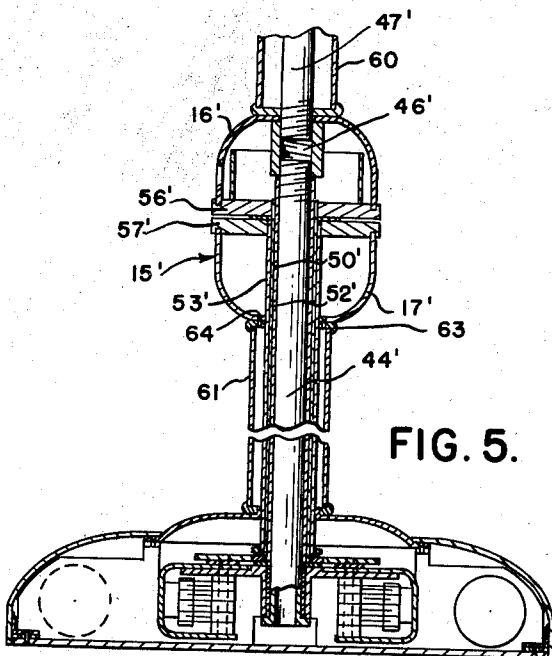


FIG. 5.

INVENTORS
DANIEL J. CROWLEY
EARL W. DULMAGE
BY *Whittemore, Hulbert & Belknap*
ATTORNEYS

March 10, 1942.

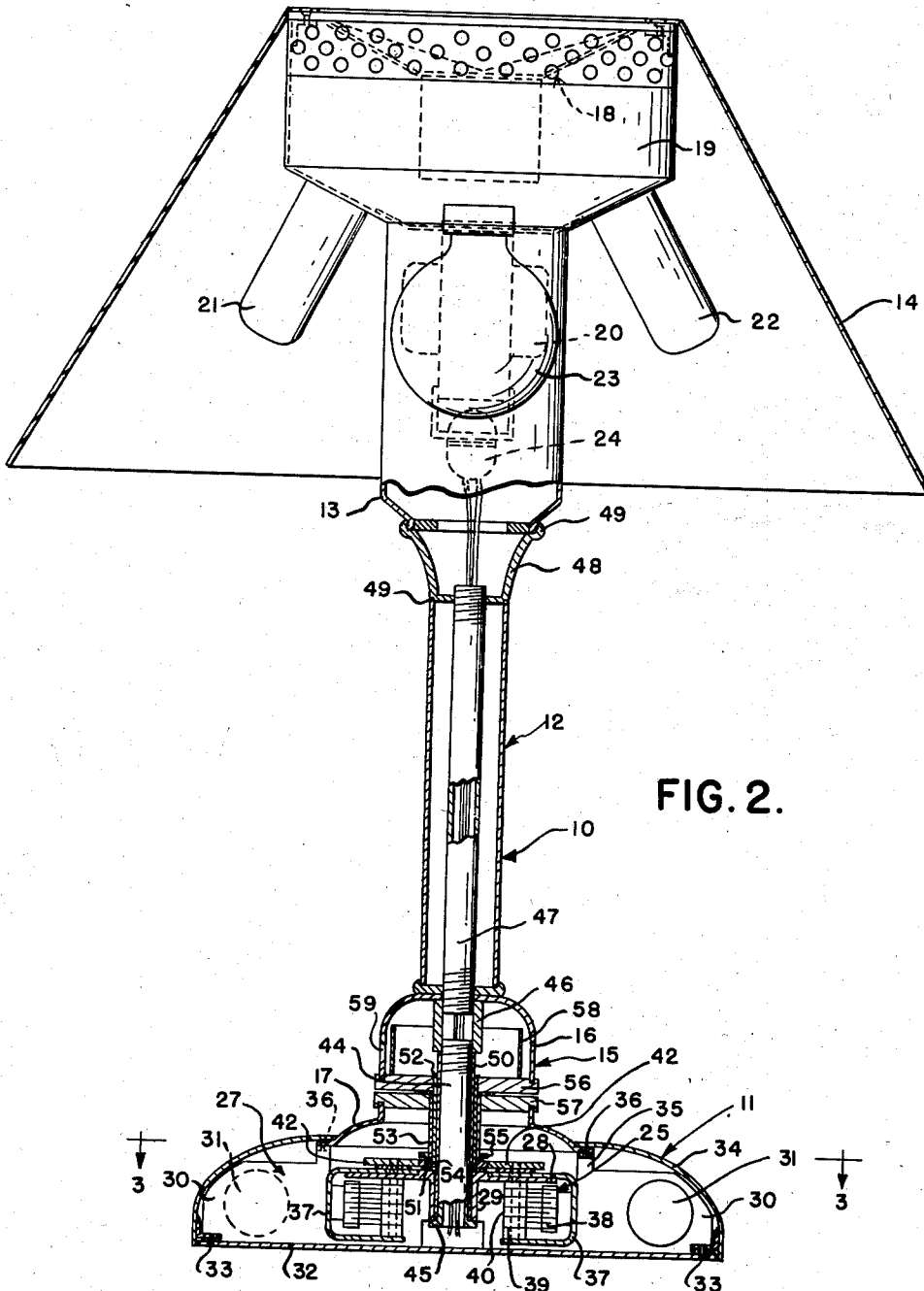
D. J. CROWLEY ET AL

2,275,507

COMBINED ARTICLE OF FURNITURE AND RADIO RECEIVING SET

Filed Dec. 16, 1940

2 Sheets-Sheet 2



INVENTORS
DANIEL J. CROWLEY
EARL W. DULMAGE
BY *Whitmore, Kullback & Belknap*
ATTORNEYS

UNITED STATES PATENT OFFICE

2,275,507

COMBINED ARTICLE OF FURNITURE AND
RADIO RECEIVING SET

Daniel J. Crowley, Grosse Pointe, and Earl W. Dulmage, Detroit, Mich., assignors, by mesne assignments, to said Daniel J. Crowley

Application December 16, 1940, Serial No. 370,404

13 Claims. (Cl. 250—14)

This invention relates generally to an article of furniture embodying radio receiving apparatus and refers more particularly to an article of furniture comprising a base section housing parts of the radio receiving apparatus and a pedestal section clamped at its lower end to a shell having means associated therewith for adjusting certain parts of the radio receiving apparatus in the base section.

It is one of the principal objects of this invention to provide an article of furniture of the type set forth above composed of a relatively few simple parts capable of being inexpensively manufactured and expediently assembled.

Another object of the present invention is to provide a shell comprising an inverted substantially cup-shaped part having the top wall removably clamped to the lower end of the pedestal section in concentric relation to the axis of the pedestal by cooperating means carried by the pedestal and base sections respectively.

Another object of this invention is to clamp the top wall of the shell part against the lower end of the pedestal section by means of a coupling having the upper end detachably secured to the lower end of a member anchored in the pedestal section and having the opposite end detachably connected to a second member extending upwardly from the base section.

Still another object of the present invention is to provide a support in the base for radio receiving apparatus adapted to be removably secured to the pedestal section by means of the two members and associated coupling referred to in the preceding paragraph.

Another feature of this invention is to provide a pair of relatively rotatable telescopically engaging tubes supported on the second member for rotation about the axis of the latter and having the lower ends respectively connected to parts of the radio receiving apparatus requiring adjustment.

A further object of this invention is to provide a pair of control discs supported one above the other beneath the lower edge of the inverted cup-shaped shell part for rotation independently of each other about the axis of the second member and respectively connected to the upper ends of the tubes for actuating the latter.

Still another feature of this invention is to provide a spacer between the coupling and support for the radio receiving apparatus in the base section for relieving the tubes from the clamping stresses exerted by the members and associated coupling.

In addition to the foregoing, the present invention contemplates an indicating band housed by the shell part in registration with a window in the side wall of the shell part and rotatable as a unit with one of the aforesaid control discs.

A still further feature of the present invention is to provide a construction wherein the control discs are supported between adjacent ends of a two-part shell and wherein the shell is clamped between the adjacent ends of axially spaced pedestal sections by relatively simple means extending upwardly from the base section through the lowermost pedestal section into the shell.

The foregoing as well as other objects will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawings, wherein:

Figure 1 is a side elevational view of a combined lamp and radio receiving set embodying the present invention;

Figure 2 is a view similar to Figure 1 having certain parts broken away for the sake of clearness;

Figure 3 is a sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a side elevational view of a slightly modified form of construction; and

Figure 5 is a vertical sectional view of the construction shown in Figure 4.

In Figures 1 to 3, inclusive, I have illustrated an article of furniture in the form of a table lamp 10 having a base section 11 and having a pedestal section 12. The pedestal section 12 supports a head 13 at the upper end thereof and the head 13 carries a shade 14 which may be of any specified shape. Upon reference to Figure 2, it will be noted that a two-part shell 15 is interposed between the lower end of the pedestal 12 and the base 11. As will be more fully hereinafter described, the upper part 16 of the shell is clamped to the lower end of the pedestal 12 and the lower part 17 of the shell is secured to the base section 11.

It will also be observed from Figure 2 that a complete radio receiving set is housed in the lamp in such a manner as to be practically concealed from view. The radio receiving set embodies a speaker unit 18 of suitable construction housed in an enlargement 19 at the upper end of the head 13 and is further provided with an audio transformer 20 supported in the reduced portion of the head 13 below the speaker unit. The enlarged portion of the head also forms a support for the rectifier and audio frequency tubes 21 and 22 respectively. The illuminating

lamps 23 are also mounted on the enlarged portion 19 of the head 13 between the tubes 21 and 22.

The remaining parts of the radio receiving set are supported in the base section 11 of the lamp and are electrically connected to the parts in the head 13 by suitable electrical conductors extending upwardly through the pedestal 12 into the head 13. It may be pointed out at this time that the electrical connections between the parts of the radio receiving circuit in the base section and the parts in the head 13 are detachable in order to facilitate assembly and disassembly of the lamp. For accomplishing this result, a conventional detachable plug and socket assembly 24 is suitably supported in the head 13.

Among the parts of the radio receiving set housed by the base section 11 are variable condensers 25 and a volume control rheostat 26 also embodying the usual "off and on" switch. The condensers are distributed in the base section 11 in concentric relation to the vertical axis of the lamp and, in the present instance, three variable condensers are provided. These condensers are electrically connected in series and are mounted upon a support 27 housed in the base section 11.

The support 27 comprises a top plate 28 having a bushing 29 concentrically arranged with respect to the vertical axis of the lamp and having fins 30 extending radially outwardly from the bushing beyond the periphery of the plate 28. The fins form supports for parts of the radio receiving circuit including the electronic discharge tubes 21 and the lower edges of the fins are detachably secured to a base plate 32 by means of screws 33. The base plate 32 forms the bottom wall of the base section 11 and is adapted to fit into the lower end of a suitable cover 34 for the base section. The top edges of the fins 30 are provided with brackets 35 adapted to be removably secured to the lower end of the bottom shell part 17 by means of the screws 36 and the cover 34 is centrally apertured to receive the lower end of the shell part 17. The construction is such that the portions of the cover 34 surrounding the central opening overlap the screws 36 and conceal the latter.

Each variable condenser 25 is carried by a U-shaped bracket 37 and comprises the usual stator plates 38 and rotor plates 39. The stator plates 38 are secured to the base portion of the bracket in vertical spaced relationship and the cooperating rotor plates 39 are secured to a vertical shaft 40 having the opposite ends journaled in bearings supported on the legs of the U-shaped bracket. The brackets 37 are secured to the plate 28 in spaced relationship around the vertical axis of the lamp and the peripheral portion of the plate is formed with radially inwardly extending slots 41 for receiving the upper ends of the shafts 40. The axis of the condenser shafts 40 are concentrically disposed with respect to the vertical axis of the lamp and a pinion 42 is secured to the upper end of each condenser shaft 40. The rheostat 26 is also supported on the plate 28 and is provided with a vertical shaft extending upwardly through the plate beyond the plane of the pinions 42. The rheostat is positioned on the plate 28 in off-set relationship to the vertical axis of the lamp and the upper end of the operating shaft thereof is also provided with a pinion 43.

Extending upwardly through the bushing 29 on the support 27 is a tubular member 44 having

a head 45 on the lower end thereof adapted to abut the lower end of the bushing 29. The upper end of the tubular member 44 extends into the upper part 16 of the shell 15 and is threaded for engagement with the lower end of a coupling 46. The upper end of the coupling 46 abuts the inner surface of the top wall of the shell part 16 and threadedly engages the lower end of a second tubular member 47. The second tubular member extends upwardly through the pedestal 12 and threadedly engages the lower end of a spacer 48 having an annular recess 49 in the lower end forming a seat for the upper end of the pedestal 12. The upper end of the spacer 48 is threaded on the lower end of the head 13 by means of a ring 49 forming a part of the spacer. The above construction is such that rotation of the coupling 46 relative to the tubular member 47 in one direction clamps the top wall of the upper shell section 16 to the lower end of the pedestal section 12.

Referring again to Figure 2 of the drawings, it will be noted that the support 27 is held in assembled relation in the base section 11 by means of a spacer 50 mounted on the tubular member 44 with the upper end abutting the lower end of the coupling 46 and with the lower end engaging a washer 51 which, in turn, is seated on the top wall 28 of the support 27. As a result, rotation of the tubular member 44 in a direction to thread the same into the coupling 46 clamps the support 27 between the lower end of the sleeve 50 and the head 45 on the member 44.

Upon reference to Figure 2, it will be noted that a pair of relatively rotatable telescopically engaging tubes 52 and 53 are mounted on the spacing sleeve 50 for relative rotation about the vertical axis of the lamp. The lower end of the sleeve 52 is secured to a central driving gear 54 adapted to mesh with the pinions 42 for adjusting the variable condensers 25 simultaneously. The lower end of the tube 53 is connected to a pinion 55 which, in turn, is adapted to mesh with the pinion 43 for operating the combined rheostat and "off and on" switch 26.

A pair of control discs 56 and 57 are supported in the space between the adjacent ends of the shell parts for rotation about the vertical axis of the lamp and have a diameter greater than the diameter of the shell 15 to provide for selectively rotating the control discs. The top control disc 56 is secured to the upper end of the tube 52 and the bottom control disc 57 is secured to the upper end of the tube 53. The arrangement is such that the top control disc 56 operates the variable condensers to tune the radio receiving circuit and the bottom control disc 57 operates the "off and on" switch as well as the volume control rheostat. It is important to note at this time that the spacing sleeve 50 relieves the tubes 52 and 53 from any clamping stresses resulting from securing the several parts together by the means previously described. As a result, unrestricted movement of the control discs may be had at all times regardless of the clamping pressure exerted by the securing means.

In the present instance, an indicator band 58 is secured to the tuning disc 56 and extends upwardly from the disc into the shell part 16. The indicia on the indicating band 58 is visible through the shell 15 by forming an opening 59 in one side wall of the shell opposite the indicating band.

In Figures 4 and 5, I have illustrated a floor lamp having the several parts of a radio receiv-

ing set embodied therein. It will be observed particularly from Figure 5 that the principal difference between the floor lamp and the table lamp previously described is that the former comprises two axially aligned pedestal sections 60 and 61. The top pedestal section 60 supports a speaker unit and shade assembly identical in construction to the speaker unit and shade assembly described in connection with the first embodiment of this invention. The lower end of the bottom pedestal section is supported on a base preferably of the same construction as the base previously described. However, in the embodiment of the invention shown in Figures 4 and 5, the two-part shell 15' is located between the adjacent ends of the pedestal sections. The upper part 16' is positioned in abutting engagement with the lower end of the top pedestal section 60 and the lower part 17' is positioned in abutting engagement with the upper end of the bottom pedestal section 61.

The top wall of the shell part 16' is clamped to the lower end of the pedestal section 60 by means of a coupling 45' having the upper end threadedly engaging the lower end of a tube 47'. The tube 47' extends upwardly through the top pedestal section 60 and is anchored at the upper end in the same manner as described in the first embodiment of this invention. The lower end of the coupling 45' threadedly engages the upper end of a tube 44' which is longer than the tube 44, previously described, but is anchored to the support for the radio receiving apparatus housed by the base in substantially the same manner as described in connection with the table lamp shown in Figures 1 to 3, inclusive.

A spacing sleeve 50' is mounted on the tubular member 44' with the upper end abutting the lower end of the coupling 45' and with the lower end abutting the support for the radio receiving apparatus in the base in the same manner as the sleeve 50 defined in connection with the table lamp construction. A pair of tubes 52' and 53' are relatively rotatably mounted on the spacing sleeve 50' and extend from the shell downwardly through the pedestal section 61 into the base. As in the first described form of the invention, the inner tube 52' is operatively connected to the condensers of the radio receiving apparatus for simultaneously adjusting the latter and the outer tube 53' is operatively connected to the combined rheostat and "off and on" switch. The upper end of the tube 52' extends beyond the corresponding end of the tube 53' and is secured to a control disc 56' between the adjacent ends of the shell parts. The upper end of the tube 53' is secured to a similar control disc 57' located directly beneath the control disc 56' and having the periphery also extending between the adjacent ends of the shell parts. It follows, therefore, that the radio parts in the base are controlled in the same manner as described in connection with the table lamp illustrated in Figures 1 to 3, inclusive.

The upper end of the bottom pedestal section is closed by a cap 63 centrally apertured to receive the outer tube 53' and forms a seat for the lower part 17' of the shell 15'. The bottom wall of the shell 15' is also centrally apertured to permit the passage of the outer tube 53' and associated parts therethrough. If desired, the bottom wall of the shell 17' may be secured at circumferentially spaced points to the cap 63 by suitable screws 64 which are accessible through the upper end of the shell part 17'.

Thus, from the foregoing, it will be observed that I have provided a relatively simple construction which may be used either in the manufacture of a table lamp embodying radio receiving apparatus or in a floor lamp incorporating radio receiving apparatus to effectively hold the several parts thereof in assembled relationship. It will also be noted that my improved construction not only permits the several parts to be readily assembled but, also, renders it possible to expediently disassemble the lamp to permit servicing of the radio receiving apparatus.

What we claim as our invention is:

1. The combination with a base section and a pedestal section, of a shell located between the base section and lower end of the pedestal section in concentric relation to the latter, a member removably supported in the base section in concentric relation to the shell and extending into the shell through the lower end thereof, a second member located in the pedestal section in axial alignment with the first member and having the lower end extending into the shell through the upper end of the latter, a coupling located in the shell and threadedly secured to the adjacent ends of said members to clamp the shell to the lower end of the pedestal section, radio receiving apparatus housed in the base section and including an adjustable part, a control element having the central portion supported within the shell for rotation about the axis of the shell and having the peripheral portion extending beyond the side walls of the shell for manipulation, and means operatively connecting the control element to the adjustable part of the radio receiving apparatus.

2. The combination with a base section and a pedestal section, of a shell located between the base section and lower end of the pedestal section in concentric relation to the latter, a member removably supported in the base section in concentric relation to the shell and extending into the shell through the lower end thereof, cooperating means on the upper end of the member and lower end of the pedestal section for removably clamping the shell to the pedestal section, a tuning control element supported for rotation about the axis of the shell, radio receiving apparatus housed in the base section and including a variable condenser operatively connected to the tuning control element, an indicating band located within the shell and rotatable as a unit with the tuning control element and an opening through said shell opposite the indicating band.

3. The combination with a base section and a pedestal section, of a shell having an inverted substantially cup-shaped part located between the base and pedestal sections, a member having the lower end removably supported in the base section in concentric relation to the axis of the pedestal section and having the upper end extending into the inverted cup-shaped shell part, a coupling located in the shell part and threaded on the upper end of said member, means carried by the pedestal section and cooperating with said coupling to clamp the shell and said pedestal, radio receiving parts housed by the base section and including an adjustable part, and a control element supported beneath the lower end of the shell part for rotation about the axis of the member and connected to said adjustable part for actuating the latter.

4. The combination with a base section and a pedestal section, of a shell having an inverted substantially cup-shaped part located between

the base and pedestal sections, a member having the lower end removably supported in the base section in concentric relation to the axis of the pedestal section and having the upper end extending into the inverted cup-shaped shell part, a coupling located in the shell part and threaded on the upper end of said member, a second member housed by the pedestal section in concentric relation to the latter and having the lower end extending into the shell part through the top wall of the latter, the lower end of the second member having a portion threadedly engaging the upper end of the coupling and cooperating with the latter to clamp the shell part to the base section, radio receiving parts housed by the base section and having an adjustable part, a control element supported beneath the shell part for rotation about the axis of the pedestal section and operatively connected to the adjustable part, and an indicating band secured to the control element within said shell part and visible through an opening in one side of the shell part.

5. The combination with a base section and a pedestal section, of a shell having an inverted substantially cup-shaped part located between the base and pedestal sections, a member having the lower end removably supported in the base section in concentric relation to the axis of the pedestal section and having the upper end extending into the inverted cup-shaped part, a coupling located in the shell part and threaded on the upper end of said member, means carried by the pedestal section and cooperating with said coupling to clamp the shell to said pedestal, radio receiving apparatus housed by the base section and having adjustable parts, a pair of control elements supported one above the other beneath the lower edge of the shell part for rotation about the axis of the pedestal section, and means respectively connecting the control elements to different adjustable parts of the radio receiving apparatus for actuating said parts.

6. The combination with a base section and a pedestal section, of a shell having an inverted substantially cup-shaped part located between the base and pedestal sections, a member having the lower end removably supported in the base section in concentric relation to the axis of the pedestal section and having the upper end extending into the inverted cup-shaped part, a coupling located in the shell part and threaded on the upper end of said member, a second member housed by the pedestal section in concentric relation to the latter and having the lower end extending into the shell part through the top wall of the latter, the lower end of the second member having a portion threadedly engaging the upper end of the coupling and cooperating with the latter to clamp the shell part to the pedestal section, radio receiving apparatus housed in the base section and including a variable condenser and a rheostat, a pair of control elements supported one above the other beneath the lower edge of the shell part for rotation about the axis of the pedestal section, and means respectively operatively connecting the control elements to the condenser and rheostat for actuating the same.

7. The combination with a base section and a pedestal section, of a two-part shell located between the base and lower end of the pedestal section in concentric relation to the axis of the pedestal section, a member extending through the pedestal section and having a threaded lower end portion projecting into the upper end of the shell, a coupling housed in the shell having the

upper end threaded on the lower end of said member and clamping the upper end of the shell to the lower end of the pedestal section, a second member extending upwardly from the base into the lower end of the shell and threadedly secured to the lower end of the coupling, a control element supported for rotation about the axis of the shell and having the peripheral portion thereof extending between the two parts of the shell, and radio receiving apparatus housed by the base section and including an adjustable part operatively connected to the control element for actuation by the latter.

8. The combination with a base section and a pedestal section, of a shell having an upper part and a lower part concentrically supported with respect to the pedestal section in vertical spaced relationship between the pedestal section and base section, a member having the lower end supported in the base section in concentric relation to the axis of the pedestal section and having the upper end extending into the shell, a second member anchored in the pedestal section in axial alignment with the first member and having the lower end extending into the shell, a coupling located in the shell and secured to the adjacent ends of the members for clamping the pedestal section and upper shell part together, means for securing the lower shell part in on the base section in spaced relation to the upper shell part, radio receiving apparatus housed in the base section and including a variable condenser and a rheostat, a pair of control discs supported one above the other between the shell parts for rotation about the axis of the pedestal section, and means respectively operatively connecting the control discs to the variable condenser and rheostat for actuating the same.

9. The combination with a base section and a pedestal section, of supporting structure housed by the base section, a shell having an inverted substantially cup-shaped part located between the lower end of the pedestal section and base section in concentric relation to the axis of the pedestal section, a member having the lower end anchored to the supporting structure and having the upper end extending into the shell part, a second member anchored in the pedestal section and extending into the shell part through the top wall thereof, a coupling secured to the adjacent ends of the members and cooperating with the latter to clamp the shell part to the lower end of the pedestal section, a sleeve rotatable about the axis of the first member between the coupling and supporting structure, radio receiving apparatus in the base section including an adjustable part connected to the lower end of the sleeve, a control element supported beneath the bottom edge of the shell part for rotation about the axis of the first member and connected to the upper end of the sleeve for rotating the latter, and spacing means extending between the coupling and supporting structure for relieving the sleeve from clamping pressures.

10. The combination with a base section and a pedestal section, of supporting structure housed by the base section, a shell having an inverted substantially cup-shaped part located between the lower end of the pedestal section and base section in concentric relation to the axis of the pedestal section, a member having the lower end anchored on the supporting structure and having the upper end extending into the shell part, a second member anchored in the pedestal section and extending into the shell part through the top

wall of the latter, a coupling secured to the adjacent ends of the members and cooperating with the latter to clamp the shell part to the lower end of the pedestal section, a pair of relatively rotatable telescopically engaging sleeves supported for rotation independently of each other about the axis of the first member between the coupling and supporting structure, radio receiving apparatus carried by the supporting structure in the base section and including adjustable parts respectively connected to the lower ends of the sleeves, a pair of control elements supported directly below the bottom edge of the shell part one above the other for rotation about the axis of the first member and respectively connected to the upper ends of the sleeves, and a spacing sleeve supported on the first member in concentric relation to the axis of the latter and having the opposite ends respectively abutting the coupling and supporting structure to relieve said rotatable sleeves from clamping pressures.

11. The combination with a base section and a pedestal section, of supporting structure housed by the base section and having a bushing positioned in concentric relationship to the axis of the pedestal, a shell having an inverted substantially cup-shaped part located between the lower end of the pedestal section and base section in concentric relation to the axis of the pedestal section, a member extending upwardly through the bushing on the supporting structure into the shell part and having a head on the lower end abutting the lower end of the bushing, a second member anchored in the pedestal section and extending downwardly into the shell part through the top wall of the latter, a coupling secured to the adjacent ends of the members and cooperating with the latter to clamp the shell part to the lower end of the pedestal section, a spacing sleeve mounted on the first member and having the opposite ends respectively engaging the coupling and supporting structure, radio receiving apparatus carried by the supporting structure and including variable condensers, a sleeve mounted on the spacing sleeve for rotation about the axis of the first member and having the lower end operatively connected to the variable condensers for actuating the latter, and a control element supported directly beneath the lower edge of the shell part for rotation about the axis of the first member and secured to the second named sleeve for rotating the latter.

12. The combination with a base section, of a pedestal comprising axially aligned top and

bottom sections having the adjacent ends spaced from each other, a shell supported between the adjacent ends of the pedestal sections and comprising a top part and a bottom part having the adjacent edges spaced from each other, a member having the lower end anchored in the base section and extending upwardly through the bottom pedestal section into the shell, a second member anchored in the top pedestal section and extending downwardly into the shell, a coupling connecting the adjacent ends of said members and effective to clamp the top part of the shell to the lower end of the top pedestal section, a spacing sleeve supported on the first member in concentric relation thereto and having the opposite ends respectively abutting the lower end of the coupling and a part in said base, radio receiving apparatus supported in the base and including an adjustable part, and a control element supported between the adjacent ends of the shell parts for rotation about the axis of the pedestal and connected to the adjustable part of the radio receiving apparatus in said base.

13. The combination with a base section, of a pedestal comprising axially aligned top and bottom sections having the adjacent ends spaced from each other, a shell supported between the adjacent ends of the pedestal sections and comprising a top part and a bottom part having the adjacent edges spaced from each other, a member having the lower end anchored in the base section and extending upwardly through the bottom pedestal section into the shell, a second member anchored in the top pedestal section and extending downwardly into the shell, a coupling connecting the adjacent ends of said members and effective to clamp the top part of the shell to the lower end of the top pedestal section, a spacing sleeve supported on the first member in concentric relation thereto and having the opposite ends respectively abutting the lower end of the coupling and a part of said base, radio receiving apparatus supported in the base and including adjustable parts, a pair of relatively rotatable telescopically engaging tubes supported on the spacing sleeve for rotation independently of each other and having the lower ends respectively connected to the parts of the radio receiving apparatus requiring adjustment, a pair of control elements supported one above the other between adjacent ends of the shell parts and respectively connected to said sleeves.

DANIEL J. CROWLEY.
EARL W. DULMAGE.