Feb. 21, 1933. K. L. HENDERSON 1,898,835

SUPPORTING DEVICE FOR RADIO APPARATUS

Filed May 12, 1932

Fig. 3.

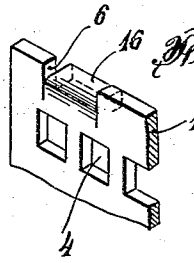


Fig. 1.

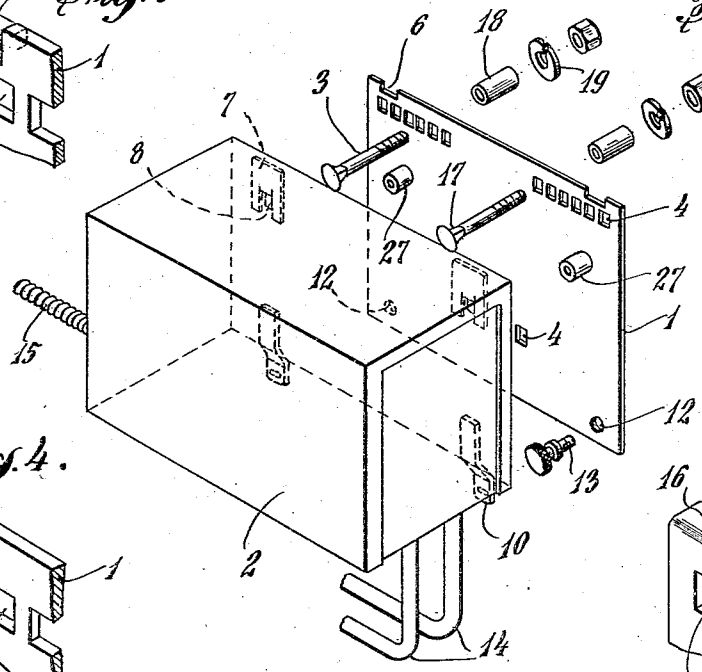


Fig. 4.

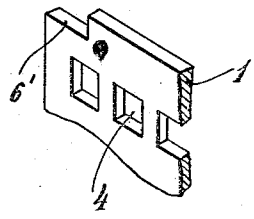


Fig. 5.

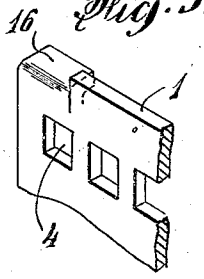


Fig. 2.

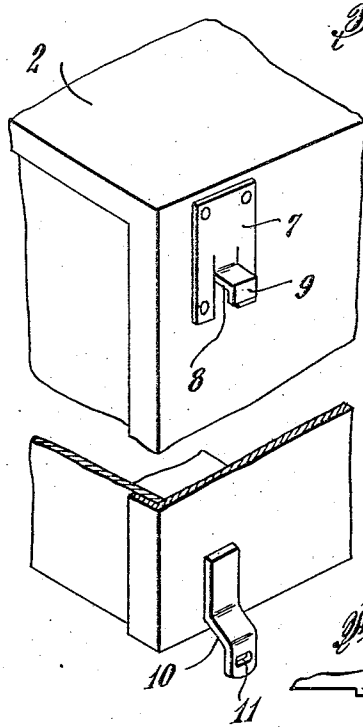


Fig. 6.

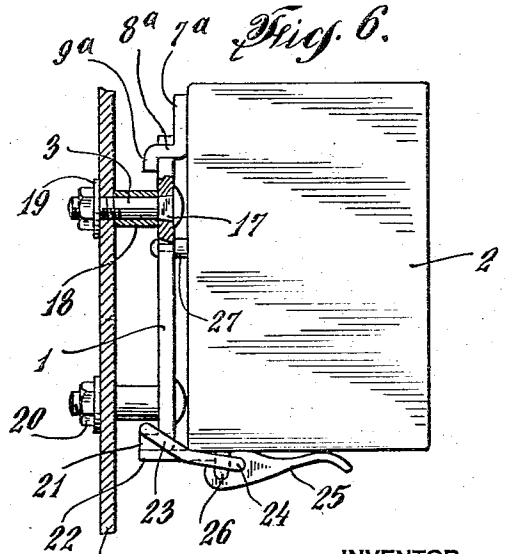
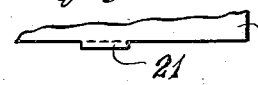


Fig. 7.



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Patented Feb. 21, 1933 1,898,835

UNITED STATES PATENT OFFICE

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SUPPORTING DEVICE FOR RADIO APPARATUS

Application filed May 12, 1932. Serial No. 610,852.

My invention relates to supporting devices, and particularly to a supporting device in the form of a plate and cooperating parts to enable a radio receiver to be conveniently mounted in position.

An object of the invention is to provide a supporting device which comprises a mounting plate for a radio receiver in a location where the receiver can operate properly, but be out of the way; and which will yet enable the receiver to be easily lifted out when inspection or repair is necessary. Such a type of supporting devise is particulaly useful in automobiles and in other places where there is little space available for radio receivers; so that the receiver must be disposed at some point where it will not interfere with the driver or other occupants, but where it can be kept serviceable and capable of being reached whenever removal is required.

In the preferred embodiments of this invention herein shown, the radio receiver can be very securely mounted and very readily taken down; and while it is engaged with its supporting device it hangs securely in place and no vibration or shaking of the receiver occurs.

A further object of the invention is to provide a very simple and inexpensive construction of this sort which will serve very efficiently the purpose in view.

Other objects and advantages of the invention are set forth in the ensuing description, taken with the accompanying drawing; and the novel features are defined in the appended claim. This disclosure, however, is explanatory only and changes may be made without departing from the principle of the invention or exceeding its scope.

On the drawing:

Fig. 1 shows in perspective a supporting device and the casing of a radio receiver for which the device is provided;

Fig. 2 is a perspective view of part of said receiver showing the elements to cooperate with the mounting plate;

Figs. 3, 4 and 5 are detailed views showing modifications of portions of the mounting plate to be engaged by the receivers;

Fig. 6 is a side view partly in section of another form of supporting device; and

Fig. 7 is a detail of Fig. 6.

The same numerals identify the same parts throughout.

Referring first to Figs. 1 and 2, I show at 1 a mounting plate on which is to be securely but removably hung a radio receiver enclosed in a casing 2. This receiver is of a portable type for private automobiles and police cars; and it can be conveniently secured on the inside of a car at the fore part thereof, just behind and under the instrument board. For this purpose I provide a number of bolts 3 and the upper and lower portion of the plate 1 has separate rows of holes 4 so that the bolts can pass through the plate and affix it conveniently to the inside front surface of the body of the car; as illustrated at 5 for example, in Fig. 6. The upper edge of the plate is notched at 6; and the upper part of the adjacent side of the casing 2 is provided at each end with a small metal plate 7 fastened to the casing and having integral tongues 8 cut from their lower ends and bent outward and downward as shown at 9. These tongues engage the notches 6 at both ends of the plate and the down-turned ends go behind the plate 1 and grip it snugly. At the lower edge the same side of the casing has elements in the form of strips 10 projecting below the bottom of the casing 2 and having openings 11. The plate 1 is of sufficient height to cause the lower edge to be below the bottom of the casing when the tongues 7 engage the notches 6 and adjacent the lower edge of the plate 1 in line with the openings 11 are apertures 12. The openings 11 and 12 aline with each other at each side and the openings 12 may be threaded so that binding screws with milled heads can be passed through the openings 11 and turn in the aperture 12.

Hence to put the casing 2 in place on the mounting plate 1, it is simply moved up to the face of the plate 1 and the tongues 8 are dropped down into the notches 6, the ends of these tongues 9 going down behind the plate 1. Screws 13 are then inserted and can be tightened as desired and easily removed. The openings 11 may be elcngated laterally

to allow for slight variations in the fit of the parts 8 into the recess 6 and the relative positions of the strips 10 and openings 12.

With this construction the radio receiver can be mounted very securely and held fast against vibration. It can be easily taken off merely by removing the screws 13 and by lifting it above the plate 1. The radio receiver is of course only diagrammatically shown and is provided with as many leads 14 and 15 as are necessary extending to the outside for making electrical connections with the battery, the antenna and the loud speaker.

In Fig. 3 the plate 1 is shown as having the recesses 6 made by cutting into the upper edge of the plate and bending back the parts between the two cuts as shown at 16. Fig. 4 shows recesses 6 at the very ends of the plate; and Fig. 5 shows a small recess made as in Fig. 3 by cutting the top and bending over the upper corner.

To secure the plate the bolts 3 are provided with suitable heads and squared or otherwise polygonal portions 17 to fit the selected openings 4, which are of corresponding shape. When the bolts are passed through these openings they receive spacing sleeves 18 which separate the plate from the inner surface of the car as shown at 5. Fig. 6 indicates diagrammatically a part of the wall or shell of the body of the car with openings for the bolts 3 and the ends of the bolts are threaded to receive washers 19 and nuts 20. The openings indicated at 4 may be disposed both at the upper and lower part of the plate, so that the plate is held firmly at three points.

Fig. 6 shows another form of mounting for a radio receiver in which the back of the receiver has elements 7*a* with turned-out lower parts 8*a* and down-turned lower edges 9*a* to engage recesses as above described in the plate 1 which is secured to the inside surface of a wall of the car as indicated at 5. The lower edge of the plate 1 may have a small projection which is turned over towards the wall 5 to form a shoulder and this projection may be provided by shaping the plate so that it is integral therewith, or a small angle-piece may be riveted to the rear face of the plate 1 to provide this projection. At 23 is a catch having one end pivoted at 24 to a lever 25 swivelled at 26 to the bottom of the casing 2. The swivel point 26 will be in front of the point of attachment of the element 23 to the lever 25, and the outer end of the catch 23 will be bent over laterally, to project into engagement with the shoulder 21. At 22 is a strip or plate attached to the bottom of the receiver or preferably it may be a projection forming part of the catch or clamp; and it is located adjacent the shoulder 21 to cooperate therewith. To hang up this receiver the elements 7*a* are hooked over the top edge of the plate and the casing 2 is then swung towards the plate 1 to carry the ledge 22 beneath the projection 21. Hence vertical movement of the casing 2 which might tend to disengage the elements 7*a* from the plate 1 is prevented. The end of the element 23 is then hooked over the projection 21 and the lever 25 is pulled back so as to tighten the element 23. Thus the receiver is secured and it can be taken off simply by swinging down the lever 25 to loosen the catch 23. The element 23 may be simply a closed link like the links in a chain.

In the foregoing description it will be seen that this supporting device is very simple but extremely practical. It is admirably adapted to mount the receiver securely and hold it against vibration and permit the ready removal of same.

With the construction above described the casing 2 can be mounted on either the inside or outside of the partition between the motor and the driver. The radio receiver can also be hung in this way on the back of the front seat or to the wall inside the car at either side of the rear seat as well as on the inside of a trunk carried by the car.

The screws 13 and other parts can, of course, be of any type and the plate 1 may also have studs 27 to engage the adjacent face of the receiver 2 and keep the turned-down ends 9*a* of the elements 7*a* in tight engagement with the plate 1.

Having described the invention, what is claimed is:

A supporting device for a casing comprising a plate having notches in its upper edge with transverse rows of apertures below said notches to be selectively used in combination with bolts to secure the plate in position, the apertures being polygonal and the bolts having correspondingly shaped portions to fit the apertures, spacing sleeves to envelop the bolts between the plate and the support to which it is attached, the casing having elements secured thereto and comprising downward extending tongues to engage the notches in the upper edge of the plate to enable the casing to be hung thereon, studs on the plate below the notches to space said casing from the plate and keep said elements in tight engagement with the plate, and detachable means for securing the lower part of the casing to the plate adjacent the bottom edge thereof.

In testimony whereof I affix my signature.

KEN L. HENDERSON.