May 13, 1924.

J. LAKE, JR

1,494,121

AMMETER BRACKET

Filed April 24, 1923

Fig. 1.

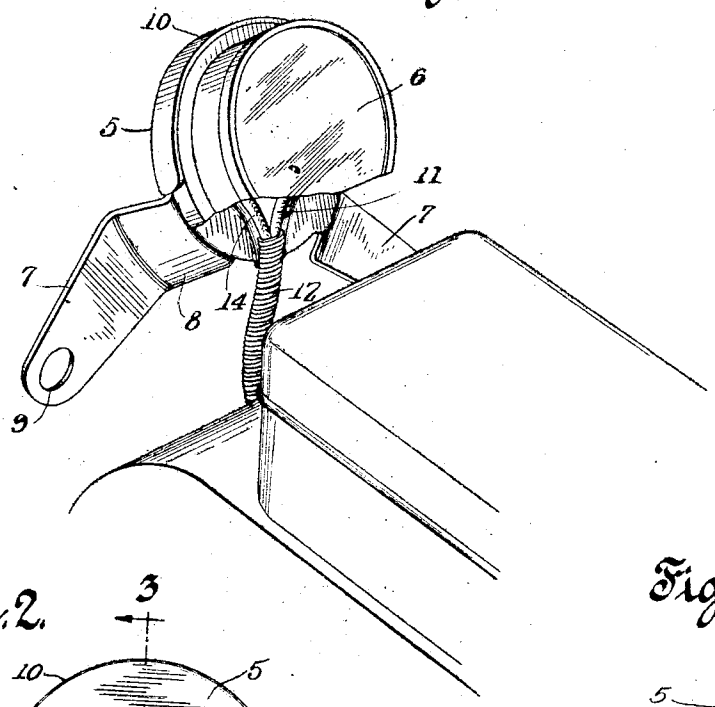


Fig. 2.

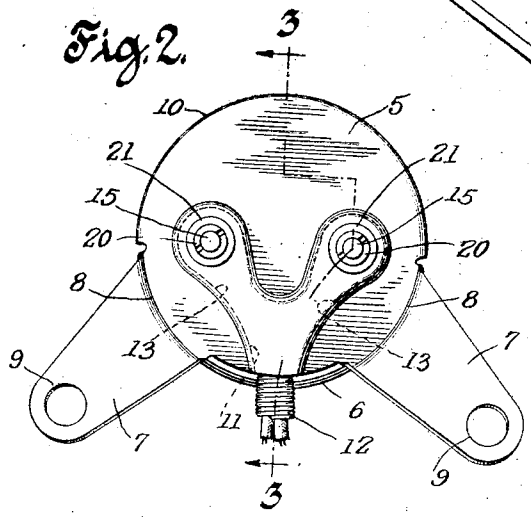
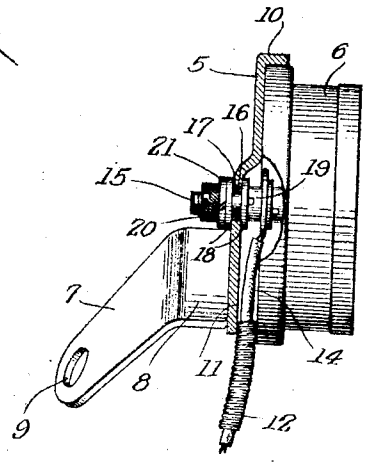


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES LAKE, JR., OF BROOKLYN, NEW YORK.

AMMETER BRACKET.

Application filed April 24, 1923. Serial No. 634,399.

To all whom it may concern:

Be it known that I, JAMES LAKE, Jr., a citizen of the United States, and a resident of Brooklyn, Kings County, and State of New York, have invented certain new and useful Improvements in Ammeter Brackets, of which the following is a specification.

This invention relates to the mounting of ammeters or other such instruments on motor cycles and the like and some of the objects of the invention are to provide a bracket for this purpose which will be relatively light and inexpensive, strong and durable, easily applied to the machine, adapted to provide a firm support and to hold the ammeter or other instrument in a position for convenient reading of the same, capable of protecting the instrument from the weather and against mechanical injury and further, to provide a simplified and improved form of connection between the bracket and the instrument which it supports.

One form of the invention in which the foregoing and other objects are accomplished is illustrated in the drawing accompanying this specification, wherein:

Figure 1 is a perspective view of the supporting bracket with instrument attached, substantially as mounted on a motorcycle.

Figure 2 is a rear view of the device, and

Figure 3 is a sectional view as on substantially the plane of line 3—3 of Figure 2.

One special feature of the invention is that the bracket can be made from a single piece of sheet metal, which in the shaping of the bracket is reinforced and strengthened so as to afford the necessary rigidity and strength.

The main or body portion 5 of the bracket is in the nature of a flat disc to form a support and backing for the ammeter or other instrument 6 and is shown as provided with a pair of divergent supporting arms 7. These arms are indicated in Figures 1 and 3 as inclined with respect to the plane of the back plate and are rearwardly offset therefrom by the rearwardly extending portions 8 which are in the nature of flanges bent back and curved in cross section to the periphery of the plate. This curvature reinforces and stiffens both the arms and the back plate itself. At the ends the supporting arms may be perforated as at 9 for the passage of suitable fastening bolts for mounting the bracket on the fork or steering head of the machine.

The upper part of the back plate is reinforced by a forwardly projecting arcuate flange 10 which serves as a positioning element for the ammeter and also operates as a guard, protecting the ammeter against mechanical injury and covering the joint between the back plate and the instrument to prevent the entrance of water and dust.

At the lower edge between the divergent arms the back plate is indented to provide at the inside a groove 11 for the reception of the end portion of a cable 12 and this groove has branches or extensions 13 to carry the separate conductors 14 of the cable to the separate terminals of the instrument.

These terminals are illustrated in the form of binding posts 15 extending from the back of the instrument and long enough to pass through perforations 16 formed in the back plate at the ends of the branches described. To prevent short-circuiting the binding post these perforations are usually lined with insulating bushings 17 and insulating washers 18 are located at the opposite faces of the plate at the ends of these insulating bushings. Binding screws 19 serve to fasten the ends of the conductors on the terminal posts and these are so arranged as to clamp the wire ends in position where they are properly spaced from the surrounding walls. Nuts 20 are applied to the projecting ends of the terminal posts and these, by acting against the back of the plate, serve to draw the instrument firmly to its seat against the face of the plate. Lock washers 21 may be provided to prevent these nuts from working loose and these washers with the nuts and the projecting ends of the terminal bolts are preferably all coated over with insulating enamel or like material to prevent possibility of short-circuiting the terminals at the back of the plate.

The use of the binding posts of the instrument as a means for fastening the instrument on the bracket very much simplifies the construction and also insures a firm connection and mounting of the instrument. Also the parts are easily assembled and the instrument at any time may be readily removed from the bracket. The flange at the upper end of the bracket surrounding the upper edge of the instrument base protects the instrument and prevents rain and snow, sand and mud from working in between the instrument case and the base or covering portion of the bracket.

Should, however, any moisture collect at

the back of the instrument, this readily drains off through the wire conduit grooves formed in the back plate. The indentation of the back plate in addition to providing the branches or Y-shaped conduit at the inside face of the bracket provides a forked rib standing out from the back of the bracket, which materially reinforces and strengthens same, preventing the back plate from bending under unusual strains applied thereto. The arcuate connecting portions of the supporting arms are also important as reinforcing the lower portion of the back plate and strengthening the arms so that they will hold the instrument firmly and overcome vibrating tendencies.

What I claim is:

1. A supporting bracket for an ammeter or other electrical instrument having a back portion of sheet material, indented to form a substantially Y-shaped groove for receiving a cable end and providing branches for conductors for attachment to the terminals of the instrument.

2. A combination as in claim 1 with openings provided at the ends of the branches for the reception of the ends of the instrument terminals.

3. A bracket for supporting an ammeter or other electrical instrument comprising a back plate providing a cover for the rear of the instrument and having a groove entering at one edge of the plate and forked to hold a cable and carry the separate conductors which lead to the terminals of the instrument.

4. In combination with an electrical instrument having binding posts projecting from the rear thereof, a bracket having a back plate to fit the rear of the instrument and an outstanding flange about a portion of the periphery of the back plate for positioning the instrument and covering the joint between the back plate and the back of the instrument, said back plate being perforated for the passage of the binding posts therethrough, fastenings engaged with the extended ends of the binding posts for securing the instrument to said back plate and said back plate having a groove-way extending inward from the edge thereof opposite the flange and branches to the respective binding post openings to carry a cable and the separate leads to the binding posts.

5. A supporting bracket for an ammeter or the like comprising a back plate provided with means for supporting the same in a more or less upright position and having an outstanding flange about the upper edge portion of the same, said back plate having a groove-way extending inward from the lower edge of the same to provide a conduit for the conductors which are led to the instrument seated on the bracket.

6. A sheet metal bracket for ammeters comprising a back plate having an upstruck flange about a portion of the periphery thereof and downstruck divergent arms extending from other peripheral portions, said back plate having an indentation in one edge of the same to receive a cable end with diverging branches to carry the separate conductors of the cable to the separated terminals of an instrument supported on the bracket.

7. A combination as in claim 1 with openings in the back plate at the ends of the branches for the passage of binding post terminals and an electrical instrument having binding post terminals extending through such openings and provided with fastenings at the outside of the back plate for securing the instrument in position thereon.

8. A bracket for ammeters or the like comprising a substantially circular back plate having supporting arms divergent therefrom and connected with the back plate by portions arcuate in cross section in conformity with the periphery of the back plate.

9. A bracket for ammeters or the like comprising a back plate having divergent supporting arms and an indentation extending inwardly from the edge of the plate at a point between said arms and branched into the central portion of the plate to provide channels for separate conductors leading to the terminals of the instrument supported on the bracket.

In witness whereof, I have hereunto set my hand, this 16th day of April, 1923.

JAMES LAKE, JR.