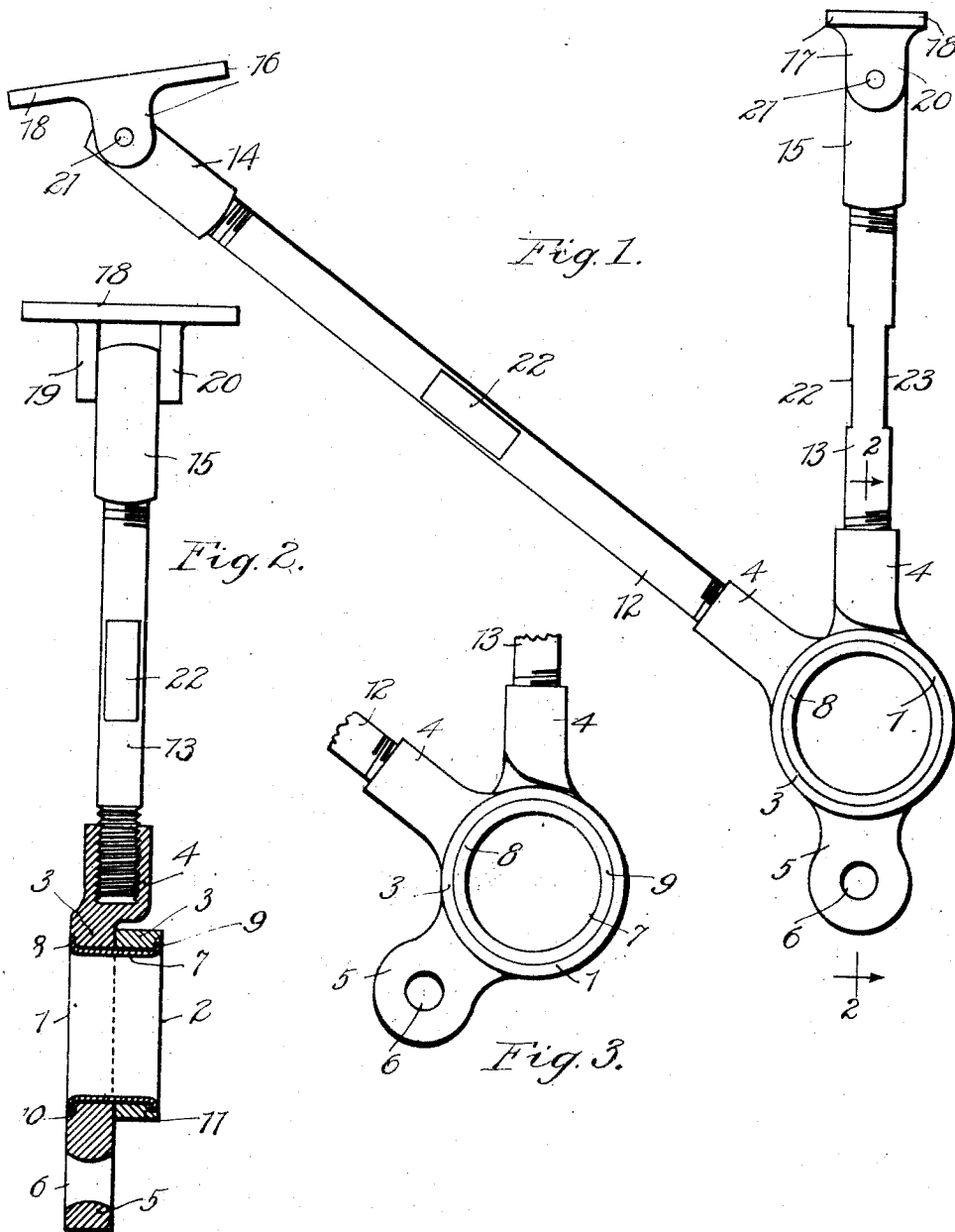


No. 883,138.

PATENTED MAR. 24, 1908.

W. G. KIRCHHOFF.
ADJUSTABLE BRACKET.
APPLICATION FILED SEPT. 27, 1907.



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WILLIAM G. KIRCHHOFF, OF CHICAGO, ILLINOIS.

ADJUSTABLE BRACKET.

No. 883,138.

Specification of Letters Patent. Patented March 24, 1908.

Application filed September 27, 1907. Serial No. 394,878.

To all whom it may concern:

Be it known that I, WILLIAM G. KIRCHHOFF, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Adjustable Brackets, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to brackets, particularly to brackets used in vehicles, such as steam-railway or electric cars, the purpose of the brackets being to offer bearings, or runways, for register or bell rods or cords. In the present stage of the art, brackets for this purpose are usually cast integral, but as these vehicles differ in shape, and the particular location of application of the brackets differs, these cast brackets and their manufacture are very expensive. Special patterns must be made for each form of bracket, and practically for the least variation in the form. Under these circumstances, it is also unprofitable to manufacture brackets of a certain kind in large numbers to keep them in stock, as there may not be another call for a particular form for a long time.

The main object of my invention, therefore, is to provide an adjustable bracket in which all the principal and expensive parts may be the same for any size or form of bracket.

The parts of the bracket usually comprise a head, which offers a bearing for a register rod or cord, and a bearing or eye for the bell cord, usually. This head part is carried by arms which terminate in foot members, by means of which the bracket may be secured to the support. The head member and the foot members form the most complicated part of the bracket, and must therefore be of a particular form, whereas the arms may be of any form or construction. In prior devices of this kind, as before stated, the head and foot parts and the arms are cast integral, but in accordance with my invention, the head and foot members are separated and may be alike for all brackets, while the arms are separable, and which may be cut from stock material of any length. The head part I practically make in two parts, which are pivoted together, and the foot members are also pivoted, the whole combination producing a bracket which can be

changed into various forms to fit almost any vehicle or any corner or supports in the vehicle. The head and foot parts can therefore be formed in great numbers, and consequently with much less expense, and can be kept in stock. When an order is received, it is only necessary to make a suitable number of the single arm members, which, when connected with the head and foot parts, will meet the specifications.

My invention is best understood and described by reference to the accompanying drawing, in which

Figure 1 is a side elevation of a complete bracket; Fig. 2 is an end elevation from the left, the top being shown in full, and the lower part being shown in section along the line 2—2, and Fig. 3 is a view of the head end showing a modified arrangement.

The head part is composed of two similar members, or halves, 1 and 2, each having a body part 3 in the form of an annular sleeve, from which extends a threaded lug 4, and from one or from both of which may extend a lug or eyelet 5, having the opening 6. These halves are pivoted on a steel tube 7, this tube being originally straight and after application being riveted at its ends 8 and 9 to clamp the halves together into frictional, pivotal engagement. The halves 1 and 2 at their outer edges have the recesses 10 and 11 respectively, into which the riveted ends 8 and 9 dispose themselves when the tube is riveted over, in order that these ends are flush with the edges of the halves. The threaded lugs are preferably offset so as to lie in the same plane when the halves are brought together. The threaded lugs receive the arms 12 and 13, and these arms may be cut to any length from stock material of any form. The other ends of the rods are also threaded and are engaged by threaded lugs 14 and 15, which may be of any shape and to which are pivoted respectively the foot members 16 and 17. These foot members comprise the base part 18 and the two extensions 19 and 20, which receive the end of the respective lug 14 or 15 to be pivoted thereto as by means of a pin, 21. Each rod has right and left threads respectively at its ends, and provision is made so that the rods may be turned by means of a tool. If the rods are polygonal, they can easily be turned by a wrench, for instance, and where these rods are round, the grooves

22 and 23 are cut opposite to each other in the rod surface to form an application point for the tool.

With this construction, it can readily be seen that the parts can be so disposed with relation to each other as to produce a form of bracket which will meet almost any conditions and which will fit in almost any corner, or against any support. The head parts, and the foot parts comprising the foot members and threaded lugs, are standard, and can be manufactured to advantage in great numbers and kept in stock. Whereas heretofore it required a long time to fill an order by reason of the necessity for special patterns and the manufacture of all the parts, by means of my invention a large order can be turned out in very short time, as the only work necessary is the manufacture of the rods, and to those skilled in the art it is plain that the work and time required to finish a great number of such rods is very little. Another point is, arms formed of rolled metal possess a much greater strength to the square inch of section than cast arms, the result being that the brackets can be made very much lighter. The lugs 5 may extend at any angle from the halves, the eye lug shown in Fig. 1 being opposite one of the threaded lugs 4, while in Fig. 3 the eye lug is at forty-five degrees thereto. When thus placed at an angle, greater variation of form can be given the bracket. The fact that the foot members 16 and 17 are pivoted to the lugs 14 and 15 respectively, and said lugs are threaded to the respective rods, the effect of a universal coupling is produced and the feet may assume any angle with respect to the rods; to thus adapt themselves to any form of support. The tube 7, besides acting as a rivet for clamping together the halves of the head part, forms a bearing bushing for the actuating rod which connects with the register. The halves and the bushing may be made smaller where a register strap or cord is used instead of a rod.

The various parts forming the bracket may, of course, be made of many different shapes, sizes or relative proportion, without departing from the scope of the invention.

I desire to secure the following claims by Letters Patent:

1. In a device of the class described, the combination of a head part, foot members, and adjustable arms connecting said head with the foot members.

2. In a bracket, the combination of a head part, supporting arms having adjustable connection with the head part, and foot members having adjustable connection with the arms.

3. In a bracket, the combination of a head part, arms having separable and adjustable connection with the head part, foot mem-

bers having separable and adjustable connection with the arms, and means for securing the head part and foot parts to the arms after assembly thereof.

4. In a device of the class described, the combination of a head part having openings therethrough for receiving a rod or cord, lugs extending from the head part, arms having separable engagement in said lugs, foot members having separable engagement with the other ends of the rods, and means for securing together the head members, foot members and rods after assembly thereof.

5. In a device of the class described, the combination of head members and foot members adapted to be connected together by separable arms of different lengths whereby the bracket becomes adjustable.

6. In a device of the class described, the combination of a head part forming a bearing for a cord or rod, threaded lugs extending from the head part, rods having threaded engagement at one end in said lugs, and foot members having threaded engagements with the other ends of said rods whereby rods of different lengths may be interchanged for connecting the foot members to the head part to make the device adjustable.

7. In a device of the class described, the combination of a head part formed of two members rotatably pivoted together, an arm extending from each member and having separable adjustable connection therewith, and a foot member having adjustable and separable engagement with the other end of each arm whereby arms of different length may be interchanged.

8. In a device of the class described, the combination of a head part forming a bearing for a cord or rod, said head part being composed of two members pivoted together to be rotatable, a lug extending from each member, a rod extending from each lug and adapted for separable and adjustable connection therewith, each rod terminating in a foot member having separable and adjustable connection therewith, whereby said bracket becomes adjustable.

9. In a device of the class described, the combination of a head part forming a bearing for a cord or rod, and composed of two members pivotally connected, a threaded lug extending from each member, foot members having threaded openings, and rods engaging in said threaded openings to connect the foot members with the body part members, whereby rods of different length may be interchanged, the pivotal connection and said interchangeability of the rods rendering the bracket adjustable.

10. In a device of the class described, and combination of a head part, threaded lugs extending from the head part, foot members, a threaded lug extending from each foot member and having pivotal connection

therewith, and rods engaging the threaded lugs of the foot members and the head member to hold said members together.

11. In a device of the class described, the combination of a body part composed of annular members, each having a lug extending therefrom, a tubular member for connecting said annular members together into pivotal relation and offering a bearing or opening for receiving a cord or rod; foot members adapted to be secured against any support; a lug pivoted to each foot member, and rods having separable connection with the lugs of the head members and foot members to form a bracket when assembled.

12. In a device of the class described, the combination of a head part composed of two

annular members pivoted together to form a bearing for a cord or rod, an extension from one of said members forming another bearing for a cord or rod, a lug extending from each member, foot members for securing the bracket to a support, and rods having separable and adjustable connection with the foot members and lugs to be assembled therewith to form an adjustable bracket.

In witness whereof, I hereunto subscribe my name this 25th day of September A. D., 1907.

WILLIAM G. KIRCHHOFF.

Witnesses:

CHARLES J. SCHMIDT,
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