

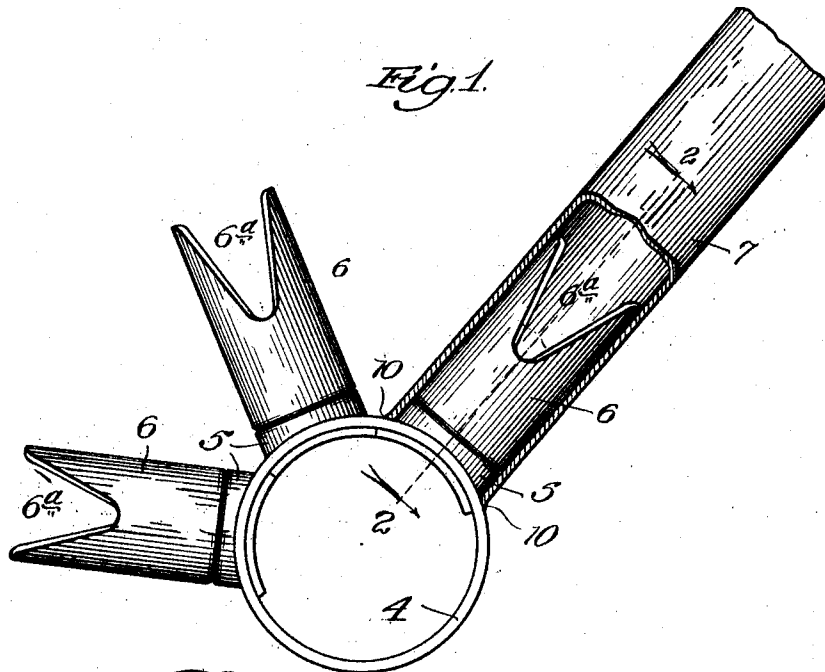
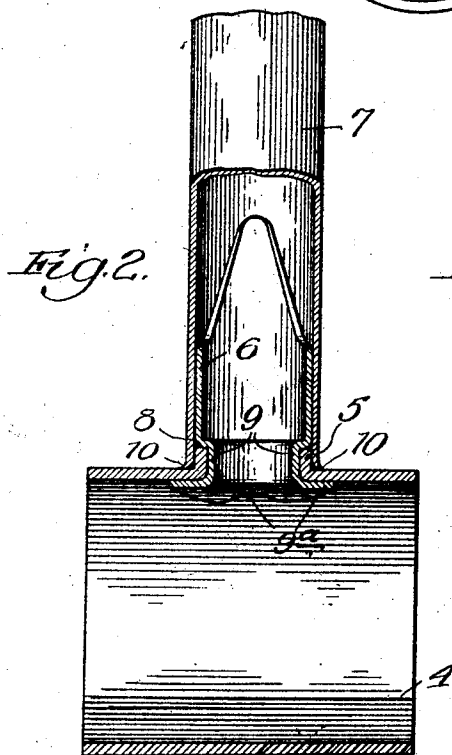
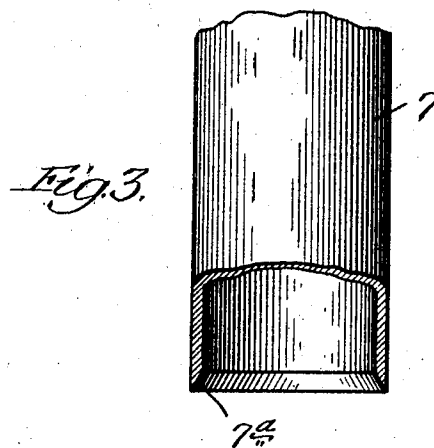
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J. M. LONN

CYCLE CRANK HANGER BRACKET

Filed July 9, 1924



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UNITED STATES PATENT OFFICE.

JULIUS M. LONN, OF LAPORTE, INDIANA, ASSIGNOR TO GREAT WESTERN MANUFACTURING COMPANY, OF LAPORTE, INDIANA, A CORPORATION OF INDIANA.

CYCLE-CRANK-HANGER BRACKET.

Application filed July 9, 1924. Serial No. 725,030.

To all whom it may concern:

Be it known that I, JULIUS M. LONN, a citizen of the United States, residing at Laporte, in the county of La Porte and State of Indiana, have invented a new and useful Improvement in Cycle-Crank-Hanger Brackets, of which the following is a specification.

The present invention is an improvement on the construction which forms the subject of Letters Patent No. 1,101,131, dated June 23, 1914, to E. J. Lonn, and while it has the same general object as that of the patented construction, namely that of strengthening the fitting and therefore the frame by providing the joint, involving the nipple, sleeve and tube members, with three thicknesses of metal, it relates particularly to those members of the crank-hanger bracket, and has for its immediate objects simplification and material reduction of the manufacturing cost over providing the bracket with the particular joint shown and described in the aforesaid patent.

Every such joint must be rendered flush and smooth by careful hand-filing preparatory to enameling the frame, and this filing operation is easily performed where the joint is readily accessible for the purpose. The joints on the crank-hanger bracket, however, are difficult of access for the filing purpose, and render the operation relatively slow, arduous and expensive; and in these times of keen competition in the bicycle business, a saving of approximately twenty-five cents, which is the cost of filing bracket-joints of the patented construction, is an important item, and this saving is afforded by my improvement, hereinafter described and illustrated in the accompanying drawing, in which—

Figure 1 is an end view of a crank-hanger bracket showing a broken portion of one of the tubular cycle-frame bars applied thereto in accordance with my improvement, but with a part of its lower end broken away and sectioned to display my joint-structure;

Figure 2 is a section on line 2, Figure 1, and

Figure 3 is an enlarged broken view in elevation of the tubular frame-bar with its lower-end portion broken away and sectioned to show the internally chamfered extremity thereof.

The bracket-barrel 4 is formed with nip-

ples 5 projecting, as usual, from about openings in the barrel-wall to receive the reinforcing sleeves 6. Each sleeve, shown to be formed with a V-shaped recess 6^a in its outer end to render it resiliently compressible for facilitating the telescopic application thereto of a frame-tube 7, is constricted about its inner end to form a flat annular shoulder 8 from which a neck 9 extends.

Upon inserting the neck-end of the sleeve through a nipple 5, its end-portion then projecting into the barrel is spread or clenched into contact with the inner surface of the barrel-wall, as represented at 9^a in Fig. 2, to rigidly and securely fasten the sleeve in place. This procedure recesses the neck and binds the flat-faced sleeve-shoulder 8 in abutting contact with the similar shoulder-like face of the nipple, with the neck-recess closely fitting about and embracing the inner surface of the nipple.

The frame-tube 7 is shown, at 7^a in Fig. 3, with its lower extremity internally chamfered for the purpose hereinafter explained.

To unite the tube with the bracket, the tube is forced, as by driving, over the sleeve, thereby bringing against the barrel-surface the chamfered extremity and spreading the knife-edge of the latter to conform to the rounded contour of the barrel-surface longitudinally thereof on two diametrically-opposite sides of the tube's meeting therewith, as represented at 10 in Figs. 1 and 2.

The joint, thus formed with the desirable three thicknesses of metal and involving the abutting flat-faced shoulders, avoids the neck and the sloping shoulder thereof as in the aforesaid patented construction, producing the undesirable joint-formation requiring to be smoothened by costly hand-filing, as hereinbefore explained; while by my improved method of forming the joint, it is so smooth or flush as to require no filing or treatment preparatory to enameling the frame.

As will be understood, the tube may be secured, at its junction with the barrel, in a usual manner, as by riveting and brazing, or welding and brazing.

I claim:

1. A cycle crank-hanger bracket comprising, in combination, a barrel having an opening therein the wall of said opening being turned to form a nipple, a reinforcing and frame-tube-receiving sleeve having a

reduced inner-end portion and a shoulder
abutting against the inner face of the nipple
and flush therewith, said sleeve being spread
outwardly at its inner-end to bear against
5 the internal surface of the barrel, whereby
to clamp together said shoulder and nipple
in abutting relation, and a frame-tube the
inner end of which contacts with the outer
face of the nipple and with the external
10 surface of the barrel thereby forming triple
thickness of metal at the joint between said
tube and barrel.

2. A cycle crank-hanger bracket compris-
ing, in combination, a barrel having an
15 opening therein, the wall of said opening
being turned to form a nipple, a reinforcing
and frame-tube-receiving sleeve having a re-
duced inner-end portion and a shoulder
abutting against the nipple and flush there-
20 with, said sleeve being spread outwardly at
its inner-end to bear against the internal
surface of the barrel, whereby to clamp to-
gether said shoulder and nipple in abutting
relation, and a frame-tube into which the

outer end of said sleeve extends with the
inner end of said tube contacting with the
external surface of the barrel. 25

3. A cycle crank-hanger bracket compris-
ing, in combination, a barrel having an
opening therein, the wall of said opening
30 being turned to form a nipple, a reinforcing
and frame-tube-receiving sleeve having a
reduced inner-end portion and a shoulder
abutting against the nipple and flush there-
with, said sleeve being spread outwardly at
35 its inner-end to bear against the internal
surface of the barrel, whereby to clamp to-
gether said shoulder and nipple in abutting
relation, and a frame-tube into which the
40 outer end of said sleeve extends with the
inner end of said tube contacting with the
external surface of the barrel, said tube be-
ing internally chamfered at its lower end to
afford a knife-edge adapted to be spread to
45 conform to the rounded exterior surface of
the barrel.

JULIUS M. LONN.