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H. E. KALTER

2,931,423

CYCLE SADDLES

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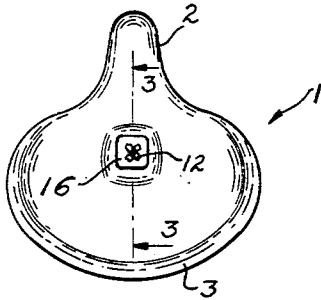


Fig-1

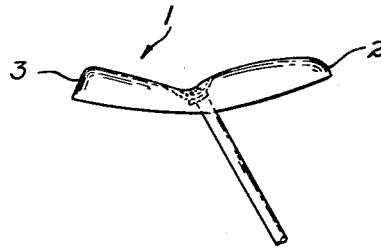


Fig-2

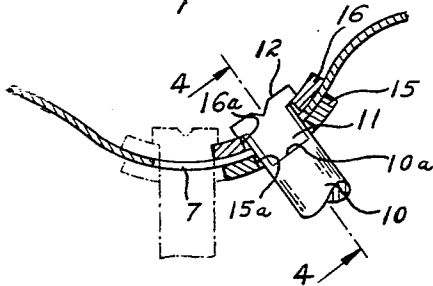


Fig-3

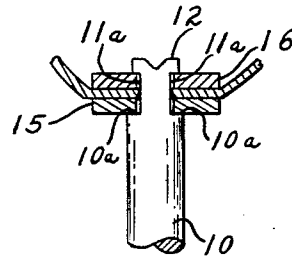


Fig-4

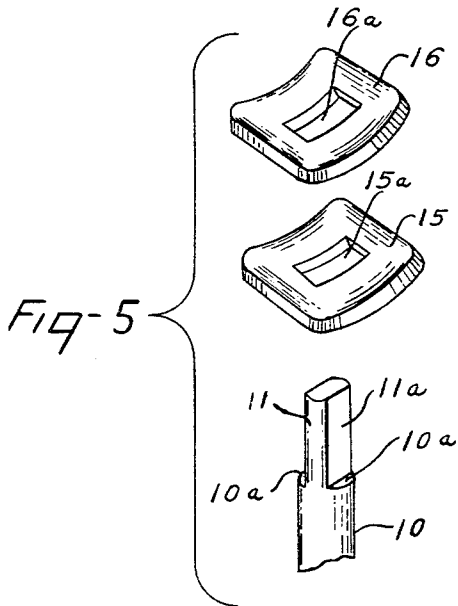


Fig-5

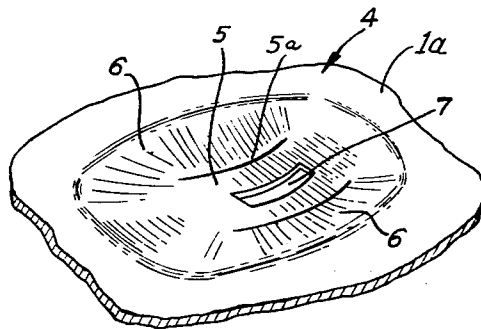


Fig-6

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2,931,423

CYCLE SADDLES

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2 Claims. (Cl. 155—5.24)

My invention relates to cycle saddles and particularly to the type of saddle wherein a generally downwardly directed post is secured thereto for mounting to a tricycle, bicycle or similar velocipede.

The present application is directed to a simple and novel means for securing a cycle saddle post to the saddle frame in any desired adjusted position without the use of reach members, braces, or similar supports which are found in prior saddles with which I am familiar.

It is an object of my invention to provide a saddle of the type referred to which is adapted to have post attachment and/or post support means integrally associated with the saddle.

Another object of my invention is to provide improved means for mounting the post to the saddle frame which will permit the post to be securely positioned at various angles relative thereto.

Another object of my invention is to provide a saddle of the class referred to which will be inexpensive to manufacture and composed of but few parts.

Yet another object of my invention is to provide such a saddle which will have great strength and be highly durable in use.

Other objects of my invention and the invention itself will become more apparent by reference to the art to which my invention appertains.

My invention is fully disclosed in the following description taken in connection with the accompanying drawings in which:

Fig. 1 is a top plan view of a saddle embodying my invention;

Fig. 2 is a side plan view of the saddle of Fig. 1;

Fig. 3 is a longitudinal sectional view taken from the line 3—3 of Fig. 1;

Fig. 4 is a fragmentary sectional view taken from the line 4—4 of Fig. 3;

Fig. 5 is an exploded view of the post and securing means shown in Figs. 1 to 4 inclusive; and

Fig. 6 is a fragmentary perspective view of a centrally disposed recess in the saddle frame.

Referring now to the drawings, at 1 I show the saddle frame, preferably formed from a single piece of sheet metal by cutting and stamping operations. The frame is generally of pear form and is preferably provided with a downwardly bent, peripheral skirt, said skirt being relatively short at the forward end of the saddle as indicated at 2 and progressively increasing in length toward the rearward end as shown at 3.

The generally central portion of the saddle frame 1 is provided with a graduated, relatively shallow depression or recess 4 as best shown in Fig. 6. Said recess is provided with a bottom-most, arcuately curved wall portion 5 which longitudinally merges upwardly into the upper surface 1a of the frame 1 in both forward and rearward directions. Said recess is also provided with laterally, upwardly tapering side walls 6 connecting the lateral edges 5a of the bottom wall with the upper surface 1a of the frame. A longitudinally directed, rectangular slot

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7 is provided in the bottom wall portion 5 for adjustable mounting of a saddle post member 10.

The saddle post 10 (Figs. 3, 4, and 5) comprises a preferably cylindrical rod having a generally flattened, upper end portion 11. The upper end portion 11, is formed by means of cutting, grinding, or the like operations to provide diametrically opposite, parallel planar surfaces 11a and corresponding shoulders 10a. The flattened end 11 is of such lateral dimension as to slidably interfit the slot 7, said slot being substantially longer than the normal diameter of the saddle post 10. The planar surfaces 11a prevent the post 10 from rotating within the slot 7, but said post can be adjusted freely in a forward or rearward direction within the limits of said longitudinal slot prior to final assembly of post and saddle frame.

A pair of rectangular washers 15 and 16 are provided respectively below and above the slot 7 to reinforce the bottom wall 5 for mounting of the post 10 thereto. Said washers are arcuately curved to complementarily interfit said wall and are centrally rectangularly apertured at 15a and 16a respectively, said apertures being so dimensioned as to slidably interfit the flattened end 11.

In assembly, the flattened end 11 is projected through the washer 15, the slot 7 in the bottom wall 5, and the washer 16 until the washer 15 abuts the shoulders 10a whereupon the upwardly projecting end portion is swaged as shown at 12 in Figs. 1, 3, and 4.

It will be understood that the post 10 may be rigidly mounted within the slot 7 at any adjusted position within the limits of said slot. As shown in Fig. 3, the range of adjustment in the presently disclosed device is preferably about 35° from the vertical in a forward direction. This range may, however, vary to meet different needs and to adapt to differently constructed cycles. Because of the arcuately curved shape of the bottom wall 5, the post 10 mounted therein will radiate axially from the center of such arcuate formation regardless of its position within the slot 7.

The shape of the recess 4 is particularly designed to provide the strength necessary to withstand stresses placed upon the saddle frame 1. It will be noted that the curved wall 5 merges gradually into the upper surface 1a of the saddle frame 1 thereby presenting a rigid bracing against distortion when the saddle is stressed in a forward or rearward direction. The side walls 6 are longitudinally generally concave as seen from above the saddle (Fig. 6) thereby presenting great resistance to buckling or twisting. The rectangular washers 15 and 16 are preferably of a width equal to the width of the bottom wall 5 and preferably of at least equal length to provide large bearing surfaces for the saddle frame. It has been found that such construction will withstand forces far in excess of those to which a cycle saddle is ordinarily subjected.

It will be readily understood that the present saddle construction would be provided with a suitable cover for commercial purposes, and it may be padded or otherwise made more comfortable and attractive to the public (not herein illustrated). A pad of suitable resilient material shaped to complementarily interfit the recess 4 (also not shown) is preferably provided to assure a smooth, and uninterrupted contour to the upper surface 1a of the saddle frame.

It will be obvious that numerous changes in the details of my invention may be made, such as changes in size and dimension, without, however, departing from the spirit thereof or the scope of the appended claims.

What I claim is:

1. A cycle saddle comprising a frame and a post, said frame having a centrally disposed recess portion, said recess providing an arcuately depressed surface having a longitudinal slot therein, said post projecting through

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said slot and being longitudinally adjustable therein whereby the angle of said post is variable relative to said frame, reinforcing means associated with said post and said frame whereby said post is rigidly and securely mounted in the adjusted position to said frame.

2. A cycle saddle comprising a sheet metal frame, a post having a noncircular end portion, said frame being recessed to form an arcuate bottom wall, said bottom wall being longitudinally noncircularly apertured, and said noncircular end portion of said post being telescoped through said longitudinally extending aperture of said bottom wall, a pair of arcuately formed, noncircularly apertured washers disposed on either side of said bottom wall complementarily therewith, the apertures of said washers complementarily interfitting the noncircular end

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portion and being aligned with the aperture in said bottom wall whereby said end portion projects through said aligned apertures and extends beyond said washers, said end portion being swaged to rigidly and compressively maintain the recited parts in assembled relationships.

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