Sept. 26, 1939. E. H. WERNER 2,174,340

SEAT POST

Filed June 2, 1937

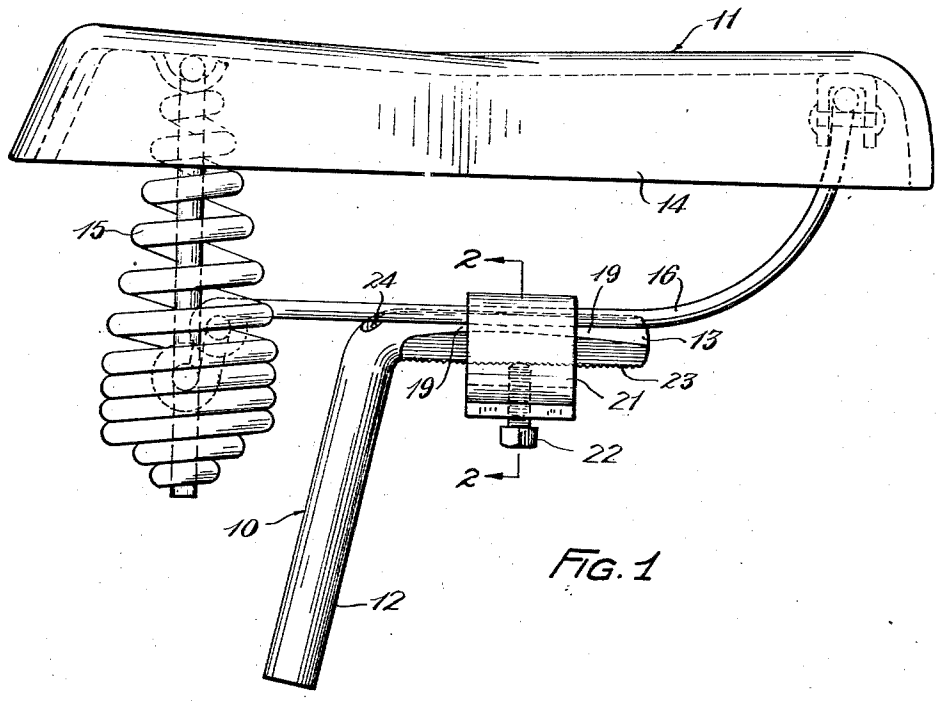


FIG. 1

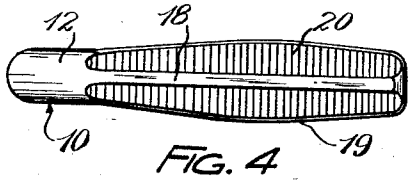


FIG. 4

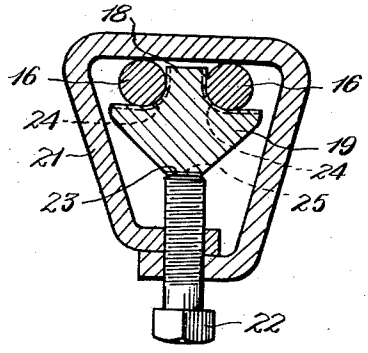


FIG. 2

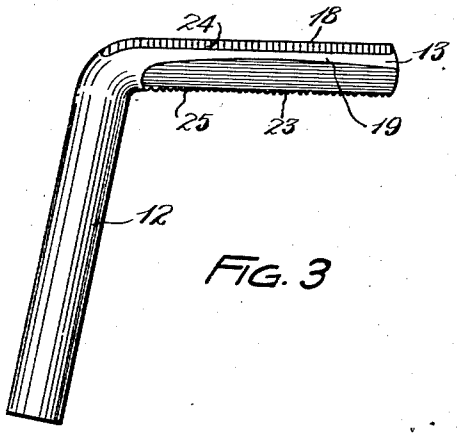


FIG. 3

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SEAT POST

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Application June 2, 1937, Serial No. 146,050

5 Claims. (Cl. 155—5.24)

This invention relates to supports for cycle seats and, as its principal object, aims to provide a seat post of novel form which will retain the seat in upright position.

Another object of my invention is to provide an improved seat post and clamping arrangement for cycle seats in which an arm of the post is provided with a longitudinally extending rib adapted to engage between spaced longitudinal bars on the under side of the seat.

A further object of my invention is to provide a novel post and clamping arrangement for cycle seats in which an arm of the post has longitudinal flanges extending laterally from opposite sides thereof, for engagement with spaced longitudinal bars on the under side of the seat, and a longitudinal rib substantially on the vertical midplane and engageable between such spaced bars.

Still another object of my invention is to provide an improved seat post and clamping arrangement, of the type referred to, in which the arm has longitudinal grooves on opposite sides of the rib merging with, and connecting, the adjacent side walls of the rib and flanges and in which such spaced bars of the seat engage.

Other objects and advantages of my invention will be apparent from the following description when taken in conjunction with the accompanying sheet of drawings, in which

Fig. 1 is a side elevation showing my novel post and clamping arrangement applied to a cycle seat;

Fig. 2 is a transverse sectional view, on a larger scale, taken as indicated by line 2—2 of Fig. 1;

Fig. 3 is a side elevation showing the seat post in detached relation; and

Fig. 4 is a plan view thereof.

More detailed reference will now be made to the accompanying drawing in which I show what I regard to be the preferred form of my seat post and clamping arrangement, but before proceeding with the detailed description, I desire it to be understood that my invention is not limited to the particular construction and arrangement here illustrated but may be embodied in various other arrangements and devices.

In Fig. 1 of the embodiment here illustrated, I show my improved post 10 as forming a support for a cycle seat or saddle 11. The post 10 may be of the type having an upright stem portion 12 and an arm portion 13 extending angularly therefrom. The seat 11 may be of any suitable construction, for example, it may be a seat having a leather or composition saddle portion 14 supported by a suitable arrangement of yieldable springs 15. The seat also has on the under side thereof a pair of longitudinally extending laterally spaced bars or spring elements 16 which cooperate with the arm 13 of the post for mounting the seat thereon.

According to my invention, I construct the arm portion 13 of the seat post with projecting and recessed portions enabling it to cooperate with the longitudinal bars 16 of the seat to positively retain the seat in an upright position. As shown in the drawings, I construct the arm portion of the post with a longitudinal upstanding tongue or rib 18 which engages between the bars or spring elements 16 of the seat, and with longitudinal flanges 19 which extend laterally outwardly on opposite sides thereof and against which the bars 16 seat or bear. The arm also has longitudinal grooves 20 on opposite sides of, and substantially coextensive with, the rib 18. These grooves are preferably concave in cross-section and merge smoothly with the adjacent side walls of the rib 18 and the flanges 19. These rib, flange and groove portions of the arm of the seat post are preferably so proportioned with respect to the bars 16 that when the seat is mounted on the arm with the rib 18 projecting snugly between the bars, as shown in Fig. 2, the bars will engage in the grooves and bear against the laterally extending flanges 19.

For retaining the bars 16 of the seat in interfitting engagement with the projecting and recessed portions of the arm, I provide a suitable clamp 21 which embraces the bars and arm. As shown in Figs. 1 and 2, this clamp may be a yoke-like member which surrounds the arm of the post and the bars of the seat and, by reason of the action of the screw 22, retains the rib and bars in interfitting engagement with the ribs seating in the grooves and against the flanges 19. It will be seen from the drawing that the elements or bars 16 of the seat engage the upstanding rib 18 and the flanges 19 along a substantial portion of their length and that the clamp 21 embraces the bars and arm throughout a substantial portion of the length thereof.

On the side of the arm opposite the upstanding rib 18, I provide a longitudinally extending flat 23 which provides a bearing surface for the inner end of the clamping screw 22.

To provide for an increased gripping action between the post and the bars of the seat and between the post and the screw 22 of the clamp, I may provide the longitudinal grooves 20 with transverse corrugations 24 formed in the concave surface of these grooves and may provide

the flat 23 with similar transverse corrugations 25. My improved seat post may be made of steel or any suitable alloy, and is preferably hardened after the grooves and flat have been corrugated.

During use of my improved seat post and clamping arrangement, it will be understood of course that the stem portion 12 of the post is gripped or held by the clamping means of the frame of the cycle. The seat 11, having the yoke-like clamp 21 on the spaced bars 16 thereof, is applied to the arm of the post to bring the bars into interfitting relation with the projecting and recessed portion of the arm, as illustrated in Fig. 2, whereupon the clamp 2 is slid in position over the arm and the screw 22 tightened. It will thus be seen that, so long as the clamp remains properly tightened to maintain the interfitting engagement, the seat will be effectively held against tilting or rotation relative to the arm of the post.

From the foregoing description and accompanying drawing it will now be understood that I have provided an improved post and clamping arrangement for cycle seats which is of very simple construction, yet serves effectively for retaining the seat in its proper upright position.

While I have illustrated and described the novel seat post and clamping arrangement of my invention in a somewhat detailed manner, it should be understood that I do not wish to be limited to the precise structural characteristics and arrangements herein disclosed, but regard my invention as including such changes and modifications as do not constitute a departure from the spirit of the invention and the scope of the appended claims.

Having thus described my invention, I claim:

1. A cycle seat post having a stem and an arm extending therefrom, said arm having outwardly projecting longitudinal flanges on opposite sides lying adjacent the transverse longitudinal mid-plane thereof and a longitudinal rib lying substantially in the longitudinal vertical mid-plane thereof.

2. A cycle seat post having a stem and an arm extending therefrom, said arm having outwardly projecting longitudinal flanges on opposite sides lying substantially in the transverse longitudinal mid-plane thereof and also having an upstanding longitudinal rib lying substantially in the longitudinal vertical mid-plane thereof with longitudinal grooves on opposite sides of the rib merging with and connecting adjacent side walls of the rib and flanges.

3. A cycle seat post having a stem and an arm extending therefrom, said arm having a longitudinal rib and longitudinal grooves on opposite sides of the rib, said grooves having transversely extending corrugations formed in the surface thereof.

4. A cycle seat post having a stem and an arm extending therefrom, said arm having a longitudinal flat on one side thereof and on its opposite side a longitudinal rib with longitudinal grooves on opposite sides of the rib, said flat and grooves having transversely extending corrugations formed in the surface thereof.

5. A cycle seat post comprising a stem having a bent portion providing an elongated substantially straight arm extending laterally in angular relation to the stem, said arm having an upstanding substantially straight longitudinal rib along the top thereof and longitudinal flanges projecting outwardly along opposite sides thereof below the rib, said rib and flanges being integral portions of the arm and extending through the major portion of the length thereof.

EDWARD H. WERNER.