April 6, 1926. 1,579,979

E. R. WAGNER

FORK HEAD

Filed March 4, 1922

Fig. 1.

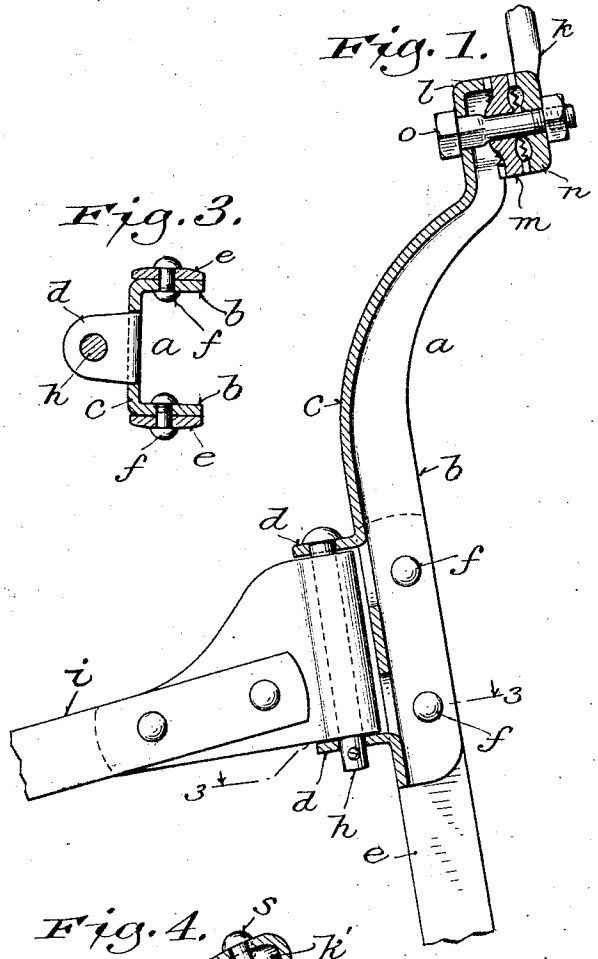



Fig. 2.

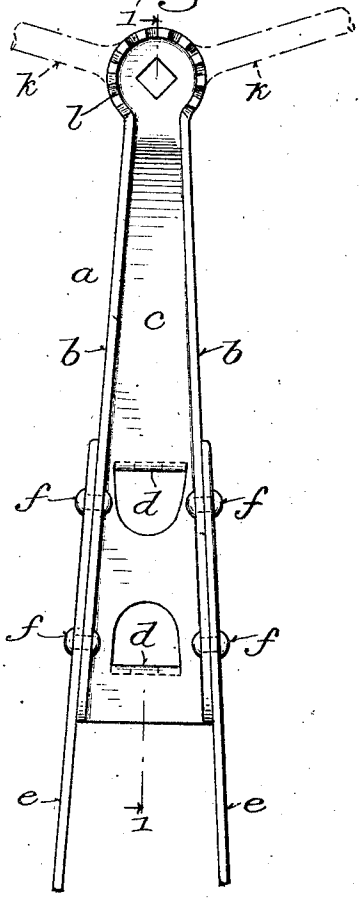



Fig. 3.




Fig. 4.

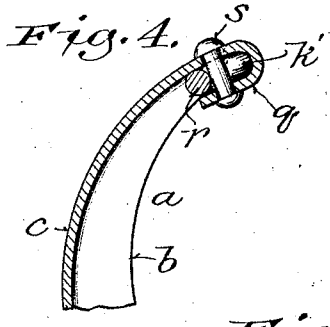



Fig. 5.

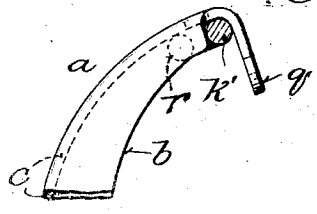
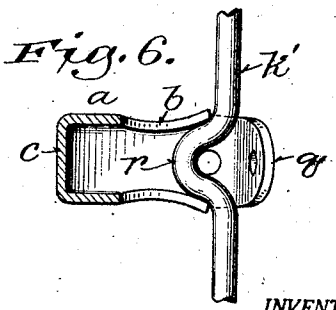



Fig. 6.




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# UNITED STATES PATENT OFFICE.

EDWARD R. WAGNER, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO E. R. WAGNER MANUFACTURING COMPANY, OF NORTH MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

## FORK HEAD.

Application filed March 4, 1922. Serial No. 541,255.

*To all whom it may concern:*

Be it known that I, EDWARD R. WAGNER, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Fork Heads, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

This invention relates more particularly to front forks for velocipedes and the like.

The main objects of the invention are to produce strong, light fork heads with means for fastening handle bars thereto from sheet metal, to take the place of the heavier more cumbersome fork heads in common use made of malleable iron; and generally to improve the construction of fork heads of this class.

It consists in the construction, arrangement and combination of parts as hereinafter particularly described and pointed out in the claims.

In the accompanying drawing like characters designate the same parts in the several figures.

Figure 1 is a vertical section on the line 1—1, Fig. 2, of a fork head embodying the invention as designed for adjustable handle bars in connection with associated parts of a velocipede; Fig. 2 is a front elevation of the fork head shown in Fig. 1, and portions of fork arms attached thereto, the handle bars shown in Fig. 1 being omitted; Fig. 3 is a cross section on the line 3—3, Fig. 1; Fig. 4 is a vertical section of the upper end of a fork head provided with different means for fastening a handle bar thereto; Fig. 5 is a side elevation of the upper end of the fork head shown in Fig. 4, showing a handle bar in cross section and the ear for fastening the same thereto before it is bent into final position; and Fig. 6 is an inverted plan view of the upper end of the fork head and handle bar shown in Figs. 4 and 5.

Referring to Figs. 1 and 2, showing the fork head as designed for use with angularly adjustable handle bars for raising and lowering the steering handles of a velocipede or the like, the head *a* is formed integrally of sheet metal, with forwardly projecting marginal stiffening flanges *b*, which are connected on the rear side of the head by a web *c* extending the entire length thereof. Two perforated hinge ears *d*, are struck from the lower part of the web *c* and bent rearwardly therefrom at right angles or transversely thereto, one above the other, a substantial portion of the web being left between the openings from which the ears are cut, to brace and strengthen the lower parts of the flanges *b* to which the fork arms *e* are fastened, for example, by rivets *f*, as shown.

The ears *d* are perforated in alignment with each other, to receive a bolt or pin *h*, by which the front fork is hinged or pivoted to the rear fork or frame *i*.

Adjacent its upper end the head *a* is bent or curved forwardly, and for fastening adjustable handle bars *k* thereto, terminates in an upwardly and rearwardly bent semi-circular or segmental flanged jaw *l*. The flange of the jaw *l*, which is a continuation of the flanges *b*, is formed with teeth for engagement with a toothed jaw *m* on one of the handle bars, which is fastened to the jaw *l* with a corresponding jaw *n* on the other handle bar by a bolt *o*, the jaw *m* being provided with teeth on both sides, while the jaws *l* and *n* have teeth on one side only.

Referring to Figs. 4, 5 and 6, showing a modification in the construction of the upper end of the head *a*, which is otherwise constructed as shown in Figs. 1, 2 and 3, for fastening a single or continuous handle bar *k'* thereto, the web *c* is extended forwardly beyond the ends of the flanges *b*, and forms a bendable ear *q*, which is primarily bent downward as shown in Fig. 5, leaving a space between it and the ends of the flanges *b* corresponding with the diameter of the handle bar *k'*.

The handle bar is formed at the middle with a rearward bend or open loop *r*, which is inserted in assembling the parts, as shown in Figs. 5 and 6, between the flanges *b*, the ear *q* being then bent as shown in Fig. 4, backwardly and upwardly against the flanges, and drawn and fastened underneath the handle bar by a rivet *s* passing through aligned holes in the web *c* adjacent the ends of the flanges and in the ear, thereby securely clamping the handle bar to the head.

The upper ends of the flanges *b* may be flared or bent outwardly, as shown in Fig. 6, to receive and embrace the rearward bend or loop *r* of the handle bar.

I claim:

1. A fork head formed integrally of sheet metal with marginal stiffening flanges, a connecting web and hinge ears struck from the web intermediate the ends of said head and extending in a direction opposite to that of the flanges.

2. A fork head formed integrally of sheet metal with forwardly projecting marginal stiffening flanges, the lower parts of which are adapted for the attachment thereto of fork arms, a web connecting the flanges from end to end and at one side thereof, and rearwardly projecting perforated hinge ears struck from the web.

3. A fork head formed integrally of sheet metal with forwardly projecting longitudinal stiffening flanges, a web connecting the flanges, and perforated rearwardly projecting hinge ears struck from the web transversely thereto, the upper end of the head being curved forwardly and terminating with means for fastening a handle bar thereto.

4. A fork head formed integrally of sheet metal with marginal stiffening flanges, a web connecting the flanges, and a flanged segmental jaw at the upper end, the flange of the jaw being a continuation of the marginal flanges of the head and formed with teeth.

In witness whereof I hereto affix my signature.

EDWARD R. WAGNER.