To all whom it may concern:

Be it known that I, GEORGE L. THOMPSON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Steering-Heads for Velocipedes, of which the following is a specification.

This invention relates to improvements in velocipede parts, and refers more specifically to an improved steering-head of stamped or die-formed construction.

The object of the invention is to provide an improved construction possessing superior strength and capable of being more economically manufactured than has usually been the case heretofore, while at the same time its construction is such as to reduce to a minimum the labor of accurately fitting the frame-sections thereto.

The invention consists in the matters hereinafter described, and more particularly pointed out in the appended claim, and will be readily understood, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a steering-head embodying my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a side elevation of one of the reinforcements, the protruding portions of which form the lug or nipple for the reception of a frame-tube end. Fig. 4 is a top plan view of the parts shown in Fig. 3. Fig. 5 is a cross-sectional view taken on line 5-5 of Fig. 1. Fig. 6 is a front elevation of a fitting-piece which underlies that part of the longitudinal seam of the outer shell or barrel extending between the reinforcing-thimble.

Referring to said drawings, A designates as a whole the main outer shell or steering-head, which is constructed of sheet metal of the usual generally cylindrical form and is provided with upper and lower nipple-sockets a a', respectively formed integrally therewith and arranged to project therefrom at the proper angles to receive the upper and lower main frame members of the usual diamond frame. The outer shell is formed from a sheet-metal blank by drawing out the lugs or nipple-sockets by the use of suitable dies and forming the body of the shell into approximately a U shape in cross-section, as indicated in dotted lines in Fig. 2. Preferably, and as shown in the present instance, the lugs are located entirely within the body of the blank, so that the longitudinal seam a a', which unites the side margins of the blank to form the cylinder, will be located at a point remote from the lugs, (in the present instance diametrically opposite the latter,) to the object of thus locating the seam being to avoid difficulty in effecting a perfect weld, as hereinafter described.

The ends of the lugs or nipple-sockets are dressed or cut off at right angles to their several longitudinal axes, the end margins thereof a a' forming annular shoulders, against which the ends of the frame-tubes abut to form a flush joint.

In order to form the inner supports or nipples proper, B B', over the ends of which the frame members telescope, and at the same time to provide reinforcements for the upper and lower ends of the steering-head, I provide thimble-shaped reinforcements B' B', which are also made of sheet metal and have formed integrally therewith semitubular lugs b b', arranged to extend out through the respective nipple-sockets a a'. These reinforcements are also formed up from blanks having a generally-rectangular main portion or body from which the cylindrical thimble is formed and provided upon its side margins with the lugs from which the semitubular halves b b' are formed, these latter being so arranged that when the blank is bent into cylindrical form the side margins of the semitubular-lug members meet to form the complete nipple, as indicated in the drawings. Obviously when thus formed the seam b' of the reinforcement extends longitudinally through both the nipple and the thimble in a vertical plane. Preferably the nipple halves will be so shaped that when brought together the nipple will have the fish-tailed form indicated in the drawings. The reinforcements thus formed are inserted in place in the barrel of the steering-head before the side margins of the latter are united and while it is in the U-shaped form hereinbefore described, and it may be noted in this connection that in practice it is found unnecessary to brace or otherwise unite the mating edges of the reinforcing, since they are held perfectly rigid within the barrel by reason of their shape,
and, moreover, the protruding ends which
telecope within the frame members will be-
come brazed together by the same operation
by which the said frame members are united
with the nipples.
The seam 6 of the outer shell is in the pre-
ferred construction illustrated electrically
welded, and in order to facilitate the welding
it is desirable or necessary that the thickness
of the barrel shall be the same throughout its
entire length. For this purpose I provide an
underlying filling-strip C, made of sheet metal
of the same thickness as the thimbles B B B.
In order to hold this strip in position beneath
the line of the seam, it is made somewhat
longer than the distance between the thimbles,
and the latter are provided with recesses
b b b, adapted to receive the ends of the strip,
and in order that the strip shall be held in
place without other special provision until
the welding is effected, it is provided at its
ends with laterally-projecting arms c, which
extend at least half-way around the interior
of the steering-head, as indicated at c, the
ends of these arms engaging the side margins
of the recesses b b b, and thereby preventing
the strip from dropping out.

After the parts have been assembled in the
manner described the side margins of the
steering-head barrel are brought together
over the reinforcement-thimbles and filling-
strip, the seam heated in an electric furnace,
and the weld completed by hammering, a suit-
able mandrel being passed through the steer-
ing-head, so as to underlie the seam during
the hammering.

It will be seen from the foregoing descrip-
tion that a steering-head embodying my in-
vention may be very economically manufac-
tured, the parts being all of such construc-
tion as to be readily formed by the use of sim-
ple and inexpensive dies and the device when
finished being practically seamless. At the
same time by reason of the peculiar construc-
tion described the annular shoulders formed
at the juncture of the nipples with the nip-
ple-sockets are sharper than it is practicable
to make them when the nipples are drawn
out integrally with the base portions thereof,
so that a closer and more perfect joint is pro-
duced without special shaping of the ends of
the frame members.

I claim as my invention—

A velocipede steering-head comprising a
sheet-metal cylindric main body A having a
seam a extending longitudinally throughout
the length of its front side and provided at
its opposite side with integral nipple-sockets
a, a', located in parts of the body untraversed
by the seam, said nipple-sockets having their
end portions formed at right angles to their
several longitudinal axes forming annular
shoulders a a', and reinforcements B B consist-
ing of split thimbles arranged to fit within
the body at points opposite the nipple-sock-
ets, each provided with integral semitubular
nipples formed adjacent to the seam of the
thimble and having their side margins abut-
ting against each other said nipples being ar-
anged to protrude through the several nipple-
sockets, substantially as described.

In testimony that I claim the foregoing as
my invention I affix my signature, in presence
of two subscribing witnesses, this 8th day of
April, A. D. 1899.

GEORGE L. THOMPSON.

Witnesses:
E. L. GRAVES,
ALBERT II. GRAVES.