

2 Sheets—Sheet 1.

No. 397,099.

Patented Jan. 29, 1889.



Fig. 3.

Inventor,

Otto Unzicker

By Wm H Lotz
Atty.

(No Model.)

2 Sheets—Sheet 2.

O. UNZICKER.

VELOCIPEDE.

No. 397,099.

Patented Jan. 29, 1889.

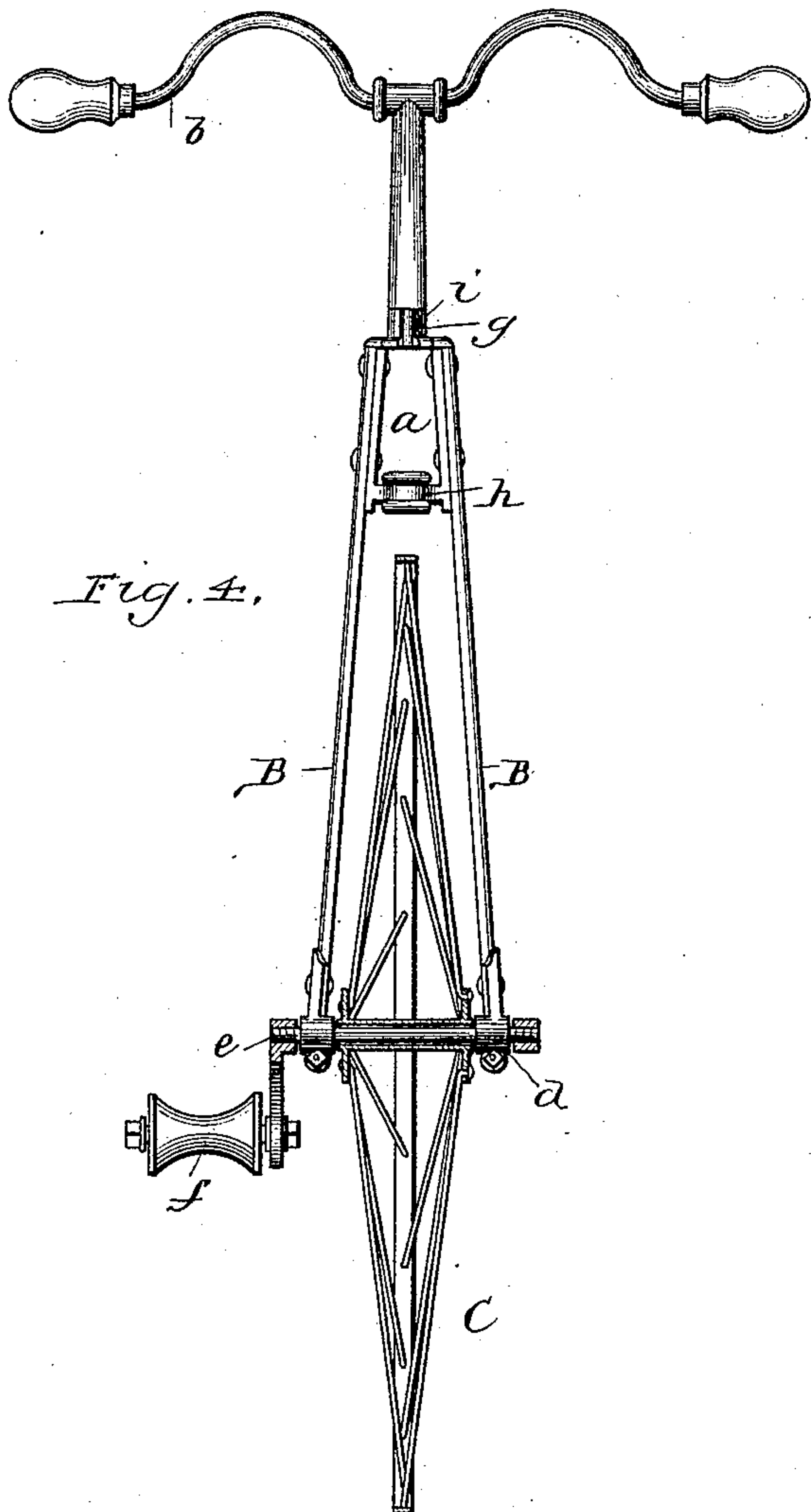


Fig. 4.

Fig. 5.

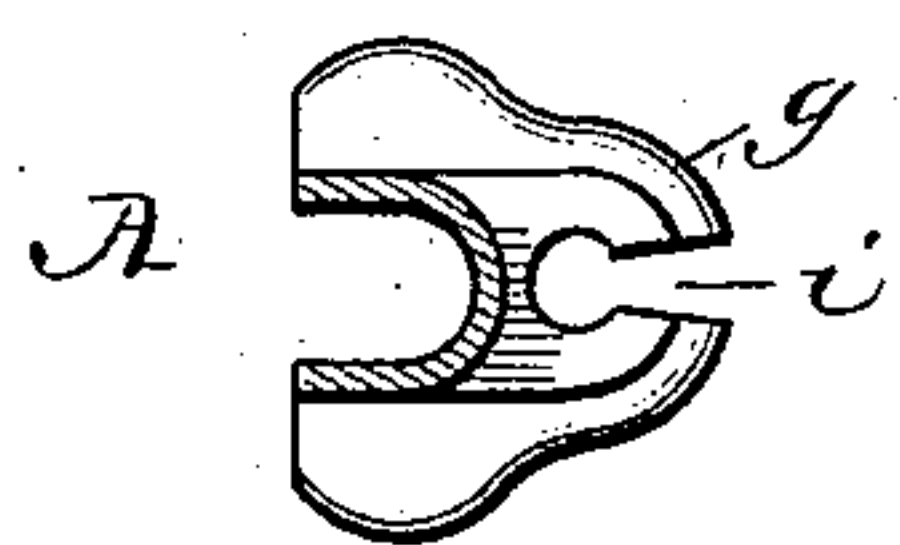


Fig. 6.

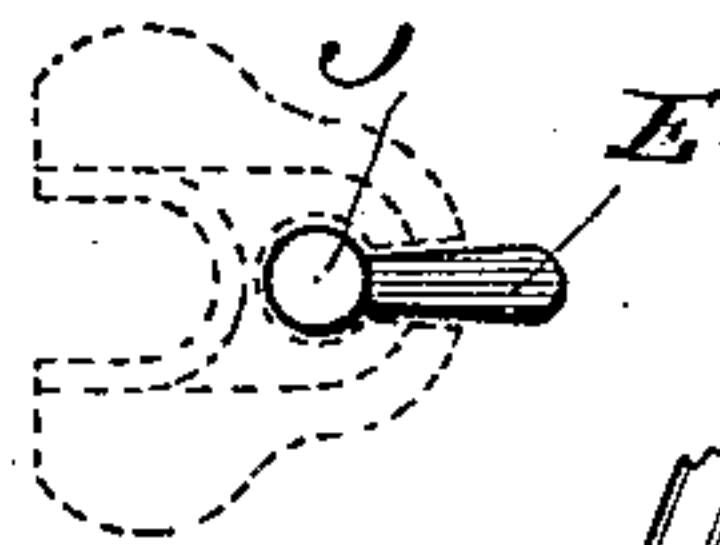
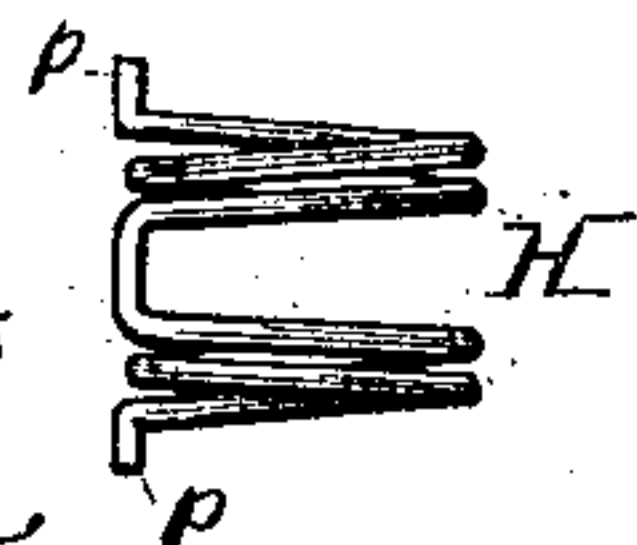


Fig. 9.

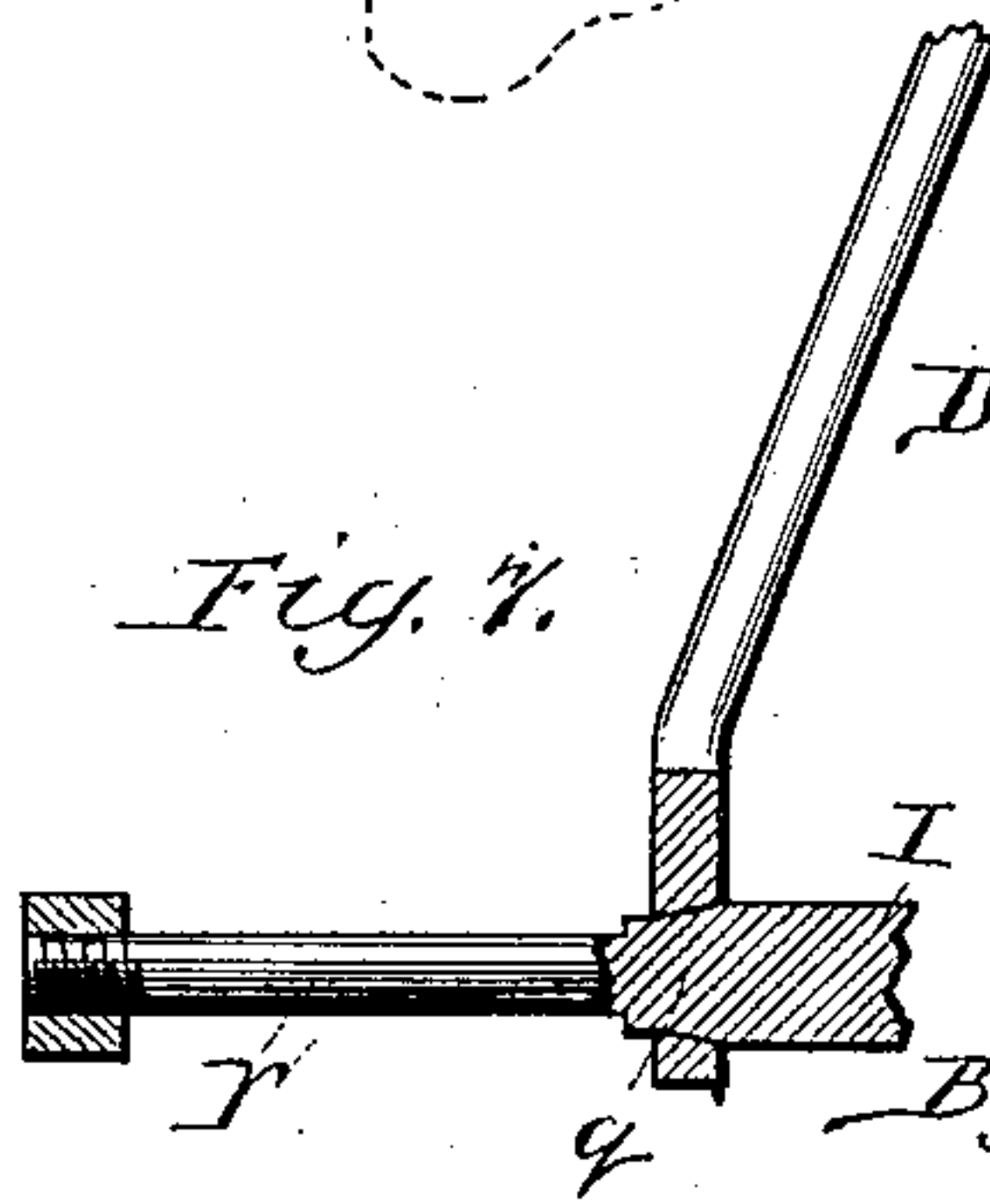


Witnesses

W. G. Foster

Otto Lubker

Fig. 7.



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UNITED STATES PATENT OFFICE.

OTTO UNZICKER, OF CHICAGO, ASSIGNOR TO ADOLPH SHOENINGER, OF LAKE VIEW, ILLINOIS.

VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 397,099, dated January 29, 1889.

Application filed November 20, 1888. Serial No. 291,403. (No model.)

To all whom it may concern:

Be it known that I, OTTO UNZICKER, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Velocipedes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain improvements in the construction of velocipedes; and it has for its object to increase the strength and durability and at the same time to reduce the cost of manufacture of the same; and
15 with these objects in view my invention consists of the novel devices and combinations of devices hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1
20 represents a side elevation of the velocipede; Fig. 2, an elevation of the upper portion of the standard and reach with the hinge parts in position for coupling same; Fig. 3, a sectional plan from line *xx* in Fig. 1. Fig. 4 is
25 a sectional front view of the front standard and wheel detached. Fig. 5 is a sectional plan of the upper part of front standard, showing the pivot-eye; and Fig. 6, a plan of the reach-end pivot. Figs. 7 and 8 show the
30 manner of connecting the rear axle into the lower ends of the reaches, and Fig. 9 shows a plan of the saddle-spring detached.

Corresponding letters in the several figures of the drawings designate like parts.

35 The front standard is composed of a casting, A, being semi-tubular in section on its upper portion and having at its upper extremity a forwardly-curved eye into which the T-handle *b* is secured. In the lower portion of this casting A is formed a tapering
40 frame, *a*, against the edges of which are secured by riveting two sectionally semi-cylindrical bars, B, that to their bottom ends have secured the journal-castings *d* for axle *e* of
45 main wheel C, having treadle-cranks *f* upon its projecting ends. This casting A has two rearwardly-projecting eye-brackets, *g* and *h*, the upper one, *g*, of which has a rearward slot, *i*. The two reach-bars D and D', with
50 their forward ends, are rigidly secured by riv-

eting against the two sides of the rearwardly-extended wing of a casting, E. The front vertical portion of this casting E is flattened with a cylindrical trunnion, *j*, to its upper extremity, and with a circular collar to its bottom, and a downwardly-projecting cylindrical trunnion, K, both trunnions *j* and *k* being
55 vertically in line with each other. For coupling the parts A and E the thin flat portion of part E, intermediate of trunnions *j* and *k*,
60 is inserted in slot *i* of eye-bracket *g*, while the said trunnions *j* and *k* are held in line with the eyes of brackets *g* and *h*, as shown by Fig. 2, and then part E is moved vertically
65 downward for trunnion K to enter the eye in bracket *h* until its collar bears upon such bracket *h*, when trunnion *j* at the same time will have entered the eye in bracket *g*. After
70 being thus connected, a pin, *l*, is inserted in a small transverse hole of trunnion K, just below bracket *h*, for holding the parts from disconnecting. With this device it will be seen a
75 strong hinge is produced, which can be readily disconnected when desired by simply removing the pin *l*. Casting E also has a small eye-bracket, *m*, which, with the forward bifurcated
80 and eyed end, *n*, of saddle-plate F, forms a hinge-connection coupled with a small bolt. Under the rear portion of saddle-plate F are
85 cast two small lugs, *o*, between which the middle portion of the saddle-spring H is inserted, and which are then sufficiently bent toward
90 each other to hold said spring from disconnecting. At each side of this central coupling part the saddle-spring F is spirally twisted to
95 provide about one and one-half coil with its downwardly-projecting extreme ends bent rectangularly outward to form small trunnions *p*, projecting in line with each other
and inserted into corresponding holes of
100 reaches D and D'. This device forms a strong elastic support for the saddle, of very simple construction.

The rear lower ends of reach-bars D and D' I provide with tapering holes, and the parts
95 *q* of the hind axle, I, adjacent to the journals *r*, for hind wheels, J, I turn conical a little longer than the thickness of the reach-bars, and after inserting the conical portions *q* of
100 the axle I into the tapering holes of the reach-

bars D D' and driving them on tight, as shown by Fig. 7, I rivet the projecting shoulder end of each conical projection *g* against the outer faces of the reach-bars with a setter-punch, 5 as shown by Fig. 8. The axle thus secured to the reaches will be very rigid therewith and not liable to work loose.

What I claim is—

1. In a velocipede, the front standard provided with two eye-lugs, the upper one being rearwardly slotted, in combination with the forward reach end having trunnions to its opposing ends vertically in line, and being flat intermediate of these trunnions to enter the 10 slot of the upper eye-lug of the standard for inserting the trunnions into such eye-lugs, and thereby forming a pivotal connection between the standard and reach, substantially in the manner set forth.

20 2. In a velocipede, the combination, with

the saddle pivotally connected with its forward end upon the reach, of a wire spring supporting the rear of the saddle, such spring being spirally twisted at both sides of its connection with the saddle and rectangularly 25 bent at both its extremities to form trunnions inserted into holes of the reach-bars, substantially as set forth.

3. In a velocipede, the manner of securing the reach end to the hind axle by driving the 30 conical parts of the axle into tapering holes of the reach-bar ends and by riveting the projecting shoulders of the axle against such reach-bars, substantially as set forth.

In testimony whereof I affix my signature 35 in presence of two witnesses.

OTTO UNZICKER.

Witnesses:

WILLIAM H. LOTZ,

OTTO LUBKERT.