

No. 750,393.

PATENTED JAN. 26, 1904.

A. L. PORTER.
ATTACHMENT FOR BICYCLES.

APPLICATION FILED APR. 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

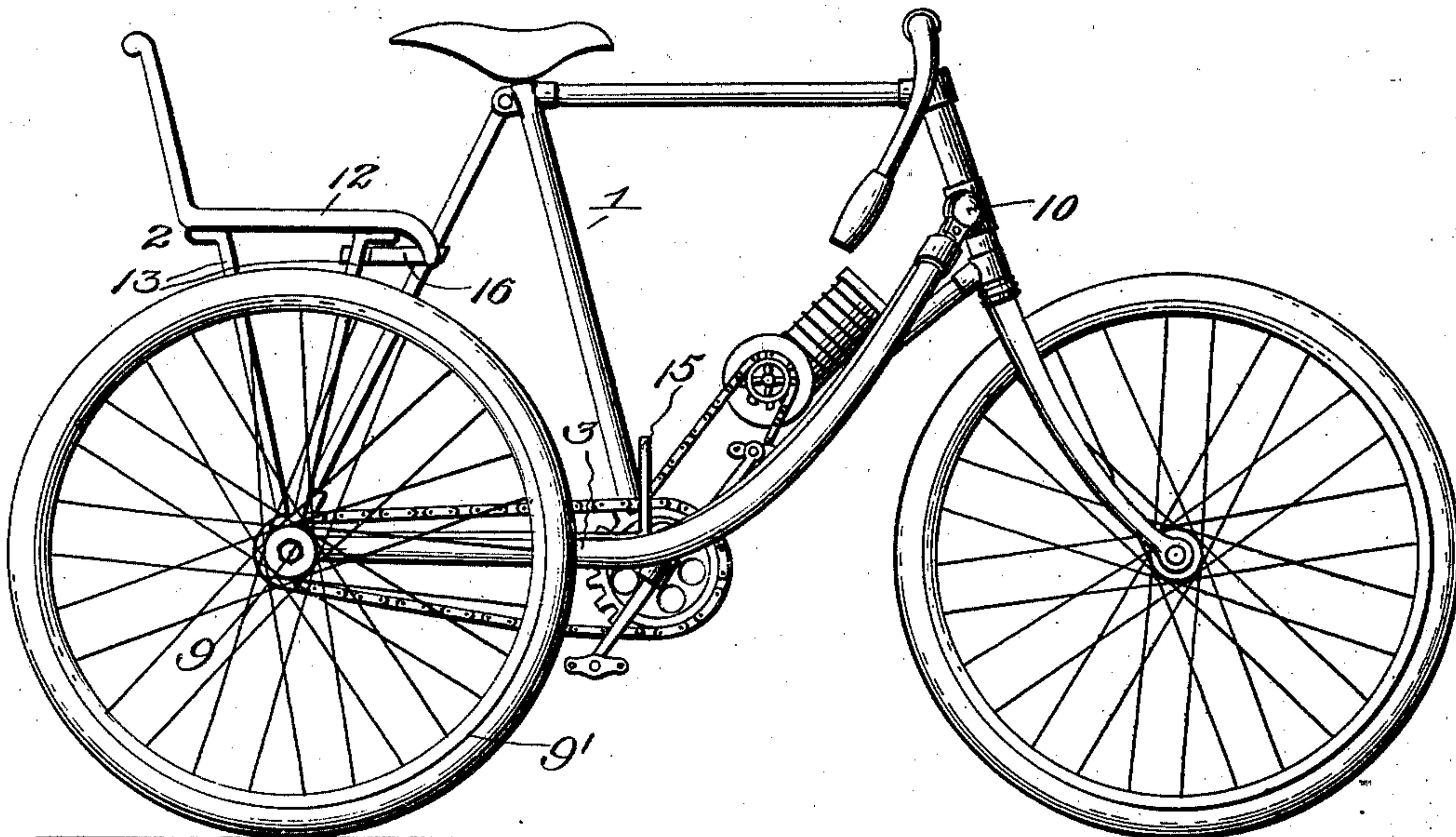
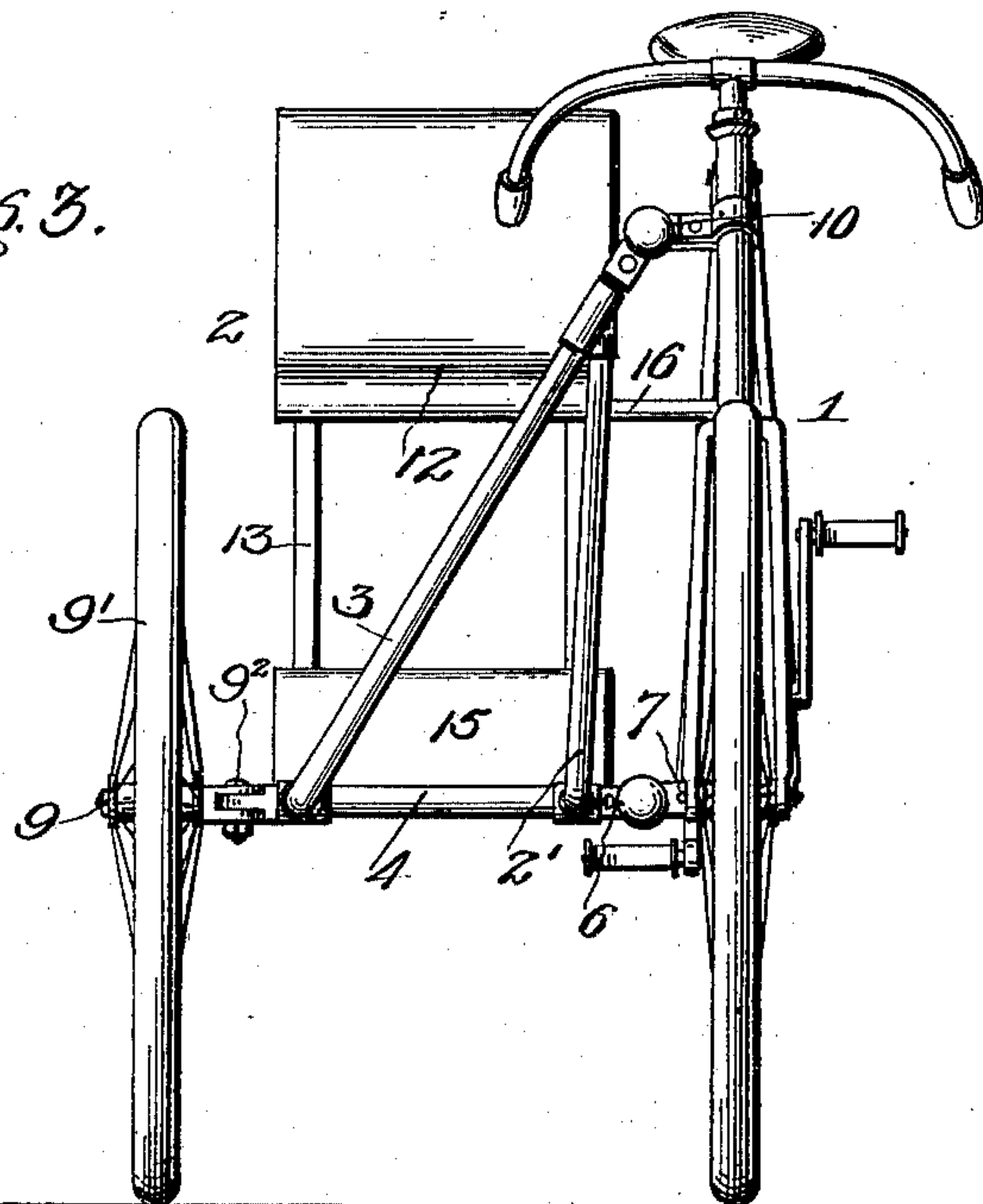


Fig. 3.



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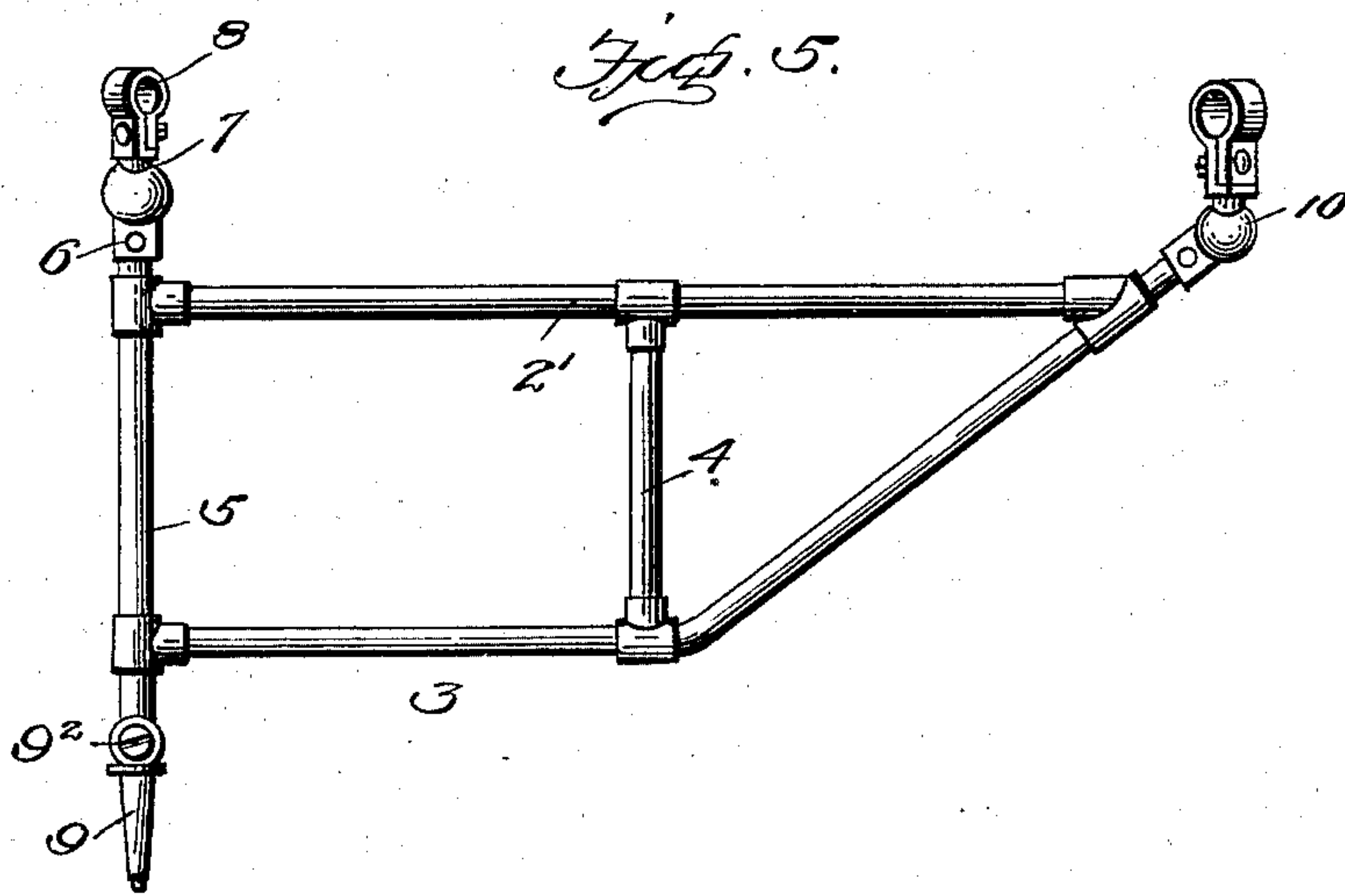
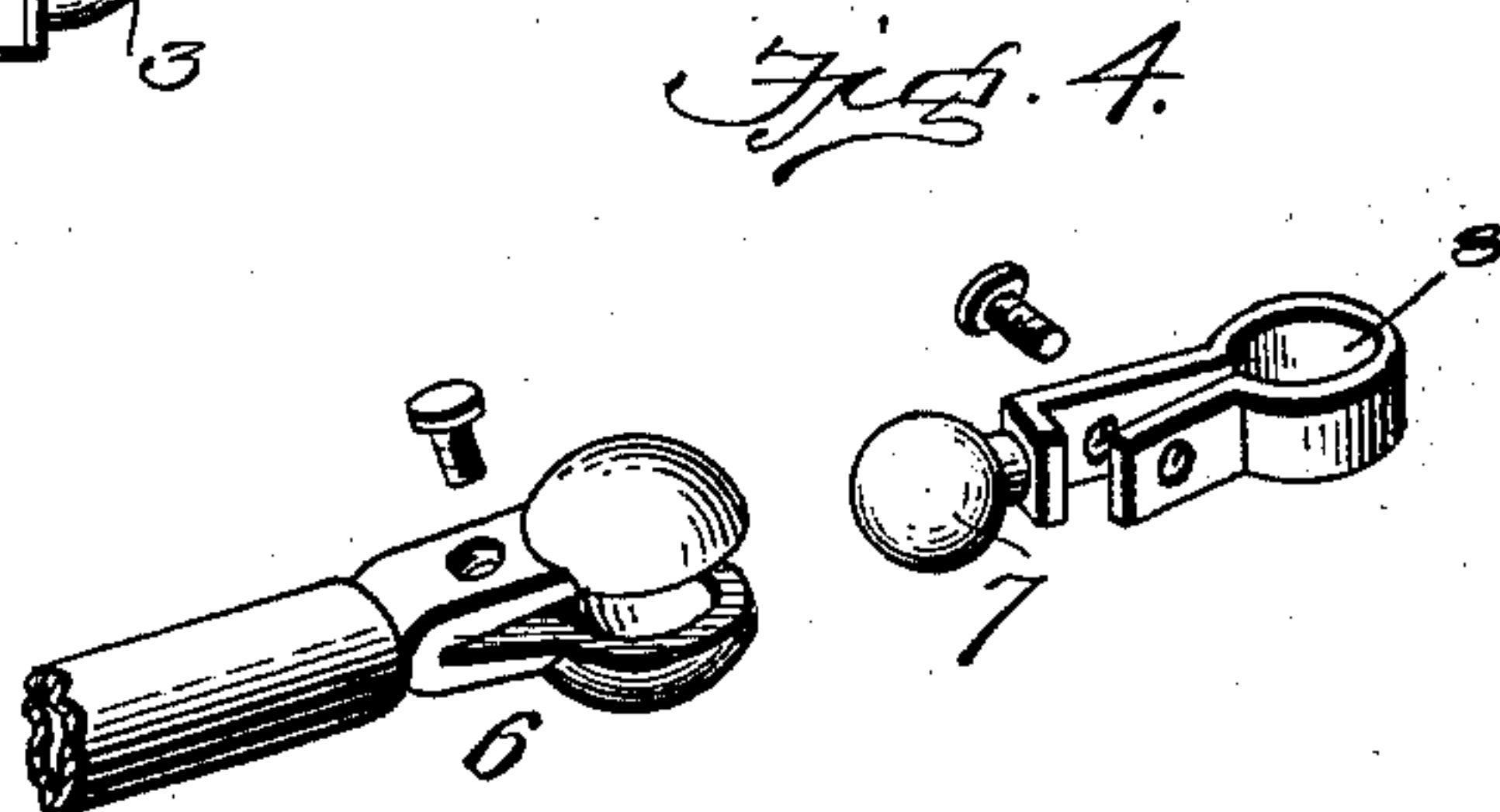
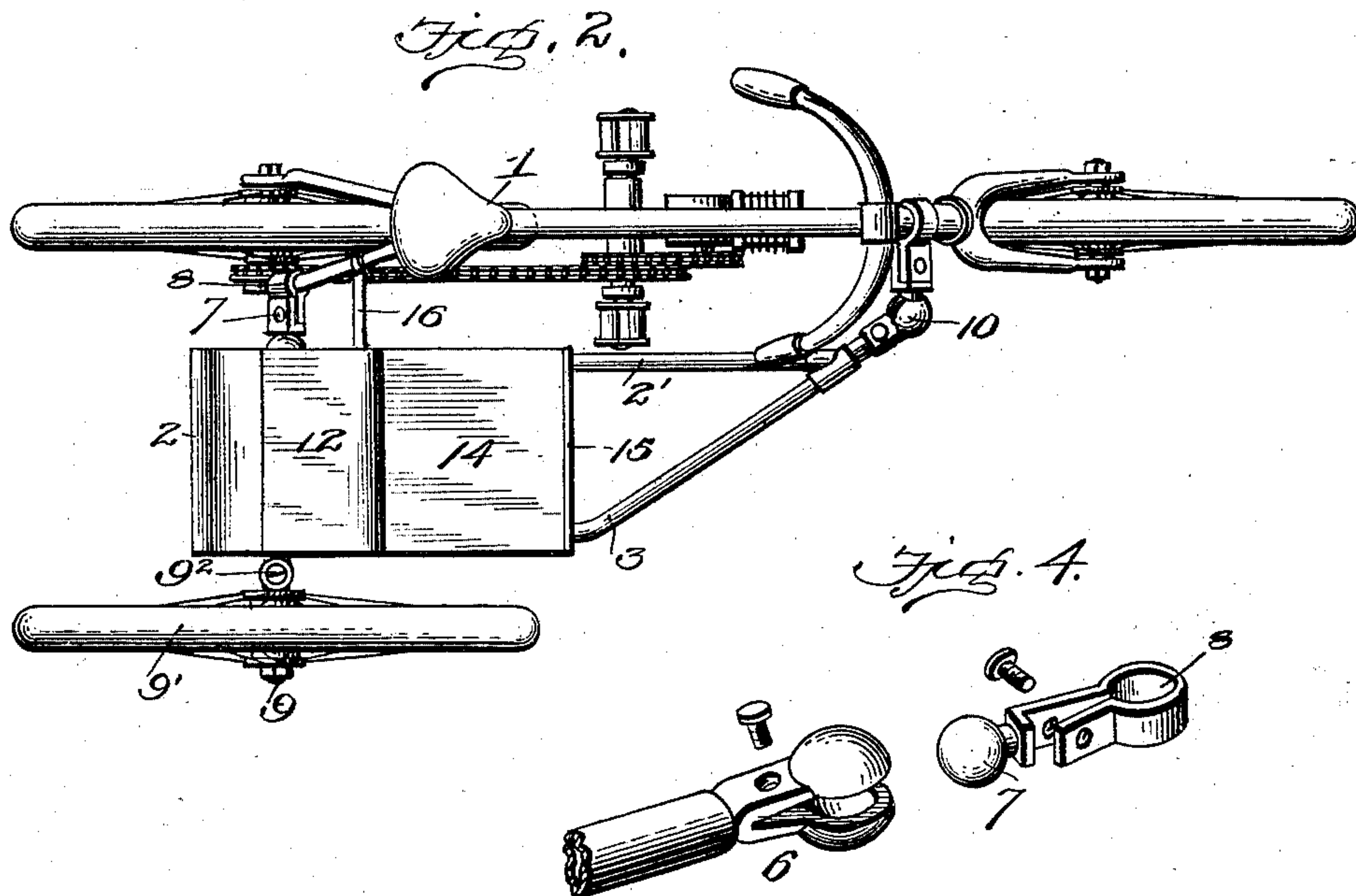
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

ALBERT L. PORTER, OF LEONARD, NORTH DAKOTA, ASSIGNOR OF ONE-HALF TO CHARLES A. ROBERTS, OF LEONARD, NORTH DAKOTA.

ATTACHMENT FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 750,393, dated January 26, 1904.

Application filed April 9, 1903. Serial No. 151,791. (No model.)

To all whom it may concern:

Be it known that I, ALBERT L. PORTER, a citizen of the United States, residing at Leonard, in the county of Cass and State of North Dakota, have invented certain new and useful Improvements in Attachments for Bicycles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to riding attachments for motor-cycles or manually-propelled bicycles.

The object of the invention is to provide such an attachment by which a bicycle may be quickly converted into a tricycle for the accommodation of two or more passengers or which, if desired, may be used for the transportation of packages or freight.

A further object is to construct such an attachment having flexible connections, whereby attachments may be made to cycles now in use and varying slightly in form or construction, a further object being to produce an attachment which will be simple in construction, strong and durable in use, inexpensive, and well adapted to the use for which it is designed.

With these and other objects in view the invention consists in the construction, combination, and arrangement of parts, as will be hereinafter more fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of a motor-cycle illustrating the application of the invention. Fig. 2 is a top plan view of the same. Fig. 3 is a front elevation thereof. Fig. 4 is a detail perspective view of the universal-joint connection, showing the parts of the same detached; and Fig. 5 is a plan view of the frame detached.

In the drawings, 1 denotes a motor-cycle of the ordinary type, and 2 denotes the attachment, which consists of a substantially triangular-shaped frame, comprising the inner and outer side bars 2 and 3 and forward and rear cross-bars 4 and 5, which connect the side bars

2 and 3. In the inner end of the cross-bar 5 is formed one member 6 of a flexible connection, consisting, preferably, of a ball-and-socket joint, the socket portion 6 of which is formed on the end of the cross-bar 5, while the ball member 7 of the connection is provided with a clamping-band 8, which is adapted to engage one side of the rear brace or fork of the motor-cycle and to be firmly held in such engagement by means of a screw, as shown. The socket member 6 of the connection is formed of two opposing hemispherical hollow members, in which or between which the ball member 7 is placed, and the hemispherical members of the socket are then drawn together upon the ball by means of a screw or bolt, as shown. The opposite end of the cross-bar 5 has adj-justably pivoted thereto a spindle 9, upon which is journaled a supporting-wheel 9', corresponding in size and construction to the rear wheel of the motor-cycle. The spindle 9 is held in its adjusted position by means of a clamping-bolt and nut, as shown at 9². The side bars 2 and 3 of the frame extend forwardly in a horizontal plane as far as the forward cross-bar, at which point they are bent upwardly, and the outer bar 3 projects inwardly and has formed on its end a universal connection 10, similar in form to the connection on the end of the rear cross-bar. By means of the connection 10 the forward end of the attachment is connected to the head of the motor-cycle, the upper end of the side bar 2 being connected to the bar 3 adjacent to the connection 10, as shown.

Any suitable form of seat may be employed in connection with the supporting-frame, or in lieu of a seat a box, body, or receptacle may be substituted and the vehicle used for the transportation of goods. In the present instance a broad flat seat 12 is shown having a back and side arms and is supported upon standard or upright braces 13, fixed to the rear cross-bar.

14 denotes a flooring or platform formed of any suitable material and is adapted to cover the space formed by side bars and the front and rear cross-bars of the frame, and a

dashboard, fender, or foot-rest 15 projects upwardly from the forward end of said flooring or platform, as shown.

5 A supplemental brace-bar 16 may be employed to connect the seat-standards with the upper end of the rear brace or fork of the motor-cycle and securely hold the same in position.

10 The bars forming the framework of the attachment are preferably constructed of tubing similar to the tubing ordinarily used in bicycle construction, and the joints or connections for the parts of the same are also the same as those used in bicycle construction.

15 The pivoted connection of the spindle or axle 9 of wheel 9' with the rear cross-bar allows the wheel to be adjusted to such angles as will overcome the side draft or drift that an attachment of this kind might cause.

20 The many advantages to be derived from an attachment of this character aside from the multiplied carrying capacity of the vehicle will be readily apparent. By the use of the attachment any ordinary bicycle may be
25 quickly converted into a tricycle, whereby a person who is unable ordinarily to ride a bicycle may now safely ride the same.

30 The attachment does not interfere with the steering or other functions of a bicycle or motor-cycle.

While the attachment has been shown and described in connection with a motor-cycle, it is obvious that the same may be used in connection with any form of bicycle.

From the foregoing description, taken in 35 connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, 40 and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what I 45 claim, and desire to secure by Letters Patent, is—

An attachment of the character described, comprising a frame having at front and rear 50 on one side flexible couplings for attachment to the frame of a bicycle or motor-cycle, each of said couplings consisting of a headed member, provided with a clamp and a bifurcated socket member provided with means for adjusting the sections thereof to receive and re- 55 tain said headed member between them, and having at the rear on the opposite side a spindle pivotally mounted and adjustable at an angle to the frame, and a trail-wheel mounted on said spindle, substantially as described. 60

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT L. PORTER.

Witnesses:

J. B. ROSS,

WM. WATT.