

(No Model.)

D. S. PEMBROKE.

TWO WHEELED VEHICLE.

No. 375,506.

Patented Dec. 27, 1887.

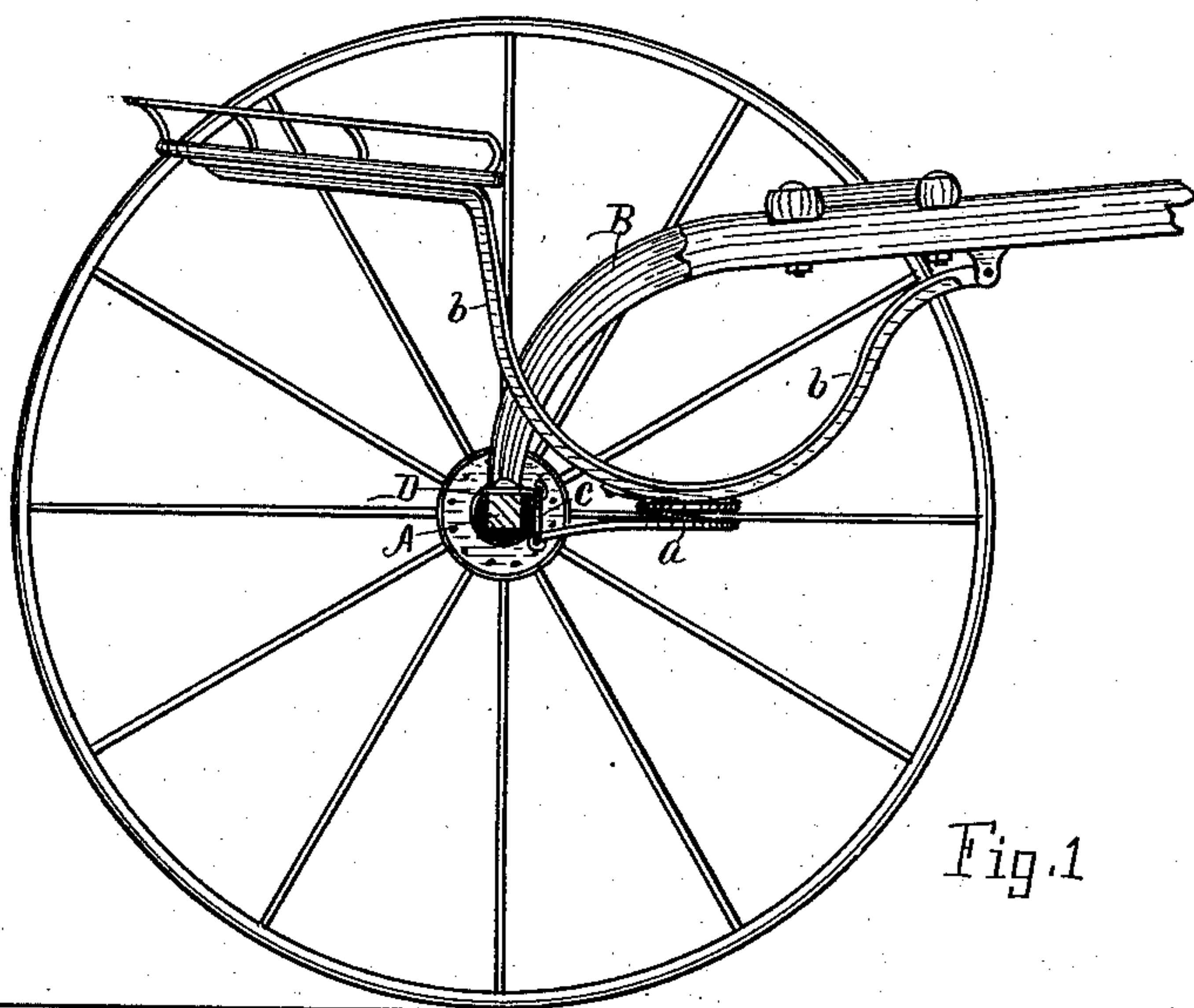


Fig. 1

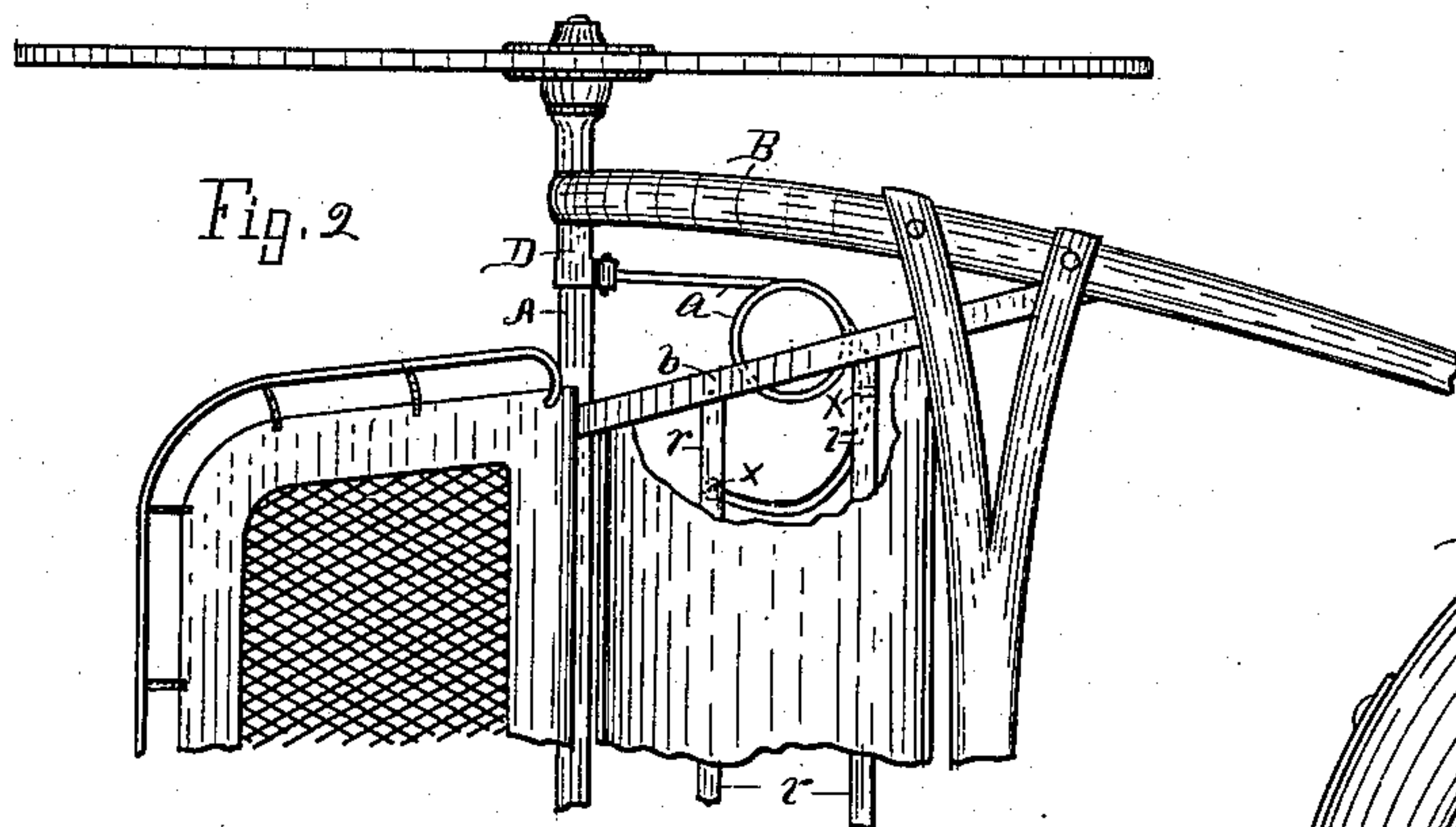


Fig. 2

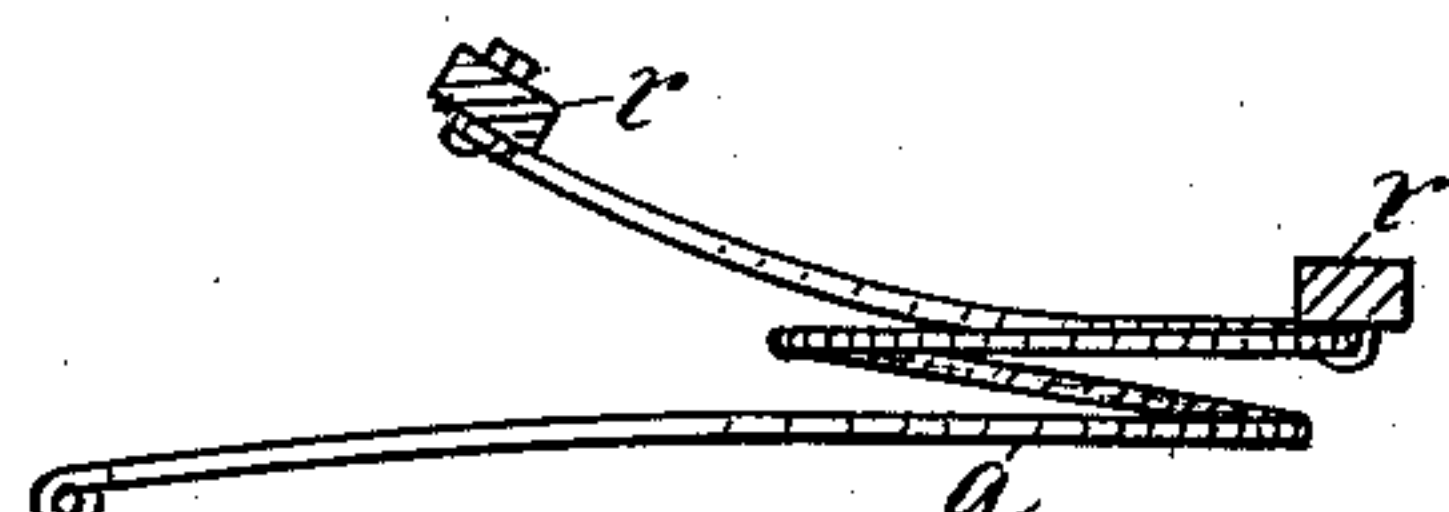


Fig. 3

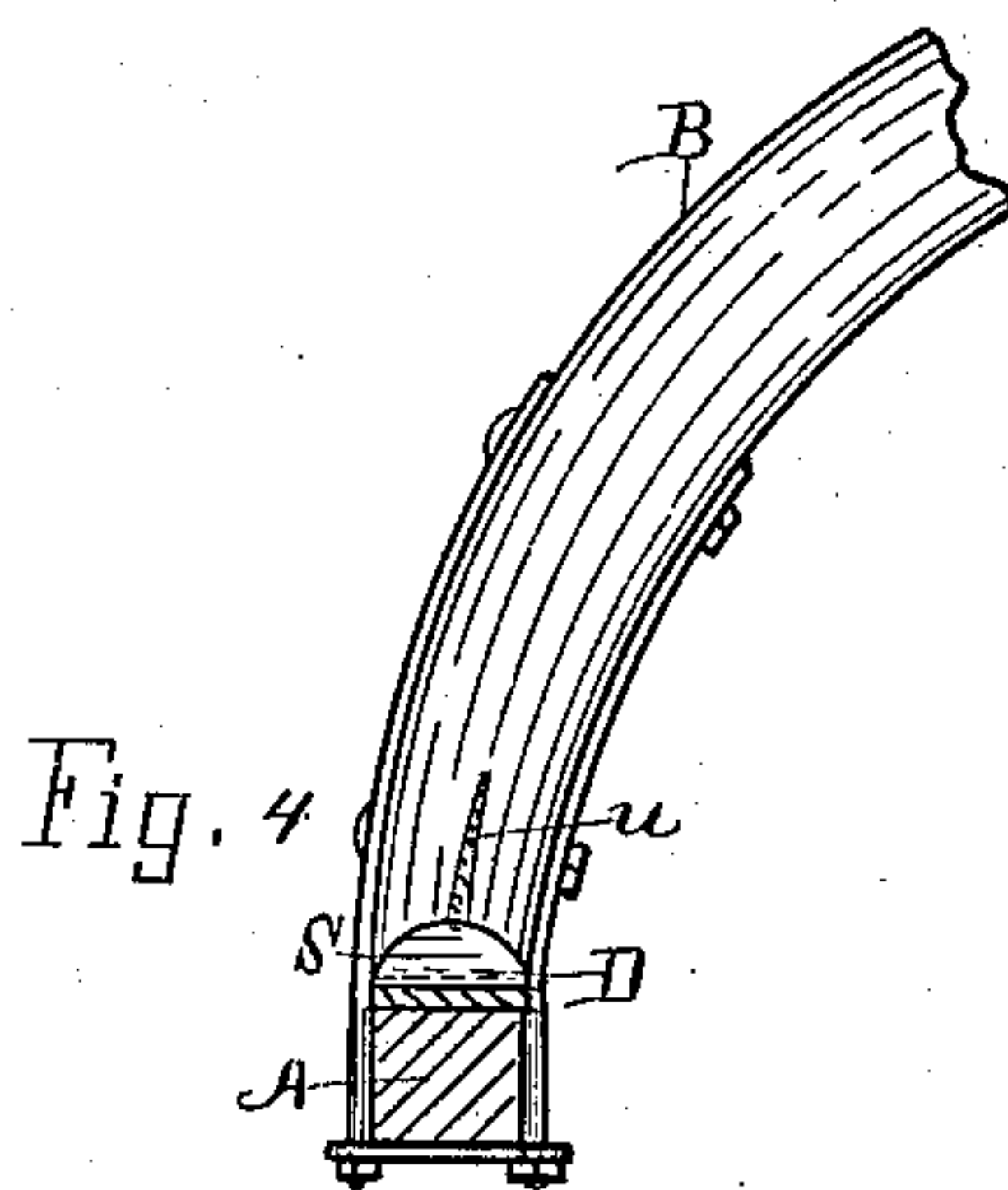


Fig. 4

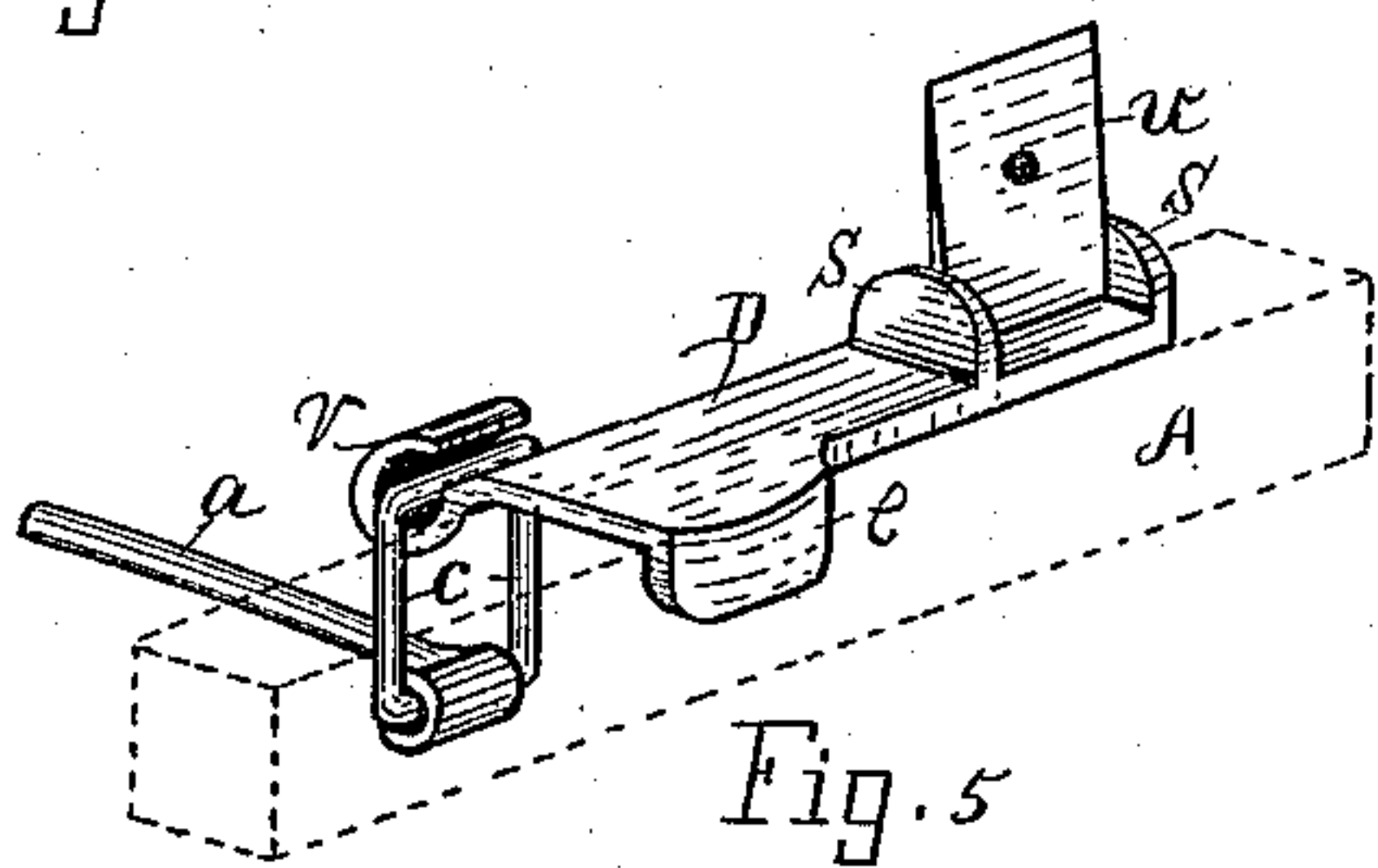


Fig. 5

Witnesses.

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UNITED STATES PATENT OFFICE.

DANIEL S. PEMBROKE, OF KALAMAZOO, MICHIGAN.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 375,506, dated December 27, 1887.

Application filed September 3, 1887. Serial No. 248,749. (No model.)

To all whom it may concern:

Be it known that I, DANIEL S. PEMBROKE, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Two-Wheeled Vehicle, of which the following is a specification.

This invention relates to that class of two-wheeled vehicles the seat-bars or body of which are elastically supported over the axle and fulcrumed at the forward end to the thills; and it has for its object certain improvements below described and claimed.

In the drawings forming a part of this specification, Figure 1 is a side elevation with one wheel removed; Fig. 2, plan of about one-half of the vehicle; Fig. 3, enlarged lettered details in Fig. 1; Fig. 4, lettered details in Fig. 1, enlarged; and Fig. 5 is an enlarged perspective view of parts below described.

Referring to the lettered parts of the drawings, B are the thills; *b*, the seat-bars or body, and A the axle, as heretofore.

At D is a peculiarly-constructed bracket, having the upwardly-extended flanges S, with a central partition, *u*. In use the bracket rests on the axle A and the end of the thill rests between the flanges S, while the partition or plate *u* is passed into a slit in the thill B, Fig. 4. The thill is secured to the axle and this part of the bracket by the clip and clip-irons, as heretofore. The bracket is further provided with a downward flange, *e*, at the other end, which catches over the back side of the axle A, and a hook or eye, *v*, into which the link *c* is hung, Fig. 5.

The spring *a* is a vertically-located spiral having two rearwardly-extended branches, one branch (the upper one) being rigidly attached at *x x* to the foot-slats *r r*, Fig. 2, and the lower branch being pivoted to the lower end of the link *c*. The spiral part of the spring is beneath and partially under the seat-bar *b*.

The leverage action on the spring when the body is borne down is to rock the spiral by separating the circle at the forward side, and not to directly expand or contract said spiral, while there is a downward movement of the whole spring by the yielding of the rear extended ends.

The bracket, while it assists in holding the thill, is in turn held and braced from canting by the thill and the flange *e*, so that it sustains the link *c*, upon which a great strain is brought to bear by the peculiar action of this particular spring. But little, if any, horse-motion is experienced by the use of this spring, because the jar is not so readily transmitted to the seat as in spiral springs horizontally located and having a different action. In some instances the rear lower branch of the spring may be coupled with the thill or other ways, as desired. Both sides of the vehicle are of course alike. These springs, in a like relation here shown, may be employed to sustain the ends of the body of a four-wheeled vehicle.

Having thus described my invention, what I claim is—

1. The combination of the fulcrumed body or seat-bars, the axle, and the vertical spirals having the two rear extended ends, the upper end rigidly attached to the body and the lower end (link) coupled to the axle or other suitable support, substantially as set forth.

2. The combination of the thills, the brackets having the upward flanges and central partition, the downward flange and forward hook, the axle, the links, and the springs comprising the vertical spirals and the two rearwardly-extended ends, one end rigidly attached to the body and the other end to the links sustained by the brackets, substantially as set forth.

3. The combination of the body, the thills having the end slitted, the axle, the brackets having the upwardly-extended plates in the slits of the thills and between the upward flanges, and the springs sustaining the body, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

DANIEL S. PEMBROKE.

Witnesses:

JOHN C. PERKINS,
JOHN H. CHASE.