No. 688,525. Patented Dec. 10, 1901.

A. JOHNSON.

BICYCLE DRIVING GEAR.

(Application filed Mar. 24, 1897.)

(No Model.)

Fig. 1.

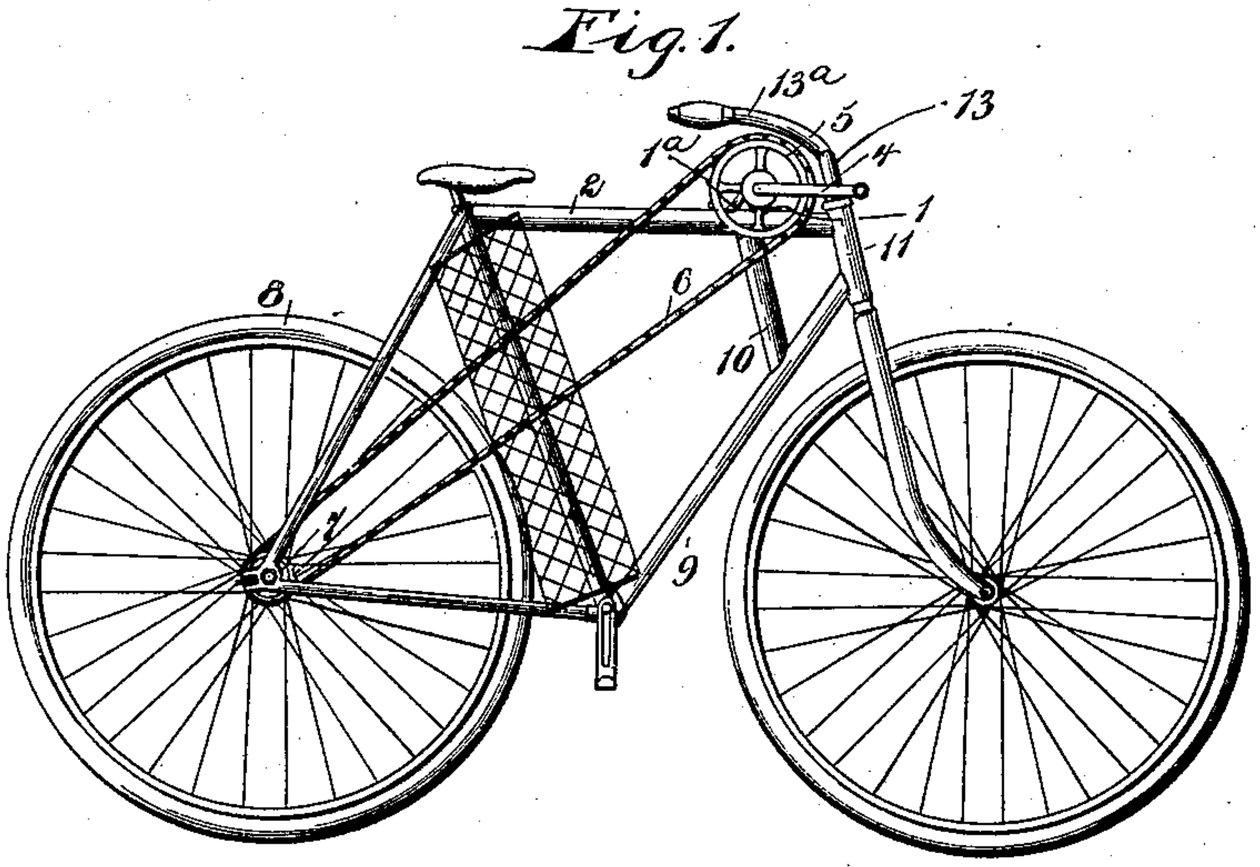
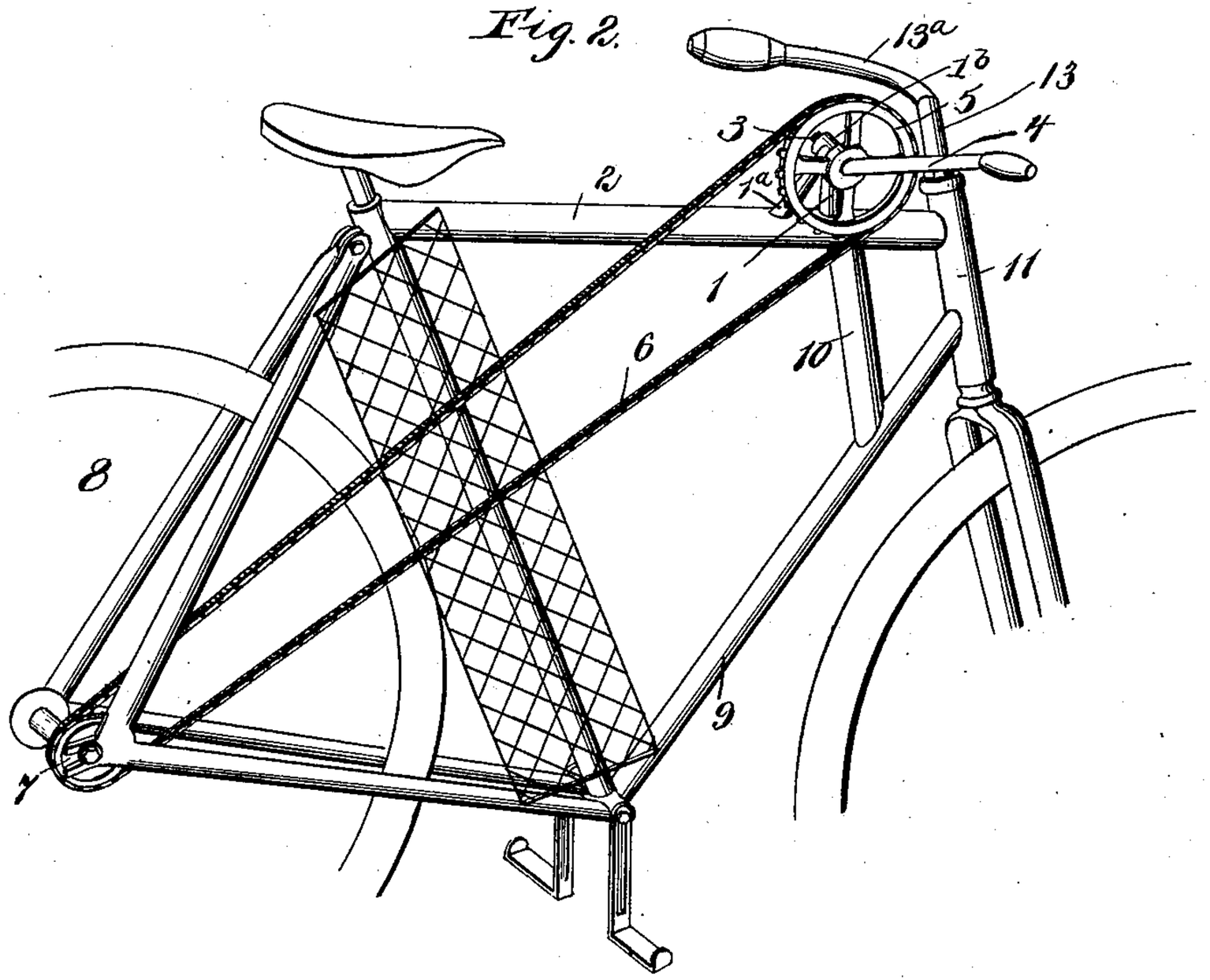


Fig. 2.



WITNESSES

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BICYCLE DRIVING-GEAR.

SPECIFICATION forming part of Letters Patent No. 688,525, dated December 10, 1901.

Application filed March 24, 1897. Serial No. 628,978. (No model.)

To all whom it may concern:

Be it known that I, AUGUST JOHNSON, of Staples, in the county of Todd and State of Minnesota, have invented certain new and useful Improvements in Bicycle Driving-Gears; and I do hereby 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 bicycle driving-gear, and has for its object to provide means whereby the driving-wheel of the machine may be propelled by one-hand power instead of two hands or foot power.

The improvement is especially valuable for invalids and persons who have not the complete use of the lower limbs, enabling them to obtain the advantage of the beneficial exercise resulting from the use of a bicycle.

The invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and incorporated in the claim hereto appended.

In the accompanying drawings, Figure 1 is a side elevation of a bicycle, showing the improvements applied thereto. Fig. 2 is a detail perspective view of a portion of the machine-frame, showing the driving mechanism, chain-gear, &c.

Similar numerals of reference designate corresponding parts in both figures of the drawings.

Referring to the drawings, it will be seen that the improvements are shown as applied to an ordinary safety-bicycle.

In carrying out the present invention a bearing-bracket 1, having a rearwardly-inclined brace 1^a and shaft-boxing 1^b, is secured to the upper horizontal bar or top run 2 of the machine-frame contiguous or adjacent to the steering-post 13 and head-tube 11, and in this bracket is mounted a short transverse horizontal shaft 3, having at one end a single elongated hand-crank 4, adapted to extend and operate beyond the steering-post 13 and the head-tube 11, by means of which it may be rotated, and also provided with a sprocket-wheel 5, from which a drive-chain 6 extends downward and rearward, where it passes around a sprocket-pinion 7 on the hub of the driving-wheel 8.

Interposed between the reach-bar 9 and the top run 2 beneath the bearing-bracket is a brace 10, extending, preferably, parallel to the head-tube 11 for preventing the swaying of the top run 2 adjacent to the opening where the shaft 3 is located.

A single handle-bar (indicated at 13^a) extends from the steering-post 13 alongside the driving sprocket-wheel 5 above the latter, so as to pass thereover and only on one side of the machine, preferably the left-hand side, where it may be grasped by the left hand of the rider, who may employ his right hand for rotating the crank-handle 4, and thereby imparting motion to the sprocket-wheel 5, chain 6, and driving-wheel 8.

The machine above described, while it may be ridden by any one, is especially adapted for invalids or persons not having the complete use of their lower limbs. The mechanism above described enables the rider to steer the machine with one hand and propel the same with the other hand.

If desired, the relative positions of the handle-bar and hand-crank may be reversed without departing from the principle of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

A riding-wheel comprising a frame constructed with an upper bar, a reach, and a head-tube, a steering-post mounted in the head-tube, having a single steering handle-bar extending to one side of the head-tube, a bearing-bracket secured to the upper bar contiguous to the steering-post, and a short driving-shaft mounted in the bearing-bracket, and having a single elongated hand-crank working past the head-tube at the other side thereof thus adapting the machine to be steered and driven simultaneously by the hands only.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

AUGUST JOHNSON.

Witnesses:
JAMES NELSON,
A. ANDERBERG.