(No Model.)

W. V. SNYDER.

TRICYCLE.

No. 492,062. Patented Feb. 21, 1893.

Fig. 1.

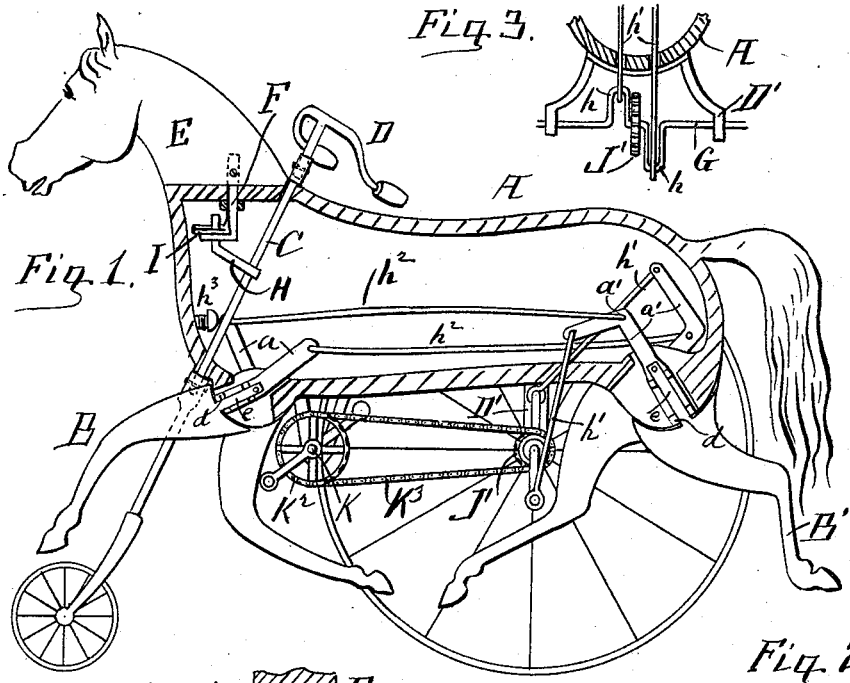


Fig. 3.

Fig. 2.

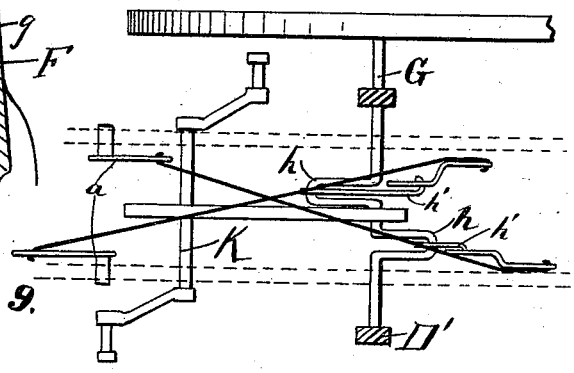


Fig. 4.

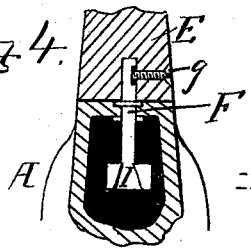


Fig. 5.

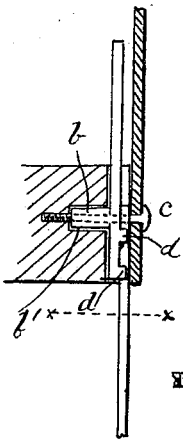


Fig. 9.

Fig. 6.

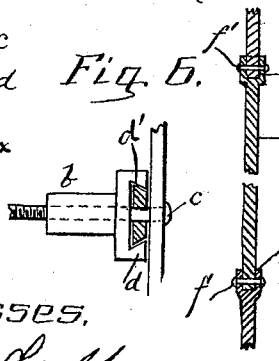


Fig. 7.

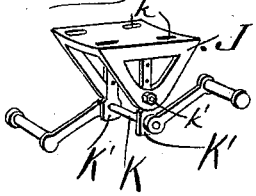
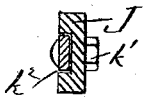


Fig. 8.



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UNITED STATES PATENT OFFICE.

WALDO V. SNYDER, OF CANTON, OHIO.

TRICYCLE.

SPECIFICATION forming part of Letters Patent No. 492,062, dated February 21, 1893.

Application filed August 15, 1892. Serial No. 443,120. (No model.)

To all whom it may concern:

Be it known that I, WALDO V. SNYDER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Tricycles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1, is a longitudinal section of the body showing the mechanism for operating the legs. Fig. 2, is a view showing the position of the crank shaft, together with the connecting-wires. Fig. 3, is a transverse section showing a portion of the body, and illustrating the bracket for journaling the crank-shaft and showing a portion of the crank shaft and its sprocket wheel. Fig. 4, is a view showing a portion of the head and body, and illustrating the manner of pivotally connecting the head to the body. Fig. 5, is a view showing a portion of the body and illustrating the manner of attaching one of the legs to the body. Fig. 6, is a similar view illustrating the manner of attaching the legs and showing the same in cross section. Fig. 7, is a detached view of the adjustable bracket, designed and calculated to support the pedal-shaft. Fig. 8, is a detached view showing a portion of one of the bracket arms, and illustrating the position of one of the adjusting arms. Fig. 9, is a detached view showing a portion of the guide bar and illustrating its joints.

The present invention has relation to tricycles, and it consists in the different parts and combination of parts hereinafter described and particularly pointed out in the claim.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings A, represents the body which in this instance is that of a horse; but it will be understood that the body of any other quadruped may be substituted for the horse shown, without departing from the nature of my invention. To the body A, are pivotally attached the rock-bars *a* and *a'*, which rock-bars are located substantially as illustrated in Figs. 1 and 2. For the purpose of easily adjusting the rock-bars and bringing them in proper position, the side extensions *b*, are provided, which side extensions are preferably formed integral with the rock-bars *a* and *a'*. The side extensions *b*, are properly journaled in the sockets *b'*, which sockets are formed in the sides of the body A. For the purpose of securely holding the rock-bars *a* and *a'* in proper position, the screw-threaded bolts *c*, are provided, which screw threaded bolts are provided with screw threaded ends, which enter the body A, as illustrated in Fig. 5.

The rock-bars *a* and *a'* are each provided with the lugs *d*, which lugs are provided with the dove-tailed grooves *d'*, said dove-tailed grooves being located substantially as illustrated in Fig. 6 and are for the purpose hereinafter described.

The legs B and B', are each provided upon their top or upper ends with the arms or extensions *e*, which arms or extensions are received into the dove-tailed grooves *d'*, substantially as illustrated in Fig. 6. The arms or extensions *e*, are each provided with apertures which are for the purpose of receiving the outer portions of the screw threaded bolts *c*, and are so located that when the legs B and B', are brought into proper adjustment, the apertures formed in the arms or extensions *e*, will come in line with the apertures formed in the side extensions *b*. When the legs B and B' are properly adjusted, and the sides of the body A, are properly attached, the screw threaded-bolts *c*, are placed in the position illustrated in Fig. 5 thereby securely attaching the rock-bars *a* and *a'*, and the legs B and B' together.

The object and purpose of detachably attaching the legs B and B', to the rock-bars *a* and *a'*, is to provide a means for removing the legs B and B', without interfering in any manner with the body A, and at the same time provide a means for removing the legs for shipment. It will be understood that by detachably connecting the legs B and B' the same can be easily removed in case it is desired to repair the same.

The guide-bar C, is located substantially as illustrated in Fig. 1, and is formed in sections as illustrated, and the sections united

together by means of the sockets *f*, and the cross-pins *f'* or their equivalents. The top or upper end of the guide-bar C, is provided with the ordinary handle D.

The head E, is pivotally attached to the body A, by means of the connecting-pin F, which connecting-pin is firmly seated in the head E, and securely fastened by means of the set-screw *g* or its equivalent. The object of providing the set-screw *g*, is to provide a means for removably attaching the head E, to the body A.

It will be understood that by providing the detachable legs B and B' the detachable head E, and forming the guide bar C in sections, the above named parts can be easily removed, thereby providing what might be termed a "knock down" tricycle, thereby providing a better means for shipment.

For the purpose of communicating movement to the legs B and B', the crank-shaft G, is provided with the oppositely timed cranks *h*, to which oppositely timed cranks the pitmen *h'*, are pivotally attached, their top or upper ends being pivotally attached to the rock-bars *a'*, said rock-bars being substantially of the form illustrated in Fig. 1. Motion is communicated to the front or forward legs B, by means of the connecting wires h^2, which connecting wires extend forward, and are pivotally attached to the top or upper ends of the rock-bars *a*. For the purpose of producing a "clicking" sound, and thereby imitating the natural sound of a horse, the studs h^3, are provided and are so located, that as the rock-bars *a* are brought forward their top or upper ends will strike the heads of the studs h^3. In the drawings but one stud h^3 is shown, but it will be understood that two studs should be provided, one for each of the rock-bars *a;* or if desired a metal bar may take the place of the studs h^3, and the same object be accomplished.

For the purpose of communicating movement to the head E, by means of the guide bar C, and the handle D, the guide-bar C, is provided with the arm H, which arm engages the horizontal portion of the connecting bar F, said horizontal portion being provided with the slot I, which slot is provided with a wider opening upon the under side than it has upon the top or upper side, as illustrated in Fig. 4. The object and purpose of so forming the slot I, is to prevent the arm H, from binding as the guide bar C, is rotated by means of the handle D, and at the same time prevent any loss of motion.

For the purpose of adjusting the bracket J, to or from the sprocket wheel J', the elongated slots *k*, are formed in said bracket, and are located substantially as illustrated in Fig. 7. For the purpose of fitting the top or upper portion of the bracket J, to the bottom or under side of the body A, said top or upper portion is formed concave, substantially as shown in Fig. 7. It will be understood that clamping-bolts or their equivalents are to be used in attaching the bracket J to the body A.

For the purpose of adjusting the pedal-shaft K, up or down, said pedal shaft is journaled to the adjustable bars K', which adjustable bars are held in proper position by means of the clamping-bolts *k'*, and the grooves k^2, which grooves are formed upon the inner sides of the bracket arms K'. It will be understood that by providing a means for adjusting the pedal shaft K, up or down, said pedal shaft can be adjusted for different sized riders. To the pedal-shaft K, is securely attached the sprocket wheel K^2, around which sprocket wheel is located the drive-chain K^3, said drive-chain communicating with the sprocket wheel J', and thereby communicating rotary motion to the crank-shaft G. For the purpose of causing the bracket arms K', to move in unison, they may be connected at their top or upper ends by a suitable cross-bar, which may be of any particular style. For the purpose of adjusting the arms K', a series of apertures such as k^4, is provided. For the purpose of holding the crank-shaft G, in proper position, the bracket D', is provided, which bracket is attached to the body A, in any convenient and well known manner.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a tricycle the combination of the body A, having pivotally attached thereto the rock-bars *a* and *a'*, provided with the side extensions *b*, the pivoted legs B and B', provided with the arms *e*, and the lugs *d*, all arranged substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WALDO V. SNYDER.

Witnesses:
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LAURA SHAEFFER.