H. B. STOCKS.

SCOOTER.

APPLICATION FILED SEPT. 19, 1916.

1,313,134. Patented Aug. 12, 1919.

Fig. 5.

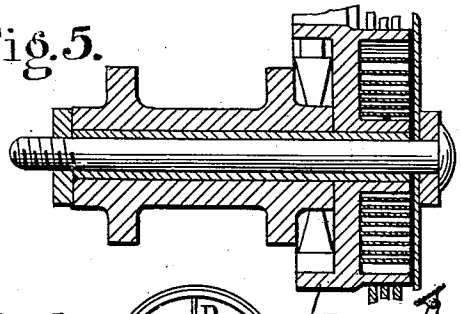


Fig. 7.

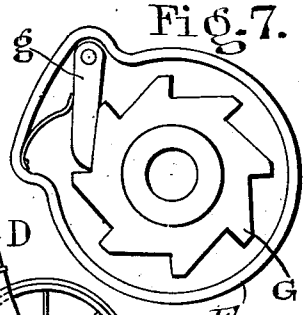
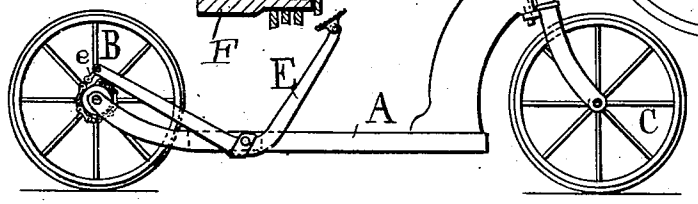


Fig. 1.



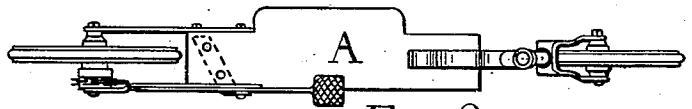


Fig. 2.

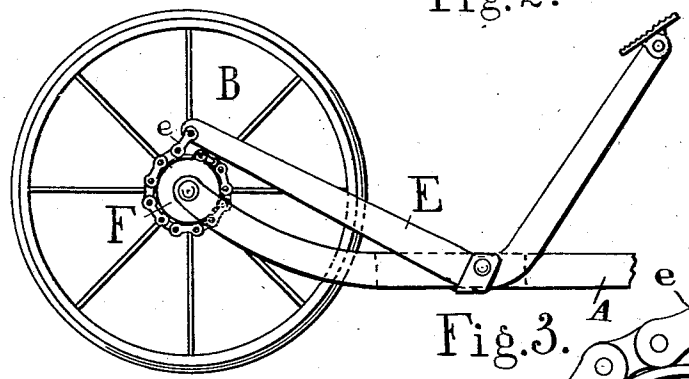


Fig. 3.

Fig. 6.

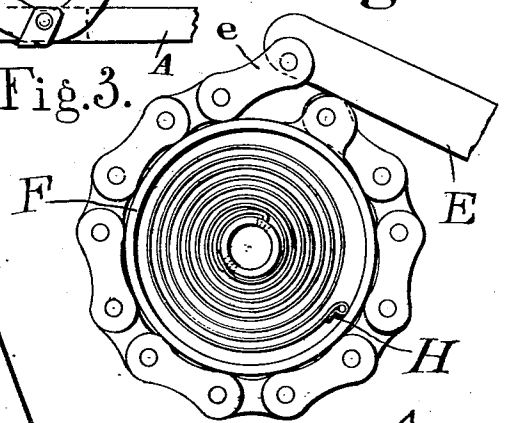


Fig. 4.

Witnesses
W. E. McArdle
E. O. Keller

Inventor
Harry B. Stocks
by James L. Norris
Attorney

UNITED STATES PATENT OFFICE.

HARRY BENWELL STOCKS, OF STOCKPORT, ENGLAND.

SCOOTER.

1,313,134. Specification of Letters Patent. Patented Aug. 12, 1919.

Application filed September 19, 1916. Serial No. 121,056.

To all whom it may concern:

Be it known that I, HARRY BENWELL STOCKS, a British subject, residing at Stockport, county of Chester, England, have invented certain new and useful Improvements in Scooters, of which the following is a specification.

This invention relates to scooters which comprise a foot board supported on two wheels, a steering handle attached to the front wheel and a driving mechanism operated by a cranked treadle pivoted to one side of the foot board and connected with the rear wheel, and it constitutes, in effect, an improvement on, or development of, the construction disclosed in my prior application, No. 40,968, filed July 20, 1915.

This invention consists in the combination with the foot board of such scooters, of a cranked pedal lever pivoted to one side of the foot board, a driving chain attached to one end of the lever, a drum or pulley connected to the rear driving wheel by a one-way clutch to which one end of the driving chain is attached and around which it is coiled when rotated in the reverse direction, and means for so rotating it.

It will be fully described with reference to the accompanying drawings.

Figure 1. is a side elevation of the scooter showing the improved motion transmitting mechanism.

Fig. 2. is a plan of same with the steering handle removed.

Fig. 3. is a side elevation of the treadle and improved motion transmitting mechanism (enlarged) in operative position.

Fig. 4. is a side elevation of same showing the position of the improved motion transmitting mechanism at the end of forward stroke.

Fig. 5. is a longitudinal section of the rear wheel hub with the chain pulley and one-way clutch.

Fig. 6. is a side elevation of the chain pulley showing the spring within it.

Fig. 7. is a side elevation of the one-way clutch.

The foot board A is mounted upon the rear driving wheel B and the steering pillar D, the latter carrying the front or steering wheel C. The treadle E is cranked and pivoted to one side of the foot board A, the front member extending upward above the foot board.

Upon the hub or axle of the rear driving wheel B a drum F is mounted which is capable of rotating freely thereon and is divided into two compartments. One compartment of the drum is fitted with a pawl to engage a ratchet wheel G affixed to the hub or to the wheel B, forming therewith a one-way clutch or free wheel mechanism through which motion of the drum in a forward direction is transmitted to the said wheel. Any other ordinary form of one-way clutch may be substituted for the pawl and ratchet, and the other compartment of the drum F is fitted with a spring H to rotate it in a backward direction.

The drum is connected with a treadle lever E by a chain, band, belt or cord *e*, one end being attached to the lever and the other end being attached to the drum. The chain *e* is wound upon the periphery of the drum F when the spring H is slack or not in tension and the treadle lever is in operative position as shown in Figs. 1 and 3.

The depression or movement in the propelling direction of the treadle E pulls the chain or band *e* and rotates the drum or pulley F in a forward direction, and with it the driving wheel B, and the upward or return movement of the treadle slackens the chain or band, and the spring H rewinds it upon the drum or pulley.

The spring H in the drum or pulley will be made sufficiently strong to return the pedal lever to the commencement of its stroke.

The drum or pulley F may be flanged or grooved to retain the chain or band in position thereon.

What I claim as my invention and desire to protect by Letters Patent is:—

1. In a device of the class described, a frame, a steering wheel and a rear wheel mounted respectively at the front and rear ends of the frame in alinement with the longitudinal center of said frame, a handle for the steering wheel, a foot support at one side of the frame, a treadle at the opposite side of the frame, a driving means between the treadle and the rear wheel consisting of a drum loosely mounted on the axle of said rear driving wheel and having a spring disposed within the interior thereof to cause the same to return to a normal position when released, a clutch between the said drum and driving wheel adapted, when the drum is moved in one direction, to impart movement to the driving wheel, and a chain se-

BEST AVAILABLE COPY

cured at one end to the drum and at the opposite end to the rear end of the treadle and normally wound around the drum and unwound from the latter by depression of the treadle.

2. In a device of the class described, a frame, a steering wheel and a rear wheel mounted respectively at the front and rear ends of the frame in alinement with the longitudinal center of said frame, means for operating the steering wheel to guide the device, a laterally projecting foot support at one side of the center of the frame, a foot treadle at the opposite side of the frame in the form of a bell crank lever having its rear arm projecting upwardly and over the bearing of the rear wheel, a spring actuated drum loosely mounted on the bearing of the rear wheel, a clutch between the said drum and the rear wheel adapted, when the drum is moved in one direction, to impart movement to said rear wheel, and a chain connected to the end of the treadle projecting over the bearing of the rear wheel and normally wound around the drum and also secured to the latter.

3. A two wheeled coaster vehicle comprising a frame, a front wheel and a rear wheel in longitudinal alinement with the center of the frame, the frame being provided with a support for one foot of the operator, a pedal for the other foot of the operator movably mounted on the frame and having a member thereof projecting rearwardly and upwardly over the bearing of the rear wheel, a drum loosely rotatable on the bearing of the rear wheel and having an automatic rotating movement in one direction, a clutch interposed between the said drum and rear wheel and adapted, when the drum is moved in a forward direction to impart a similar movement to the rear wheel, and a chain normally wound on the drum and having one end secured to the drum and its other end secured to the part of the pedal which projects upwardly over the bearing of the rear wheel.

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

HARRY BENWELL STOCKS.

Witnesses:

J. OWDEN O'BRIEN,

GEO. H. O'BRIEN.