S. R. SCHARF.
Velocipede

No. 202,056. Patented April 2, 1878.

Fig. 1.

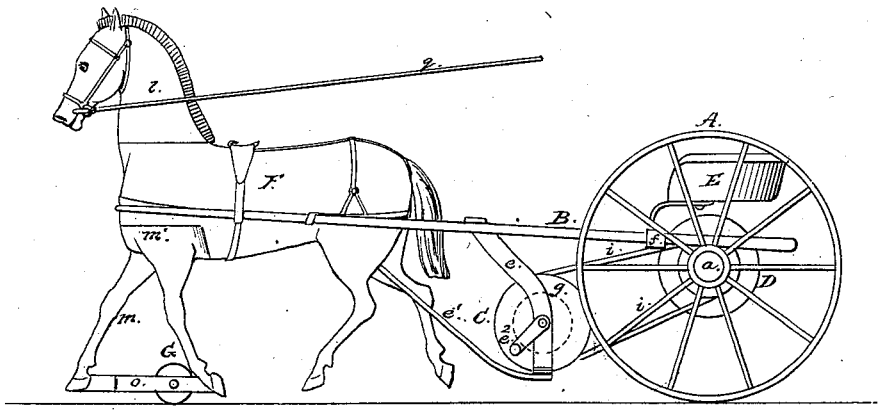


Fig. 2.

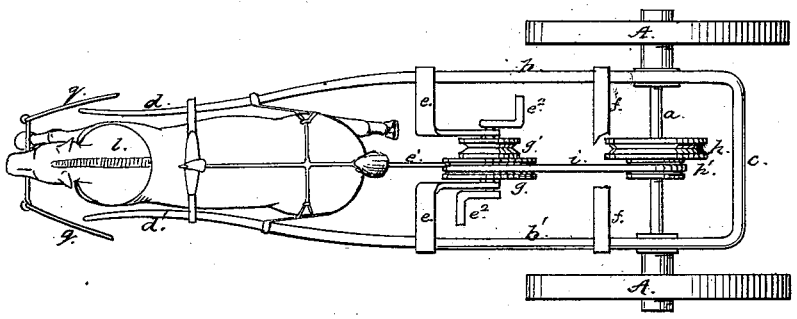
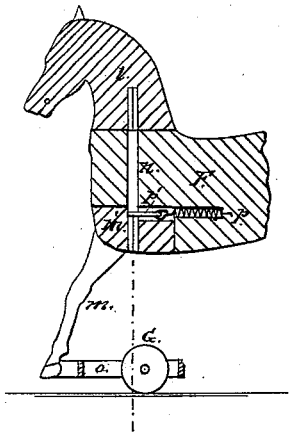


Fig. 3.



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UNITED STATES PATENT OFFICE.

SAMUEL R. SCHARF, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO HIMSELF AND GEORGE W. HOOKER, OF BRATTLEBOROUGH, VT.

IMPROVEMENT IN VELOCIPEDES.

Specification forming part of Letters Patent No. **202,056**, dated April 2, 1878; application filed February 19, 1878.

To all whom it may concern:

Be it known that I, SAMUEL R. SCHARF, of Washington, in the county of Washington and District of Columbia, have invented a new and useful Improvement in Velocipedes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object I have in view is the production of a child's velocipede of that kind having an imitation horse attached to the same, which will be attractive in appearance, can be easily and conveniently driven and guided, and will be cheap to manufacture; and my invention therein consists in the peculiar construction of the imitation horse, in the means for guiding the velocipede, and in the concealed spring for throwing the movable forward legs into line with the body of the horse, all as fully hereinafter explained.

In the drawings, Figure 1 is a side elevation of the velocipede complete; Fig. 2, a top view, with the seat removed to show the arrangement of the driving wheels and pulleys; and Fig. 3, a section of the forward part of the horse, showing the guiding or steering mechanism.

Like letters denote corresponding parts.

The frame of the velocipede is supported upon two wheels, A, fixed or keyed on the ends of an axle, *a*. The wheels and axles are made very light, and the wheels are placed quite close together, leaving just sufficient room between them to accommodate the frame and seat. B is the frame, made of wood or metal, and composed of parallel side pieces *b b'*, from which depend small hangers or boxes, through which the axle passes. These hangers and the side pieces *b b'* rest against the inner sides of the hubs to the wheels, so as to prevent any lateral play of the wheels and axle. The side pieces extend to the rear of the axle, and are connected by a cross-piece, *c*, which braces the frame, and they are also extended forward and brought closer together, as shown, to form the shafts *d d'*.

The shafts, side pieces, and rear cross-piece are all preferably made in one piece, of round or angle iron or of wood, which is bent to form the several parts. This construction of the frame makes it cheap to manufacture, and is also very strong and durable.

The crank-wheel C is placed a short distance in front of the axle, and is supported in hangers *e*. These hangers are made in one piece, of band metal, which is connected at its ends to the side pieces *b b'*, and is bent, as shown, down near the sides of the crank-wheel and under the same. The axis of the crank-wheel passes through this band, and the crank-arms e^2 are fitted on the ends of the same outside of the hangers, and are adapted to be operated by the feet of the rider.

The crank-wheel C is composed of two grooved wheels or pulleys, *g g'*, placed side by side, the pulley *g* being considerably larger than the pulley *g'*. Upon the center of the axle *a* is mounted the wheel D, which, like the crank or driving wheel C, is composed of two grooved pulleys, *h h'*, the larger pulley *h* being arranged in line with the small pulley *g'*, while the small pulley *h'* is placed in line with the large pulley *g*. A belt or cord, *i*, of any suitable material, is run over two of the pulleys, and the wheels A can then be operated by working the cranks e^2. This belt *i*, I provide with any of the well-known means for tightening the same, so that when it becomes loose it can be easily shortened.

By the use of the double wheels C D it will be seen that the belt can be shifted, so as to allow the velocipede to be operated by a weak child, or it can be arranged for speed.

The seat E of the velocipede is mounted on an arm secured to the cross-piece *f*, and is arranged over the center of the axle between the wheels, or a little forward of the axle, if found necessary, to properly balance the velocipede.

Between the shafts *d d'* is arranged the imitation horse F, preferably constructed of wood, and secured firmly to the shafts by staples or other suitable means.

The head and neck *l* of the horse are severed from the body, as well as the forward legs *m* and the portion *m'* of the body, to which they are immediately attached. The neck and forward legs are connected together by a vertical bolt or rod, *n*, which passes through the intervening portion of the body, and turns freely

therein, so that by turning the head and neck the forward legs of the horse will be also moved.

Between the lower ends of the legs *m* is placed a frame, *o*, secured to such legs, and in this frame is journaled the guiding or steering wheel G. It will be seen by reference to Fig. 3 that the axis of this wheel G is placed a short distance to the rear of the pivot of the forward legs. This arrangement makes the velocipede much easier to turn, and a much smaller guiding-wheel can be used than if the axis of the same were directly below the pivot of the legs.

By having the guiding-wheel placed to the rear of the pivot, the motion of the velocipede has a tendency to keep the wheel in line with the body of the horse, which would not be the case if the wheel were placed in front of the pivot.

A concealed spring, *p*, is secured in the body of the horse, and is attached to an arm, *p'*, projecting rearwardly from the pivoting-bolt *n* or to the pivoted portion *m'*, so that when the forward legs and the guiding-wheel are turned to either side, by pulling upon the reins, they will be thrown back into line with the body of the horse, when the reins are released.

The reins are shown by *q*. They run to the mouth of the horse, and it may be found necessary to attach short pieces extending laterally from the mouth of the horse, to assist in turning the head. By pulling upon either side of the reins the head and neck of the horse will be turned, and with them the forward legs and the guiding-wheel.

Any suitable imitation of a harness may be placed upon the horse, and the reins can be passed through the terret-rings on the back-saddle.

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

1. The imitation horse F for a child's velocipede, having the head and neck portion *l* and the forward legs *m* severed from the body of the horse, and connected together by a rod, *n*, passing loosely through the intervening portion of the body, substantially as described and shown.

2. In a velocipede, the combination, with the movable head and neck and movable forward legs, connected together, of the guiding-wheel G, secured between the lower ends of such legs, with its axis arranged in rear of the pivot to the legs, substantially as described and shown.

3. The combination, with the body of the horse and the movable forward portion *m m'*, of the spring *p*, concealed in the body and attached to the movable portion, for throwing the same into line with the body, substantially as described and shown.

This specification signed and witnessed this 16th day of February, 1878.

SAML. R. SCHARF.

Witnesses:
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