A. Q. ROSS.
Velocipede.

No. 210,271. Patented Nov. 26, 1878.

Fig. 1

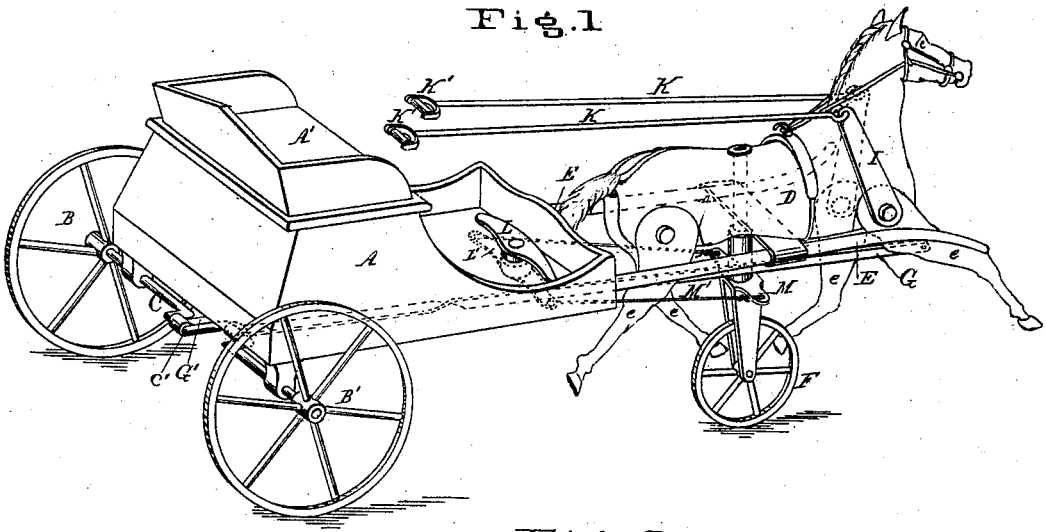
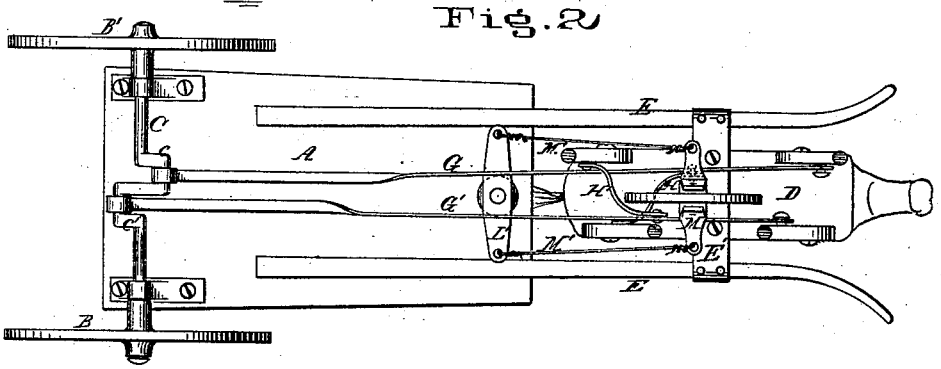


Fig. 2



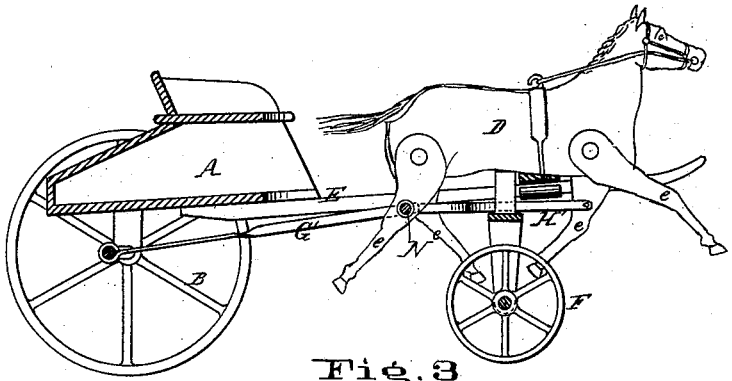


Fig. 3

Attest
Chas. F. Gessert
John E. Jones

Inventor
Abbott Q. Ross
By F. Millward
Attorney

M. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ABBOTT Q. ROSS, OF CINCINNATI, OHIO.

IMPROVEMENT IN VELOCIPEDES.

Specification forming part of Letters Patent No. **210,271**, dated November 26, 1878; application filed March 26, 1878.

To all whom it may concern:

Be it known that I, ABBOTT Q. ROSS, of Cincinnati, Hamilton county, and State of Ohio, have invented an Improvement in Toy Trotting Horse and Carriage, of which the following is a specification:

My invention relates to the construction of a toy carriage and horse in which the propulsion of the carriage is accompanied by motions of the legs of the toy horse imitating a trotting action, so as to make it appear that the carriage is drawn by a trotting horse.

My invention consists, mainly, in pivoting the legs on the body of the toy horse, and coupling the legs together and connecting or gearing them to the propelling wheel or wheels of the carriage in such a manner that on propelling the carriage the legs of the toy horse will oscillate in the proper way to imitate a trotting motion. Means are also provided to enable a child seated in the carriage to propel and steer it.

In the accompanying drawings, Figure 1 is a perspective view of one form of my invention. Fig. 2 is a bottom view of the same. Fig. 3 illustrates my invention in another form.

The same letters of reference are used in the designation of identical parts in all the figures.

The body A of the vehicle is mounted on two wheels, B and B′, one of which is fast on axle C for propelling purposes, and the other loose to facilitate the making of short turns.

The body D of the toy horse is arranged between the rigid thills E, which are firmly secured to the body of the carriage, and is securely fastened upon a cross-bar, E′, which connects and stiffens the thills. This rigid connection of the thills near their forward ends gives the frame-work supporting the horse great rigidity, and prevents shackling and unnecessary wear and tear.

The horse is supported, with the thills, upon a swiveling wheel, F, so that its legs *e* will clear the ground. These legs are separately pivoted on the respective quarters of the horse, and either the fore legs or the hind legs are directly connected by rods G and G′ to the respective cranks *c* and *c′* of axle C, which cranks are set in opposite directions. The right fore leg is also connected by a cross-link, H, with the left hind leg, and the left fore leg is similarly connected with the right hind leg by a cross-link, H′. These links may couple the legs, either directly or by way of the rods G and G′, according as these rods extend from the fore legs or from the hind legs, to the axle.

In consequence of this construction and connection of the parts, the legs of the toy horse will move with a trotting motion whenever the carriage is propelled.

It is obvious that the carriage may be propelled and steered in various ways. I prefer the mode shown in Figs. 1 and 2, where the fore legs are provided with rigid upright bars I, to the respective upper ends of which stiff rods K are pivoted, reaching back to near the seat A′ of the carriage, and terminating in handles K′, to be taken hold of by the child. By alternately pulling and pushing on these rods K the child will oscillate the fore legs of the toy horse, and thereby impart a rotary motion to axle C through rods G and G′, so as to propel the carriage, the hind legs of the horse being also oscillated at the same time in the manner already stated.

The swiveling wheel F constitutes the steering-wheel, which, when the carriage is propelled by means such as shown in Fig. 1, is operated by the feet of the child controlling a swiveling-post bar, L, rigidly connected with a bar, L′, under the body of the carriage. The ends of bar L′ are connected by rods M′ to the rigid steering-bar M on the frame of the swiveling wheel F.

In the form of my invention shown in Fig. 3 the child propels the carriage by his feet, acting on the pedals or spools N on the hind legs of the toy horse. The same steering apparatus as shown in Figs. 1 and 2 may be used in this case, except that bar L should be elevated sufficiently that the child may operate it by its hands.

It is clear that the four legs of the toy horse may all be separately connected with the axle of the carriage; also, that the legs of the toy horse and the propelling-wheel of the carriage can be geared together in ways very different from what I have shown and described, and still the same effect produced in substantially the same way. It should therefore be understood that my invention is not confined, primarily, to the specific construction set forth.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A toy horse and carriage in which the wheels of the carriage are connected with the pivoted legs of the horse, substantially as specified, so that the propulsion of the carriage will impart a trotting motion to the legs of the horse.

2. In a toy horse and carriage, the combination, substantially as specified, of the cranked axle of the propelling wheel or wheels, the pivoted legs of the horse, and suitable connecting-rods.

3. In a toy horse and carriage, the combination, substantially as specified, of the cranked axle of the propelling wheel or wheels, the cross-linked pivoted legs of the horse, and suitable connecting-rods from one pair of legs to the cranks of the axle.

4. In a toy horse and carriage, the combination, substantially as specified, of the cranked axle of the propelling wheel or wheels, the cross-linked pivoted legs of the horse, the rods connecting the cranks to the legs, rigid bars on one pair of legs, and stiff rods for pulling and pushing on said bars from the seat of the carriage.

In testimony of which invention I hereunto set my hand.

ABBOTT Q. ROSS.

Witnesses:
JOHN E. JONES,
J. L. WARTMANN.