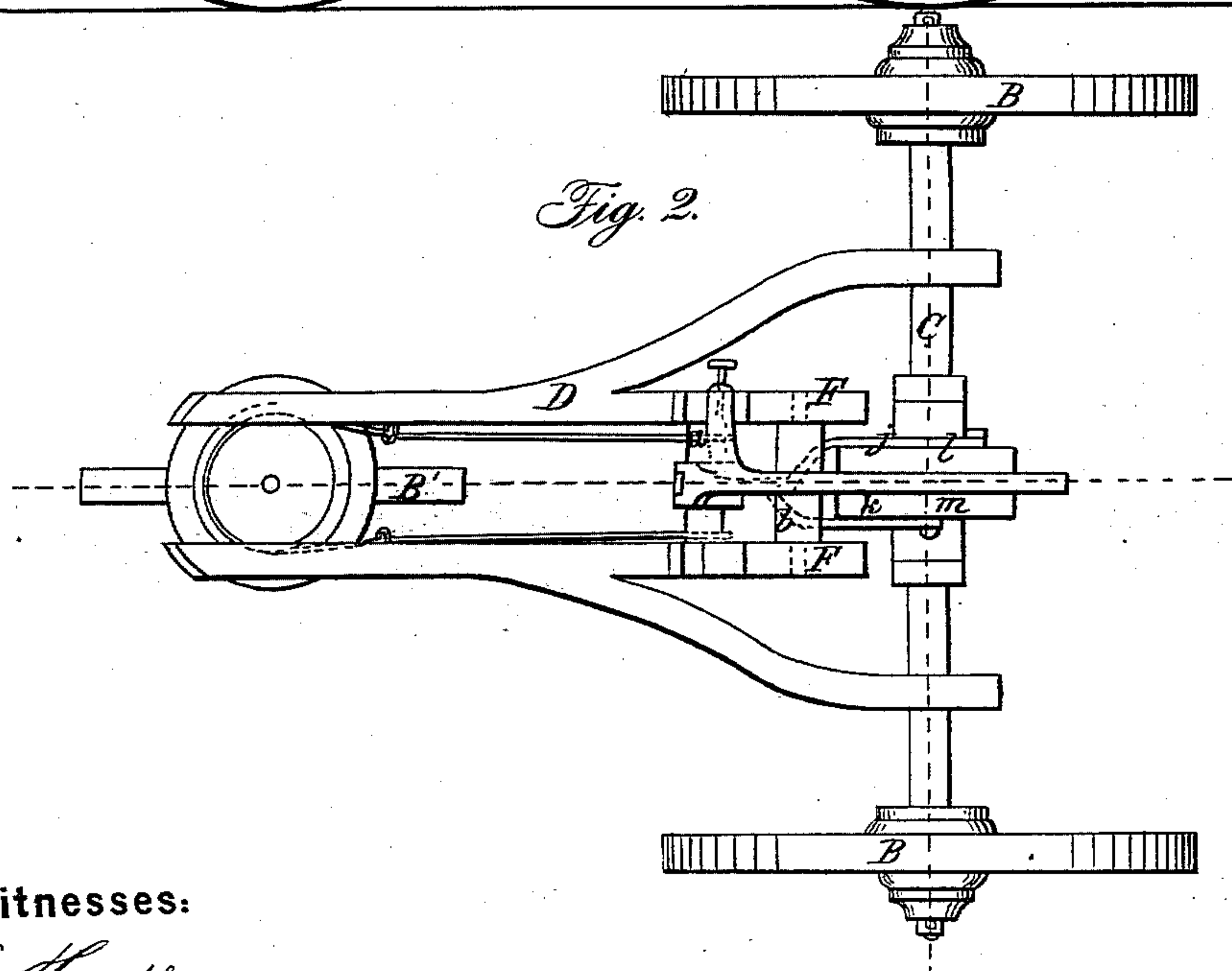
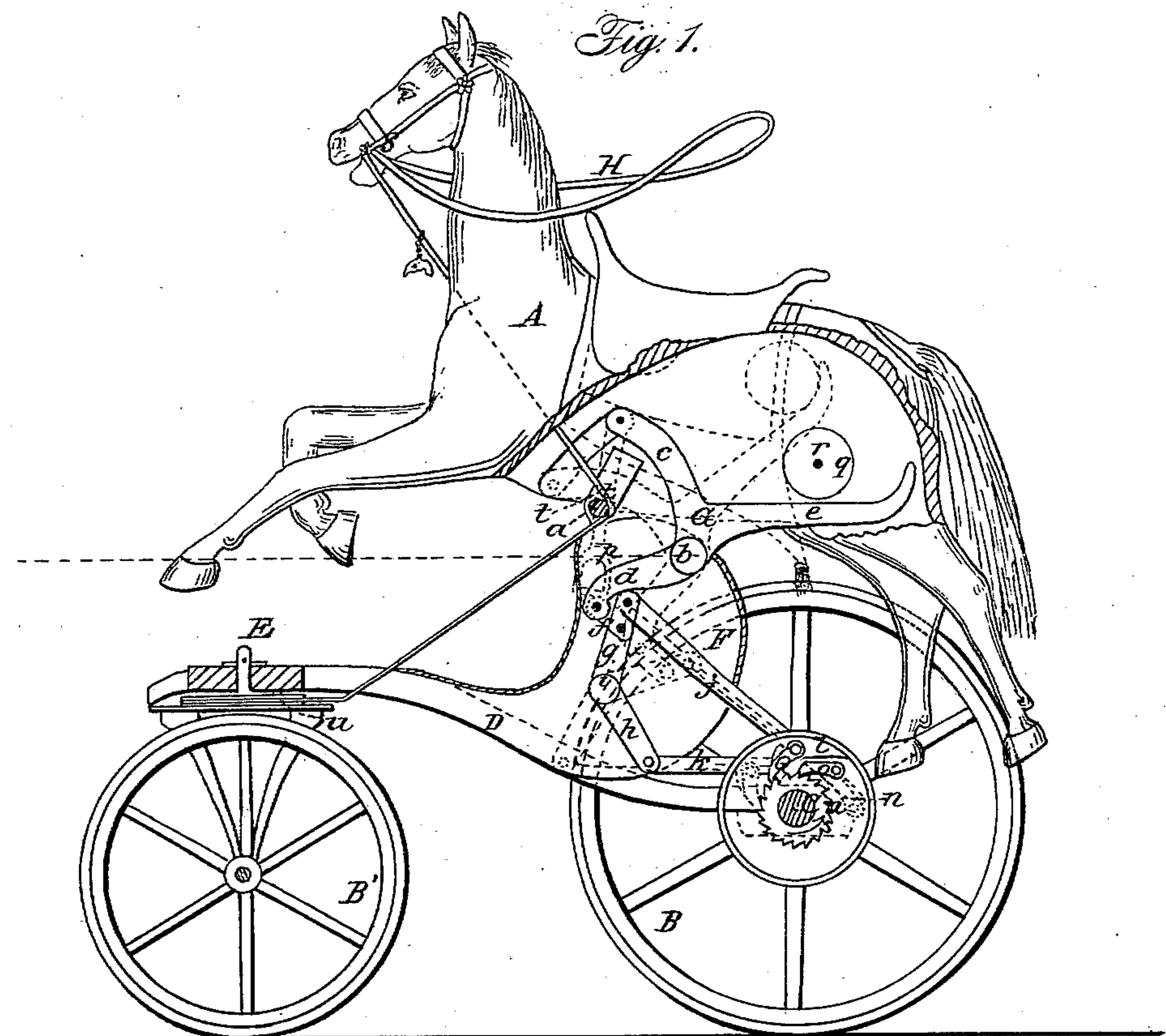


F. G. HOEPPNER

Velocipede.

No. 64,418.

Patented May. 7, 1867.



Witnesses:

W. Hauff  
E. Hauff

Inventor:

F. G. Hoepner



# United States Patent Office.

F. G. HOEPPNER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND CHARLES BURCHARDT, OF SAME PLACE.

Letters Patent No. 64,418, dated May 7, 1867.

## IMPROVEMENT IN VELOCIPEDES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, F. G. HOEPPNER, of the city, county, and State of New York, have invented an Improved Toy-Propeller; and I do hereby declare that the following is a full, clear, and exact description thereof, enabling those skilled in the art to fully understand and use the same, reference being had to the accompanying drawing, in which—

Figure 1 represents a sectional side elevation of this invention.

Figure 2 is a plan or top view of the propelling mechanism.

Figures 3, 4, and 5 are modifications of the same.

Similar letters of reference in the several figures indicate like parts.

This invention relates to a toy-propeller, the motion of which is based on the action of a compound lever and two ratchet or clutch-wheels, which are arranged in such a manner that a child or grown person sitting in or on the toy is enabled to propel the same by the motion of his body.

A represents a toy, which may represent a horse, as shown in fig. 1, or a carriage, as shown in figs. 3 and 4, or any other suitable device, according to taste and convenience. This toy is supported by two wheels B behind, and by one caster-wheel B' in front. The hind wheels B are mounted on an axle, C, one of the wheels being keyed fast to said axle and the other placed loosely on it, and this axle connects by a perch, D, with the pin E, on which the caster-wheel B' swivels. From the perch rise two standards F, which form the bearings for the shaft *a* on which the toy rocks, as shown in figs. 1 and 3. The motion of the axle C and of the propeller is produced by a compound lever, G, which has its fulcrum on a rock-shaft, *b*, secured between the standards F. Said lever is provided with three arms *c d e*, two of which are concealed in the body of the toy, while the last one connects by a link; *f*, with one arm *g* of another lever *g h*, which has its fulcrum on a rock-shaft, *i*, secured between the standards F. From the ends of the lever *g h* extend rods *j k* to shoes *l m*, which sweep over a ratchet-wheel, *n*, and which contain each one or more pawls *o*; or instead of ratchet-wheels and pawls ordinary clutch-wheels may be employed, similar to those used to produce the motion of feed-wheels in sewing machines. The arm *c* extends from the fulcrum of the compound lever G towards the front, and the arm *e* towards the rear of the toy, as shown in fig. 1, and from the end of the arm *c* are suspended the stirrups *p*, while the arm *e* extends under the friction-roller *q*, which is mounted on an axle, *r*, in the rear part of the body of the toy. If the person sitting on the toy throws the weight of his body on the stirrups, the lever G is brought from the position shown in black outlines in fig. 1 to that shown in red outlines, and by the action of the arm *h* of the lever *g h* and of the rod *k* and the pawls connecting with said rod, a revolving motion is imparted to the axle C in the direction of the arrow marked near it in said figure, and the toy is propelled. At the same time the rear portion of the body of the toy is raised, bringing the friction-roller *q* to the position shown in red outlines in fig. 1. If the rider throws the weight of his body on the rear portion of the body of the toy, the friction-roller *q* forces the compound lever G back to the position shown in black, and the arm *g* of the lever *g h* acts through the rod *j* on the pawls attached to the same, and produces a revolving motion of the axle C in the same direction as before. By these means the toy can be propelled with the greatest ease and facility. The propeller is steered by the bridle H, which passes through the bit-rings *s* and round the rod *a* to a wheel, *u*, mounted on the pin E on which the caster-wheel B' swivels. By pulling one end of the bridle or the other, the caster-wheel is caused to turn to one side or to the other, and the direction in which the propeller moves can be changed at pleasure.

The lever arrangement hereinbefore described may be modified to correspond to the shape of the toy and to the manner in which the motion is to be produced. In fig. 3 the pawls which act on the ratchet-wheels are actuated simply by the rocking motion of the body of the carriage A\*, which in this case forms a portion of the lever G. In fig. 4 said pawls are actuated by the alternate pressure of the feet on the treadles T\*, which in this case form portions of the lever G; and in fig. 5 the friction-roller *q* is dispensed with, and the levers are so arranged that the body of the toy will assume a jumping motion. In all cases, however, I retain the ratchet-wheels and pawls, or clutch-wheels of any suitable description, which I consider an equivalent of the ratchet-



# United States Patent Office.

KIRK W. HOLMES, OF MCGRAWVILLE, AND ANDREW ALBRIGHT, OF  
DRYDEN, NEW YORK.

*Letters Patent No. 64,419, dated May 7, 1867*

## IMPROVED MODE OF COATING WOOD WITH RUBBER AND GUTTA PERCHA.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, KIRK W. HOLMES, of McGrawville, in the county of Cortland, and State of New York, and ANDREW ALBRIGHT, of Dryden, in the county of Tompkins, same State, have invented a new and improved Mode of Coating Wood with Rubber, Gutta Percha, or Prepared Gum; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

The wood to be acted upon is first prepared in the form desired; the rubber, gutta percha, or gum is then applied to the wood, which is placed in a mould suited to the object in view, and this is then placed in a boiler or vulcanator and subjected to proper degree of heat for hardening the substance applied. The form of rubber, &c., and its thickness are adapted to the character of the article to which it is to be applied. This process in application of rubber, &c., is found exceedingly valuable as well as ornamental on carriage and cutter bodies, on picture frames, coffins, and burial cases, and very many other articles. It preserves the wood from rust and decay; dispenses with paints and varnishes, and enables its use in all conditions of the atmosphere without any fear of injury. This application may be washed without injury, and retains its beauty and elasticity.

What we claim as our invention, and desire to secure by Letters Patent, is—

The coating and lining of wood with rubber, gutta percha, or prepared gum, substantially as set forth

K. W. HOLMES,  
ANDREW ALBRIGHT.

Witnesses:

N. STARR, Jr.,  
ARTHUR HOLMES.

