

J. H. HAYNES.

Velocipede.

No. 93,991.

Patented Aug. 24, 1869.

Fig. 1

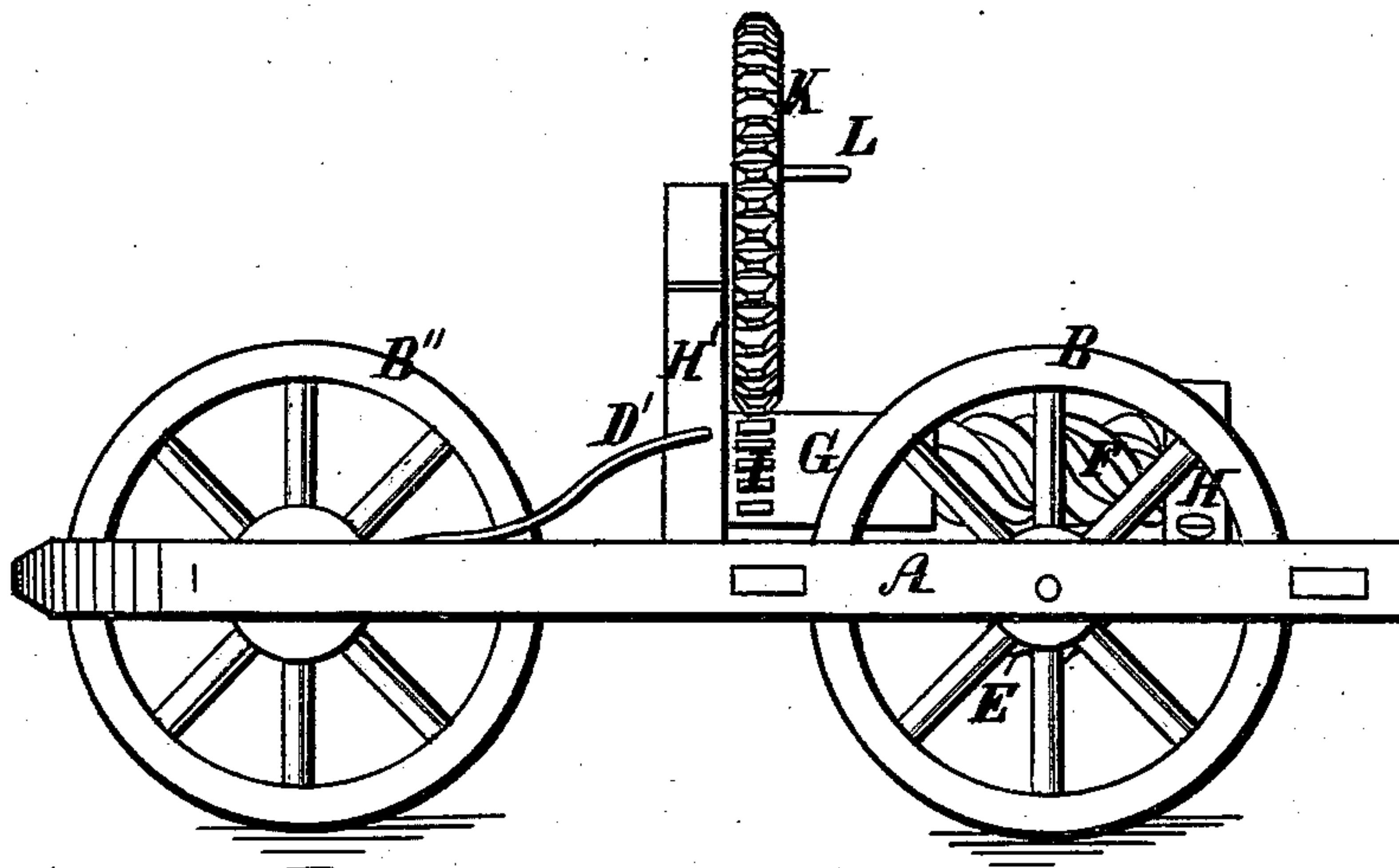
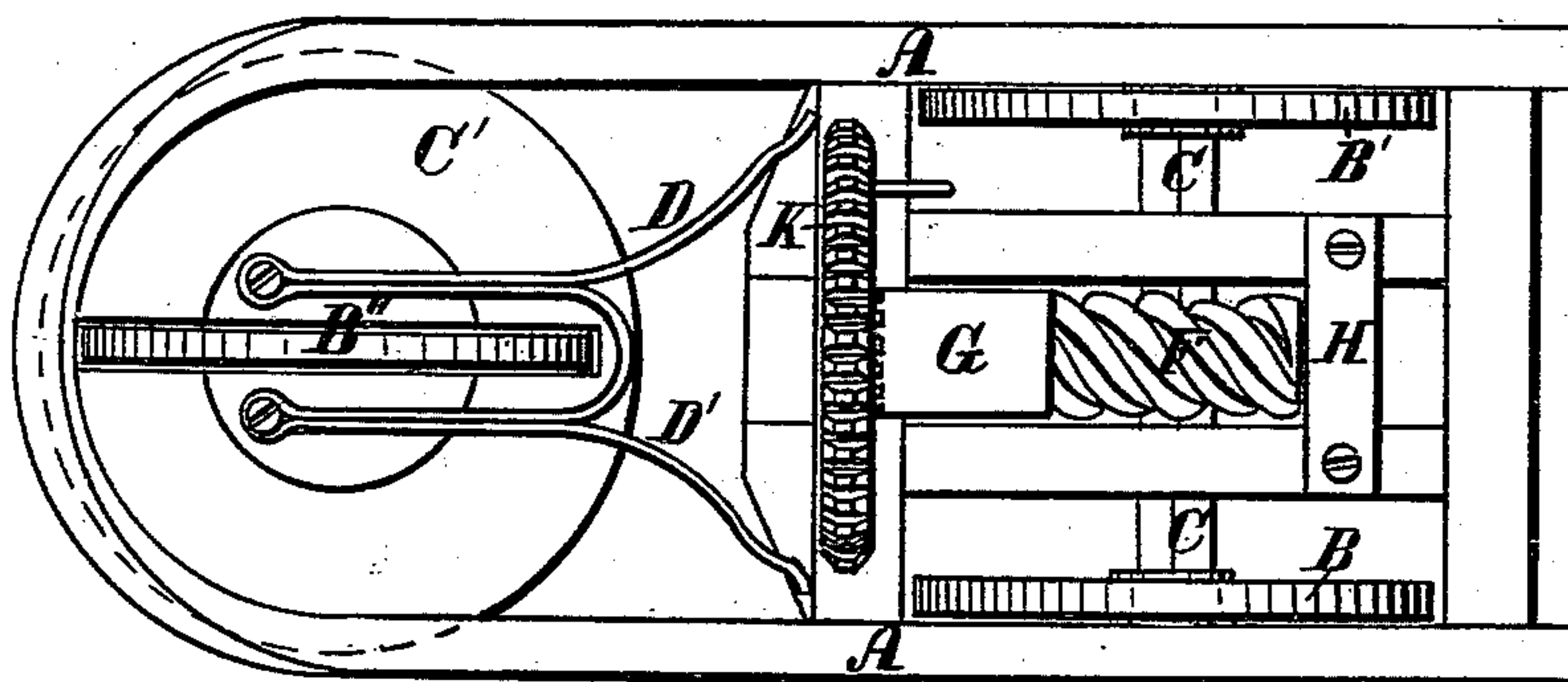


Fig. 2



Witnesses;

Rufus R. Rhodes
20. N. Jenkins

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United States Patent Office.

JAMES H. HAYNES, OF UNION COUNTY, ARKANSAS.

Letters Patent No. 93,991, dated August 24, 1869.

IMPROVEMENT IN VELOCIPED.

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, JAMES H. HAYNES, of Union county, in the State of Arkansas, have invented a certain new, useful, and improved Mechanical Arrangement for Propelling and Guiding Railroad-Cars, Velocipedes, and Land-Carriages of every description whatsoever; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, in which—

Figure 1 represents a side elevation of a three-wheel carriage, on which my improvements for propelling, guiding, or steering the same have been mounted; and

Figure 2, a plan or top view of the same machine.

The object sought to be attained, and which by actual experiment I have found is attained by my propelling-mechanism, is to create a means, which, with a very small comparative exertion of extraneous force, will develop a power sufficient to carry a velocipede, railroad-car, or any like thing, at great speed; and also, water-craft of small tonnage, such as canal-boats, long-boats, pinnaces, and the like; but, my steering-arrangement is designed only for land-carriages, and, without essential modification, is not applicable to boats.

My propelling-mechanism consists of three parts: a pinion, on the main or driving-shaft, the cogs on which represent sections of a screw or obliquely-cut threads; a connecting-shaft, provided with a similarly-cut pinion-section, only it is more extended in length, in the shaft itself, which gears into and works said pinion at one of its extremities, and, at its other, with an ordinary pinion, that takes into the cogs of a main driving-wheel of large size, and through the agency of which, either by the application of hand, horse, steam, or pneumatic-power connected with it, motion is imparted to the driving-wheels, on the main shaft, by the intermediate gearing, of which I have just spoken, which, of course, propels the machine; but

My invention will be better understood by referring to the drawings, on which the same letters denote the same parts at both the figures.

A represents a frame, mounted on the three wheels B B' B".

B B' are the hind wheels, and they are permanently fixed on an axle, C, which rotates with them.

The wheel B" sustains the front part of the frame, and, in virtue of the peculiar manner in which it is connected to the carriage, constitutes my means for steering or guiding the machine.

This wheel is mounted on a short axle that has its supporting-journals on each side of a narrow opening in a circular platform or disk, C', which fits loosely in curved guide-ways at the front end of the machine, so that it may be turned either to the right or the left, and thus effect the object of steering the machine.

The means for turning or operating the disk C' may be two bar-handles, D' D, or any other equivalent appliance.

On the axle C, a pinion, E, is secured, which, as before stated, is provided on its periphery with cogs running obliquely across the same, or, in such manner as to represent short sections of screw-threads, which conform to and take in the spiral cog-pinion I', on the longitudinal shaft G.

This shaft G is supported, in proper journals, in standards H H', and, at its front end, it is provided with a cog-pinion, I, which gears into the driving-wheel K, as shown, which is sustained on an axis projecting from the standard H'.

A crank-handle, L, of which there may be a duplicate on the opposite side of the wheel, affords a means for giving motion to the same, and, through the shaft G and pinion E, to the carriage, velocipede, or thing to be propelled.

Having thus described my invention,

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

The pinion E, shaft F, and driving-wheel K, in combination with a disk, C', when the several parts are constructed, arranged, and operate substantially as herein described, for the purpose set forth.

J. H. HAYNES.

Witnesses:

RUFUS R. RHODES,

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