## T. BEZENT. Hand-Wagons.

No.151,954.

Patented June 16, 1874.

Fig 1.

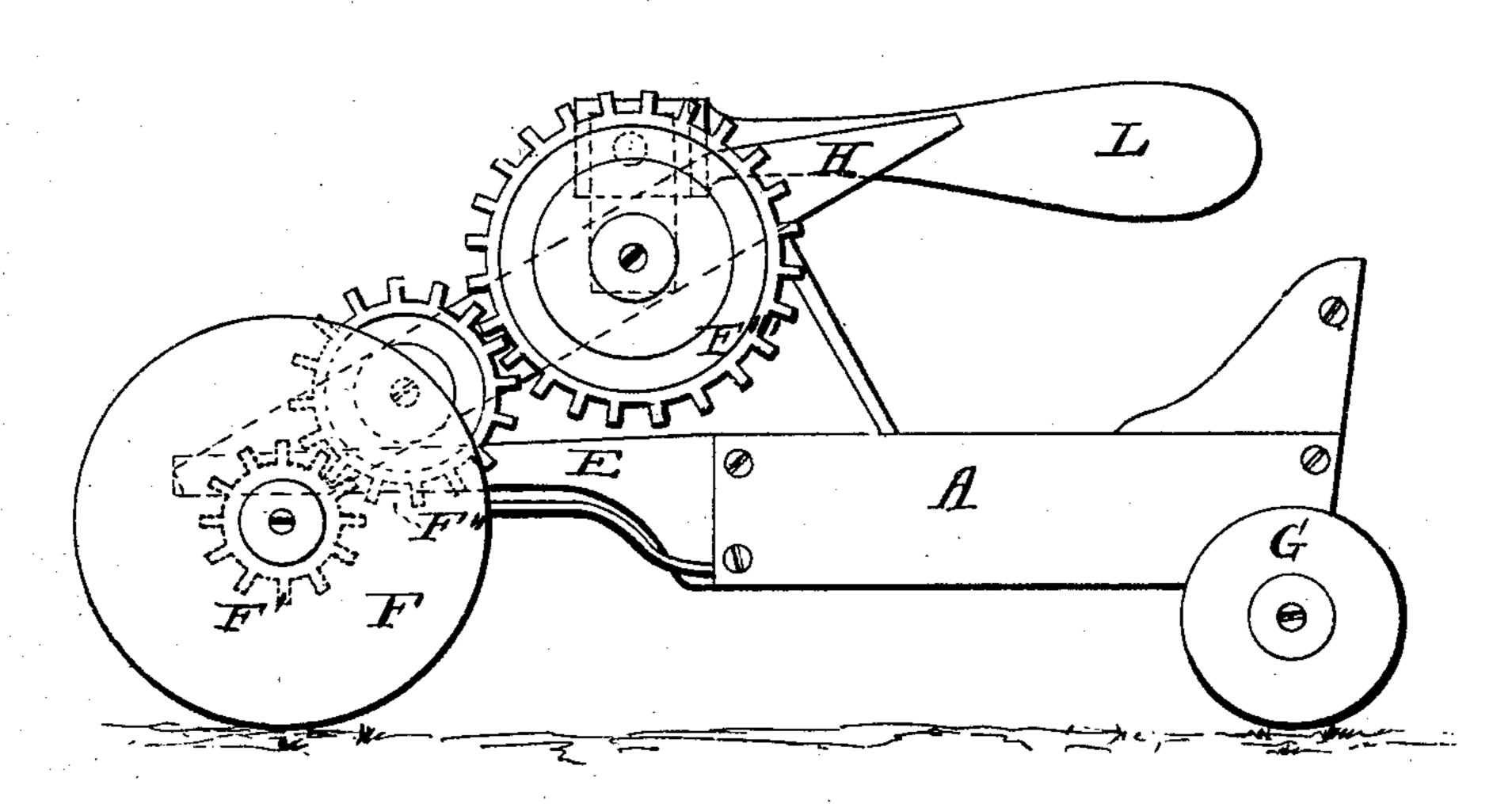
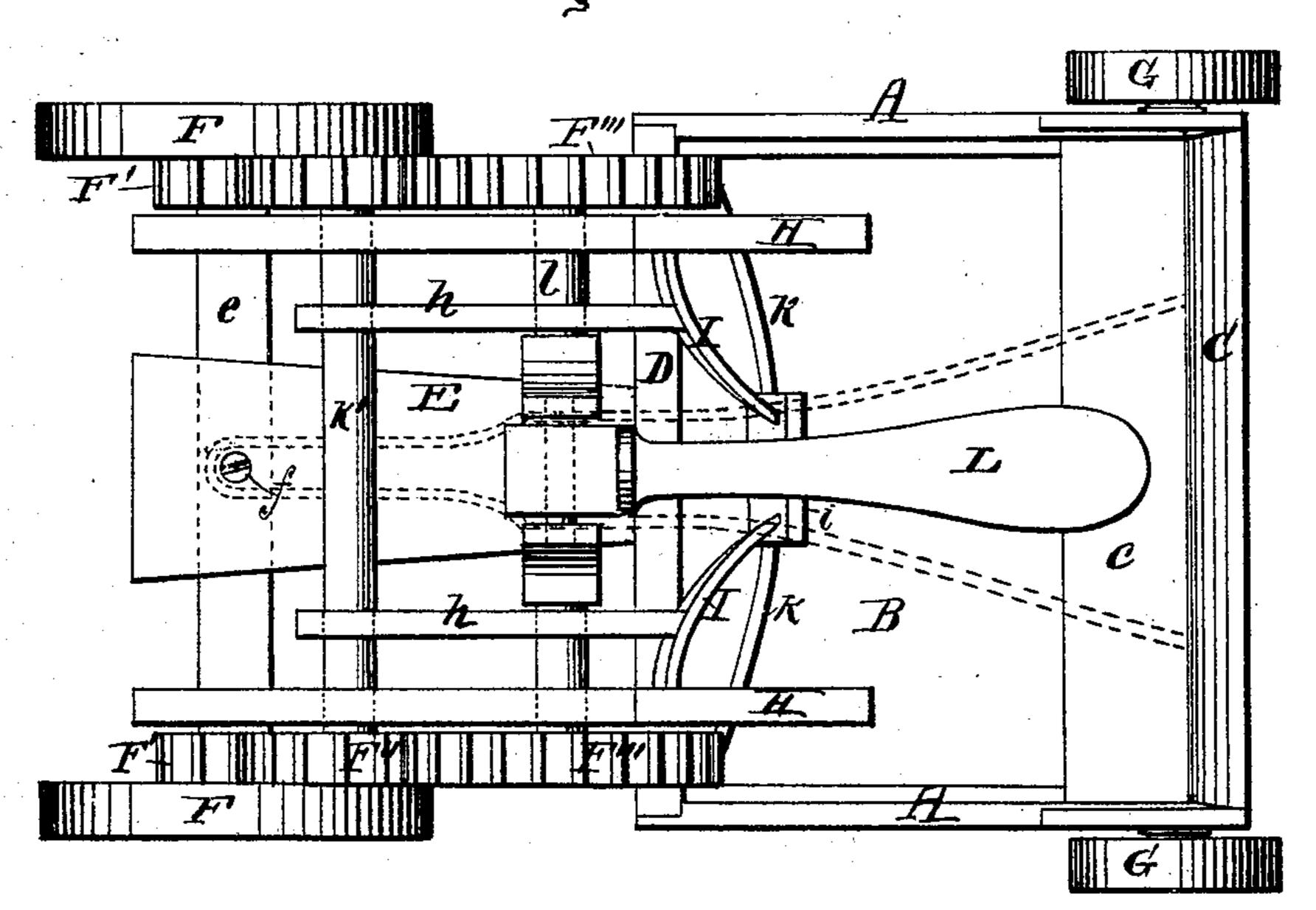


Fig 2.



Witnesses.

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## IMPROVEMENT IN HAND-WAGONS.

Specification forming part of Letters Patent No. 151,954, dated June 16, 1874; application filed June 12, 1873.

To all whom it may concern:

Be it known that I, Thomas Bezent, of Batavia, in the county of Genesee and State of New York, have invented certain Improvements in Hand-Wagons, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates, first, to means whereby the wagon is propelled; and, secondly, to devices adapting it to be turned or guided by

the person or persons operating it.

In the further description of my invention which follows, due reference must be had to the accompanying drawing, in which Figure 1 represents a side, and Fig. 2 a top, view of my improved hand-wagon.

Similar letters of reference indicate similar parts of the invention in both the figures.

A A represent the sides of the body of the wagon; B, its bottom, and C its back. The seat is shown by c. D is the front of the wagon-body, and from it projects the extension E, to which the front axle e, carrying the large front wheels F, is secured by the axle-pin f. The rear wheels of the wagon are shown by G. From the front axle extend, at an elevated angle toward and partly over the wagonbody, the frames H, which are supported by standards I I, secured thereto, and to a foot, i, resting upon the floor of the wagon. The foot is perforated longitudinally, and through it is passed the guiding-segment K, securely fixed to the body of the wagon. Loose upon the front axle, adjoining and attached to the wheels F, are the spur-pinions F', which engage other spur-pinions F", adapted to revolve upon a fixed intermediate shaft, k', secured to the frames H. The pinions F", in turn, engage other and, as shown, larger wheels F''', fixed upon the crank-axle l, having its bearings in the frames H and supplemental frames h, secured to the standards I I, and intermediate shaft k'. The crank, occupying in width the distance between the supplemental frames

h, is provided with a hand connecting-rod, L, operated from the body of the wagon by the

person or persons seated therein.

When the wagon is designed to travel in a straight direction, the foot *i* of the standards I is kept, either by the feet of the operator or otherwise, in a central position, as shown in Fig.2; but when the wagon is to take a curved course, either to the right or left, the foot *i* is moved on the guiding-segment *k* to the necessary degree of inclination from the center line of the wagon, the said foot carrying with it the entire frame-work constituting the bearings of the propelling-gearing or truck of the wagon, with the front axle, thus directing the front wheels to the course to be taken.

In constructing my hand-wagon, the size of the various propelling wheels is to be governed by the power to be exerted or the speed to be attained, a proper regard to the wellknown law allowing speed to be gained only by a loss of power being observed. If necessary, additional systems of intermediate gearing can be applied, the principle governing the operation of my wagon remaining the same.

Having described my invention, what I claim as new, and wish to secure by Letters Patent

of the United States, is-

1. The front axle e, in combination with the frame-work H h, wheels F, and gears F' F'' F''', shaft k', and crank-axle l, carrying the hand connecting-rod L, the said front axle being attached, by the axle-pin f, to the extension E of the body of the wagon, substantially as and for the purposes set forth.

2. The frame-work H h and standards I I, provided with the foot i, in combination with the guiding-segment K, fixed to the body of

the wagon, as specified.

In testimony whereof I have hereto subscribed my name in the presence of two subscribing witnesses.

THOMAS BEZENT.

Witnesses:

E. BEZENT,

F. BEZENT.