

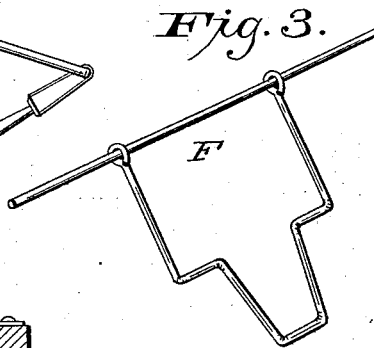
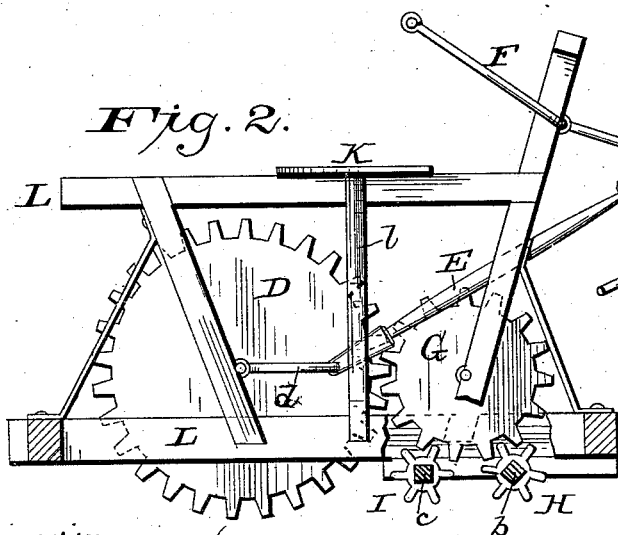
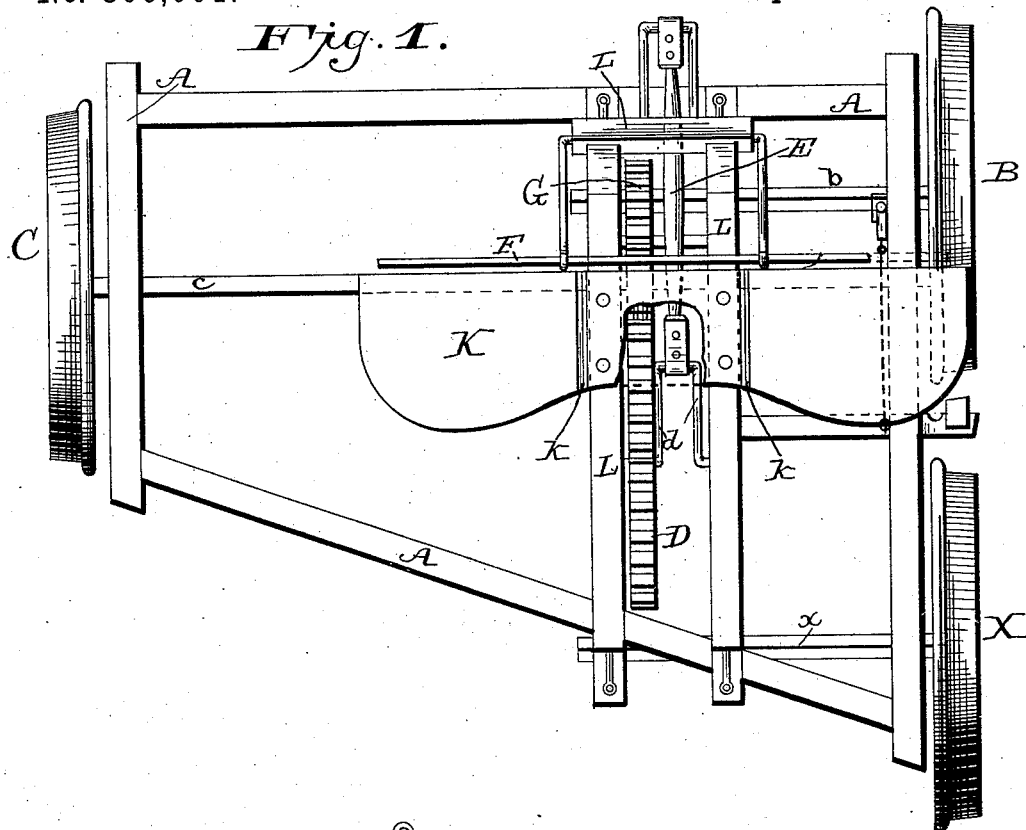
(No Model.)

J. H. COOK.

HAND CAR.

No. 306,001.

Patented Sept. 30, 1884.



Witnesses:

Wm. Burnham

Chas. F. Benjamin

Inventor:

John H. Cook
By William Conrad

Atty.

UNITED STATES PATENT OFFICE.

JOHN HOLLEN COOK, OF XENIA, ILLINOIS, ASSIGNOR OF ONE-HALF TO CHARLES THOMAS EVANS AND HARRY MARTIN EVANS, BOTH OF CLAY COUNTY, ILLINOIS.

HAND-CAR.

SPECIFICATION forming part of Letters Patent No. 306,001, dated September 30, 1884.

Application filed June 28, 1884. (No model)

To all whom it may concern:

Be it known that I, JOHN H. COOK, a citizen of the United States, residing at Xenia, in the county of Clay and State of Illinois, have
5 invented certain new and useful Improvements in Railway Hand-Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to
10 make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to three-wheeled
15 hand-cars or velocipedes for railways, and its objects are to effect simplicities in the motor machinery and improvements in the running-gear, as hereinafter set forth and claimed.

The invention consists in combining with
20 an ordinary bed-frame a system of gear-wheels operating upon a set of independent axles attached to the carrying-wheels of the car and an improved seat for the operators.

In the accompanying drawings, wherein
25 like letters represent like parts, Figure 1 is a top plan of my improved hand-car; Fig. 2, a side elevation of the seat, the seat-frame, and gear-wheels; and Fig. 3, a front view of the operating-lever.

30 A is an ordinary bed-frame for the car, provided with the driving-wheels B and C, which run on opposite sides of the track, and with a rear supporting-wheel, X. Each of these wheels is connected to an independent axle, the axles being respectively designated as *b*,
35 *c*, and *x*. By thus separating the axles *b* and *c* the danger of the wheels leaving the track in running over curves or rough places is obviously diminished, and by using two drive-
40 wheels on opposite sides of the track the car has a steadier and truer movement both forward and backward. The three carrying-wheels are of equal size, and thus make the same number of revolutions in equal time.

45 D is a cogged wheel having an axle, *d*, cranked at one side of the wheel. Pivoted to this axle is the pitman E, which is pivoted at its other end to the loop or crank of the hand-lever F. By imparting to this lever a full reciprocating motion the cogged wheel D is re-

volved in either direction as desired, and in turn revolves the gear-wheel G. This wheel gears with and revolves the pinion H, which is keyed to and revolves the axle *b*, and also
55 the pinion I, which is keyed to and revolves the axle *c*.

For the use of the operators a seat, K, is provided, mounted upon the skeleton frame L, which fits over the gear-wheels D and G and the pitman E, and affords support to the
60 axles of the two gear-wheels named. The front standards of the frame also afford a pivot-bearing for the hand-lever F, as shown herewith. When there is but one operator, he will sit in the middle of the seat, with his legs spread
65 and outside of the frame-bars, and for his comfort in that position I propose to hinge the seat along the lines *k*, so that the ends may fold down like the leaves of a table, and to bevel the folding edges, so that the operator
70 may stride the seat without being chafed. When the leaves of the seat are folded down, the braces *l* of the skeleton frame are to be removed from the recesses beneath the seat and in the lower frame-bars and stowed along
75 the lower frame-bars by hooks or staples, or otherwise.

I do not confine myself to any particular outline or surface-level for my seat K, but purpose to vary either in any way that may tend
80 to increase the comfort, safety, and power of the operator or operators.

It is essential to the efficient working of my invention that the seat-frame and machinery
85 beneath it should be so placed as to distribute a substantially equal strain to each of the three wheels, and this I find to be effected in practice by setting the frame and its contents at about one-third of the distance from the wheel
90 B to the wheel C.

Having thus sufficiently described my invention, what I claim to be new and useful, and desire to secure by Letters Patent, is the following:

1. In three-wheeled hand-cars, the combination of two equal-sized driving-wheels arranged one upon each of the two rails of a track, each of said wheels being mounted upon the outer end of a separate and independent axle, whereby steadiness and trueness of for-
100

ward motion and adaptability of wheels to track in passing over curves, rough sections, or irregular widths are secured, all in the manner hereinbefore described.

- 5 2. In railway hand-cars, a seat for operators mounted upon a frame inclosing the motor-gearing of the car and provided with hinges and flaps, all in the manner hereinbefore described, whereby safe and convenient seating
10 is provided for either a single operator or pair of operators, as desired.

3. The combination, in a railway hand-car,

of the hand-lever F with the pitman E, the axle *d*, the cog-wheels D and G, the pinions H and I, and the axles *b* and *c*, as hereinbefore 15 described, for the purpose of inducing motion in the drive-wheels A and B.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN HOLLEN COOK.

Witnesses:

W. H. SHIRLEY,

CHAS. O. RAMSEY.