

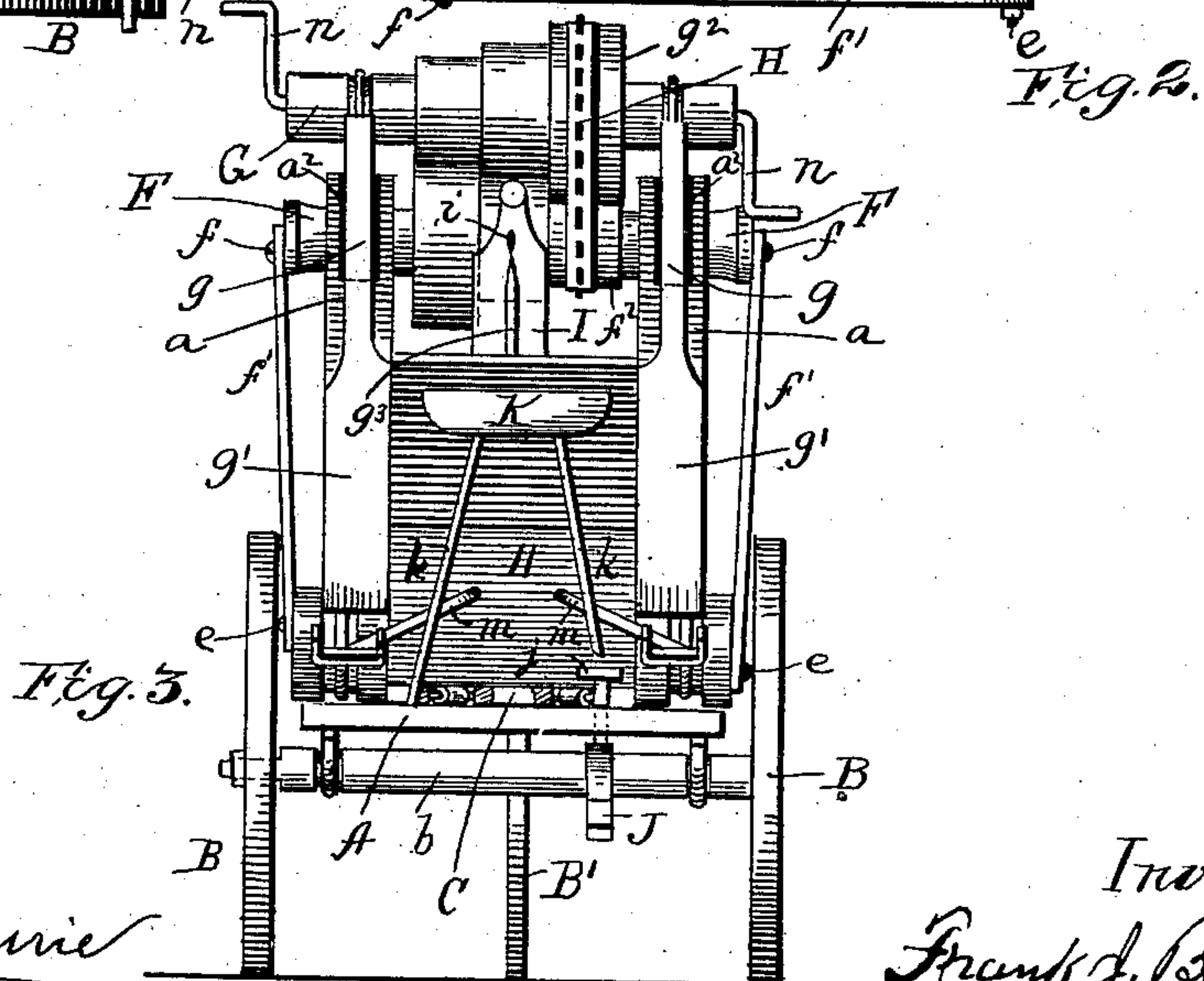
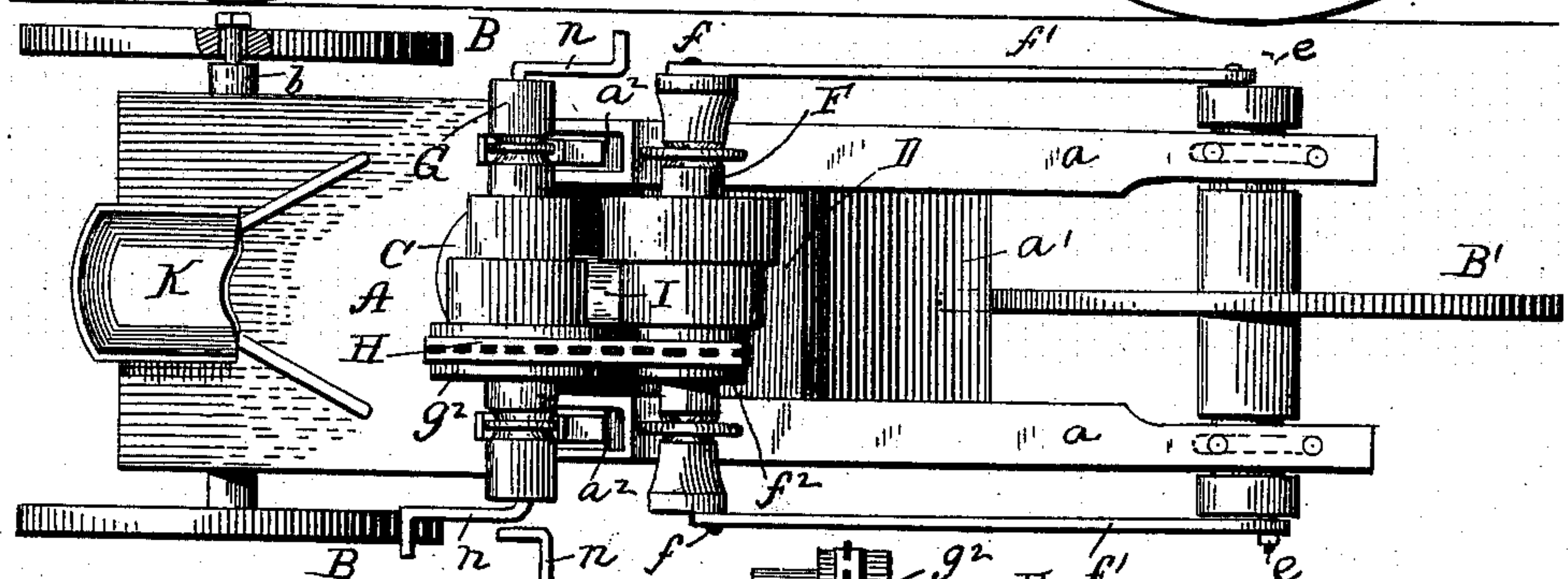
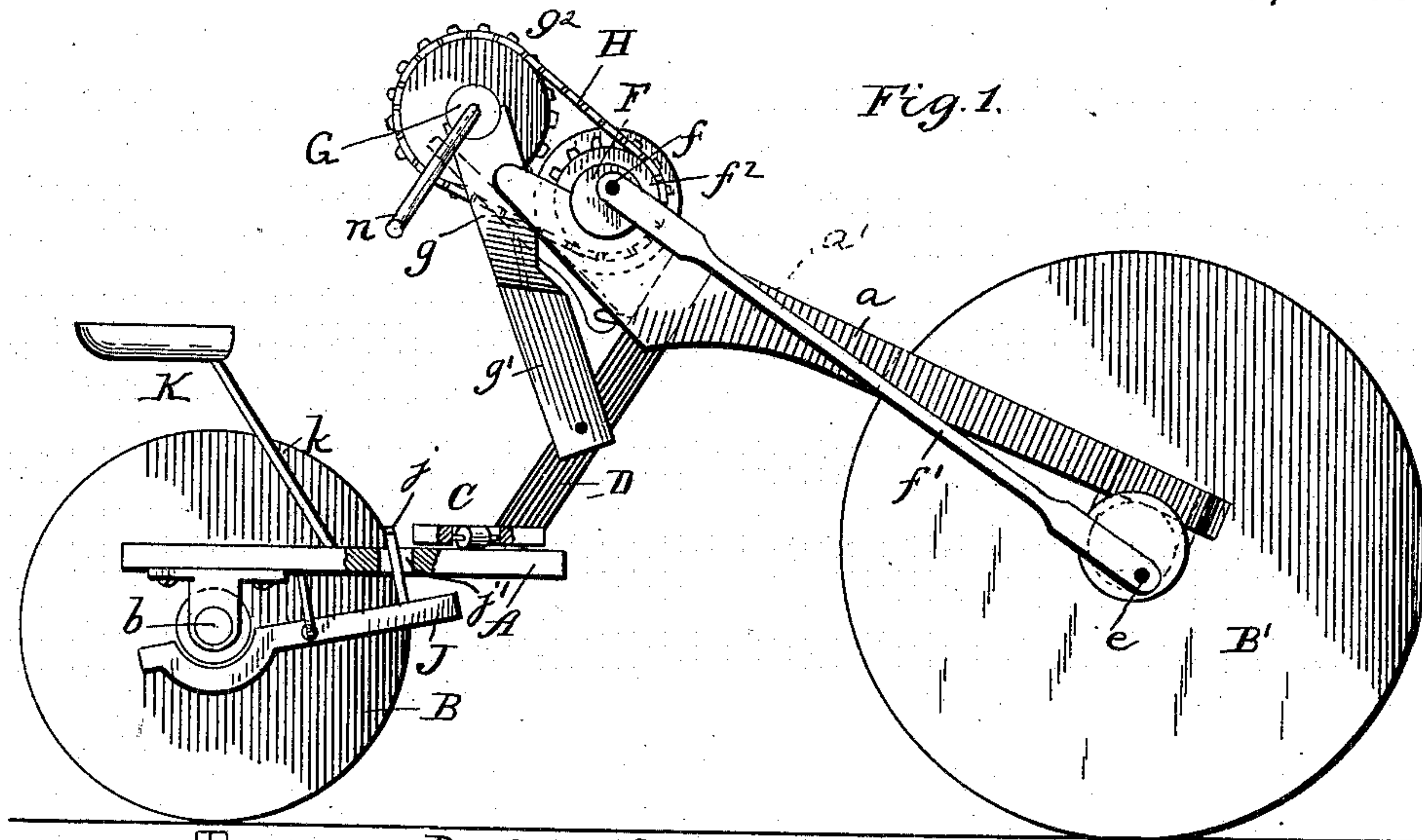
(No Model.)

F. J. BAYER.

TRICYCLE.

No. 372,106.

Patented Oct. 25, 1887.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK J. BAYER, OF DU BOIS, PENNSYLVANIA, ASSIGNOR TO EDWARD
LEASE, OF SAME PLACE.

TRICYCLE.

SPECIFICATION forming part of Letters Patent No. 372,106, dated October 25, 1887.

Application filed August 19, 1887. Serial No. 247,343. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. BAYER, a citizen of the United States, residing at Du Bois, in the county of Clearfield and State of Pennsylvania, have invented certain new and useful Improvements in Tricycles; 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 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 tricycles or vehicles that are propelled by manual power.

The object of the invention is the production of a machine which will be compact in construction and can be conveniently handled and quickly thrown in and out of mesh and gear for speed or power.

The improvement consists in the novel construction and combination of parts, which will be more fully hereinafter set forth and claimed, and shown in the annexed drawings, in which—

Figure 1 is a side view, parts being broken away, of a tricycle of my construction embodying my invention; Fig. 2, a top plan view, and Fig. 3 a rear view, of the same.

The platform A is supported by the wheels B on the axle *b*, journaled beneath and near the rear end of said platform. One of the wheels revolves loosely on the axle; the other wheel is keyed to and revolves with the axle. The plate C, placed on the forward end of the platform, is pivotally connected therewith, so as to revolve in a horizontal plane, and has the standard D extended upwardly and forwardly therefrom. The frame, composed of the side bars, *a*, and the filling-piece *a'*, is secured between its ends to the top of standard D, and is arranged at an incline to a horizontal plane. The steering or guide wheel B' is journaled between the front ends of the side bars, *a*, and the ends of its shaft project and are provided with cranks *e*. The counter-shaft F, journaled near the rear end of the frame, has cranks *f* on each end, which are connected with cranks *e* by the pitmen *f'*.

The swinging support, composed of uprights *g* and cross-piece *g'*, is pivoted at its lower ends

to the standard D, and its upper end is guided in its movements by having the ends of the uprights work in slots *a²* in the ends of the side bars, *a*, of the frame. The crank-shaft G, journaled in the upper end of the support, has a speed-cone, *g²*, which comes opposite a corresponding speed-cone, *f²*, on the counter-shaft F. The band H passes around and connects the two speed-cones *g² f²*, which are provided with spurs that enter openings in the band to effect a more positive engagement between them. The speed or power of the vehicle depends upon the position of band H with reference to the speed-cones, which will be readily understood. It is to facilitate the shifting of band H that the support *g g* is pivoted at its lower end so as to swing toward shaft F, when the lever-brace I, hinged to standard D, is released from said support. When said support is swung inward, the distance between the two shafts F and G is lessened and the band H can be readily adjusted. This feature is necessary; otherwise the band could not be disengaged from the spurs. The bands being adjusted, the frame is swung outward and its position is fixed by the lever-brace I, which is turned down until the pin *g³* of the support enters the opening *i* in said brace.

The brake is composed of the lever J, pivoted midway its ends beneath the platform. One end is adapted to be thrown in contact with and bear upon the friction pulley *b*. The other end is provided with the presser-bar *j*, which extends through the aperture *j'*, within convenient reach of the occupant's foot.

The seat K is mounted on spring-bars *k*, projected upward from platform A. The vehicle is steered by the occupant placing his feet on the rods *m*, projected laterally from the foot of standard D, and is driven from shaft G through band H, shaft F, and pitmen *f'*. Shaft G has cranks *n* at each end, to be grasped by the hands when applying the power. To prevent the slipping of the wheel B', it has spurs placed around its periphery, which bite into the ground and insure a firm purchase for it.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the frame com- 100

posed of the side bars, *a*, and the filling-piece *a'*, and the wheel *B'*, journaled between the front ends of the side bar, *a*, and having cranks *e*, of the counter-shaft *E*, the pitmen *f'*, connecting cranks *f* with cranks *e*, the crank-shaft *G*, and gearing for connecting the shafts *G* and *F*, substantially as set forth.

2. The combination, with the frame consisting of the side bars, *a*, having slots *a²* in its ends, and the filling-piece *a'*, the wheel *B'*, and the counter-shaft *F*, connected with the wheel *B'* for imparting motion thereto, of the swinging support having its uprights fitted in and guided in its movements in said slots *a²*, the shaft *G*, the band *H*, connecting the shafts *G* and *F*, and the brace-lever *I*, substantially as described.

3. The combination, with the platform, the rear axle and wheels, and the plate pivoted to the front of the platform, of the standard, the

frame, the steering-wheel, the counter-shaft, the pitmen connecting the counter-shaft with the shaft of said wheel, and mechanism, substantially as described, for driving said counter-shaft, as and for the purposes specified.

4. The combination, with the platform having an aperture therethrough within convenient reach of the foot, the axle journaled thereto, and the wheel keyed on the axle, of the bar pivoted midway its ends beneath the platform, one end coming opposite and adapted to bear on the presser-rod, connected with the other end of the bar and extending through said aperture, substantially as described.

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

FRANK J. BAYER.

Witnesses:

JOHN BAYER,

ANTHONY P. BAYER.