

900,912.

Fig. 1.

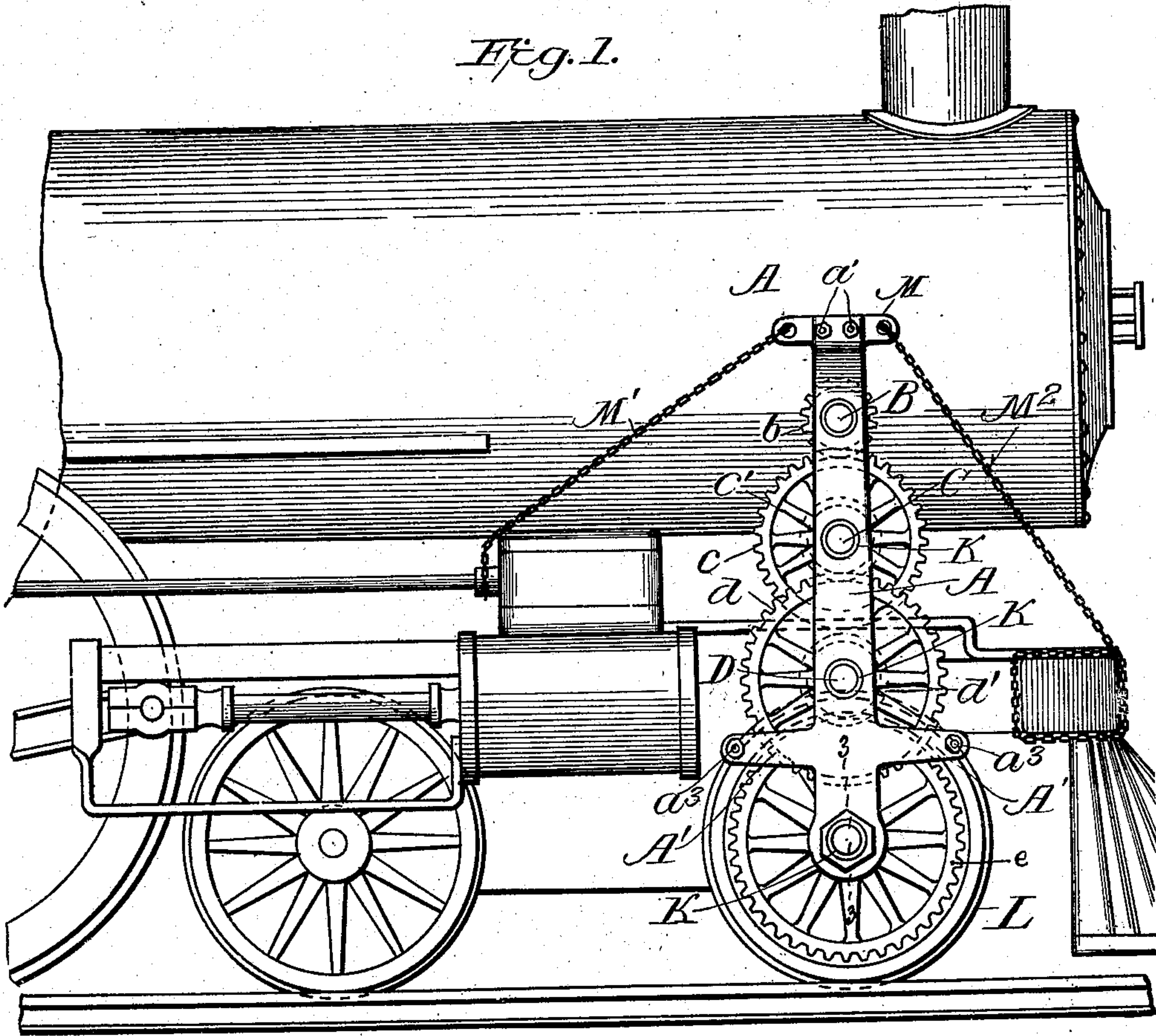
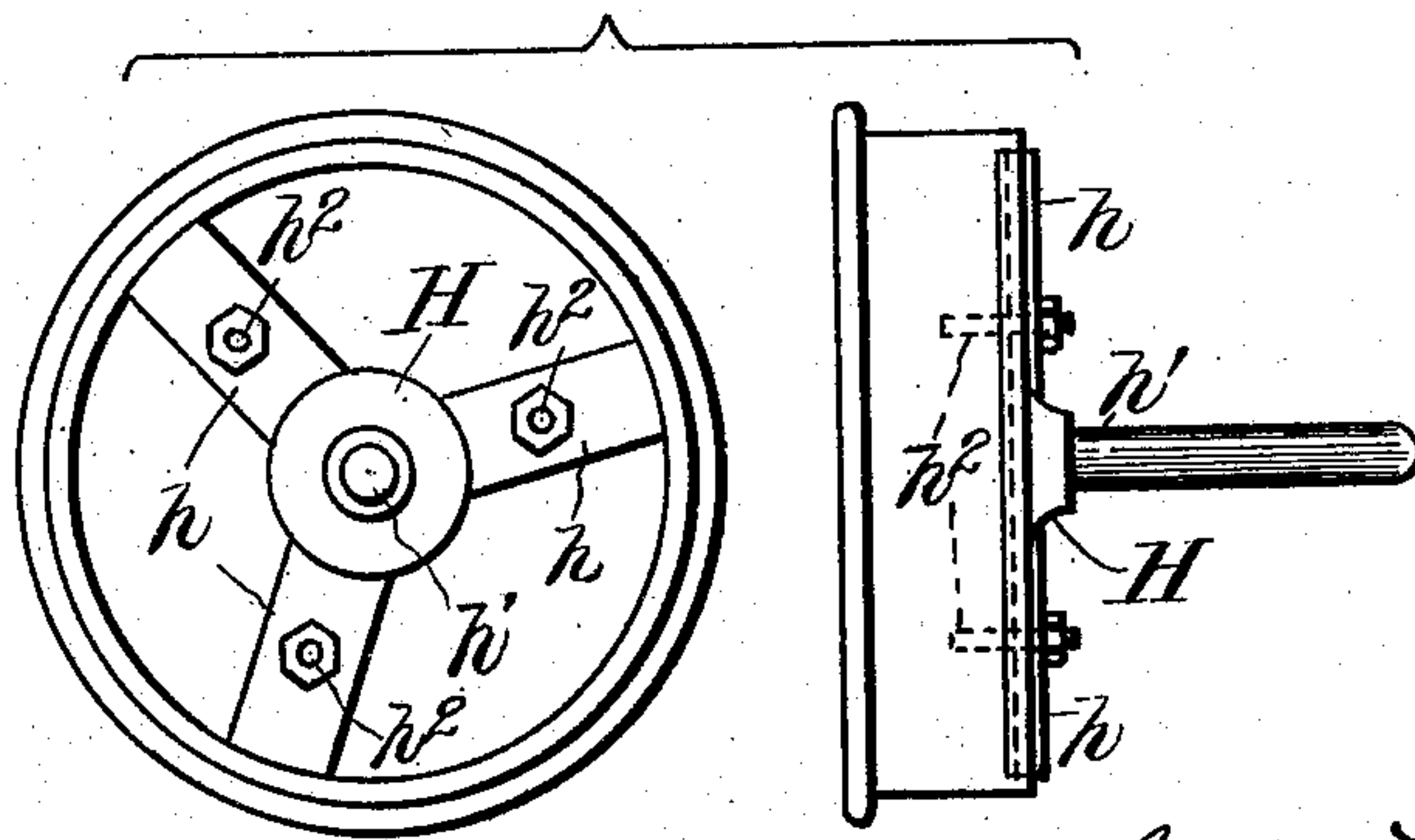


Fig. 5.



Witnesses

C. M. Walker  
J. M. Copenhaver

Inventor

Jesse F. Cameron  
Geo. H. Evans

By

Attorney

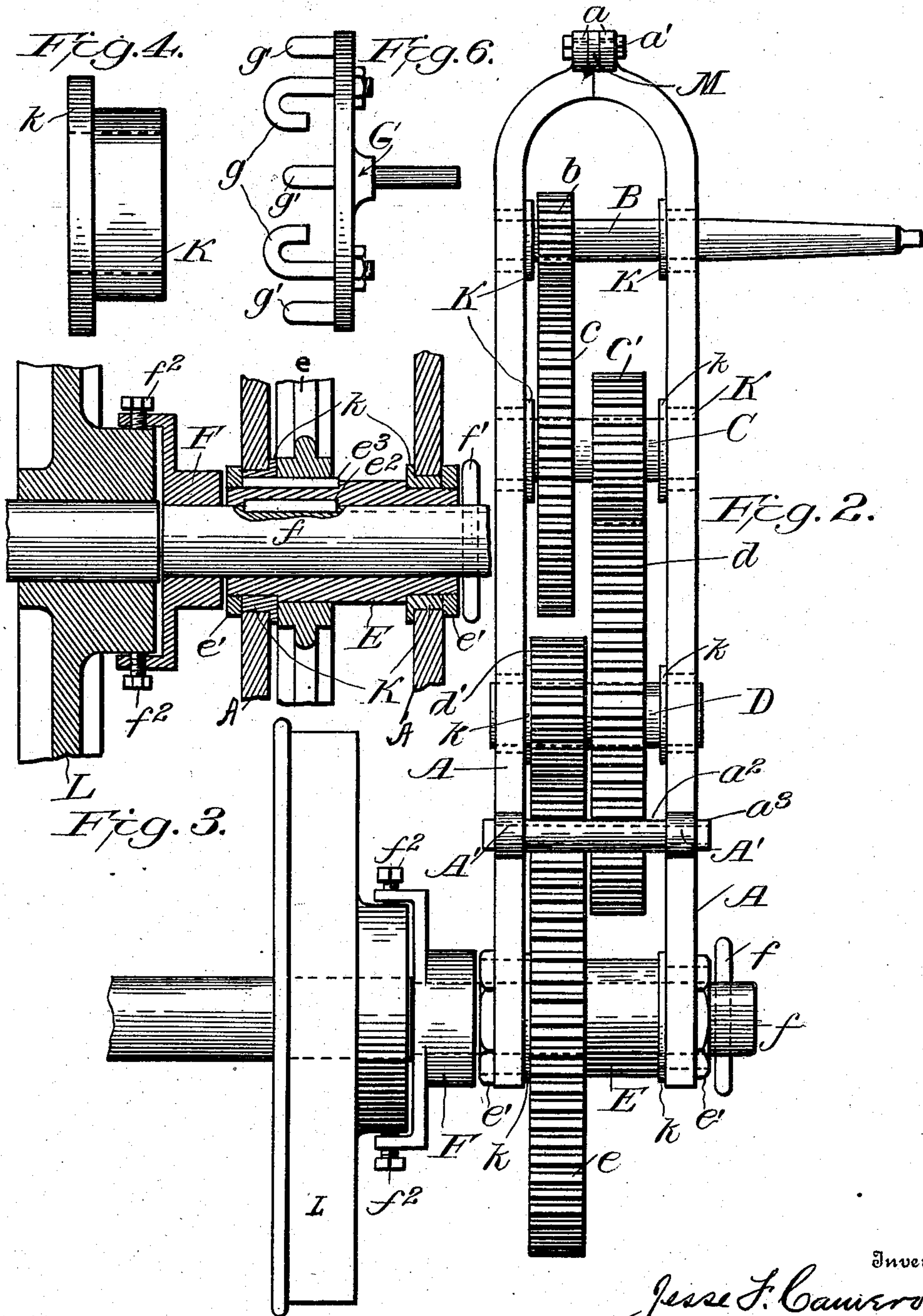
J. F. CAMERON.  
LOCOMOTIVE MOVER.

APPLICATION FILED APR. 4, 1908.

Patented Oct. 13, 1908.

2 SHEETS—SHEET 2.

900,912.



Witnesses

*W. Walker.*  
*J. M. Copeland.*

Inventor

*Jesse F. Cameron*  
*Geo. H. Evans*

Attorney



# UNITED STATES PATENT OFFICE.

JESSE FAYETTE CAMERON, OF SALT LAKE CITY, UTAH.

## LOCOMOTIVE-MOVER.

No. 900,912.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed April 4, 1908. Serial No. 425,260.

*To all whom it may concern:*

Be it known that I, JESSE F. CAMERON, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Locomotive-Movers, of which the following is a specification.

My invention relates to machines for moving locomotives for valve setting, taking down the side and main rods and other purposes.

The object of the invention is to provide a machine of the class described which may be secured to the locomotive and connected to one of the truck wheels by a suitable chuck which is driven through suitable gearing from a main or power shaft. This object I accomplish by the construction shown in the accompanying drawings, in which

Figure 1 is a side elevation of the mover applied; Fig. 2 is an edge view of the mover. Fig. 3 is a section on line 3—3, Fig. 1; Fig. 4 shows one of the bushings or bearings; Fig. 5 shows a face and edge view of a different form of chuck; Fig. 6 is a side view of another form of chuck.

A, A designate two parallel bars curved towards each other at their upper ends and there provided with apertured ears *a*, *a* secured together by bolts *a'*, *a'*. The bars A, A are also connected near their opposite ends by means of arms *A'*, *A'* spaced apart by ferrules *a<sup>2</sup>* and secured together by bolts *a<sup>3</sup>*, *a<sup>3</sup>*. A rigid frame is thus provided in which are mounted four parallel shafts. The first or upper shaft B is the drive shaft, and it has keyed thereto a pinion *b*, which meshes with a larger gear *c*, on the second shaft C. The shaft C has a pinion *c'* which meshes with a gear wheel *d* on the third shaft D, and this shaft D has a pinion *d'* meshing with a gear wheel *e* on the fourth shaft E. This fourth shaft E is tubular and constitutes the carrier for a chuck F, G, or H, as will be further described.

The pinions *d'*, *c'*, *b* increase in size and the same is true with respect to the gears *e*, *d*, *c*, as fully shown in the drawing, so that a powerful driving train of gears is provided.

The four shafts are journaled in bearings K, mounted in openings in the frame bars A, A, and flanged at their inner ends *k*, to bear against the inner sides of the said bars and prevent their displacement.

The drive shaft B is preferably driven by a compressed air motor of any well-known type commonly found in machine shops for imparting rotary motion, or the shaft may be turned by a hand crank.

The tubular shaft E is externally threaded at its ends to receive the retaining nuts *e'* which lie at the outer sides of the frame bars A, A. The shaft E has an internal key-way *e<sup>2</sup>* and an external key-way *e<sup>3</sup>*, the latter affording means for securing gear *e*, and the key-way *e<sup>2</sup>* serving to secure the spindle *f* of the chuck F by a suitable key. The spindle *f* of the chuck F is of greater length than the shaft E and its projecting end is apertured for the passage of a transverse pin *f'*.

The chuck F is formed as a flanged or cup-shaped disk having radially extending screws *f<sup>2</sup>* to clamp it to the hub of one of the locomotive truck wheels L. In order that different forms of truck wheels may be engaged I provide other forms of chucks; the chuck G being adapted for a spoked wheel by means of the J or hooked bolts *g* and the fingers *g'* which project parallel with the chuck spindle from the face of the chuck. H is another form of chuck for use with wheels having rolled webs, and it comprises three arms *h* at the end of the spindle *h'*, from which arms project the bolts *h<sup>2</sup>* that engage apertures in the web. Of course any suitable form of chuck may be used to connect the machine with the truck wheel to be driven.

Between the ears *a*, *a*, is secured by the bolts *a'*, *a'*, an apertured link M, from the ends of which extend the securing chains *M'*, *M<sup>2</sup>*.

In use the machine is secured in an upright position to a truck wheel by means of the chuck, the chain *M<sup>2</sup>* is secured to the pilot of the locomotive, and the chain *M'* is secured to the steam chest. As the machine is thus carried by the locomotive it follows that by turning the shaft B the locomotive will be driven to move it in the round house, to set the valves, remove rods, &c. The locomotive does not have to be lifted, as heretofore, in order to turn its wheels in valve setting, &c., and as the machine is portable and when secured in place is carried by the locomotive it possesses many advantages and capabilities over a machine resting on or engaging the track and not carried by the locomotive. Moreover, no changes whatever are required in the locomotive in order



to apply my machine and drive the locomotive by it in either direction, and it will also be noticed that in use my machine is entirely out of the way of the mechanic, as it is beyond all of the parts to be adjusted.

What I claim is:—

1. A portable mover for locomotives comprising, a frame adapted to be secured to a locomotive, a drive shaft mounted therein, a chuck also mounted on the frame and adapted to engage one of the truck wheels, and gearing connecting the chuck with the drive shaft.

2. A portable mover for locomotives comprising, a frame adapted to be secured to a locomotive, a drive shaft mounted therein, a tubular shaft or carrier mounted on the frame, and geared to the drive shaft, and a chuck removably secured to said tubular shaft or carrier.

3. A portable mover for locomotives comprising, a frame adapted to be secured to a locomotive, a drive shaft carried by the frame, a wheel-driving shaft driven from the drive shaft, and having means for rigidly connecting it with one of the truck wheels to rotate the same.

4. A portable mover for locomotives comprising, a frame adapted to be secured to a locomotive, a drive shaft mounted on the frame, a driven shaft geared thereto, and interchangeable chucks for said driven shaft adapted to engage and drive different types of truck wheels.

5. A portable mover for locomotives, comprising, a frame, a rotary chuck adapted to engage and rotate one of the truck-wheels, means for driving the chuck and chains at the end of the frame opposite the chuck for

connecting the frame to the framework of the locomotive.

6. A portable mover for locomotives, comprising a frame formed of parallel connected side bars, parallel shafts journaled therein, a train of gears connecting said shafts and progressing in size from the drive to the driven shaft, means for connecting one end of the frame to the locomotive framework, and means for clutching the last driven shaft to one of the locomotive truck wheels.

7. A portable mover for locomotives comprising a frame formed of parallel bars, a link bolted between the bars at one end, tie bolts securing said bars together near their opposite ends, chains connected to said link, parallel shafts mounted in said side bars, a train of gearing connecting said shafts, and a chuck carried by one end shaft adapted to engage and rotate one of the locomotive truck wheels.

8. A portable mover for locomotives comprising a frame formed of parallel side bars secured together, a series of parallel shafts mounted in the side bars, flanged bushings or bearings for the shafts; the last of the driven shafts being tubular and having nuts on its ends at the outer sides of the frame, a chuck adapted to engage and rotate a truck wheel and having a spindle mounted in said tubular shaft, and means for securing the other end of the frame to the locomotive framework.

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

JESSE FAYETTE CAMERON.

Witnesses:

WM. E. RHODES,  
SAMUEL T. FROST.