

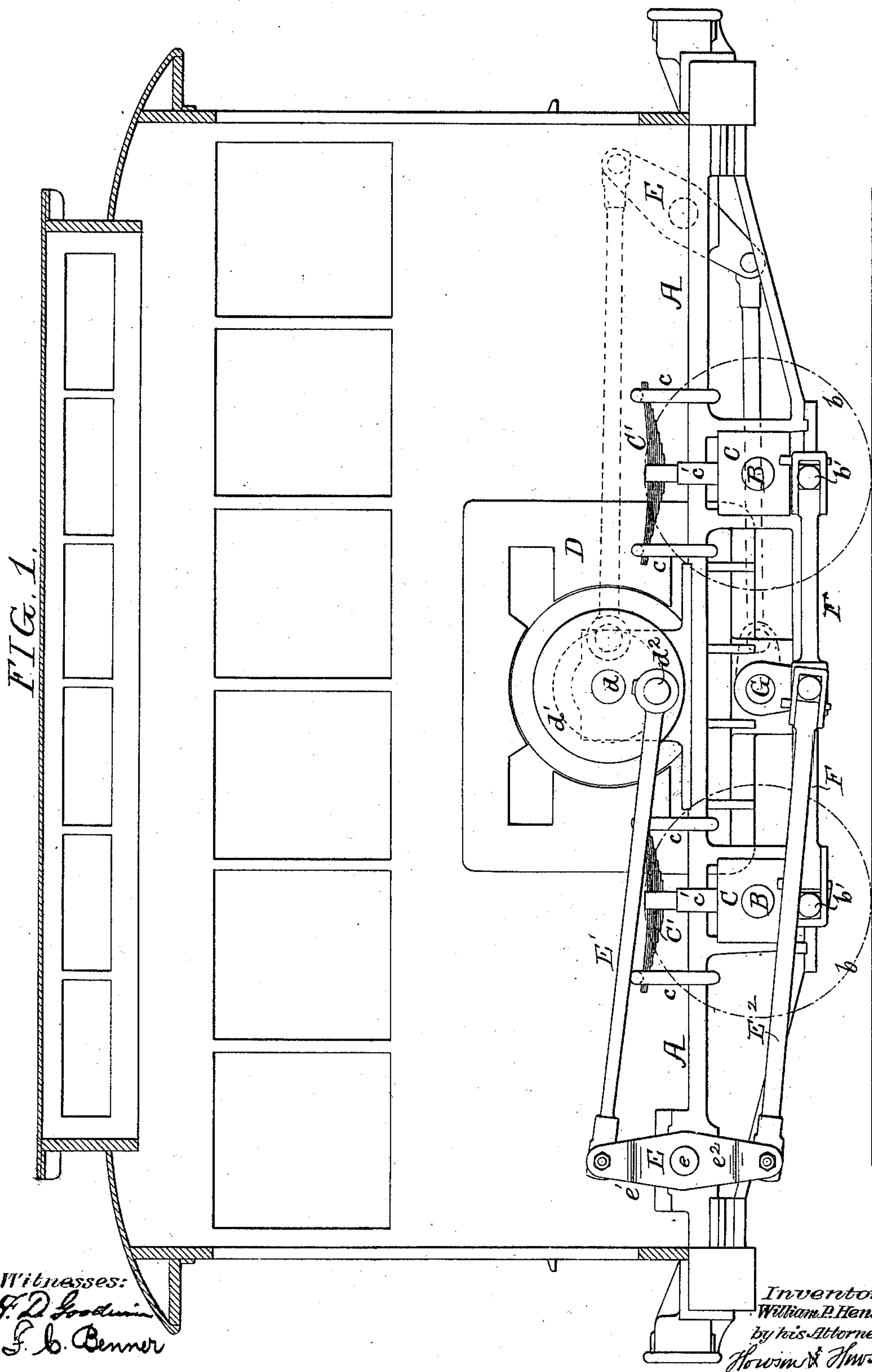
(No Model.)

2 Sheets—Sheet 1.

W. P. HENSZEY.
ELECTRIC LOCOMOTIVE.

No. 561,395.

Patented June 2, 1896.



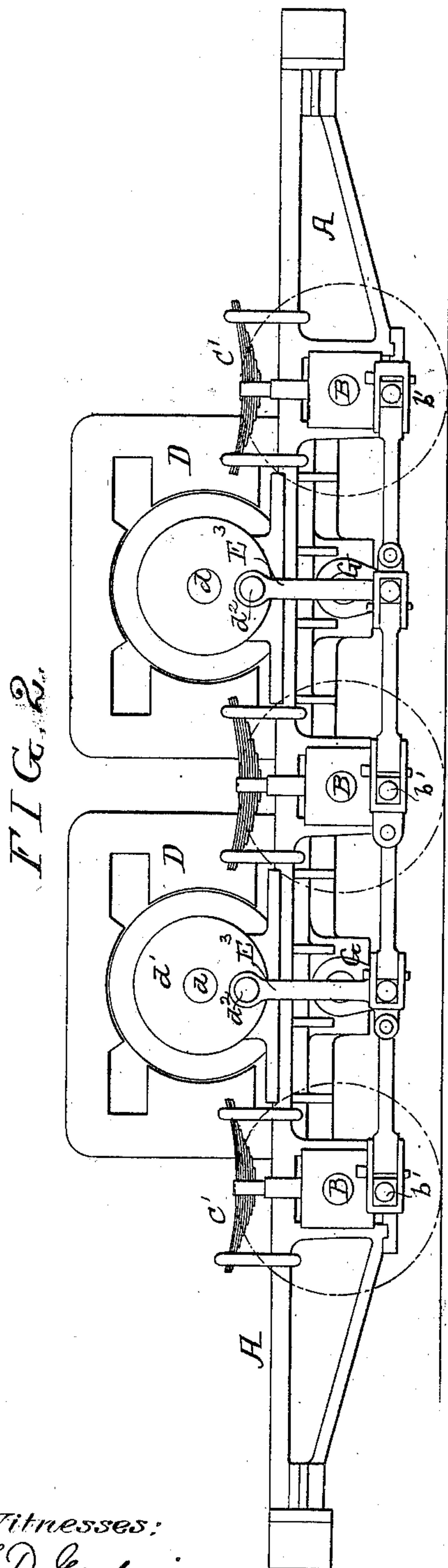
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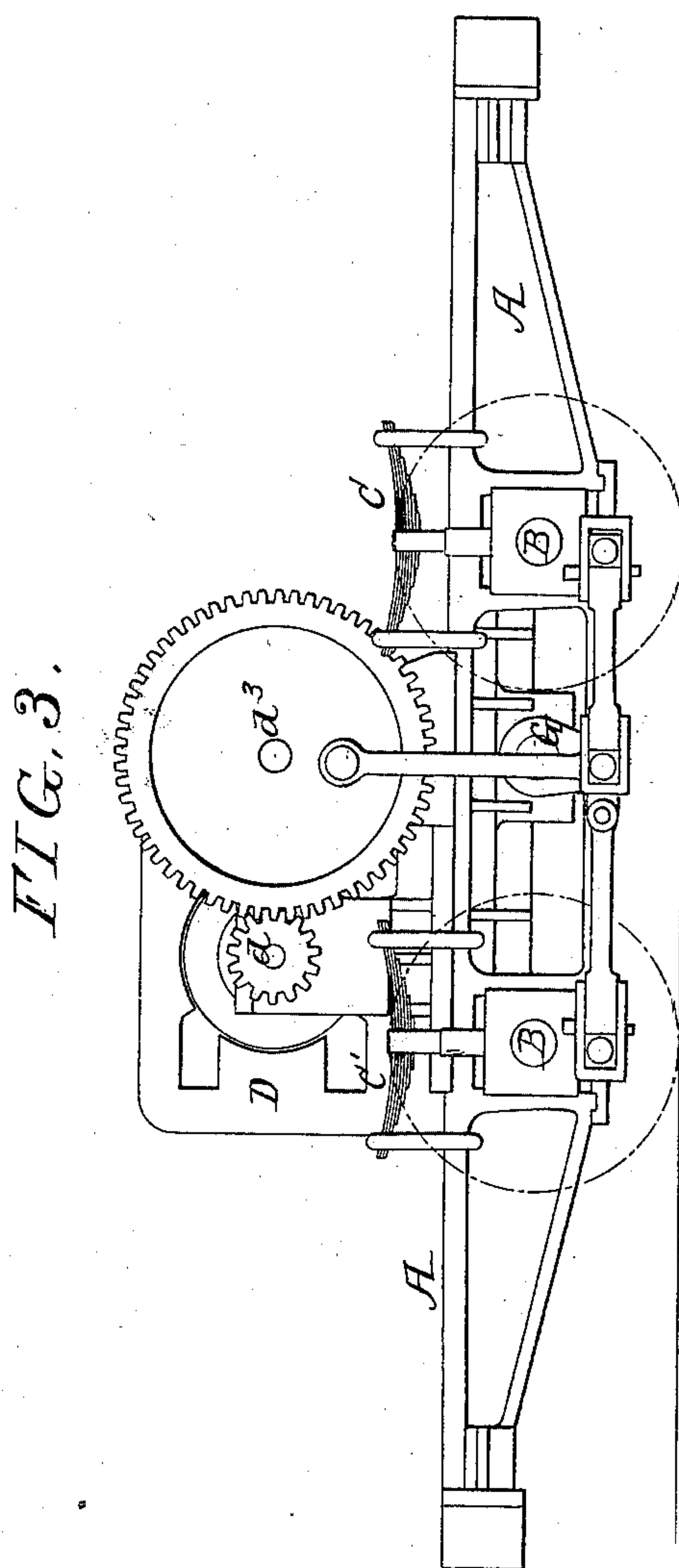
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ELECTRIC LOCOMOTIVE.

No. 561,395.

Patented June 2, 1896.



Witnesses:
H. D. Goodwin
J. C. Benner



Inventor:
William P. Henszey
by his Attorneys
Brown & Brown.

UNITED STATES PATENT OFFICE.

WILLIAM P. HENSZEY, OF PHILADELPHIA, PENNSYLVANIA.

ELECTRIC LOCOMOTIVE.

SPECIFICATION forming part of Letters Patent No. 561,395, dated June 2, 1896.

Application filed October 4, 1895. Serial No. 564,644. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. HENSZEY, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Electric Locomotives, of which the following is a specification.

The object of my invention is to construct an electric locomotive in such a manner that the motor will be wholly mounted upon the frame of the locomotive, and thus avoid, to a great extent, the jar to which the wheels and their axles are subjected. Heretofore the motor has been mounted upon the axle and its shaft coupled to one of the axles by gearing. Consequently all shocks and jars would be communicated to the motor.

Referring to the accompanying drawings, Figure 1 is a sectional diagram view of my improved electric locomotive, and Figs. 2 and 3 are views of modifications.

The side frames A extend throughout the length of the locomotive at each side. These frames have pedestals *a* for the boxes C of the axles B. These axles have traction-wheels *b*, provided with crank-pins *b'*; as clearly shown in the drawings.

Mounted on extensions *c'* of the blocks C are springs C', which are connected to the frame by links *c c*. By this construction the body of the locomotive is suspended from the axles through the springs.

Mounted on the frame is an electric motor D, which may be of the ordinary construction, and the motor-shaft *d* has at each side a disk *d'*, and on each disk is a crank-pin *d''*. At each side of the locomotive is a crank G, and to this crank are connected two rods FF', one extending to the crank-pin *b'* of one wheel and the other connected to the crank-pin *b'* of the other wheel, so that any motion given to the crank G will be transmitted to the wheels.

E is a two-armed lever pivoted at *e* to the side frame, and the arm *e'* of this lever is connected to the crank-pin *d''* on the disk of the motor-shaft by a rod E', and the arm *e''* is connected to the crank G by a rod E².

This construction is duplicated on the opposite side of the engine, and the crank-pin *d''* and crank G are set in advance of the crank and pin on the opposite side, as clearly indicated in the drawings.

By this construction it will be seen that the motor is entirely supported by the frame, but is directly connected to the driving-wheels, the connection being such that while the motor will have freedom to ride easily the drive will be positive.

In Fig. 2 I have shown the crank-pin *d''* on the disk D of the motor-shaft coupled directly to the crank D by a connecting-rod E³. This construction dispenses with the lever E and the long connecting-rods, and may be used when the construction of the locomotive is such as to prevent the adoption of the connecting-lever.

In Fig. 2 I have also shown a locomotive having six drivers coupled together and driven by two motors mounted side by side.

In Fig. 3 I have shown a construction in which an intermediate shaft *d''* is geared to the motor-shaft D, and this intermediate shaft is connected to the crank G by a connecting-rod.

It will be understood that the gearing may be modified without departing from my invention.

I claim as my invention—

1. The combination of a frame, an electric motor on said frame, said motor having a driving-shaft, a crank on said driving-shaft, a crank G having its bearings on the frame, said crank being connected to the crank of the motor-shaft, driving-wheels, axles therefor, cranks on said wheels, connected to the crank G on the frame, and springs interposed between the axles and the frame, substantially as described.

2. The combination of the frame, an electric motor mounted thereon, crank thereon, crank G mounted on the frame, a two-armed lever E pivoted to the frame and connected to the crank of the motor and the crank G, driving-wheels, their axles, cranks on said driving-wheels, and rods connecting said cranks to the crank G, substantially as described.

3. The combination in a locomotive, of the frame, driving-wheels, axles, crank-pins on said driving-wheels, springs interposed between the frame and the axles, an electric motor on the frame, the shaft of said motor having a crank at each side, a lever E mounted at each side of the locomotive, one lever con-

nected to the motor-crank and to the crank G
at one side and the other connected to the
motor-crank and crank G at the opposite side,
and the said crank G being connected to one
5 or more of the driving-wheels, substantially
as described.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

WM. P. HENSZEY.

Witnesses:

H. L. NOBLE,

JAMES G. KEYS.