

(No Model.)

2 Sheets—Sheet 1.

H. RUSTIN.
TRACK BRAKE.

No. 563,887.

Patented July 14, 1896.

FIG. 1.

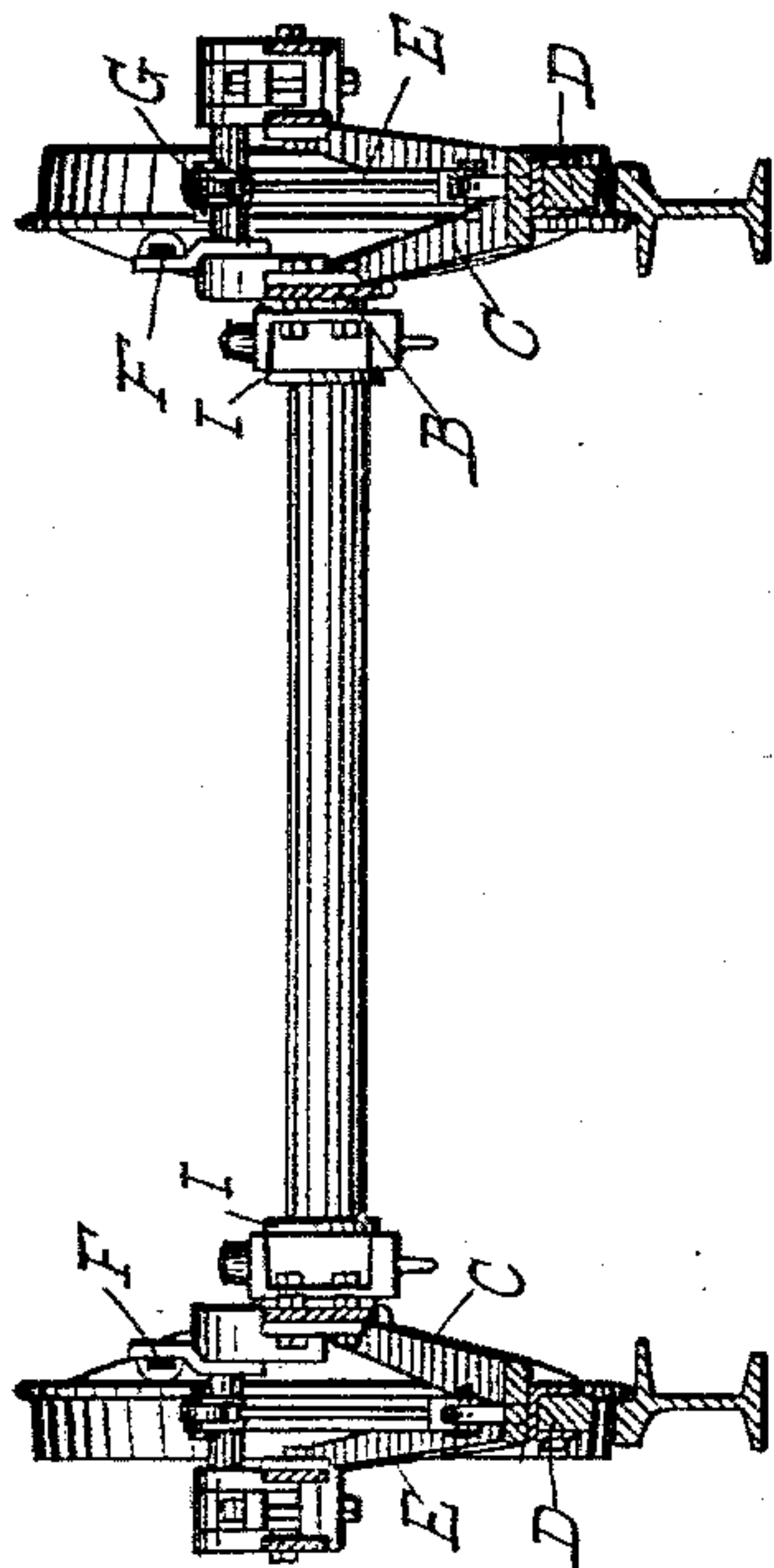
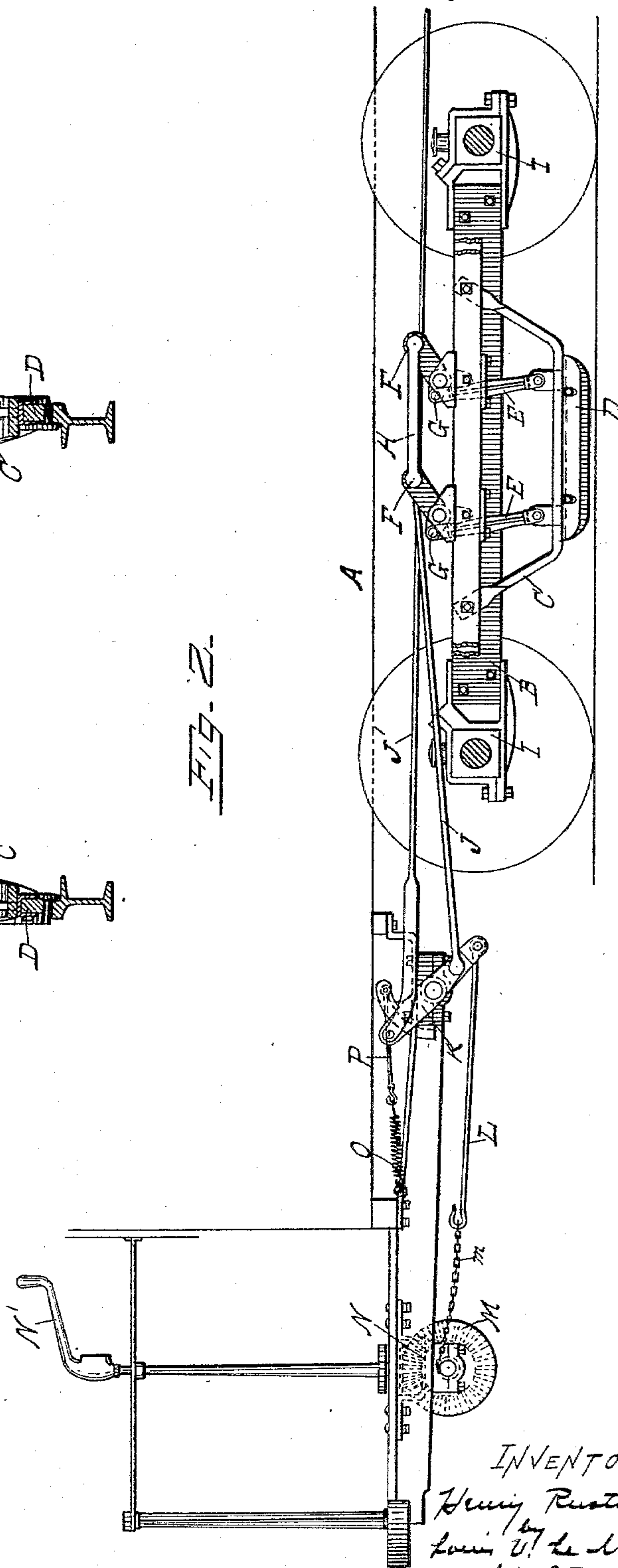


FIG. 2.



WITNESSES.
John Fraser.
Wm M. LeMayne

INVENTOR-
Henry Rustin
by
Louis V. LeMayne
his Attorney

(No Model.)

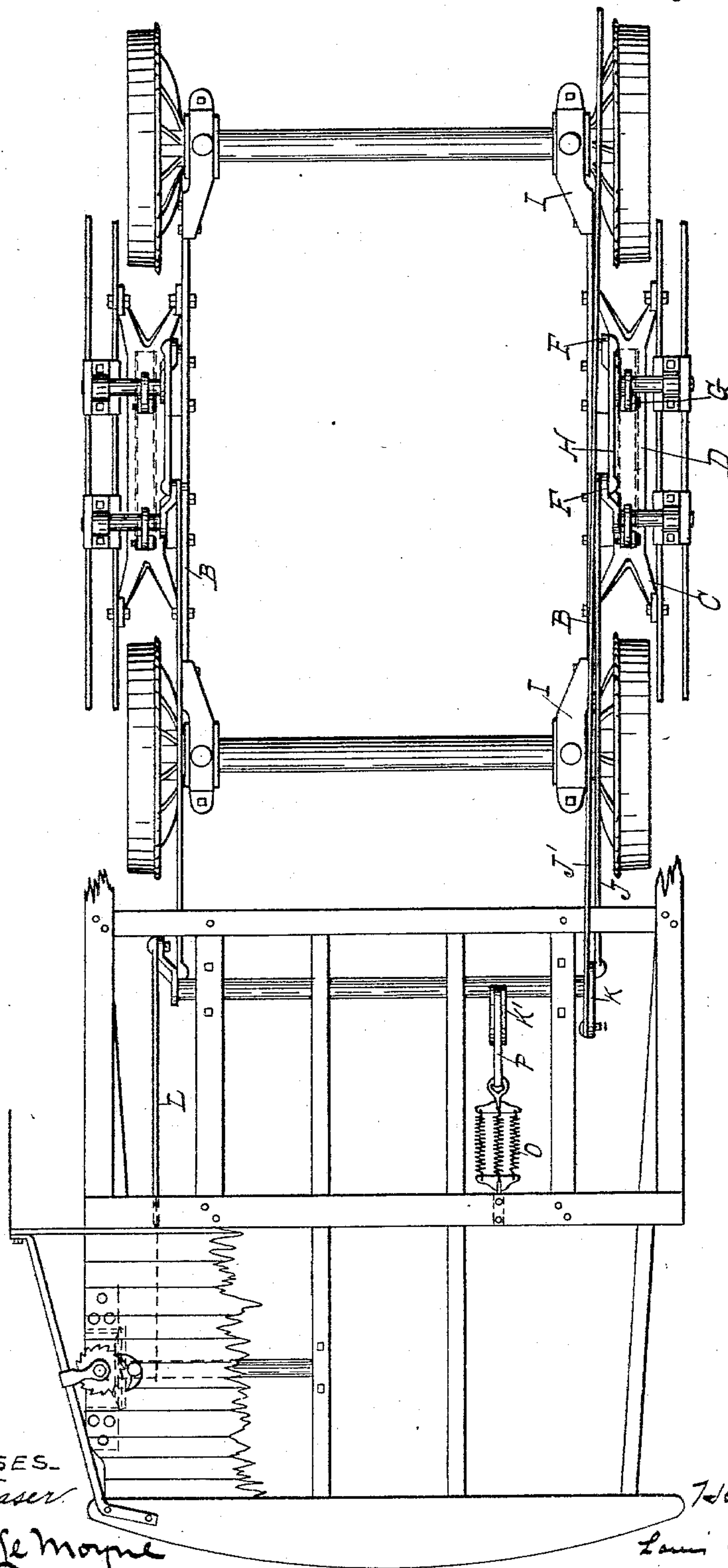
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FIG. 3.



WITNESSES.

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INVENTOR-

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UNITED STATES PATENT OFFICE.

HENRY RUSTIN, OF OMAHA, NEBRASKA.

TRACK-BRAKE.

SPECIFICATION forming part of Letters Patent No. 563,887, dated July 14, 1896.

Application filed February 10, 1896. Serial No. 578,680. (No model.)

To all whom it may concern:

Be it known that I, HENRY RUSTIN, a citizen of the United States, residing at Omaha, county of Douglas, State of Nebraska, have
5 invented a new and useful Improvement in Track-Brakes, of which the following is a specification.

My invention relates to that class of track-brakes in which the brake-shoe is forced down
10 upon the rail by means of a series of levers and cranks operated by the hand-lever upon the platform. Its object is to provide a brake which may be set quickly and positively and with great force, and which will release
15 readily.

It consists of details hereinafter fully described, and particularly pointed out in the claims.

Figure 1 is a vertical section of my brake.
20 Fig. 2 is a side elevation of same, part of the track and the wheels being removed to show the bearings of the frame. Fig. 3 is a top plan view of same.

A represents the sill of the car; B, the
25 brake-frame; C, the bracket which carries the brake-shoe; D, the brake-shoe; E E, the links attached to the brake-shoe; F F, the arms to which the brake-rods are attached; G G, the arms to which the links E E are at-
30 tached; H, the links connecting F F; J J', the brake-rods connecting with the hand-levers at each end of the car; K, the link to which the brake-rod L is attached; M, the beveled gear which meshes with the beveled
35 gear N, and by which the brake-chain is wound up; O, the release-spring; K', the sector upon which the flexible steel band P is wound.

The operation of my brake is as follows:
40 The hand-lever N' winds up the chain *m* through the medium of the beveled gears M and N, drawing upon the brake-rod J through the medium of the link K, throwing over the arms F F and forcing down the links E E and
45 thereby the brake-shoe upon the rail. The power at the hand-lever is augmented in three different ways—first, by the difference in the size of the beveled gears N and M, the former being smaller than the latter; second, by in-
50 creasing the leverage through the link K, and, third, by again increasing the leverage through the arms F and G, the former being longer than the latter, as shown. In this

manner it is made possible to set the brake, by means of the hand, with great power. 55

The frame B, which carries the brake, is attached directly to the car-axle by the bearings I, making a much more rigid support than if it were attached to the car-body, which yields, due to the supporting-springs. The
60 bracket C holds the brake-shoe rigidly against lateral displacement.

The brake is released by the spring O, attached to the flexible band P, which is wound upon K' when the brake is set, and which
65 draws the link K back when the hand-lever is released.

The brake-rod J' connects the brake mechanism with the hand-lever at the other end of the car, by which the brake is set in ex-
70 actly the same manner.

What I claim, and desire to secure by Letters Patent, is—

1. The herein-described track-brake consisting of the combination of the hand-lever
75 N', by which the power is applied, the beveled gears M and N actuated thereby, the chain *m*, brake-rod L, link K and rod J by which the power is transmitted to the arms F F, the arms F F attached to said rod J, the
80 link H connecting said arms F F, the arms G G actuated by said arms F F, the links E E attached to G G and the brake-shoe, the brake-shoe D, and the frame B, journaled upon the car-axle, by which the brake mech-
85 anism is carried; all substantially as shown and described.

2. The herein-described track-brake consisting of the combination of the hand-lever
90 N', by which the power is applied, the chain *m*, brake-rod L, link K, and rod J by which the power is transmitted to the arms F F, the arms F F, attached to said rod J, the link H connecting said arms F F, the arms G G actuated by said arms F F, the links E E at-
95 tached to G G and to the brake-shoe, the brake-shoe D, the frame B by which the brake mechanism is carried, and the spring O, flexible band P, and sector K' by which the brake is released; all substantially as shown and described.

HENRY RUSTIN.

Witnesses:

GEO. B. MARKLE,
S. A. BARBER,
W. ZEIB.