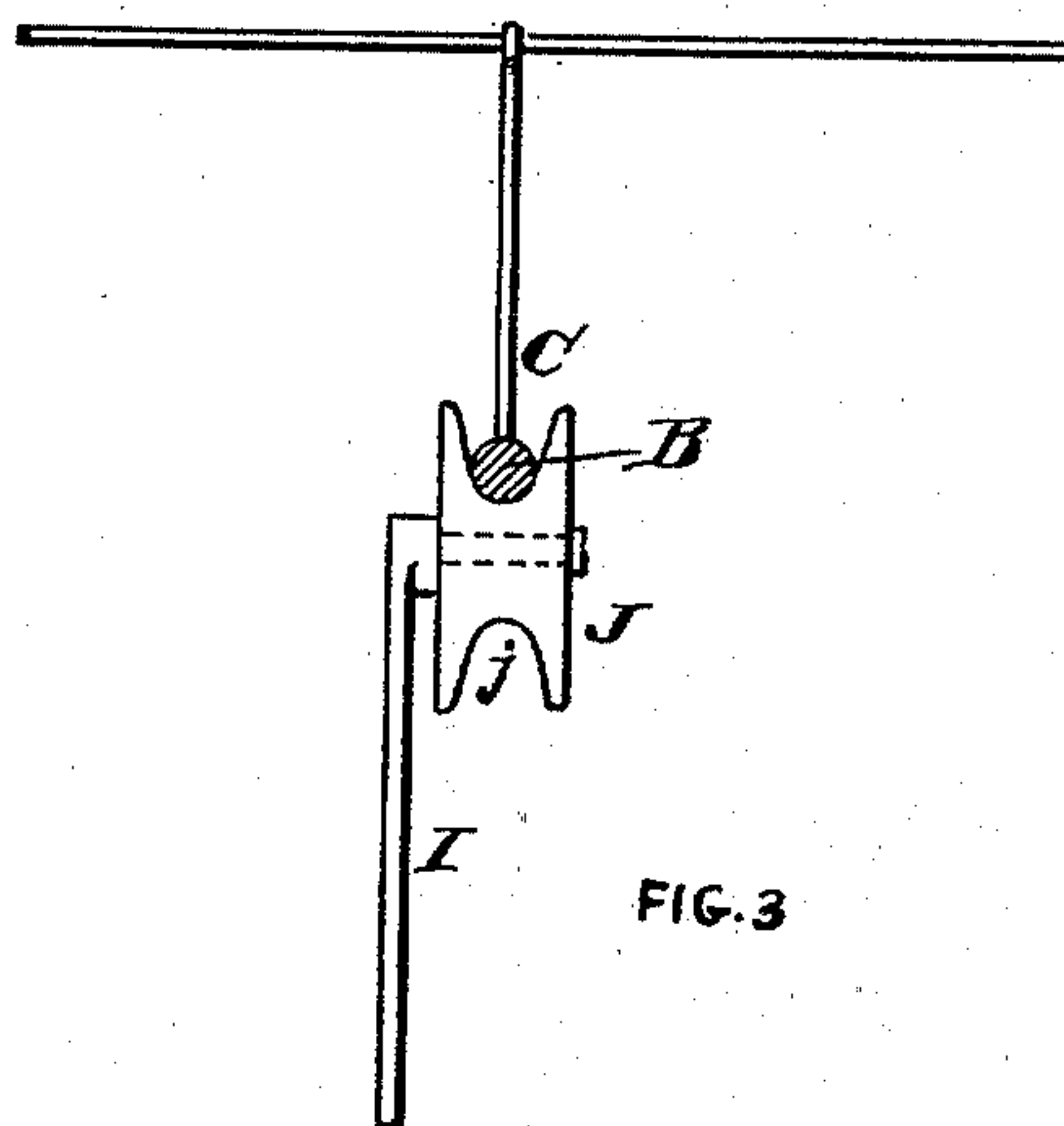
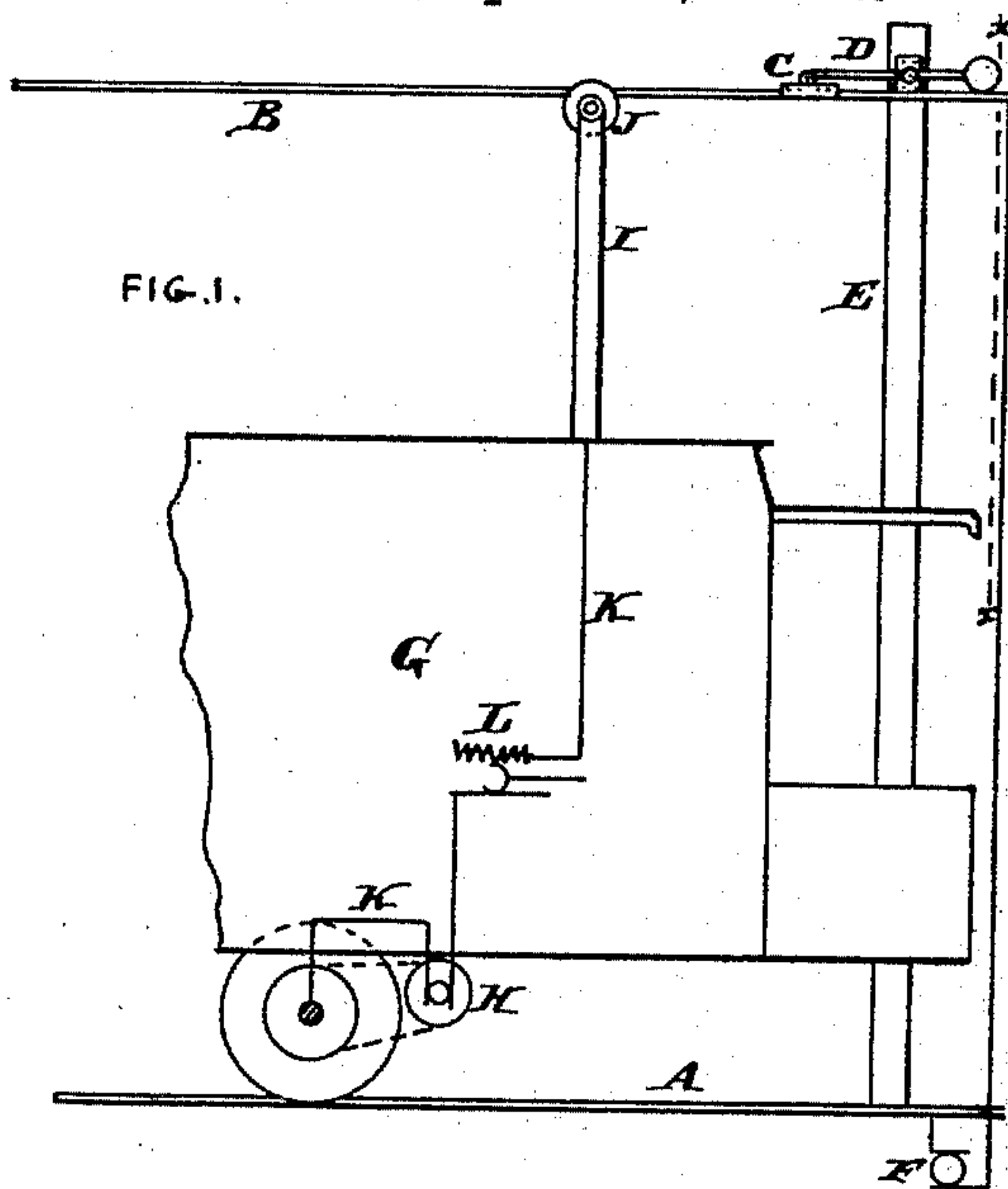
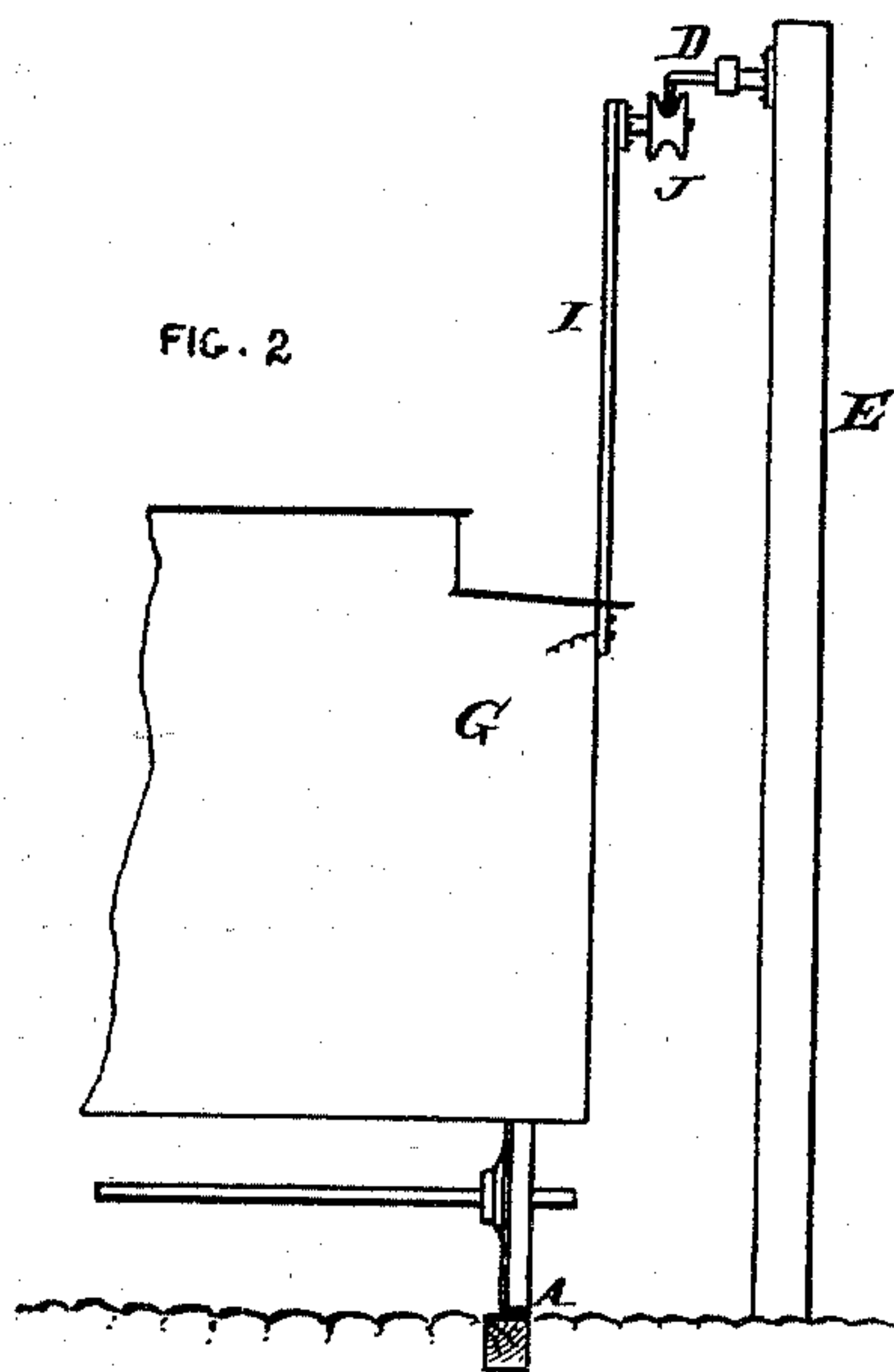


(No Model.)

R. M. HUNTER.
ELECTRIC RAILWAY CONDUCTOR.

No. 483,494.

Patented Sept. 27, 1892.



Attest
S. M. Breckinridge
West House & Shubert

Inventor

Wm. Howard

UNITED STATES PATENT OFFICE.

RUDOLPH M. HUNTER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY
MESNE ASSIGNMENTS, TO THE THOMSON-HOUSTON ELECTRIC COMPANY,
OF BOSTON, MASSACHUSETTS.

ELECTRIC-RAILWAY CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 483,494, dated September 27, 1892.

Original application filed September 23, 1886, Serial No. 214,309. Divided and this application filed March 23, 1889. Serial No. 304,499. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH M. HUNTER, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Current-Collecting Devices for Electric Railways, (Case No. 91,) of which the following is a specification.

My invention has reference to current-collecting devices for electric railways; and it consists of certain improvements, which are fully set forth in the following specification and shown in the accompanying drawings, which form a part thereof.

This application (Case No. 91) is in part a division of my application, Serial No. 214,309, filed September 23, 1886.

My invention comprehends an overhead or suspended conductor supported from above, so as to leave the under surface clear and unobstructed, and a car or other vehicle traveling beneath and provided with an upwardly-extending arm having upon its upper end a grooved collector-wheel, the groove of which is adapted to receive the conductor and is preferably so shaped as to prevent undue lateral vibration to the wheel when running on the under side of the conductor.

It is immaterial to my invention what the details of construction may be and also as to the particular mode of securing the upwardly-extending arm to the car.

In the drawings, Figure 1 is a side elevation of part of an electric railway and car embodying my invention. Fig. 2 is a cross-section of same on line $x x$. Fig. 3 is a cross-section of the suspended conductor and top of the current-collecting device.

A are the rails, and may act as the negative or return conductors.

B is the elevated or suspended conductor, and may consist of a light cable, wire, or rod, and is preferably round or circular in cross-section. At intervals apart the conductor B is secured to upwardly-extending supports C, which in turn are connected by arms D with the posts E. By this means the conductor B is supported wholly from above and leaves the lower part or surface entirely unobstructed.

It is also clear that the sides are equally unobstructed and admit of the ready passage of the trolley-flanges, which project upwardly upon each side of the conductor.

F is the generator, which is connected both with the rails A and conductor B and supplies the current which propels the car.

G is the car.

I is an upwardly-extending arm from the car-roof and may be formed in any manner desired, as well as secured to the car in any suitable way. At the top of this arm I is journaled a grooved wheel or contact J, the groove of which is preferably of a shape to receive the conductor B and at the same time prevent undue lateral vibration or movement of the wheel relatively to the conductor, or vice versa.

H is the electric motor for driving the car, and K is the motor-circuit on the car. The circuit K is provided with the regulator L and connects the collector-wheel J with the car-wheel through the motor H. The suspended conductor is thus arranged at a high elevation and out of reach of persons upon the railway, and a continuous contact is maintained with the under part of the conductor for the purpose of receiving positive current and delivering it to the motor, which is carried by the car and adapted to propel it. The motor is readily controlled as to its speed by a suitable regulator, which may be operated by the operator or person in charge of the car. The conductor is maintained at all times in contact with the current-collecting device and is sustained against lateral displacement with respect to said current-collecting device by the deep flanges of the contact. The supports for the suspended conductor may be modified to suit particular cases without departing from the spirit of the invention. By this construction the trolley may follow any irregularities in the conductor and always retain the conductor down in the bottom of the groove of the collector-wheel.

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

1. A suspended conductor arranged above
a railway-track and supported wholly from
above, a railway-track, a source of electric
energy supplying electricity to said conductor
5 and railway-track, a traveling car, a motor on
said car to propel it, an upwardly-extending
arm projecting above the roof of the car, a
grooved wheel journaled on the free end of
said arm and running against the under side
10 of the conductor, and a motor-circuit, includ-
ing the motor, for conveying current from the
conductor and returning it to the rails.

2. The combination of a suspended work-
ing conductor having a smooth or practically-
15 smooth under surface with a series of sup-
ports for the conductor connecting with it on
the upper part thereof, a traveling vehicle, an
electric motor on the vehicle, and a collecting
device making a traveling contact upon the
20 underside of the conductor for supplying elec-
tric current to the motor, a motor-circuit on

the car, and a hand-regulator to control the
motor in the motor-circuit.

3. A railway-track, a suspended conductor
arranged above the railway-track and sup- 25
ported wholly from above, a source of elec-
tric energy supplying electricity to said con-
ductor and railway-track, a traveling car, a
motor on said car to propel it, an upwardly-
extending arm projecting above the roof of 30
the car, a contact device carried on the free
end of said arm and running against the un-
der side of the conductor, and a motor-circuit,
including the motor, for conveying current
from the conductor and returning it to the 35
rails.

In testimony of which invention I hereunto
set my hand.

RUDOLPH M. HUNTER.

Witnesses:

ERNEST HOWARD HUNTER,
E. M. BRECKENRIED.