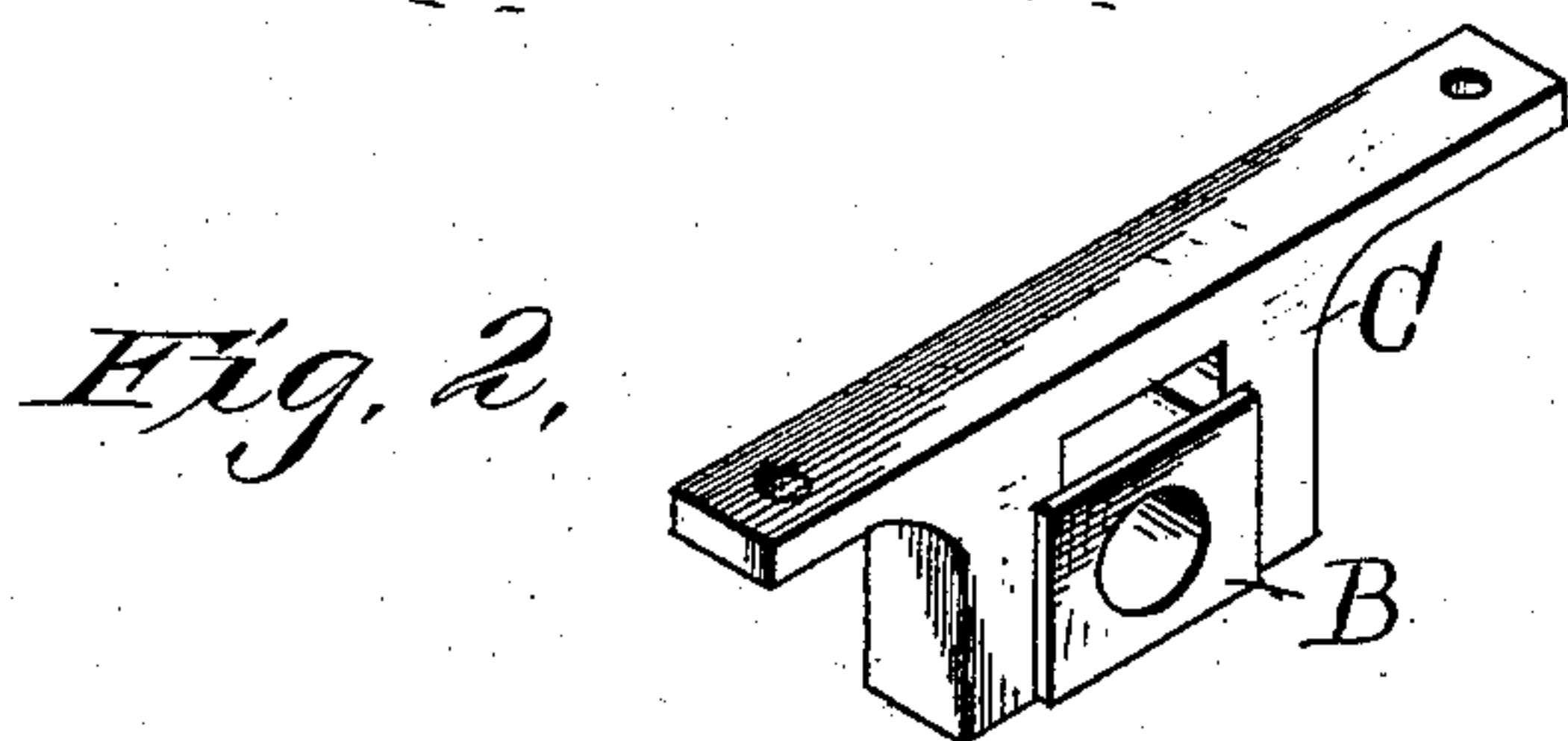
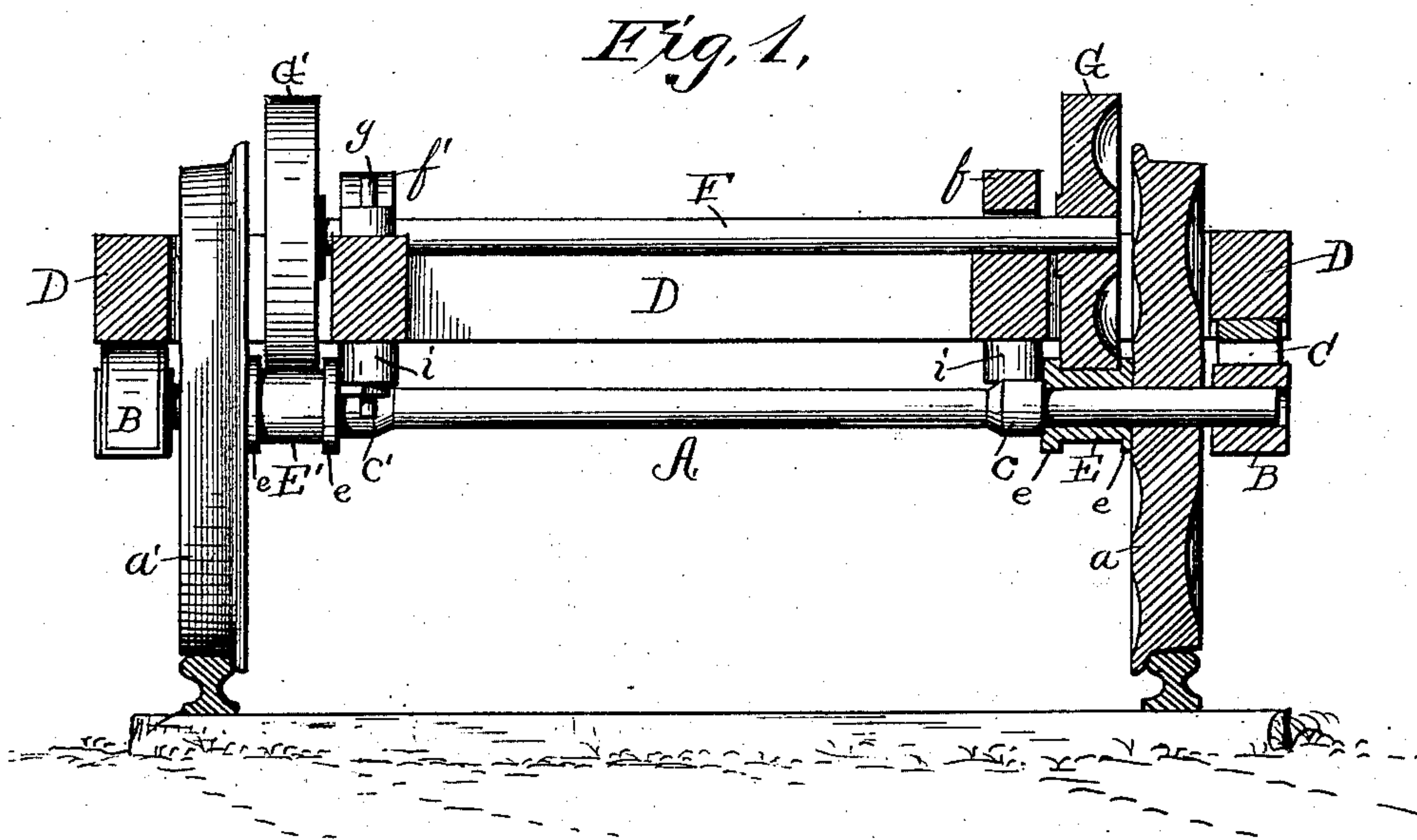


(No Model.)

I. F. BROWN.
CAR TRUCK.

No. 286,776.

Patented Oct. 16, 1883.



Witnesses:
F. L. Ouraud
W. A. Craig

Israel F. Brown
Inventor:

By H. F. Eunis
Atty.

UNITED STATES PATENT OFFICE.

ISRAEL F. BROWN, OF NEW LONDON, CONNECTICUT.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 286,776, dated October 16, 1882.

Application filed December 15, 1881. Renewed August 25, 1883. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL F. BROWN, a citizen of the United States, residing at New London, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Car-Trucks; 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 has relation to car-trucks; and the novelty consists in the construction of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

Figure 1 is an end elevation, partly in section, of my improved truck; and Fig. 2, a perspective view of the axle-box and bracket detached from the frame.

A is the axle, provided with rigid wheels a a' . The outer ends of the axle A are journaled in boxes B, which are arranged to play vertically in the brackets C, secured to the frame D. The collars c c' form a part of the axle A, or are rigidly secured to it at a suitable distance from the wheels a a' to allow the flanged sleeves EE' to turn freely on the axle without any undue lateral motion. These sleeves are provided at each end with flanges e e , which serve to keep the wheel G in proper position.

F is a shaft journaled in boxes f f' , secured to the frame D, and its outer ends are provided with wheels G G', the lowest point of the periphery of which forms a bearing for the axle A through the sleeves E E'. As the wheels a a' turn in traveling, the sleeves E E' are the journals or points of bearing, and as they bear against and turn with the anti-friction wheels G G' the least possible expenditure of power will start the car, and a proportionately smaller amount of power will keep it in motion after it is started.

The boxes f f' are secured to the frame D by bolts g , which pass through said frame to allow rubber cushions i to be placed between the bolt-head and frame and act as springs.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

In a car-truck, the frame D, and shaft F, having friction-wheels G, in combination with the axle A, provided with collars c c' , and sleeves E, having flanges e e , substantially as shown and described.

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

ISRAEL F. BROWN.

Witnesses:

H. W. HUBBARD,
GEO. COLFAX.