D. SHOUP.

CAR-STARTER.

No. 190,380. Patented May 1, 1877.

Fig 1.

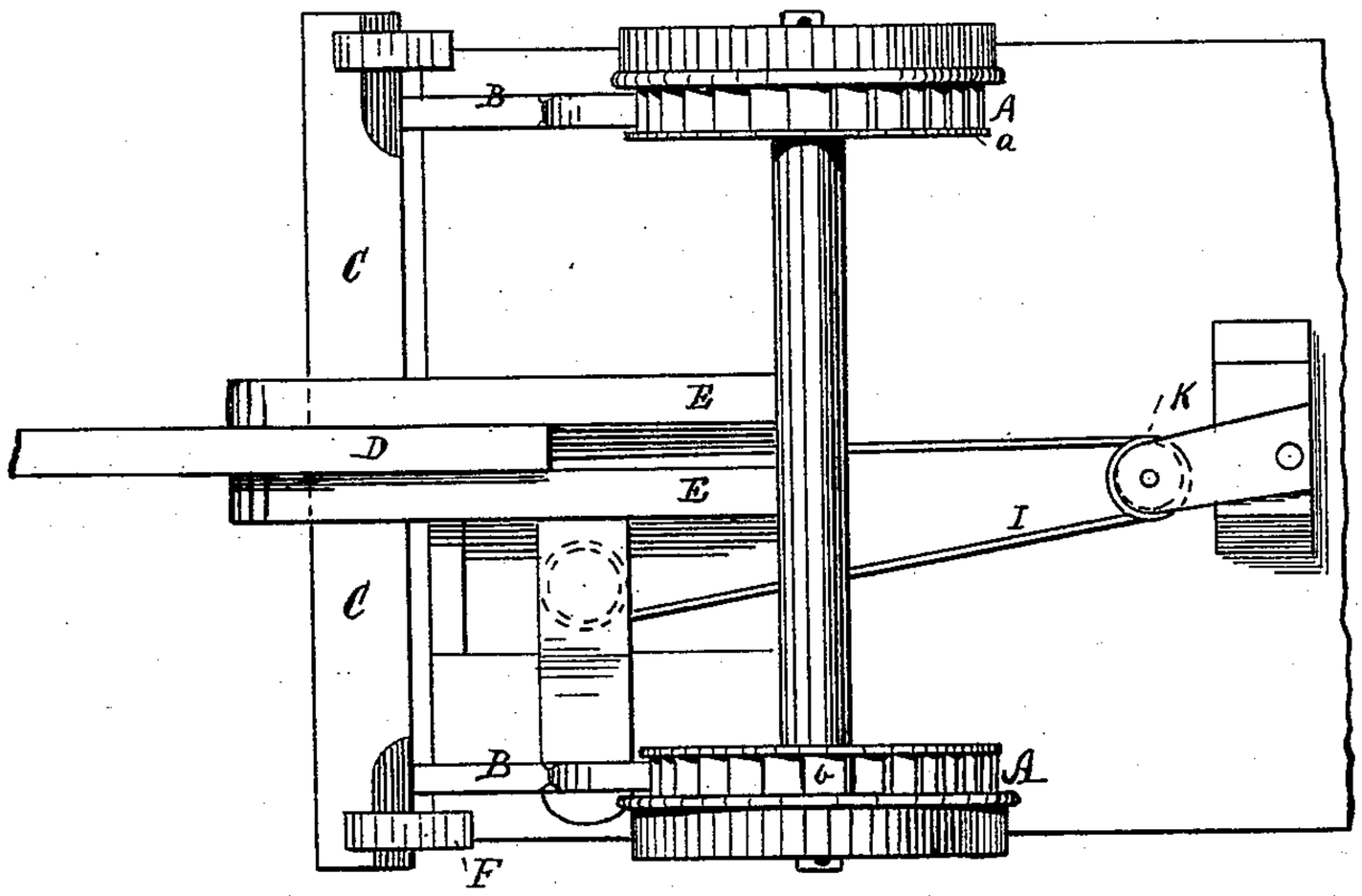


Fig 2.

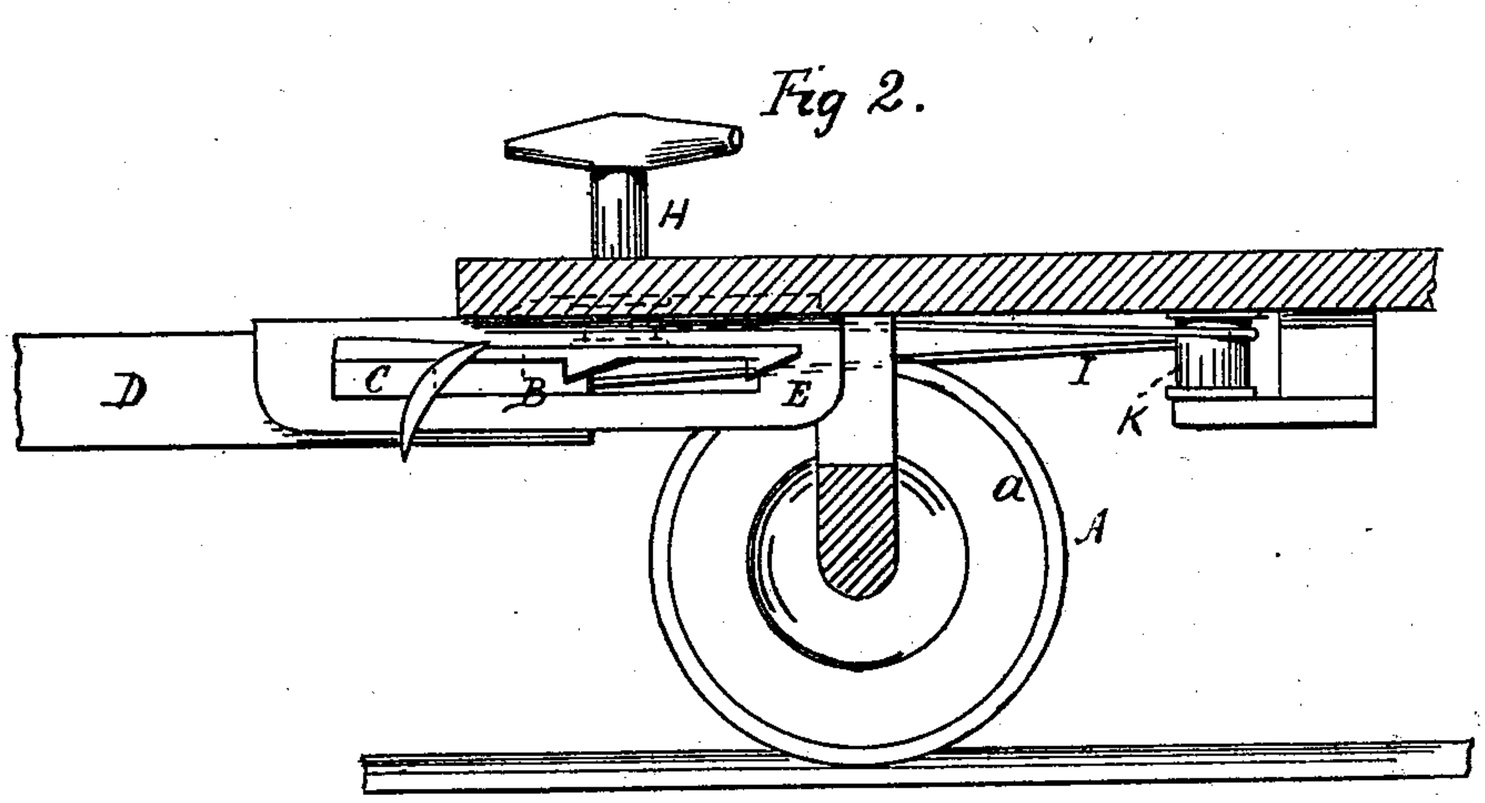
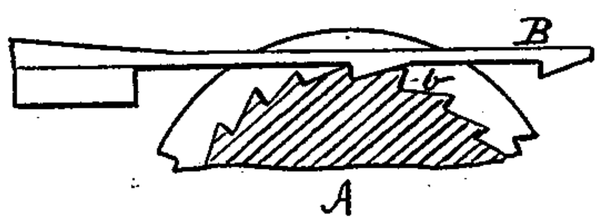


Fig 3.



Witnesses.
Benjamin C. Pole
W. E. Chaffee

Inventor
Daniel Shoup
by
C. S. Whitman
atty

UNITED STATES PATENT OFFICE.

DANIEL SHOUP, OF WARSAW, INDIANA.

IMPROVEMENT IN CAR-STARTERS.

Specification forming part of Letters Patent No. **190,380**, dated May 1, 1877; application filed May 17, 1876.

To all whom it may concern:

Be it known that I, DANIEL SHOUP, of Warsaw, county of Kosciusko, and State of Indiana, have invented an Improvement in Car-Starters.

The following description, taken in connection with the accompanying plate of drawings, hereinafter referred to, forms a full and exact specification, wherein are set forth the nature and principles of the invention, by which the same may be distinguished from others of a similar class, together with such parts thereof as are claimed as new, and are desired to be secured by Letters Patent of the United States.

My invention relates to that class of devices made use of for starting cars from the dead-stop; and the nature thereof consists in certain improvements in the construction of the same, hereinafter shown and described.

In the accompanying plate of drawings, in which corresponding parts are designated by the same letters, Figure 1 is a view of the under side of the mechanism. Fig. 2 is a longitudinal vertical section. Fig. 3 is a view illustrating the connection between the spring-pawl and the wheel.

In said drawings, A designates a wheel, provided with a flange, *a*, and cogs *b* upon its outer edge. B designates spring-pawls, attached to the cross-bar C, which catch into the said cogs *b*. The said cross-bar is attached to a horizontal beam, D, and travels in apertures cut in the bars E, which are secured to the bottom of the car. Upon the ends of the said cross-bar are brake-blocks F, which engage with the wheels in the ordinary manner. The said cross-bar is moved in such a manner as to force the brake-blocks against the wheels, and cause the spring-pawls to engage with the said cogs by means of the windlass H, which operates the chain I. The said chain is wound over the pulley K, and is attached to the rear end of the beam D. When the beam is started, the forward movement of the beam causes the spring-pawls to force the wheels forward.

Having thus described my invention, I claim and desire—

The combination of the ratchet-wheel A, spring-pawls B, cross-bar C, horizontal beam C, chain I, pulley K, and windlass H, all operating together as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand.

DANIEL SHOUP.

Witnesses:

SAML. H. CHIPMAN,

W. C. GRAVES.