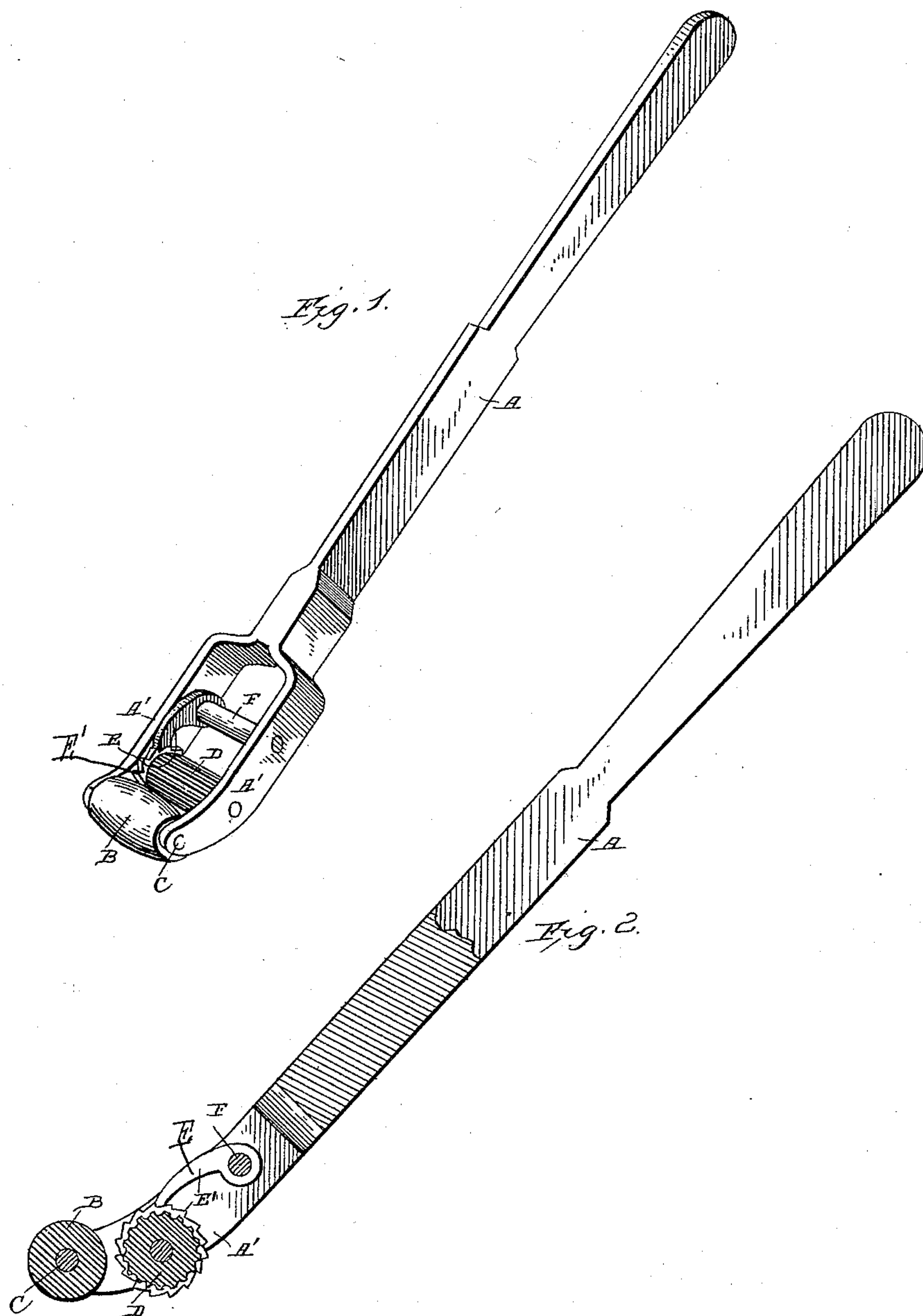


(No Model.)

A. M. CRADDICK & W. S. HEADY.
CAR STARTER.

No. 405,535.

Patented June 18, 1889.



Witnesses:
John Enders Jr.
Paul W. Stevens.

Inventor
Ambrose H. Cradick
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By *Myers & Co* Attorneys.

UNITED STATES PATENT OFFICE.

AMBROSE M. CRADDICK AND WINFIELD S. HEADY, OF TOWER HILL,
ILLINOIS.

CAR-STARTER.

SPECIFICATION forming part of Letters Patent No. 405,535, dated June 18, 1889.

Application filed March 1, 1889. Serial No. 301,673. (No model.)

To all whom it may concern:

Be it known that we, AMBROSE M. CRADDICK and WINFIELD S. HEADY, citizens of the United States of America, residing at Tower Hill, in the county of Shelby and State of Illinois, have invented certain new and useful Improvements in Car-Starters, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention pertains to an improvement in car-starters; and it consists in the peculiar structure, combination, and arrangement of the parts, substantially as hereinafter more fully shown and described.

In the accompanying drawings, Figure 1 is a view in perspective. Fig. 2 is a side elevation.

In constructing our car-starter the handle A has secured to or integral therewith the bearing-plates or curved bars A'. These plates have disposed intermediately and at the outer end thereof the roller B, pivoted on the rigid pivotal bar C, the roller being applied and designed for insertion beneath the wheels of cars. The serrated roller D also has its bearings on a rigid pivotal bar disposed between the plates or curved bars A', and it is provided on its face at one end with a ratchet E',

cast integral therewith, with which pawl E engages, said pawl being pivoted on bar F, as shown.

Roller D, in connection with its pawl E, is serrated, as shown, in order to prevent it, as the fulcrum of the lever, from slipping in practice.

Thus constructed, by combination of the roller and its fulcrum, a compound lever is formed, and a most efficient and inexpensive car-starter is produced.

We claim—

The car-starter consisting of the handle or lever A, having at one end the curved plates or bars A', the serrated roller D, having at one end a ratchet E' integral therewith, the roller B, hung at the forward ends of the plate or bars A, and the pawl E, engaging said ratchet, which pawl and serrated roller, with its ratchet, are hung in the plates or bars A', substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

A. M. CRADDICK.
W. S. HEADY.

Witnesses:

A. L. LEIGHTY,
RUFUS ELBEN.