

R. P. CORY.
Stump-Extractors.

No. 153,543.

Patented July 28, 1874.

Fig. 1.

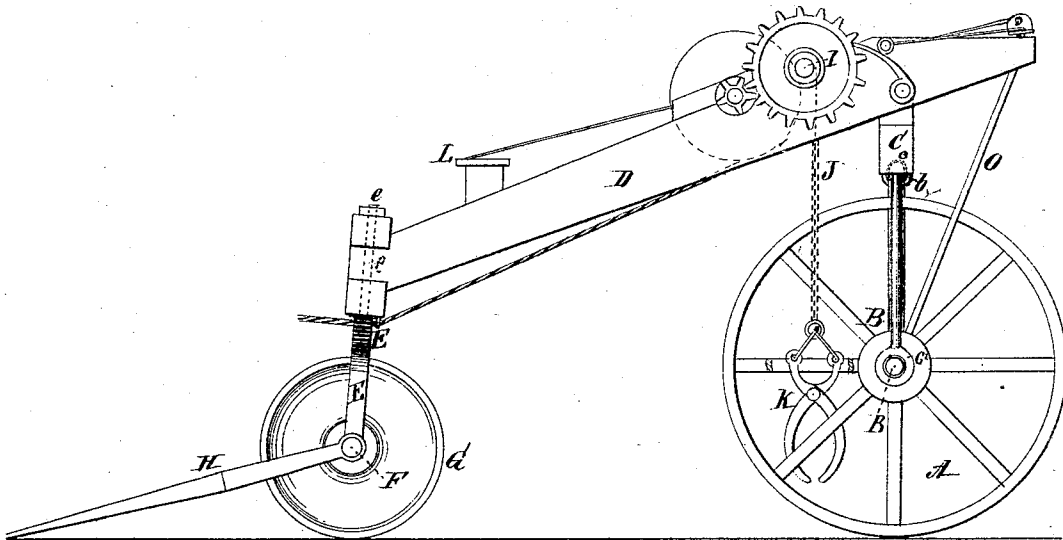
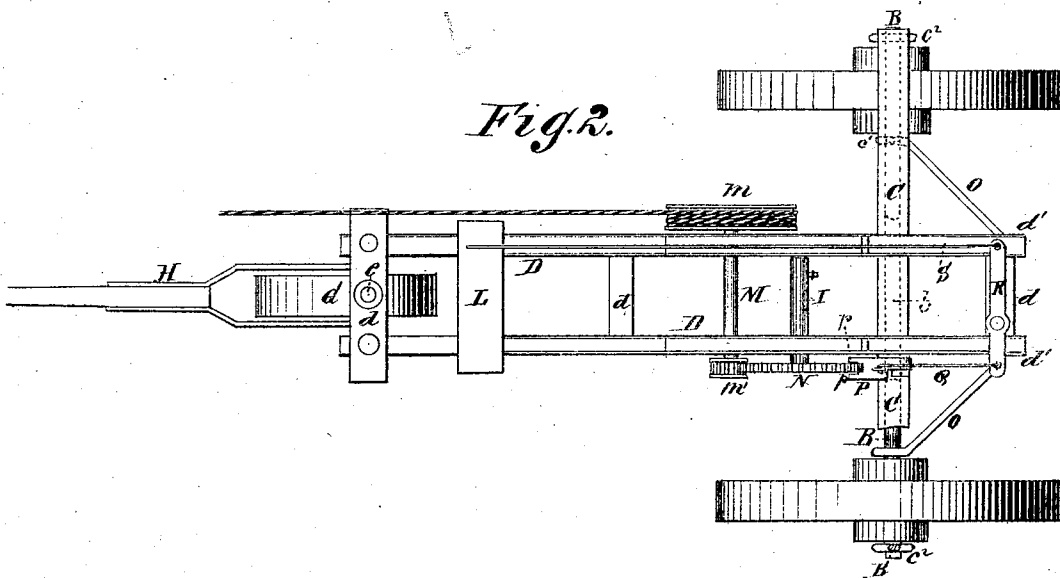


Fig. 2.



WITNESSES:

G. Matthews.
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UNITED STATES PATENT OFFICE.

RANDOLPH P. CORY, OF CONSECON, CANADA.

IMPROVEMENT IN STUMP-EXTRACTORS.

Specification forming part of Letters Patent No. **153,543**, dated July 28, 1874; application filed June 22, 1874.

To all whom it may concern:

Be it known that I, RANDOLPH P. CORY, of Consecon, Prince Edward county, Province of Ontario, Dominion of Canada, have invented a new and Improved Stump-Extractor; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side elevation; Fig. 2, a plan view.

The invention relates to and consists in means for extracting stumps and roots of trees from their native soil, in lifting heavy bodies, and transporting them with convenience, dispatch, and facility, as hereinafter fully described and pointed out in the claims.

A represents a pair of strong, broad tread-wheels rotating on an axle, B, whose crank *b* supports the cross-beam C. The latter is provided with subjacent eyes or loops, a bottom groove, and hangers *c*² *c*², that are bolted to beam at their bent ends, and made to embrace the ends of axle-journal, so as to secure the beam safely and rigidly in place upon the axle. In a top groove of the cross-beam B is received and sustained the two longitudinal bars D D, placed edgewise, connected by cross-bars *d* *d*, and supported in front on the shank *e* of a swiveled fork, E. To the ends of axle F of the front wheel G are attached the arms of the fork and of the tongue H. The front wheel is much smaller than the hind ones, so as to afford an elevated open space under a shaft, I, to which is attached the chain J, that carries the usual grapple K. L is the driver's seat situated on the front of frame, and M the drive-shaft having pulley *m* and pinion *m'*, by which the spur-wheel N of the winding-shaft I is turned. By supporting the frame D *d* upon a beam, C, held upon the large wheels, and upon the iron crank *b*, I obtain great

strength and ability to resist strain, which is often very great. As there is a tendency on the part of crank-axle *b* at times and under some circumstances to be forced out of its true and perfectly vertical plane, I use two oblique braces, O O, reaching from the inner part of journals to the rear *d'* of the frame-extension. In order to hold the shaft I securely at every point gained, and under a heavy weight, an ordinary pawl, operating upon a ratchet or the large spur-wheel, is unreliable. I therefore use a strong metallic spring-pawl, P, having two arms, *p* *p*, which always embrace the rim of wheel N. Thus the former prevents the latter, and vice versa, from any lateral movement by which they can become disconnected. By means of rod Q, lever R, and cord or wire S, brought within reach of driver, the pawl may be held away from the spurs of wheel N while the grapple-chain is unwound. The pulley *m* is provided with a cord, rope, or chain, so that by unwinding the latter by hand, horse, or steam, power may be transmitted to, and caused to wind up, the grapple-chain.

Having thus described my invention, what I claim as new is—

1. The combination, with crank-axle B, of cross-beam C, having eyes *c* *c*, groove *c'*, and hangers *c*² *c*², in the manner and for the purpose described.

2. The described combination, with two large rear and one small front wheel, of rear crank-axle B *b*, cross-beam C, and swiveled front fork E, to sustain the winding-shaft frame D *d*, in the manner specified.

The above specification of my invention signed by me this 12th day of June, A. D. 1874.

R. P. CORY.

Witnesses:

SOLON C. KEMON,
CHAS. A. PETTIT.