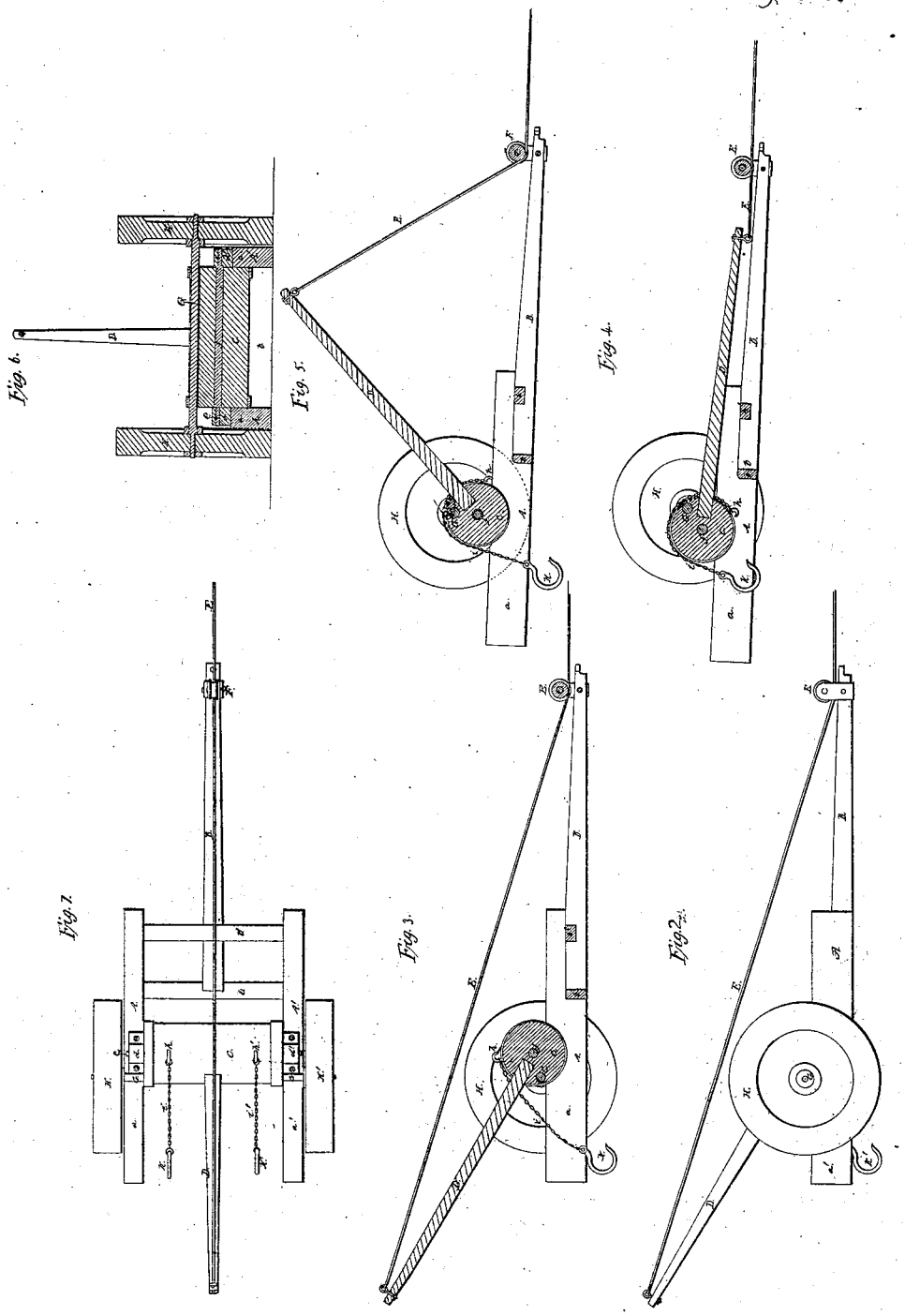
J. Rogers,

Stump Elevator.

No 6,991. Patented Jan. 1, 1850.



UNITED STATES PATENT OFFICE.

JOHN ROGERS, OF ORLEANS COUNTY, VERMONT.

WHEEL-AND-AXLE STUMP-EXTRACTOR.

Specification of Letters Patent No. 6,991, dated January 1, 1850.

To all whom it may concern:

Be it known that I, JOHN ROGERS, of the county of Orleans and State of Vermont, have invented a new and useful Improvement in Machinery for Extracting Stumps or Roots of Trees from Land; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the drawings above mentioned, Figure 1, denotes a top view of a stump extracting machine, containing my improvement. Fig. 2, is a side elevation of it. Fig. 3 is a central, vertical, and longitudinal section of it. In these figures the extracting lever, and axle-tree of the wheels, are represented as thrown entirely back, or so as to carry the said axle down upon the bed frame. In Fig. 4, which is a longitudinal, and vertical section of the machine, the said lever and its wheels are denoted as thrown forward into their other extreme positions, the lever being down, or nearly down, upon the tongue or draft bar. In Fig. 5, which is a similar section of the machine, are shown the position of the lever and wheels, with respect to the bed frame, and draft bar, when the lever is drawn toward the tongue half way, or about half way, and so as to cause the lower part of each wheel, to come on a level, or about on a level, with the underside of the bed frame. Fig. 6, is a vertical and transverse section of the machine, the same being taken through the axles of the windlass and wheels, when they are placed one over the other, or in or about in a vertical plane.

The nature of my invention consists in an arrangement or peculiar manner of arranging of the axle tree of the wheels with respect to that of the windlass barrel, the object of the same being to relieve the journals of the axle tree of the wheels from much, if not all the strain to which they are usually subjected when the machine is used, and they are placed or arranged in line with the axle of the barrel or windlass, as they have heretofore been disposed, it being understood that in such machines as hereinbefore constructed, instead of the windlass barrel having an axle tree entirely separate and distinct from that of the wheels, but one axle was generally employed, and that common to both barrel and wheels.

Having thus explained the nature and purport of my invention, I now proceed to specify, and point out the construction of it, and the machinery to which it is applied.

In the drawings A, exhibits the bed frame, which may be made of two strong parallel timbers *a*, *a'*, connected by transverse ties or bars *b*, *b'*, arranged as represented, or it may be otherwise constructed in any proper way, a strong draft bar or tongue B, being fixed firmly to, and extended from, the middle parts of the said transverse ties *b*, *b'*, and in the manner as seen in the figures.

On the upper surfaces of the two side timbers *a*, *a'*, of the bed frame, and at or near their middle parts, boxes *d*, *d'*, are respectively, and firmly fastened, the same being made in a proper manner for supporting and allowing to revolve, the two journals *e*, *e'*, of the axle *f*, of a strong barrel or windlass *c;* the said journal and axle being more particularly seen in Fig. 6. To the middle of the windlass barrel a strong lever D, is securely affixed, and is extended as seen in the drawings, a chain or rope E, being fastened to the outer end of the said lever, and from thence led under a pulley or sheave E, affixed to the tongue B, at or near its outer end. Strong staples or hooks *h*, *h'*, are inserted in the windlass barrel in the positions as denoted in the drawings, they being made to respectively receive the ends of two chains *i*, *i'*, to whose other ends large hooks *k*, *k'*, are respectively appended, the chains being passed over the windlass barrel in the manner indicated in the figures. The axle of the wheels is seen at G, and as affixed to the windlass barrel, and arranged at or near the periphery of the same and parallel to that of the said barrel, the wheels being seen at H, H', and as placed on journals, the same being particularly represented in Fig. 6. The above constitutes the method of constructing my improvement, and the parts to which it is applied or with which it is connected and acts. It now remains to explain the mode of operation of the whole.

The machine being applied to the stump, the chain hooks attached thereto, and the lever carried back in the usual way, when power is applied to the rope or chain E, in such manner as to cause the lever D, to approach toward the tongue B, and thereby rotate the windlass barrel, the wheels will

be elevated or raised up, so as to throw upon the bed frame the most if not all of the strain of extracting the stump; and the wheels will rise up until their axle has attained its highest position, as is represented in Fig. 5. The lever D, continuing to be drawn toward the tongue next causes the wheels to descend, and so bear upon the ground, as to raise the bed frame above it, the stump having been extracted in the meantime, and by the operation of the windlass, extracting chains, and their hooks. In this position of things the whole machine may be moved on the wheels, and so as to draw the stump entirely out of the place where it grew.

What I claim as my invention, is—

The arrangement and combination of the axle or journals of the wheels, and the axle or journals of the windlass barrel of a stump extracting machine substantially, in the manner, and with respect to the bed frame and other parts of the machine, as hereinbefore specified and exhibited in the accompanying drawings, the same being for the purpose essentially as above set forth.

In testimony whereof I have hereto set my signature this twenty-sixth day of November A. D. 1849.

JOHN ROGERS.

Witnesses:
R. H. EDDY,
F. GOULD.