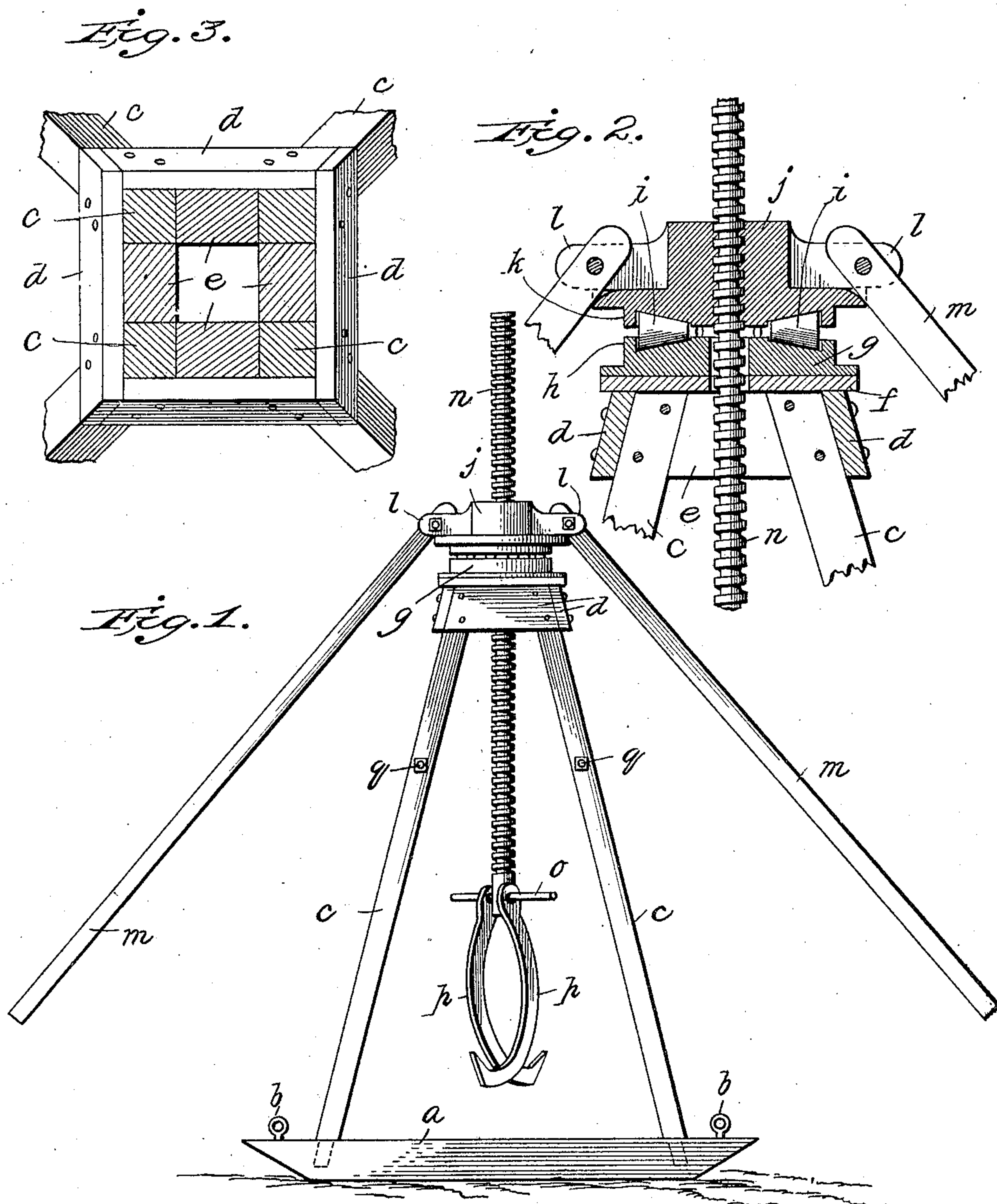


No. 835,934.

PATENTED NOV. 13, 1906.

J. H. CALDWELL.
STUMP PULLER.

APPLICATION FILED MAR. 28, 1906.



Witnesses

Edwin L. Jewell.
L. B. Bridger.

Inventor,

J. H. Caldwell,
By Davis & Davis,

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN HENRY CALDWELL, OF SPARTANBURG, SOUTH CAROLINA.

STUMP-PULLER.

No. 835,934.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed March 28, 1906. Serial No. 308,416.

To all whom it may concern:

Be it known that I, JOHN HENRY CALDWELL, a citizen of the United States of America, and a resident of Spartanburg, county of Spartanburg, State of South Carolina, have invented certain new and useful Improvements in Stump-Pullers, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, Fig. 2 is a vertical section, and Fig. 3 is a horizontal section, of my apparatus.

The object of this invention is to provide a light, inexpensive, and powerful apparatus, as more fully hereinafter set forth.

To the accomplishment of this object and such others as may hereinafter appear the invention consists of the parts and combination of parts hereinafter fully described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, forming a part of this specification, in which the same reference characters designate like parts throughout the several views.

Referring to the drawings annexed by reference characters, *a* represents a pair of suitable runners which may, if desired, be mounted upon transporting-wheels (not shown) and which are provided with suitable draft-hooks *b* at their ends for convenience in hauling the machine from place to place.

Mortised into each runner is a pair of posts *c*, which converge toward their upper ends, where they are rigidly connected together to form a firm support for the lifting mechanism. In the present instance I have shown these posts connected by four boards *d*, which are bolted to the outer sides of the posts, and suitable spacing-blocks *e*, bolted between the upper ends of the posts. Upon the tops of these blocks *e* and the upper ends of the boards *d* is bolted a platform-board *f*, to whose upper surface is bolted rigidly the lower annular raceway *g*. This raceway is provided with an annular flange *h* and an annular bottom or runway which inclines upwardly and inwardly, forming an annular raceway for the rollers *i*, which rollers taper inwardly. Upon the rollers is mounted a nut *j*, which on its under side is provided with an inclined bearing corresponding to the inclined bearing in the raceway, and also

with a depending flange *k* opposite the flange *h*, thereby completing the raceway for the rollers. The nut is provided with two pairs of radial ears *l*, between which are pivoted the sweep-levers *m*, which levers are free to swing vertically in the usual manner.

The lifting-screw *n* is supported by the heavy nut *j* and depends through central openings in the lower raceway and the platform *f*. In the lower end of the screw is rigidly fixed a strong horizontal rod *o*, on which is supported the cant-hooks *p*. These hooks may be freely slid along the supporting-rod to permit them to be radially adjusted to stumps of varying sizes and shapes. They may be removed entirely and a chain substituted for them if the exigencies of the case require it. The posts *c*, if desired, may be braced at suitable points between the runners and the upper connections by horizontal tie-rods *q*.

A feature of importance lies in the special construction of framework I show and describe, whereby I obtain a maximum of rigidity with a minimum of weight. Another feature lies in the special arrangement of raceway and conical rollers whereby the lifting-screw is held in a vertical position while under heavy strains, which tend to deflect it out of the vertical. Another feature of importance lies in the manner of attaching the hooks to the screw, whereby the hooks may be independently adjusted on the opposite ends of the pins and also may be removed to permit a chain to be substituted.

What I claim, and desire to secure by Letters Patent, is—

1. In a stump-puller, the combination of a pair of runners, upwardly-converging posts mounted thereon, means for tying together the upper ends of the posts, said means consisting of spacing-blocks *e* interposed between the adjacent sides of each pair of posts and four planks or boards bolted to the outer sides of the respective posts and blocks and a platform fastened on top of the posts, a lifting-screw carrying hooks at its lower end, a nut on the screw and sweeps carried by the nut, a lower bearing mounted on the platform, and rollers interposed between this bearing and the under surface of the nut, substantially as set forth.

2. In combination with a frame, a nut rotatably mounted thereon, sweeps for rotating the nut, a depending screw supported by

the nut, a horizontal rod supported rigidly in
the lower end of the screw and projecting
horizontally therefrom in both directions,
and a pair of hooks one of which is removably
5 and slidably mounted on each of the project-
ing ends of said rod, for the purpose set forth.
In testimony whereof I hereunto affix my

signature, in the presence of two witnesses,
this 24th day of March, 1906.

JOHN HENRY CALDWELL.

Witnesses:

M. T. LINNMILL,

N. L. BENNETT, Jr