

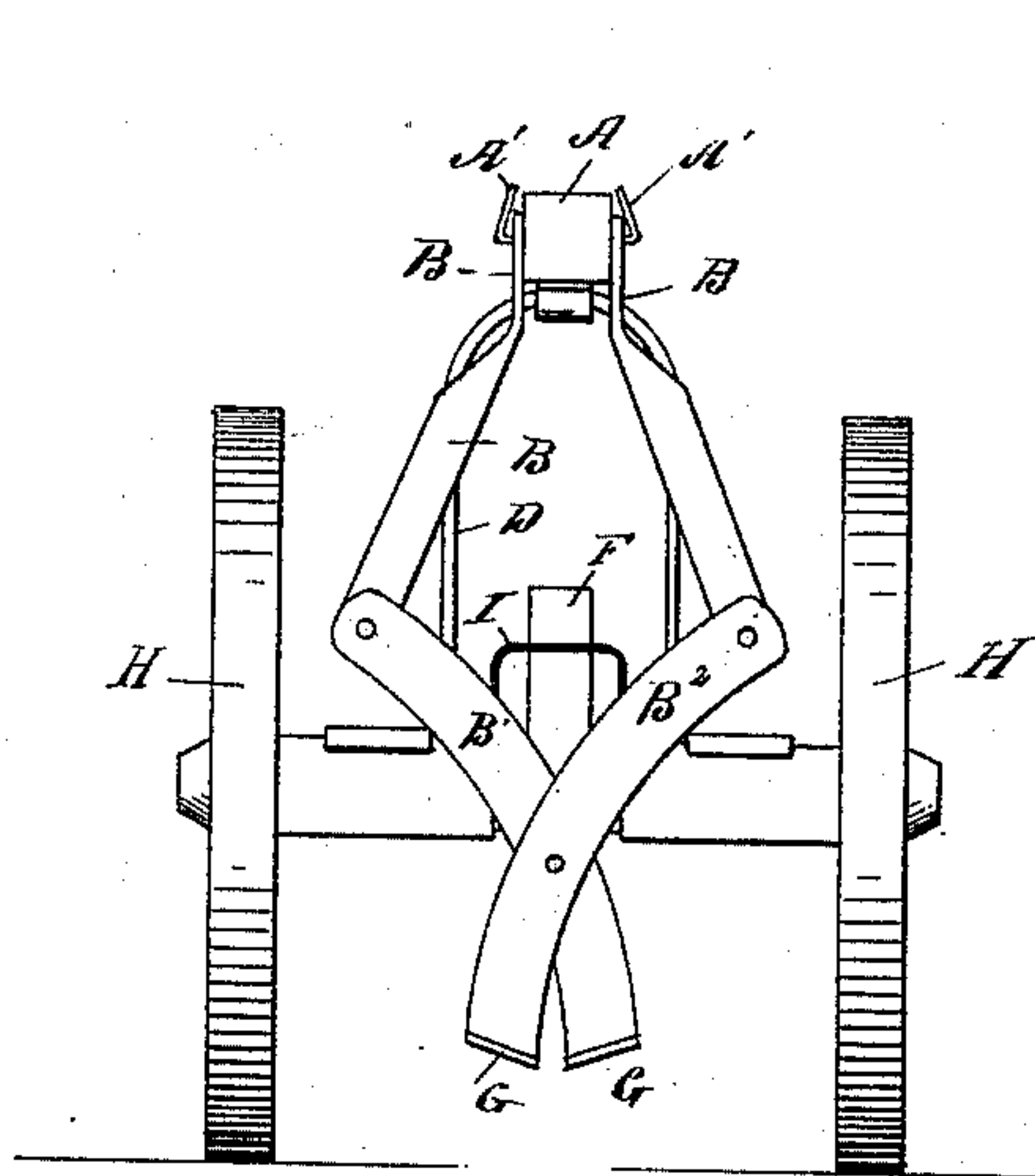
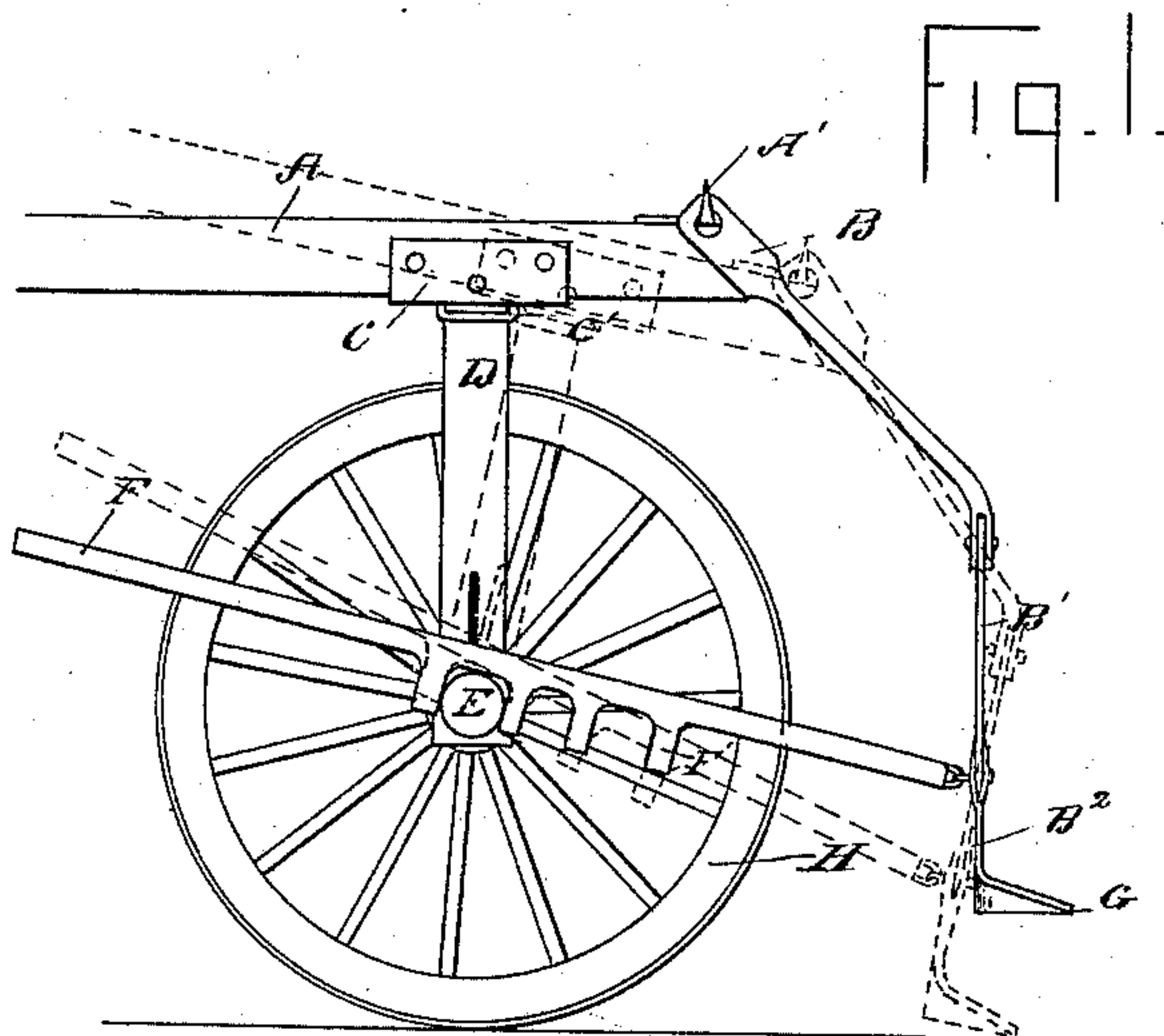
(No Model.)

2 Sheets—Sheet 1.

J. B. HEARD.
STUMP EXTRACTOR.

No. 331,054.

Patented Nov. 24, 1885.



WITNESSES

Henry L. Murdock.
Jos. S. Latimer

INVENTOR

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(No Model.)

2 Sheets—Sheet 2.

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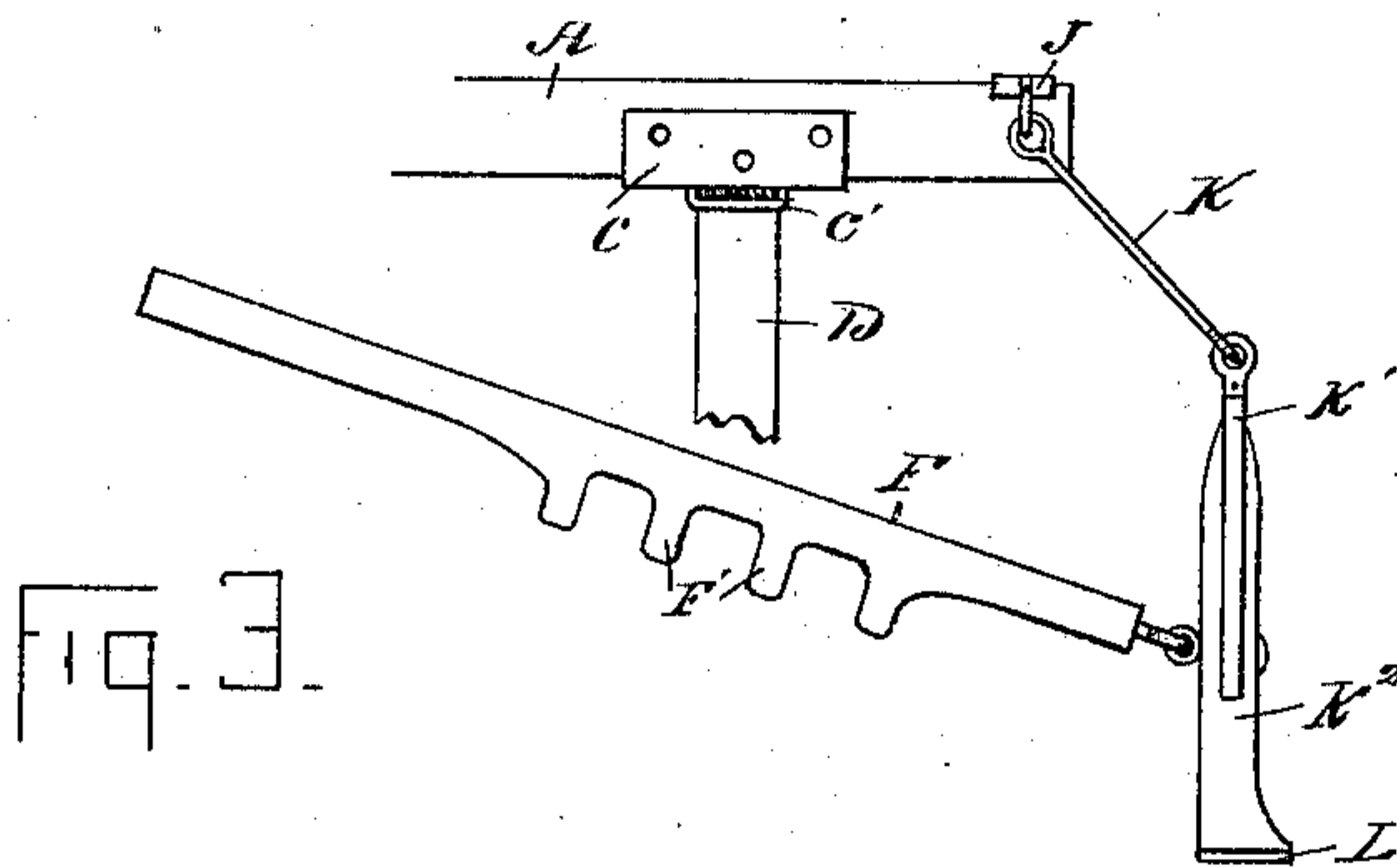


Fig. 4.

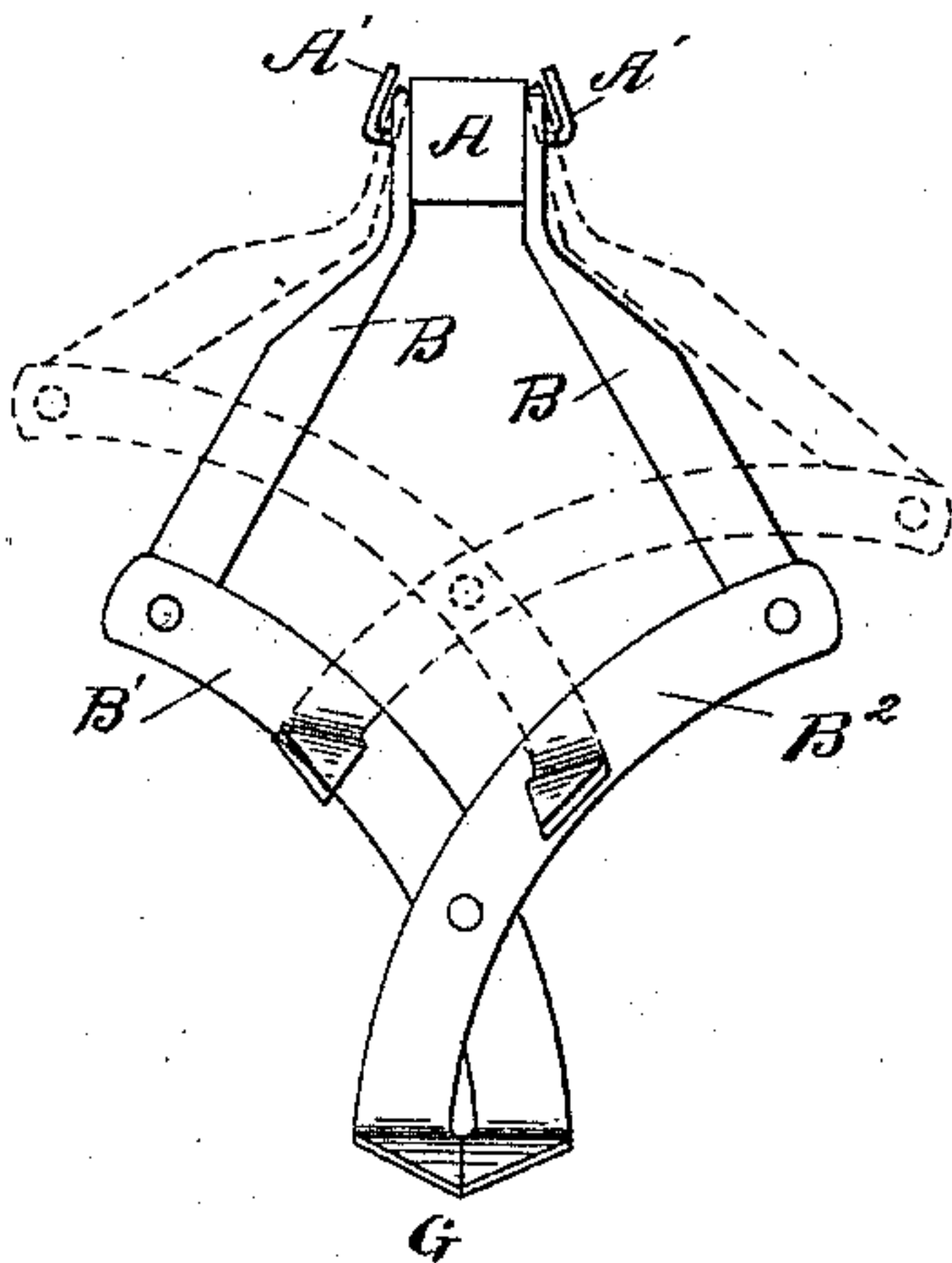
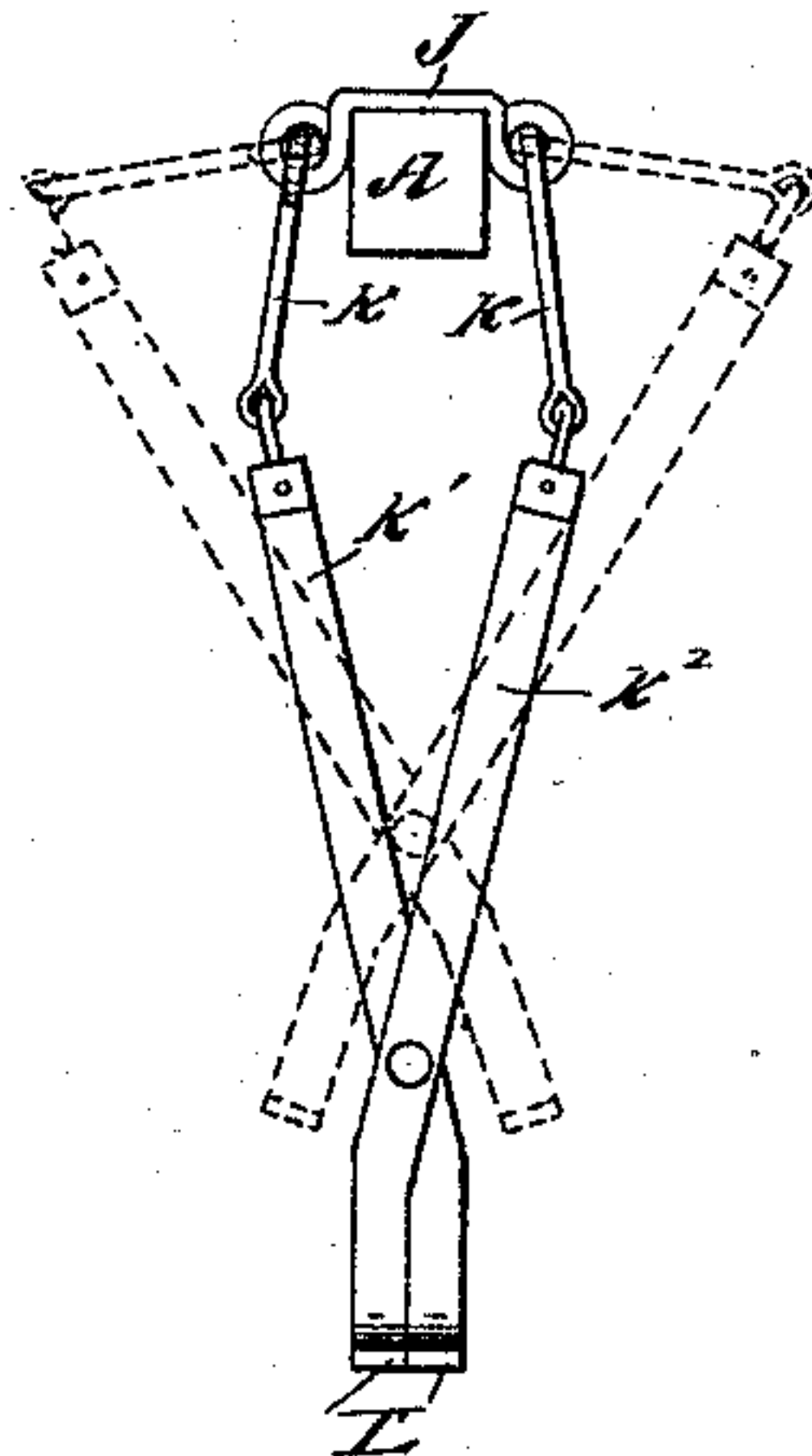


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN B. HEARD, OF BOWLING GREEN, KENTUCKY.

STUMP-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 331,054, dated November 24, 1885.

Application filed September 2, 1885. Serial No. 176,017. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. HEARD, of Bowling Green, in the county of Warren and State of Kentucky, have invented certain new and useful Improvements in Stump-Extractors; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to stump-extractors; and its objects are more fully delineated in the claims. I attain these ends by the means shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a wheeled frame having my improvements in position, showing their relative location and the manner of their operation. Fig. 2 is a front view thereof. Fig. 3 shows a modification of the grasping device. Fig. 4 is an enlarged detail view of the cutter, and Fig. 5 is a modification of the same.

The operating-lever A is adjustably secured by a saddle, C, having prongs C', to a curved frame, D, rigidly connected to the axle E, and joined to it are the upper toggle-arms, B B, which are pivoted to toggle-arms B' B". The pivotal pin that connects the arms B' B" serves also as a means of attaching an adjusting-arm, F, which is provided with teeth, F', that engage the axle E. The lever A being rigidly affixed to the frame D, and the latter similarly connected to the axle, the axle subserves the function of a fulcrum for the lever A, besides its normal purpose of supporting the wheels H. The terminal portions of the toggle-arms B' B" are bent to form the cutting-jaws G. These jaws open upon contact

with the ground when the lever A is raised. I is a frame secured to the axle E, to guide the regulating-lever F and to prevent its displacement.

In Fig. 3 is represented a modification of the toggle-arms. A saddle, J, affords means for attaching the rods K K, which are connected to the grasping-levers K' K", that have enlarged terminations L, to hold the obstruction more effectively. Fig. 5 shows a front view of this modification.

It will be understood that by moving the lever F forward or backward the angle of the cutting or grasping jaws is varied and an increased or diminished leverage is obtained.

Having thus fully described my improvements, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The operating-lever A, secured on a wheeled frame, and the toothed adjusting-arm F, in combination with the axle E and the cutting device, substantially as shown.

2. The lever A, cap C, having prongs C', curved standard D, and toothed arm F, in combination with the grasping device, substantially as shown.

3. The lever A, having hooks A', the cap C, having prongs C', the curved standard D, the frame I, and the toothed arm F, attached to the toggle-levers B' B", in combination with the centrally-rounded axle E and the toggle B' B", having bent terminations G, to form cutters.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN B. HEARD.

Witnesses:

C. M. THOMAS,
BEN F. GARDNER.