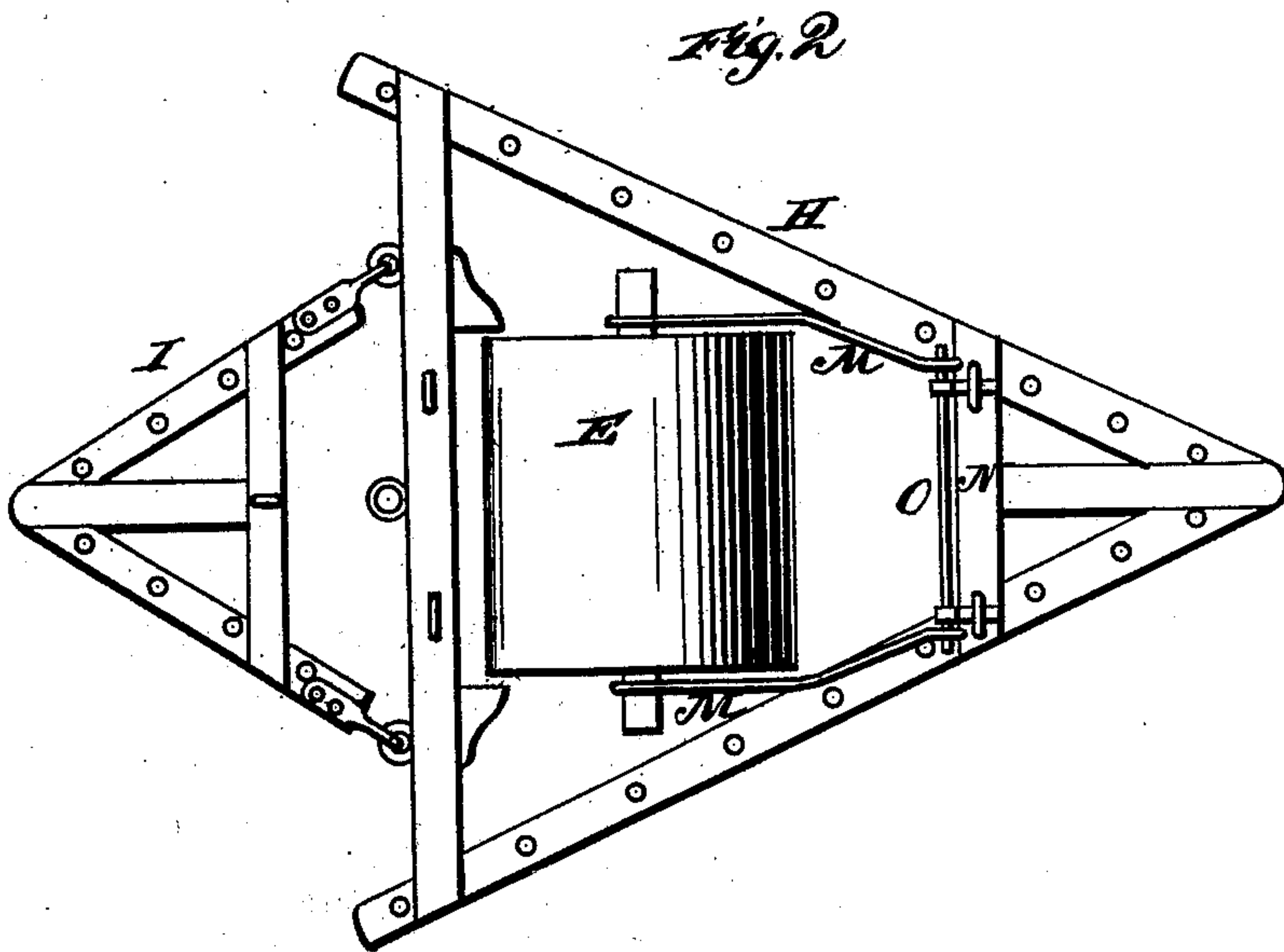
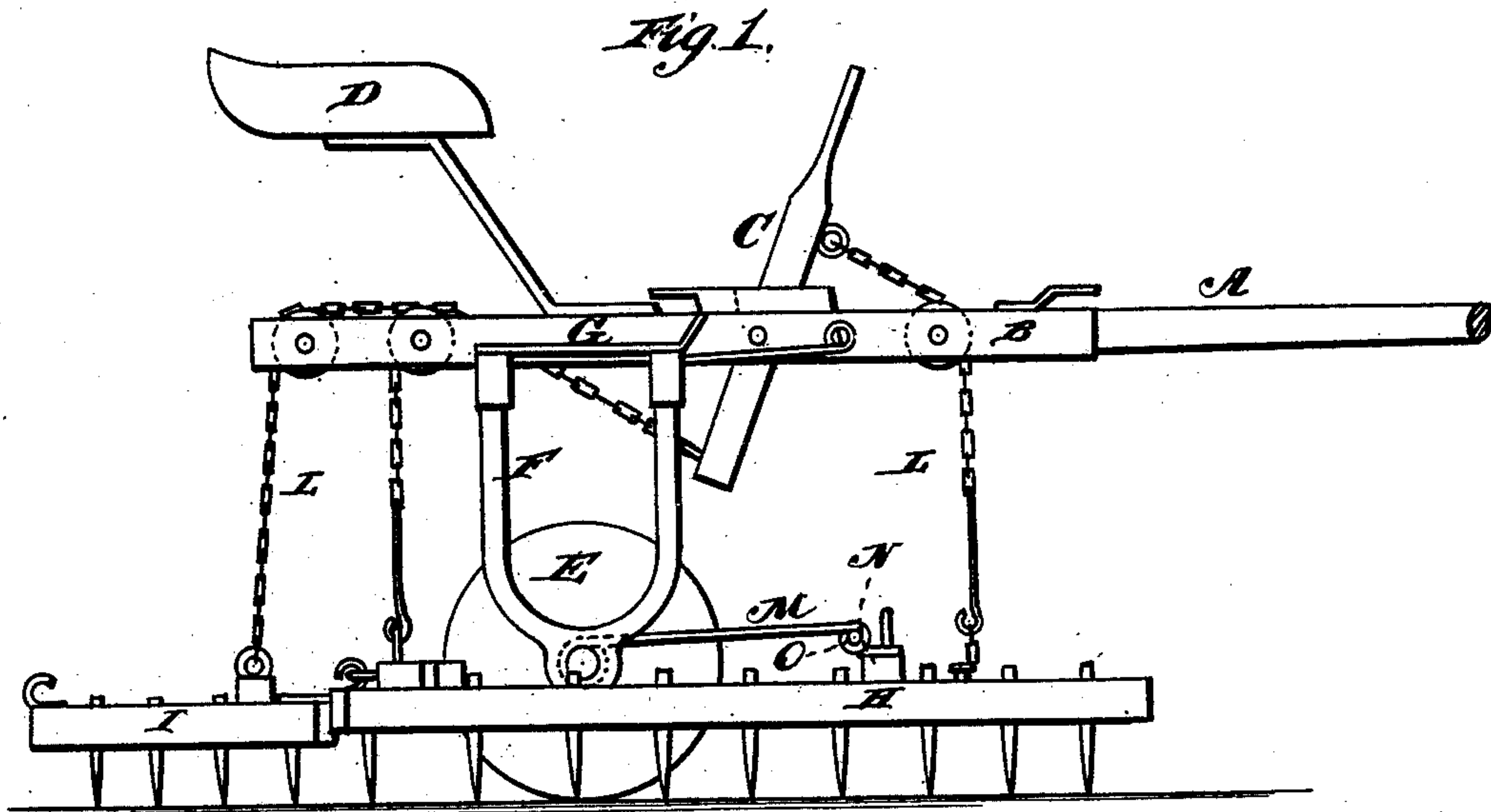


E. W. BENWAY, C. M. ROUSE & J. M. VOSS.
Riding Harrow and Roller.

No. 221,767.

Patented Nov. 18, 1879.



WITNESSES
Robert Emmett
James J. Shuey

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UNITED STATES PATENT OFFICE.

ELI W. BENWAY, CASPER M. ROUSE, AND JAMES M. VOSS, OF
INDEPENDENCE, KANSAS.

IMPROVEMENT IN RIDING-HARROWS AND ROLLERS.

Specification forming part of Letters Patent No. **221,767**, dated November 18, 1879; application filed
September 20, 1879.

To all whom it may concern:

Be it known that we, E. W. BENWAY, C. M. ROUSE and J. M. VOSS, of Independence, in the county of Montgomery and State of Kansas, have invented certain new and useful Improvements in a Riding-Harrow and Roller Combined; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of our harrow, and Fig. 2 is a plan view of the same.

The nature of this invention relates to an improvement in harrows, as fully described in the following specification, and particularly pointed out in the claim.

In the drawings, A designates the tongue or pole; B, two bars, between which is pivoted a lever, C; and D, the driver's seat, which is mounted over the bars or timbers B.

E is a roller, which is journaled in the U-shaped side pieces, F, and G is a platform mounted upon the said side parts F.

H is a triangular-shaped harrow, which surrounds the roller, and I is a smaller harrow-frame, hinged to the rear of the harrow H.

Connected with lever C are the chains L, and these are fastened to the harrows, so that they may be operated by the lever C.

In order to raise both harrows simultaneously by means of lever C, we secure the chains, which connect with the rear of the large harrow and with the small drag-harrow, to the lower end of lever C, and secure to said lever, above its pivotal point, the chain which connects with the front portion of the large harrow.

M are two arms secured to the timber N of the harrow H, by means of the rod O, and these serve to keep the roller in place, by being adapted to constitute bearings, which are additional to the U-shaped side pieces.

We are aware that ropes, chains, levers, and pulleys have been employed for raising the harrows from the ground in riding-harrows, and we do not broadly claim the same.

What we claim is—

In a combined roller and harrow, the combination of the roller E, having bearings in the U-shaped side pieces, F, with the arms M, hinged to the harrow-frame H, the harrows H and I, lever C, and chains L, substantially as and for the purposes set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

ELI W. BENWAY.
CASPER M. ROUSE.
JAMES M. VOSS.

Witnesses:

J. H. PUGH,
M. C. PUGH.