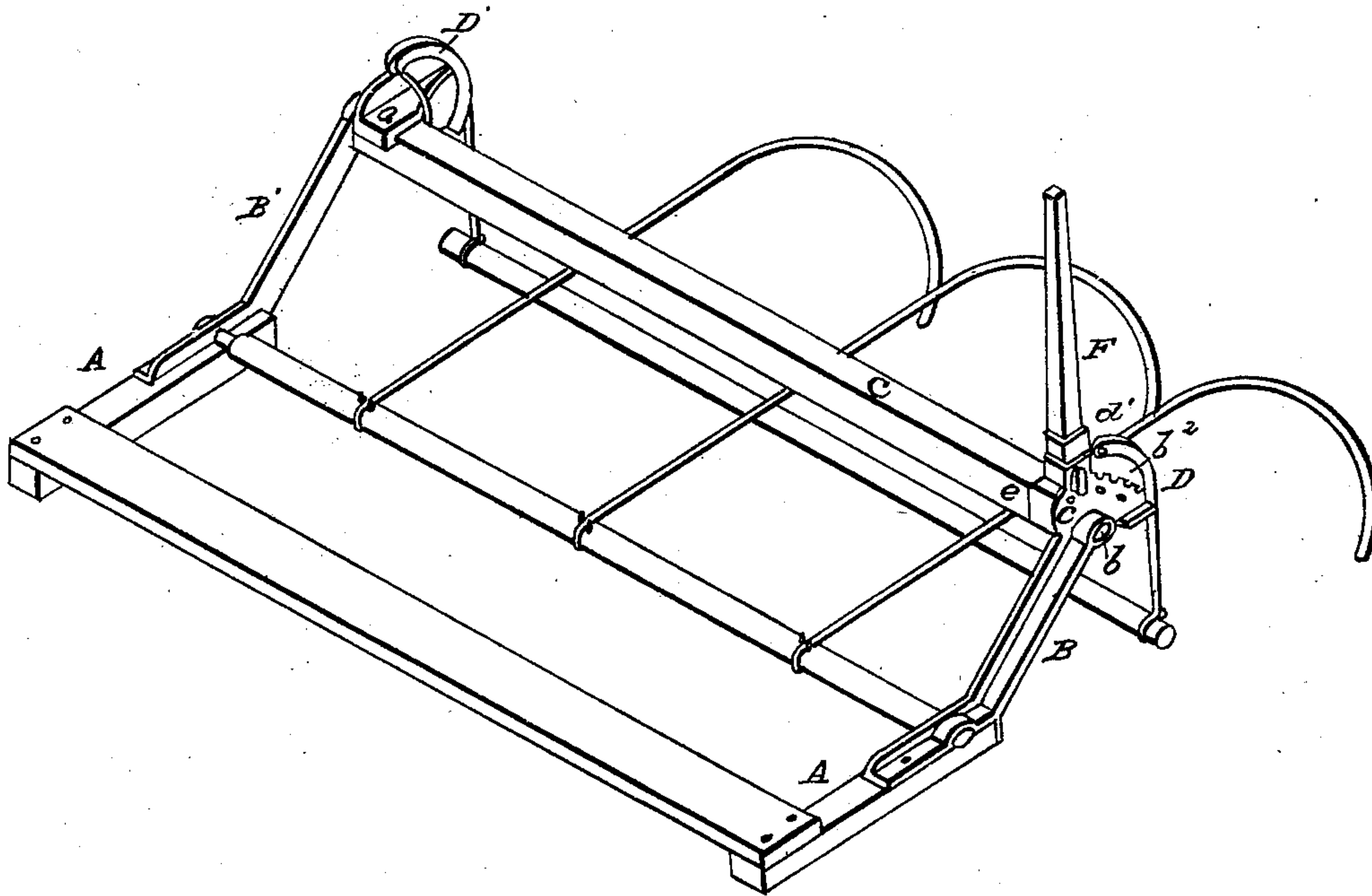


J. S. & I. ROWELL.
Elevator for Cultivator Bars.

No. 78,484.

Patented June 2, 1868.



WITNESSES:

Alfred E. Lee
J. O. White

INVENTOR.

J. S. D. Howell
Per J. H. Alexander
Attorneys

United States Patent Office.

J. S. ROWELL AND IRA ROWELL, OF BEAVER DAM, WISCONSIN.

Letters Patent No. 78,484, dated June 2, 1868.

IMPROVEMENT IN ELEVATOR FOR CULTIVATOR-BARS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, J. S. ROWELL and IRA ROWELL, of Beaver Dam, in the county of Dodge, and State of Wisconsin, have invented certain new and useful Improvements in Devices for Elevating and Retaining Cultivator-Bars in place; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification, and which represents our improved device for elevating cultivator-bars.

The nature of our invention consists in arranging two roller-stands or bearings on top of the frame of a cultivator, over the cylinder-rod, and under the hopper, extending upwards and to the rear, to receive the ends of a roller, which is provided with suitable sheaves, to receive the chains which serve to elevate the cultivator-bars.

A projection is formed on one of the roller-stands, which acts as a ratchet, and a pivoted jaw, with a catch and loop to engage in the ratchet, is formed in one piece with one of the sheaves. The teeth of the ratchet are bevelled on their rear sides, and the catch on the jaw has a corresponding inclination, so that, when the lever that is attached to the jaw is raised, it throws it to one side, and out of gear with the ratchet. The jaw works upon a pivot in the roller, which pivot is out of line with the sheave, so that, when the lever is released from the hand, the weight of the cultivator-bars throws it back into gear with the ratchet, and serves, instead of a spring, to hold it in place.

In the accompanying drawing, A A represent the frame-bars of a cultivator, to which the roller-stands B B' are bolted, being recessed on their lower surfaces, to allow the cylinder-rod to pass freely. One of the roller-stands B has a projection, *b*, upon it, forming a ratchet with teeth *b*². Sheaves D D', to receive the chains which raise the cultivator-bars, are secured upon the roller C. The sheave D has a socket, E, formed upon it, in which the lever F, by which the roller is operated, is fastened. The sheave D is furnished with a loop, *c*, forming a jaw to engage in the ratchet *b*, and the sheave oscillates upon a pivot, *e*, in the roller, which is placed inside or out of line with the groove in which the chain works. A catch, *d*, in the sheave, bevelled upon its front face, holds the roller in any desired position, and the teeth *b*² of the ratchet are correspondingly bevelled upon their rear faces, so that the action of drawing forward the lever F, to raise the bars, causes the sheave D to be thrown out of gear with the ratchet by oscillating upon the pivot *e*. As soon as the lever is released from the hand, the weight of the bars, which, as before stated, is applied to the sheave out of line with the pivot *e*, draws the sheave back to its perpendicular position, and into gear with the ratchet *b*.

The operation of the device is as follows: In drawing forward the lever, to raise the chains, and, with them, the cultivator-bars, the inclined front face of the catch on the sheave strikes against the correspondingly-inclined back of the ratchet-tooth, and causes the jaw, by oscillating upon its pivot, to be thrown out of gear with the ratchet. When the bars are sufficiently raised, the lever is released from the hand, and the weight of the bars and teeth, acting out of line with the pivot, and towards the ratchet, throws the jaw into gear with the same, and holds it there without the use of any spring or other locking-device.

Having thus fully described our invention, what we claim therein as new, and desire to secure by Letters Patent, is—

1. The roller-stands or bearings, constructed and arranged as and for the purpose set forth.
2. The sheaves D D', provided with the inclined catch *d* and loop *c*, in combination with the ratchet *b*.
3. Pivoting the jaw, as described, out of line with the groove in the sheave, so as to form an automatic locking and unlocking-device, as set forth.
4. The combination of the sheaves D D', bearings B B', and roller C, as arranged, and operating in the manner and for the purposes set forth.

In testimony that we claim the foregoing as our own, we affix our signatures, in presence of two witnesses.

J. S. ROWELL,
IRA ROWELL.

Witnesses:

T. L. NEWTON,
GEO. W. DE CLARK.