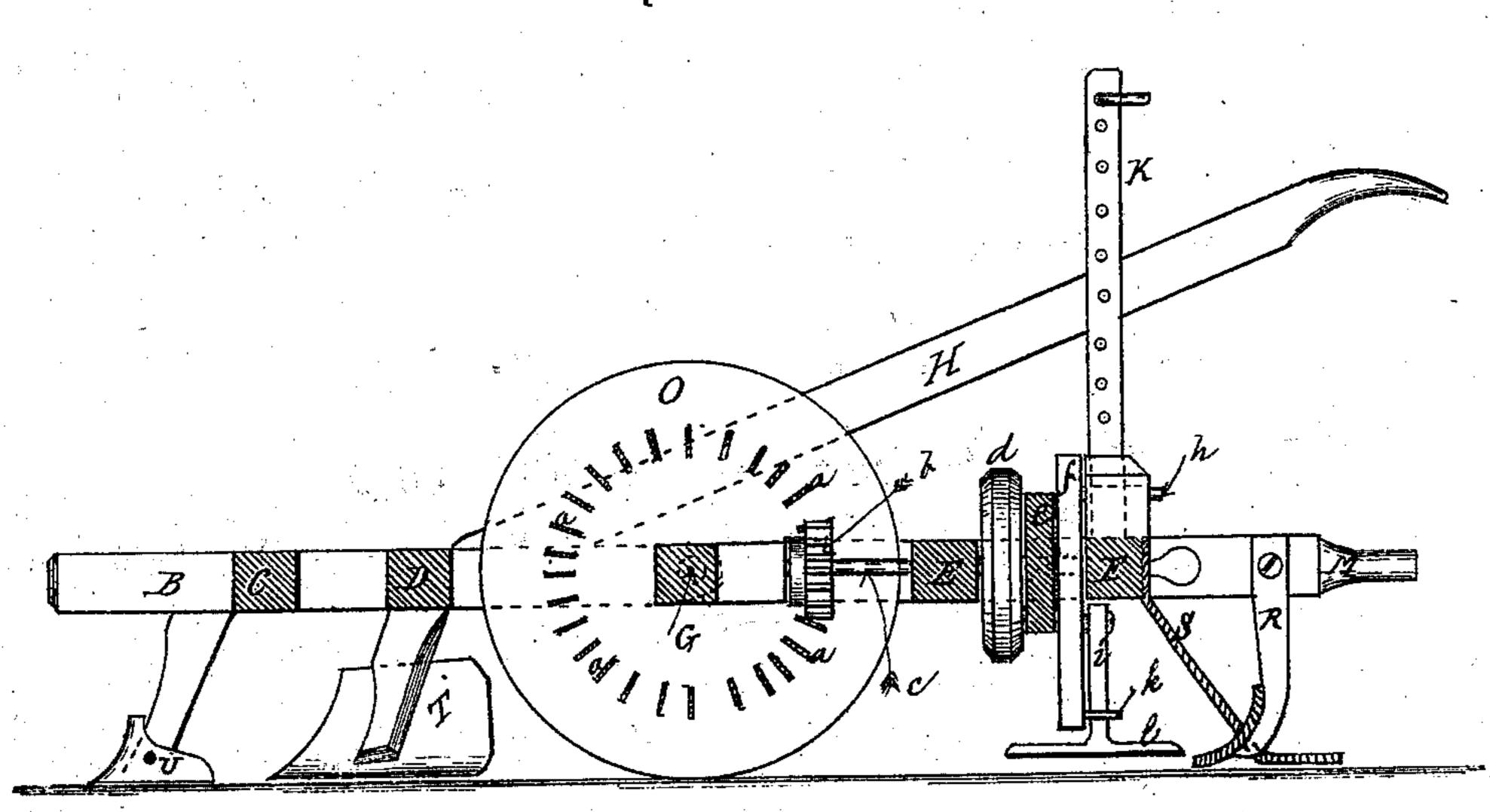
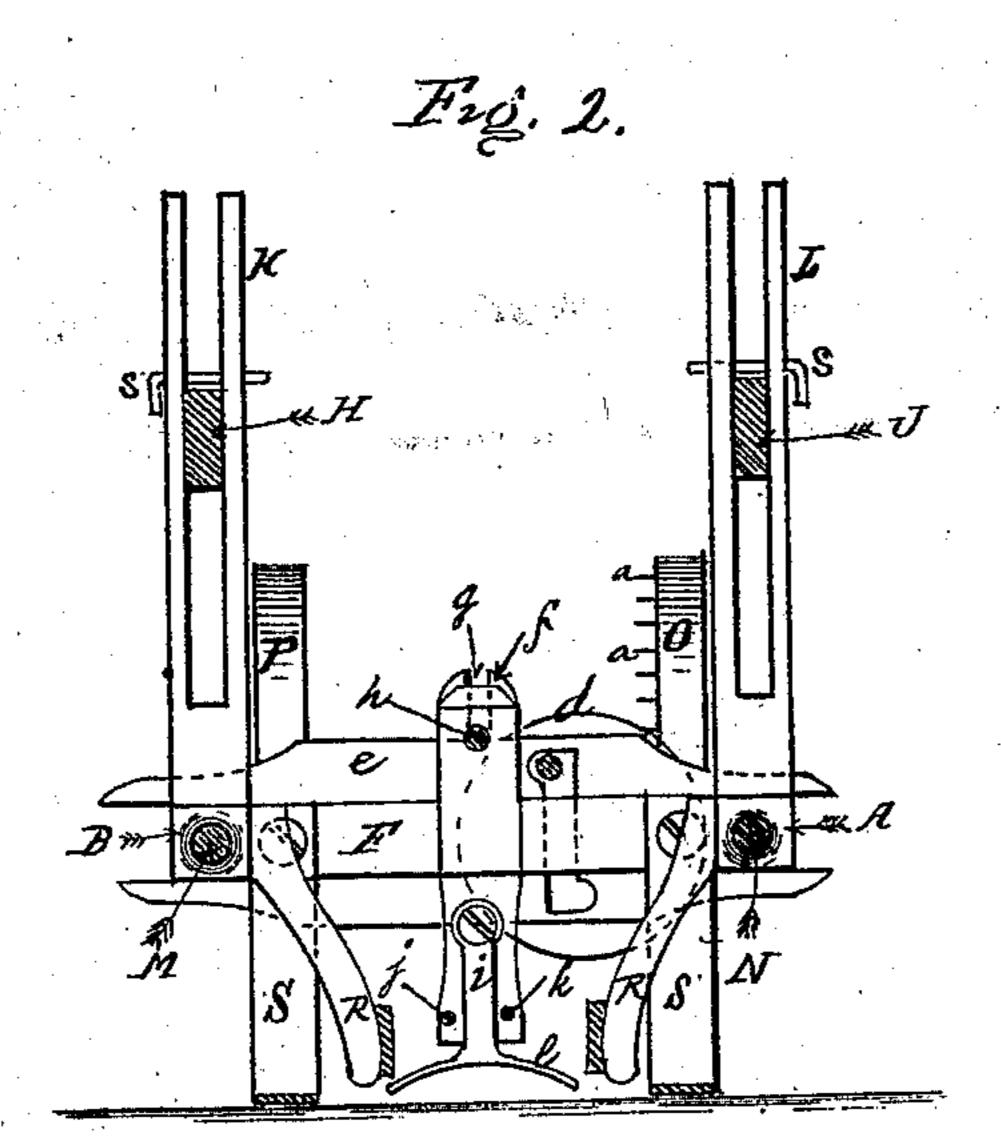
## W. H. WASH. Cotton-Cultivators.

No.150,448.

Patented May 5, 1874.

Frg:1.





Witnesses: Richard derner Franklindaritt Wow. 40. Wash
Pen Honry Gerner

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## United States Patent Office.

WILLIAM H. WASH, OF MEMPHIS, TENNESSEE, ASSIGNOR OF ONE-HALF HIS RIGHT TO E. S. BROADDUS, OF EUDORA, ARKANSAS.

## IMPROVEMENT IN COTTON-CULTIVATORS.

Specification forming part of Letters Patent No. 150,448, dated May 5, 1874; application filed July 24, 1873.

To all whom it may concern:

Be it known that I, WILLIAM H. WASH, of the city of Memphis, Shelby county, State of Tennessee, have invented certain Improvements in Cotton-Plant Cultivators, of which the following is a specification:

The object of my invention is to bar, scrape, chop, and dirt cotton in a more perfect way than heretofore done, requiring less power and attendance, and saving time and labor.

In order to describe my invention more fully, I refer to the accompanying drawing forming a part of this specification.

Figure I is a longitudinal cut-section of a machine embodying my invention. Fig. II is a back view of the same.

A structure consisting of the two square side pieces A and B, connected by four square cross-pieces, C D E F, forms the frame of the machine. A and B are, in the middle, hinged or joined together by a universal joint, the pivot for said hinges being the ends of the axle G. By this arrangement the front part of the machine can be lifted or depressed by aid of the bars or levers H and J, which are guided by being placed in the slots of the standards K and K, and made stationary, or regulated by pins S.S. Two handles, M and N, in the rear end of A and B, serve to lift or depress the back part of the machine. O and P are two wheels, placed on the axle G, on which the machine is drawn over the ground. Inside the wheel O are placed, in a circle, the cogs a a, which serve to drive the cog-wheel b, placed on the axle c, to the end of which a crank, d, is attached, which gives the cross-

piece e a reciprocating motion. To the middle of this cross-piece, in the rear, is pivoted a vertical arm, f, in the top of which a slot, g, is made, into which the pin h is introduced. To the lower part of the arm f is pivoted the knife-handle i, in the end of which two pins, j and k, are placed, forming a slot, in which the knife-handle rests. To the end of the knife-handle i is fastened the knife l, formed of a slightly-rounded piece of steel or iron, sharpened on both sides, but not on the ends. The motion thus given to the knife causes the same to pass level across the cotton ridge. R R are two small plows. SS are two iron slides following the track of the wheels, on which the back of the machine rests. TT are two scrapers placed in front of the wheels O and P, and U U are two plows placed inside of A and B in front of the scrapers T T.

This so constructed machine will enable the operator to bar, scrape, chop, and dirt the cotton-plant simultaneously, and at the same time allow the chopper to be raised at will, so it will readily skip over the cotton or obstructions such as the chopper will not cut.

Having thus described my invention, I desire to claim—

In a cotton-chopper, the knife l, with handle i, and vertical arm f, with slot g, in combination with the reciprocating slotted cross-piece e, crank d, and pinion-shaft c, substantially as and for the purpose set forth.

WM. H. WASH.

Witnesses:
Moses Graham,
Julia Hill.