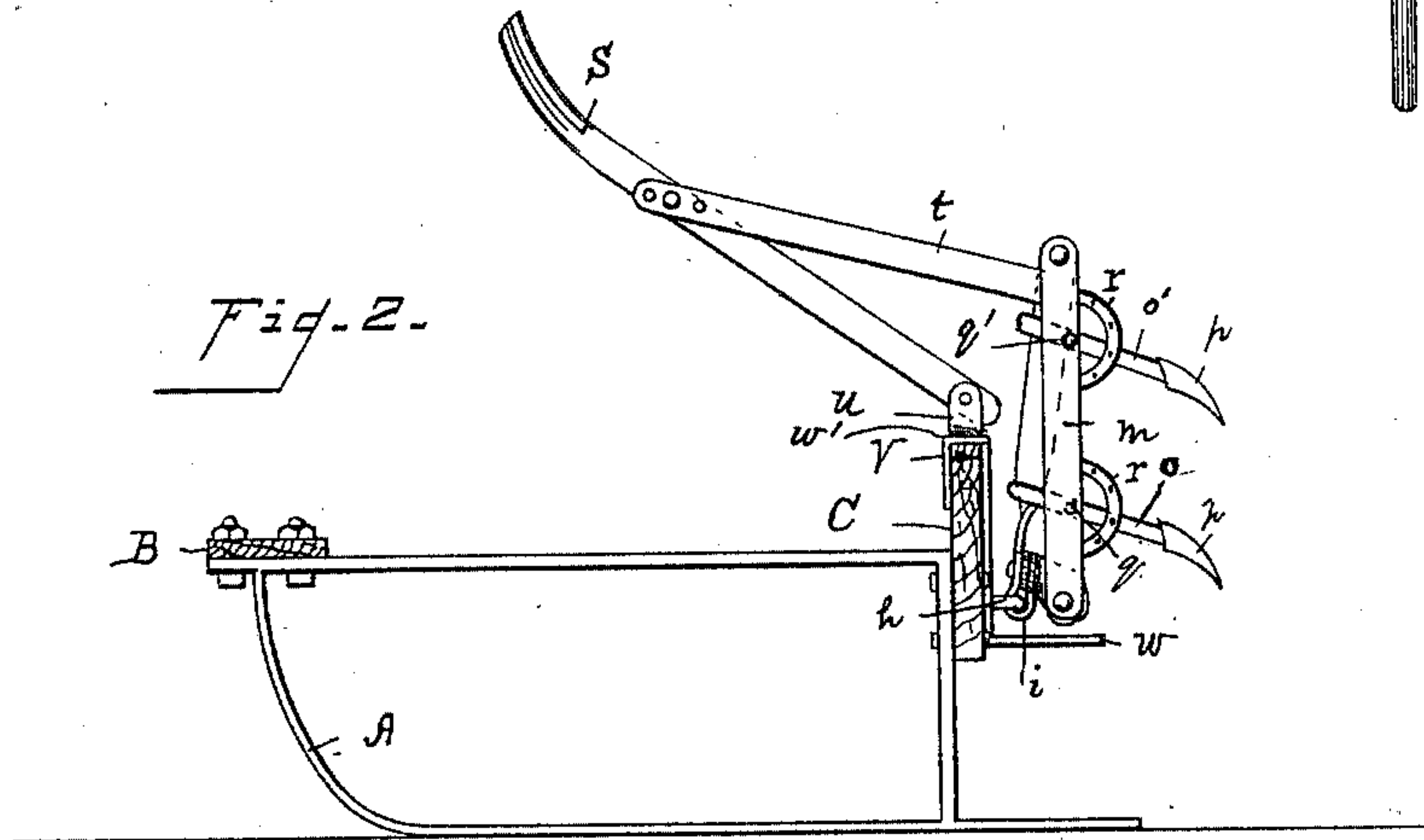
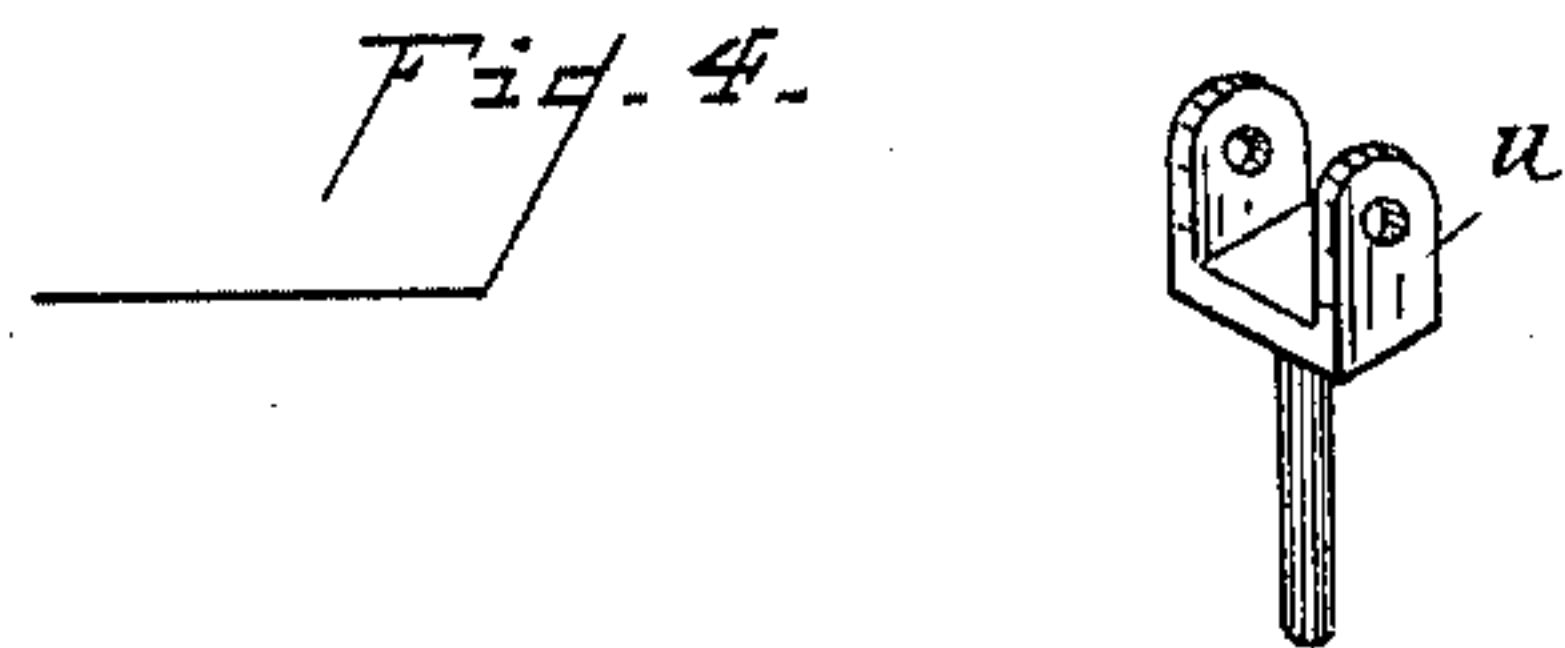
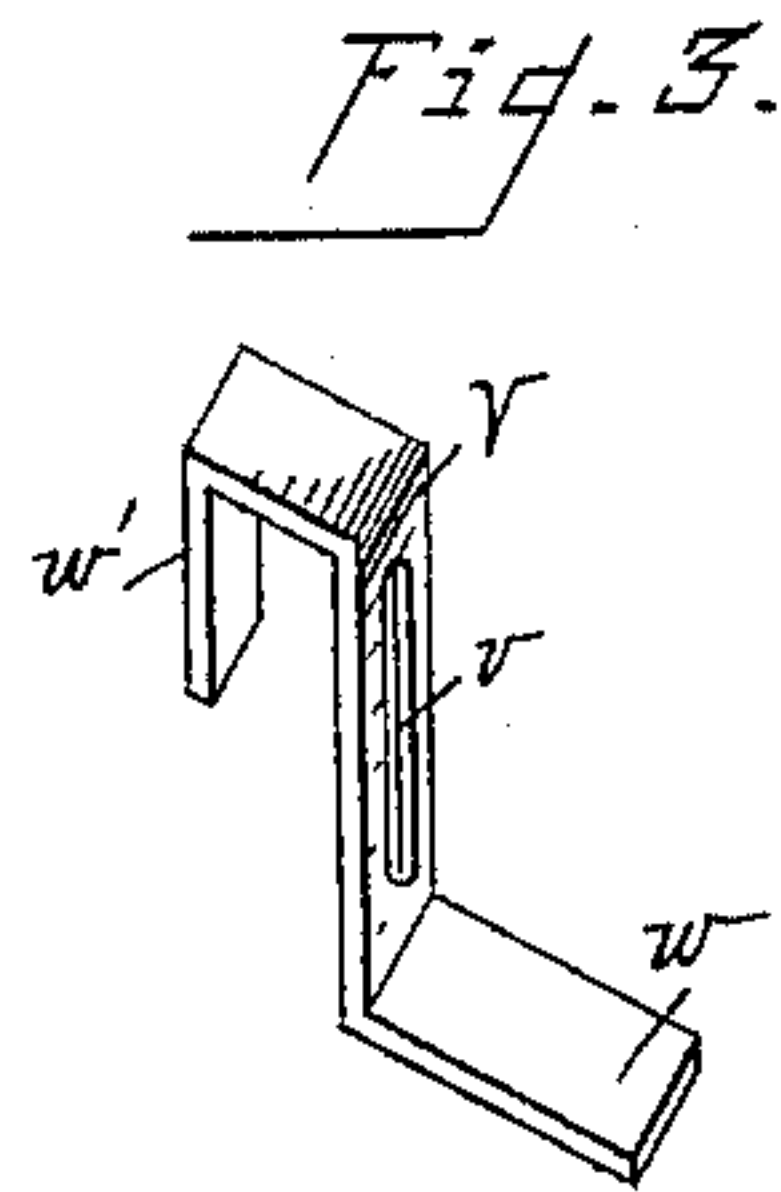
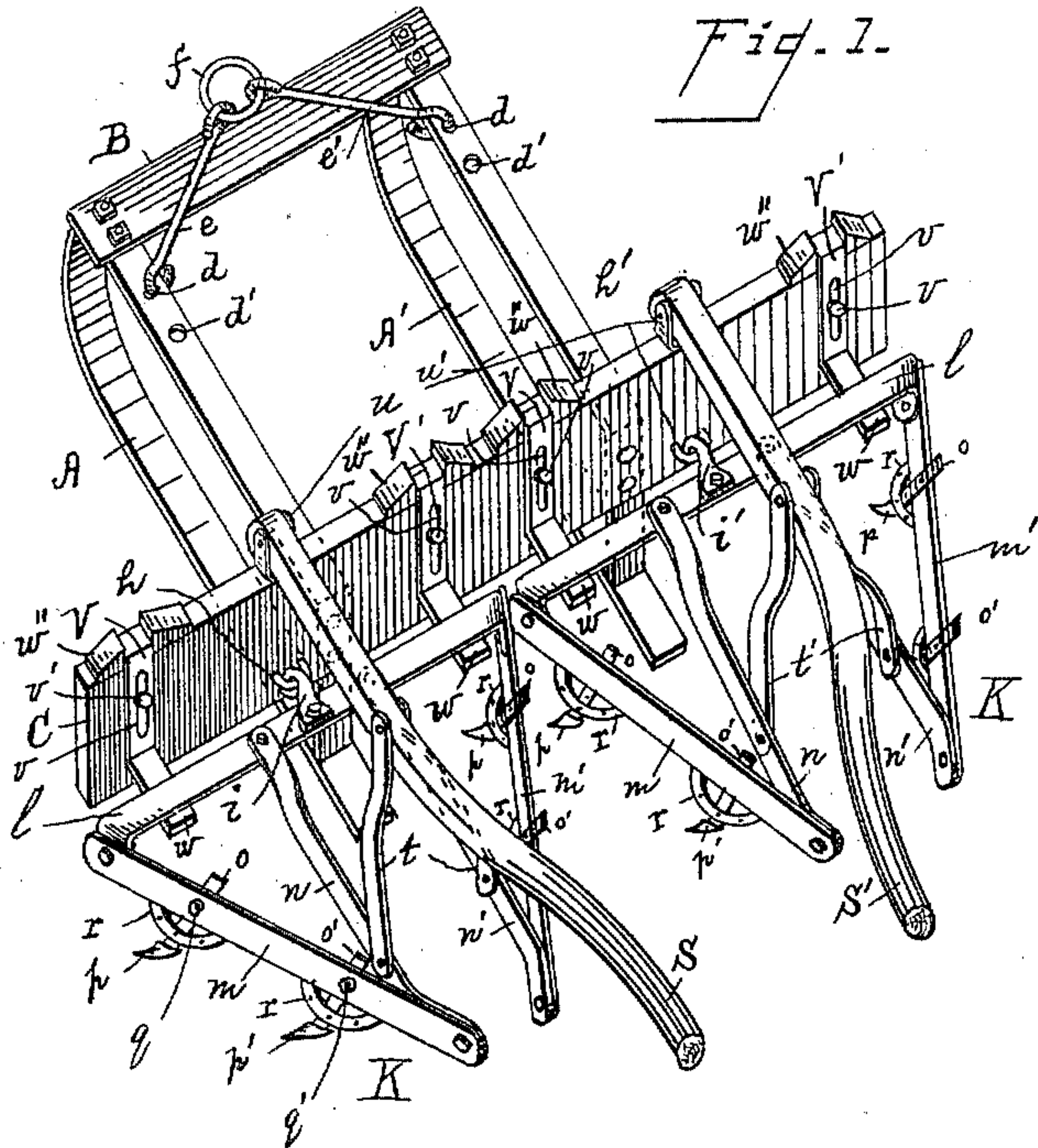


(No Model.)

S. M. ADAMS.  
CULTIVATOR.

No. 600,275.

Patented Mar. 8, 1898.



WITNESSES  
H. N. Jenkins  
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Attorneys



# UNITED STATES PATENT OFFICE.

SAMUEL M. ADAMS, OF POWHATAN, KANSAS.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 600,275, dated March 8, 1898.

Application filed June 2, 1897. Serial No. 639,109. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL M. ADAMS, a citizen of the United States, residing at Powhatan, in the county of Brown and State of Kansas, have invented new and useful Improvements in Cultivators, of which the following is a specification.

This invention relates to a new and improved cultivator, its object being to cultivate two rows at one time. It is adapted to be drawn by three horses and guided by one person. The operating mechanism is supported on a sled the runners of which are made adjustable to suit the distance between the rows or furrows.

The adaptation of runners to my cultivator enables same to be drawn with but little exertion on the part of the animal and provides for its operation in marshy as well as other soils.

My invention will be readily understood by referring to the accompanying drawings, wherein—

Figure 1 is a perspective view of the machine complete. Fig. 2 is a side elevation of the machine with cultivators raised, as for housing or transportation. Fig. 3 is a perspective view of one of the adjustable rests for the cultivator-frames, and Fig. 4 a like view of a swivel-pin for receiving one of the handles.

Referring again to the drawings, the letters A A' designate the sled-runners, B a connecting front bar or board, and C the connecting rear board. The front and rear boards may each be provided with a series of bolt-holes to permit of the runners being secured thereto at variable distances apart.

The upper part of each runner is provided near its forward end with a series of perforations  $d d'$ , to either of which the rear ends of a pair of rods  $e e'$  may be attached. The forward ends of the said rods are connected with a ring  $f$ , thus forming a clevis for the connection of a whiffletree.

The board C, it will be noticed, is of greater length than the width of the sled proper and is provided at suitable distances apart with rearwardly-projecting staples  $h h'$ , to which the clevises  $i i'$  of the cultivator-frames K K are connected, as shown. The length of the staples and connecting-clevises determines

the side or swinging motion of the cultivator-frames.

The aforesaid frames are each composed of a front bar  $l$ , to the ends of which are secured the rearwardly-projecting side bars  $m m'$ . These bars  $m m'$  are inclined toward each other and have their rear ends connected with the front bar  $l$  by means of brace rods or bars  $n n'$ .

The shanks  $o o'$  of the shovels  $p p'$  are adapted to be connected with the side bars  $m m'$  of the cultivator-frames by means of bolts  $q q'$  and be held in adjusted positions by means of the semicircular pieces  $r r'$ , which are provided with perforations for the reception of bolts or pins, whereby the shovels are held at such angles as the operator may deem best for the successful working of the machine.

The cultivator-frames are guided and their rear ends held at any desired elevation by the handle-bars S S', which are connected with the cultivator-frames by the bars or rods  $t t'$ . The front ends of the handle-bars are connected with the upper edge of the rear board C by means of swivel-pins, as shown at  $u u'$  in Fig. 1.

The letters V V' designate end rests for the front bar of the cultivator-frames. These rests consist of vertical plates of metal, each provided with a vertical slot  $v$  for the passage of a bolt  $v'$ , whereby it is secured to the board C at any desired height. The lower end of each rest is provided with a rearward projection  $w$  for the support of the cultivator-frame, and the upper part of the device is formed into an oblate hook  $w'$  to engage the upper edge of the backboard C, the said edge being provided at such place with a mortise or a mortised block  $w''$  for the reception of the same.

Particular attention is directed to the facts that the front shovels of my cultivators are at a greater distance from the plants than the rear shovels and that the rests hold the cultivator-frames in horizontal positions and prevent any rolling or rocking of the same when operating on uneven ground. Attention is also called to the fact that the sled-runners operate between two rows of plants, while the cultivators proper straddle the same. The person in charge walks between the rows and the

shovels of each half of cultivator-frame operate against one side of each row.

Having described my invention, what I claim, and desire to secure by Letters Patent, 5 is—

1. The combination in a cultivator, of a sled having runners adapted to straddle two rows; and cultivator-frames of triangular form, the base of each triangle being centrally connected with the rear of the sled-frame by a 10 swivel-joint, a handle-bar pivotally connected with the rear of the sled-frame, and rods connecting the said handle-bar and the rear of the cultivator-frame, substantially as and 15 for the purpose set forth.

2. The combination in a cultivator, of a pair of runners, a connecting front board and a

connecting rear board, the latter arranged on edge and having a pair of cultivator-frames connected therewith, as described, adjustable 20 rests adapted to connect with the aforesaid rear board to hold the cultivator-frames as required, a pair of handle-bars adapted to operate on swivel-pins, and rods whereby the rear portions of the handle-bars and cultiva- 25 tor-frames are connected, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL M. ADAMS.

Witnesses:

W. R. BENTLEY, Jr.,  
CHARLES H. BAXTER.