No. 881,932. PATENTED MAR. 17, 1908.

C. W. KEEN.

ROTARY IMPLEMENT.

APPLICATION FILED NOV. 10, 1906.

Fig. 1.

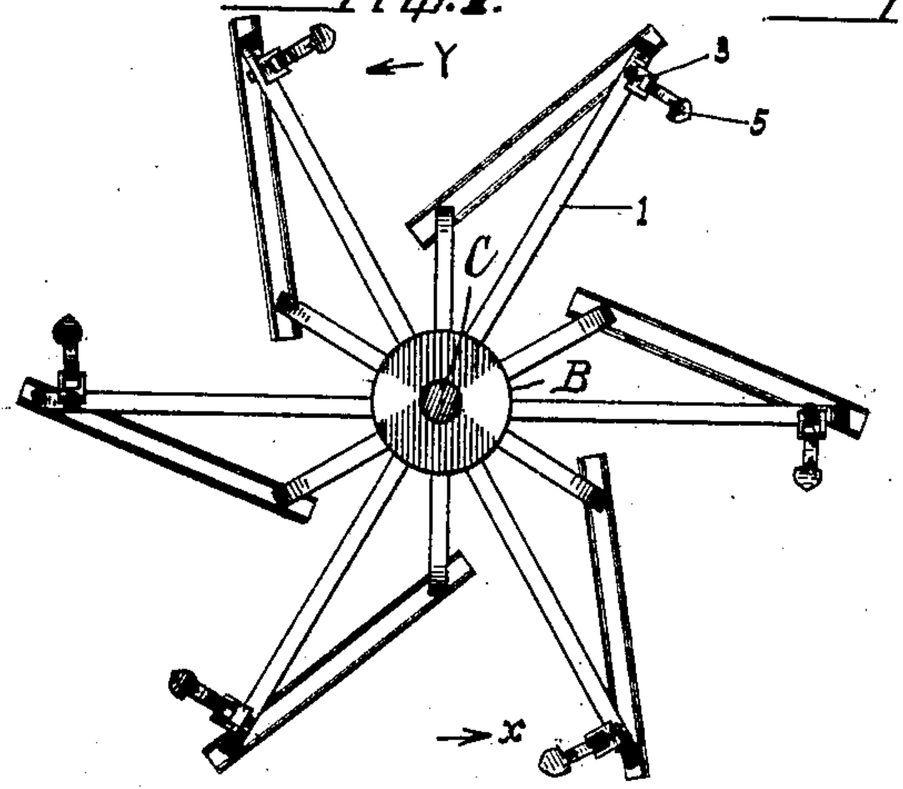


Fig. 2.

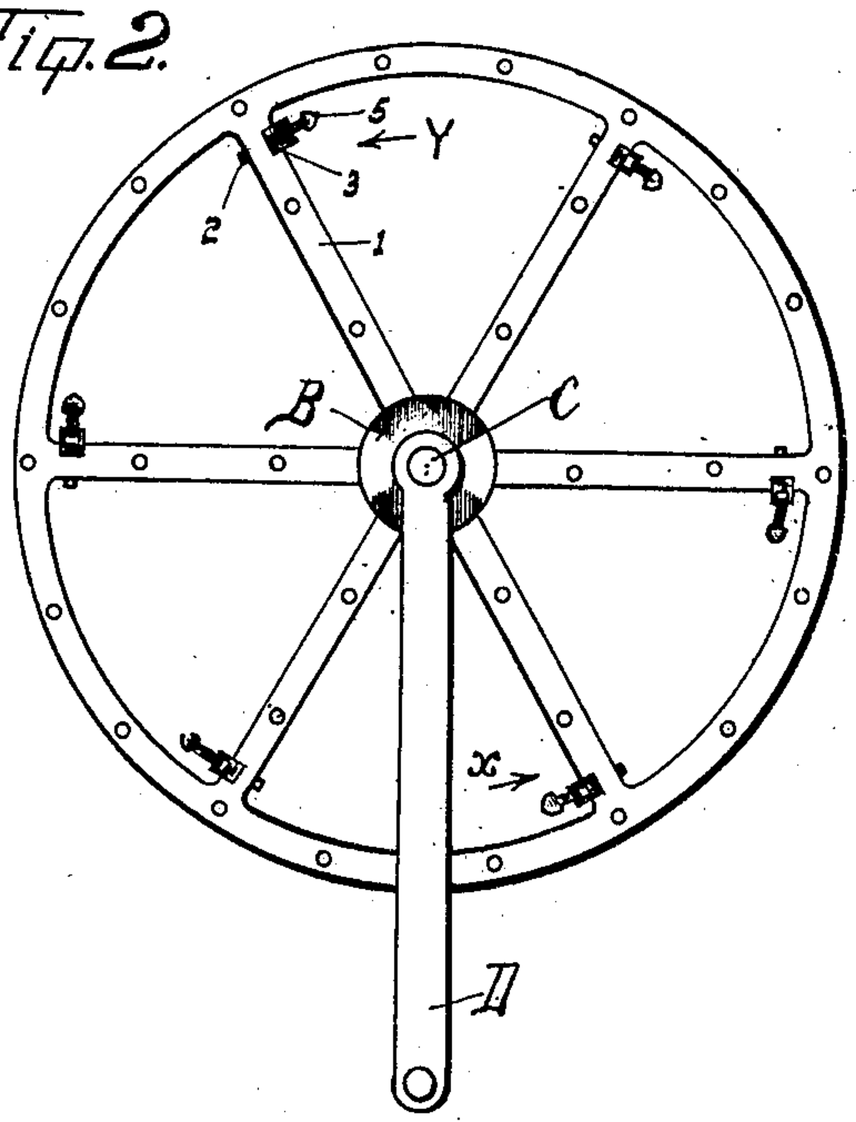


Fig. 3.

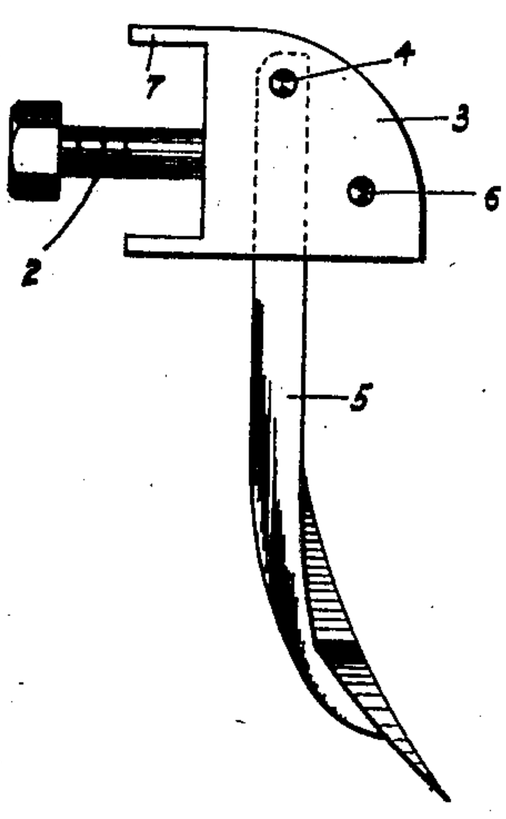


Fig. 4

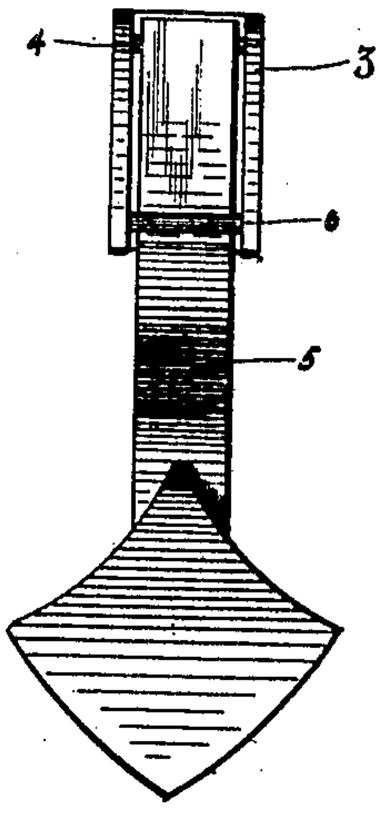
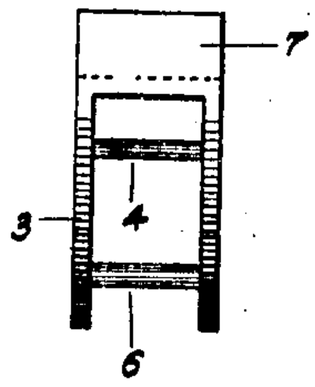


Fig. 5.



Witnesses

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ROTARY IMPLEMENT.

No. 881,932. Specification of Letters Patent. Patented March 17, 1908.

Application filed November 10, 1906. Serial No. 342,831.

To all whom it may concern:

Be it known that I, CAMDEN W. KEEN, a citizen of the United States, and a resident of Lodi, in the county of San Joaquin, State of California, have invented certain new and useful Improvements in Rotary Implements; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and the characters of reference marked thereon, which form a part of this application.

This invention relates to means for giving motion to certain devices and particularly to those where a rotary motion is desired.

My object is to produce such a means as will do away with the cumbersome and unhandy weights now used on devices of this character; also one which will be more efficient and effective than such weights; also one which will aid the machine in doing the work for which it is designed. These objects I accomplish by means of downwardly depending members secured to machines wherein rotary motion is desired, in such manner that the forward movement of said machine will cause said depending members to give such resistance at the proper time as will produce the rotary motion desired; also by such other and further construction as will appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a top plan view of a rotary weed cutter with the pulling tongue not shown. Fig. 2 is a similar view of a rotary harrow and shows the pulling tongue. Fig. 3 is a side elevation of a harrow tooth or spade. Fig. 4 is a front elevation of the same. Fig. 5 is a top plan view of a journal box for said harrow tooth.

1 designates the radial arms of either the weed cutter or of the harrow, carried by a suitable hub B provided with a central stub shaft C; said stub shaft being journaled in a suitable pulling tongue D. Secured to the outer ends of said arms by bolts 2 are journal boxes 3 provided with journal pins 4 on which are pivotally journaled depending teeth or spades 5. 6 are cross pins in the forward part of the boxes 3 adapted to form a resistance or stop to the upward movement of the said teeth or spades 5, for the purpose as will appear. 7 are flanges on the boxes 3 for the purpose of engaging with the arms 1 and thus maintaining said boxes in a fixed position. In practice the said teeth or spades 5 are disposed in a direction opposite the direction in which the machine is to rotate, it being of course understood that the machines can be adapted to rotate in either direction.

For the sake of illustrating the operation of my device consider the forward movement of either of the devices shown in Figs. 1 or 2 to be toward the bottom end of the sheet. Thus when the members 5 pass the dead center and reach a point say at X then the forward movement of the machine causes said members 5 to bear against the box 3 and to gouge or press into the earth thus causing a resistance sufficient to give the rotary movement to the machine in the indicated direction. When said members 5 pass the point of resistance just described, for instance, at *y*, then they drag along the earth thus assisting in the harrowing thereof. At such times the teeth 5 engage the pins 6 which limits the upward movement of the members 5 and causes them to gouge or press into the earth as described. Otherwise they would rise to and drag along the surface of the earth, thus losing their efficiency.

While I have described this device in connection with rotary weed cutters or harrows, still in practice it may be used on any suitable machine where rotary movement is desired.

Thus it will be seen I have produced a device whereby the weights now used to give rotary movement to machines of the kind set forth may be done away with, thus rendering the machine much lighter and much more easily handled.

This description sets forth the device as at present and preferably constructed. However the details of construction may in practice be slightly changed, but not in a degree sufficient to form a departure from the spirit of the invention and the appended claims.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent is:—

1. A rotary implement, comprising radial arms carried by a hub and provided with traction means, quadrant-shaped journal boxes having parallel flanges and bolted to corresponding sides of said arms and at points intermediate their ends, transverse

journal pins carried by the parallel sides of said boxes and at a point near the top thereof, pivotal depending teeth journaled on said pins, pins carried by said boxes parallel to said journal pins and adapted to limit the upward movement of said teeth during one half of a revolution of said implement.

2. An implement comprising a journal box with one open and one closed side, two parallel segment shaped sides, projecting parallel flanges and an intermediate bolt carried on the exterior of said closed side, transverse journal pins carried by said parallel sides at a point near the top thereof, pivotal depending teeth journaled on said pins, pins carried by said parallel sides and parallel to said journal pins and adapted to engage said teeth during pivotal movement of the latter.

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

CAMDEN W. KEEN.

Witnesses:

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