(No Model.)

C. L. BARRETT.

BICYCLE PATH EXCAVATING MACHINE.

No. 571,915. Patented Nov. 24, 1896.

Fig. 1.

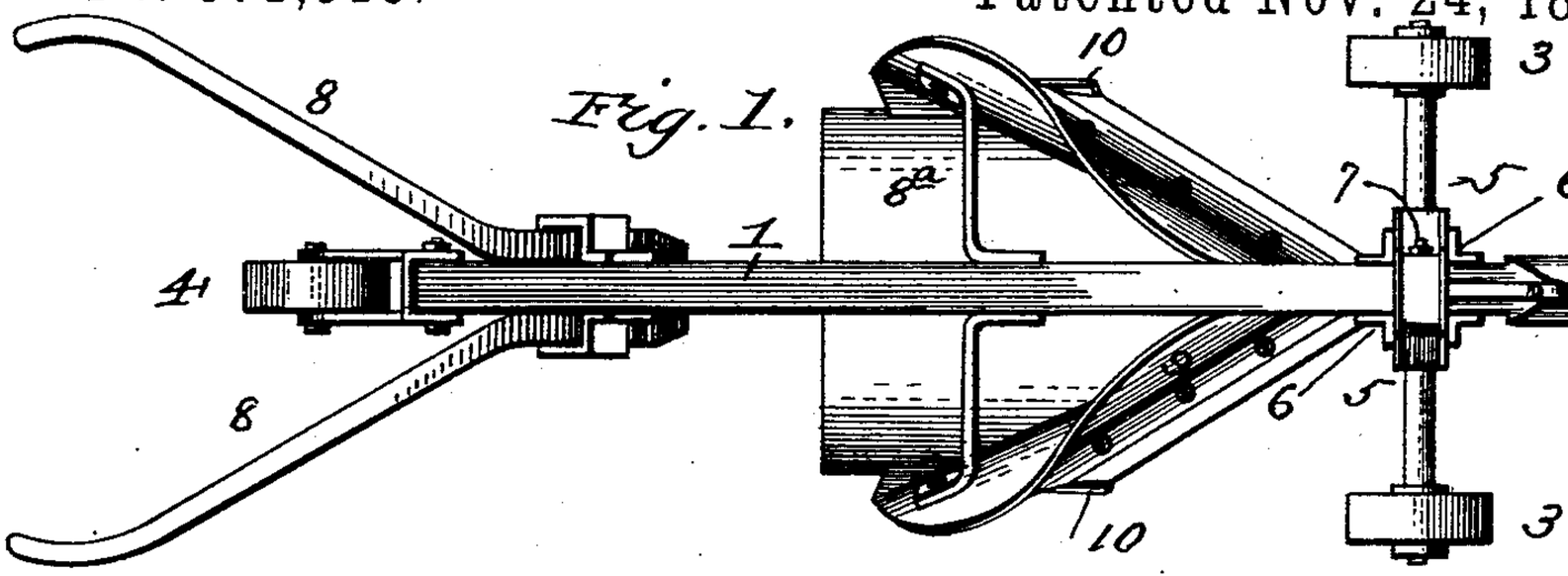


Fig. 2.

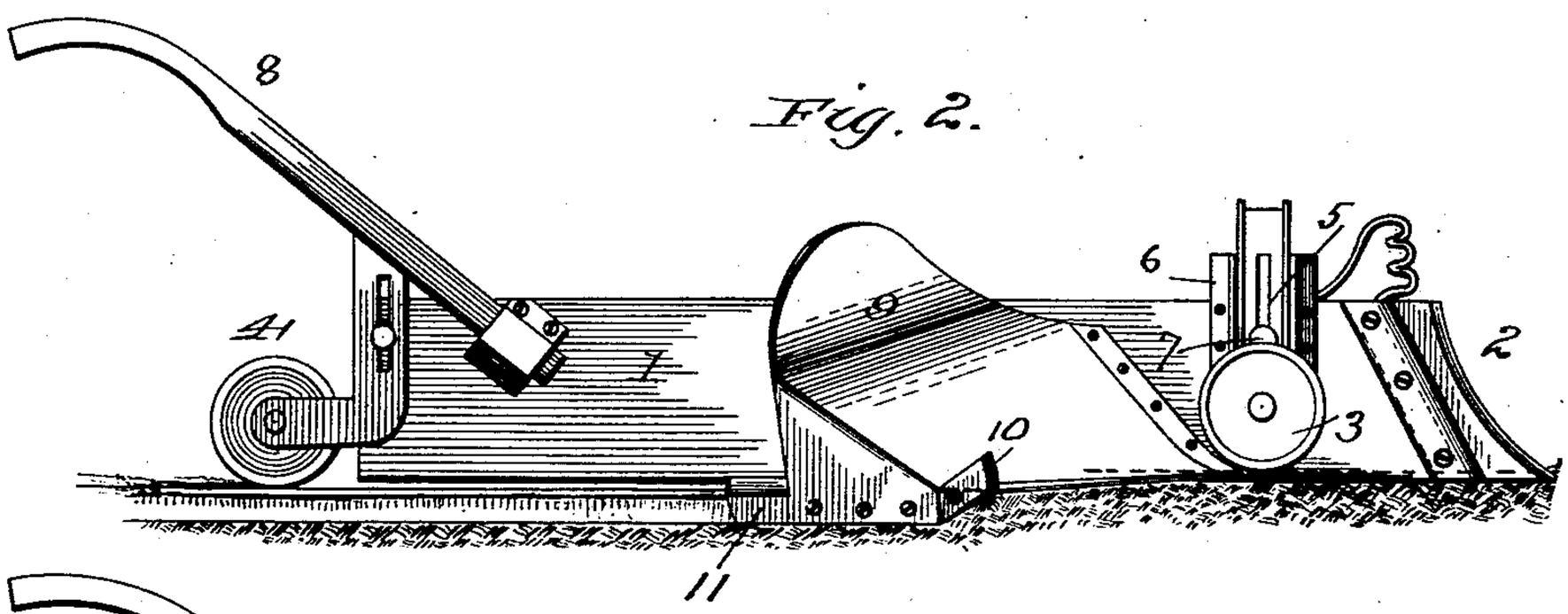


Fig. 3.

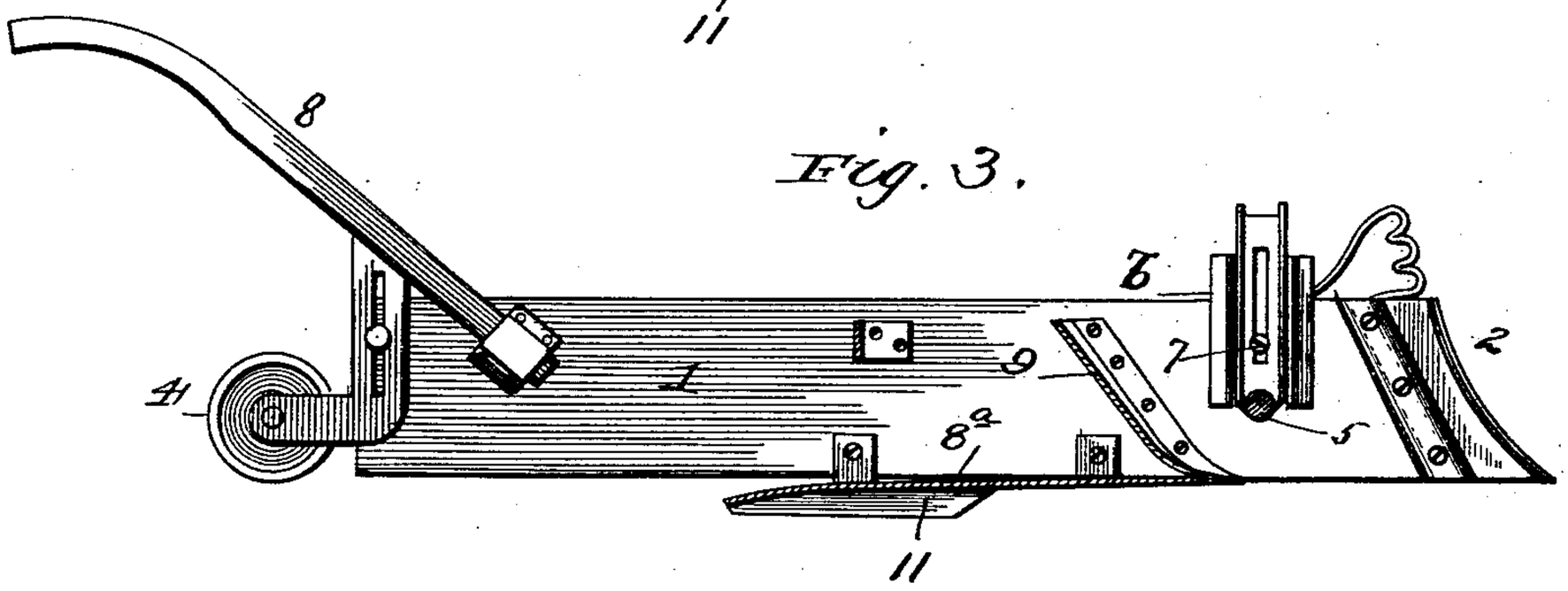
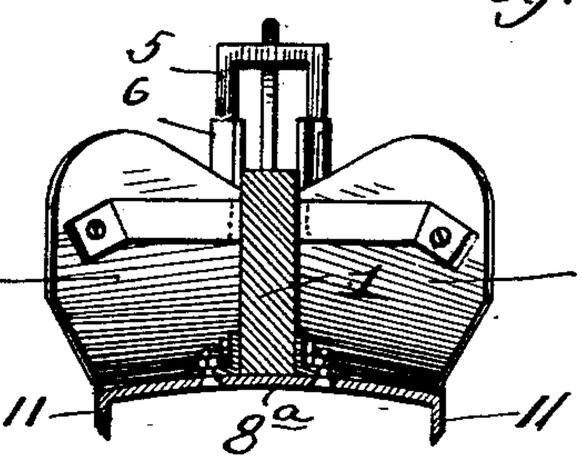


Fig. 4.



Witnesses
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CHARLES L. BARRETT, OF ALLEGAN, MICHIGAN.

BICYCLE-PATH-EXCAVATING MACHINE.

SPECIFICATION forming part of Letters Patent No. 571,915, dated November 24, 1896.

Application filed March 30, 1896. Serial No. 585,383. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. BARRETT, a citizen of the United States, residing at Allegan, in the county of Allegan and State of Michigan, have invented certain new and useful Improvements in Bicycle-Path-Excavating Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to machines for excavating bicycle-paths, particularly through rural districts; and it consists of certain features of construction and combination of parts hereinafter described, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan view of the machine; Fig. 2, a side elevation; Fig. 3, a longitudinal section, and Fig. 4 a transverse section.

Referring to the drawings by numerals, 1 designates a narrow central beam running the full length of the machine and provided at its front end with a vertical central cutting edge 2 and a suitable clevis for the attachment of the draft-animal. At the forward end of the beam is secured a pair of supporting-wheels 3, and at the extreme rear end of the beam is mounted a single wheel 4, these wheels being vertically adjustable on the beam to enable the depth of the cutting apparatus to be adjusted and the machine to be readily transported. The two front wheels have their supporting arms or brackets 5 connected over the upper edge of the beam, so that both wheels shall be adjusted in unison. These brackets are guided vertically in ways 6, and are slotted vertically for the passage of the securing-bolt 7. A pair of handles 8 are secured at the rear end of the beam to enable the machine to be guided and kept pressed into the ground.

A suitable distance behind the front wheels is secured on the bottom of the beam a plate 8^a, whose width is equal to that of the path to be cut and which extends outward on either side the same distance. The front edge of the plate is sharpened, and on each side of the beam it inclines outward and rearward and curves slightly downward to give to the path a slight convexity. On each side of the beam is secured a moldboard 9, whose lower front edge is secured to the plate near and along its adjacent cutting edge, whereby the excavated earth will be turned over and deposited alongside the path. At the outer extremity of each of the inclined cutting edges is fastened a small vertical cutter 10, which is adapted to trim the adjacent edge of the path as the machine advances. Along each longitudinal edge of the plate is formed a depending cutting-flange 11, whose front edge is inclined downwardly and rearwardly and which extends to the rear end of the plate, these flanges serving to cut a channel along each side edge of the path to assist in draining the same. The rear portion of the convex plate is bent downward slightly to pack and smooth the surface of the path as the machine moves along.

In operation it will be observed that the central beam does not serve to guide the machine, but simply to carry the working parts. The guiding is done by the downward-turned edges of the convex plate, which run deeper than the cutting edges of the plate and thereby act as landsides, preventing the machine from being moved sidewise by any unequal pressure upon the moldboards and cutting edges and at the same time permitting the operator to steer the machine in turning curves. These downward flanges also form a channel or crevice to assist the drainage-water in more readily soaking away. The small cutters at the outer extremity of each cutting edge serve to detach the excavated sod or earth from the adjacent earth (to permit the moldboards to readily throw it off to the sides) and leave the side edges of the path clean and smooth. As will be seen, all the parts are made detachable, so that they may be removed for renewal and repair, as shown in Fig. 3.

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

1. A path-cutting machine, comprising a central beam, provided at its front end with a central opening-point or cutting edge, a moldboard on each side of the beam, a plate secured along its longitudinal center to the under side of said beam, its front edge being sharpened and inclined away from the beam, and an edge-cutter at the outer end of each cutting edge, substantially as described and set forth.

2. A path-excavating machine, comprising a central beam, carrying an entering point, a plate secured along its longitudinal center to the under edge of said beam, said plate having its front edges sharpened and provided along each of its outer longitudinal edges with a depending cutting-flange, a moldboard on each side of the beam behind the adjacent cutting edge of the plate, and an edge-cutter at the outer end of each cutting edge, substantially as described and for the purpose set forth.

3. A path-excavating machine, comprising a central beam, provided with a central entering point, a moldboard on each side of the beam, a plate secured centrally to the under side of the beam and curved transversely and bent down at its rear end, the front edge of the plate being sharpened and provided with the edge-cutters working forward of the moldboard, substantially as described and for the purpose set forth.

4. A path-excavating machine, comprising a central beam carrying handles, an entering point, and suitable transporting-wheels, adjustable vertically, a plate secured along its longitudinal center to the under edge of said beam, said plate having its front edges sharpened and inclined outward and rearward and provided along each of its outer longitudinal edges with a depending cutting-flange, said plate being curved transversely, a moldboard on each side of the beam behind the adjacent cutting edge of the plate, and an edge-cutter at the outer end of each inclined edge, substantially as described and for the purpose set forth.

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

CHARLES L. BARRETT.

Witnesses:
WM. H. GOODMAN,
WM. S. SHERMAN.