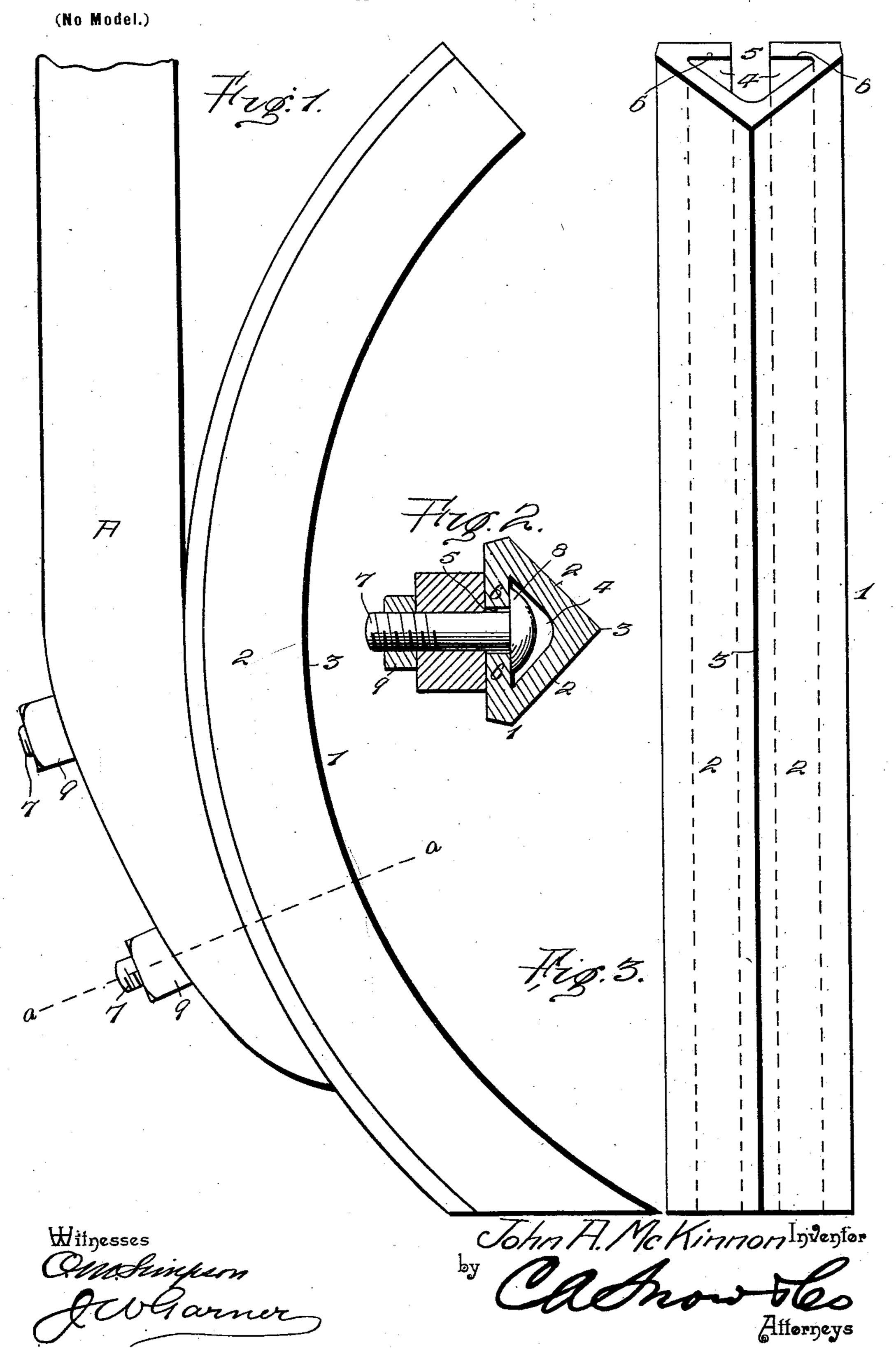
## J. A. MCKINNON. CULTIVATOR.

(Application filed Nov. 29, 1901.)



## United States Patent Office.

JOHN ALLEN McKINNON, OF ELCAJON, CALIFORNIA.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 708,064, dated September 2, 1902.

Application filed November 29, 1901. Serial No. 84,102. (No model.)

To all whom it may concern:

Be it known that I, John Allen McKinnon, a citizen of the United States, residing at Elcajon, in the county of San Diego and State of California, have invented a new and useful Cultivator, of which the following is a specification.

My invention is an improved cultivator-tooth, which is adapted to be readily attached to and adjusted axially on a cultivator-standard by means of one or more bolts; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a cultivator-tooth embodying my improvements, showing the same bolted to a cultivator-standard. Fig. 2 is a transverse sectional view taken on a plane indicated by the line a a of Fig. 1. Fig. 3 is a front elevation of my improved cultivator-tooth.

In the embodiment of my invention here shown the cultivator-tooth 1 is segmental in shape and has its front side formed by converging bevels 2, which meet to form a centrally-disposed cutting edge 3. Within the scope of my invention, however, the cultivator-tooth may be of any suitable form, and I do not desire to limit myself in this particular.

I provide the cultivator-tooth with a channel 4, which extends from end to end thereof, and in the rear side of the cultivator-tooth is a longitudinal slot 5, which is midway between the sides of the tooth and communicates with the said channel 4. The rear side of the said channel is formed by the flanges 6, which form the sides of the slot 5.

My improved cultivator-tooth may be se-40 cured to the standard A of a cultivator by one or more bolts 7, the shanks of which are disposed in openings in the said standard and in

the said slot 5, the heads 8 of the bolts being disposed in the channel 4 of the cultivatortooth and bearing against the front sides of 45 the flanges 6, which form the rear side of the said channel. It will be understood that by thus connecting the cultivator-tooth to the standard the tooth may be adjusted axially, as may be desired, and that by tightening the 50 nuts 9 of the bolts 7 the tooth when adjusted may be securely fastened to the said standard. It will be furthermore apparent that my improved cultivator-tooth may be very readily attached to and detached from a stand- 55 ard and that when one end of the tooth becomes worn the tooth may be reversed and the other end thereof used in the soil.

Having thus described my invention, I claim—

1. A cultivator-tooth having a longitudinal channel to receive the head of a bolt and a slot in the rear side of the tooth intermediate the sides of the channel and communicating therewith, substantially as described.

2. In combination with a cultivator-tooth having a longitudinal channel, a longitudinal slot in its rear side communicating with said channel and flanges forming the sides of said slot and the rear side of said channel, a cultivator-standard and a bolt connecting said tooth to said standard, the head of said bolt being disposed in said channel and the shank thereof disposed in said slot, whereby the said cultivator-tooth is adjustably secured to said 75 standard, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN ALLEN MCKINNON.

Witnesses:
JOHN B. RUMSEY,
HENRY YATES.