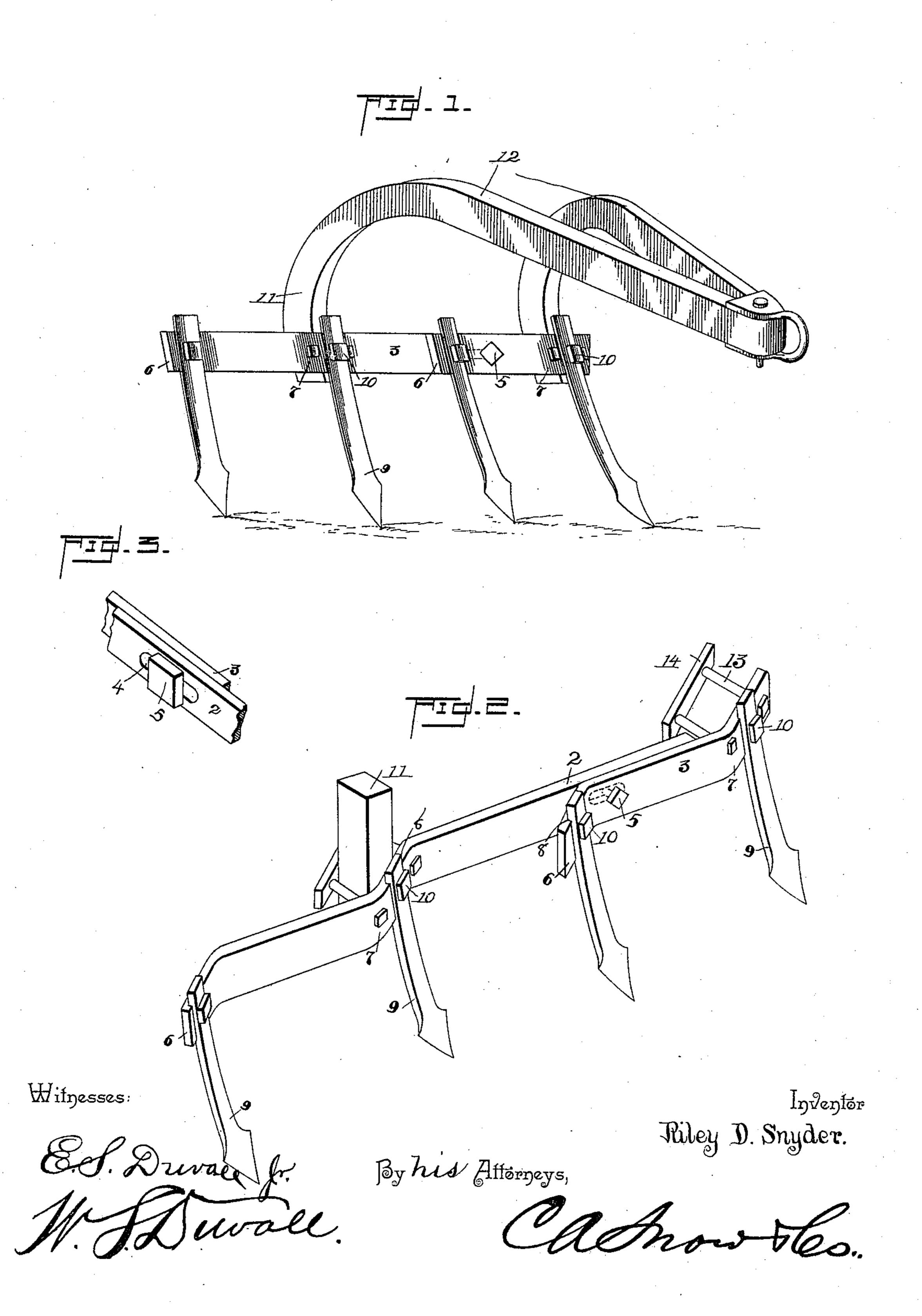
R. D. SNYDER.

CULTIVATOR ATTACHMENT FOR DOUBLE SHOVEL PLOWS.

No. 441,592.

Patented Nov. 25, 1890.



## United States Patent Office.

RILEY D. SNYDER, OF AVON, INDIANA.

## CULTIVATOR ATTACHMENT FOR DOUBLE-SHOVEL PLOWS.

SPECIFICATION forming part of Letters Patent No. 441,592, dated November 25, 1890.

Application filed July 16, 1890. Serial No. 358,908. (No model.)

To all whom it may concern:
Be it known that I, RILEY D. SNYDER, a citizen of the United States, residing at Avon, in the county of Hendricks and State of In-5 diana, have invented a new and useful Cultivator Attachment for Double-Shovel Plows, of which the following is a specification.

This invention has relation to a cultivator attachment for double-shovel plows; and the 10 objects of the invention are to provide means for securing to the plows a series or "gang" of cultivator-teeth, to so arrange the teeth as to require but light structural support, and to render the entire attachment simple, cheap, 15 and effective.

With the above general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of my attachment, the same being applied to a double-shovel plow of the ordinary construction. Fig. 2 is a detail in perspective of the attachment, the same being 25 enlarged. Fig. 3 is a detail in perspective of the joint between the sections.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ a cul-30 tivator-bar 1, preferably formed of bar-steel and divided into two sections, designated as 2 and 3. These sections are adjustably connected in the present instance by means of a slot 4 being formed in the section 2 for the 35 passage therethrough of a transverse adjusting-bolt 5, which passes through said slot and also through the section 3. The righthand ends of the two sections are bent at an obtuse angle to said sections, as at 6, and in-40 termediate their ends each section is provided with an offset 7. The offsets 7 and bent portions 6 of the sections are each provided with recesses or seats 8 for the reception of the cultivator-teeth 9, and said teeth 45 are held in position within their seats by means of binding-bolts 10. In forming the bends of the offsets the lines of the bends are inclined, and not directly across or at a right angle to the longitudinal edge of the bar 1, 50 so that the said bar 1 conforms to the inclination of the depending shovel-standards 11, which extend from the plow-beams 12 of an ordinary double-shovel cultivator. The off-

sets of the sections occur opposite the standards 11, and are secured thereto by means of 55 opposite pairs of bolts 13, which extend through the bar 1 at each side of each of the standards 11 and are connected by tie-plates 14, which are bound upon the standards by means of nuts applied to the ends of the bolts. 60

By my invention it will be apparent that I am enabled to transform an ordinary doubleshovel plow into an efficient cultivator, the teeth of which are arranged one in advance of the other and slightly to one side, so that 65 each succeeding tooth acts to fill the furrow formed by the preceding tooth, as is evident. The disposition of the cultivator-bar is such that light metal may be employed, in that the draft or strain is nearly in line with 70 the bar instead of at a right angle to it, as is ordinarily the case.

Having thus described my invention, what I claim is—

1. The herein-described attachment for 75 double-shovel plows, the same comprising a cultivator-bar formed in opposite overlapping sections adjustably connected and arranged in line with each other, forming a continuous bar, each section provided with offsets hav- 80 ing recessed tooth-seats, cultivator-teeth mounted in the seats, bolts passing through the teeth and the seats, and each section provided with devices for fastening the same to a plow-standard of a double-shovel plow, sub- 85 stantially as specified.

2. The herein-described harrowattachment, the same consisting of a pair of harrow-bar sections arranged in line with and overlapping each other and forming a continuous 92 bar, one of said sections being slotted and the other provided with an adjusting-bolt for engaging the slot, each of said sections being provided with offsets forming tooth-seats and the front section having its inner end bent or 95 deflected from the rear section and forming an offset, and teeth secured within said offsets, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature 100 in presence of two witnesses.

RILEY D. SNYDER.

Witnesses: JAMES O. PARKER, JOSEPH W. FERRER.