(No Model.)

L. J. WEINTZ.

HARROW.

No. 385,739. Patented July 10, 1888.

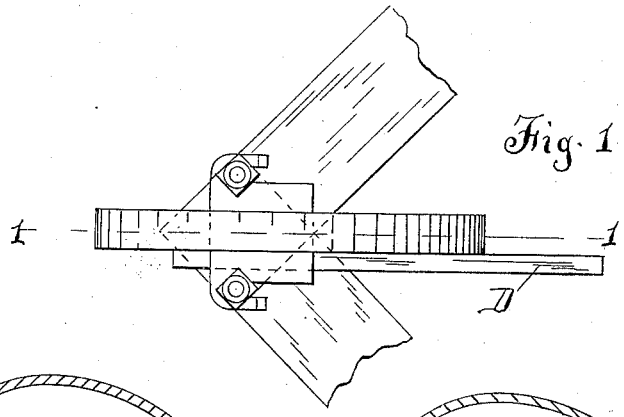

Fig. 1

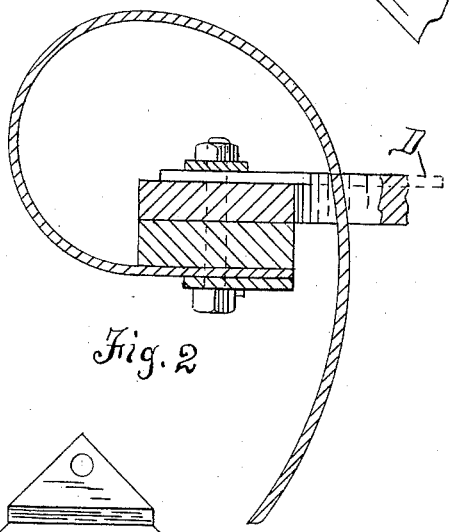

Fig. 2

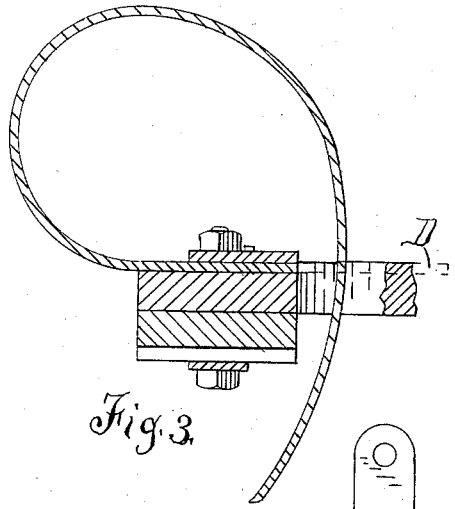

Fig. 3

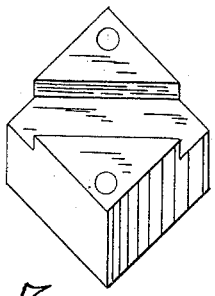

Fig. 5

Fig. 6.

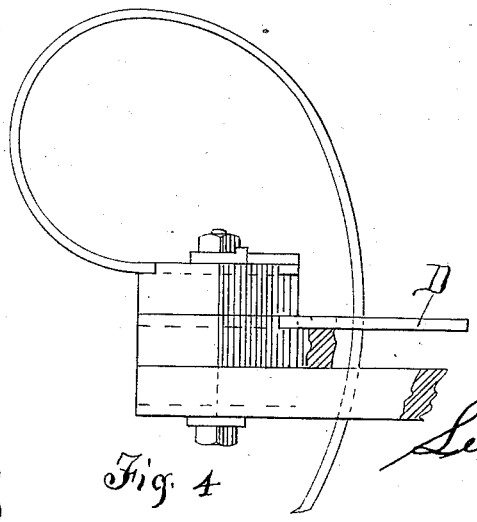

Fig. 4

WITNESSES:

J. C. Bell.

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INVENTOR,

Lewis J. Weintz.

UNITED STATES PATENT OFFICE.

LEWIS J. WEINTZ, OF WILKES-BARRÉ, PENNSYLVANIA.

HARROW.

SPECIFICATION forming part of Letters Patent No. 385,739, dated July 10, 1888.

Application filed October 25, 1887. Serial No. 253,384. (No model.)

To all whom it may concern:

Be it known that I, LEWIS J. WEINTZ, a citizen of the United States, residing at Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Harrow, of which the following is a specification.

My invention relates to improvements in harrows embracing the construction of multiple rows of tooth-seats within and upon the longitudinal and cross bars of harrow-frame. To said seats straight-shanked arch harrow-teeth are secured, subject to vertical adjustment in conjunction with a scraper-blade; and the objects of my improvements are first, to provide a uniform tooth-setting wherein the pitch and elasticity of tooth do not vary; second, to facilitate the removal of accumulating trash upon the points of teeth independently and automatically. These objects are attainable by constructing a harrow as per following description and specifications and accompanying drawings.

A plan view is presented at Figure 1 in drawings. Figs. 2, 3, and 4 present deep, intermediate, and shallow tooth-settings, respectively. In these tooth-settings attention is called to the fact of sameness of pitch and elasticity of tooth being maintained; also, at letter D the scraper-blade is presented to view. The seat-multiplier is shown in Fig. 5 performing its functions; is shown in Fig. 4 at the crown. With the washer-clip shown in Fig. 6 my combination is complete, although I preferably employ a clip, as shown in Fig. 1. Slight diagonal gains are vertically provided in the upper and lower surfaces of frame. These gains receive and secure the ends of the teeth and the scraper D. So, too, in the lower surface of cross-bar and upper surface of lower draft-bar a gain can be provided, resulting satisfactorily for a seating of said tooth. With forms of choice, small blocks of metal or wood might be employed upon surface of frame, the opposite sides, the base, and apex of said blocks being finished to receive and seat the teeth and scraper-blade. Adjacent these tooth-seats perforations for the passage of bolts are provided.

The scraper-bars D are constructed of thin and narrow pieces of metal or wood and secured in tooth-seats projecting rearwardly out near and well past the teeth, and by their never-ceasing elasticity and vibratory action are constantly pressing down any accumulation of trash upon working-point of teeth, thereby causing it to be buried in the soil or depositing the trash in cavities or hollows in the soil's surface. So, too, the spring action of these bars or scrapers when the harrow is slightly raised relieves each tooth of its accumulation of trash. A harrow-frame is thus secured embracing and carrying seats double, triple, or quadruple, or any multiplicity of choice, arranged one above the other.

A scraper blade or bar, harrow-tooth, and clip are rigidly secured in combination in said seats, the teeth being subject to easy, rapid, and effective transition from shallow to deep cultivation, and the reverse. If the tooth when occupying the crown-seat does not operate deep enough, by loosening of the overlying nuts, the tooth at option may be removed to any of the lower seats, and tightening nuts secures the tooth for deeper work. Adjustment of great accuracy can be effected by the manipulation of these means.

Preferably I employ straight-shanked-arch harrow-teeth, although curved-shanked-arch harrow-teeth are susceptible of being advantageously secured upon said seats.

What I claim as my invention is—

1. A harrow-frame provided with a vertical series of tooth-seats, as set forth.

2. The combination, with a harrow-frame provided with a vertical series of tooth-seats, of a harrow-tooth adapted to be secured in any one of said tooth-seats, substantially as set forth.

3. In a harrow, the combination, with a frame provided with tooth-seats arranged in a vertical series, of a harrow-tooth and scraper-blade adapted to be secured in any one of said seats, substantially as set forth.

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

LEWIS J. WEINTZ.

Witnesses:
J. C. BELL,
J. H. RIPPARD.