No. 620,057. Patented Feb. 21, 1899.

# R. H. SLEISTER

## SEED DRILL.

(Application filed Dec. 21, 1898.)

(No Model.)

Fig. 1

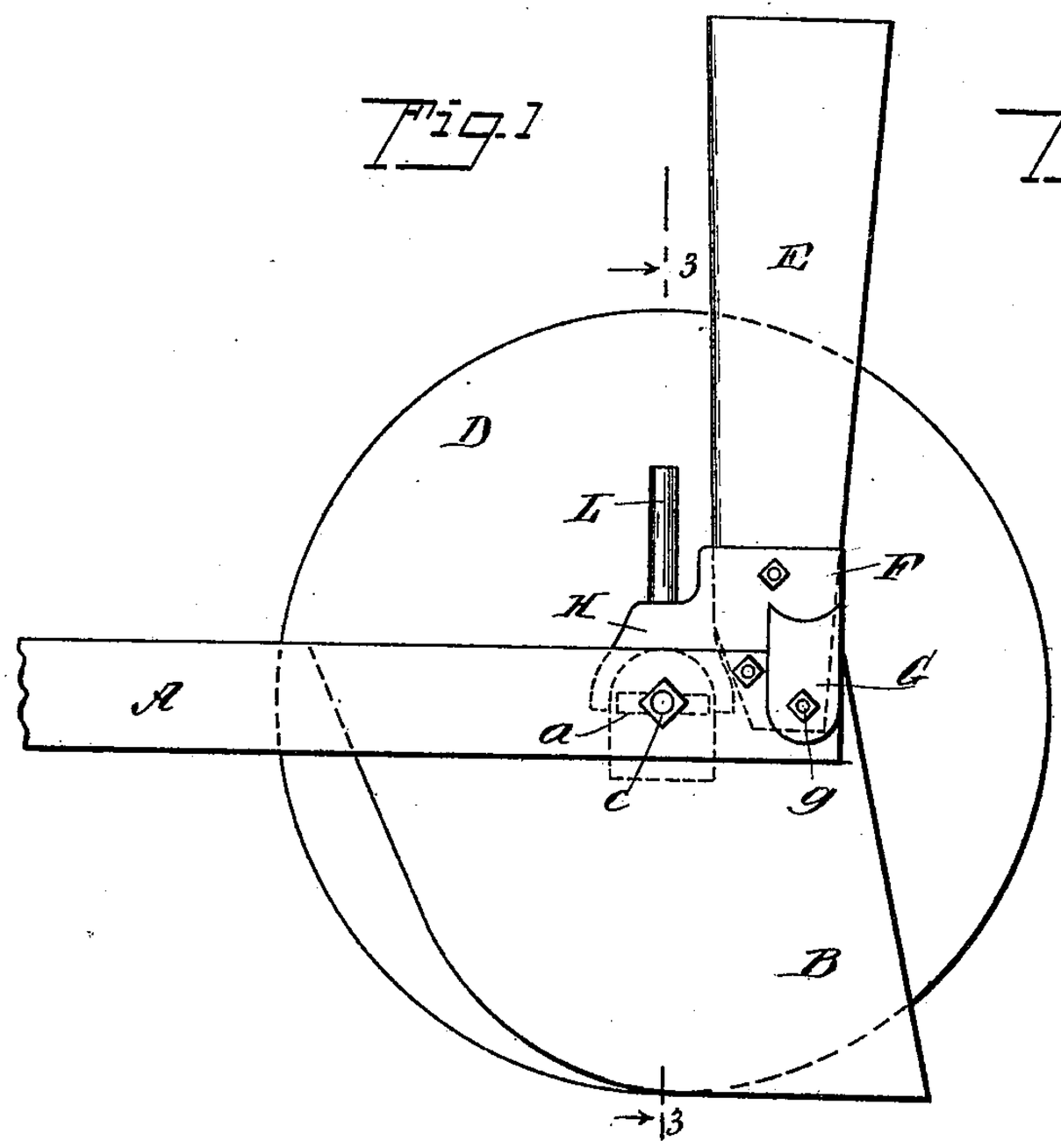



Fig. 3

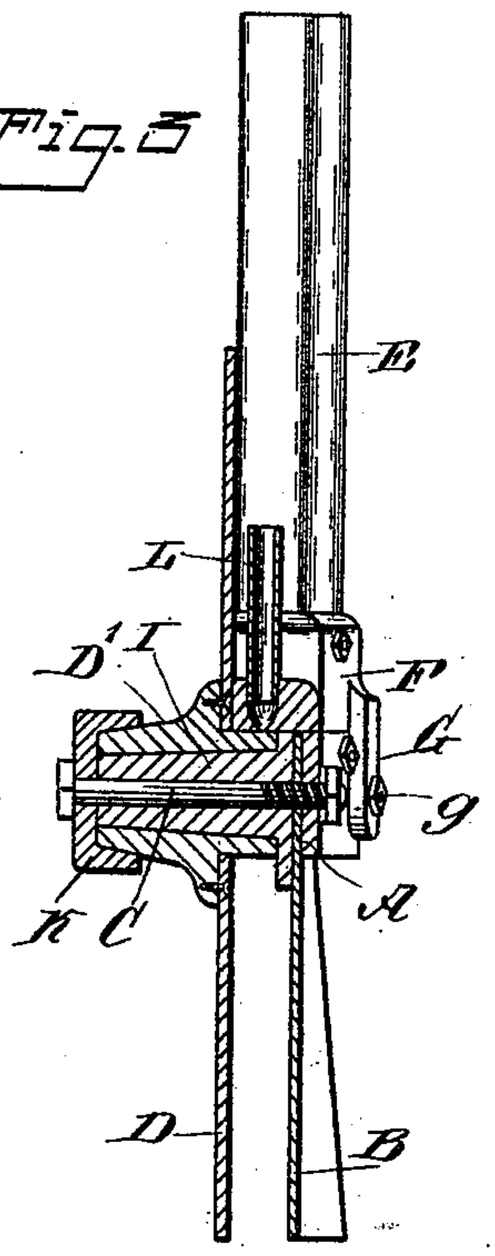



Fig. 2

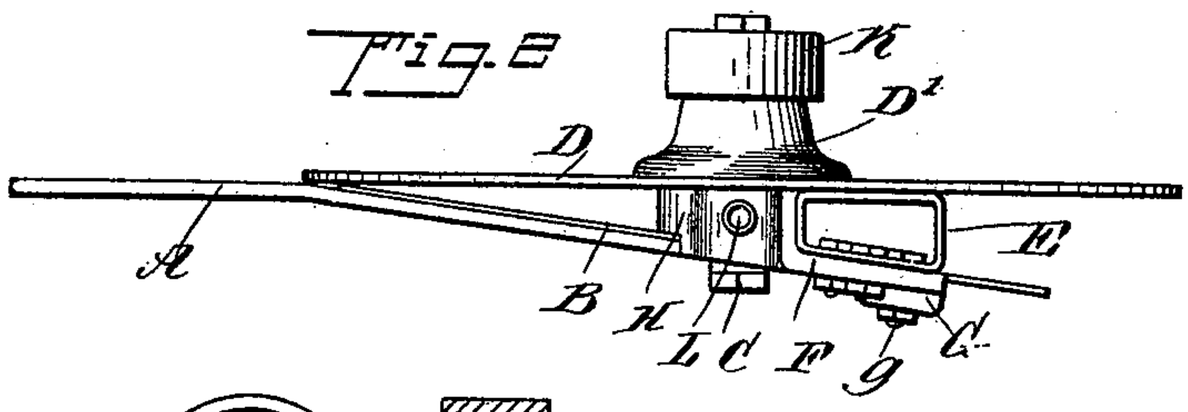



Fig. 4

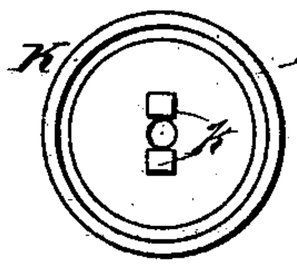



Fig. 5

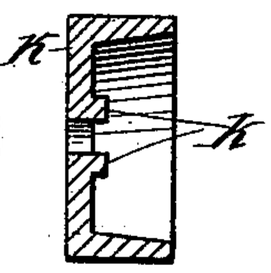



Fig. 6

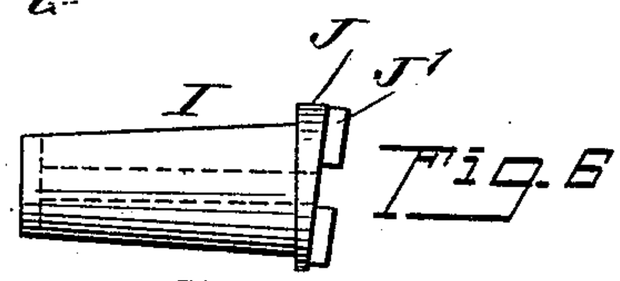



Fig. 7

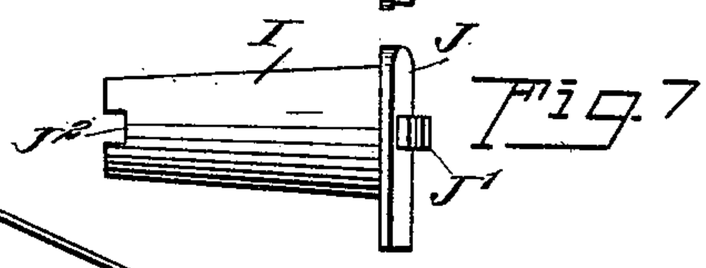
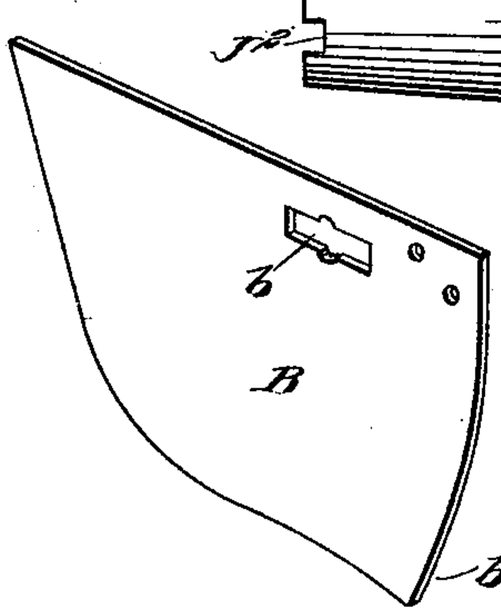



Fig. 8

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# UNITED STATES PATENT OFFICE.

ROBERT HENRY SLEISTER, OF NEBRASKA CITY, NEBRASKA.

## SEED-DRILL.

SPECIFICATION forming part of Letters Patent No. 620,057, dated February 21, 1899.

Application filed December 21, 1898. Serial No. 699,926. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT HENRY SLEISTER, of Nebraska City, in the county of Otoe and State of Nebraska, have invented a new and Improved Seed-Drill, of which the following is a full, clear, and exact description.

My improvement relates to a device designed for attachment to seed-drills; and it consists of a novel mechanism for inserting the seeds in the ground.

My invention comprises the novel features hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my device. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical cross-section substantially on the line 3 3 in Fig. 1. Figs. 4 and 5 respectively represent an enlarged inner side view and transverse section of the washer that is a detail of the invention. Figs. 6 and 7 respectively indicate an enlarged detached plan view and side elevation of a wheel-hub that is part of the improvement, and Fig. 8 is a perspective view showing one of the shields.

My device is designed for attachment to drills or other agricultural implements as a substitute for other seed-planting mechanisms or to supply such device upon tools which do not have them originally.

The device is supported from a draw-bar or frame member A, which at its forward end is provided with any suitable means by which it may be secured to the drill or other tool with which the device is to be used. This draw-bar near its rear end is provided with a slot *a*, by means of which the axle I is securely held in place. The axle I is tapering in its periphery and is provided with an inclined or wedge-shaped collar J at the inner end, so that the axle when secured to the side of the draw-bar will extend at an angle thereto a little less than a right angle. To more firmly hold it in place and to prevent its turning, it is provided with ribs or flanges J′ upon its end, said flanges entering the slot *a*. Upon this axle is mounted the hub D′ of the disk D. This disk is herein shown as a plane disk of iron, but, if desired, may be slightly curved or concaved. The disk is thus held at an angle with the rear portion of the draw-bar A. To the inner side of the draw-bar A is secured a shield B, which is made of sheet metal and is provided with a slot *b*, adapted to pass over the ribs J′ upon the axle. The disk D and the shield B are thus held at a slight angle to each other, the two meeting at their forward edges. The shield slopes at its forward edge downward and toward the rear, the front edge curving into the lower edge.

The outer end of the axle I is provided with a cross slot or notch $J^2$, adapted to receive the projections *k* of the cap or washer K, which fits over the outer end of the hub D′. These parts are all secured together by a bolt C, which passes through the cap or washer K, the axle I, shield B, and the draw-bar A, the whole being thus securely held together.

A seed-spout E is secured to the rear end of the draw-bar A and has its lower end located between the shield and the disk. The seed-spout, as herein shown, is of a general rectangular shape, the two longer sides being, however, at a slight angle to each other corresponding with the angle between the disk and shield. This seed-spout lies close alongside the adjacent side of the disk and has its nearest lower edge made rather sharp, so as to act as a scraper and remove any dirt which might adhere to the side of the disk. To the lower end of this seed-spout is secured a casting F, which has an arm G extending over the outer side of the draw-bar. This is secured to the draw-bar by a bolt *g*, which passes through the arm G. Upon this bolt the seed-spout may have a limited swing. To the casting F is also secured a forwardly-extending arm H, which terminates in a band closely embracing the hub of the disk, serving as a sand-band. Secured to the upper side of this arm H is a tube L, which serves as a reservoir for oil, by means of which the bearing may be kept thoroughly lubricated. The lower rear corner of the shield B may, as shown in Fig. 8, have a slight curve outward, so as to throw the dirt a little more to one side and thus make a larger furrow. In use the seed will be deposited through the spout E and will fall in the furrow made by the disk and the shield B. It will then be covered by the dirt as it falls back into place.

The disk, shield, and seed-spout are pref-

erably all made of thin sheet-steel, and are thus very light as well as being strong.

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

1. A seeding device, comprising a draw-bar or frame member, a furrowing device secured thereto and comprising a rotatable disk, and a seed-conveying spout extending downward alongside of the disk, said spout being pivoted to the frame at one side of the disk-journal, and a cap carried by the spout and covering the hub of the disk and forming a guard or sand-band therefor, substantially as described.

2. A seeding device, comprising a draw-bar or frame member, a furrowing device secured thereto and comprising a rotatable disk, a seed-conveying spout extending downward alongside of the disk, said spout having a sharp corner which closely engages the side of the disk and acts as a scraper therefor, the lower end of the spout being pivoted to the frame at one side of the disk-journal, and a cap carried by the spout and covering the hub of the disk and forming a guard or sand-band therefor, substantially as described.

3. A seeding device, comprising a draw-bar or frame member, a furrowing device comprising a disk journaled on the draw-bar, and a shield secured to the draw-bar, the disk and shield being at an angle with each other, with their forward edges meeting, the draw-bar lying close alongside the shield, and then being bent into the line of draft, and a seed-spout pivoted to the frame in the rear of the disk-journal and between the disk and shield and having a forwardly-projecting arm covering the disk-journal and protecting it from dirt, substantially as described.

ROBERT HENRY SLEISTER.

Witnesses:
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