

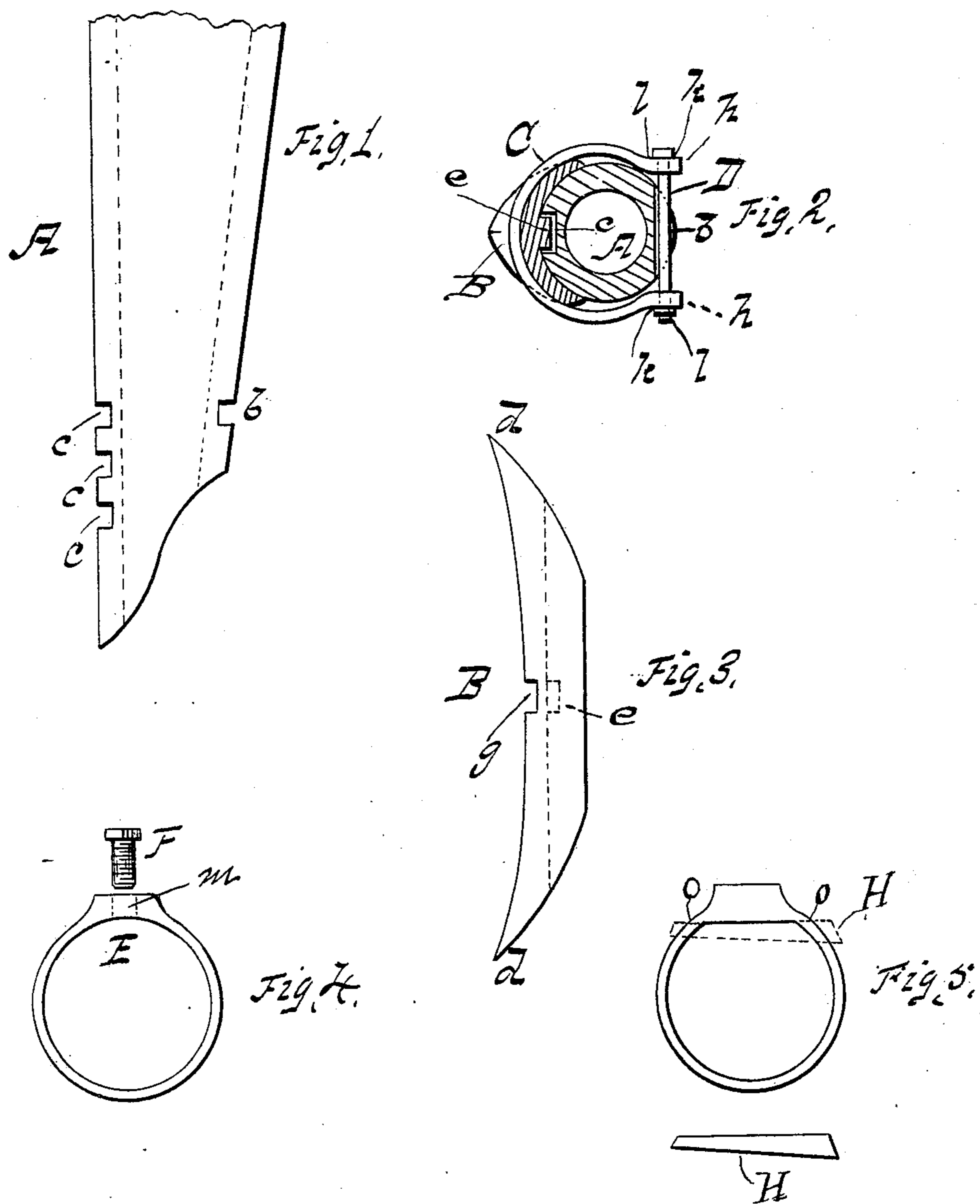
(No Model.)

J. J. MARTZ.

## SEED DRILL.

No. 245,530.

Patented Aug. 9, 1881.



WITNESSES

EX-12  
James J. Sheehy.

INVENTOR

Julius J. Martz.  
by Anderson & Smith  
his ATTORNEYS

# UNITED STATES PATENT OFFICE.

JULIUS J. MARTZ, OF LACEY SPRING, VIRGINIA.

## SEED-DRILL.

SPECIFICATION forming part of Letters Patent No. 245,530, dated August 9, 1881.

Application filed June 7, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JULIUS J. MARTZ, a citizen of the United States, resident at Lacey Spring, in the county of Rockingham and State of Virginia, have invented a new and valuable Improvement in Seed-Drills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of side view of a portion of my invention. Fig. 2 is a horizontal section, and Figs. 3, 4, and 5 are detail views.

This invention has relation to seed-drills; and it consists in the construction and novel arrangement of the band-bearings on the boot or spout, the draw-band and fastenings, and the removable, adjustable, and reversible shovel, all as hereinafter shown and described.

In the accompanying drawings, the letter A designates the drill boot or spout, which is provided in rear with a straight groove or bearing, *b*, extending transversely in rear. In the front of the boot are usually cast the recesses or holes *c c* in vertical series.

B indicates the shovel, which is made somewhat long, and is reversible in form, having a point portion, *d*, at each end. On its rear or concave face is provided a projection or lug, *e*, which is designed to engage with one of the holes or bearings *c* in the front of the boot, and serves to secure in a positive manner the position of the shovel after adjustment to the front of the boot. It may be desirable to form a transverse depression or bearing, *g*, in the front of the shovel, of sufficient width to receive the front of the draw-band C, and of sufficient depth to bring the forward surface of said draw-band flush with the face of the shovel.

C indicates the draw-band, which may consist of a metallic bow, made thin and broad in its front portion, which extends across the face of the shovel. In its ends *h h* are made perforations *k k* for the passage of the screw-bolt D, whereby the band is secured to the boot. The ends *h h* are usually made stout and somewhat inclined toward each other, and on their outer portions are formed with the bearings *l l* for the head and nut of the bolt. Sometimes a screw-thread may be made in one of the ends, *h*, to engage the threaded end of the bolt D, thereby dispensing with the nut.

The band, when applied, is designed to be placed so that the bolt D is received and sustained in the transverse recess or bearing *b* in the back of the boot, as shown in the drawings. The draw-band is designed to have some elasticity or flexibility in its front portion, so that it can be readily applied and easily drawn to its bearings on the shovel and boot by means of the bolt.

Sometimes the draw-band is closed in the rear and is designed to draw on the shovel, being held in place by a set-screw, F, which screws through the hole *m* in the rear of the band E and enters a suitable cavity at *b* in the rear of boot. The set-screw does not screw into the cavity at *b*, but merely enters it, so as to draw the band and hold it in its place.

In some constructions it is preferred to make the draw-band closed in rear, and to provide it with bearing for a short key, H, which passes through these bearings *o o* in the rear of the band and the transverse bearing *b*.

Sometimes the band and shovel are permanently attached to each other—that is, they are made solid, or in one piece, and may be held in place by any of the fastenings above-described.

A shovel secured to the drill-shank by a spring-band is not new, and is not broadly claimed herein. A reversible shovel-point is also old in this connection, and protection is asked only for the construction hereinafter specifically claimed.

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

1. The combination, with a drill-boot having rear bearing, *b*, and front holes, *c*, arranged in vertical series, of the adjustable shovel B, its projection *e*, the draw-band C, and its fastening, substantially as specified.

2. The combination, with the boot having rear bearings, as shown, and the shovel B, having the transverse depressed bearing *g*, of the draw-band C and fastening, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JULIUS JEFFERSON MARTZ.

Witnesses:

MICHAEL J. MARTZ,

JOHN WESLEY TAYLOR.