S. G. RANDALL.

Hand Seeder.

No 15,194. Patented June 24, 1856.

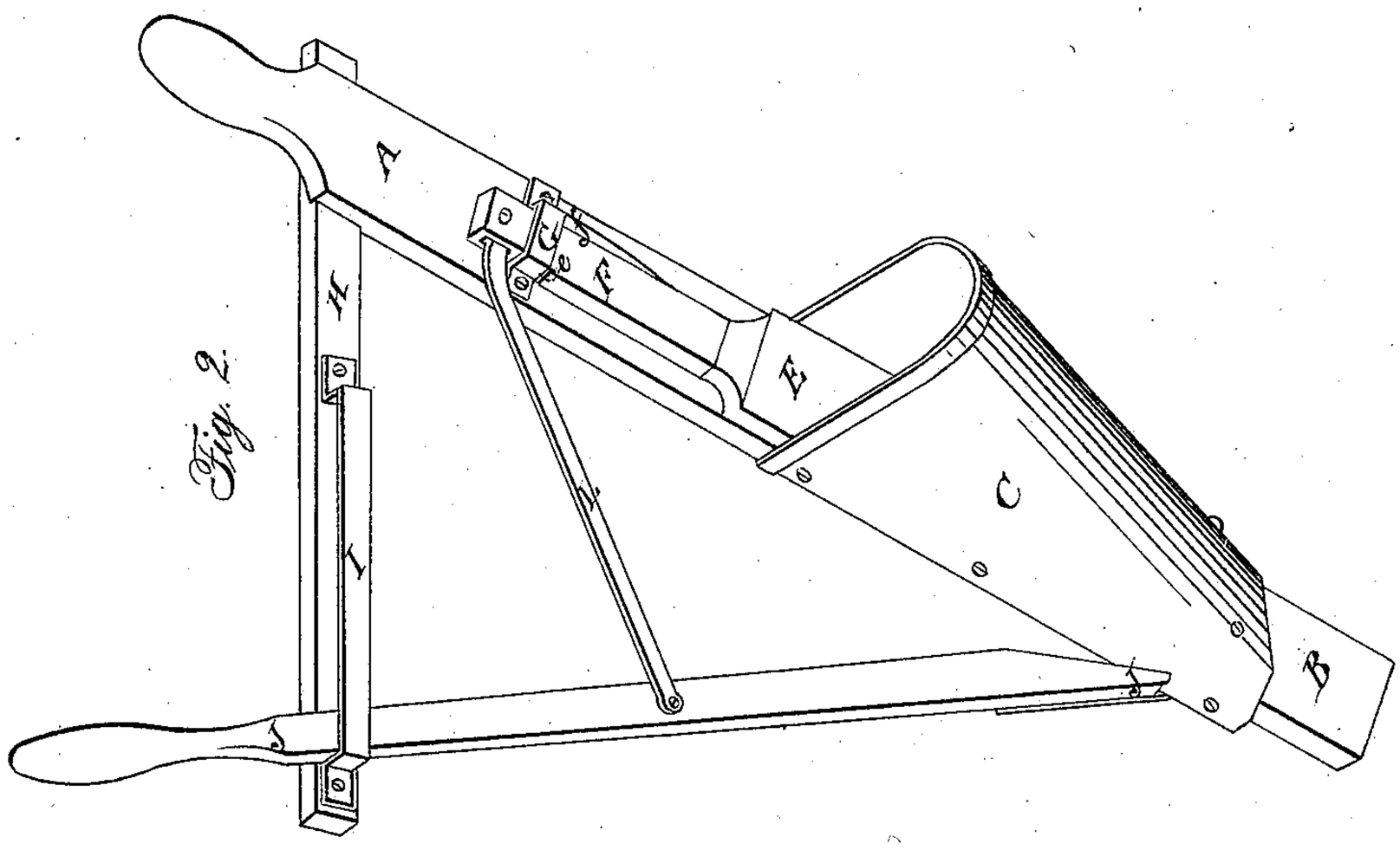

Fig. 2.

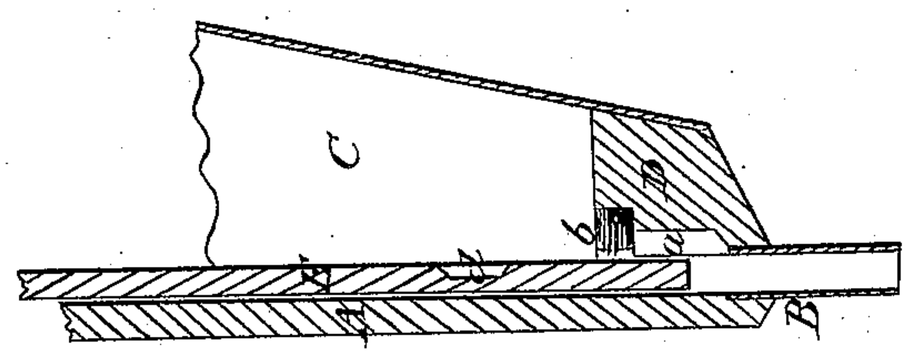

Fig. 3.

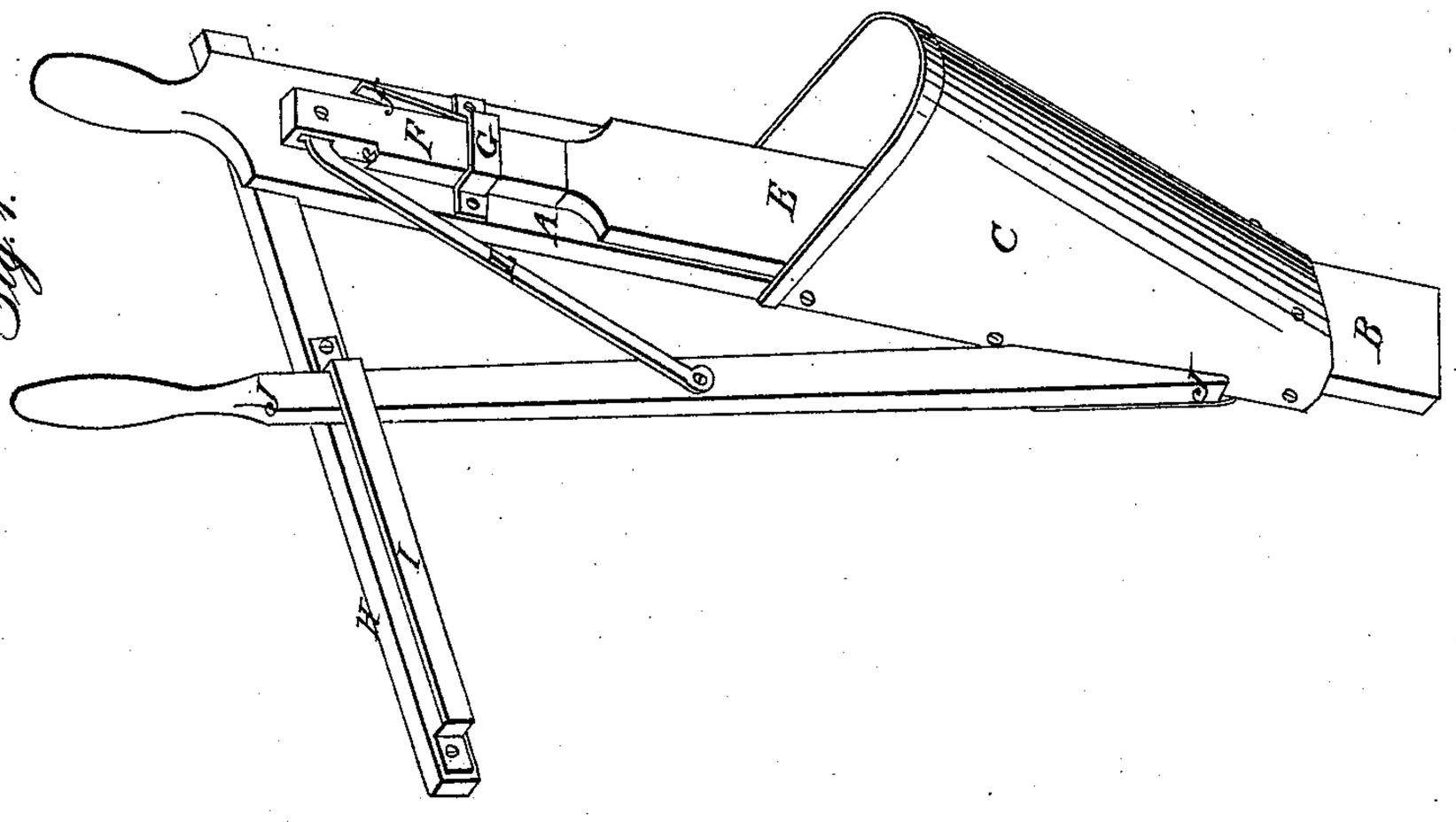

Fig. 1.

UNITED STATES PATENT OFFICE.

SILAS G. RANDALL, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN HAND SEEDING-MACHINES.

Specification forming part of Letters Patent No. **15,194**, dated June 24, 1856.

To all whom it may concern:

Be it known that I, SILAS G. RANDALL, of Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Hand Seeding-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1 represents in perspective the position of the several parts when the seed-slide is raised up in the sheath. Fig. 2 represents in perspective the position of the several parts when the seed-slide is forced down to fill up the sheath. Fig. 3 represents a transverse section through the hopper and seed-slide and the sheath, the seed-slide being represented as raised up and ready to receive a charge of grain, which is to be carried down and planted in a manner that will be described.

The nature of my invention relates to the holding of the tongue on the end of the seed-slide locked within the sheath, so as to effectually secure it against the resistance of the earth when they are forced into the ground, thus relieving the hands of the user, said locking and unlocking being done by the lever which actuates the seed-slide.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is a straight bar of wood provided with a handle at its top, and having a metallic sheath, B, at its lower end. To the bar A is affixed a seed-receptacle, C, which has a slot, *a*, cut through its bottom part, D, over the top of which slot is arranged a brush, *b*, to hold back all the seed except those that are to be carried down and planted at each motion of the slide. Against the side of the bar A the seed-slide E is arranged, so that it may freely move up and down thereon. The seed-slide E has a recess, *d*, cut in it next the grain in the hopper, said recess being of the dimensions necessary to contain the quantity to be planted at each operation, or in each hill. The lower end of the seed-slide fits closely the inside of the sheath B, the two presenting, as it were, a solid tongue when they are to be forced into the ground. On the top of the seed-slide is attached a metallic piece, F, which has a square shoulder, *e*, formed on one of its sides, and a spring, *f*, on the opposite side thereto. The metallic piece or head F slides through a guide-piece, G, which is affixed to the bar A. Near the top of the bar A is connected an inclining arm, H, and on said arm is a guide, I, through which the upper end of the lever J passes and vibrates, the lower end of said lever J being pivoted down near the bottom of the bar A. At about the center of the lever J is pivoted one end of an arm or connecting-bar, L, the other end of said arm or bar being pivoted to the top of the metallic piece or head F on top of the seed-slide. It will be perceived that the arm or bar L has considerable inclination from its point of connection at the top of the seed-slide to its attachment to the lever J. This is done so that said arm may, besides moving the seed-slide perpendicularly, also force the top thereof in a lateral direction to release the shoulder *e* from the guide G, under which it had been previously forced by the spring *f*. When the lever J is in the position shown in Fig. 2, the seed-slide E is then down at its lowest position, entirely filling up the sheath B. Said slide is also in that position locked by means of its shoulder *e*, passing under the guide G, it being forced there by the spring *f* as it passes through said guide. In this position the tongue and sheath may be forced into the ground by the bar A alone, if the user so elects, because the tongue cannot rise in the sheath, it being rigidly locked therein. When the sheath is properly inserted in the ground the lever J is then drawn up into the position shown in Fig. 1. The first part of the movement of the lever J pushes the top of the seed-slide in a lateral direction, and thus moves the shoulder *e* from under the guide G. Then by continuing the motion of the lever the seed-slide rises up vertically until in the position shown in Fig. 3. When in this position there is a direct communication from the opening *a*, which held a charge of seed, to the bottom of the sheath. Now bring the lever J into the position shown in Fig. 2, and the seed which had just dropped from *a* to the bottom of the sheath is forced into the ground by the end of the seed-slide, and by the same descent the receptacle *d* carries past the brush *b*, into the space *a*, the charge for the next hill, the seed-slide being locked, and it and the sheath being in proper position for again being forced into the ground. For each separate planting, after the tongue

is inserted in the ground, it is only necessary to move the lever J up and back through the guide I, and this movement not only locks and unlocks the seed-slide, but moves it up and down to perform the delivering and planting of the seed.

Having thus fully described the nature of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

In combination with the reciprocating motion of the seed-slide, the locking and unlocking of it at each planting operation, so that the tongue shall be firmly held against the resistance of the earth in forcing it and the sheath therein, substantially as herein described.

SILAS G. RANDALL.

Witnesses:
I. G. MANLOVE,
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