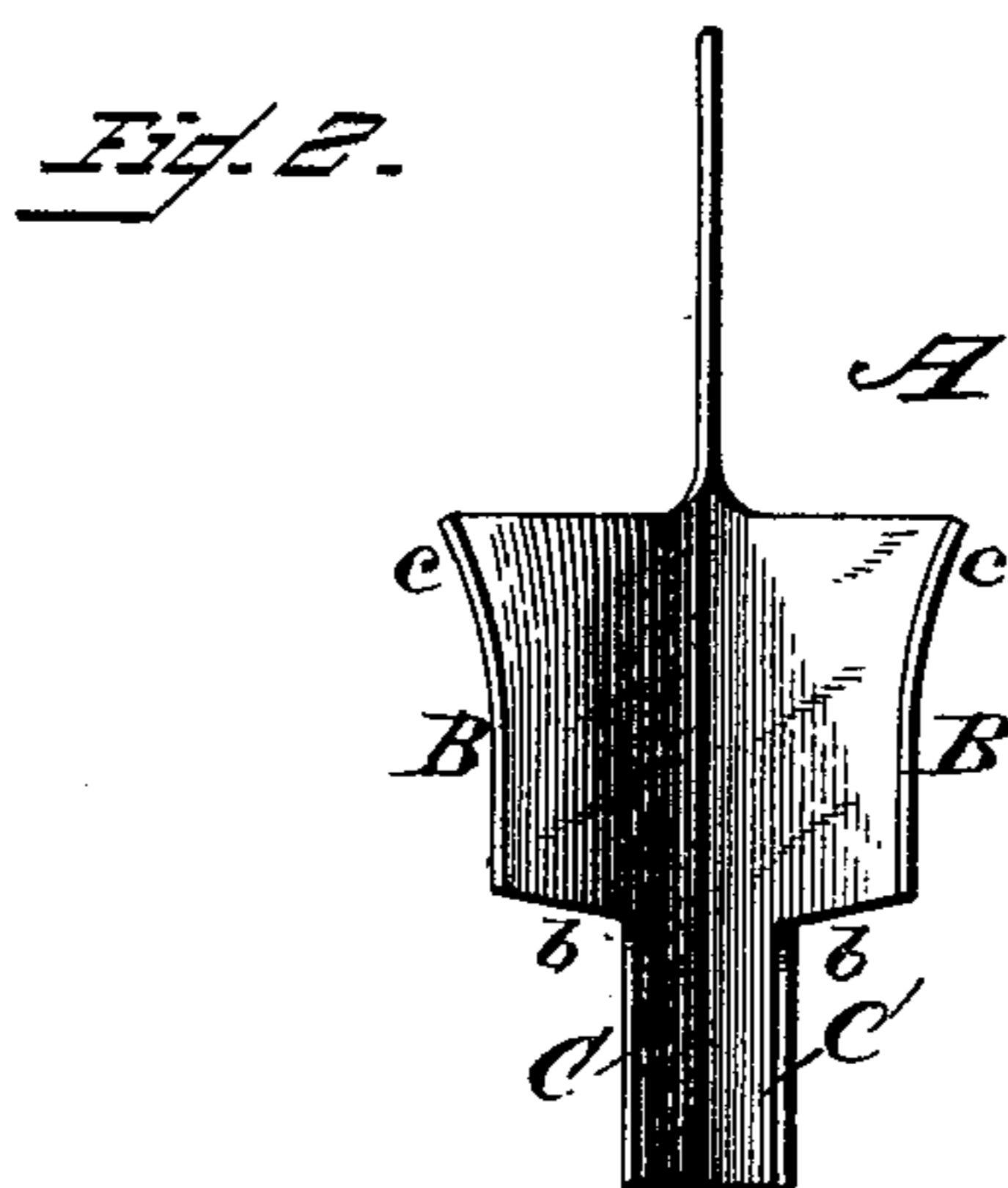
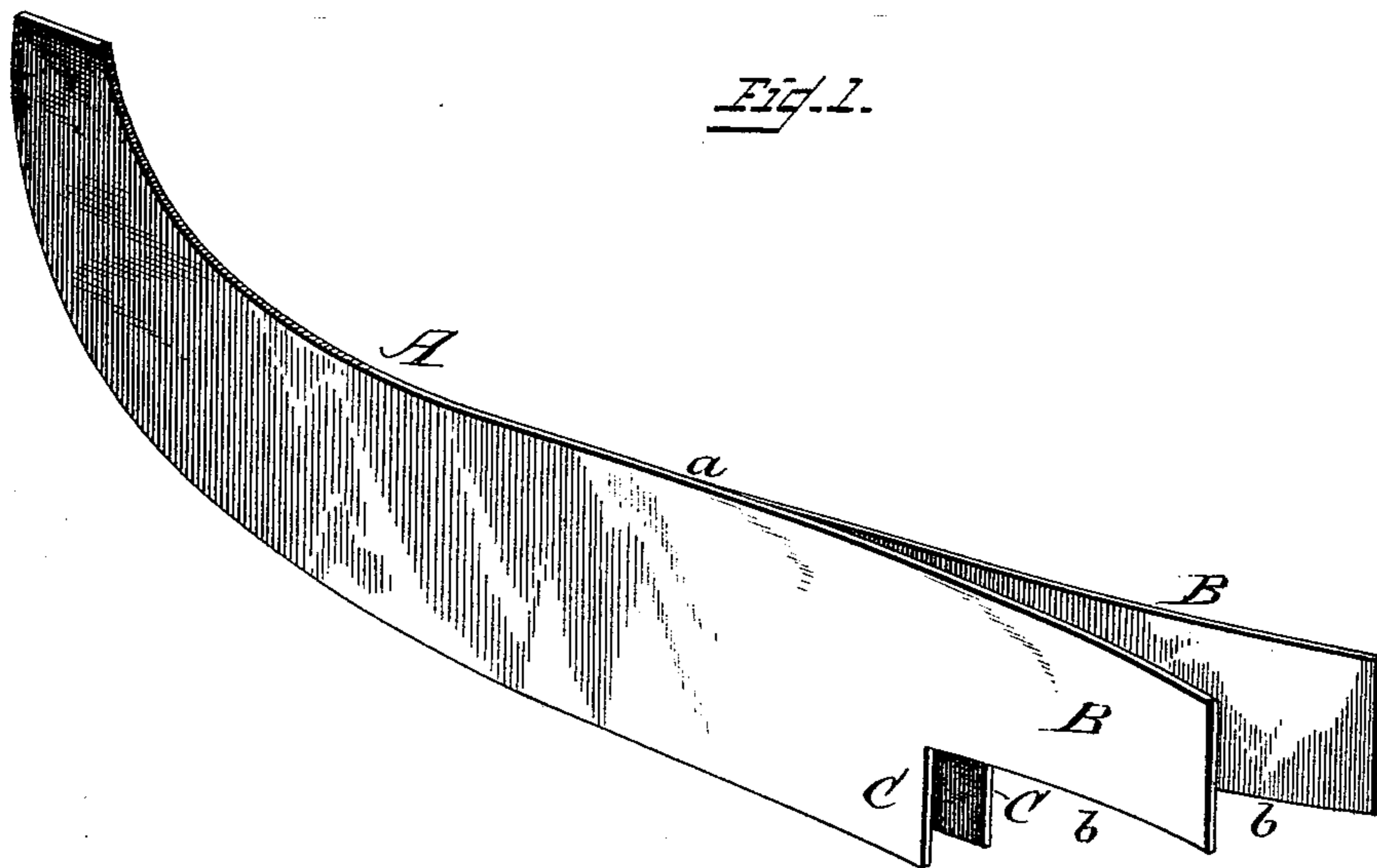


(No Model.)

J. L. ASHURST.  
RUNNER FOR GRAIN DRILLS.

No. 386,911.

Patented July 31, 1888.



Witnesses,  
*Wm. L. Spence,*  
*L. L. Miller.*

Inventor,  
*John L. Ashurst.*  
By *his* Attorney *Chas. H. Fowler*

# UNITED STATES PATENT OFFICE.

JOHN L. ASHURST, OF HAVANA, ASSIGNOR TO LEWIS B. ASHURST, OF  
KILBOURN, ILLINOIS.

## RUNNER FOR GRAIN-DRILLS.

SPECIFICATION forming part of Letters Patent No. 386,911, dated July 31, 1888.

Application filed June 15, 1887. Serial No. 241,395. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN L. ASHURST, a citizen of the United States, residing at Havana, in the county of Mason and State of Illinois, have  
5 invented a certain new and useful Improvement in Runners for Grain-Drills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference  
10 being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to an improvement in runners for corn-planters of that class which are designed to open the earth to each side  
15 and give a plane surface to the bottom of the furrow, and at the same time to form a secondary furrow narrower than the first; and the object of the invention is to improve upon and cheapen this class of devices, to which  
20 ends the invention consists in the peculiar construction of the runner, as hereinafter more fully described, shown in the drawings, and then specifically defined by the claim.

My invention is clearly illustrated in the accompanying drawings, which form a part of  
25 this specification, and in which—

Figure 1 is a perspective view of my improved runner, and Fig. 2 is a rear elevation thereof.

30 Referring to the drawings by letter, A designates the runner formed of a single piece of metal, preferably of steel, having its front brought to a thin edge, as is usual in this class of instruments. From the point *a* diverge the  
35 wings B B, which are cut away at *b* to form the secondary wings C C, which latter wings, owing to the divergence of the wings B, are not so far apart as the wings B B; consequently, as the runner is drawn forward the  
40 wings C will form a narrow furrow, which constitutes the seed-bed, and the wings B form a wider furrow upon a higher plane: At *a* may be attached, in any suitable way, the ordinary

shank or boot (not shown) for conveying the seed to the seed-bed.

In devices of this kind as heretofore constructed no provision has been made for the  
45 pressing down or evening of the sides of the upper furrow; consequently, in operation the wings which form said upper furrow force the  
50 dirt over onto the next preceding furrow, thus covering the seed unevenly and leaving an uneven ridge between the furrows. To avoid this, the upper extreme ends of my wings B are bent slightly outward and over, as shown  
55 at *c*.

In operation, as the runner is drawn forward through the ground the wings C form the narrow furrow or seed-bed, and at the same time  
60 the wings B form the wider furrow, and as the earth is thrown aside by the said wings B the bent-over portions *c* thereof tend to press down upon the loosened earth, and serve to prevent  
65 the same from being thrown over onto the next furrow. I thus insure an even shallow covering of the seed and an even regular ridge between each two furrows, which is a great protection to the plants.

Having thus described my invention, and set forth its merits, what I claim as new, and  
70 desire to secure by Letters Patent, is—

As an improved article of manufacture, the runner described, formed of a single piece of metal wedge-shaped, as shown, and cut away  
75 at the heel, as at *b*, to form wings B B and C C upon different horizontal planes, and the rear upper corners of the wings B bent outwardly and over, as at *c*, substantially as and for the purpose specified.

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

JOHN L. ASHURST.

Witnesses:

G. H. HOLZGRAFE,  
H. G. RICE.