

DEAN & BAKER.
Grain Drill.

No. 89,386.

Patented April 27, 1869.

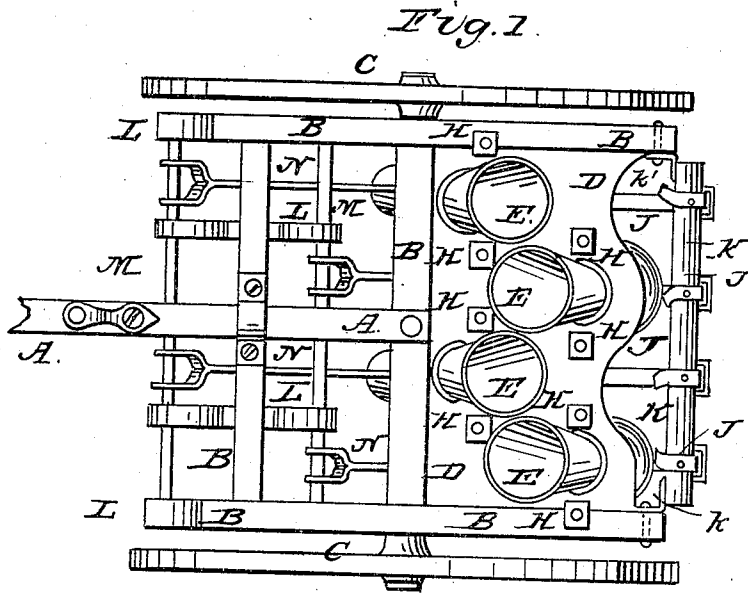


Fig. 2

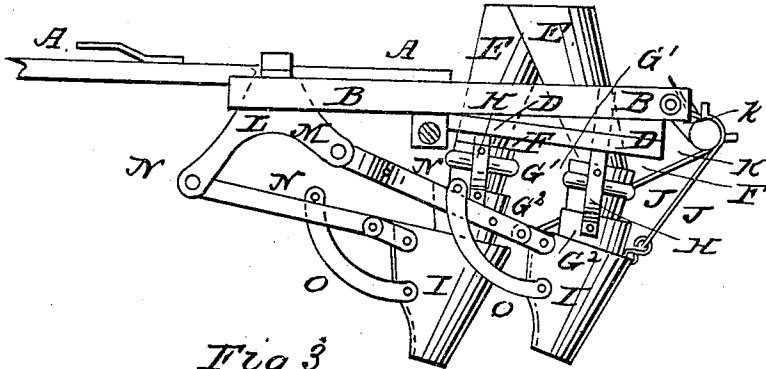
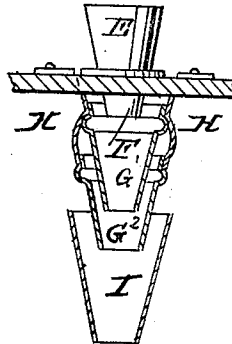


Fig. 3



WITNESSES

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H. B. DEAN AND S. A. BAKER, OF LUDLOWVILLE, NEW YORK.

Letters Patent No. 89,386, dated April 27, 1869.

IMPROVEMENT IN GRAIN-DRILLS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, H. B. DEAN and S. A. BAKER, of Ludlowville, in the county of Tompkins, and State of New York, have invented a new and useful Improvement in Grain-Drills; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top or plan view of our improved machine.

Figure 2 is a side view of the same, the wheels being removed.

Figure 3 is a detail view, partly in section, of one set of the cups, spouts, and holes.

Similar letters of reference indicate like parts.

Our invention has for its object to improve the construction of grain-drills, so as to make them more durable, convenient, and satisfactory in use; and

It consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A is the tongue,

B is the frame, and

C are the wheels of the machine, about the construction of which parts there is nothing new.

D is the cup-table, which is made broad, so that the cups E may be set zigzag, as shown in figs. 1 and 2.

E are the cups, which are made in the shape of the inverted frusta of inclined cones, which are set with their inclined sides toward each other, so as to bring all their mouths nearly in a straight line, as shown in figs. 1 and 2.

The lower ends of the cups E are attached to the table D, directly over the holes through said table.

F are stationary spouts, attached to the under side of the broad cup-table D, directly beneath the lower ends of the said cups, so as to form a continuation of them.

G¹ G², &c., are loose spouts, which are made tapering, so that they may close, or shut up together, to regulate the length of the spouts.

The spouts G¹ are suspended from the table D, by leather straps H, the upper ends of which are securely attached to the table D, and to which the upper parts of the upper loose spouts G¹ are securely riveted.

The upper parts, or edges of the next loose spouts G², are riveted to the said straps H, at a suitable distance below the points at which the spouts G¹ are attached to said straps.

If any other loose spouts are used, they are attached to the straps H, below the spouts G², and in the same manner.

When the spouts G¹ G², &c., are made plane, which has been the construction heretofore used, as the spouts

have been closed, the upper edges of the outer spouts are liable to cut the straps H, and the rivets by which the upper spouts are secured to said straps.

To prevent this, I swage or groove the upper parts of the spouts, so as to form an outwardly-projecting swage, or shoulder, as shown in fig. 3, against which the upper edge of the lower spouts may strike, and thus protect the straps and rivets from injury.

I are the hoes, which are adjustably suspended, by the straps J, to the lower ends of which the said hoes are attached, and the upper ends of which are adjustably attached to the shaft K, which is eccentrically pivoted to the frame B, by the crank-arms k', so that, by turning the said shaft about its pivoting points, the hoes I may be raised and lowered, as desired.

To the forward parts of the frame B, are attached the double, or two-armed brackets L, the front arms of which are made longer than the rear arms, as shown in fig. 2, so that the forward hoes may be connected with the said forward arms of said brackets, and the rear hoes connected with the rear arms, in such a way that the draught-bars of said hoes will not interfere with each other.

M are rods, which are passed through the ends of the front and rear arms of the brackets L, to receive the forward ends of the draught-bars of the hoes I.

N are the draught-bars, the forward ends of which are forked, or branched, as shown in fig. 1, and through holes in the forward ends of said branches pass the rods M, so as to pivot the said bars to the said rods, and, at the same time, to allow the said draught-bars to have only a vertical play.

The rear parts of the bars N are jointed, as shown in fig. 2, and their rear ends are pivoted to the forward side of the upper part of the hoes I.

O are curved brace-bars, the lower ends of which are pivoted to the lower part of the forward side of the hoes I, and the upper ends of which pass through slots in the bars N.

The upper ends of the braces O, have cross-heads formed upon them, or pins passed through them, which cross-heads, or pins rest upon the upper sides of the bars N, and prevent the said braces O from dropping out of place.

This construction of the draught-bars N O enables the hoes I to be held in a vertical position, when working, whether adjusted to run at a greater or less depth in the ground, as the circumstances of the case may require.

Having thus described our invention,

We claim as new, and desire to secure by Letters Patent—

1. The broad cup-table D, zigzag cups E, movable spouts G¹ G², &c., substantially as herein shown and described, and for the purpose set forth.

2. So constructing the cups E, substantially as

herein shown and described, as to bring their mouths, or upper ends into or nearly into a line with each other, as set forth.

3. The bracket L, constructed as described, with a long and short arm, to receive the bars M, to which the beams N of the hoes are connected, substantially as described, for the purpose set forth.

4. Swaging, grooving, or flanging the spouts G¹ G², &c., near their upper ends, so as to form out-

wardly-projecting swages, or shoulders, substantially as herein shown and described, and for the purpose set forth.

H. B. DEAN.
S. A. BAKER.

Witnesses:

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