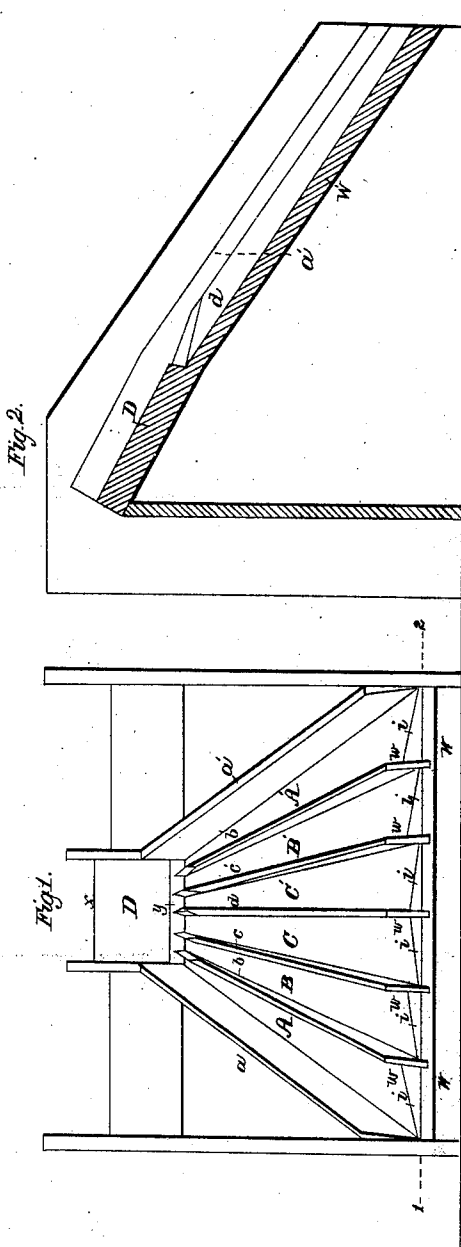
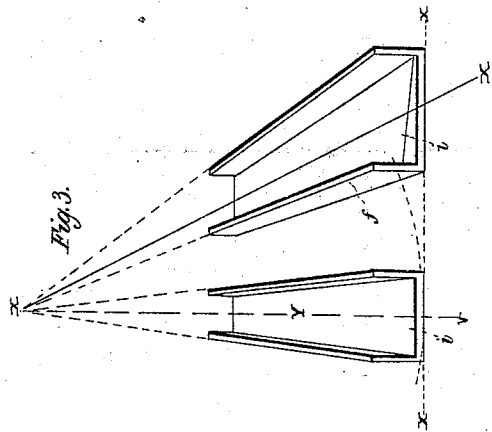


H. H. BEACH,
Device for Spreading Grain.

No. 35,916.

Patented July 22, 1862.



Witnesses:

Charles C. Foster
Charles Horner

Inventor:

Henry Howden
Attorney H. H. Beach

UNITED STATES PATENT OFFICE.

HENRY H. BEACH, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED DEVICE FOR SPREADING GRAIN.

Specification forming part of Letters Patent No. 35,916, dated July 22, 1862.

To all whom it may concern:

Be it known that I, HENRY H. BEACH, of Philadelphia, Pennsylvania, have invented a new and Improved Mode of Spreading Grain; 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, and to the letters of reference marked thereon.

My invention relates to a mode of so spreading grain that it may be reduced from a dense mass or stream to a thin stratum or stream of that uniform thickness desirable under many circumstances, and especially when the grain has to be submitted to the action of a winnower or cleaner.

My invention consists in spreading the grain by causing it to pass from a primary channel or receiver down a series of radial inclined channels increasing in width from the said receiver to the point where the said series of channels terminate, the bottom of each channel being formed in the peculiar manner described hereinafter for the purpose of causing the grain to retain a uniform thickness as it passes down each channel.

In order to enable others to practice my invention, I will now proceed to describe the manner in which it may be carried into effect.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a front view of apparatus, illustrating my improved mode of spreading grain. Fig. 2 is a sectional view, and Fig. 3 a diagram illustrating my invention.

On an inclined table or platform, W, six or any other suitable number of channels, A A' B B' C C', are formed by partitions *a a'*, *b b'*, *c c'*, and *d*, these partitions radiating from the lower edge of the table or platform to one common center, *x*, and terminating at a point, *y*, which forms the lower termination of the receiver or primary channel D, the latter communicating with the radial channels. This primary channel, being the first receiver of the grain to be spread, should be of the same width or thereabout as the spout from which the dense mass of grain passes to the spreader.

The two inclined partitions *a* and *a'*, which form the limit of the spreader laterally, are sufficiently high to prevent the grain from passing over them. The partitions *b b'* and *c c'* are also sufficiently high to prevent the

grain from passing from one radial channel to another.

It will be observed on reference to Fig. 1 that the lines *i i*, which represent the terminations of the bottoms of the different channels, appear inclined, the outer channels appearing more inclined than the inner channels. The reason of this may be explained as follows: If the bottoms of the whole of the channels were in one plane, or, in other words, if the channels were formed by placing radial partitions on a simple inclined table, the latter forming the bottoms of the channels, as represented by the dotted lines 1 2, the grain in passing down the respective channels would crowd into the corners *w* and the desired spreading effect would be frustrated. The bottoms of the channels are so formed, however, that, at whatever angle they are situated, owing to their radial arrangement, the grain passing down them will be spread evenly throughout the width of each channel and will be of a uniform thickness throughout. The manner of producing this effect will be best understood by viewing one of the channels as a separate spout distinct from its neighbors.

If the center of the spout represented at Y, Fig. 3, coincides with a line, *x v*, drawn through the center of the spreader from the center of radiation, the bottom *i* will appear horizontal, as shown; but, supposing the spout be moved to such a position that its center line will coincide with the angular line *x 4*, and supposing the spout to be extended to the line X, which forms the termination of the first spout, then the line representing the bottom of the channel will appear inclined, as shown. If the angular spout, however, be cut by the line 5 6 at right angles to a line, *x 4*, drawn through its center, the section of the spout at that point, if viewed in the direction of the said center line, *x 4*, will be similar in appearance to the lower termination of the first spout. In other words, the bottoms of the radial channels are so formed that a line drawn on the surface of any one of the channels at any point at right angles to a line drawn through the center of the channel will be a horizontal line, and this is essential in order that the grain may, as before remarked, pass down each channel in a stream of uniform depth.

It will be evident that my improved mode

of spreading grain may be accomplished by several distinct and separate radial channels.

In some instances the primary channel may consist of the spout from which the grain falls onto the spreader, although I prefer forming on the latter the channel D, as described.

I claim as my invention and desire to secure by Letters Patent—

Spreading grain by causing it to pass from a primary channel or receiver down a series of radial inclined channels increasing in width

from the primary channel to the point where the series of channels terminate when the bottom of each channel is formed in the manner described, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

H. H. BEACH.

Witnesses:

HENRY HOWSON,
JOHN WHITE.