L. Howe.

Fence for Collecting Rain-Water for Stock.

No. 74690 Patented Feb. 18, 1868.

Fig. 1.

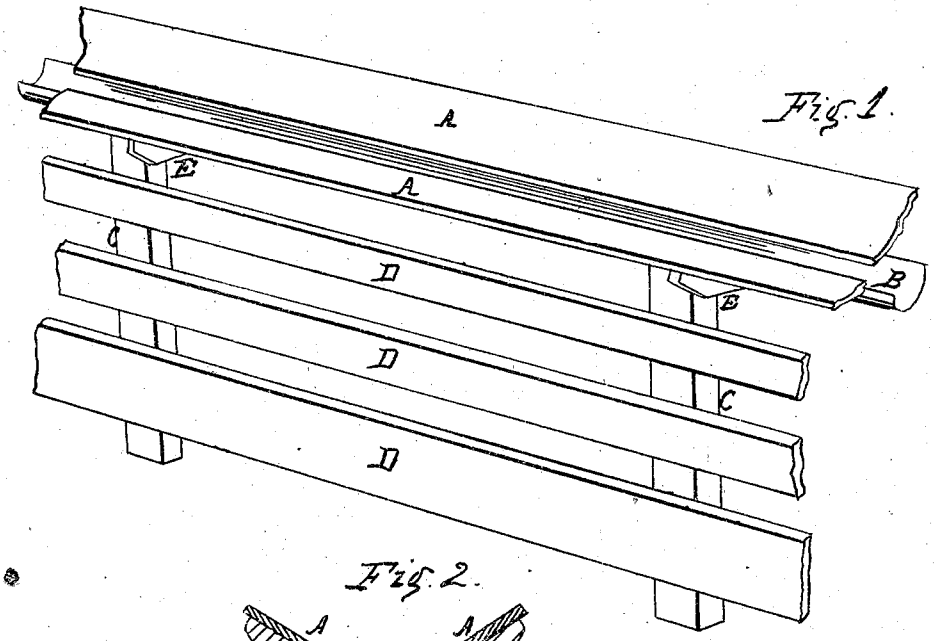
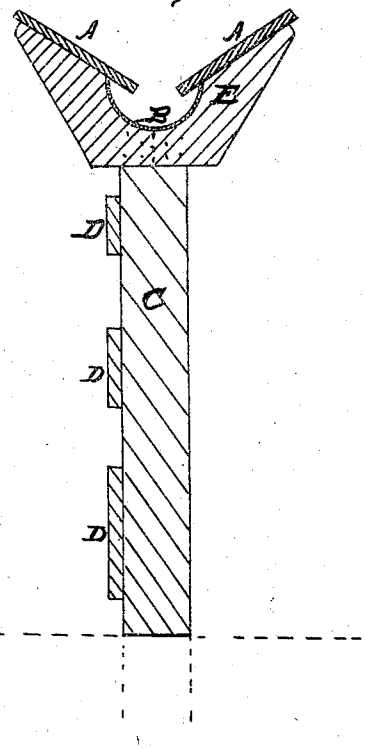


Fig. 2.



Witnesses.

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LUTHER HOWE, OF ALAMO, MICHIGAN.

IMPROVEMENT IN FENCE FOR COLLECTING RAIN-WATER FOR STOCK.

Specification forming part of Letters Patent No. **74,690**, dated February 18, 1868.

To all whom it may concern:

Be it known that I, LUTHER HOWE, of Alamo, in the county of Kalamazoo and State of Michigan, have invented a new and useful Mode of Collecting Water for the Use of Stock on dry farms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, forming a part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a cross-section.

Similar letters of reference indicate corresponding parts in both figures.

The object of my invention is to collect and convey to a suitable reservoir a portion of the rain which falls in the open fields, for the use of the animals grazing therein; and the better to enable farmers and others to construct and avail themselves of the benefit of my invention, I will now proceed to describe its nature and operation.

My invention consists in connecting with the top of a field fence or wall two sloping boards, which incline toward each other, with a small intervening space between. Immediately below this central space, between the two sloping boards, which I term "rain-collectors," and are seen at A, I place gutters B, made of sheet metal or any other suitable material, to convey the water shed from the collectors into a trough (not shown) suitable for animals to drink from, the waste water being led beneath to a reservoir of any suitable kind, sunk in the ground.

C represents the posts, and D the rails of an ordinary farm-fence. To the upper end of each post I nail securely a double projecting bracket, E, its upper edge being shaped to a suitable obtuse angle to receive the rain-collecting boards aforesaid, which are nailed to them. If the rain-gutters B are of sheet metal, I usually shape out a curve in the center of each bracket, to receive them, with overlapping end joints, and then nail on the sloping board, so as to leave a proper space for the water to pass, and also to secure the gutter against lateral or other displacement. Should the gutter be of any flexible water-tight fabric, I deem it best to leave a wider space, and tack it in strips to the boards.

It is a matter of simple calculation to determine how many rods of fence it will be necessary for a farmer to cap in the manner described to enable him to fill up a reservoir with sufficient water to last (with the aid of occasional showers,) during the ordinary period of drouth; and if the grounds of contiguous farms happened to be equally or nearly favorable in regard to grade, the construction of the reservoir might be a joint expense, and each proprietor share the benefits, by capping with rain-collecting boards and gutters a proportionate length of fence.

To make my rain-collecting fence as efficient as possible, by avoiding the wastage of overflow, it is best to select a line of ground for its erection such as will furnish, as far as practicable, a low grade at commencement, and higher one as it nears its termination at the reservoir, so that, as the current of water increases in volume during a shower, it may increase proportionally in velocity. Should such a natural grade be unattainable, I usually increase the capacity of the gutters toward the discharge-end.

The collecting-boards A may be of any desirable width, and set to such angle as will best receive and discharge or shed the most water from a given surface; and, instead of making the supporting-brackets in one piece and cutting out the angle of support, they may be in two pieces, nailed separately to the post, as seen in dotted lines.

I do not design to limit the application of the rain-collecting boards and gutters to permanent fences, nor in connection with an artificial reservoir, for there are natural surface depressions, retentive of water, which, by the aid of my invention, applied to fences of a portable character, set up temporarily, might be filled by a few showers during a season of scarcity, that would not otherwise, on account of absorption by the parched ground.

My invention is designed, mainly, to aid in collecting rain where the roofs of the buildings do not furnish a sufficient supply, and where the wells are deep and liable to dry up;

also to save the time and labor spent in driving stock to water, at the barn or elsewhere, on what are called dry farms.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

The rain-collecting boards A and rain-gutters B, in connection and combination with a farm-fence, for collecting and conveying rain-water to artificial or natural reservoirs, substantially as and for the purpose herein specified.

LUTHER HOWE.

Witnesses:
C. T. COOK,
OTTO L. JOHNSON.