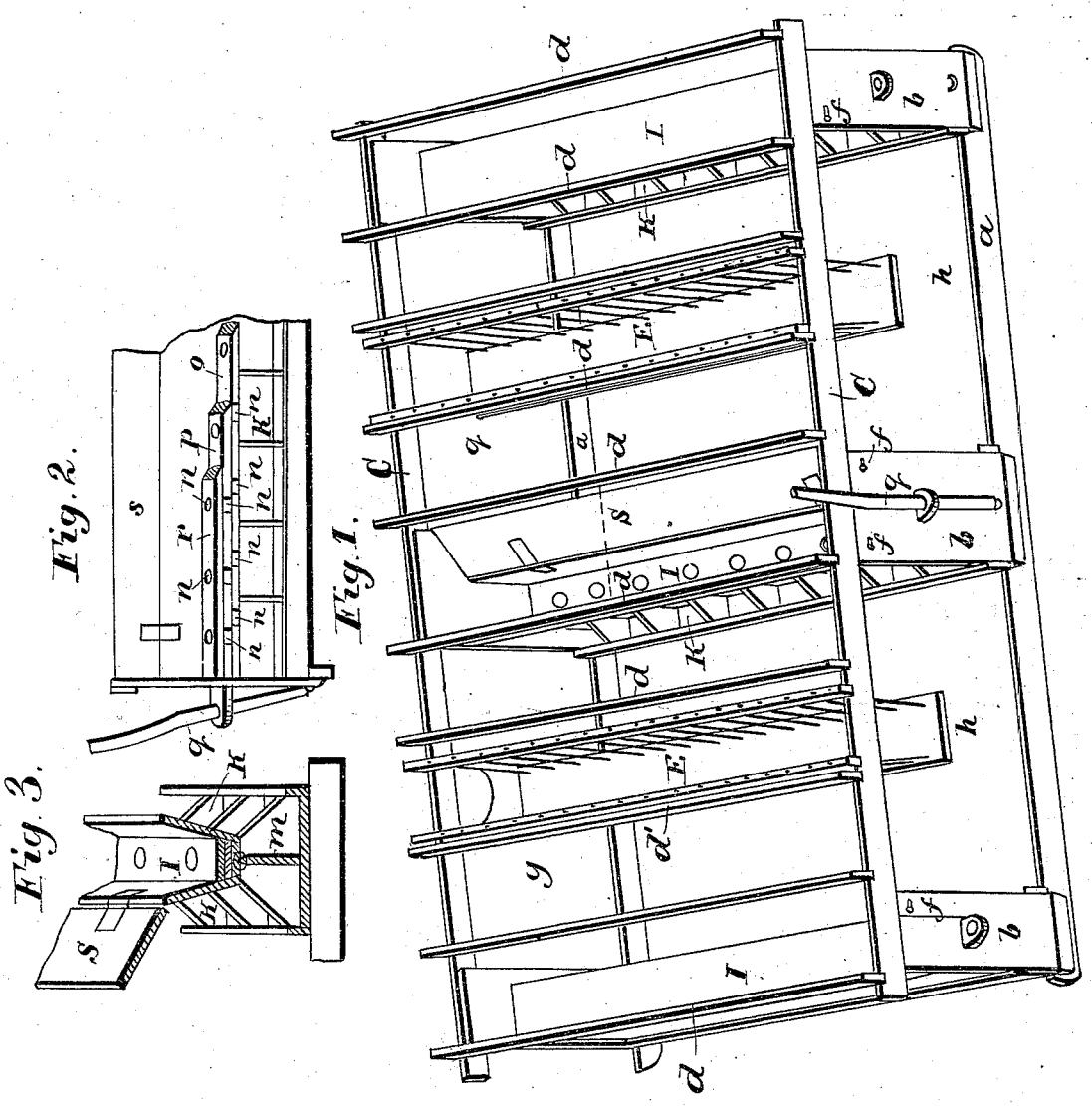
D. GRAY.

Sheep Rack and Shelter.

No 64,009. Patented April 23, 1867.



Witnesses:
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DEXTER GRAY, OF UPPER SANDUSKY, OHIO.

Letters Patent No. 64,009, *dated April* 23, 1866.

IMPROVEMENT IN SHEEP RACK AND SHELTER.

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

Be it known that I, DEXTER GRAY, of Upper Sandusky, Wyandot county, Ohio, have invented new and useful Improvements in Means for Sheltering and Feeding Sheep and other Stock; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the whole structure and arrangement.

Figure 2, a sectional view of the arrangement for feeding grain; and

Figure 3, a perspective sectional view of arrangement for feeding grain.

The nature of my invention consists in the so constructing a shelter and feeding arrangement for sheep and other stock as that it shall combine the following advantages, viz: first, portability, so that it may be drawn by a team where desired, without removing or disarranging any of its parts; second, in so arranging and operating the grain-feeding arrangement as that stock may all be fed at the same time and in equal and desired quantities; third, in so arranging the hay-racks as that they can be removed at will, without affecting other parts of the structure, and so that they shall occupy none of the ground space to interfere with the lying down of stock; fourth, in providing the structure with movable or transferable doors, so as to provide against the directions of prevailing or shifting storms; fifth, in so arranging the grain-troughs and hay-racks as that they will accommodate a like amount of stock.

To enable others skilled in the art to manufacture this structure, I will proceed to give its construction and operation.

Upon two parallel runners *a a*, of the desired length, and placed the desired distance apart for the width of the structure, are placed grain-boxes and feed-troughs, *b b b*, the upright ends of which rise as high as the structure is desired, and to the top of which are attached plates, *c c*, upon which are supported cross-timbers *d* and racks E E, over or on which, for shelter, may be placed a covering of hay, straw, or other ordinary roofing material. Suspended on pins, F, are transferable doors, *g*, while the stock is allowed to pass in and out at openings *h h*, at the end or side opposite the doors *g*, one end or side always being open unless otherwise desired. The runners *a a* are made of plank two inches thick, and any width desired, whilst all the remaining timbers of the structure (excepting pieces *d* and racks E) are of inch boards, and therefore costing but little for material, whilst at the same time it makes a light, durable, and portable structure. The grain-boxes I are made to hold an amount sufficient for one week's feeding, or more if desired, and are placed directly above feeding-troughs K, and are supported on partition *m*, fig. 3, which also distributes the grain equally in the double trough *b*, in the centre of the structure. The bottom *o*, fig. 2, of troughs I, is provided with openings *n*, fig. 2, which are placed so as to discharge the grain equally at each side of partition *m*, fig. 3, by means of the sharpened edge of partition *m*, which passes directly under the centre of the openings *n*, as seen in fig. 3. Resting on bottom *o*, fig. 2, is slide P, operated by lever *q*, with corresponding openings, and on top of this slide is the cut-off bottom *r*, fig. 2, with like openings, through which, when lever *q* is drawn back, as represented in fig. 2, the grain passes into openings named in slide P, from which, by forcing the slide inward by lever *q*, the seed or grain is passed into the troughs below through openings *n* of bottom *o*. The openings in slide P are made of any size desired, so that one, two, three, or four motions of the lever may discharge the necessary amount of feed. By this arrangement each animal is fed at the same instant, and strong and weak have no advantages over each other. Grain-boxes I are covered with lids S, to protect the contents, and, if desired, troughs K may also be covered to prevent any accumulation of filth in them. The double trough and grain-box combined is placed in the centre of the structure, and may also be elevated like as the racks for hay, so as to admit of the free passage of stock under them, and so as not to consume any of the ground room for stock to lie upon within the structure, thereby enabling me to use the whole enclosure for shelter if desired. Single troughs, and grain-boxes above them, as described, are placed on the ends of the runners, providing protection from storms from or against either end. Slide P, for discharging the grain into the troughs K, is held in place at its outer end by passing through a mortise in the end piece of grain-box I and trough K, and is operated by lever *q*. By drawing the lever outward at the top the openings in the slide are filled with grain, and when moved inwards the contents of said openings are discharged into troughs K, which are divided by partitions into feed chambers, each sufficiently large for but one animal. By this arrangement weak animals cannot be deprived of their portion of feed. The racks are

formed with a board bottom, into which, at proper distances apart, are fastened rounds, the upper ends of which enter timbers 1 of sufficient length to rest upon plates *c* of the main frame, on which the rack E is suspended and supported. The hay is supplied to these racks from their ends, as desired. The racks are placed midway between the centre and end troughs K, so that when the animal has exhausted its supply of grain it only has to reverse ends to be at the hay. These racks can be removed at will, to accommodate large stock, if desired. This structure may be made of any desired height. If wanted to have the hay eaten from above, it may be low enough to accommodate animals in that way, dispensing with the racks entirely. If desired to be used with a covering of hay or straw for protection, then its elevation may be greater, so that the covering shall be above the reach of the stock. As light is essential, one side is left open, and doors *g* are suspended on pins at the opposite side, and removed, when desired, from side to side, as they are needed for protection against shifting storms. If desirable this structure may be roofed with boards or shingles very cheaply without affecting its portability.

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

1. I claim a portable stock shelter and feeding arrangement, combining the arrangement of runners *a*, troughs K, grain-boxes I, hay-racks E, removable doors *g*, plates *c*, and cross-timbers *d*, substantially as described and for the purposes set forth.

2. In combination with a portable stock shelter, I claim the double troughs K K, with or without their separate chambers for each animal, in combination with a grain-box containing the bottom *o*, slide P, cut-off bottom *r*, and lever *q*, and partition *m*, all constructed and operated substantially as described and for the purposes set forth.

3. In combination with a portable stock shelter, I claim the movable and transferable doors *g*, for the purposes named.

4. In combination with a portable stock shelter, I claim the movable racks E, for the purpose set forth.

5. I claim, in portable stock shelters, the combination and arrangement of troughs K K K and their grain-boxes I I I, with the racks E E, as and for the purposes set forth.

6. I claim, in combination with a portable stock shelter, elevating the hay-racks and centre feed troughs, so as to secure all the ground room, for the purposes set forth.

7. I claim a grain-feeding box, for stock, combining the sides, bottom *o*, slide P, cut-off bottom *r*, lever *q*, and openings *n* in each, for the purpose of feeding grain in measured quantities, as set forth.

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Witnesses:

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