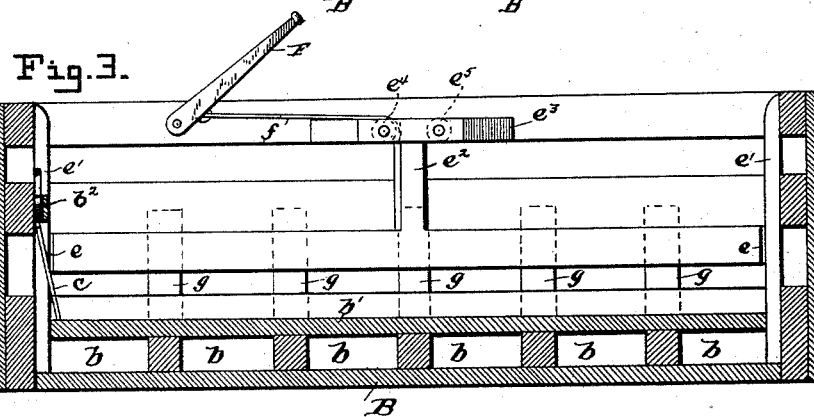
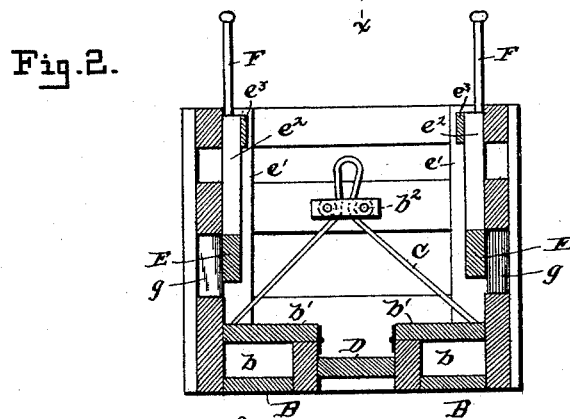
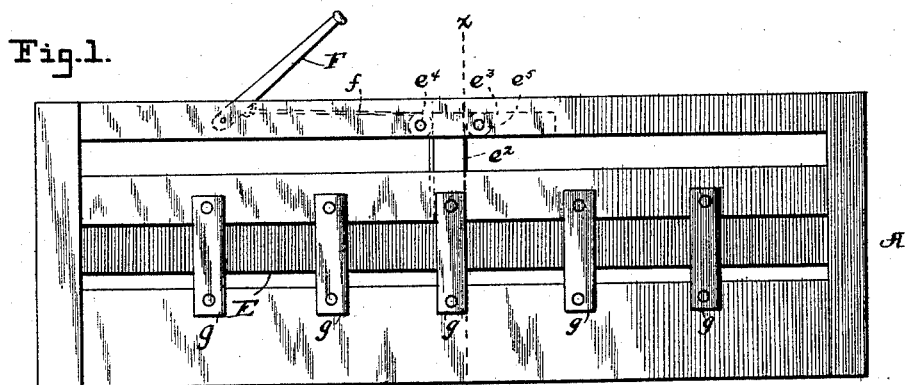


(No Model.)

D. G. HAGENBAUGH.  
FEED RACK.

No. 456,563.

Patented July 28, 1891.



Witnesses  
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# UNITED STATES PATENT OFFICE.

DENNIS G. HAGENBAUGH, OF CRYSTAL, MICHIGAN.

## FEED-RACK.

SPECIFICATION forming part of Letters Patent No. 456,563, dated July 28, 1891.

Application filed March 25, 1891. Serial No. 386,331. (No model.)

*To all whom it may concern:*

Be it known that I, DENNIS G. HAGENBAUGH, a citizen of the United States of America, residing at Crystal, in the county of Montcalm and State of Michigan, have invented certain new and useful Improvements in Feed-Racks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a new and improved feed-rack, having for its object the production of cheap, simple, and highly efficient means by which the troughs of a feed-rack can be readily and easily fed and access for all the sheep or other animals permitted simultaneously.

The invention comprises the detail construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of my improved feed-rack. Fig. 2 is a central transverse sectional view thereof on the line *x x*, Fig. 1. Fig. 3 is a longitudinal sectional view.

Referring to the drawings, A designates the stand or frame the two parallel sides of which are connected at their ends by cross-bars secured to the vertical bars of the sides.

B B are two parallel troughs arranged one at each side of the stand or frame A. Each trough is subdivided into a series of bins *b* and is provided with a long continuous lid or cover *b'*, hinged to the inner vertical board of each trough. To the lids or covers *b'* are connected the lower ends of a cord or strap C, which at its center is passed between two small wheels or pulleys *b<sup>2</sup>*, secured to one of the cross-bars of the adjacent end of the frame or stand. By pulling on this cord or strap both the lids or covers can be opened simultaneously. A space or passage-way D extends the full length of the frame between the troughs, so that the operator can walk therethrough in filling the bins with feed.

E E are the cut-offs or slides, which consist each of a single long board located adjacent the inner side of each side of the frame A, and it is provided with reduced ends *e*, designed to fit between vertical guide-bars *e'*,

secured to the ends of frame A and the sides of said frame. From the center of each board projects a vertical arm *e<sup>2</sup>*, which is passed beneath a guide-bar *e<sup>3</sup>* and between two rollers *e<sup>4</sup> e<sup>5</sup>*, located between said guide-bar and the top bar of the side of the frame to which said guide-bar is secured. A rope or strap *f* is connected to each cut-off or slide adjacent the arm *e<sup>2</sup>* thereof, and the same is passed over pulley *e<sup>4</sup>*, which is grooved for that purpose, and is connected at its outer end to a lever F, fulcrumed on the side of frame A. Thus it will be seen that by operating the levers the cut-offs or slides can be readily raised and leave unobstructed the space between the parallel bars *g*, between each two of which the sheep or other animals are permitted to gain access to the feed. The two end bars *g* are thickened, so that their inner surfaces form guides for the sliding boards E. When the latter are elevated, they are so held by placing the levers in a horizontal position.

A feed-rack constructed as herein described is extremely simple, cheap, and durable, and is not liable to readily get out of order or become deranged.

I claim as my invention—

1. The herein-described feed-rack, comprising the frame having the feed-troughs, the vertically-moving slides or cut-offs having central arms, the guide-bars having rollers between which said arms are passed, and cords or straps connected to said slides or cut-offs and the operating-levers, substantially as set forth.

2. The combination, with a frame having a feed-trough and vertical spaced-apart bars, the guide-bars secured to the ends of said frame, the slide or cut-off consisting of a single board having its ends working between said guide-bars and the side of the frame, the vertical arm projecting from said board, the guide-bar, the pulleys, one of which is grooved, the cord or strap secured to said board and passed over said grooved pulley, and the lever to which said cord or strap is connected, substantially as set forth.

3. The herein-described improved feed-rack, consisting of the frame having a central passage-way, the parallel trough, the hinged

lids or covers therefor, the cord or strap connected to said lids or covers, the wheels or pulleys between which said cord or strap is passed, the vertically-moving slides or cut-offs having central vertical arms, the guide-bars having rollers therein, the cords or straps connected to said slides or cut-offs, and the operating levers, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DENNIS G. HAGENBAUGH.

Witnesses:

JOHN YANES,  
J. J. HERRICK.