(No Model.)

## J. H. HOWARD. CATTLE RACK.

Patented June 16, 1891. No. 454,357. INVENTOR: K. Howard WITNESSES. BY Munn + Co ATTORNEYS

## United States Patent Office.

JAMES HERVEY HOWARD, OF BALDWIN, KANSAS.

## CATTLE-RACK.

SPECIFICATION forming part of Letters Patent No. 454,357, dated June 16, 1891.

Application filed February 19, 1891. Serial No. 382,070. (No model.)

To all whom it may concern:

Be it known that I, James Hervey How-ARD, of Baldwin, in the county of Douglas and State of Kansas, have invented a new and Improved Cattle-Rack, of which the following is a full, clear, and exact description.

My invention relates to cattle-racks, and has for its object to provide a means whereby cattle may be fed from stacks of hay or other to food located in a field without wasting the food and without danger of the stack when undermined falling upon the cattle to their injury.

A further object of the invention is to provide a means whereby the rack may be expeditiously and conveniently shifted to or from the stack, as may be required.

Another object of the invention is to provide a rack of simple, durable, and economic construction, and which may be readily set up in any field.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in both the views.

Figure 1 is a perspective view of the rack in operative position, and Fig. 2 is a perspective view of a fence-panel used in connection with the rack.

A number of posts 10 are fixedly secured in the ground, the said posts being arranged in rows between rows of hay-stacks or stacks of other food to be fed to the cattle. Two contiguous posts in one or more of the rows are connected by rails 11, the rails being preferably parallel, as shown in Fig. 1. The rails are attached to the posts through the medium of bolts provided with suitable nuts, and in each rail a number of longitudinally-arranged apertures 12 are produced.

In connection with the posts 10 and their rails 11 adjustable fence-panels A are employed. The panels preferably consist of a series of longitudinally-arranged slats 13, consected by a series of uprights 14. At the center of each panel a longitudinal opening 15 is formed by omitting slats, the said open-

ing being of sufficient height to admit of the passage of the heads of the cattle. The slats at the top and bottom of the openings 15 in the 55 panels are longer than the other slats, and the extremities of these longer slats are utilized to connect two or more panels. The rails 11 pass through the openings 15 in the panels, and one panel is preferably located between each two 60 opposed rails. The panels are held in an upright position through the medium of arms 16, which may be termed "runners," the said arms being provided with straps 17 or their equivalents at their lower ends, which straps 65 are passed over the ends of the lower long slats of the panels, and the upper ends of the arms or runners are connected with the rails 11 by passing bolts through the runners and through one of apertures 12 in the rails, 70 the said bolts being provided with suitable nuts. One runner only need be employed at the junction of two panels, as the lower long slats of the panels are preferably made to overlap and are connected by a bolt or an 75 equivalent thereof. The upper long slats of the abutting panels are also made to overlap and are tied together, preferably, through the medium of a chain 18 secured to one of the long slats near its ends, and the chains are 80 passed over the overlapping portions of the upper slats and are carried downward and attached to the rails 11 by passing bolts through links of the chains and through the apertures in the rails. If in practice it is 85 found desirable, the openings 15 in the panels may be closed by doors 19, hinged to one of the slats, as illustrated in Fig. 2.

When panels are connected in a sufficient number to extend across a field, the end panels are attached to the fence B inclosing the field, as illustrated in Fig. 1; but when the stacks are located at one corner of a field, for instance, or in the center of the field, and it is desired to inclose the stacks in such manner that the cattle can feed at all sides, a fence is constructed upon three sides of the stacks, the fence being formed by panels D, constructed as illustrated in Fig. 2. These panels are made practically in like manner too to the panels A; but the slats are ordinarily of equal length, and the center upright 14 has a chain 20 attached at or near its lower end, provided with a stake or pin 21 which pin is

driven in the ground, serving as a brace when the panels are in position. The panels D are secured to the posts 10 by means of bolts 22, and the panels are ordinarily held some distance away from the posts through the medium of washers 23, surrounding the bolts. It will be understood that when a fence inclosing three sides of the stacks is employed the fourth side is closed or protected by the adjustable panels A; but two or more sides may be made up of adjustable panels, if desired.

be made up of adjustable panels, if desired. If it is desired to have the cattle feed from one side only of the inclosure, the doors 19 in the panels at the other sides of the inclosing 15 structure are closed. The panels A, constituting one side of the inclosure, may be expeditiously and conveniently moved in the direction of the stack or stacks as the hay is exhausted by removing the bolts connecting 20 the runners 16 with the rails 11 and carrying the panels the desired distance forward, and when the proper position is obtained the runners are again attached to the rails by passing the bolts through another of the apertures 25 12 therein. When the hay in one line of stacks has been used up, the rails 11 are transferred to the next set of posts, and the adjustable panels are shifted and attached to the rails in their new position. When the 30 adjustable panels are extended to the ordinary fence, as shown in Fig. 1, the end rail 11 is located some distance inside the fenceline, and the space between the rail and fence is closed by a short panel, which panel may 35 be secured to the adjacent adjustable panel and to the fence in any suitable or approved manner. The short section may also be hinged, if desired, to act as a gate, whereby

By means of a rack constructed as described it is evident that the cattle will be prevented from wasting the food and that the food can be brought at all times within easy reach of the cattle. Again, the danger of the cattle

becoming smothered in consequence of un-

access may be had to that portion of the field

dermining a stack, and thus causing the upper portion to fall over upon them, is avoided, as when any undermining has taken place an attendant may level the stack by the use 50 of any suitable implement and bring the hay close to the panels A.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a series of posts arranged in rows and rails detachably attached at their ends to the posts, of panels separate and independent of said posts containing feed-openings and adjustably at-60 tached to the rails, substantially as and for the purpose specified.

2. The combination, with posts and rails removably attached thereto and provided with a series of apertures, of fence-panels containing feed-openings and arms or runners attached to the panels at one end and adjustably secured to the rails at their opposite end,

as and for the purpose specified.

3. The combination, with a series of posts 70 arranged in rows and rails containing apertures and removably attached to the posts, of fence-panels containing feed-openings, the said panels being arranged at an angle to the rails, a connection between the panels, and 75 arms or runners secured at one end to the panels and adjustably connected at their opposite end to the rails, as and for the purpose specified.

4. The combination, with posts arranged in 80 rows and rails removably connecting the posts, of fence-panels provided with feed-openings and doors adapted to close the same and runners or arms secured at one end to the panels and adjustably attached at their 85 opposite end to the rails, as and for the purpose specified.

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Witnesses:

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