

(No Model.)

2 Sheets—Sheet 1.

E. J. NASON.
FEED TROUGH.

No. 571,280.

Patented Nov. 10, 1896.

Fig. 1.

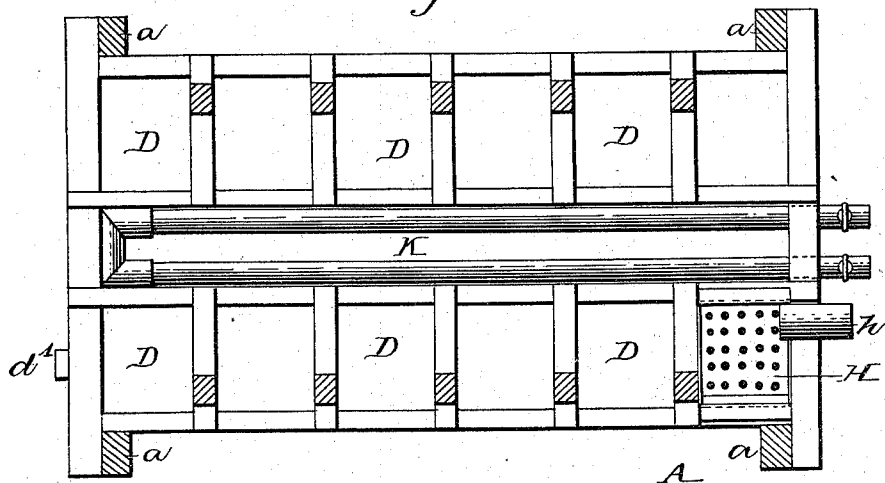


Fig. 2.

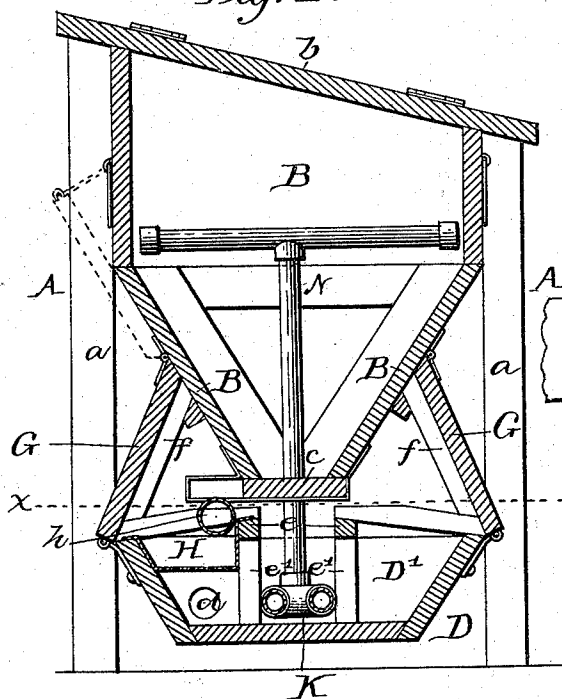
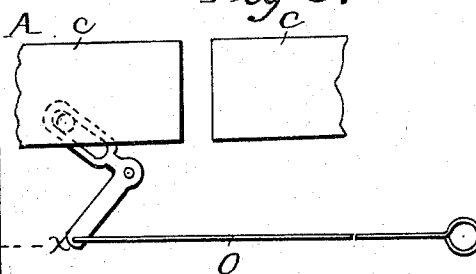


Fig. 3.



Witnesses:

Albert B. Blackwood.
Jas. H. Blackwood

Inventor.

E. J. Nason,
by F. L. B. Brock
Attorney.

(No Model.)

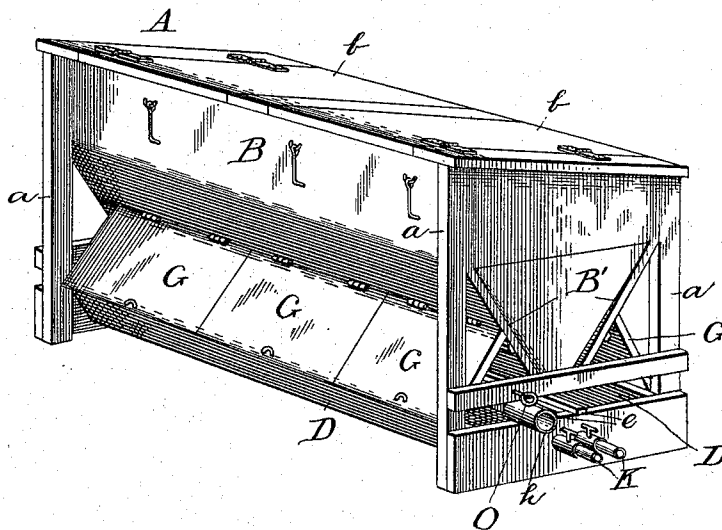
2 Sheets—Sheet 2.

E. J. NASON.
FEED TROUGH.

No. 571,280.

Patented Nov. 10, 1896.

Fig. 4.



Witnesses

J. A. Saul.

A. W. Bayard.

Inventor

Edwin J. Nason
by *Frederick B. Brock*
Attorney

UNITED STATES PATENT OFFICE.

EDWIN J. NASON, OF WASHINGTON, KANSAS.

FEED-TROUGH.

SPECIFICATION forming part of Letters Patent No. 571,280, dated November 10, 1896.

Application filed June 12, 1895. Serial No. 552,572. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. NASON, a citizen of the United States, residing at Washington, in the county of Washington and State of Kansas, have invented certain new and useful Improvements in a Combined Feed Soaker and Steamer; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the letters of reference marked on the accompanying drawings, which form a part of this specification.

My invention consists in the following construction and combination of parts, the details of which will first be described and the features of novelty then set forth in the claim.

Referring to the drawings, Figure 1 is a horizontal section, on the line *x x* of Fig. 2, of a feed-trough constructed in accordance with my invention. Fig. 2 is a vertical section of the same. Fig. 3 is a detail view of the valve-operating mechanism and rod which extends out through the end of the feeder. Fig. 4 is a perspective exterior view of the device embodying my invention.

In the several views on my sheets of drawings, A designates a frame having corner-pieces *a a*, to which are attached suitable boards to provide a storage-receptacle B for the grain, which has doors *b b* at the top that are preferably inclined to shed rain. Two converging boards B B constitute the bottom of the storage-receptacle. They do not quite meet at their lower edges, but form a restricted opening for the discharge of the grain.

D represents the feeding box or trough. The passage of the grain into the feeding-trough is controlled by one or more slide-valves C. These valves are supported by bands that have vertical parts which limit the movement of the valves.

The feed trough or box D has a partition D', centrally located. This partition has an opening *d* at the bottom of the box, the use of which will be hereinafter referred to. The trough has longitudinal bars *e e* running its entire length just below the valved opening, one on each side thereof. These bars are supported by uprights *e' e'*.

f f are bars running from the outer edges

of the trough D to a cleat on the boards, these several bars serving to divide the trough into separate parts for each animal.

G G are hinged doors for the purpose of closing the feeding-troughs to prevent access thereto when desired. They are provided with suitable means for securing them open.

At one end of the trough I provide a box H, having a bottom with small perforations therein. A water-pipe *h* leads into this box. To soak the feed, the water is allowed to flow in the box and percolate through the numerous small openings in small streams into the feed-trough. The opening *d* permits the water to pass through the central partition into the other end of the trough. A plug *d'* is for the purpose of withdrawing the contents of the trough.

When it is desired to mix medicine with the food in the form of powder or lump, it is put into the box H, and the water in passing into the box will dissolve it and carry the solution into the food, or if the medicine is in the liquid form it is poured slowly in the box H while the water is flowing through it into the trough. I have also provided means for heating the feed consisting, of a return-pipe K, passing along the bottom of the trough between the uprights *e'*. Through the pipe K is passed steam or hot water, as may be desired.

The introduction of steam heat to the feed-troughs beneath the storage-receptacle serves also to heat and dry said receptacle and its contents during damp weather and thus prevent the souring or molding of the feed, a very important feature.

The heating-pipes K are located directly under the discharge end of the feed-receptacle B, so that when communication is open between said receptacle and heating-pipe chamber the heated air passes directly thereto. In like manner the heated air spreads laterally into the trough D on each side of the pipes. When, therefore, the covers *b* and G are closed, the whole apparatus is in direct communication with the heating-pipes and thoroughly dried, so as to be sweet and clean and the souring of the feed in wet weather prevented.

I provide for a branched valved extension

N of the steam-pipe up into the storage-receptacle, so that, when desirable, I may apply heat thereto for the purpose of drying or heating the feed therein. I also provide for
5 the lateral reciprocation of the slides, regulating the discharge of the feed into the compartments below, which slides each have a rod O for operating them extending out through the end or ends of the device, where-
10 by the necessity of opening any of the covers G for the purpose of working the slides is obviated.

The rod O extends out through one end of the feeder and is connected to a pivoted bell-
15 crank lever, which in turn has a slotted arm engaging a pin on the slide, by means of which, when the rod O is pulled out or pushed in, the slide is moved transversely of the trough to open or close the slide. There is a rod O
20 and connections for each slide, which con-

nections are preferably upon opposite ends of the device.

Having now described my invention, what I claim is—

The combination in a stock-feeder and 25 heater, a feed-receptacle, a trough located underneath, covers for the receptacle and trough, a valve for regulating the discharge of the feed to the trough, a rod extending out longitudinally through the end of the feeder 30 for operating the valve, heating-pipes in the trough, and a branch heating-pipe extending up into the feed-receptacle.

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

EDWIN J. NASON.

Witnesses:

J. R. GOODENOUGH,
B. HILLYER.