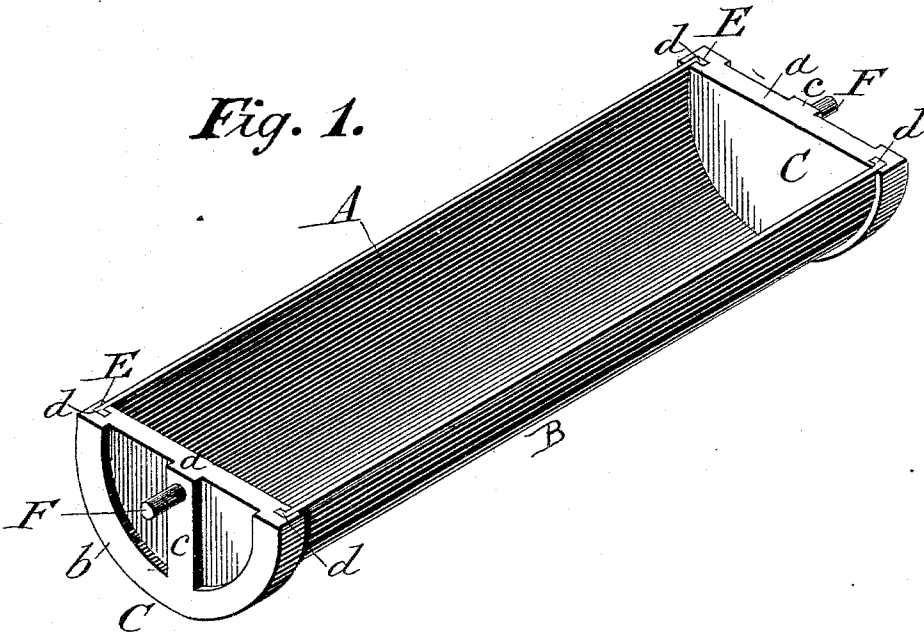


(No Model.)

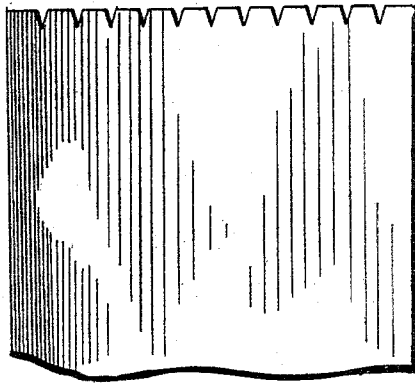
G. D. BURTON.  
FEED TROUGH.

No. 401,249.

Patented Apr. 9, 1889.



*Fig. 2.*



Witnesses.

*H. H. Schott*  
*Charles J. Stockman*

*George D. Burton*

Inventor.

By *his* Attorney

*Morris J. Foste*

# UNITED STATES PATENT OFFICE.

GEORGE D. BURTON, OF BOSTON, MASSACHUSETTS.

## FEED-TROUGH.

SPECIFICATION forming part of Letters Patent No. 401,249, dated April 9, 1889.

Application filed March 21, 1888. Serial No. 267,992. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE D. BURTON, a citizen of the United States, residing at Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Feed-Troughs; and I do hereby 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.

This invention has relation to an improvement in feed-troughs particularly adapted for cars for the transportation of live stock; and it consists in certain novel features of construction, hereinafter set forth, and particularly pointed out in the subjoined claim, whereby the head-pieces and trough-body thereof will be secured together without the necessity of employing bolts, rivets, or other analogous fastening devices.

In the accompanying drawings, Figure 1 is a perspective view of the trough; Fig. 2, a detail showing one end of the blank of which the trough-body is formed.

A represents a feed and water trough, consisting of the trough-body B, rolled or otherwise formed to a suitable shape, and the head-pieces C, located one at either end of the trough, as shown. These head-pieces C are obviously constructed of a form similar to that of the trough-body, and are made slightly larger than the same, as will be more fully understood hereinafter. They are shown in the drawings as consisting of the transverse piece *a*, from the center of which projects downwardly a piece, *c*, and the semicircular outer rim, *b*. The inner faces of these outer rims, *b*, are formed with recesses E, having the form of a right angle, as shown, adapted to receive and accommodate the extremities of the trough-body B, which extremities will obviously be constructed with inwardly-extending flanges *d*, to conform to the shape of these recesses E.

Journals F, which have their bearings in the main body of the car—when the trough is used in connection with a stock-car—are shown, and they are by preference formed integral with the head-pieces C. This construction permits the reversal of the feed-trough, in order to facilitate the emptying of its contents. The journals, however, may be

dispensed with, if desired, without departing from the spirit of the invention.

It will be quite obvious that the width of the recesses E will be approximately the same as the thickness of the material of the trough-body, in order that a perfectly tight and firm connection between the trough-body and head-pieces will be had, thus obviating the necessity of employing bolts, rivets, or other analogous devices; but solder may be used, if desired, to form an additional guard against leakage, although practical experience has demonstrated this to be unnecessary.

The manner of uniting the trough-body and head-pieces in the construction of the trough is as follows: The head or end pieces, being cast or otherwise formed to the desired shape and size and with the recesses E, are adapted to receive the extremities of the trough-body. The said trough-body is secured or held firmly in position by means of a vise or former of the necessary shape, and one of the said head-pieces is applied thereto and forced thereagainst with sufficient pressure to cause the extremities of the said trough-body to enter and conform to the shape of the recesses of the said head-piece, the ends of the body-piece having been previously notched, as shown in Fig. 2. The head-piece C, instead of being constructed with the vertical arms *c*, having recesses between them and the outer rims, *b*, can be constructed without the recesses; but the first-mentioned construction may, perhaps, be preferable, in that the weight of the trough will then be greatly lessened—a matter of prime importance in devices of this character.

It will be observed that in a trough constructed after the plan above set forth no projections will be left on its interior surface to form obstructions to the free exit therefrom of the hay, meal, or other contents thereof when it is desired to empty it; and one is constructed which will be simple and durable in its construction, and the cost of manufacture of which will be reduced to the minimum, thus readily recommending itself to those persons employing such vessels.

Having now described my invention, what I believe to be new and desire to secure by Letters Patent, and what I therefore claim, is—

As an improved article of manufacture, a feed-trough consisting of a body-piece having

inwardly-extending flanges at its ends, and  
head-pieces having right-angled recesses to  
receive the ends of the body-piece, substan-  
tially as described, whereby a perfectly tight  
5 and secure connection is formed without the  
employment of bolts, rivets, or other analo-  
gous fastening devices.

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

GEO. D. BURTON.

Witnesses:

WILLIAM H. NASH,  
ETTIE F. PHILIPSON.