I. DAVIS.

FEED TROUGH.

APPLICATION FILED FEB. 19, 1920.

1,367,524.

Patented Feb. 1, 1921.

2 SHEETS—SHEET 1.

FIG. 1.

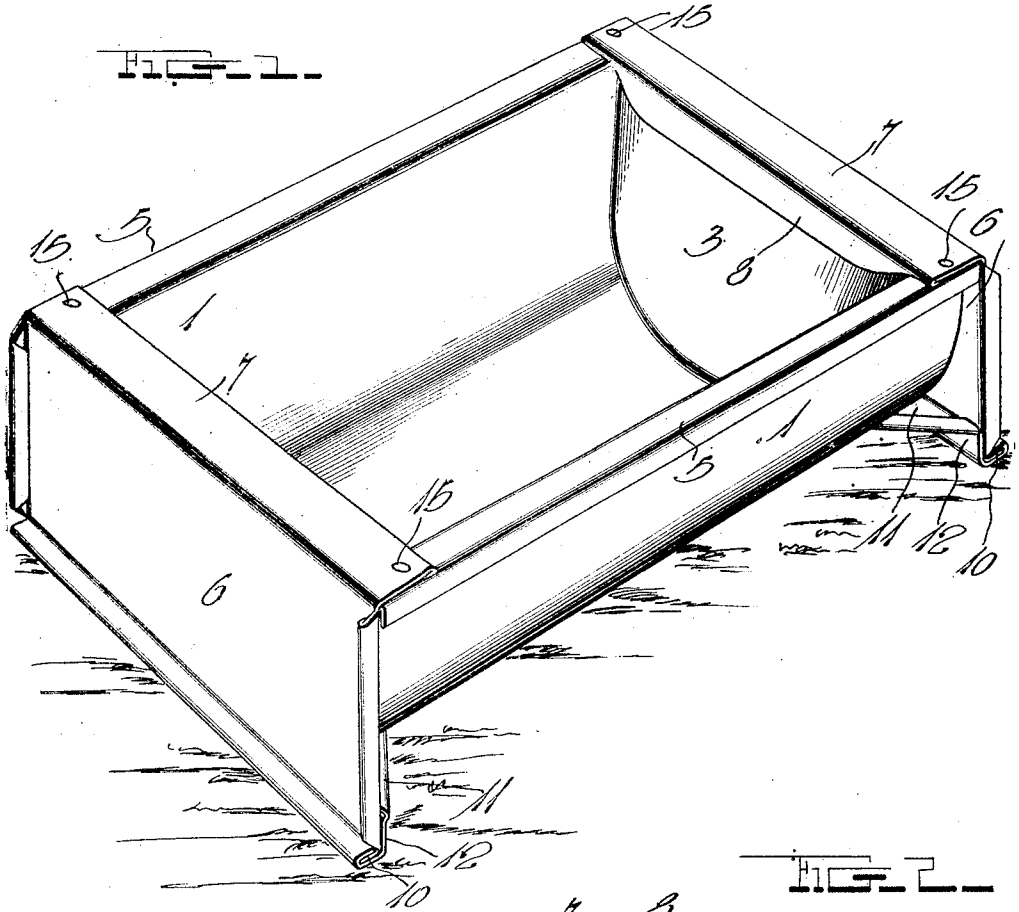
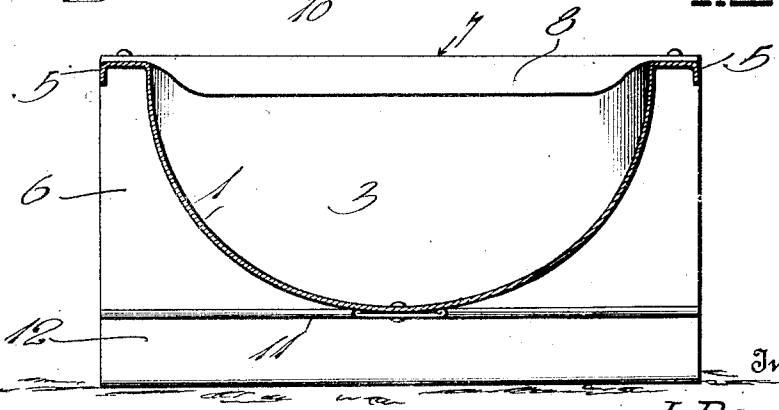


FIG. 2.



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2 SHEETS—SHEET 2.

FIG. 3.

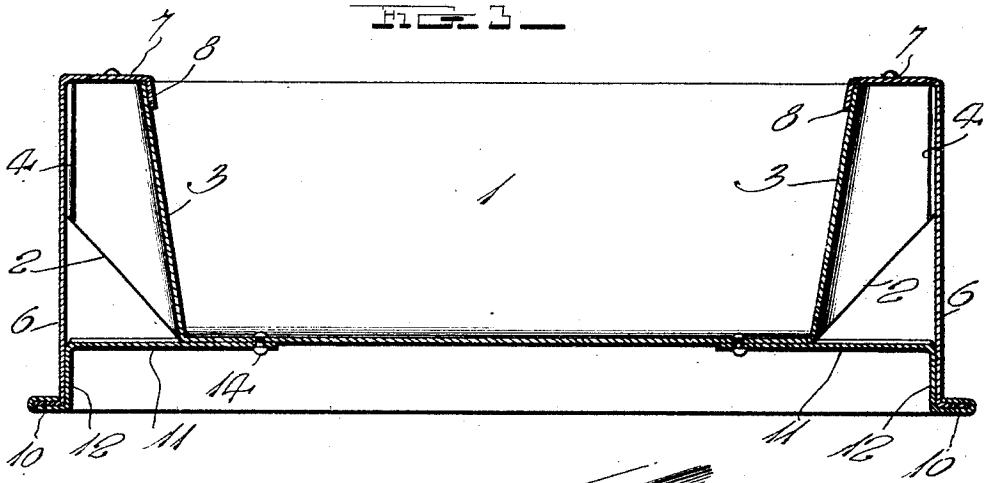


FIG. 4.

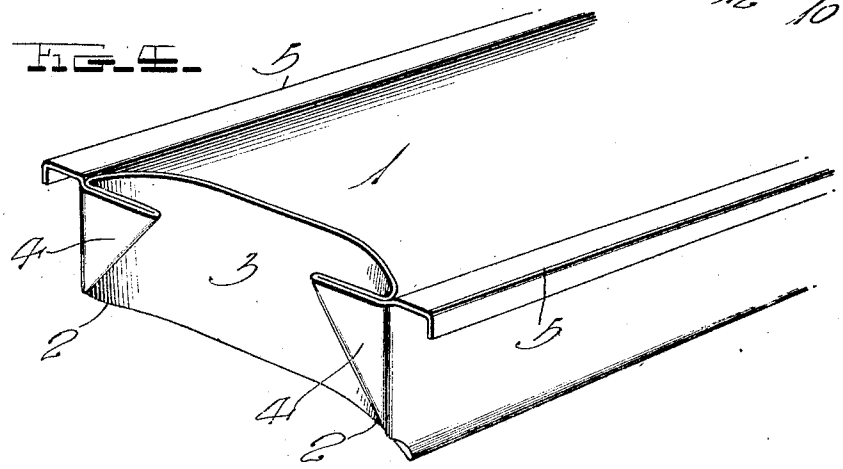
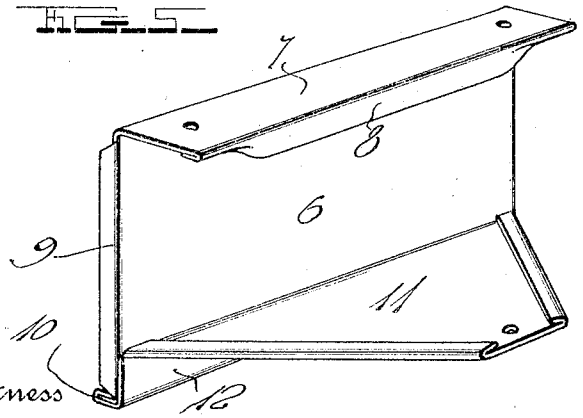


FIG. 5.



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FEED-TROUGH.

1,367,524. Specification of Letters Patent. Patented Feb. 1, 1921.

Application filed February 19, 1920. Serial No. 359,806.

To all whom it may concern:

Be it known that I, IRWIN DAVIS, a citizen of the United States, residing at Kirksville, in the county of Adair and State of Missouri, have invented certain new and useful Improvements in Feed-Troughs; 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.

This invention relates to feed troughs for stock.

One object of the invention is to provide a feed trough made entirely of sheet metal and the various parts of which are interlocked and secured together so that the trough is of very rigid and strong construction.

Another object of the invention is to provide a feed trough made from sheet metal, the ends of which have no obstruction so that stock may just as readily feed from the ends of the trough as from the sides thereof.

With these and other objects in view, the invention consists of the novel features of construction, and the combination and arrangement of parts as are hereinafter fully described and claimed.

In the accompanying drawings in which similar reference characters designate like parts throughout the several views:

Figure 1 is a perspective view of a feed trough constructed in accordance with this invention.

Fig. 2 is a transverse sectional view of a feed trough.

Fig. 3 is a longitudinal sectional view of the same.

Fig. 4 is a perspective view of a portion of the trough proper, illustrating the manner in which the end walls thereof are formed, and

Fig. 5 is a similar view of one of the supporting plates and braces which is interlocked with the same.

In the drawings above briefly described, the numeral 1 designates as a whole a trough which is formed from a single plate of sheet metal, the latter being curved transversely so that the channel or trough extends longitudinally of the plate. The ends of the plate are bent upwardly upon diagonal fold lines indicated by the numerals 2 to form the end walls 3 of the trough and having projecting wings 4 of double thicknesses of metal. These wings 4 are bent inwardly toward each other and are disposed in spaced parallel relation from the end walls of the trough. The end walls 3 are to some extent flattened. The longitudinal edges of the plate out of which the trough proper is formed are bent laterally and then downwardly to form horizontal flanges 5 along the longitudinal edges of the trough.

The numerals 6 designate supporting plates, the upper edges of which are provided with inwardly extending flanges 7 which overlie the upper edges of the end walls 3 and wings 4. The free edges of the flanges 7 are struck downwardly as at 8 around the upper edges of the end walls 3. The plates 6 rest flat against the inturned wings 4. The side edges of the plates 6 are provided with laterally extending strengthening flanges 9, while the lower edges of said plates are bent outwardly as at 10.

The numerals 11 designate triangular shaped braces, the widest sides of which are provided with lateral flanges 12 which rest flat against the inner sides of the plates 6. The lower edges of the flanges 12 are bent laterally and then upon themselves around the flanges 10 of the plates 6 so as to effect an interlocking between the braces and the supporting plates. The other edges of the braces 11 are turned upon themselves for the purpose of strengthening the braces. The braces are disposed beneath the bottom of the trough and are secured thereto at their inner ends either by means of rivets 14 or other suitable elements.

The flanges 7 carried by the plates 6 are secured to the longitudinal flanges 5 of the trough by means of rivets 15 or other suitable securing elements.

A device constructed as above described is of simple construction by reason of the fact that it may be entirely made from sheet metal, and in view of the fact that the various parts of it are interlocked and securely fastened together, it is of very rigid construction. The end walls 3 being flattened and the wings 4 being turned inwardly toward each other permits a narrower flange 7 being used than was heretofore found necessary. This construction allows the stock to feed from the ends of the trough as well as from the sides.

From the foregoing description, taken in connection with the accompanying drawings, the construction and use of the invention will be readily understood.

Various changes in form, proportion, and

minor details of construction may be resorted to without departing from the spirit of the invention as defined in the claims.

What is claimed is:

1. A device of the class described comprising a trough, supporting plates disposed at the ends of said trough and secured thereto, and triangular braces disposed below said trough and secured at their apices thereto, the other ends of said braces being provided with shoulders resting against said supporting plates and interlocked with the lower edges of the same.

2. A device of the class described comprising a plate of sheet metal curved transversely to form a longitudinally extending trough, the ends of this plate being bent upwardly on diagonal fold lines to form ends for the trough, these ends being curved inwardly into the latter, portions of the metal at each corner of the trough being squeezed together to form triangular wings of double thicknesses, these wings being bent inwardly toward each other and spaced from the ends of the trough, and supporting plates bearing against said wings, being provided at their upper ends with flanges overlying these wings and upper edges of the ends of the trough, said plates being also provided at their lower ends with laterally extending braces disposed beneath and connected to the bottom of the trough, the junctures of the plates and braces being formed with shoulders which are disposed in vertical alinement with the aforesaid wings, thus causing the plates to bear tightly against the wings and increasing the rigidity of the device.

In testimony whereof I have hereunto set my hand.

IRWIN DAVIS.