W. V. HARDING.

STOCK FEEDER.

APPLICATION FILED JUNE 13, 1908.

906,013. Patented Dec. 8, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

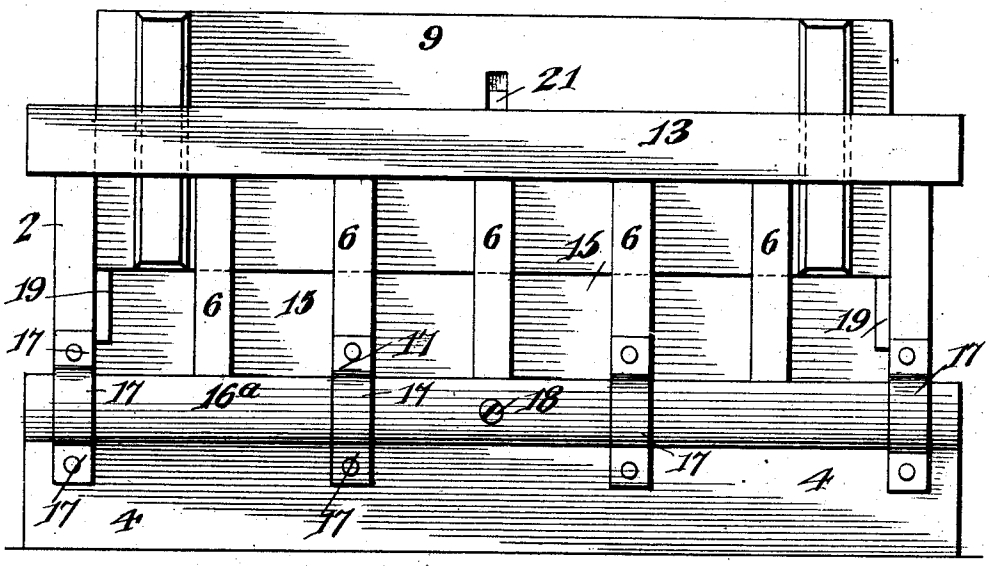
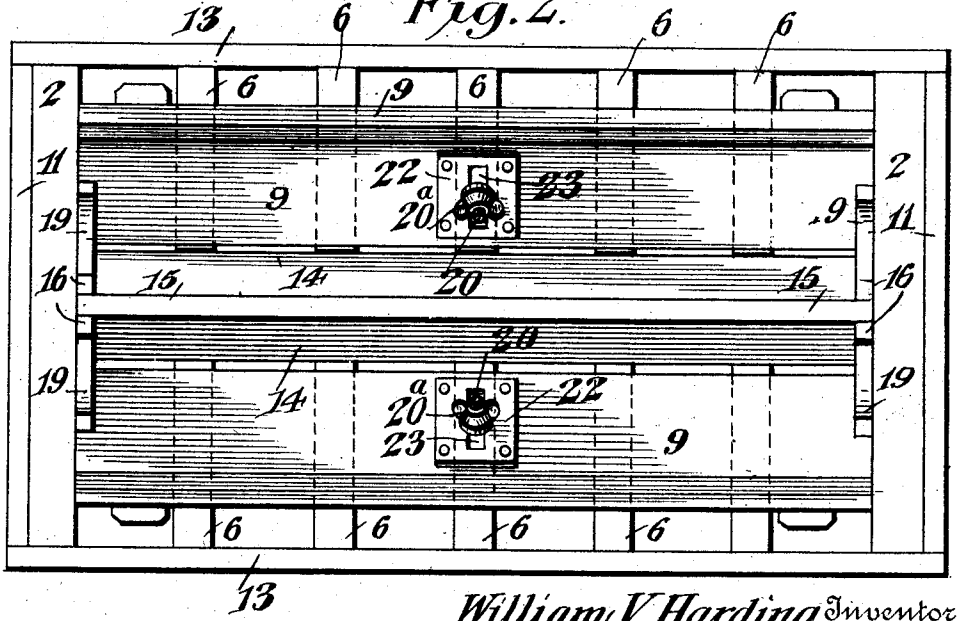


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

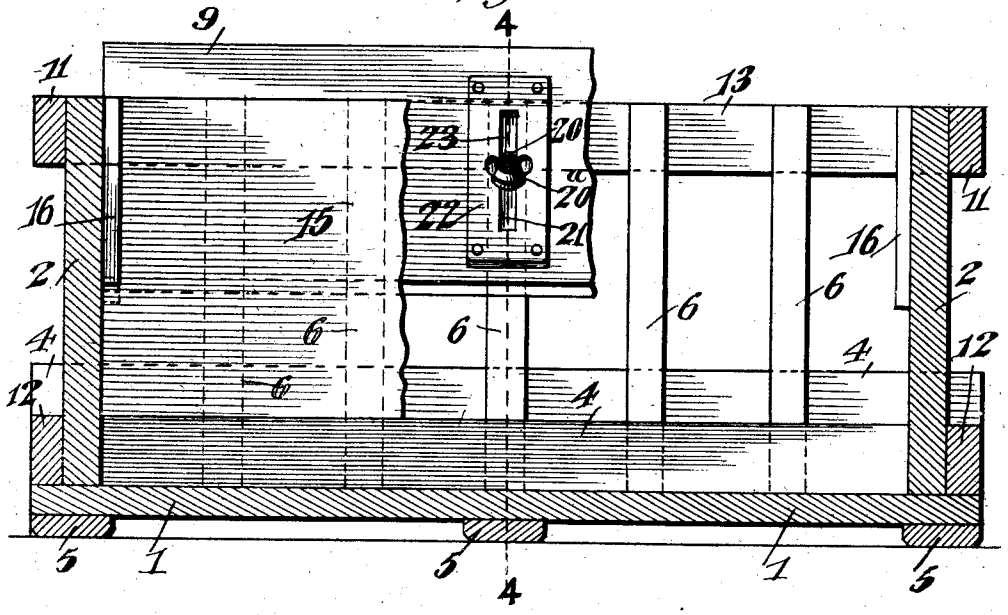


Fig. 4.

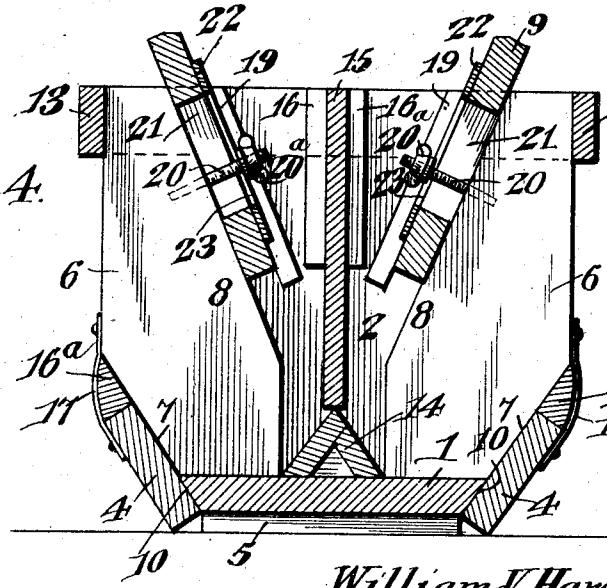
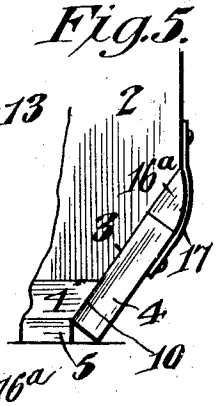


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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STOCK-FEEDER.

No. 906,013. Specification of Letters Patent. Patented Dec. 8, 1908.

Application filed June 13, 1908. Serial No. 438,350.

To all whom it may concern:

Be it known that I, WILLIAM VIRGEL HARDING, a citizen of the United States, residing at Gaylord, in the county of Smith and State of Kansas, have invented a new and useful Stock-Feeder, of which the following is a specification.

The invention relates to improvements in stock feeders.

The object of the present invention is to improve the construction of stock feeders, and to provide a simple and comparatively inexpensive stock feeder of great strength and durability, designed for feeding alfalfa and clover hay and various other feeds economically to hogs and other stock so as to obtain maximum results at a minimum cost.

A further object of the invention is to provide a stock feeder of this character, adapted particularly for the use of feeding materials, which are fed to the stock in comparatively small rations, and capable of effectually preventing the animals from coming in contact with one another while feeding.

Another object of the invention is to provide a stock feeder, adapted to be easily and quickly cleaned and capable also of being adjusted as the stock increases in size.

The invention also has for its object to provide a stable feed trough, which will not be overturned by the animals feeding from it.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a side elevation of a stock feeder, constructed in accordance with this invention. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal sectional view, the central division board and the adjustable side member being partly broken away. Fig. 4 is a transverse sectional view taken on the line 4—4 of Fig. 3. Fig. 5 is a detail view of a portion of one end of the stock feeder.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

The stock feeder, which may be constructed of any desired size to accommodate any number of animals, is provided with a horizontal bottom 1, and it has vertical ends 2 tapered at the lower portion to provide lower inclined side edges 3 to receive the sides 4. The bottom 1 is supported above the ground, or other supporting surface by means of a plurality of transverse cleats 5, arranged at the center and ends of the bottom of the stock feeder, but the number of cleats may be varied if desired. The stock feeder is provided at opposite sides with a series of transverse vertical partitions 6, dividing the stock feeder into separate feeding compartments and secured at their lower edges to the bottom of the feed trough.

The vertical partitions 6 have their outer edges inclined at the lower portions at 7 to correspond with the lower inclined edges of the tapered ends, and the upper portions 8 of the inner edges of the partitions are inclined to receive inner inclined adjustable side members 9. The side edges 10 of the bottom 1 are beveled and arranged in flush relation with the inclined edges of the ends 2 and the vertical partitions 6, and the sides 4, which fit against the adjacent inclined edges, are suitably secured to the ends and to the partitions. The ends are reinforced by upper and lower horizontal cleats 11 and 12, and the upper ends of the partitions are connected by horizontal side rails 13, extending longitudinally of the trough and also secured to the side edges of the ends 2 and to the ends of the cleats 11. The terminals of the sides and the ends of the bottom are extended beyond the outer faces of the ends 2 of the stock feeder, and the lower end cleats 12 are tapered to fit the sides 4.

The lower portions of the inner edges of the vertical partitions 6 are vertical and are spaced from the median line of the bottom 1 of the stock feeder, which is provided with a centrally arranged longitudinal spreader 14, consisting of an inverted V-shaped partition or member composed of oppositely inclined sides presenting outer inclined faces and adapted to throw the feed material forward or outward into the separate compartments formed by the vertical partitions. The central spreader or partition is suitably fixed to the upper face of the bottom 1 of the stock feeder, and the outer faces of its sides extend upward from the inner vertical edges of the partition.

The two series or sets of feed compart-

ments at opposite sides of the stock feeder are further separated by a removable vertical division board 15, extending longitudinally of the stock feeder and having its end edges arranged in vertical ways, formed by vertical pipes or cleats 16, secured to the inner faces of the ends of the stock feeder, as clearly shown in Figs. 2 and 3 of the drawings. The lower edge of the division board rests upon the central fixed spreader 14. The division board 15 is adapted to be readily lifted from the stock feeder, when it is desired to clean the same, and by its removal, it enables the stock feeder to be quickly cleaned and easily maintained in a sanitary condition. The spreader and the removable division board effectually prevent the animals feeding at one side of the stock feeder from coming in contact with or interfering with those feeding at the opposite side of the stock feeder.

In order to enable the stock feeder to be adjusted as the stock increase in size, it is equipped with removable upper side members 16[a], arranged at an inclination and having rounded outer faces and fitted against the upper edges of the fixed sides 4 to form extensions of the same. The removable upper members are slidably supported by holders 17, consisting of metallic straps secured to the outer faces of the fixed sides and to the outer edges of the partitions at points above the lower inclined portions 7 of the said outer edges. The upper side members are readily removed from and placed in the holders, and they are adapted to be secured in position by a screw 18, or other suitable fastening means. The holders 17 are arranged at intervals and any desired number may be employed.

The inner inclined adjustable side members 9 are adapted to increase the capacity of the hopper or feed-receiving portion of the stock feeder, and they are slidably mounted in ways formed by the inclined upper portions of the inner edges of the partitions and coöperating inclined strips or cleats 19, secured to the inner faces of the ends of the stock feeder. The side members have a considerable range of adjustment, and they will be located at the limit of their downward and inward movement at the start with the upper side members 16[a] detached for weaning pigs, and as the pigs increase in size, the slidable members 9 will be raised and at the proper size the upper side members 16[a] will be attached to the stock feeder. The inner adjustable side members 9 are secured in their upward and downward adjustment by means of screws or bolts 20, extending through transverse slots 21 of the side members and equipped with thumb nuts 20[a]. The bolts or screws 20 may be fixed to the partitions in any preferred manner, and any desired number of slots and fastening devices may be employed for securing the side members 9 in their adjustment, and the number of slots and fastening devices will of course be varied with the capacity of the stock feeder. Although I have for convenience of illustration shown in the accompanying drawings only one adjusting screw and fastening means, in practice there will be from four to six slots in each adjustable member. The adjustable members are reinforced at the slots by side plates 22, provided with longitudinal slots 23 to register with the slots of the side members and adapted to be engaged by the thumb nuts.

The fastening means detachably secure the side members 9 to the partitions to enable the said side members to be removed with the division board for cleaning the stock feeder.

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

1. A stock feeder including a bottom, ends, sides connecting the lower portions of the ends, partitions located at opposite sides of the median line of the bottom and dividing the stock feeder into separate compartments, removable upper side members arranged above and forming extensions of the said sides, and holders receiving the removable side members and consisting of metallic straps secured to the sides and to the partitions at points above the removable side members.

2. A stock feeder including a bottom, ends having lower tapered portions, partitions located at opposite sides of the median line of the bottom and having their outer edges inclined at their lower portions to conform to the taper of the ends and their inner portions inclined at their upper portions, sides fitted against the lower inclined edges of the partitions and the tapered portions of the ends, and inner inclined adjustable members secured to the upper inclined edges of the partitions and forming an adjustable hopper.

3. A stock feeder including a bottom, ends having inclined lower portions, partitions located at opposite sides of the median line of the bottom and having their outer edges inclined at the bottom and their inner edges inclined at the upper portions, sides fitted against the inclined portions of the outer edges of the partitions and the inclined lower portions of the ends, inclined cleats secured to the inner faces of the ends of the stock feeder and coöperating with the upper inclined portions of the inner edges of the partitions to form ways, inner inclined adjustable members slidable in the ways and supported by the partitions, and a central division board interposed between the two sets of partitions.

4. A stock feeder comprising a bottom, ends, partitions located at opposite sides of

the median line of the bottom and having inclined inner edges, inclined cleats secured to the ends of the stock feeder and coöperating with the inclined edges of the partitions to form inclined ways, vertical cleats mounted on the ends of the stock feeder and forming vertical ways, upper inclined adjustable members mounted in the inclined ways and supported by the partitions, and a central division board mounted in the vertical ways and arranged between the inclined members and the two sets of partitions.

5. A stock feeder including a bottom, ends having tapered lower portions, partitions located at opposite sides of the median line of the bottom and having the lower portions of their outer edges inclined and the upper portion of their inner edges inclined, sides fitted against the lower inclined edges, inner inclined adjustable members secured to the inclined inner edges of the partitions, removable outer side members forming extensions of the said sides, holders secured to the partitions and to the said sides for slidably receiving the removable side members, and a division board arranged between the two sets of partitions.

6. A stock feeder including a bottom, ends, partitions located at opposite sides of the median line of the bottom and having their inner edges inclined at the upper portions, sides fitted against the lower portions of the outer edges of the partitions, a central removable division board, inclined adjustable side members supported by the inclined edges of the partitions and provided with transverse slots, and fastening means connected with the partitions and operating in the slots of the adjustable side members for securing the latter in their adjustment and also for detachably connecting the same to the partitions.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM VIRGEL HARDING.

Witnesses:
S. R. STEPHENSON,
C. B. WOODS.