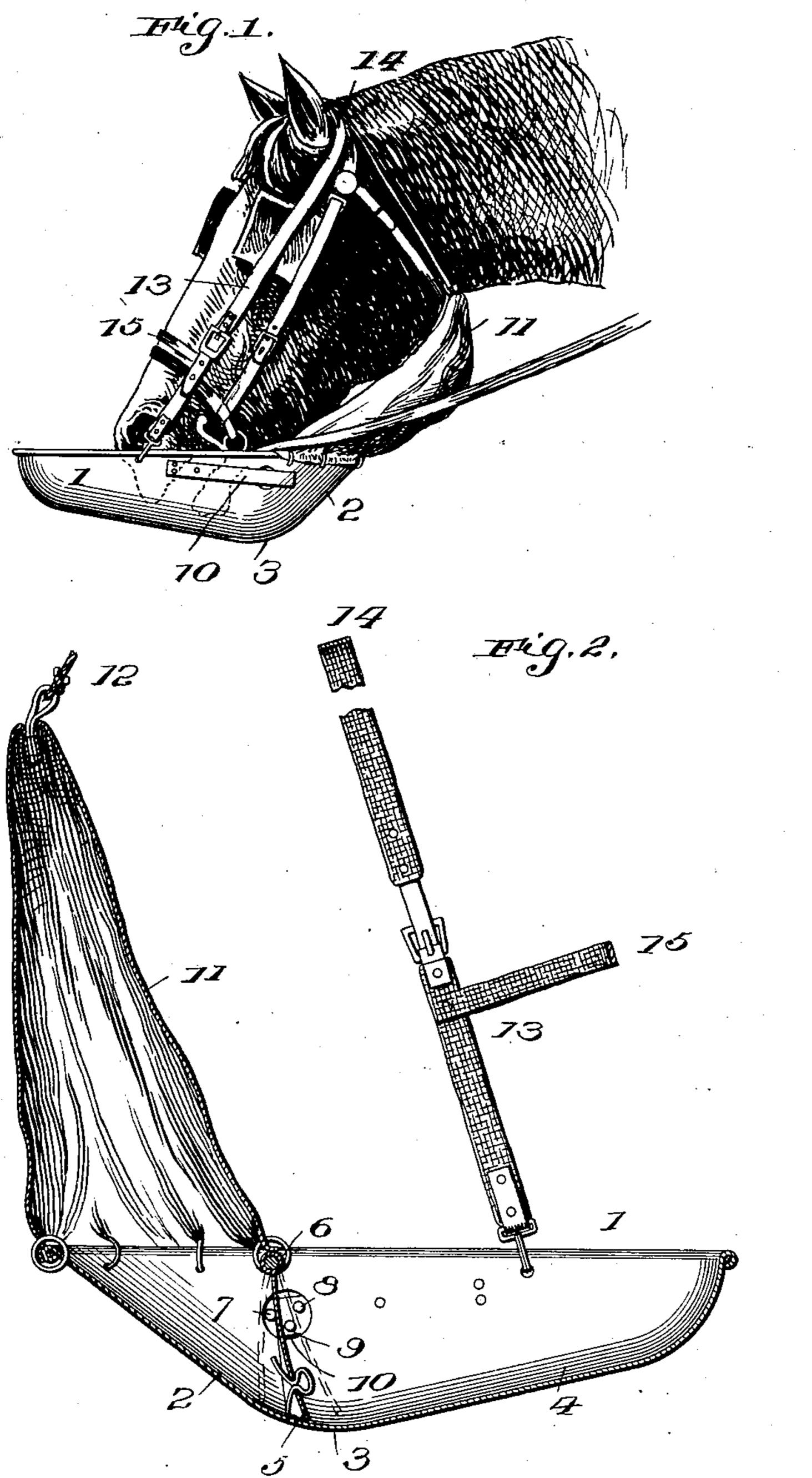
## H. STILL.

HORSE FEEDING DEVICE. APPLICATION FILED APR. 15, 1903.

NO MODEL.

2 SHEETS-SHEET 1.



Henry Still

Witnesses

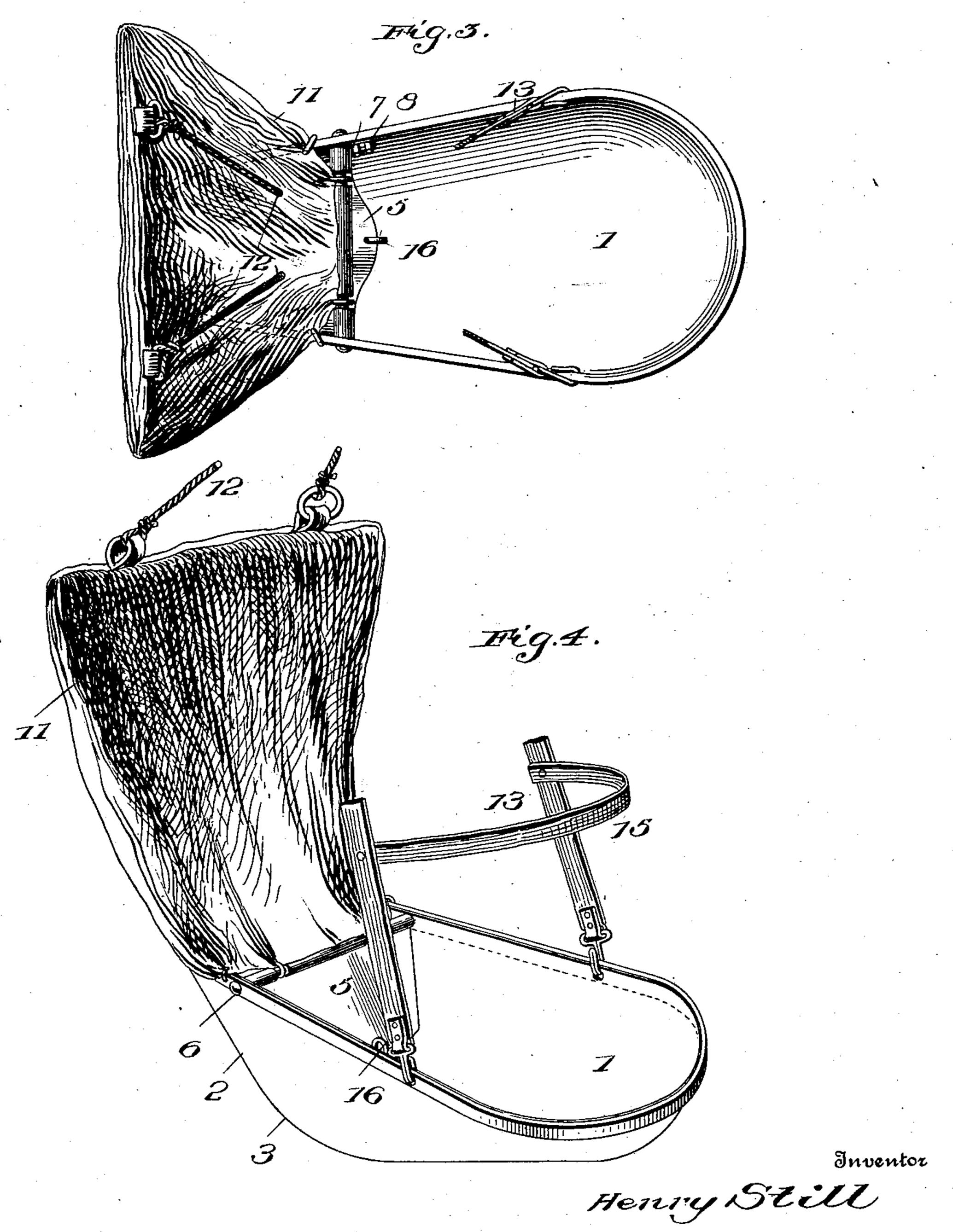
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Witnesses

By Stewart of Thursd

attorneys

## United States Patent Office.

HENRY STILL, OF BALTIMORE, MARYLAND.

## HORSE-FEEDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 734,103, dated July 21, 1903.

Application filed April 15, 1903. Serial No. 152,760. (No model.)

To all whom it may concern:

Be it known that I, HENRY STILL, a citizen of the United States of America, and a resident of 700 East Monument street, Baltimore, 5 Maryland, have invented certain new and useful Improvements in Horse-Feeding Devices, of which the following is a specification.

My invention relates to a device for feeding horses on the street or elsewhere where a stationary manger is not accessible; and it consists of a feeding-pan suspended from a horse's head and provided with a reservoir containing food, from which the food is allowed to escape into the pan in small quanti-15 ties and the horse is enabled to let the feed down into the pan within reach of his lips as it is consumed. At the same time the pan is kept suspended in a horizontal position from the horse's head, so as not to spill its con-20 tents.

Figure 1 represents the feeding device suspended from the head of a horse which is in the act of feeding from it. Fig. 2 is a vertical section of the device in the position which 25 it will occupy when suspended from the head of a horse. Fig. 3 is a plan view of the device, and Fig. 4 is a perspective view of the device with some of the parts broken away.

Referring to the drawings, 1 is a pan, made, 30 preferably, with a horizontal upper edge and inclined rear surface (marked 2 in Fig. 2) and a bottom, the lowest point of which is about the center of the pan (marked 3) and inclined upward, as at 4. Across the center of the pan, 35 a little to one side of the center and toward the inclined bottom 2, is a pivoted door 5. The door 5 is pivoted just on the interior of the basin and just below the upper edge at the point 6 and extends downward, inclining 40 toward the center of the basin to a point slightly behind the point 3, which is the deepest portion of the basin. On one of the sides of the basin there is an opening through which protrude pins 7, 8, and 9. These pins 45 are all located upon the end of a piece of strong metal 10, which is secured to the exterior of the basin and by which they are held in the hole through which they pass, protruding as far as possible into the basin. The pins 50 7, 8, and 9 are so arranged that they may engage the edge of the door 5 and hold it in one of three different positions. In Fig. 2 the end and is free to swing upon those two

door is shown as held between the pins 7 and 9. In that position the door has a certain amount of play—that is to say, the pins 7 and 55 9 are such a distance apart as to permit the door to swing back and forward between them, and yet be limited in its motion by them. The pins 8 and 9 are so located in their relations to each other that when the door is 65 held between them it will be held rigidly in a position shown in dotted lines in Fig. 2, leaving a greater aperture below the edge of the door than in the position shown in full lines. When the door is behind the pin 7, 65 it will be wholly closed and the lower end of it will rest upon the bottom of the pan, and it will be held firmly by the pin 7 in a locked position, as shown in dotted lines in Fig. 2. The various positions above described are 75 useful for purposes which will be hereinafter set forth. The basin is made approximately elliptical in shape and conical in the bottom—that is to say, there is a point slightly back of the center which is deeper than any 75 other point of the basin and to which the sides converge all around. The door 5 is located just back of the deepest point, which in Fig. 2 is marked 3, and when grain from the hopper, formed by the bag and the rear 80 of the basin and door, is fed down under the door into the bottom of the basin it will be concentrated at the deepest portion of the basin, and as it is thrown away from that point by the motion of the horse's lip it will 85 always fall back to the center, where the horse can most easily gather it up.

11 is a bag or food-receptacle closed at the upper end and secured at the mouth to the rear edge of the pan 2 and also to the upper 90 edge of the door 5. It may be secured in any suitable manner, by sewing or riveting or by wire lacing. It is only necessary that the fastening is such as to be strong and not to permit the escape of food which may be placed 95 in the bag. The upper end of the bag is suspended from a cord 12, and the basin is suspended from a halter 13. The halter has a head-strap 14 and a nose-strap 15. The cord 12, by which the upper end of the bag is sus- 100 pended, and the head-strap 14 are secured together at the top of the horse's head by the bag at one end and the halter 13 at the other

points of support and maintain its level no matter what the position of the head of the horse may be. The halter may be adjusted so as to fit the varying lengths of heads of 5 different horses.

In the lower edge of the door 5 is located a stirrer 16, which consists of a piece of wire bent into a loop at the front and having two inwardly-projecting ends which are spread 10 apart and which rest loosely in a hole in the end of the door. It may be desirable to enlarge the exterior end of the stirrer, so that it may be more easily moved by the lip of the horse.

The operation of the device is as follows: When it is to be filled with grain, the door 5 is released from its clamping device 10 and thrown wide open, the bag inverted, and the charge of grain or other food placed in the bag. 20 The door is then closed tight, and the pin 7 when released will pass in front of the door and hold it locked in a closed position. The feeder may then be handled and transported at will without wasting any of the feed con-25 tained in the bag. When it is to be used for feeding, the cord 12 and halter 13 are placed over the horse's head, with their point of union at the top of his head behind his ears.

The feeder will then be suspended from the 30 top of his head, and the basin should stand in a horizontal position. The halter may be adjusted so as to secure this result. The door may then be unlocked and located either between the pins 7 and 9, where it will have 35 a certain swinging motion, which may be given to it by the lower lip of the horse, in

the bottom of the pan, and when such por-40 tion of the feed as may have escaped below the door has been consumed the horse will strike the swinging door with his lip and throw it backward against the pressure of the descending feed. As soon as he relieves

which case as the feed falls down below the

door it will be taken up by the horse from

45 his pressure upon the door it will swing forward under the pressure of the feed and a portion of feed will fall out below it into the pan, and this operation will be completed until all the feed is slowly consumed. As

50 the horse strikes the door he will also strike the stirrer 16 and move the feed behind the door, so as to prevent its clogging at that point and accomplish a free and easy feed below the door. If the horse feeds very slowly

55 naturally and it is desired to facilitate his feeding, the door may be set between the pins 8 and 9, so as to hold it rigidly in a position (shown in dotted lines in Fig. 2) somewhat wider open than the position of the full lines.

60 In this position the door will not swing, and the horse will be compelled to get his food down partly by gravity and partly by the shaking of his head and of the feeder. In either case the advantages of the device will

65 be manifest. They consist, first, in the fact that the horse feeds from the basin with his nose entirely uncovered, so that he can

breathe freely; secondly, he will be compelled to feed slowly, because only a very small portion of feed will escape from the bag and 70 hopper into the pan at one time; this will insure thorough mastication of the food and good digestion; third, the food cannot be wasted, because the pan will retain a constant relation to the horse's mouth, will remain in 75 a horizontal position, and the amount of food in the pan will at no time be more than the horse can get into his mouth, so that there will not only be no disposition on his part to waste the feod, but there will be so little food 80 in the pan at a time that wasting will be avoided.

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

Patent, is—

1. In a device for feeding horses the combination of a pan having a pivoted door therein extending from the upper edge toward the bottom of the pan, with means for limiting the motion of the door, with a bag closed at 90 one end and open at the other, and being secured at the open end to the rear edge of the pan, and to the pivot of the door, substantially as described.

2. In a device for feeding horses the com- 95 bination of a basin having pivoted transversely thereof a door which extends from the pivot downward to the bottom of the basin, and a bag having its mouth secured to one side of the basin, and to the pivot of the door. 100

3. In a device for feeding horses the combination of a basin provided with a pivoted door, the pivot being located at or near the edge of the basin, and transversely thereof, and the door extending down toward the bot- 105 tom of the basin to a point near its center, in combination with a bag having its mouth secured to one side of the basin, and to the pivot of the door, with a suspensory device consisting of two straps or cords, one of which 110 is secured to the upper end of the bag, and the other to the free edge of the basin beyond its center, the two suspensory cords being united so as to hold the basin in a horizontal position suspended from a single point.

4. In a feeding device the combination of a basin with a door pivoted below the edge of the basin, and extending downward toward the bottom of the basin, with a bag having its mouth secured to one side of the basin, 120 and to the pivot of the door, and means for

locking and unlocking the door. 5. In a feeding device the combination of a basin with a door pivoted below the edge of the basin, and extending downward toward 125 the bottom of the basin, with a bag having its mouth secured to one side of the basin, and to the pivot of the door, and means for locking and unlocking the door, so as to lock it in a desired position closed or nearly closed, 130 or unlock it so that it may be opened wide.

6. In a feeding device the combination of a basin with a door pivoted below the edge of the basin, and extending downward toward

the bottom of the basin, with a bag having its mouth secured to one side of the basin, and to the pivot of the door, and means for locking and unlocking the door, and a stirrer located in the lower edge of the door, and in position to be moved by the lip of the horse when feeding, to stir the food behind the door.

7. In a feeding device the combination of a basin with a door pivoted below the edge of the basin, and extending downward toward the bottom of the basin, with a bag having its mouth secured to one side of the basin and to the pivot of the door, and means for locking and unlocking the door, the lock being so constructed as to permit a limited swing of the door when locked.

8. In a device for feeding horses the combination of a basin provided with a pivoted door, the pivot being located at or near the edge of the basin and transversely thereof, and the door extending down toward the bottom of the basin to a point near its center, with suspensory devices for the basin attached thereto at at least four points, and uniting in a single point of support on the top of the horse's head, whereby the basin is maintained in a horizontal position.

9. In a feeding device the combination of a basin with a door pivoted at the edge of the basin, and extending downward toward the bottom of the basin, with a bag having its mouth secured to one side of the basin, and to the pivot of the door, and means for locking and unlocking the door in any one of three positions, locked to close the hopper, or slightly open while permitting a certain

amount of play to the door, or locked fast at a certain extent of opening.

10. In a feeding device the combination of a basin approximately conical in shape, with 40 a door pivoted below the edge of the basin, and extending downward toward the bottom of the basin, at a point in the rear of the point of greatest depth, with a bag having its mouth secured to one side of the basin, and to the 45 upper edge of the door, substantially as described.

11. In a feeding device the combination of a basin substantially elliptical in shape and having a conical bottom, with a door pivoted 50 at the edge of the basin on one side, and extending downward toward the bottom of the basin, the lower end of the door being at one side of the point of greatest depth, with a bag having its mouth secured to one side of the 55 basin and to the upper edge of the door, substantially as described.

12. In a feeding device the combination of a basin substantially elliptical in shape, having a conical bottom, with a door pivoted 60 transversely at its edge in one end, and extending downward toward the center, and terminating before reaching the point of greatest depth, with a bag having its mouth secured to one side of the basin and to the 65 top of the door, substantially as described.

Signed by me at Baltimore, Maryland, this 13th day of April, 1903.

HENRY STILL.

Witnesses:

HOWARD D. ADAMS, E. R. BERKELEY.