No. 629,106. Patented July 18, 1899.

C. H. HAIN.

FEED MANGER.

(Application filed Apr. 14, 1899.)

(No Model.)

Fig. 1.

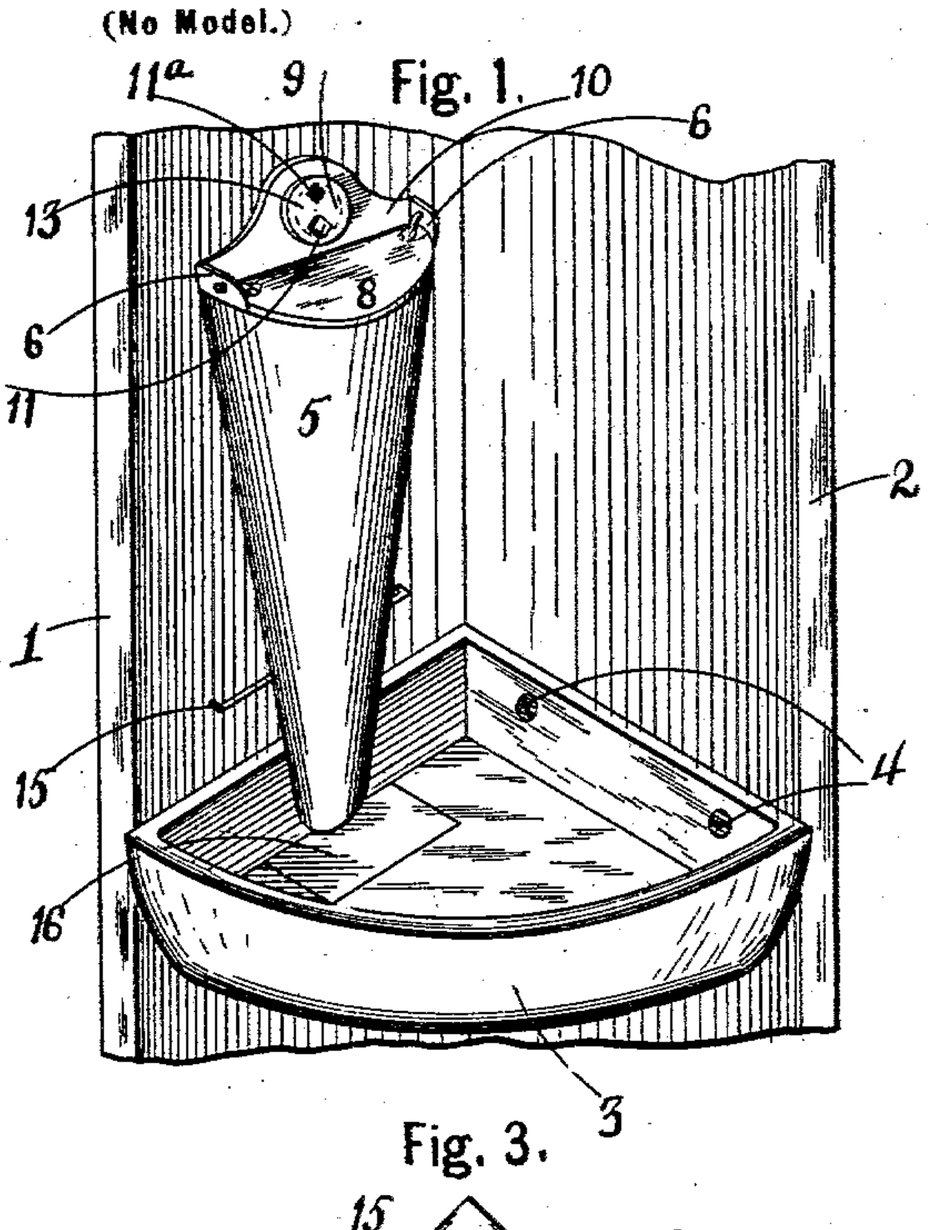


Fig. 2.

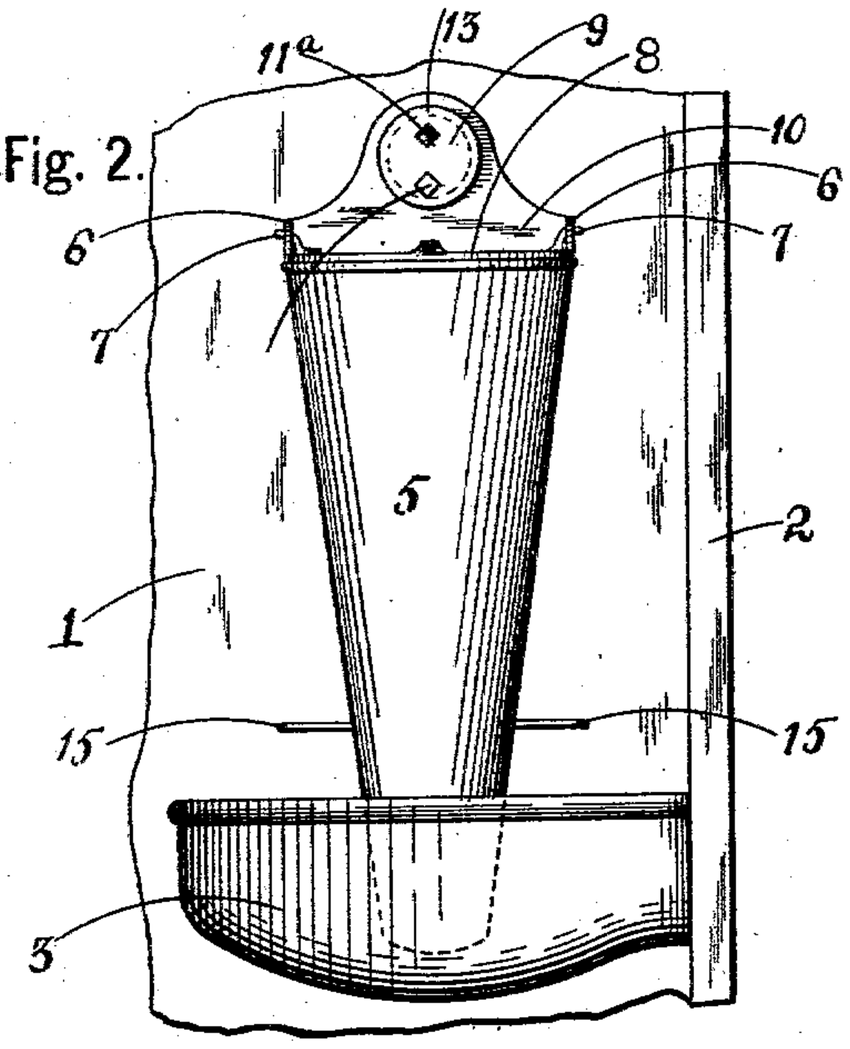


Fig. 3.

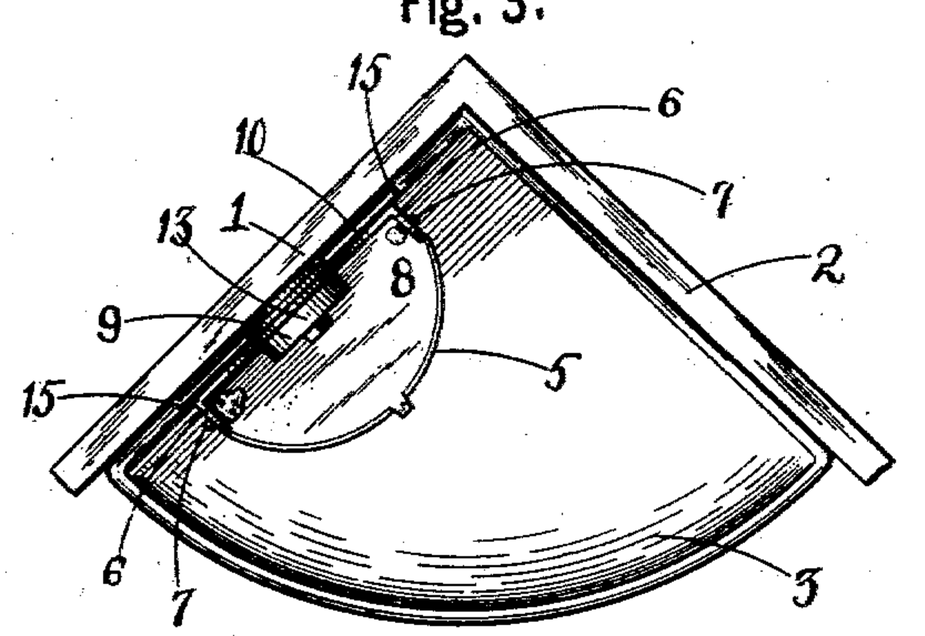


Fig. 4.

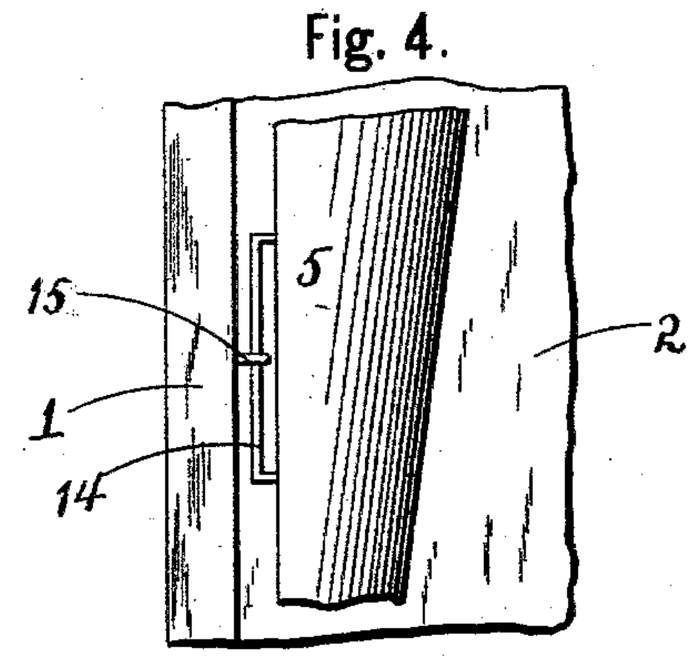


Fig. 5

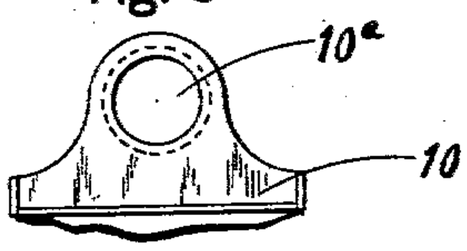


Fig. 6.

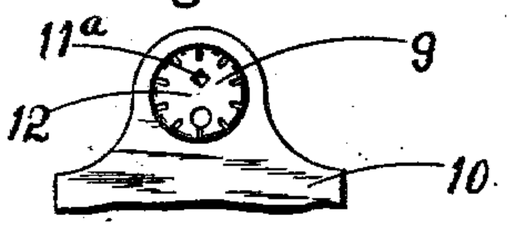
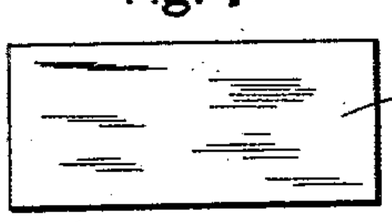


Fig. 7



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FEED-MANGER.

SPECIFICATION forming part of Letters Patent No. 629,106, dated July 18, 1899.

Application filed April 14, 1899. Serial No. 712,986. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. HAIN, a citizen of the United States, residing at Warsaw, in the county of Wyoming and State of New York, have invented certain new and useful Improvements in Feed-Mangers, of which the following is a specification.

My invention relates to an improved feed-manger; and the main object of the invention is to provide means for raising or lowering the grain-holder to regulate the flow of grain into the manger.

It also relates to certain details of construction, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of the device cemplete and attached to a manger in position for use. Fig. 2 represents a front elevation of the same, illustrating a portion of the manger in which it is used. Fig. 3 represents a top plan view of the device, also showing a similar view of a portion of a manger in which it is connected. Fig. 4 represents a side elevation of a portion of the grain-holder to illustrate the means employed to prevent the outward movement of the lower end. Fig. 5 represents a front elevation of the top portion of the grain-holder, the adjusting-eccentric being omitted. Fig. 6 represents a rear elevation of a part of the upper portion of the grain-holder, showing a similar view of the eccentric therein. Fig. 7 is an enlarged detached view of the wooden block.

Referring to the drawings in detail, I designate the sides or corner portions of the stable or stall to which my invention is designed to be attached by the numerals 1 and 2, detached portions of which are shown in Figs. 1, 2, and 4.

The manger 3 is secured to the side walls 1 and 2 at a suitable distance from the ground or floor of the stall by screws 4 or any well-known means.

The feed-holder 5, which is constructed substantially as shown in Figs. 1, 2, and 4, is provided at the top with an opening for the introduction of the grain and at its lower end with an opening to serve as an exit.

The ears 6, which project upward from each side of the upper portion of the feed-holder 5, are provided with circular openings, into which the hinge-fingers 7 of the cover 8 project and are supported, thereby supporting the cover 8 in suitable position to open or close the top opening thereof.

The feed-holder 5 is pivotally suspended at a suitable distance above the feed-manger by means of an adjusting-eccentric cam 9, which is loosely fitted into the circular opening 10^a in the top 10 of the said feed-holding device and secured to the side wall by a screw-nut 11 or other well-known means. It is provided with a square hole 11^a, by which it may be turned by a suitable wrench to adjust the height of the feed-holder and regulate the distance between the bottom of the manger and the lower end of the feed-holder 5, thereby providing means for regulating the rapidity of the flow of grain.

The inner surface 12 of the cam is roughened (see Fig. 6) to hold the eccentric at any point it may be adjusted and sufficiently rigid in its position to prevent unintentional displacement. The cam is also provided with an enlarged front portion or flange 13, which engages with the surrounding sides of the opening 10^a to prevent the detachment of the feed-holding device.

A rod 14 is arranged on and extends longitudinally along the inner side of the lower portion of the feed-holder 5 and at a short distance outward therefrom, its end being bent at substantially right angles and secured to the feed-holder. A horizontal rod 15 is secured at its end to the side wall and passes through the space between the rod 14 and the feed-holder, (see Fig. 4,) thereby preventing outward movement of the lower end of the feed-holder 5 from the side wall.

When the cam is rigidly locked against the side wall, the feed-holding device is incapable of a vertical adjustment or any appreciable outward movement from the wall, but can be oscillated freely between the bent ends of the rod 14 to jar or shake the feed downward.

The bottom of the manger directly beneath the lower end of the grain-holder 5 is preferably provided with a detachable wooden block 16, which fits into a recess in the manger-bottom. The purpose of this block is to prevent

the tongue of the animal from coming in contact and adhering to the metallic manger during cold weather.

The operation of the device is as follows: The feed or grain being poured into the top opening of the feed-holding device, the distance between the lower end of the feeding device and the bottom of the manger is regulated by means of the eccentric adjusting device, as before mentioned, and the rapidity of the flow of the feed or grain controlled. In this manner the supply of food in the manger is limited, and horses are thereby prevented from scattering or tossing the feed from the manger and thus wasting it.

I claim as my invention—

1. The combination with a feed-manger, of a feed-holding device supported above said manger and having a swinging movement on its support, and means for adjusting said holding device to vary the distance between the bottom of the manger and the lower end of the feed-holding device to regulate the rapidity of the flow of food into the manger.

2. The combination with a manger, of a feed-holding device mounted on an eccentric pivot above the manger for adjustably and pivotally supporting said holding device above the manger to regulate the rapidity of the flow of food into the manger, and also permit a swinging movement of the feed-holding device to jar or shake the food down.

3. The combination with a stall and a manger attached to its side walls, of a feed-holding device having an opening, and an eccentric device rotatably supported in said opening and provided with a roughened inner surface and an outer enlarged flange portion, and means for securing said eccentric device to the side wall of the stall to adjustably support the device over the manger, as set forth.

4. The combination with a stall and a manger attached to its side walls, of a feed-holding device having an opening, and an eccentric device rotatably supported in said opening and provided with a roughened inner surface and means for securing said eccentric device to the side wall of the stall to adjustably support the device over the manger, as set forth.

5. An animal-feeding device, comprising a feed-manger attached to the wall of the stall, a feed-holder above the manger and pivotally attached at its upper end to the stall-wall, means for adjusting the feed-holder to vary its position relatively to the manger to regulate the flow of feed, a horizontal rod upon the stall-wall and a vertical rod upon the lower end of the feed-holder passing over said horizontal rod to limit the pivotal movement of the feed-holder, as set forth.

6. An animal-feeding device, comprising a feed-manger attached to the wall of a stall, a feed-holder above the manger and pivotally attached at its upper end to the stall-wall, means for adjusting the feed-holder, a horizontal rod upon the stall-wall and a vertical rod upon the lower end of the feed-holder passing over said horizontal rod to limit the pivotal movement of the feed-holder, as set forth.

7. An animal-feeding device, comprising a feed-manger attached to the wall of a stall, a feed-holder pivoted to the stall-wall above the manger and adapted to swing upon said pivot, means for adjusting the feed-holder, and means for limiting its swinging movement.

8. An animal-feeding device, comprising a feed-manger attached to the wall of a stall, a feed-holder pivoted to the stall-wall above the manger and adapted to swing upon said pivot, means for adjusting the feed-holder, and devices for limiting its swinging movement and also preventing any outward movement of the lower end of said feed-holder from said stall-wall.

9. An animal-feeding device, comprising a feed-manger attached to the wall of the stall, a feed-holder pivoted to the stall-wall above the manger and adapted to swing upon said pivot, means for adjusting the feed-holder, and two rods attached one to the stall-wall and the other to the feed-holder and interlocking with each other to limit the swinging movement and prevent outward movement, as set forth.

10. An animal-feeding device, comprising a feed-manger attached to the wall of a stall, a feed-holder pivoted to the stall-wall above the manger and adapted to swing upon said pivot, means for adjusting said feed-holder in a substantially vertical direction, and devices for limiting its swinging movement and also preventing any outward movement of the lower end of said feed-holder from said stall-wall.

CHARLES H. HAIN.

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