

(No Model.)

A. C. GETTEN.

FEED TROUGH.

No. 399,258.

Patented Mar. 12, 1889.

Fig. 1.

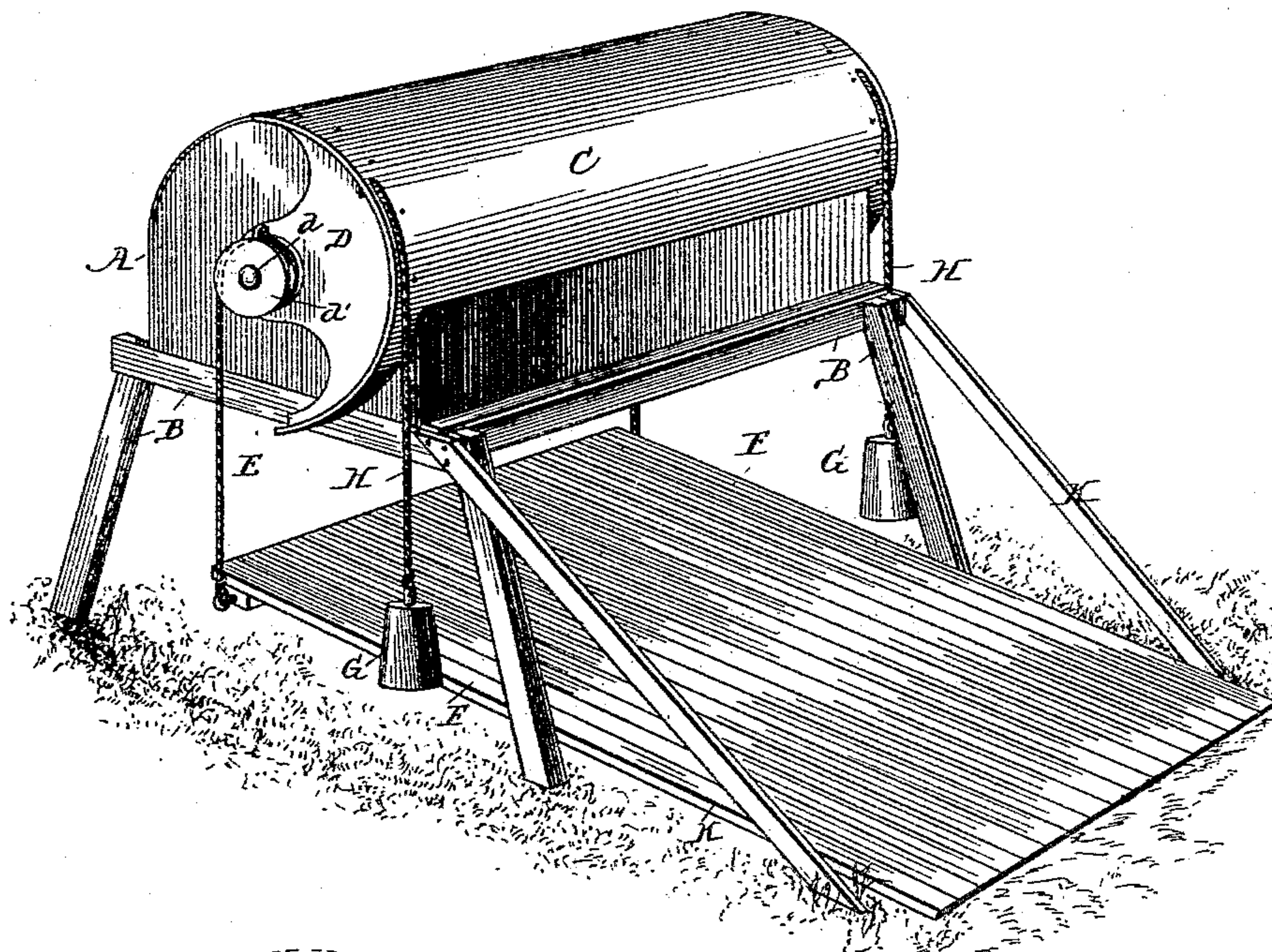


Fig. 2.

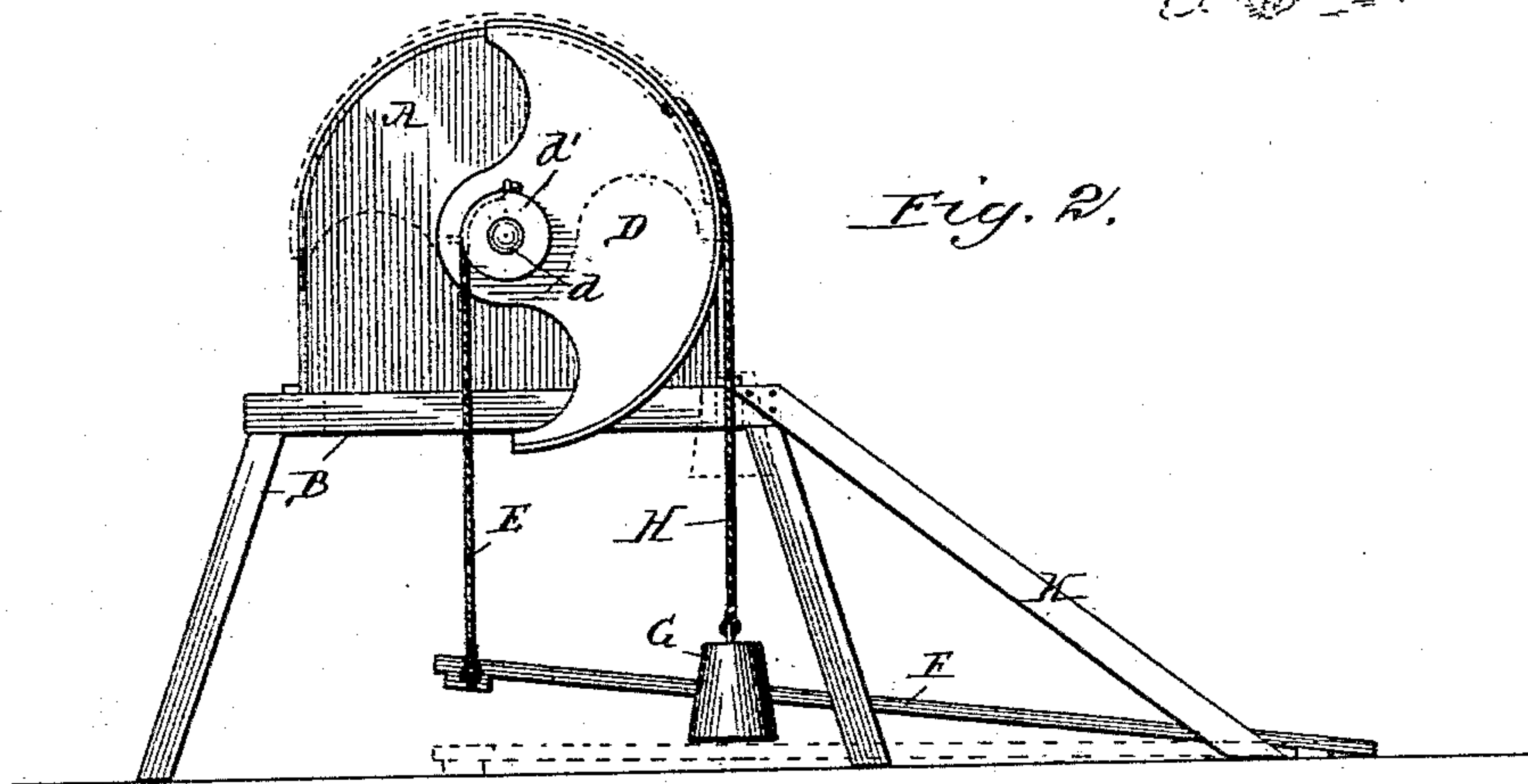
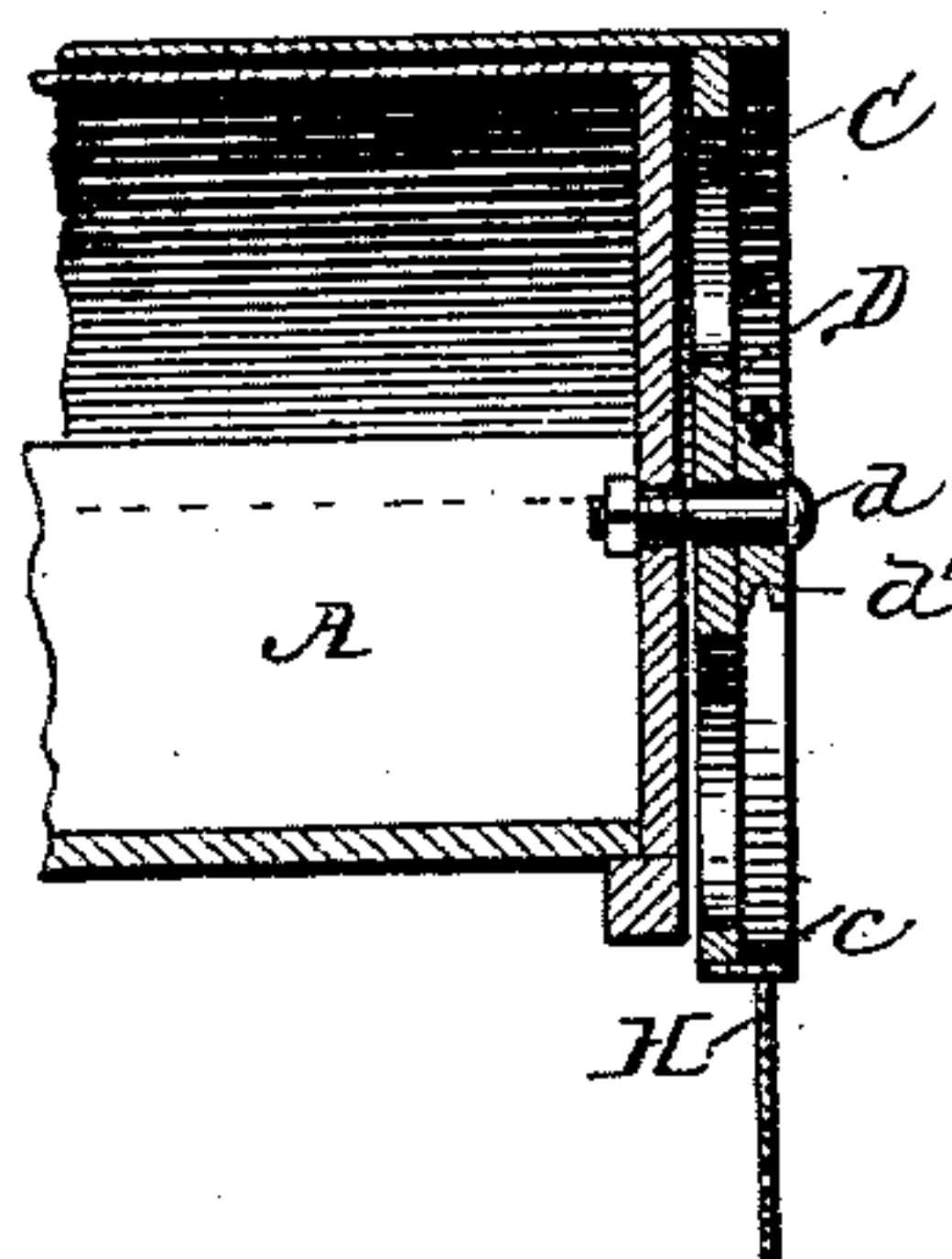


Fig. 3.



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FEED-TROUGH.

SPECIFICATION forming part of Letters Patent No. 399,258, dated March 12, 1889.

Application filed July 28, 1888. Serial No. 281,278. (No model.)

To all whom it may concern:

Be it known that I, ALBERT C. GETTEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stock-Troughs, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention has for its object to provide an improved construction of trough adapted for supplying salt or feed to stock, and designed to be opened by the weight of the stock upon the platform and to be automatically closed when the stock has passed from off the platform, the purpose of the automatic closing of the trough being mainly to protect its contents from the weather, as devices of this kind are primarily designed for supplying salt or feed for stock in the fields.

To this end my invention consists in the novel features of construction, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims at the end of this specification.

Figure 1 is a perspective view of a stock-trough embodying my invention. Fig. 2 is an end view thereof. Fig. 3 is a fractional view, in vertical longitudinal section, through one end of the trough.

In the embodiment of my invention shown by the annexed drawings, A designates the main body of the trough, that may be sustained in any suitable or convenient manner—as, for example, by a trestle-frame, B, resting upon or staked to the ground. The upper front portion of the trough A is open to permit the stock to have access to the contents of the trough, and by preference the rear portion of the top of the trough is furnished with a curved roof corresponding in curvature to the cover C, in order to allow the cover to move freely away from and expose the open portion of the trough. This cover C is preferably extended beyond the ends of the trough, and is connected to the plates or brackets D, that are pivoted to the ends of the trough A by means of suitable pins or bolts, *d*; and from this construction it will be seen that when access is to be had to the contents of the trough the cover C can be

freely swung backward over the correspondingly-curved roof of the trough. It will be readily understood, however, that, while I prefer to form the trough with a curved roof and provided with a correspondingly-curved cover, the invention is not limited to such construction.

In order to facilitate the backward movement of the cover C, I preferably provide the plates D with what for convenience I term the "power-blocks" *d'*, over which pass the cables E, the lower ends of which are connected to the inner end of the treadle or platform F. These blocks *d'* are shown as of curved shape, although it is obvious that the shape may be varied, and, if desired, a sprocket wheel and chain may be substituted for the curved block and cable. I have found by practice, however, that these curved blocks afford a convenient means for attaching the cables to the plates or brackets D at a distance from the pivot-points thereof, so that the power of the traction-cables can be exerted upon the plates at a suitable distance from such pivot-points. The outer end of the platform or treadle F rests upon the ground, while its inner end is elevated normally above the ground by the action of the counter-weights G, that are connected by the retracting-cables H through the cover C.

From the construction as thus far defined it will be seen that when the cattle tread upon the platform or treadle F its inner end will be depressed and the connection or cable E will cause the plates or brackets D to oscillate about their pivot-points, and will thus cause the cover C to move backward and expose the opening of the trough. As the cover C is thus caused to oscillate in backward direction, the counter-weights G will be drawn upward, so that when the pressure upon the platform is removed the counter-weights will serve to draw the cover forward to again close the trough. In order to enable the counter-weights to act at all times with certainty upon the cover, irrespective of the distance to which it may be thrown backward, I prefer to provide the front extensions, *c*, one at each side of the cover, over which extensions the cables H of the counter-weights will be trained, and it is thus apparent that the counter-weights will at all times exert their pressure at the

same distance from the pivot-points of the plates E and will act uniformly upon the cover. It is obvious that a spring or springs may be employed for restoring the cover D to its normally-closed position instead of the counter-weights shown, and when the counter-weights are hereinafter specified I wish the equivalency of springs for such weights to be distinctly recognized.

It will thus be seen that by my improved trough the salt or other material contained therein will be securely preserved against the effects of the weather when the cover is in closed position, while at the same time ready access to the contents can at all times be had by the cattle. In order to enable the cattle to pass onto the platform F at its lowest point, I prefer to provide the bars K, one at each side of the platform and extending to a point near its front. By this means the cattle are compelled to pass onto the platform at the point where it rests upon the ground; and this is of importance, since in thus passing upon the platform the initial downward movement of the platform is so slight that all danger of frightening the cattle, as would be apt to occur if the outer end of the platform were elevated a considerable distance, is avoided.

By providing the end plates or brackets of the cover with connections attached thereto near their pivot-points and leading therefrom to the platform, it is obvious that a much lighter movement or depression of the platform is necessary in order to effect the opening of the trough than would be required if the connections extended from the platform to the cover itself. This feature is of importance, inasmuch as a downward movement of the platform to any great extent will not only frighten the cattle, but will also have a greater tendency to break the apparatus. Moreover, the power-blocks attached to the brackets adjacent their pivot-points enable the cables to operate throughout the downward movement of the platform and thus effect the full opening of the trough.

While I have described and illustrated in the drawings the trough as provided at each end with mechanism for transmitting motion from the platform to the cover, it will be readily understood that one set of such mechanism only may be employed without departing from the spirit of the invention, and to such duplicate sets, therefore, I do not wish to be understood as restricted.

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

1. The combination, with a stock-trough, of a cover, pivoted plates or arms for controlling the movement of said cover, suitable connections attached to said plates or arms near the points at which they are pivoted to said cover, said connections extending downwardly at one side of the vertical plane through said pivot-points, and a treadle or platform attached to said connections, whereby a comparatively slight movement of the treadle or platform will cause the full movement of said cover, substantially as described.

2. The combination, with a stock-trough, of a cover, pivoted plates or arms for controlling the movement of said cover, power-blocks connected with said arms or plates, a treadle or platform, and cables connecting said power-blocks and said treadle or platform, substantially as described.

3. The combination, with a stock-trough, of a curved cover, plates or arms for pivotally connecting said lid to the ends of the trough, power-blocks connected with said plates or arms near their pivot-points, a cable passing over said blocks, and a platform connected to said cable, substantially as described.

4. The combination, with a stock-trough, of a cover, pivoted plates or arms connected to said cover, power-blocks connected to said plates or arms near their pivot-points, a treadle or platform connected to said power-blocks, and retracting-cables connected to said cover at a distance from the pivot-points, substantially as described.

5. The combination, with a stock-trough, of a cover, pivoted arms or plates connected to said cover, a treadle or platform, a connection attached to said treadle or platform and attached also to the pivot arms or plates at a distance from their pivot-points, and retracting-cables connected with the cover at a greater distance from the pivot-points of the plates or arms than connections that extend to the treadle, substantially as described.

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Witnesses:

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