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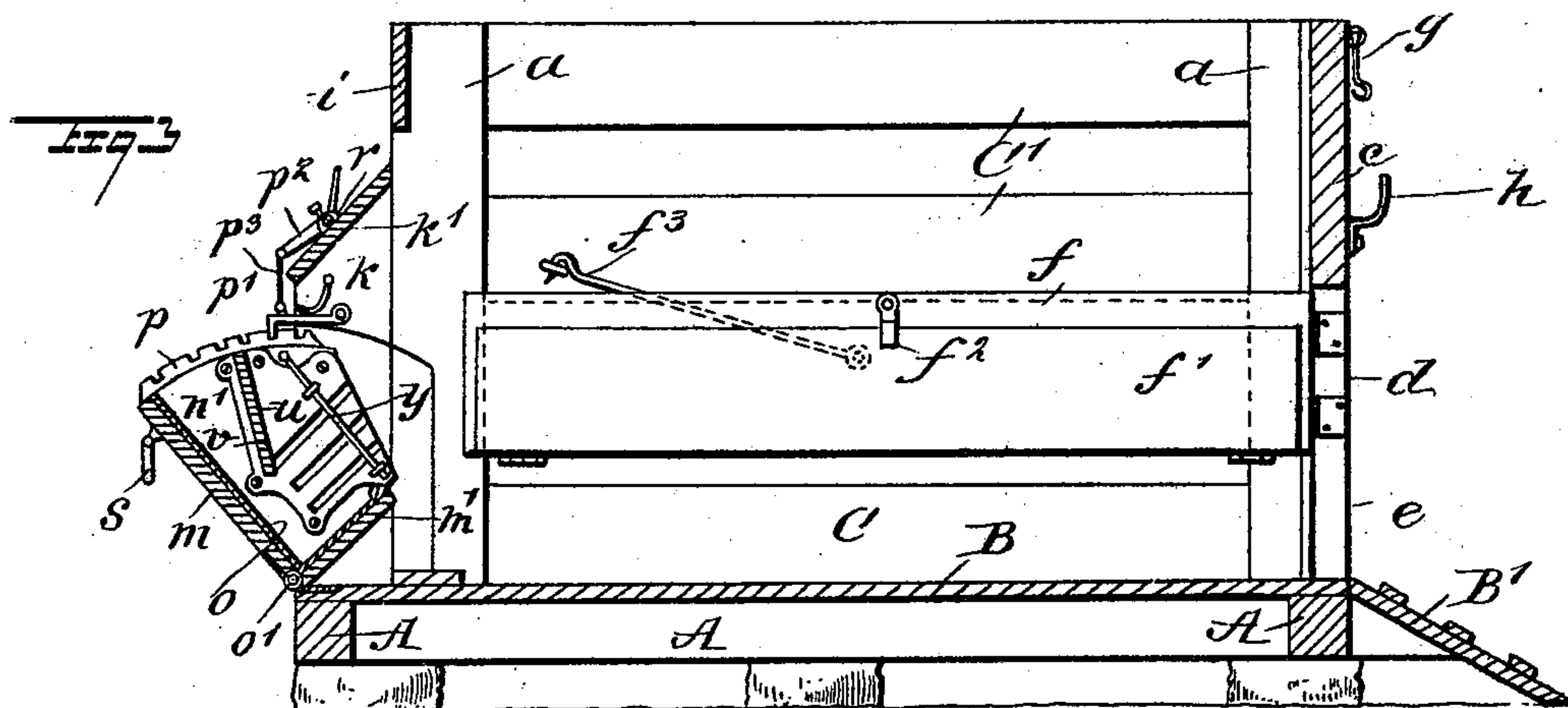
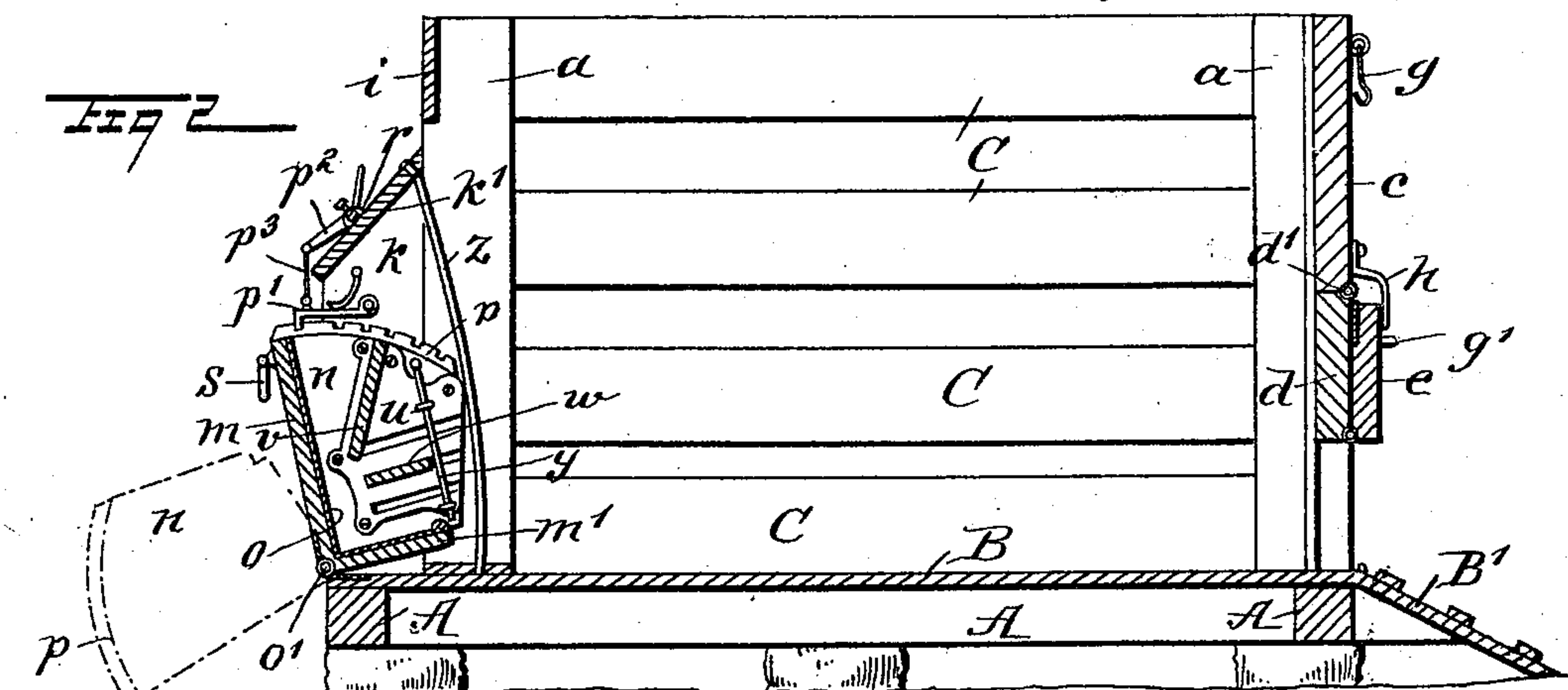
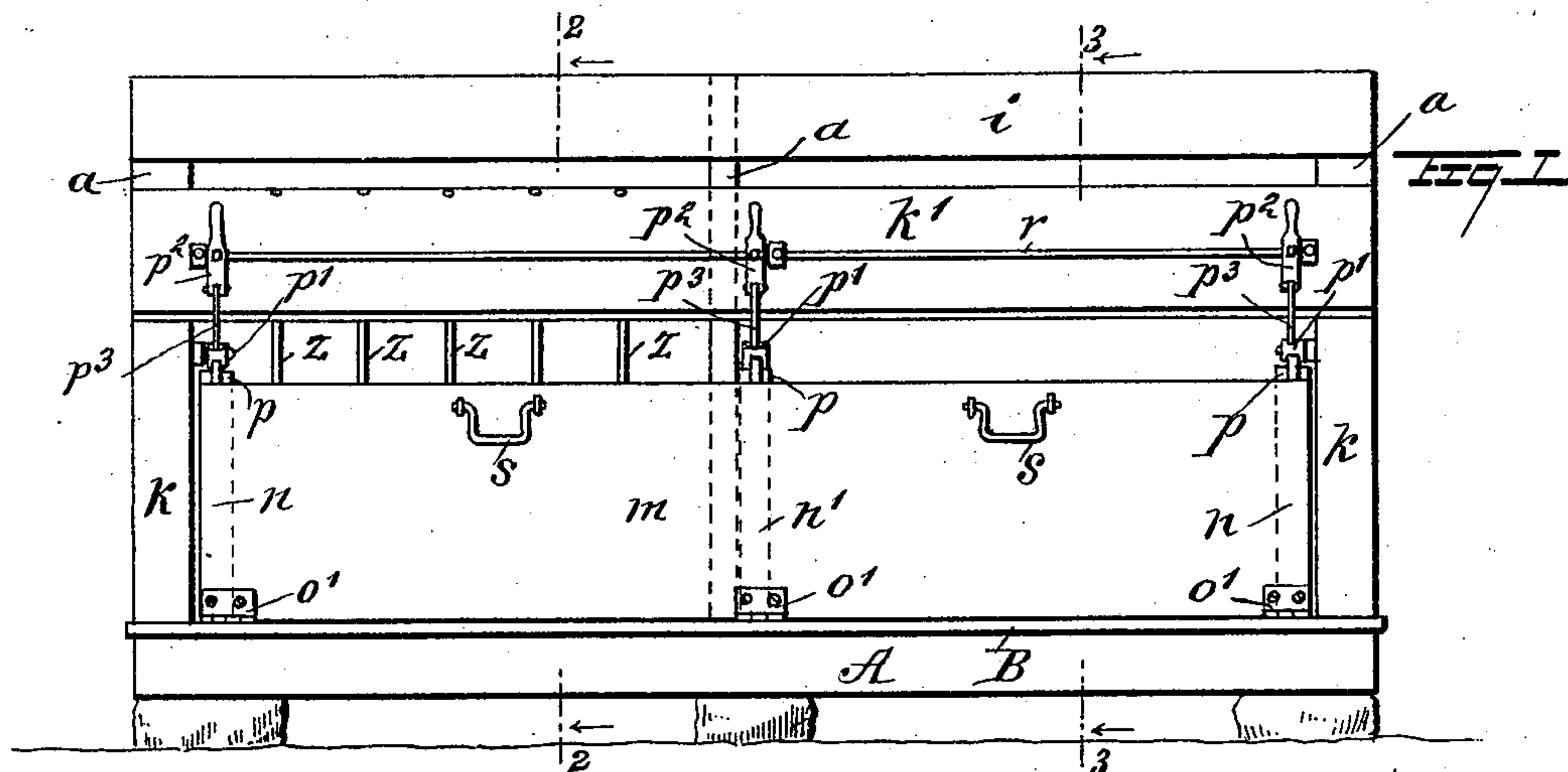
A. AUCHLY.

2 Sheets—Sheet 1.

HOG STY AND FEEDING TROUGH.

No. 516,906.

Patented Mar. 20, 1894.



WITNESSES:

H. Walker  
C. Sedgwick

INVENTOR

A. Auchly  
BY Munn & Co  
ATTORNEYS.

(No Model.)

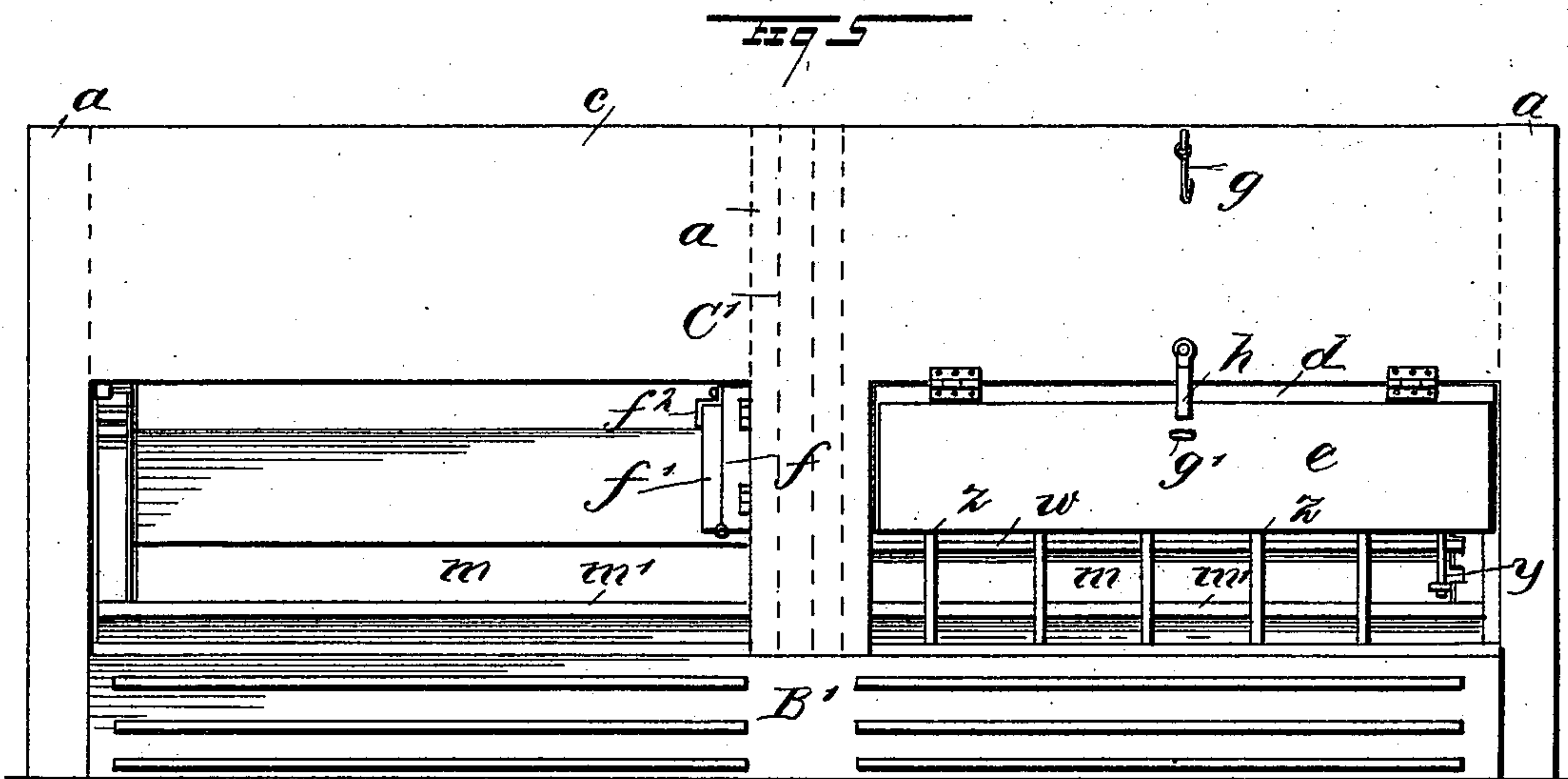
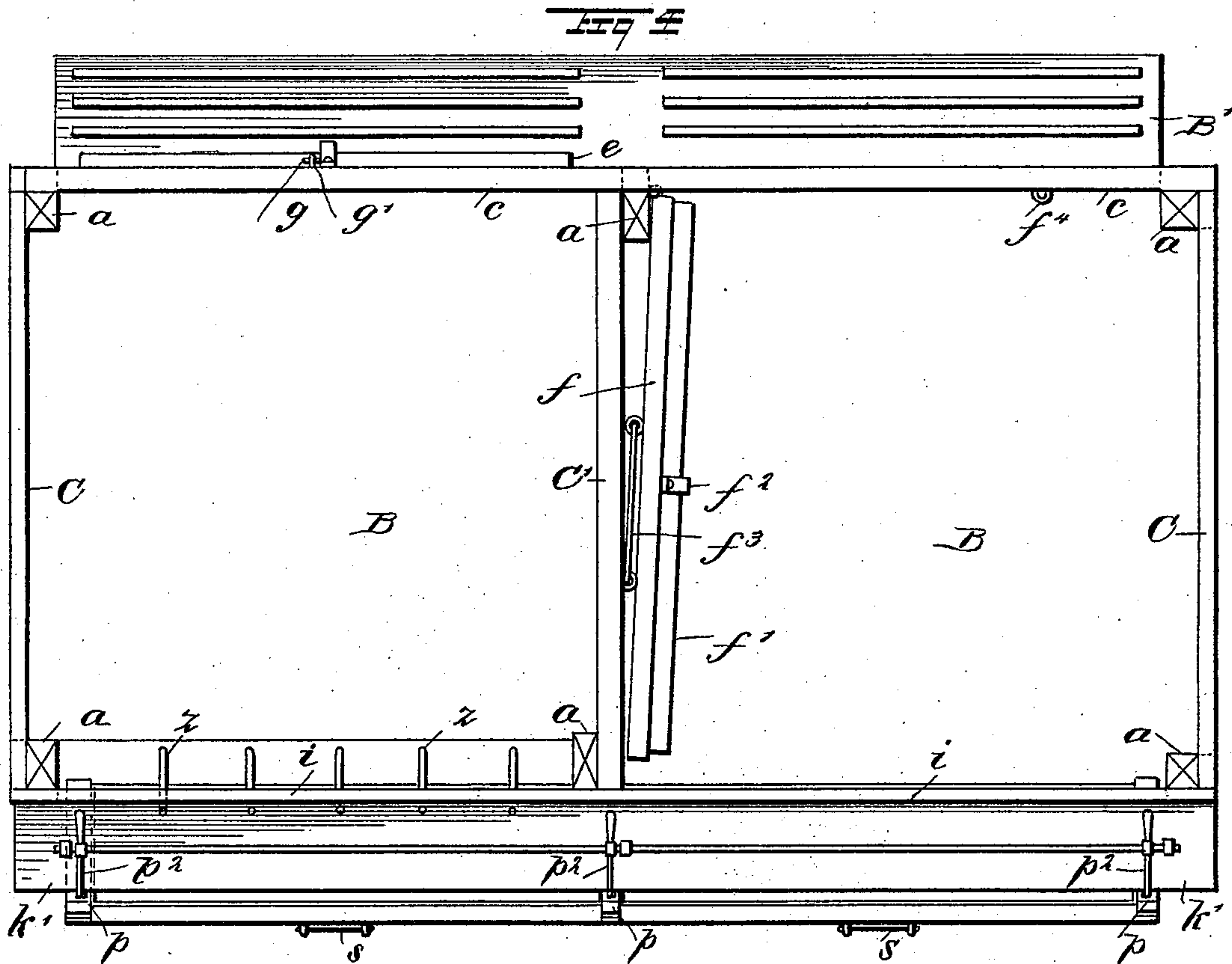
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# UNITED STATES PATENT OFFICE.

ALBERT AUCHLY, OF MONTGOMERY CITY, MISSOURI.

## HOG-STY AND FEEDING-TROUGH.

SPECIFICATION forming part of Letters Patent No. 516,906, dated March 20, 1894.

Application filed September 29, 1893. Serial No. 486,818. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT AUCHLY, of Montgomery City, in the county of Montgomery and State of Missouri, have invented a new and useful Improved Hog-Sty and Feeding-Trough, of which the following is a full, clear, and exact description.

My invention relates to improvements in sties and feeding troughs for hogs and small pigs; and has for its objects to provide a novel, convenient feeding trough that may be used in connection with a suitable platform or with the improved sty, and afford means for the safe feeding from the same trough of a litter of small pigs aside of the parent sow, and prevent waste of the food, or the entrance of the pigs within the trough.

To these ends my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front view of the improved trough in position on a sty. Fig. 2 is a transverse sectional view on the line 2—2 in Fig. 1. Fig. 3 is a transverse sectional view on the line 3—3 in Fig. 1. Fig. 4 is a plan view of the sty and trough; and Fig. 5 is a rear view of the sty.

The improved feeding trough may be used to feed swine within an inclosure, or simply upon a platform in the open air; preferably the trough is conjunctively employed in connection with the improved pen or sty that will first be described.

A sufficient number of sill timbers A, are provided which are located in a nearly level condition as a rectangular frame, upon a proper foundation that will elevate them a short distance above the surface of the ground to preserve the timbers from rotting, and on the timbers a strong floor of planks B, is laid and secured. The area of the rectangular flooring B, is made sufficient for the accommodation of the animals that are to occupy it at one time while feeding, and at each end an upright open slatted wall C is erected. About the longitudinal center of the flooring a slatted partition C' is placed, paralled with

the end walls, suitable posts *a*, being located at the corners and near the middle, whereon the slats of the end walls and partitions are secured.

The rear wall of the sty, consists of a top board *c*, that is horizontally secured on the posts *a*, extending from the tops of the posts downwardly, leaving a suitable space below for the entrance of a sow and small pigs within the sty, which space is bisected by the partition C'. From the lower edge of the board *c*, there is a flap door *d*, pendently hung by the hinges *d'*, and to the lower edge of said door another similar door *e* is hinged, the two doors being proportioned in width so as to fill the space between the flooring B, and the lower edge of the top board *c*, that they equal in length. A hook *g* or equivalent fastening is provided, that is attached to the upper part of the top board *c*, for a detachable engagement with a staple *g'* on the lower part of the lower pendent door *e*, so that when it is desired to remove both of the doors *d*, *e*, from over the aperture they close, they may be adjusted and secured in an upwardly folded position with the hook and staple; and if but the lower door *e*, is to be opened, then a swinging latch *h*, may be utilized to retain the said door in upwardly folded adjustment, as represented in Fig. 2, both of the doors being retained in a closed condition by any suitable means. There are two doors *f*, *f'*, provided for the closure of the remaining aperture below the board *c*, at the rear of the sty, the door *f'*, being hinged by one edge to the lower edge of the upper door *f*, so as to permit the lower door to be folded outwardly and upwardly against the upper one. The door *f*, is hinged at one end upon the vertical partition C', and the relative dimensions of both of the doors mentioned are such as will adapt them to completely close the aperture they are provided to guard, the lower door *f'*, being about equal in breadth to that of the door *e*. The connected doors *f*, *f'*, are hinged so that they may be swung inwardly, and close an opening produced by omission of slats at the lower half of the partition C', as represented in Fig. 4; and if desired, the lower door *f'*, can be folded upwardly, and so retained by a swinging clamp *f''* or by other means. Should



it be desired to retain the doors  $f f'$ , in a position to completely close the said aperture in the partition  $C'$ , a hook  $f^3$ , may be utilized as shown in Figs. 3 and 4; and be adjusted to secure the doors in closed condition by an engagement with the staple  $f^4$  that projects at a proper point from the board  $c$ , on its inner side. The front portion of the flooring  $B$ , is extended forwardly of the front corner and intermediate posts  $a$ , a suitable distance, the longitudinal sill timber  $A$ , affording stable support for the front edge of the flooring.

A horizontal top board  $i$  is secured along the front of the sty on the posts  $a$ , near their upper ends, and below said top board a forwardly extending wing  $k$ , is secured on each front corner post  $a$ ; these similar wings being held parallel, and sloped outwardly and downwardly on their upper ends, their lower ends engaging with the forward extension of the flooring  $B$ . On the sloped upper ends of the wings  $k$ , a cap-board  $k'$ , is secured by its ends, and also upon a similar wing which is affixed to the intermediate front post that sustains the front ends of the partition  $C'$ .

The feeding trough which occupies the open space between the lower forward edge of the cap-board  $k'$ , comprises a comparatively wide board  $m$ , and a board  $m'$ , of a less width than the first named, these pieces being joined together by one edge of each, at a right angle. The length of the boards  $m, m'$ , is proportioned to that of the sty, so that they will be adapted to pass between the front posts; and said boards are secured at their ends to the end walls  $n$ , which stiffen the trough and render it capable of retaining liquid and solid feed, and to protect the trough thus produced, the inner surface of the same is covered with galvanized sheetmetal  $o$ , that serves to maintain the structure water-tight as well as to prevent the animals from gnawing the planks or boards composing it.

The trough is supported to rock on its angular corner, with the narrow wall board  $m'$  projected inwardly and upwardly, by the hinges  $o'$ , which are secured at said corner and also upon the forward extension of the flooring  $B$ , over the front longitudinal sill  $A$ .

There is an intermediate division wall  $n'$ , secured in the trough near its center of length, which corresponds in form on the free edges with the shape given the same edges of the ends  $n$ , said transverse walls of the trough having their inner edges made nearly parallel with the trough wall  $m$ , and their upper edges outwardly curved; the arcs of circles thus produced having their radial center in the joints of the hinges  $o'$ . On the upper edge of each of the three transverse trough walls  $m, m'$ , a rack  $p$ , is secured having an equal curvature therewith, and in the upper edges of said racks similarly spaced notches are transversely formed throughout their length, these notches being designed to receive the locking dogs  $p'$ , one of which is provided for each rack, and is pivoted on the

side of the wing board  $k$ , that is adjacent to the rack, so that it may vibrate above it and engage with its hook-like toe any one of the notches mentioned. As shown, the dogs  $p'$ , are each furnished with a spring to press it toward the rack it is to engage, but if the heads of the dogs are made of a sufficient weight, the springs may be dispensed with. Above each locking dog  $p'$ , a tripping lever  $p^2$  is supported to rock by and with a longitudinally extending rock shaft  $r$ , that is journaled in boxes or other equivalent supports on the cap board  $k'$ , said levers being of like form and having a handle piece projected from the point of connection with the rock-shaft, so as to permit the shaft to be oscillated when either of the handle pieces is manipulated. Between the outer end of each lever  $p^2$  and the free end of a locking dog  $p'$ , that said lever is above, there is a link  $p^3$ , extended and pivoted by its ends to said parts, so that the partial rotation of the rock shaft  $r$ , will either lock or release the dogs  $p'$ , and retain the trough at any point of rocked adjustment, or allow said trough to be moved on its hinges so as to project it outwardly and downwardly, as shown by dotted lines in Fig. 2, the pendent handles  $s$ , that are secured upon the upright wall  $m$ , of the trough, affording convenient means for a movement of the latter. On the inner surface of the end walls  $n$ , and on both sides of the intermediate transverse wall  $n'$ , the similar keeper plates  $u$ , are affixed, which plates are shaped as shown in Figs. 2 and 3, and are oppositely attached to the transverse walls named, in pairs. The keeper plates  $u$ , are grooved on their exposed faces at four points, one groove in each plate being formed nearly upright, having a suitable length, and extending from the upper edge of the plate downwardly and toward the hinged angular corner of the trough, the upper ends of said upright grooves being about an equal distance from the ends of the racks. The three remaining grooves that are produced in each keeper plate, are preferably located in parallel planes, and evenly spaced apart, extending forwardly from the rear edge of the plate to a point near its front edge. In the upright grooves of the keeper plates  $u$ , the two stationary guard boards  $v$ , are introduced, these being designed to prevent the swine small or large, from climbing out of the sty across the trough, and also to keep the large hogs from occupying the trough bodily, or prevent other animals interfering with the swine that are feeding in the sty. There is another guard board  $w$ , furnished, which may be slid into any pair of the grooves that are in the same plane, and thus change the extent of space intervening the trough wall  $m'$ , and the guard board  $w$ , the latter being held in place by the slidable pins  $y$ , or by any other reliable means that may be preferred.

The guard board  $w$ , is provided more particularly for the section of the trough that is to be used in feeding small pigs, as by its ad-



justment more or less opening is afforded for the introduction of their heads, while the introduction of their fore-quarters within the trough is prevented.

5 In the rear of the trough section that is provided for the feeding of the small pigs, a series of upright rods *z*, are sustained by the affixing of their ends in the flooring B and cap-board *k'*, these rods which are properly  
10 spaced apart, being designed to prevent the small pigs from crowding each other, and to allow a weak pig to obtain an equal share of food, and are termed partition bars.

It is intended to use the compartment of  
15 the sty that is provided with the partition bars *z*, and board *w*, at the trough, for the feeding of small pigs that are still under the protection of their dam, and to this end there is a runway B', provided that extends along  
20 the rear side of the sty below the doors *e*, and *f'*, which runway sloping to the ground from the floor B, has cleats on it to render its ascent easy for the pigs.

In service, the sow having a litter of small  
25 pigs that are to be weaned, is furnished with food in the compartment having the swinging doors *f*, *f'*, that are swung so as to impinge upon the partition C', the lower door *f'*, being upwardly folded as shown in Figs.  
30 3 and 5; this adjustment permitting the sow and her pigs to enter the compartment shown at the left side of Fig. 5. When the pigs have been induced to enter the sty, they can pass into the compartment on the right side  
35 of the same and each take a position at the trough between the bars *z*; the idea being to induce them to eat from a trough such food as is appropriate for their age.

The provision of the folding doors *d*, *e*, permits the use of the sty for small pigs in the  
40 compartment they guard, and only allows the little pigs to enter it if the door *e*, is upwardly adjusted, and in case larger swine are to be fed in both parts of the sty, the doors controlling the apertures at the rear may all be  
45 opened so as to afford free ingress and exit for larger swine.

It will be seen that by a rocking adjustment of the trough, it can be thrown into the  
50 position shown in Fig. 3, for the reception and retention of a considerable amount of liquid or solid food, and that it may also be changed in position so that its side *m'*, will be depressed toward the floor B, which will  
55 permit the small pigs to readily partake of food that has been introduced within the trough.

When food is to be poured into the feeding trough, the latter is adjusted to project the  
60 side board *m*, outwardly and thus afford a sufficient opening for the free introduction of liquid or solid food from the outside of the structure, and in case it is necessary to cleanse the trough, this can be conveniently effected  
65 if it is swung outwardly and downwardly into the position indicated by the dotted lines in

Fig. 2, which will give free access to its interior. The cap board *k'* forms a bar, ranging longitudinally above the trough, and the latter may be projected more or less beyond the  
70 bar, the latter thereby forming a guard which, cutting off more or less of the trough as desired, prevents the hogs from getting bodily into the latter.

It will be evident that if it is not desired  
75 to erect the rectangular inclosure or sty, the vertical side and rear walls may be dispensed with, and the flooring together with the front of the structure and the trough be provided, which will afford means for the convenient  
80 and economical feeding of hogs large or small, as they are effectually prevented from fouling or spilling their allowance of food, and all have an equal chance to obtain a share.

Slight changes may be made in some of the  
85 minor details of construction within the scope of my invention, as for instance, the guard board *w*, may be duplicated and made to extend in both sections of the trough, and the latching device which holds the trough at dif-  
90 ferent points of rocked adjustment, may be altered in form while effecting the same result, and different shaped handles may be provided for the movement of the trough on  
95 its hinges. Hence I do not wish to be restricted to the exact forms of said parts which are herein shown.

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

1. A sty, comprising a rectangular walled structure, an intermediate partition, double folding pendent doors at one side of the partition on the rear wall of the sty, swinging  
105 and folding doors on the other side of said partition, means to retain doors upwardly folded, and a run-way below the doors along the rear of the sty, substantially as described.

2. The combination with a floor, of a trough adapted to receive rocking adjustment, trans-  
110 verse grooved keeper plates, and a longitudinal guard board changeably engaged with the grooved keeper plates, substantially as described.

3. The combination with a floor, posts on  
115 the floor, upright wings forwardly extended from the posts, and a cap-board on said wings, of a trough supported to rock from its lower edge, below the cap-board, and a latching device, part on the trough and part on the cap-  
120 board, ranging along the side of the trough, and adapted for release and adjustment of said trough at its ends, and intermediately thereof, substantially as described.

4. The combination with a floor, posts on  
125 the floor, a top board extending between said posts, upright wings forwardly extended from the posts and having sloped upper ends, and a cap board secured on the tops of the wings, of a trough arranged to rock below the cap  
130 board and near thereto, means to lock the trough inclined at different angles from the



edge of said cap board, and upright division bars extending between the cap board and floor.

5 The combination with a floor, posts at the front of said floor and a top board connecting the posts, of a substantially L-shaped trough arranged to rock below said top board, a longitudinal guard board adjustable within the trough, and a device on the top-board ar-  
10 ranged to lock the trough at different points of rocked adjustment, substantially as described.

6. The combination with a floor, upright posts thereon at the front, and a top board  
15 connecting the posts at their upper portion, of a substantially L-shaped trough hinged at its corner on the floor below said top board, an adjustable guard board longitudinally extending in the trough, a rack plate on the top  
20 of the trough, and a latch dog adapted to interlock with the notches in said plate, substantially as described.

7. The combination with a sty, comprising a floor, four upright walls sustained on the  
25 floor, an intermediate partition, and pendent folding doors at the rear of the sty, of a two-part feeding trough at the front of the sty,

substantially L-shaped in cross-section and hinged at its corner upon the floor, an arched rack on top of the trough, a locking dog 30 adapted to engage the notches in said rack, and a removable longitudinally-extending guard board in one part of the trough, substantially as described.

8. A feeding trough for sties, comprising a 35 receptacle, L-shaped in cross section, closed at the ends by transverse walls, an intermediate partition, hinges joining the trough at its corner to the floor of the sty, a stationary guard board between one end of the trough 40 and its partition, a movable guard board between one end wall and the partition of the trough, out-curved racks on the top edges of the end walls and partition, a rock shaft adapted to oscillate above the trough, and 45 locking dogs on the shaft, one above each rack, and arranged to engage or disengage said racks when the shaft is rocked, substantially as described.

ALBERT AUCHLY.

Witnesses:

CLAUDE R. BALL,  
W. J. McGRATH.