

(No Model.)

2 Sheets—Sheet 1.

J. M. HUGHES & A. P. W. WADE.

FEED TROUGH.

No. 388,493.

Patented Aug. 28, 1888.

Fig. 1.

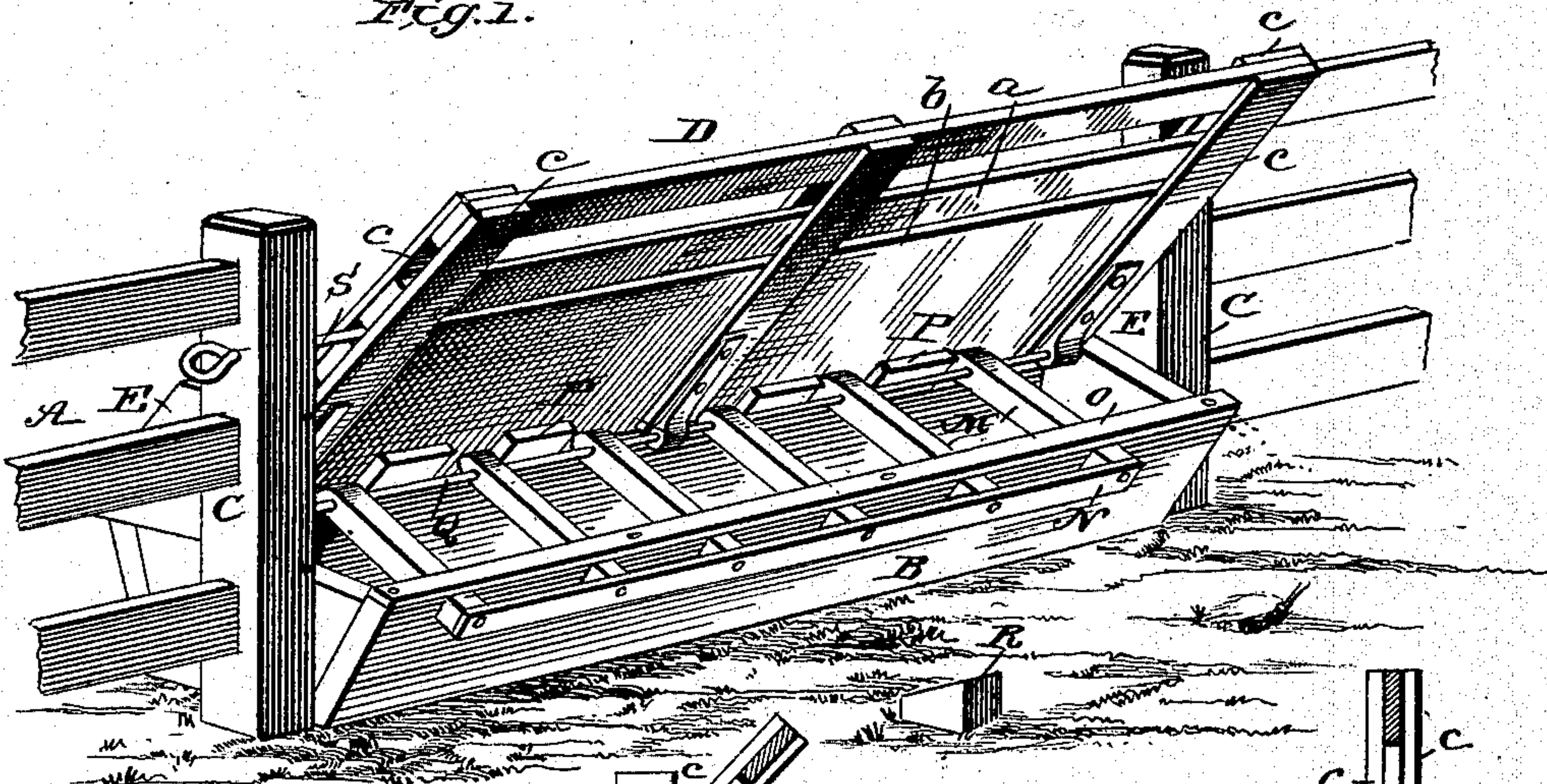


Fig. 2.

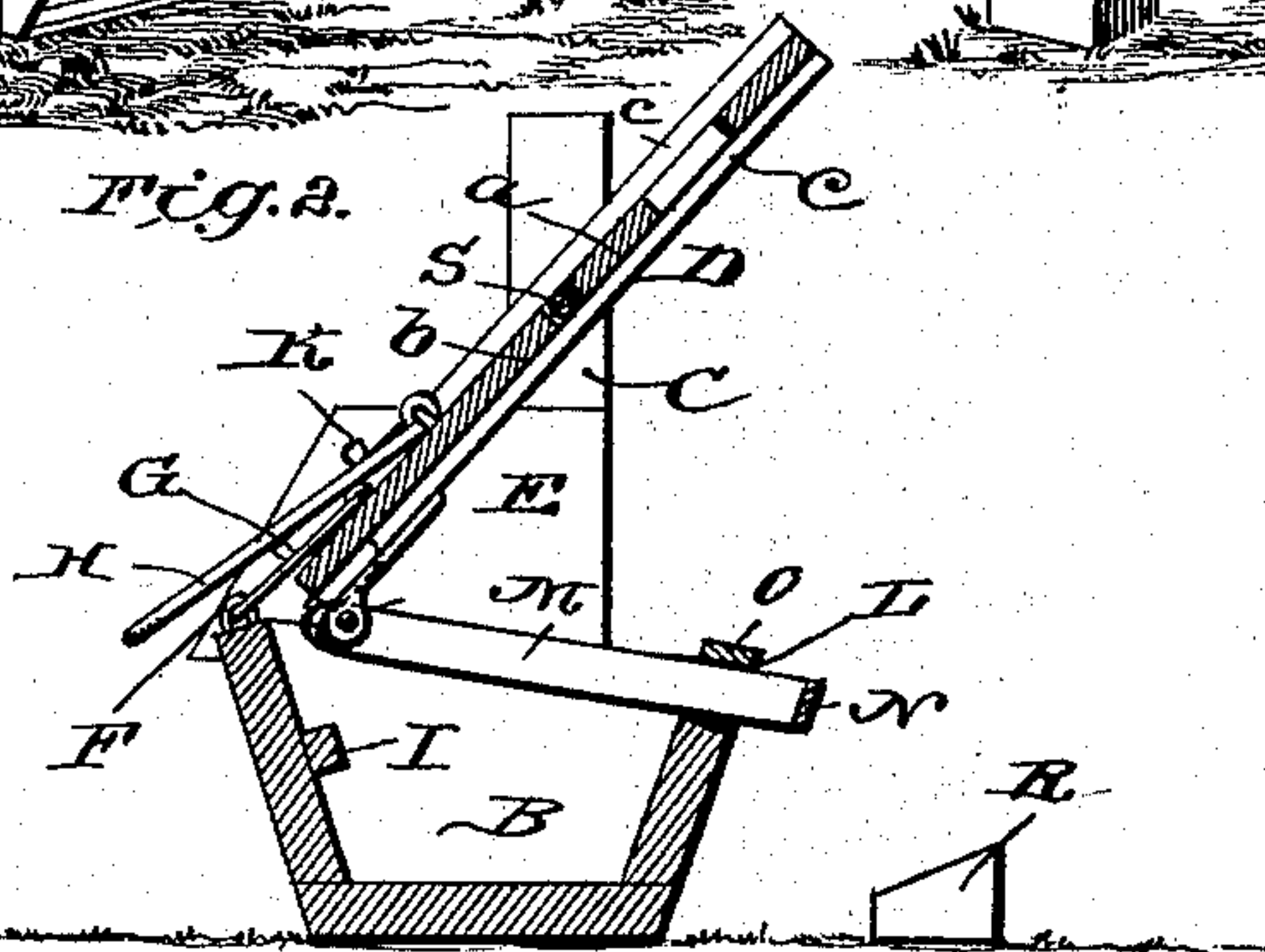


Fig. 3.

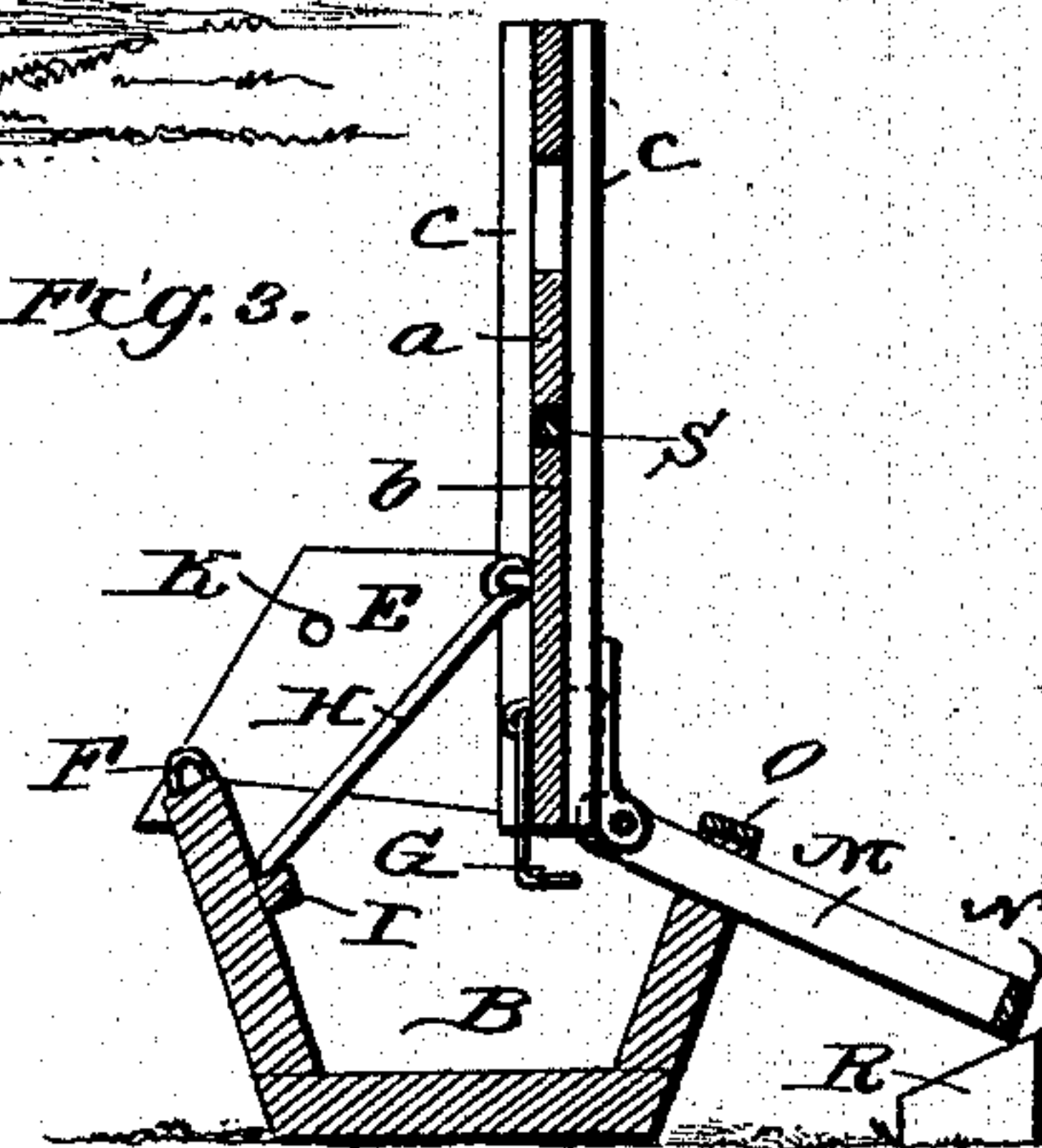
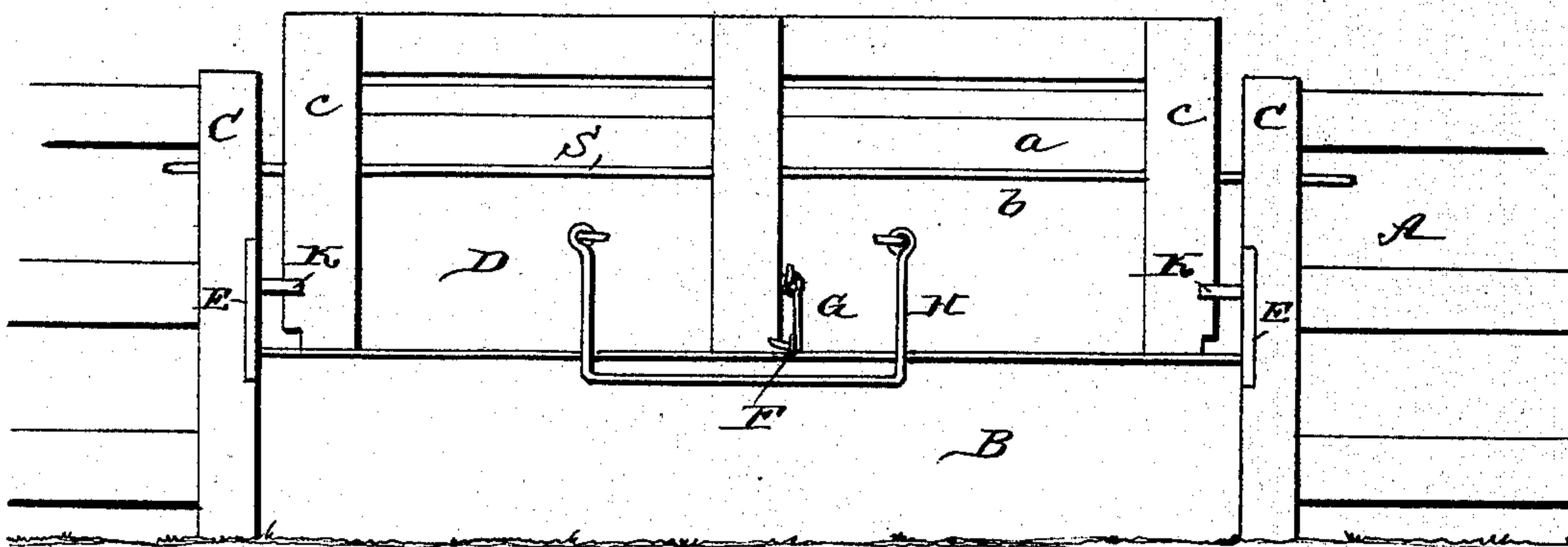


Fig. 4.



Witnesses,

J. A. Ryan.
R. W. Bishop.

Inventors,

J. M. Hughes.
A. P. Wade.
By their Attorneys
C. A. Howard.

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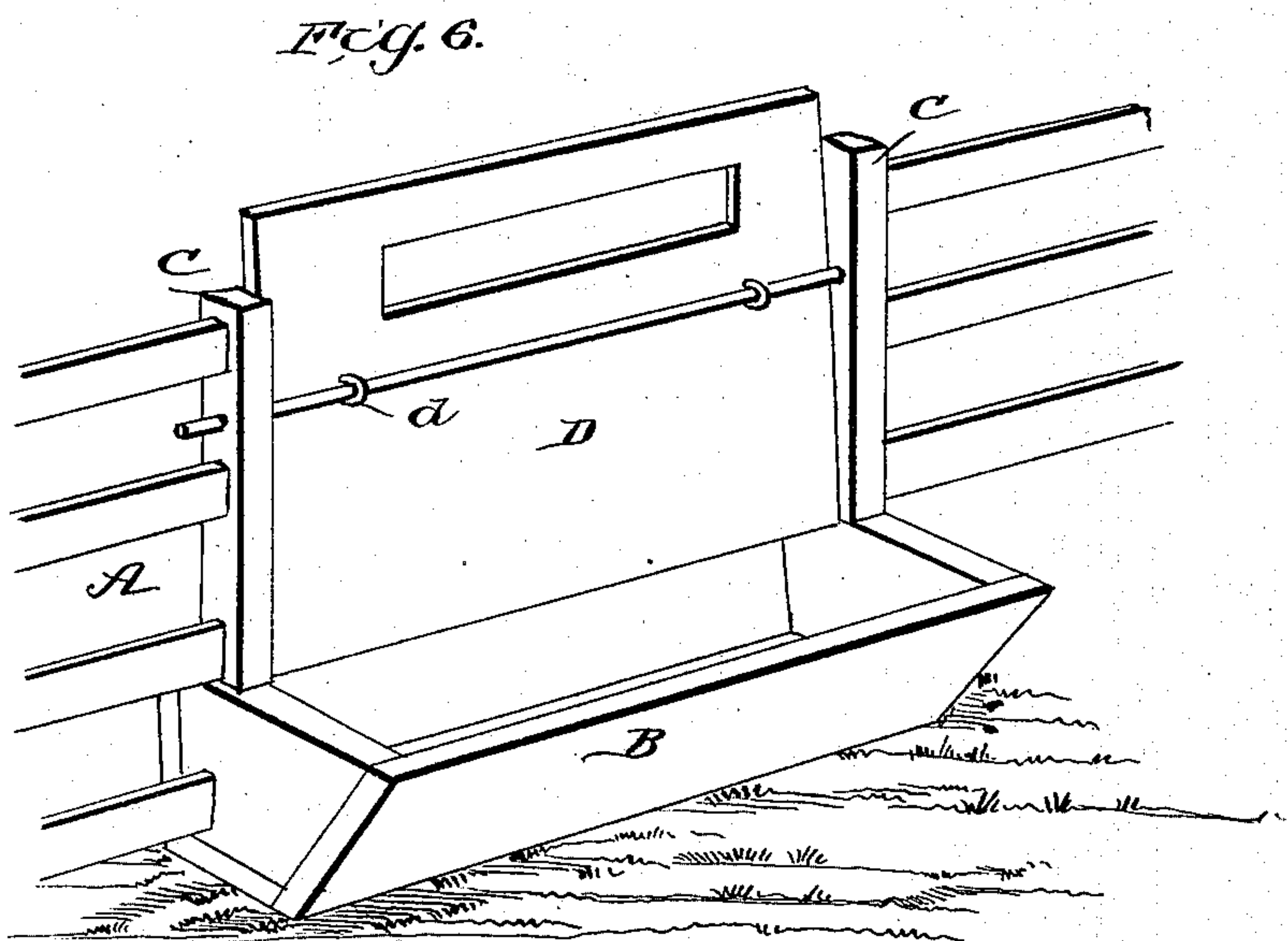
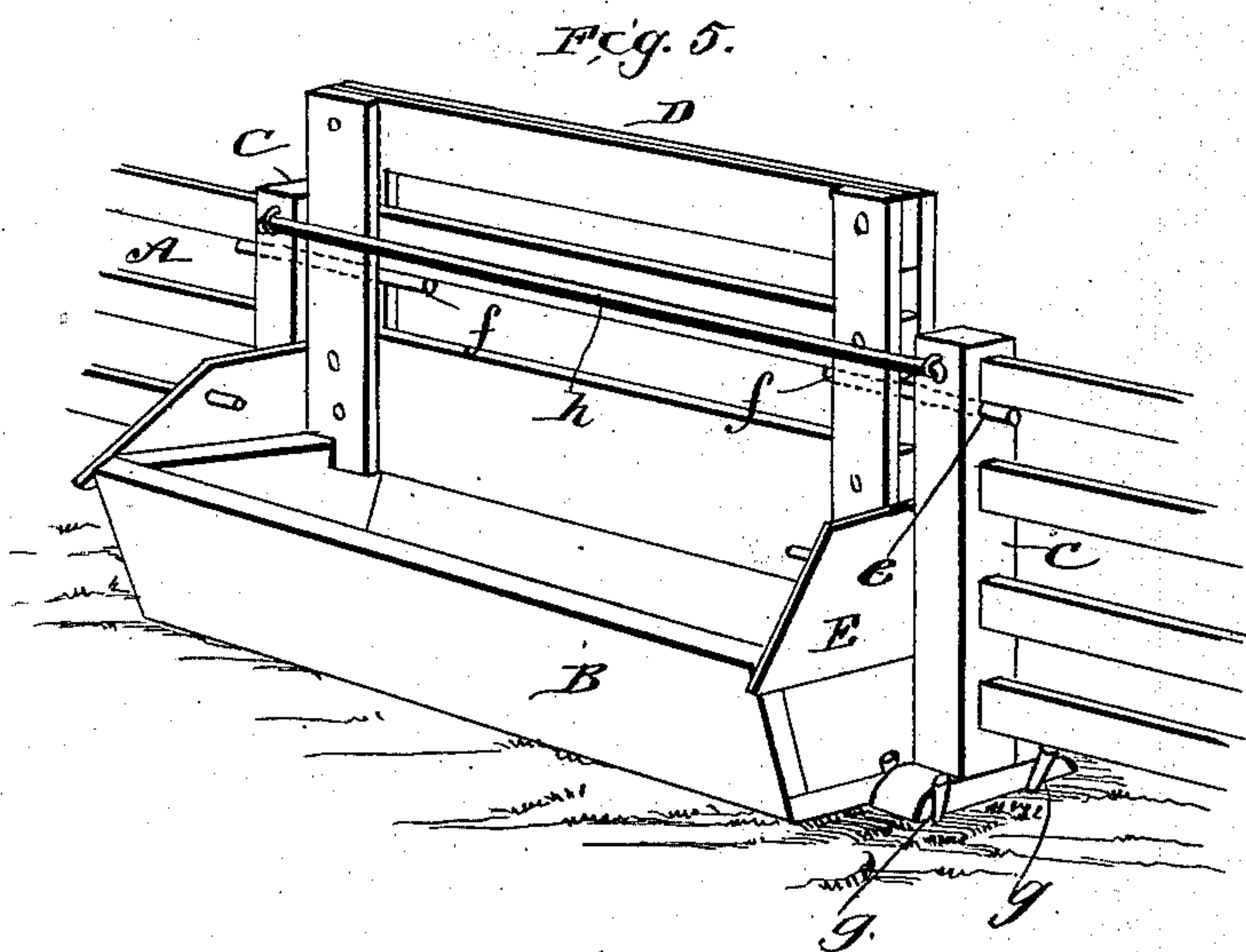
2 Sheets—Sheet 2.

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J. A. Ryan
R. H. Bishop.

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J. M. Hughes
A. P. Wade.

By their Attorneys

C. A. Howslea.

UNITED STATES PATENT OFFICE.

JOSEPH MONROE HUGHES AND ARTHUR PERCY WELLESLEY WADE, OF
CEDAR CITY, MISSOURI.

FEED-TROUGH.

SPECIFICATION forming part of Letters Patent No. 388,493, dated August 28, 1888.

Application filed April 11, 1888. Serial No. 270,338. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH MONROE HUGHES and ARTHUR PERCY WELLESLEY WADE, citizens of the United States, residing at Cedar City, in the county of Callaway and State of Missouri, have invented new and useful Improvements in Oscillating Panels for Feed-Troughs, &c., of which the following is a specification.

Our invention relates to improvements in feed-troughs; and it consists in certain novel features, hereinafter described and claimed.

The object of our invention is to provide a device whereby the stock can be fed without necessitating the operator's going in among the stock or filth in the pen.

In the accompanying drawings, Figure 1 is a perspective view of our improved trough with panel adapted to permit the stock to feed therefrom. Fig. 2 is a vertical cross section of the same. Fig. 3 is a similar view showing the trough arranged for filling, and Fig. 4 is a front elevation of the device. Figs. 5 and 6 are views showing modifications.

Referring to the drawings by letter, A designates a portion of the fence adjoining the pen, and B is the trough arranged in the line of the fence. At the ends of the trough we erect the posts or standards C, C, between which the swinging panel D is pivoted. Shields or guard-plates E are secured to the posts or standards adjacent to the ends of the trough to prevent the feed spilling over the ends of the trough when the same is being filled, and also to prevent hogs jumping through when the panel is moved back and forth. In the upper front edge of the trough we provide the staple F, which is engaged by a hook or latch, G, pivoted to the panel, when the trough is arranged to permit the animals to feed, so as to prevent the panel falling back, as will be readily understood on reference to Fig. 2.

To the front side of the panel we pivot the bail or other swinging stop H, which, when the panel is swung backward to permit filling of the trough, rests against the front side of the trough and upon a cleat, I, secured thereto, and thereby prevents the panel from falling forward. When the panel is swung forward, this bail or stop rests upon the front edge of the trough, as will be readily understood.

The upward and forward movement of the panel is limited by the stop-pins K, secured in the shields or guard-plates E, as shown. The upper rear edge of the trough is provided with a series of notches or recesses, L, through which pass the cross-bars M, which have their front ends pivoted to the panel D, near the lower edge of the same, and their rear ends secured to and connected by a longitudinal bar, N. The frame formed by this longitudinal bar and the cross-bars form a cover for the trough when the panel is swung forward and prevents the stock crowding and scattering the feed over the ground and getting into and lying down in the trough.

The frame or cover is held to the trough by a cross-bar, O, secured to the ends of the trough and passing over the recesses in the upper rear edge of the same. The frame is prevented from moving endwise by lugs or projections P on the rear side of the panel between the inner ends of the cross-bars M, and it is pivoted to the panel by a pivot-rod, Q, inserted through the said inner ends of the bars M and secured to the panel. The bars M may, however, be hinged to the panels, thereby dispensing with the rod Q. A short post or other support, R, is set in the ground in rear of the trough and at a proper distance therefrom to support the swinging frame or cover when the panel is pushed rearward, as shown in Fig. 3.

The panel is pivoted by means of a pivot-rod, S, passed through the posts or standards and through the panel between the adjacent rails *a b* and the branches *c c* of the end bars of the same. This exact manner of pivoting the panel is not essential to our invention, as it may be pivoted, as shown in Fig. 6, by passing the pivot-rod through staples *d*, secured to the face of the panel. Another manner of pivoting the panel is shown in Fig. 5, in which short rods or pivot-pins *e* are fitted in sockets *f* in the fence-posts and project into the panel and support the same.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the use and advantages of our device will be readily understood. When the panel is swung forward, the stock will have access to the trough and will be permitted to feed therefrom, and the panel will effectually

prevent them from throwing the feed over the front side of the trough. When the panel is swung backward, the trough can be easily cleaned and filled from the front side, while the stock will be effectually kept away from the rear side of the same. It will thus be seen that the operator is at no time required to go behind the trough or into the pen in order to feed his stock, and as the device is very cheap and simple its advantages will be readily appreciated.

In Fig. 6 we have shown a solid panel, which is especially adapted for use upon troughs for feeding large stock and mangers between stalls. In this form the panel is pivoted by means of a rod passing through staples secured to the rear side of the panel. The panel, when hung in this manner, will automatically swing inward or rearward and prevent the stock pulling large quantities of the feed from the trough and scattering the same over the ground.

In Fig. 5 we have shown the panel arranged between two portable posts, which are staked to the ground by stakes *g*, and are connected and prevented from spreading by a brace, *h*, secured to the posts and extending across the panels. This construction will be found very advantageous in cases where it is necessary to frequently change the location of the trough.

It will be understood, of course, that the cross-bars *M*, the shields or guard-plates, and the swinging latches and bails form the essential elements of our invention, although for convenience and clearness we have omitted some of these devices from Figs. 5 and 6.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of the trough having a cleat, *I*, secured to one side, the panel arranged over the trough, and the bail pivoted to the panel and adapted to contact with the trough and rest upon the cleat, as set forth.

2. The combination of the trough, the panel arranged over the same, the cross-bars *M*, pivoted to the panel and resting on the trough, and the bar *N*, connecting the free ends of said cross-bars, as set forth.

3. The combination of the trough having recesses in its rear edge, the panel arranged over the trough, the cross-bars hinged to the panel and passing through the recess in the trough, and the bar secured to the trough and passing over the cross-bars pivoted to the panel, as set forth.

4. The combination, with the feed-trough, of the oscillating panel arranged over the same, the cover or frame hinged to the panel and composed of a longitudinal bar and a series of cross-bars, and a series of offsets or blocks secured to the panel between the inner ends of the cross-bars, as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JOSEPH MONROE HUGHES.

ARTHUR PERCY WELLESLEY WADE.

Witnesses:

JOHN SAM'L. GREENWAY,

THOMAS N. HOLT.