

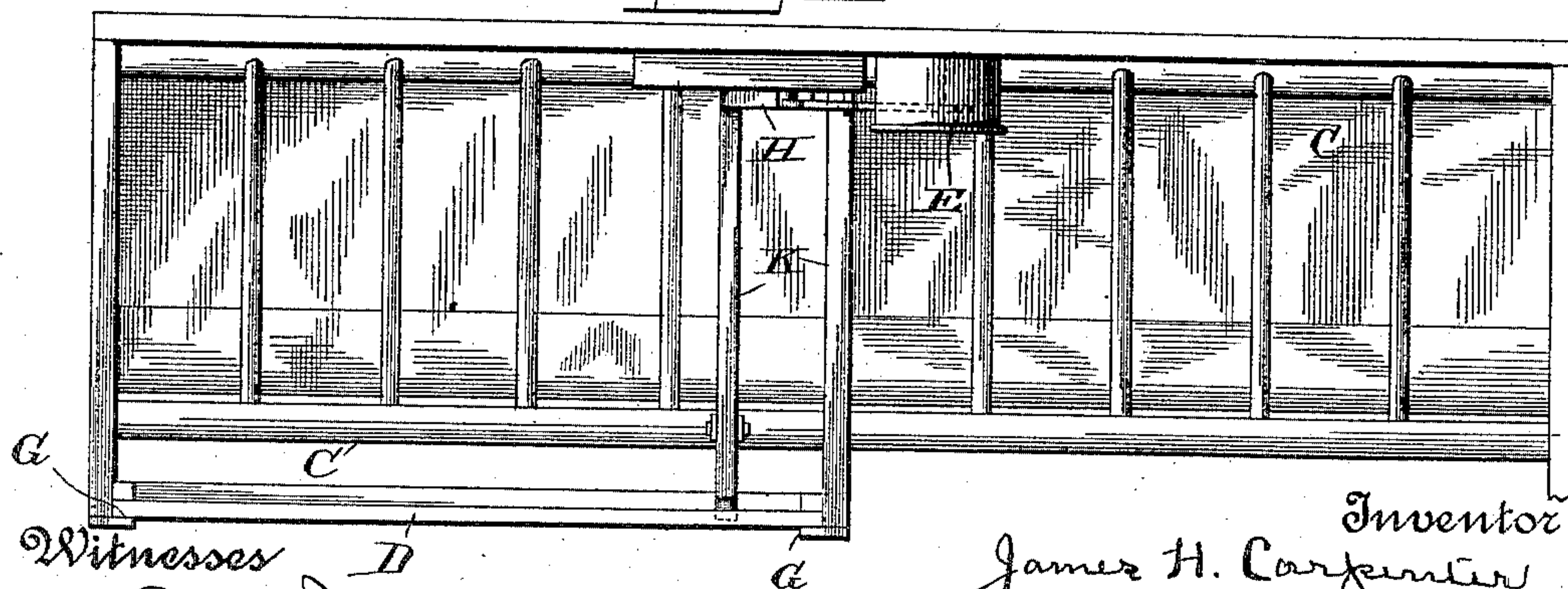
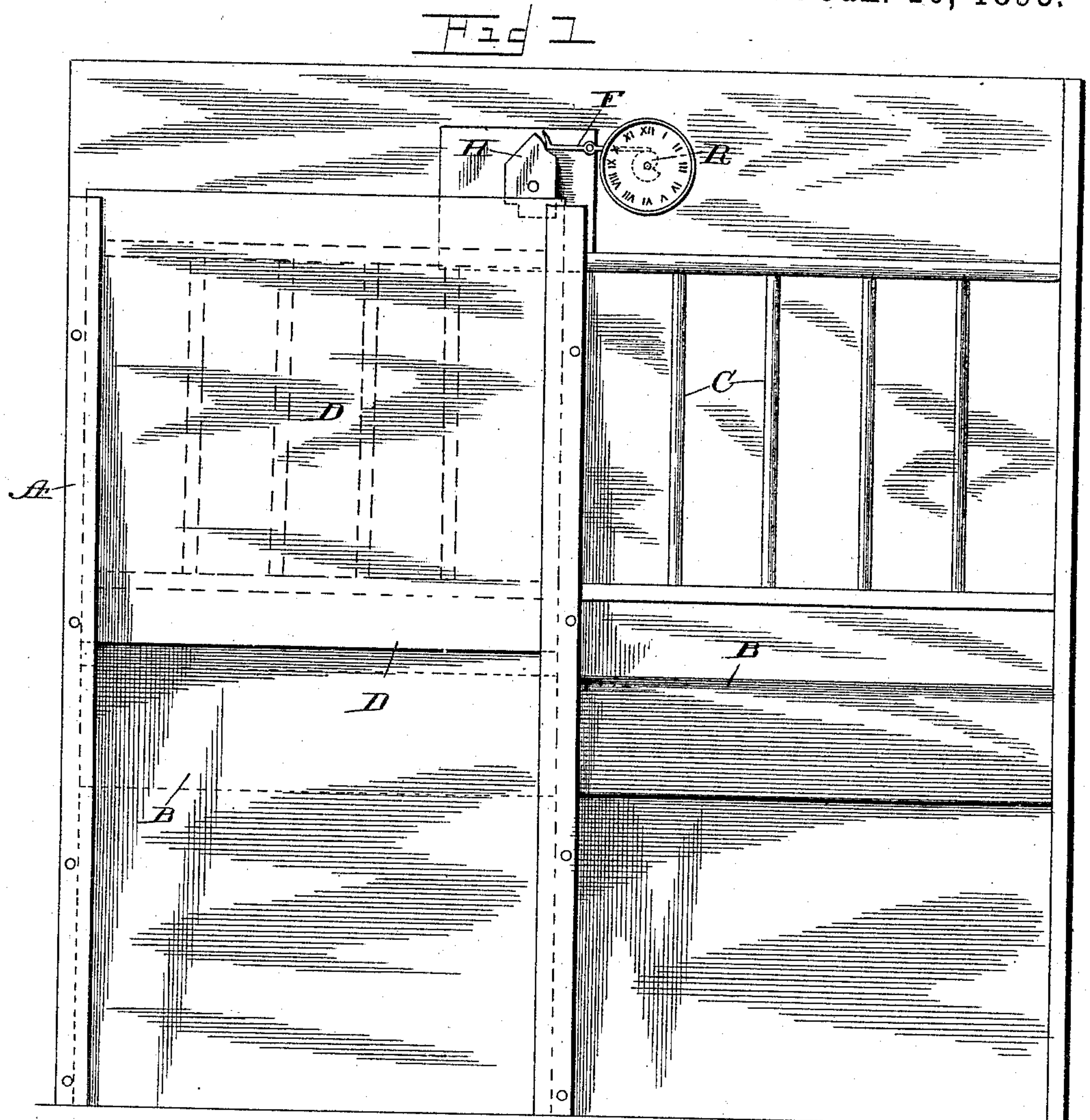
(No Model.)

J. H. CARPENTER.
TIME STOCK FEEDER.

2 Sheets—Sheet 1.

No. 489,789.

Patented Jan. 10, 1893.



Witnesses
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L. C. Hottel

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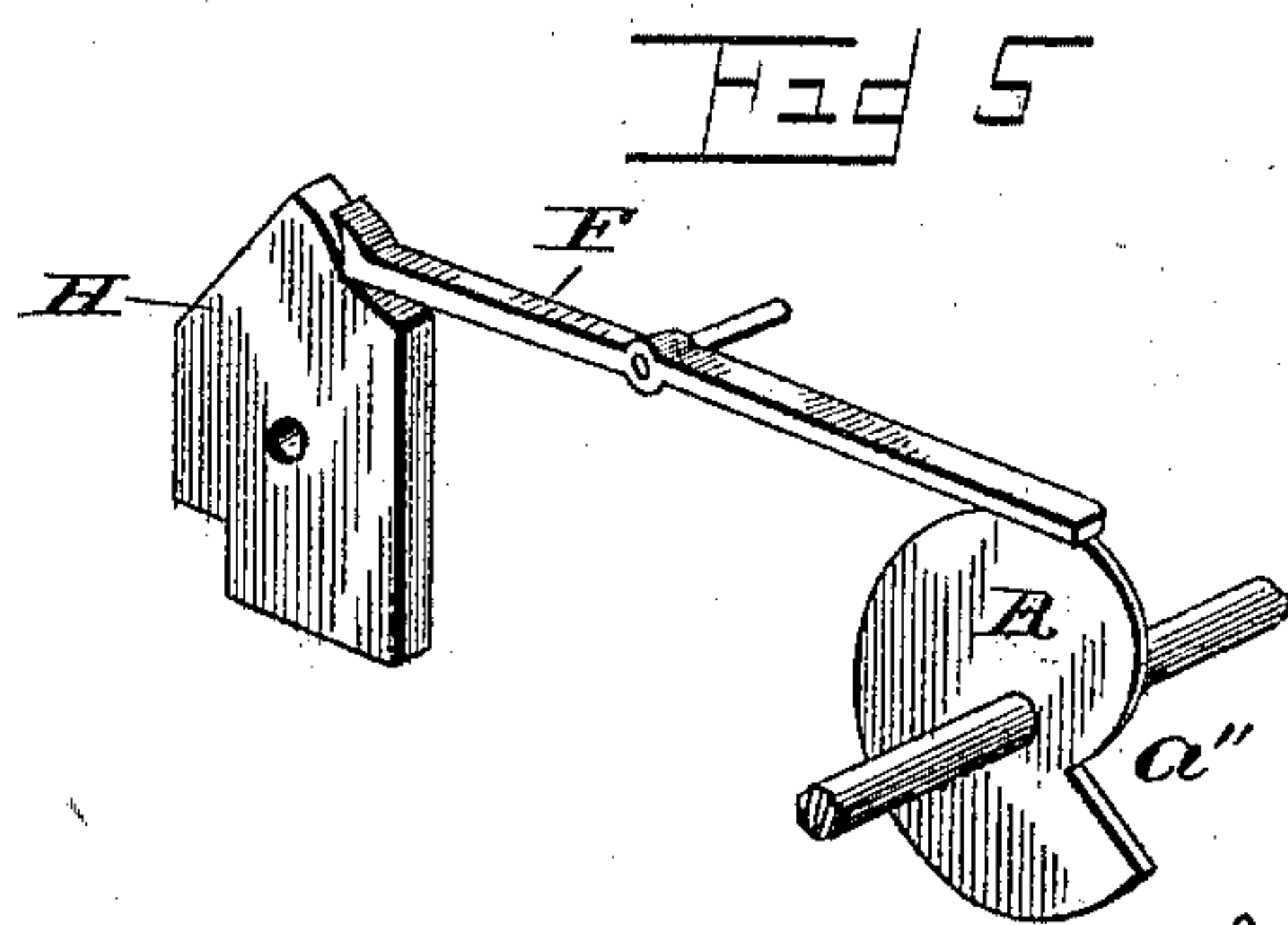
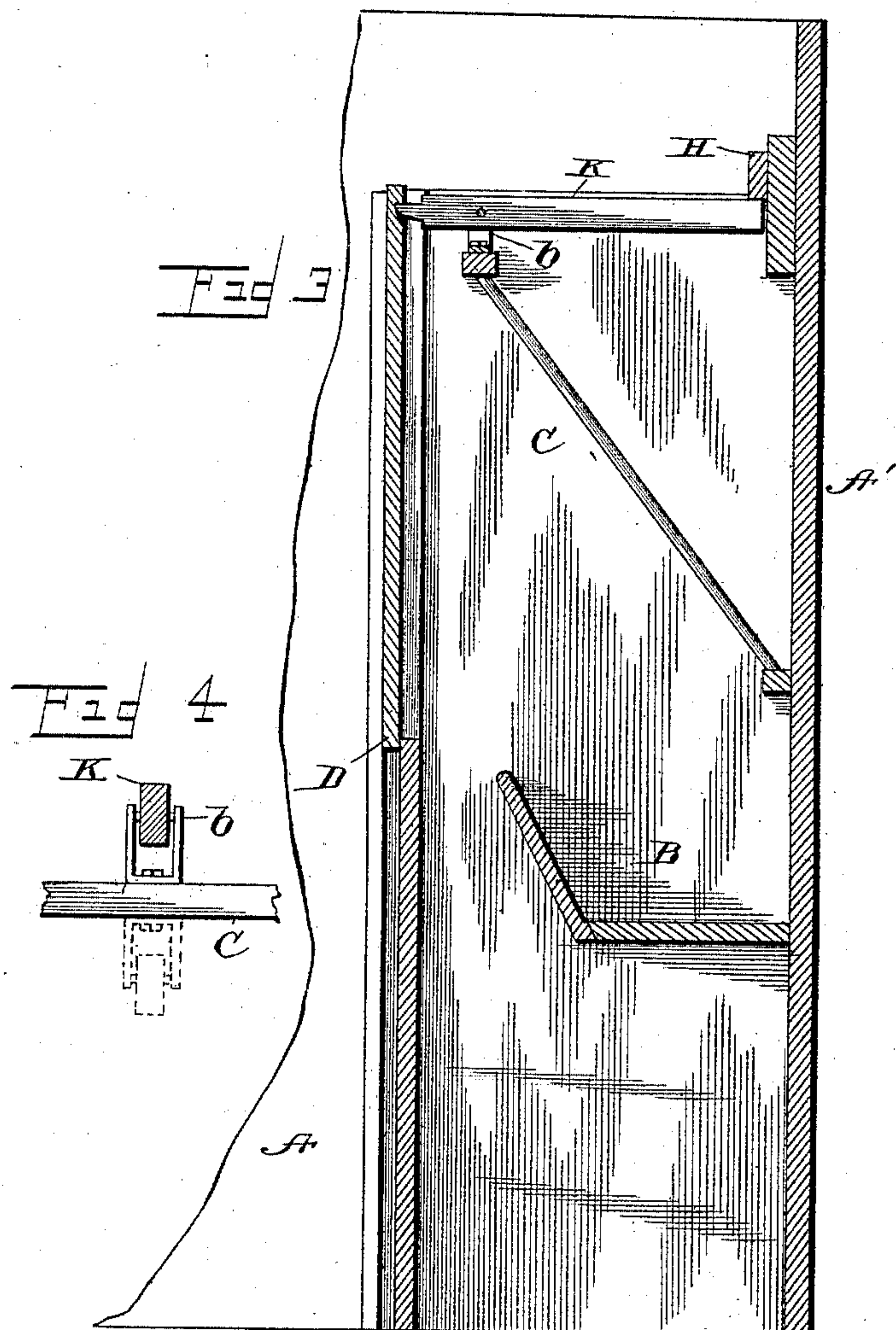
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Witnesses

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UNITED STATES PATENT OFFICE.

JAMES HOWARD CARPENTER, OF WEST POINT, GEORGIA, ASSIGNOR OF ONE-HALF TO THOS. T. EATON AND FRED D. HALE, OF LOUISVILLE, KENTUCKY.

TIME STOCK-FEEDER.

SPECIFICATION forming part of Letters Patent No. 489,789, dated January 10, 1893.

Application filed July 27, 1891. Serial No. 400,792. (No model.)

To all whom it may concern:

Be it known that I, JAMES HOWARD CARPENTER, of West Point, in the county of Troup, in the State of Georgia, have invented new and useful Improvements in Automatic Stock-Feeding Devices, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in automatic stock-feeding devices and consists in certain new and useful devices and arrangements of parts whereby a simple, economical device is provided for the purpose intended, all as hereinafter more fully described and specifically set forth in the claim.

In the annexed drawings like letters of reference denote corresponding parts in all the views in which

Figure 1 is a face view or elevation of the feed end of an ordinary stall fitted with my improved device. Fig. 2, is a top plan view of the same. Fig. 3 is a longitudinal vertical section of the same. Fig. 4 is a detail view of the lever holding swivel hereinafter referred to, and Fig. 5 is a detail view of the disk —R— lever F, and eccentric stop H.

In the drawings —A— is the side-wall of a stall, —A'— is the inner end wall of the same.

—B— is the feed trough for grain &c.
—C— is the rack for holding the hay and similar food.

—D— is a shield or cover consisting merely of a door held in its elevated position, to cover one side of the divided rack and trough, by means of suitable devices hereinafter described, and —G—G— are ways or guides to hold the shield or gravity door in position.

Held in the yoke —b— is the lever —K— which engages at one end with the gravity shield —D— and is held at its opposite end by the eccentric stop —H— which is held in the position shown by the lever —F— which bears on said eccentric at one end and on an alarm disk of the clock —E— at the other end. This clock —E— is very similar to the ordinary striking alarm clock in its time setting feature, but has, necessarily, no alarm striking feature. In the center of the clock face is the ordinary alarm disk provided with

numerals corresponding to the hours of the day and behind said alarm disk as a cam shaped disk —R— shown in Fig. 5 of the drawings which disk moves with the hours of the clock. Pivoted to the clock frame is the lever —F— which bears against the eccentric stop —H— at one end and sustains it in its upright position, while the other end of the lever —F— bears on the periphery of the disk —R— so that as said disk —R— is moving from left to right the lever —F— bears constantly thereon, though with slight pressure only.

Assuming the shield —D— to be in the position shown in the drawings it will be seen that the lever —K— sustains said shield in its elevated position, the eccentric stop securely holds the opposite end of the lever —K—, while said stop is in turn sustained in its vertical position by the lever —F— which is supported in its position as shown by the cam-shaped disk —R—, which is shown as nearing the time set for the alarm to work. When the disk —R— turns sufficiently to bring the cut away portion *a''* to a perpendicular the lever —F— will drop into the excision in the disk —R— thus releasing the eccentric stop —H—, which in turn releases the lever —K— and permits the shield —D— to drop by gravity to the floor, thus exposing the portion of the rack and feed trough which was previously protected by the shield —D—.

I have shown only one stall provided with my invention, though only one clock and alarm is needed to operate several such shields as are shown, and any expert mechanic will be able to so construct a series of drops so that, upon the release of the first shield, its weight may be utilized to cause the release of the next shield of the series which will be held in its elevated position by a spring catch or any ordinary and suitable device for that purpose, and as each of the series of shields drops, it will cause the release of the next shield of the series.

In Fig. 4 it will be observed that the lever —K— is held in a yoke secured to the cross-bar —c— running across the top of the rack —C—. The yoke is in full lines at the top

side of said cross bar and at the under side it is shown in dotted lines, as I do not wish to be limited to the location of said yoke.

Having described my invention, what I
5 claim is:

In an automatic stock-feeding device, the combination of a hopper and feed-trough, a gravity door or shield normally closing the same, and sustained in an elevated position,
10 a pivoted lever engaging with said shield at one end, a yoke —*b*— sustaining said lever at its fulcrum, a pivoted eccentric normally engaging the opposite end of said lever, a second pivoted lever bearing normally on said
15 pivoted eccentric at one end, the disk —*R*— supporting the opposite end of said lever, an

excision —*a'*— in said disk and suitable clock-mechanism for rotating said disk, and adapted to carry the excision therein to a perpendicular at predetermined times, all adapted, in combination, to release the gravity shield and expose the contents of the hopper substantially as and for the purpose specified.

In testimony whereof I have hereunto signed my name, in the presence of two at-
25 testing witnesses, at Louisville, in the county of Jefferson, in the State of Kentucky, this 23d day of July, 1891.

JAMES HOWARD CARPENTER.

Witnesses:

FRED R. LEVERING,

FREDERICK H. GIBBS.