No. 742,105. PATENTED OCT. 20, 1903.

W. R. WAGGONER.

DELIVERY TABLE FOR GREEN CLAY ARTICLES.

APPLICATION FILED MAY 8, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

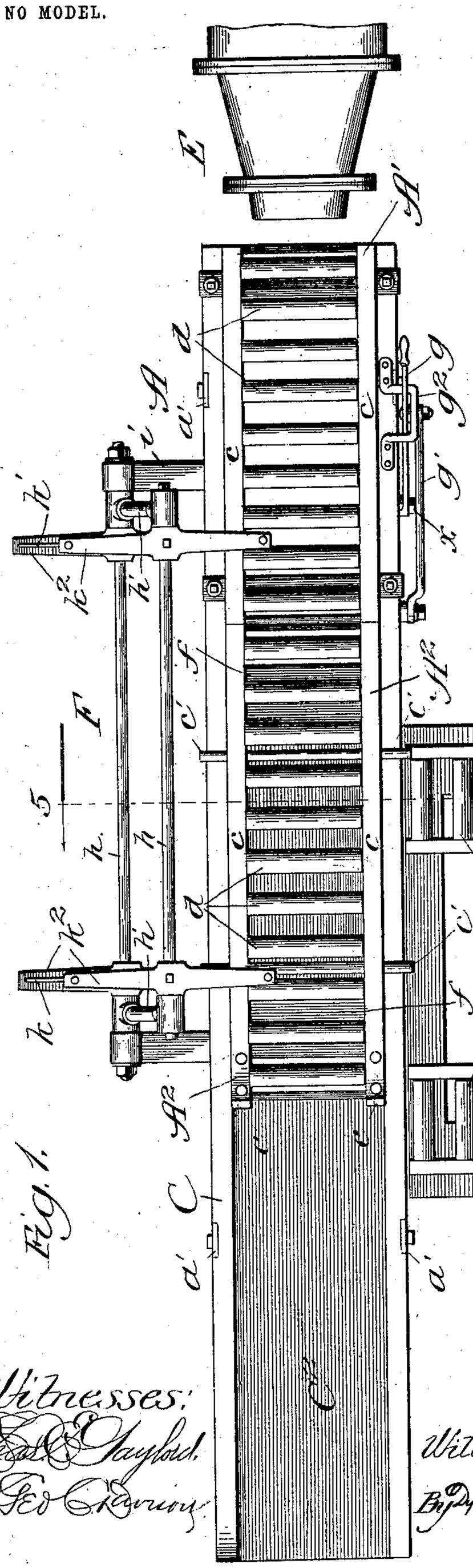

Fig. 1.

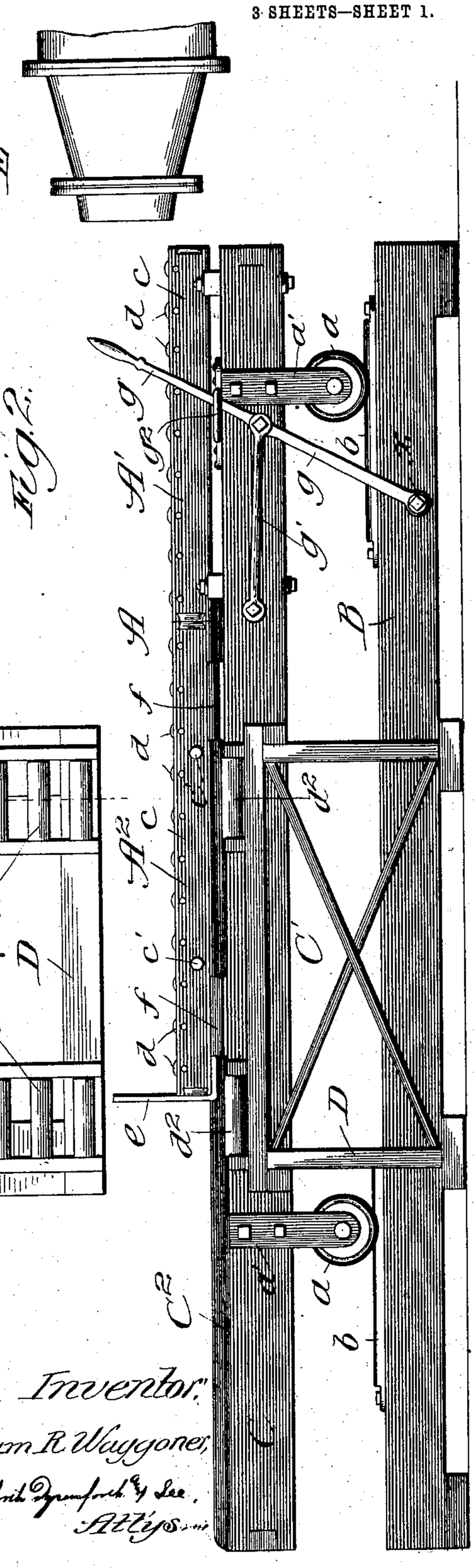

Fig. 2.

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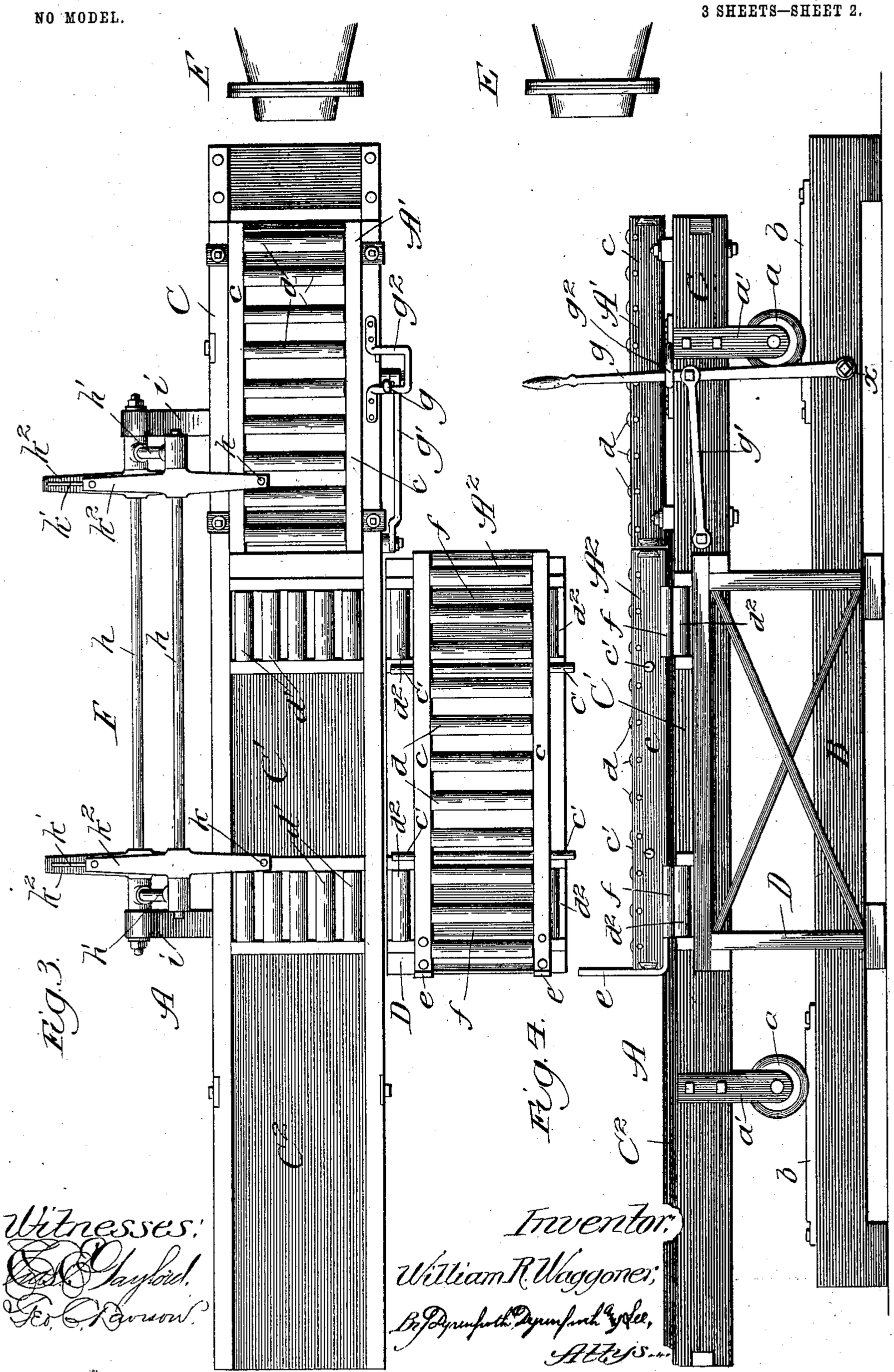
NO MODEL. 3 SHEETS—SHEET 2.



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NO MODEL. 3 SHEETS—SHEET 3.

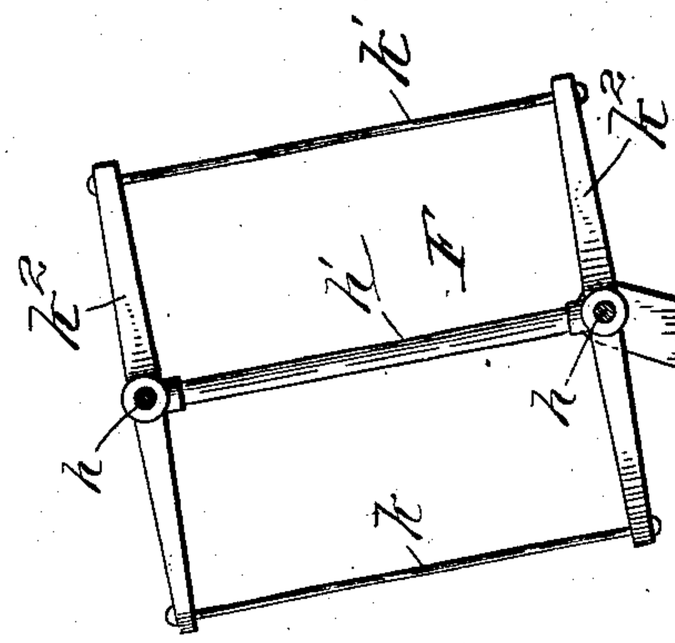

Fig. 6.

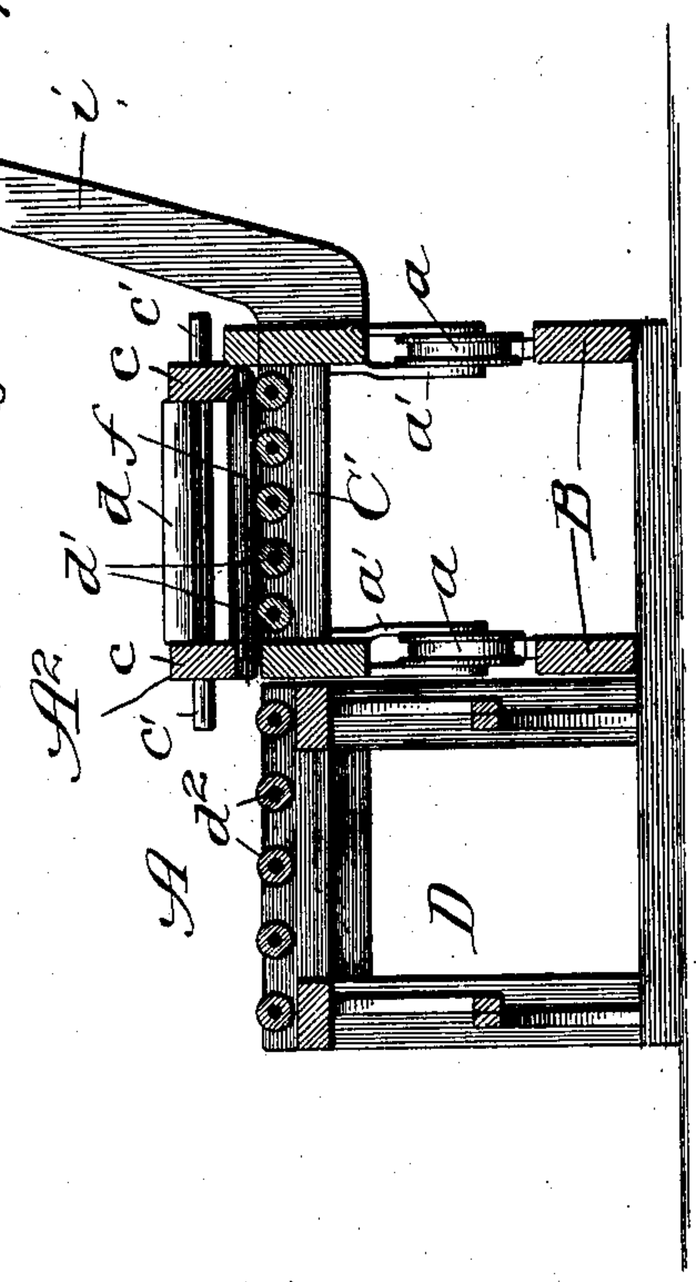

Fig. 5.

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No. 742,105. Patented October 20, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM R. WAGGONER, OF BRAZIL, INDIANA, ASSIGNOR TO McROY CLAY WORKS, OF BRAZIL, INDIANA, A CORPORATION OF INDIANA.

DELIVERY-TABLE FOR GREEN CLAY ARTICLES.

SPECIFICATION forming part of Letters Patent No. 742,105, dated October 20, 1903.

Application filed May 8, 1903. Serial No. 156,151. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. WAGGONER, a citizen of the United States, residing at Brazil, in the county of Clay and State of Indiana, have invented a new and useful Improvement in Delivery-Tables for Green Clay Articles, of which the following is a specification.

My invention relates to an improved construction of the table for delivering from a clay-machine for drying the clay article formed by it, such as hollow building-tile, and especially clay conduits, which are the particular article for handling which I have devised my improved table.

As the state of the prior art to which my improvement immediately relates is now known to me it contains a table for the same purpose as mine, comprising a roller-surfaced top with one end presented to the discharging end of the clay-machine and having a duplicate cutter hinged to one side of the frame. The clay-machine delivers the molded clay article in its green or soft condition in a continuous length to the table, along which it is fed by the pressure of the discharge from the machine. The table leads to a reel having a plurality of radial arms each equipped, like the table, with a series of transverse rollers, and one of these arms is always in alinement with the table to form a rotatable section therein. When the product of the clay-machine is fed sufficiently far to extend lengthwise over the reel-arm in position to receive it, the machine is stopped to arrest the feed, when the cutter is lowered to sever that portion of the product which extends along the respective reel-arm. Thereupon the reel is turned in the direction away from the clay-machine to position the severed section of the product on end relative to a solid continuation of the table beyond the reel. From this position the severed section is taken off upon the continuation of the table by means of a "board" in upright position, resembling a wheelless truck, the flanged end of which is inserted underneath the lower end of the green section, when the board is turned on its end to a right angle relative to the position in which it is applied to the article and is then lowered to a horizontal position to bring the article upon it to the same position on the table, in which condition it is transferred to a car to be wheeled into the drying-room. The necessity of stopping the clay-machine each time a section of its product is thus severed causes great loss of time, and the handling of the severed article in removing it from the table is cumbersome and is required to be performed expeditiously with the exercise of great care to avoid impairment of the shape of the article in its soft condition, though notwithstanding the observance of care the article is often twisted out of shape at its upper end in turning the board on its end, as described, owing to the rapidity with which the operation must be performed to avoid unnecessary delay in again starting the feed of the clay-machine.

The object of my improvement is to provide a novel construction of the table whereby the severed article of soft clay may be handled much more expeditiously than heretofore, and more conveniently, without liability of injury to it.

My invention consists in the general construction of a table for the purpose stated; and it also consists in the details of construction and combinations of parts hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 shows my improved table by a plan view adjacent to the discharge end of a clay-machine, with the parts in the relative positions they occupy normally. Fig. 2 is a view in side elevation of the apparatus with the parts in the relative positions they are shown to occupy in Fig. 1, but omitting the cutting device; Fig. 3, a view like that presented by Fig. 1, but showing the transversely-adjustable table-top section in the position to which it is moved to withdraw from the line of feed the severed portion of the clay product; Fig. 4, a view in side elevation of the apparatus as represented in Fig. 3, but omitting the cutting device; Fig. 5, a section taken at the line 5 on Fig. 1 and viewed in the direction of the arrow; and Fig. 6, a broken perspective view representing as the product of the clay-machine a continuous length of hollow chambered clayware, with

the points of severance indicated by dotted lines at which it is cut to produce a "bottom" and the length of the article to be finished by drying.

B is the bed upon which the table A is supported to have limited longitudinal reciprocable movement through the medium of wheels *a*, journaled in bearings *a'*, depending from the table-frame C, to travel on guide-rails *b* on the bed. The table-top comprises a longitudinal section A', fixed on the frame and formed of side pieces *c c*, carrying a series of transverse rollers *d*, journaled at their ends in the side pieces, and a similar removable section A^2 of about the same length as the section A', also formed of side pieces *c* and rollers *d*, journaled to extend transversely between them, and provided with transverse rods *c'*, projecting at their ends beyond the side pieces at opposite sides of the transverse center of the section to afford handles and with vertical stops *e e* at its distal end, forming an abutment. The central section C' of the top of the table-frame C is provided at each of its ends with a transverse series of rollers *d'*, journaled to extend parallel with the sides of the table, and beyond the section C' is the end section C^2 of the frame-top, which may have the unbroken surface represented and be of the length shown relative to that of the end section of the frame-top which is surmounted by the table-top section A'. The top-section A^2 rests at transverse bearings *f* near its opposite ends on the roller series *d' d'*.

At one side of the table-base B is provided a supplemental stationary table D, carrying near each of the opposite ends of its top portion a transverse series of rollers d^2, parallel and on a level with the roller series *d' d'*, but out of alinement with them respectively when the longitudinally-movable table A occupies the position in which it is represented in Fig. 1.

For moving the table A there is shown to be provided on one side thereof a lever *g*, fulcrumed at its lower end to the base B at *x*, connected between its ends by a link *g'* with the frame C and passing at its upper handle end through a throw-limiting loop g^2, projecting from the side of the frame.

F is a cutter, preferably of the variety in use on tables of the class to which my improvement relates, and comprising a rectangular frame formed of parallel side bars *h h* and parallel end bars *h' h'*, with one of its side bars journaled in the upper ends of rigid bearing-posts *i i*, projecting upward from the side of the table-frame C opposite the side thereof at which the lever *g* is provided, to swing transversely across the table A, and arms k^2 k^2 are fixed at their centers on the frame-bars *h* near their opposite ends to extend crosswise thereof and form pairs, the members of each pair being connected like a bucksaw at corresponding ends by a rod *k'* and at their opposite ends by a cutter *k*, which may be a mere wire, as represented, at the distance apart according to the distance between the cuts for the length required of the article to be severed from the product fed to the table from a clay-machine, all as hereinafter described.

The operation is as follows: The position of the table is with one end adjacent, as indicated, to the discharge end (represented at E) of a clay-machine of any suitable or well-known variety adapted to force clay through a die to form in a continuous length a product such as that represented at G in Fig. 6, which is clay tilework containing longitudinal chambers and adapted as it leaves the clay-machine in a green condition to be cut preparatory to drying it into lengths suitable for underground conduits for electric conductors and the like. With the parts of the table-top and the cutter device in the relative positions shown to be occupied by them in Fig. 1 the clay-machine feeds its product G lengthwise along the sections A' and A^2 until its distal end reaches somewhat beyond the corresponding end of the cutter device F. Thereupon the operator turns the lever *g* in the direction of the feed to move the table A correspondingly therewith and at the rate of speed of the feed, while he swings the cutter down upon the clay product and severs it at the points represented by the dotted lines *v* and *v'* in Fig. 6 to produce therefrom a bottom *l* and a section H of desired length, after which the cutter device is raised. Meantime the continued feed of the product G abuts it at its distal end against the stops *e e*, by which time the throw of the lever *g* in the aforesaid direction will have been completed and the roller series *d' d'* will respectively have been brought coincident with the roller series d^2 d^2. The table-top section A^2, with the article H and bottom *l* upon it, is then moved transversely on the roller series d^2 d^2 out of the way of the feed from the clay-machine and is lifted therefrom upon a suitable car (not shown) in convenient position, by which to transport the table-section, with its burden, to the drying-room, in which the table-section is stood upon end to stand on end the article H upon the bottom *l*, in which position the article is dried in the usual or any suitable manner, and when dried the bottom *l* is knocked off to finish the article. Immediately after transferring the table-top section A^2 upon the supplemental table D the operator quickly turns the lever *g* to the end of its opposite throw, while the feed continues along the table, and before the distal end of the continuous product G has reached the corresponding end of the rigid table-top section A', and at the same time another table-top section, like the section A^2, but not shown, and placed ready on the section C^2 of the frame C, is adjusted in place to substitute it for the removed section A^2 and have it in position to receive the end

of the product G when it reaches the same. Thereupon the apparatus is in condition for another operation like that already described, thus without interrupting the feed from the clay-machine, the continuity of which rendered possible by my improvement more than doubles the output over that of the old apparatus hereinbefore referred to.

As my improvement in its broadest sense consists in providing for the bodily-removable section of the table the supplemental table for receiving it, I do not limit my invention to the particular details of construction and combinations of parts forming the apparatus as herein shown and described, for these may, without departure from the spirit of the invention, be variously changed by those skilled in the art and still embody the gist of the invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a delivery-table of the character described, the combination of a table-top section fixed to its supporting-frame, a table-top section removably supported on said frame to form a continuation of said fixed section, and a supplemental table for receiving said removable section, substantially as and for the purpose set forth.

2. In a delivery-table of the character described, the combination with a base, of a frame supported thereon to be reciprocated longitudinally, a table-top section supported on the frame to move with it, a table-top section removably supported on the frame to form a continuation of said first-named section, and a supplemental table for receiving said removable section, substantially as and for the purpose set forth.

3. In a delivery-table of the character described, the combination with a base, of a frame supported thereon to be reciprocated longitudinally, a lever connected with the frame for moving it, a cutter device supported on the frame to be swung transversely across its top, a table-top section fixed on the frame, a table-top section removably supported on the frame to form a continuation of said fixed section, and a supplemental table for receiving said removable section, substantially as and for the purpose set forth.

4. In a delivery-table of the character described, the combination with a base, of a frame supported thereon to be reciprocated longitudinally, and having a section of its top provided with a transverse series of rollers, a roller-equipped table-top section fixed on the frame to extend adjacent to said rollers, a roller-equipped table-top section movably supported on said transverse rollers, and a supplemental table adjacent to said frame-section having the transverse rollers and provided with a transverse series of top rollers, substantially as and for the purpose set forth.

5. In a delivery-table of the character described, the combination with a base, of a frame supported thereon to be reciprocated longitudinally, a supplemental table at one side of said frame, a roller-equipped table-top section fixed on the frame to extend lengthwise thereof from one of its ends, and a roller-equipped table-top section supported on said frame to form a continuation of said fixed section and movable on its support transversely thereof upon said supplemental table, substantially as and for the purpose set forth.

6. In a delivery-table of the character described, the combination with a base, of a frame supported thereon to be reciprocated longitudinally and having an intermediate section of its top provided with a transverse series of rollers, a supplemental table at one side of said frame, provided with a series of top rollers extending parallel with said transverse series of rollers, a roller-equipped top-section fixed on the frame to extend lengthwise thereof from one of its ends, a similar top-section supported on said intermediate frame-section and movable on the rollers thereof upon those of said supplemental table, and a top-section of said frame forming a continuation thereof beyond the section provided with said transverse roller series, substantially as and for the purpose set forth.

7. A delivery-table of the character described, comprising, in combination, a base, a frame having rollers by which it is supported upon guide-tracks on said base to be reciprocated lengthwise thereof, a lever connected with said frame for reciprocating it, a cutter device supported on a side of said frame near its transverse center to be swung crosswise of its top, said frame having top end sections and an intermediate top-section provided with transverse series of rollers, a supplemental table at the side of said frame opposite that carrying the cutter device and having series of top rollers extending parallel with said transverse roller series, a roller-equipped top-section supported on said frame to extend lengthwise thereof from one of its ends, and a similar top-section supported on said intermediate frame-section and movable on the rollers thereof upon those of said supplemental table, substantially as and for the purpose set forth.

WILLIAM R. WAGGONER.

In presence of—
N. B. DAVIES,
WALTER N. WINBERG.