(No Model.) 2 Sheets—Sheet 1.

M. CARROLL.

PORTABLE BRICK DRIER.

No. 368,454. Patented Aug. 16, 1887.

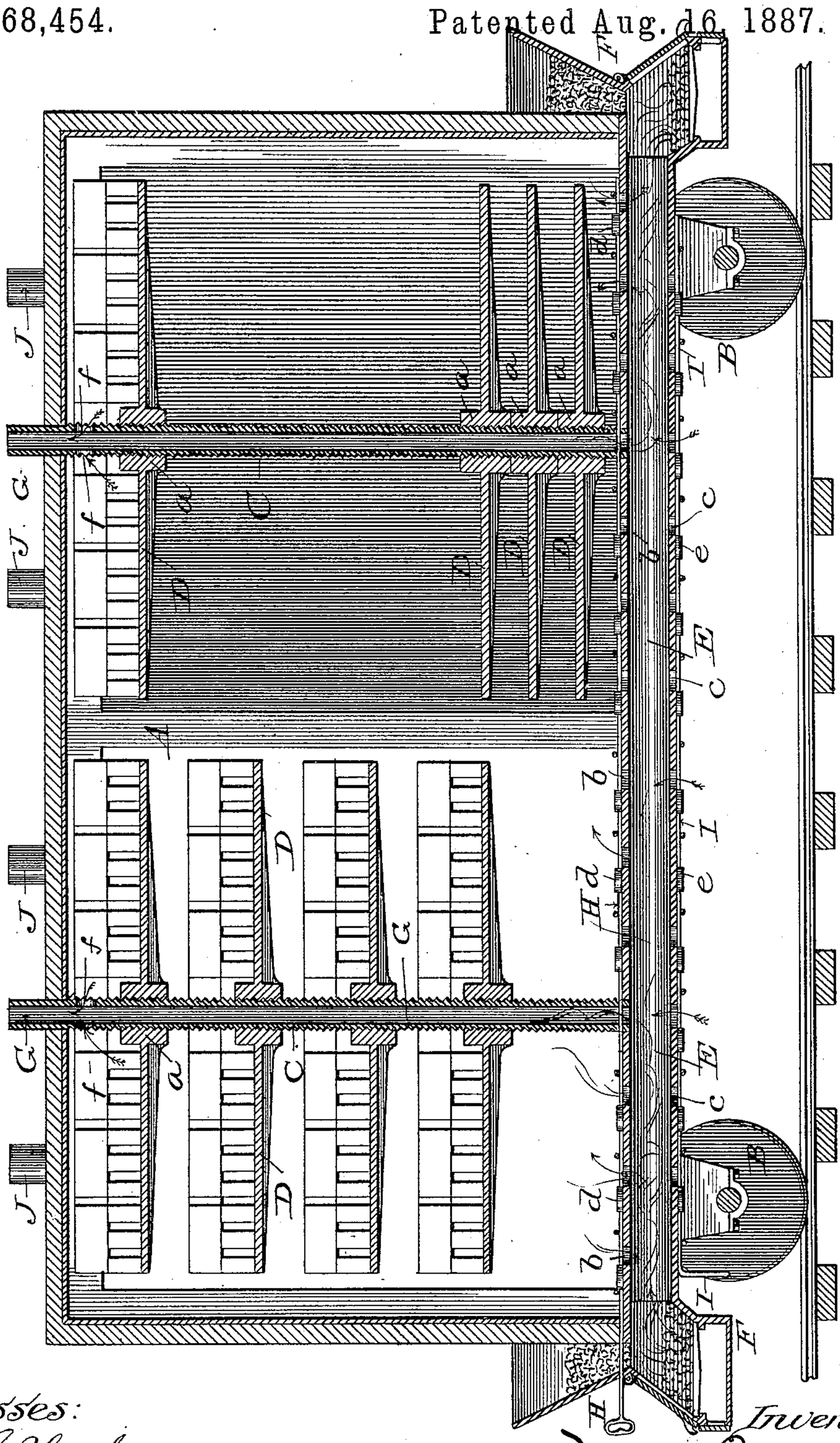

Fig. 1.

Witnesses:
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Inventor:
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Attorneys.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

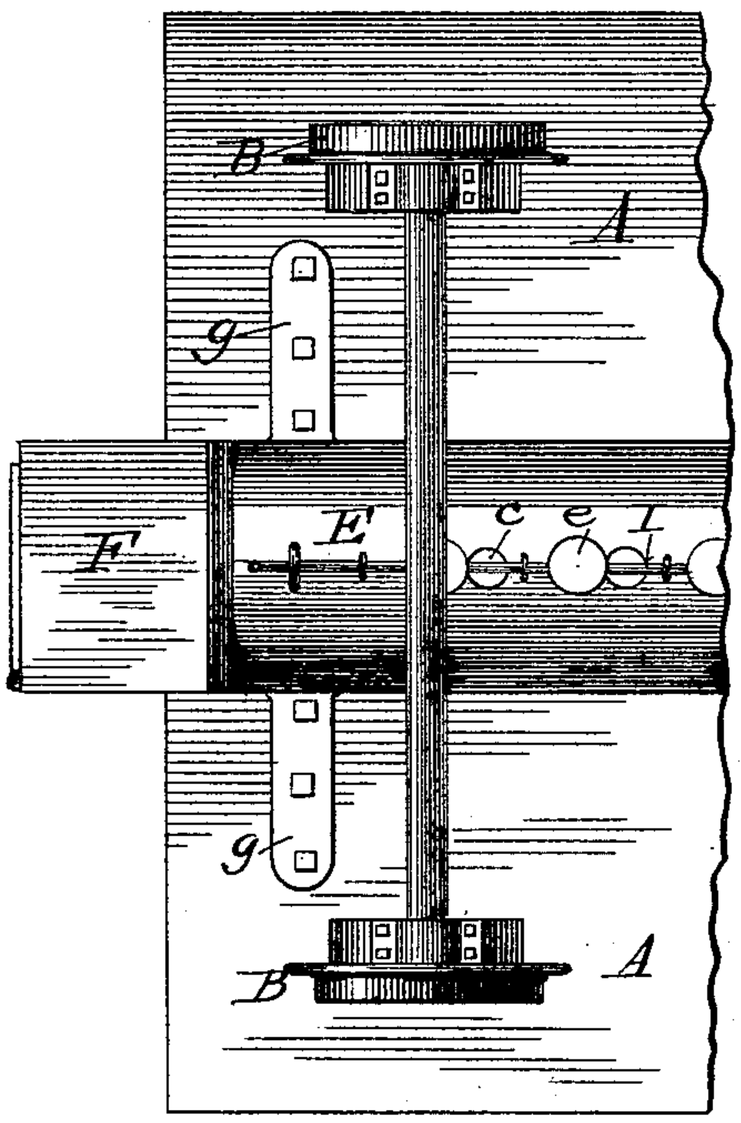


Fig. 3.

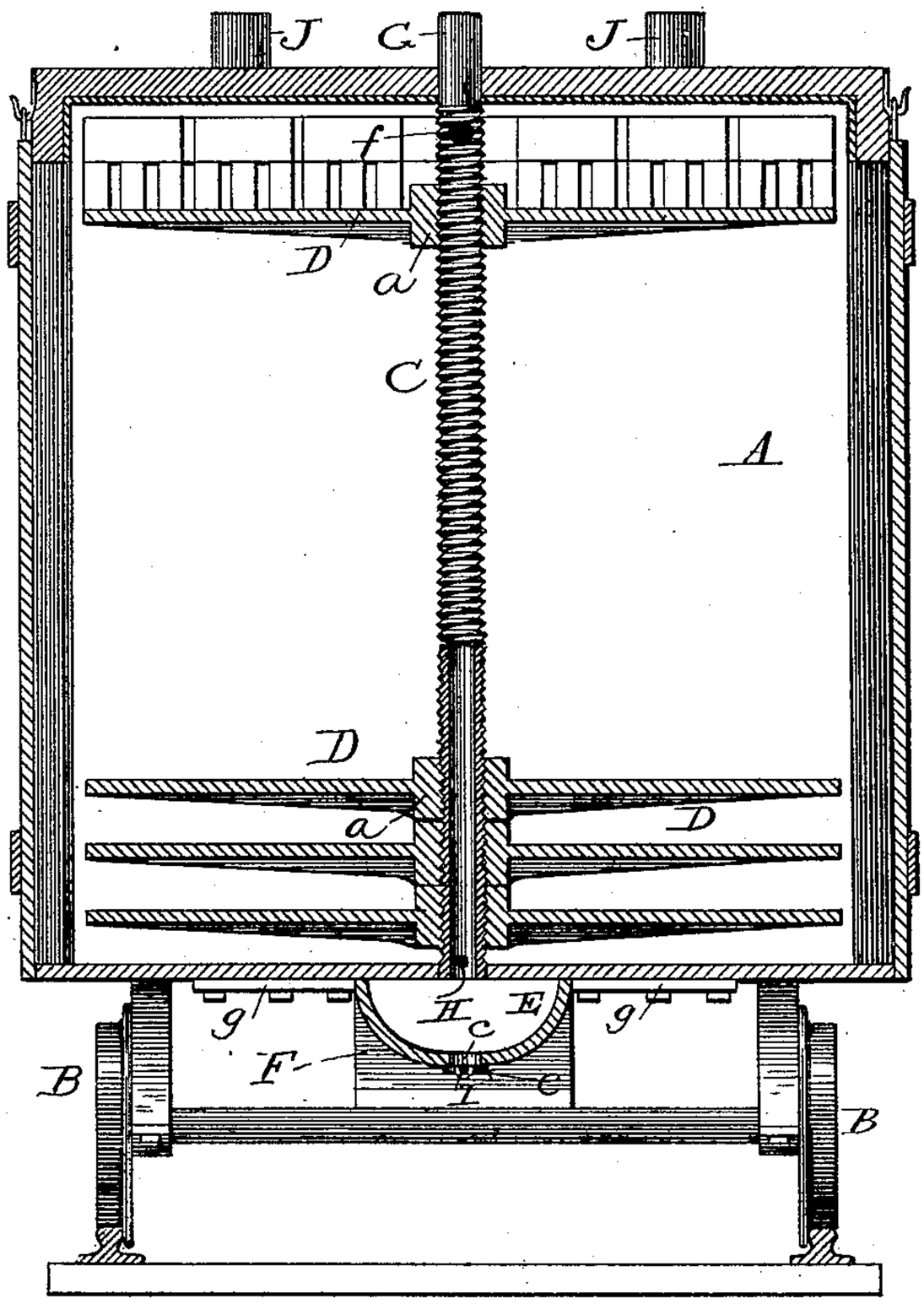
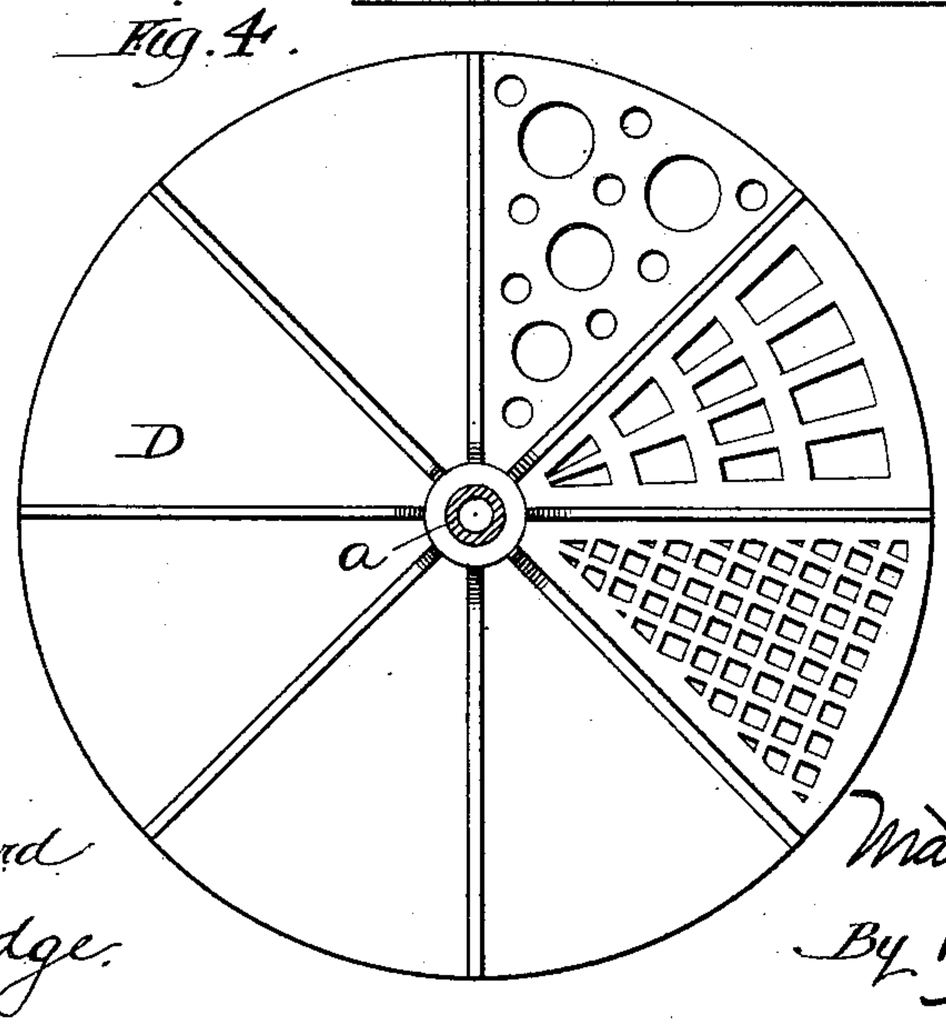


Fig. 4.



Witnesses:
Frank L. Blanchard
Walter S. Dodge.

Inventor:
Martin Carroll,
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UNITED STATES PATENT OFFICE.

MARTIN CARROLL, OF BRIGHTON PARK, ILLINOIS.

PORTABLE BRICK-DRIER.

SPECIFICATION forming part of Letters Patent No. 368,454, dated August 16, 1887.

Application filed March 19, 1887. Serial No. 231,553. (No model.)

To all whom it may concern:

Be it known that I, MARTIN CARROLL, of Brighton Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Portable Brick-Driers, of which the following is a specification.

My invention relates to a novel car for use in drying bricks; and it consists in various features and details, hereinafter fully set forth and claimed.

In the drawings, Figure 1 is a longitudinal central sectional view of my improved car; Fig. 2, a bottom plan view of a portion of the car; Fig. 3, a vertical transverse sectional view, and Fig. 4 a bottom plan view of one of the supporting-trays.

A indicates the car as a whole, carried by wheels B B and adapted to run upon a track. This car may be built of iron or of wood, as may be found expedient, and it is obvious that the shape or form of the car may be varied as desired, except as hereinafter described.

Within the car I place one or more upright screw-stems, C, which will be secured at their lower ends to the floor of the car and project at their upper ends out through the roof, as shown in Figs. 1 and 3. These stems C are adapted to receive a series of circular plates or trays, D, each bearing a central internally-threaded hub, *a*, as shown in Figs. 1, 3, and 4, the plates or trays screwing up or down upon the screw-stem, according to the direction in which they are turned.

The stems C, with the brick-supporting trays, are situated directly opposite the doors of the car to facilitate the filling of the trays with the green bricks. Before filling the trays they are first screwed down to their lowest positions, and as soon as one tray is filled it is screwed upward until it approaches close to the roof of the car, and then the next tray is filled. This second tray is then screwed up close to the bottom of the first tray, this operation being kept up until the trays are all filled.

The trays D will preferably be made of cast-iron, with radial strengthening-ribs on the under face, as shown in Figs. 1, 3, and 4: I do not restrict myself to any particular construction of the trays, for it is obvious that they may be made of other materials than metal, and need not necessarily be circular. It may be found desirable in some instances to perforate or make the trays or plates open, as shown in Fig. 4, in order that the heat may pass upward through and between the bricks.

Extending lengthwise of the car, centrally along the under side of the bottom, is a cast-metal flue, E, communicating at its ends with furnaces F, provided in its upper face with openings *b*, and in its lower face with similar openings, *c*, as shown in Figs. 1, 2, and 3. The flue E is further provided with chimneys G, which, for convenience, may be made by making the screw-stems C hollow, as shown in Figs. 1 and 3; but in lieu of using these stems for the purpose of carrying off the smoke, &c., a separate chimney, situated at any desirable point, may be employed.

The furnaces may be constructed to burn either hard or soft coal, or any other suitable fuel, and as their construction *per se* forms no part of my present invention, they need not be further described herein.

The openings *b* and *c* are controlled by means of rods H and I, bearing disks *d* and *e*, as shown in Figs. 1, 2, and 3, those on rod H being arranged to cover the openings *b* and those on rod I to cover openings *c*.

From the foregoing construction it will be seen that if after fire is started in the furnaces the valves or disks *d* be opened the smoke and heat will pass through the openings *b* into the interior of the car and come in contact with the bricks upon the trays and dry them, and that if the valves *e* also be opened the air passing through the opening *c* into the flue E will become heated and be discharged into the interior of the car, together with the smoke and heat from the furnaces.

In order to provide for the escape of smoke, &c., from the car the chimney G will be perforated at its upper end, as at *f*, Figs. 1 and 3, and to provide for the escape of steam given off by the bricks in being dried I provide the roof of the car with ventilators J, as shown in Figs. 1 and 3.

The bottom of the car will be made of metal and have the flue E secured thereto by bolts passing through arms *g g*, projecting laterally through from the flue, as shown in Figs. 2 and 3.

The car A is shown in the drawings as having a wooden framing lined with metal; but,

as before stated, the entire car may be made of metal when deemed desirable.

It is obvious that various features of the invention are capable of separate and independent use, and while the car constructed and arranged complete, as shown, will generally be used, I do not limit myself to a car embodying all the various details and features enumerated.

From the foregoing it will be seen that I avoid all unnecessary handling of the bricks, as they may be taken direct from the machine, placed upon the trays in the car, and the latter moved away and fired up, and the bricks dried preparatory to placing them in the kiln, with but one handling.

While I am aware that it has been proposed to dry bricks by placing them upon cars and moving the cars through a heated kiln, I am not aware that any one prior to my invention has provided a car with a heat-distributing flue. By this latter construction the heat is compelled to pass up between and around the bricks upon the trays and all the heat utilized. The heat may obviously be supplied to the flue E by means of a stationary or fixed furnace, in lieu of placing the furnaces upon each car, and as I believe myself to be the first to so construct a car, I do not wish to limit myself to any particular construction or location of the furnace.

I am also aware that a portable asphalt-mixing machine provided with a furnace has been patented, and to such construction I lay no claim; but

What I do claim is—

1. A car provided with an upright screw-stem and a series of brick-supporting trays mounted thereon, substantially as shown and described.

2. A car provided with a series of brick-supporting trays and with a furnace adapted to discharge heat into the interior of the car.

3. In combination with a car provided with a series of brick-supporting trays mounted therein, a flue extending along the floor of the car adapted to discharge heat into the latter, and a furnace communicating with said flue.

4. In combination with a car provided with a series of brick-trays, a flue extending along the floor of the car provided with openings on its upper face, and a furnace carried by the car and connected with said flue.

5. In combination with a car provided with a series of trays, a furnace, and a heat-flue provided with openings in its upper and lower faces.

6. In combination with a car and trays D, a flue, E, and a furnace, F, and a chimney, G, all mounted upon the car, substantially as shown.

7. In combination with a car and trays D, a flue, E, and furnace F, and chimney G, provided with an opening, *f*, as and for the purpose set forth.

8. In combination with a car and trays D, a flue, E, and furnace F, a hollow screw-shaft, C, for supporting the trays and communicating with the flue E, as and for the purpose set forth.

9. In combination with a car and trays D, a flue, E, and furnace F, and ventilators J, all mounted upon the car, substantially as and for the purpose described.

10. In combination with a car provided with a series of trays, D, a furnace, F, and a flue, E, connected with the furnace and provided with valved openings *b* and *c*.

11. In combination with a car, an upright screw-stem, C, a series of trays, D, mounted thereon, and a heater connected with the car and adapted to discharge heat into the latter, substantially as described and shown.

12. In combination with a car and upright hollow screw-stems C C, trays D, mounted thereon, flue E, provided with valved openings *b c*, and furnaces F F, arranged substantially as shown.

In witness whereof I hereunto set my hand in the presence of two witnesses.

MARTIN CARROLL.

Witnesses:

PHILIP LICHTENSTADT,

F. C. SCHOENTHALER.