

W. W. ARNOLD & J. T. McGUIRE.
Drying-Car for Drain-Tiles, Bricks, &c.

No. 207,638.

Patented Sept. 3, 1878.

FIG. 1.

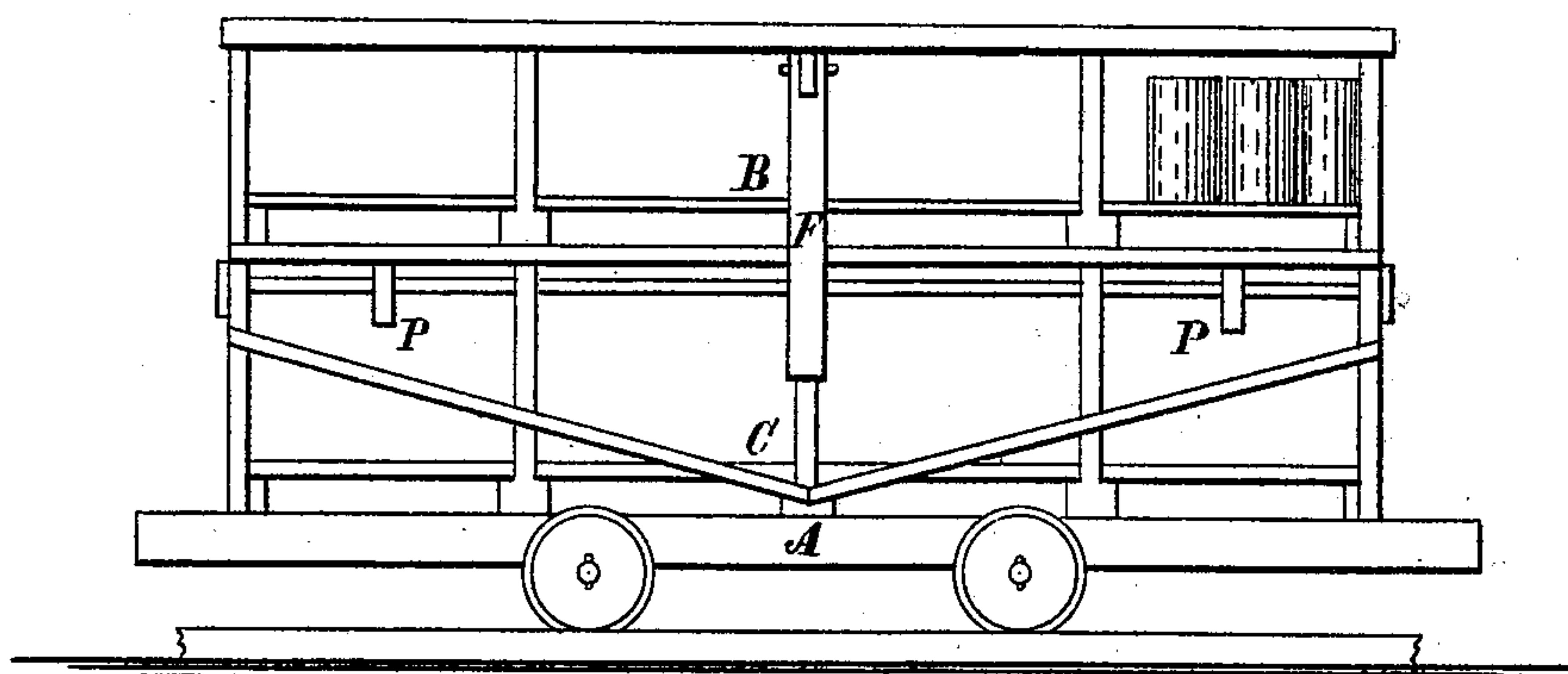


FIG. 2.

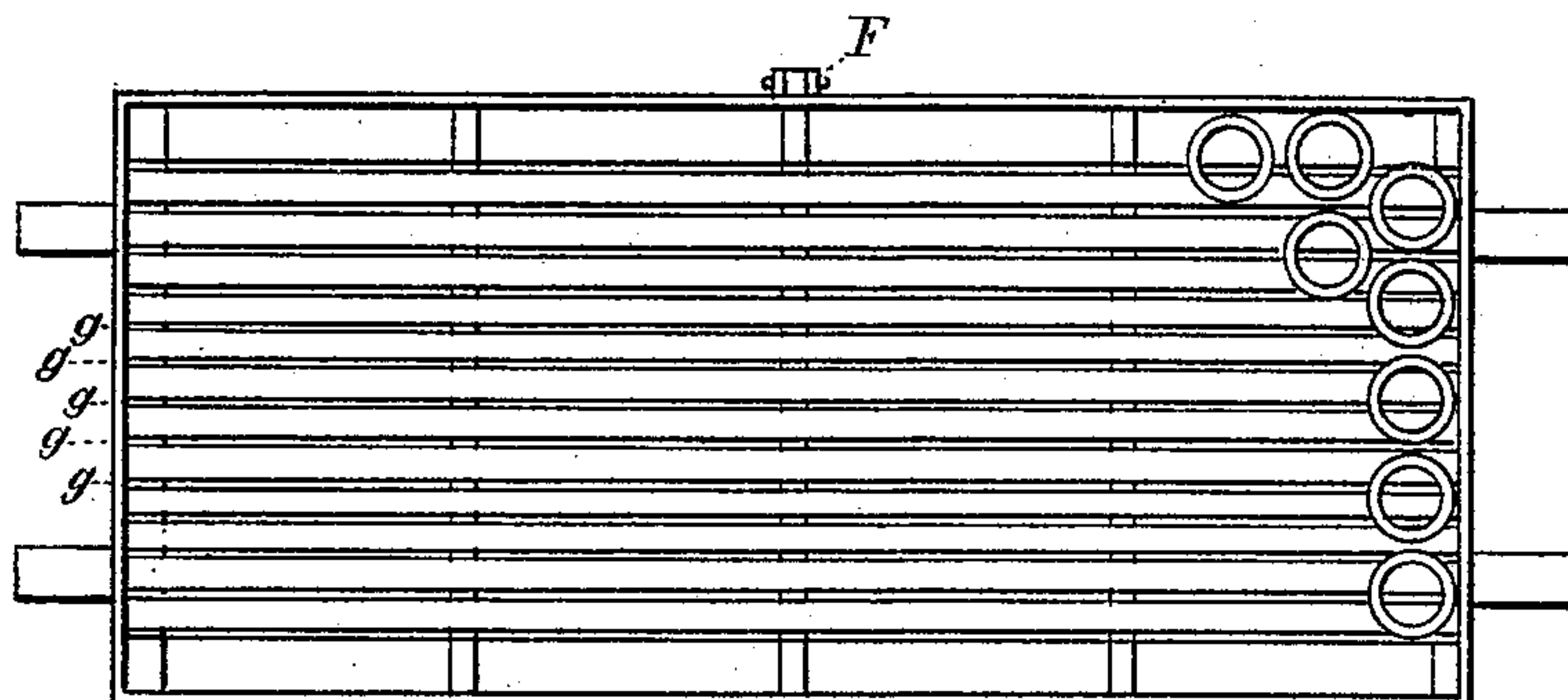
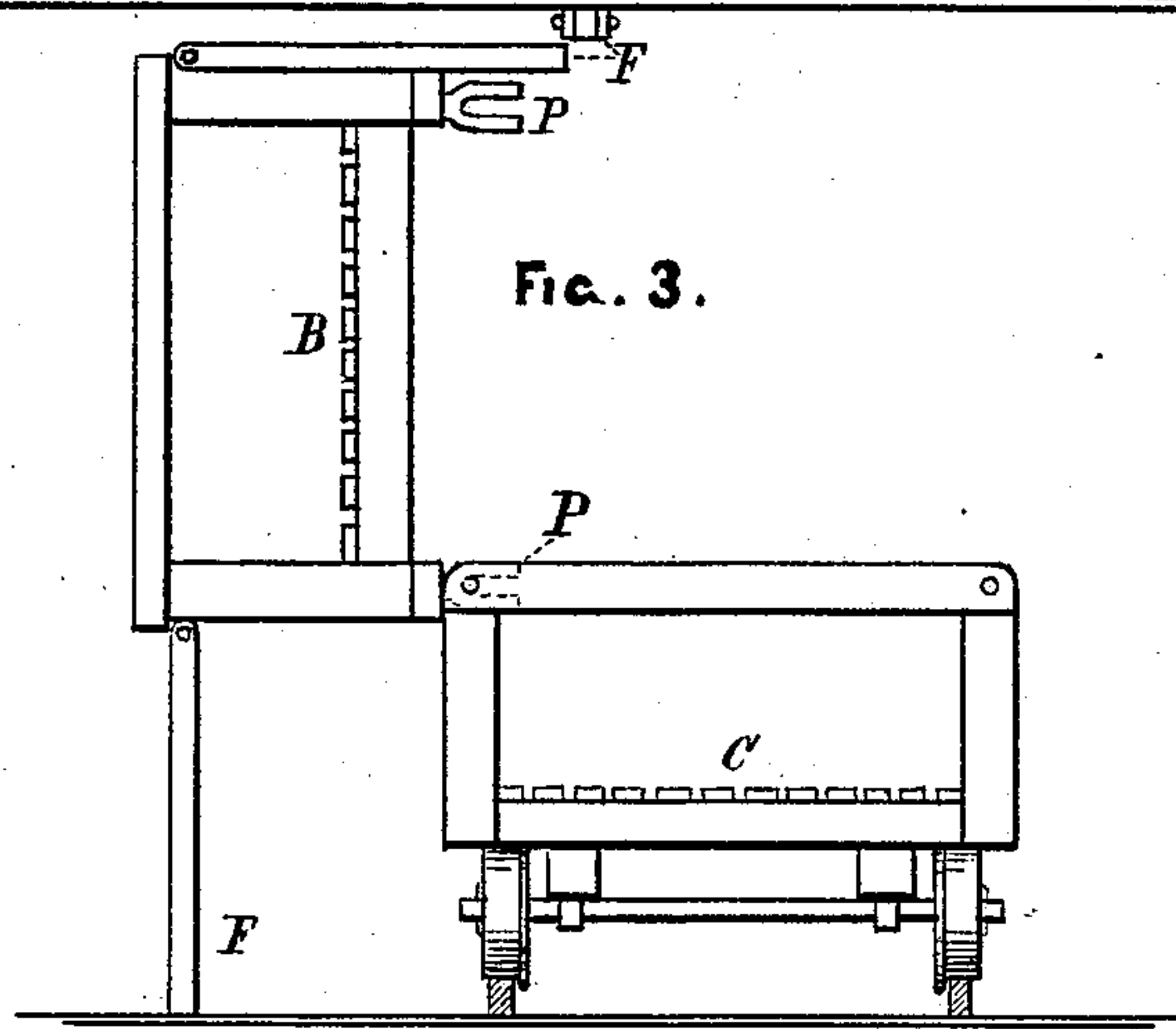


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM W. ARNOLD AND JOHN T. MCGUIRE, OF WHITEHALL, ILLINOIS.

IMPROVEMENT IN DRYING-CARS FOR DRAIN-TILES, BRICKS, &c.

Specification forming part of Letters Patent No. **207,638**, dated September 3, 1878; application filed July 26, 1878.

To all whom it may concern:

Be it known that we, WILLIAM W. ARNOLD and JOHN T. MCGUIRE, of Whitehall, in the county of Green and State of Illinois, have invented a new and Improved Drying-Car for Drain-Tiles; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The invention herein described relates to an improved car designed for drying and carrying in a vertical position drain-tiles preparatory to the kiln-burning process.

Heretofore such cars have been constructed so as to dry the tiles while lying on their sides upon boards placed on a series of racks or shelves, constituting the body of the car. This plan is, however, objectionable, for the following reasons: First, the tiles, being in a plastic state when laid upon the drying-boards, quickly sink into an oval form, and also become more or less flattened at that part of the circumference resting directly upon the board. Second, the tiles lying horizontally necessitates the employment of cars having distances between the shelves adapted to the size of the tiles. Consequently, cars proper for small tiles will not suit those of large diameter. Further, when lying on their sides the tiles are very apt to roll off the car when the latter is moved about from place to place. Through accidents of this kind large numbers of tiles are frequently destroyed, and it is to obviate this as well as the other objections above cited that our improved car, fully described hereinafter, has been devised and constructed to carry the tiles on end, and thus prevent the distortion of form and flattening of the sides already alluded to; and further, as the decks upon which the tiles are placed have a space between them sufficient to admit the longest tile when standing on end, our car is adapted to all sizes without alteration, the tiles being placed upon the decks as close together as they will stand, and the whole surrounded by a rail, as shown in the accompanying drawings. The effect of this mode of construction, as compared with that of the cars usually em-

ployed, is to secure perfect safety against accident from tiles rolling off, to preserve the form of the tiles while in their plastic state, and at the same time to afford improved facility for loading and unloading.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a side elevation of our car. Fig. 2 is a plan view of the same; and Fig. 3 is an end elevation, showing the upper deck turned to the vertical position.

In Fig. 1, A represents the car-frame, supported upon wheels, and to this frame is secured the lower deck, C, of the car, preferably, but not necessarily, made of narrow slats, secured longitudinally to the frame of the car, and having openings *g g*, Fig. 2, left between them, as shown in the drawing, the object of said openings being to admit a current of air upward through the interior and around the outside of the tiles, in order to hasten the process of drying.

B, Fig. 1, represents the upper deck, which in construction is similar to the lower one, and is supported and retained in position by means of bifurcated studs P P, which engage with and rest upon the top bars of the sides of the lower deck. At the middle and near the top rail on each side of the upper deck is hinged a prop, F, the use of which is to support the upper deck when turned in the vertical position while loading the car, as shown in Fig. 3.

The operation of the device is as follows: The car is run in alongside the tile-press, and the upper deck turned to the vertical position. The prop F then falls from the side of the car, its lower end resting on the ground, thus automatically providing a support for the upper deck while the lower one is being loaded. When the lower deck is full the upper one is turned down and similarly loaded, the tiles being set on end and packed together, as shown in Figs. 1 and 2. The car is then removed to the drying-shed, where it remains until the tiles are sufficiently dry for burning.

We are aware that cars for drying purposes are already in use, and therefore do not broadly claim a drying-car, but only those features by

which it is specially adapted for drying drain-tiles, which at the present time are made much larger, and are consequently more difficult to handle in their plastic state, than those formerly made, and for which the cars heretofore in use are ill adapted.

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

1. In a drying-car for drain-tiles, the upper deck supported upon the sides of the lower one by means of bifurcated studs P P, adapted to straddle the top bars of the sides of the lower deck, so as to admit of the upper deck

being turned to a vertical position on either side of the car, substantially in the manner and for the purpose herein set forth.

2. In combination with the upper movable deck, the side props F, substantially as and for the purpose described.

This specification signed and witnessed this 18th day of July, 1878.

WILLIAM W. ARNOLD.

JOHN T. McGUIRE.

Witnesses:

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EDWARD NORTH.