

W. L. DRAKE.

Improvement in the Manufacture of Bricks and Tiles.

No. 129,113.

Patented July 16, 1872.

Fig 1

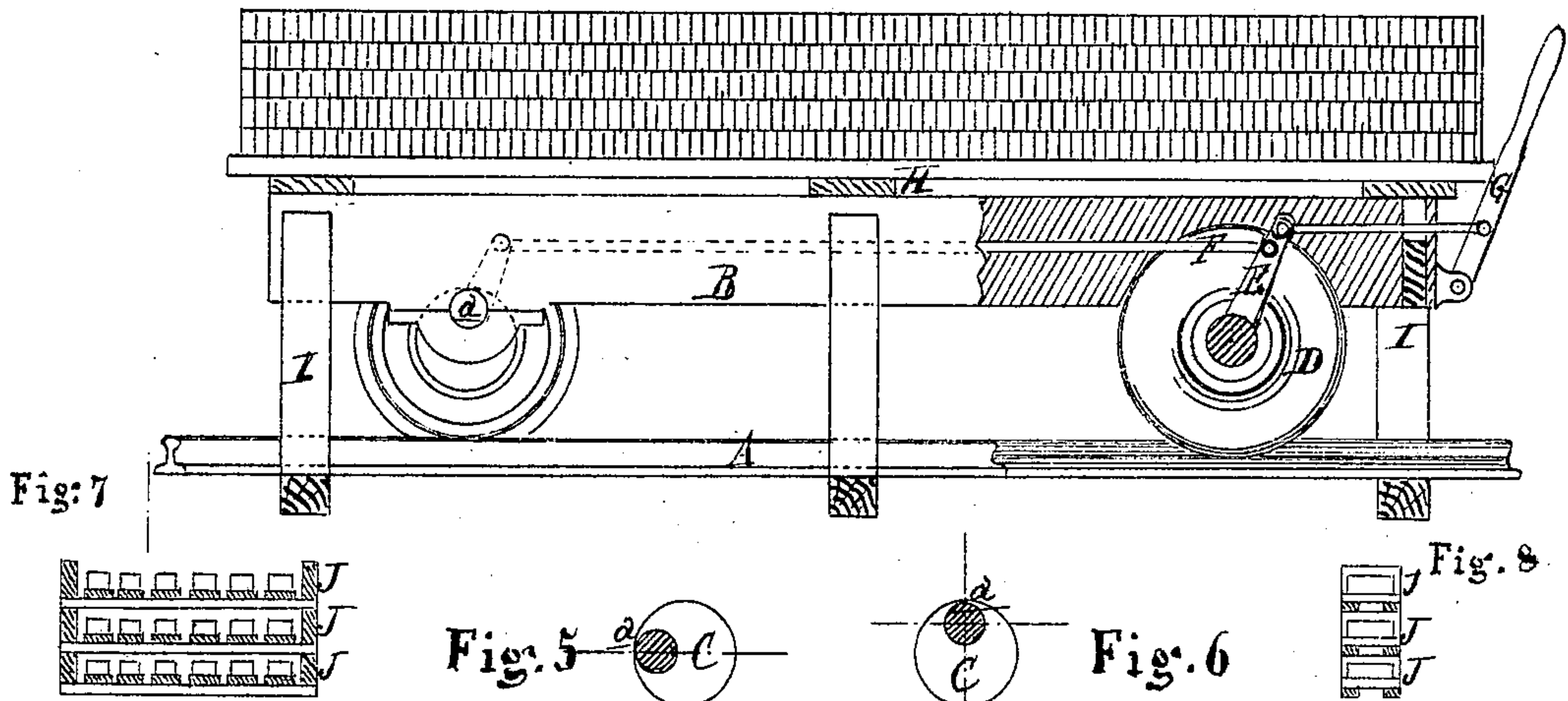


Fig. 2

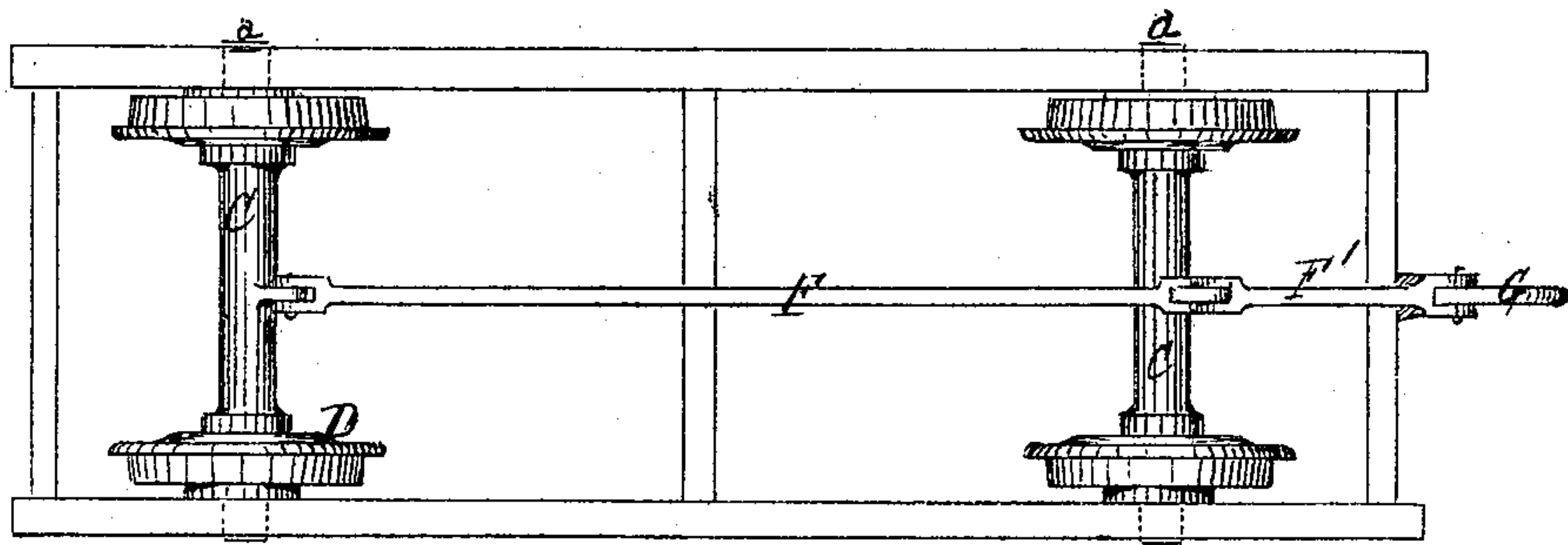


Fig. 3

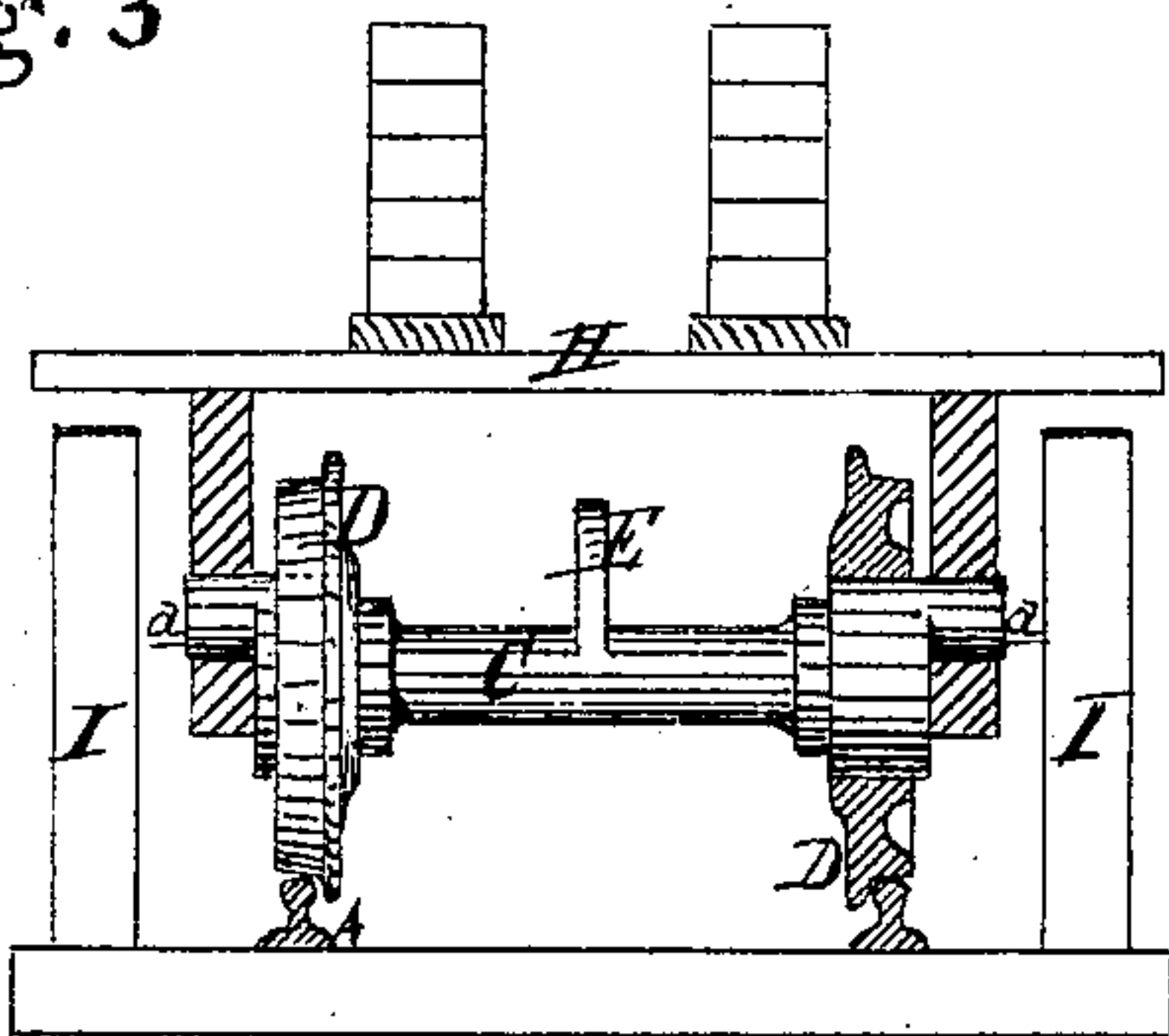
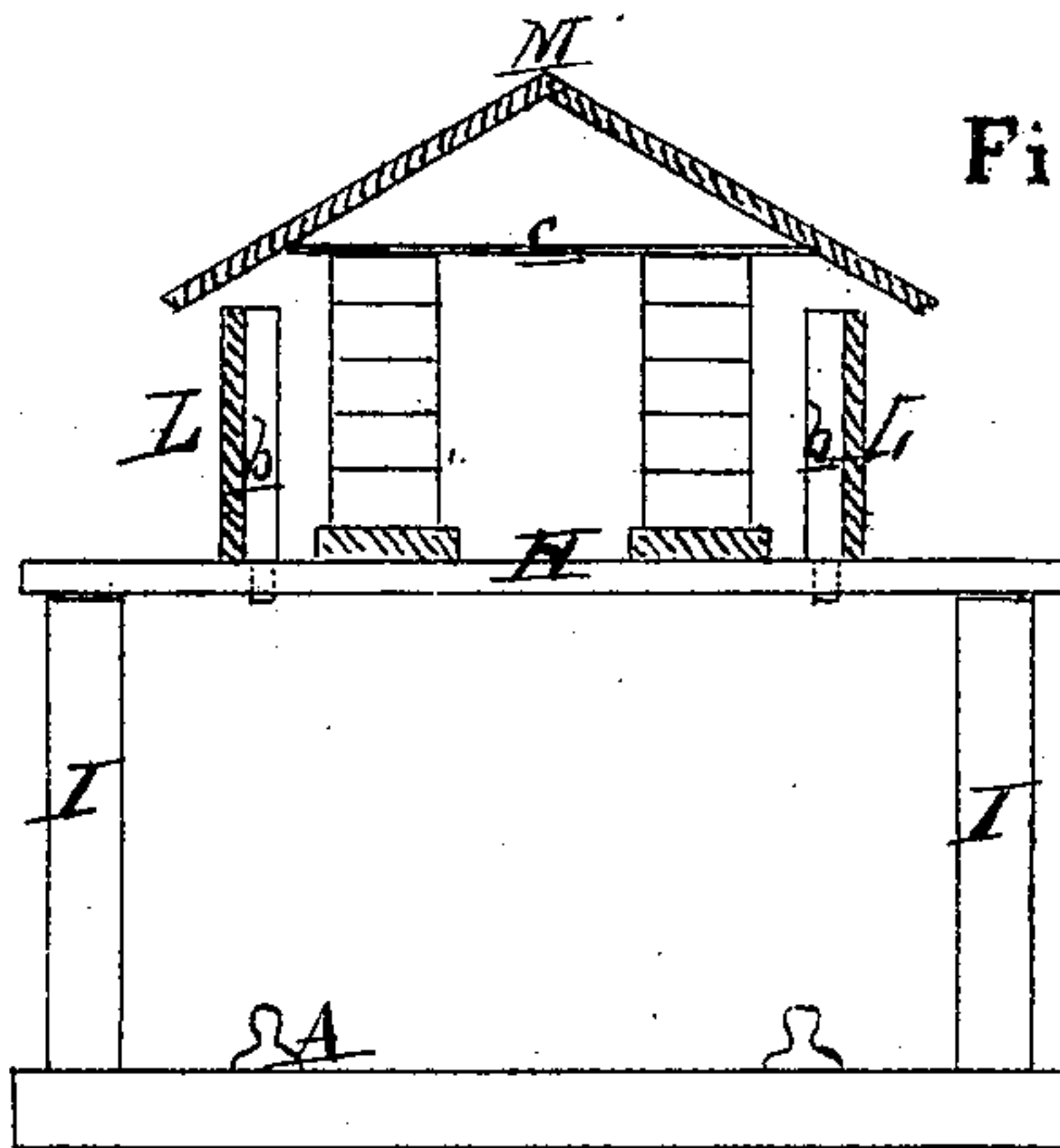


Fig. 4



Witnesses:

*Julius W. Lutz*  
*Wm H. Lotz*

Inventor:

*Wm L. Drake*

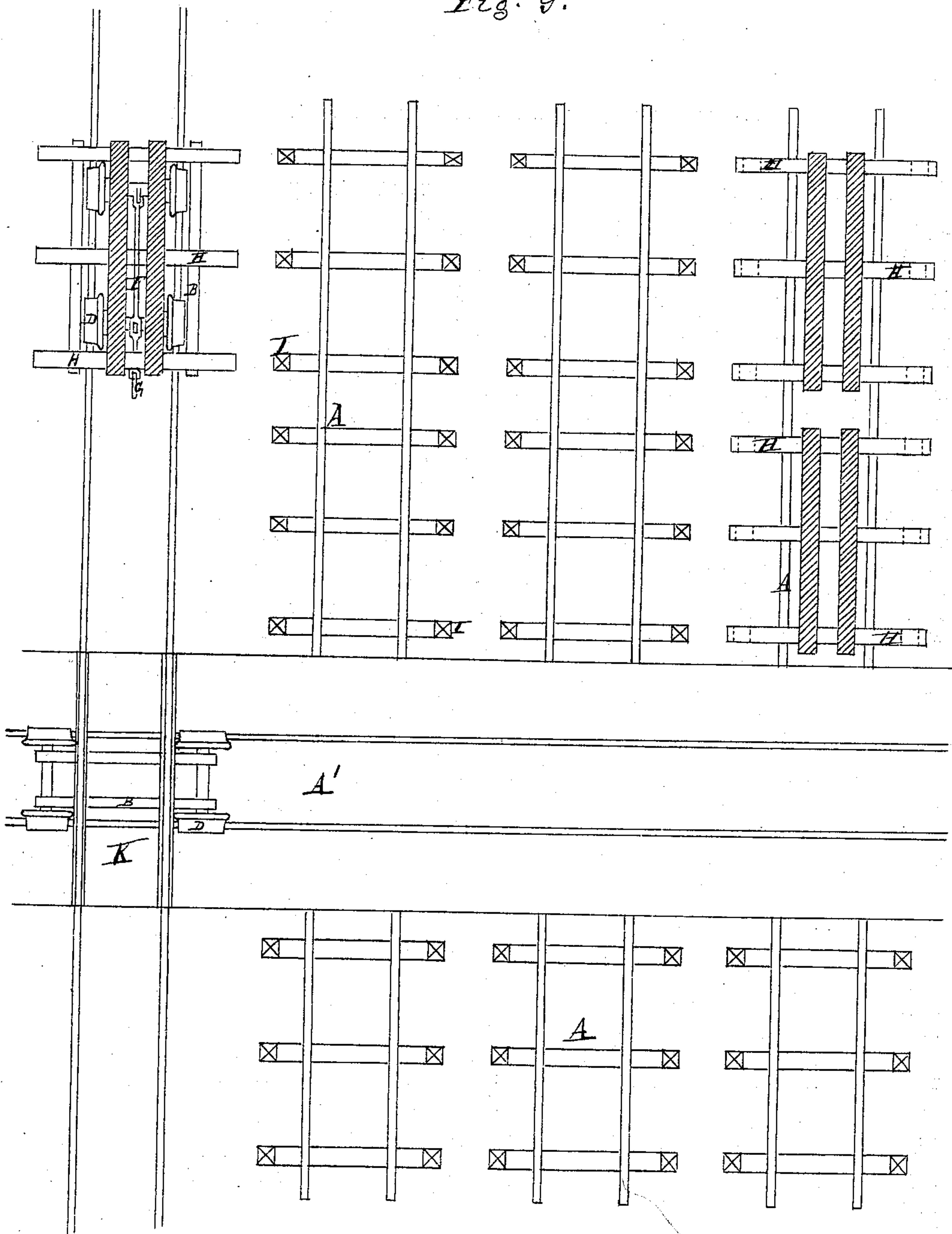
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Fig. 9.



Witnesses:

Julius Wilek  
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Inventor:

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# UNITED STATES PATENT OFFICE.

WEAR L. DRAKE, OF EVANSTON, ILLINOIS.

## IMPROVEMENT IN MANUFACTURE OF BRICKS AND TILES.

Specification forming part of Letters Patent No. 129,113, dated July 16, 1872.

*To whom it may concern:*

Be it known that I, WEAR L. DRAKE, of Evanston, in the county of Cook and State of Illinois, have invented a new and useful Improvement in a Process and Machinery for Handling Brick and Tiles; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1, Sheet 1, is a sectional side elevation of my car, loaded. Fig. 2 is a plan of the empty car. Fig. 3 is a sectional end elevation of Fig. 1. Fig. 4 is a sectional end elevation of a detached car-platform with its load of green brick resting upon the track-standards and covered to protect the brick from the weather. Figs. 5 and 6 are detached end elevations of the eccentric axles in their different positions, showing their wrist-pins in cross-section. Figs. 7 and 8 are, respectively, longitudinal and cross-sections through a tier of pallets with their loads of green brick. Fig. 9, Sheet 2, is a plan showing the general arrangement of my yard, wherein, by means of two of my cars and a transfer-table, I can shift my loaded car to any track and leave its platform resting upon the standards placed at the sides of the tracks.

Like letters refer to like parts in each figure.

The nature of this invention relates to an improved process and means for handling green brick and tile, whereby the bricks do not require to be handled from the time they leave the machine until stacked in the kiln unless they are subjected to a re-pressing when half dried, whereby large quantities of material can be handled with celerity at a very small cost. The invention consists, first, in the peculiar construction of a four-wheel car in such a manner that the plane of its frame may be quickly raised or lowered; second, in connection with said car, a detachable platform-frame, on which are piled the brick-pallets of the peculiar construction hereinafter described; third, in connection with the car provided with such detachable platform, the arrangement of standards at the sides of the tracks to receive the said platforms when loaded; and, fourth, in the general arrange-

ment of the yard, as more fully hereinafter set forth.

In the drawing, A represents sections of railway track, either permanent or portable in character, laid on the yard, as shown in Fig. 2. B is my car, being a simple frame, in which are journaled the two axles C, whose journals are wrists, *a*, eccentrically disposed at each end. The wheels D revolve upon the axles, to each of which there is secured a lever, E, about the centers of their length, coupled together at their upper ends by a connecting-rod, F. A second rod, F', connected thereto and to a lever, G, pivoted at one end of the car-frame, enables an attendant to partially rotate the axles in unison and thereby raise or lower the plane of the car-frame. H is an open frame resting upon the car-frame in the manner of a detachable platform, and is composed of a longitudinal stringer at each side resting upon three cross-timbers, whose ends project beyond the sides of the car-frame. I are standards erected on the cross-ties of the tracks at such intervals apart and of such height that when the axles of the car are turned in the position shown in Figs. 1, 2, 3, and 6 the car may be run along the tracks between said standards and have its platform H just clear their tops. By partially rotating the axles by means of the lever G to the position shown in Fig. 5 the plane of the car-frame will be lowered, leaving the platform H resting upon said standards, as shown in Fig. 4, when the car may be removed. J are my pallets, being composed of a pair of sills just long enough to reach across the platform-frame H. To these sills are secured transverse slats, each of which supports a green brick, haked thereon, with a cross-piece at each end high enough to support another pallet clear of the brick. A sunken track, A', may be arranged across the ends of the spur-tracks A, or between them, on which travels a transfer-table, K, to transfer my car to any one of the said spur-tracks, as shown in Fig. 9.

The operation of my improvement is as follows: An empty car and platform are run up to the machine, from which the bricks as made are haked upon the pallets by two boys, who deposit the pallets upon the frame, piling them in tiers three high. The car so loaded is pushed



by them down the main track and onto the transfer-table, which latter is moved along until the selected spur-track is reached, on which the car is then run. The car is stopped so that the cross-pieces of the platform are directly over the standards, on which they are then lowered by lowering the car-frame, in the manner hereinbefore described, when the empty car may be run back to the machine. The brick thus haked are allowed to dry until ready for burning, when they may be transferred to the kiln in the same manner unless it is desired to make pressed brick, in which case I run a portable brick-press along the tracks and re-press the partially-dried bricks in the usual manner, haking them again upon the platform after pressing.

With two cars I can handle from twenty to thirty thousand brick per day, with one hundred thousand at a time drying upon the yard.

In order to make provision against the effects of bad weather for each car-load of bricks haked, I use two boards and a cover to shelter them, the operation of which is fully shown in Fig. 4, in which L L are two side boards nailed to two or three stakes, *b*, whose lower projecting ends are received in sockets in the cross-pieces of the platform-frame to support the said boards in a vertical position. M is the roof or cover formed of two boards nailed together

by their edges in an obtuse angle and connected by internal girts *c*, which rest upon the hake. This shelter being light may be quickly placed in position on the approach of a storm, and is readily removed.

From the peculiar construction of the pallets it is evident that the soft brick will retain their shape and dry much quicker than when piled on top of one another, as in the ordinary manner of haking. My car is also adapted to moving articles of like character in factories and store-houses.

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

1. The construction and arrangement of the frame B, axles C provided with eccentric wrists *a* and arms E, the connecting-rods F F' and lever G or their equivalents, substantially as described.

2. The detachable platform-frame H, in connection with a vertically-adjustable car-body, and the standards I at the sides of the track, as and for the purpose set forth.

3. The arrangement of the cars, tracks, transfer-table, and supporting standards in a brick-yard, substantially as shown in Fig. 9.

WEAR L. DRAKE.

Witnesses:

WM. H. LOTZ,  
JULIUS WELCH.