

No. 849,160.

PATENTED APR. 2, 1907.

A. A. PAULY.
WET STONE CAR.
APPLICATION FILED FEB. 20, 1906.

2 SHEETS—SHEET 1.

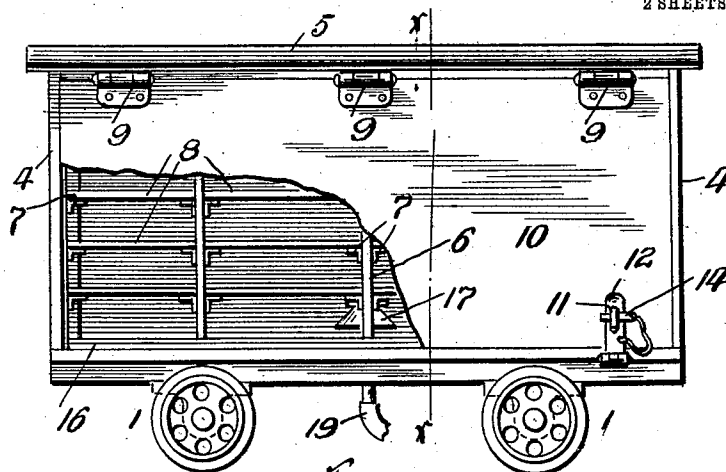


Fig. 1.

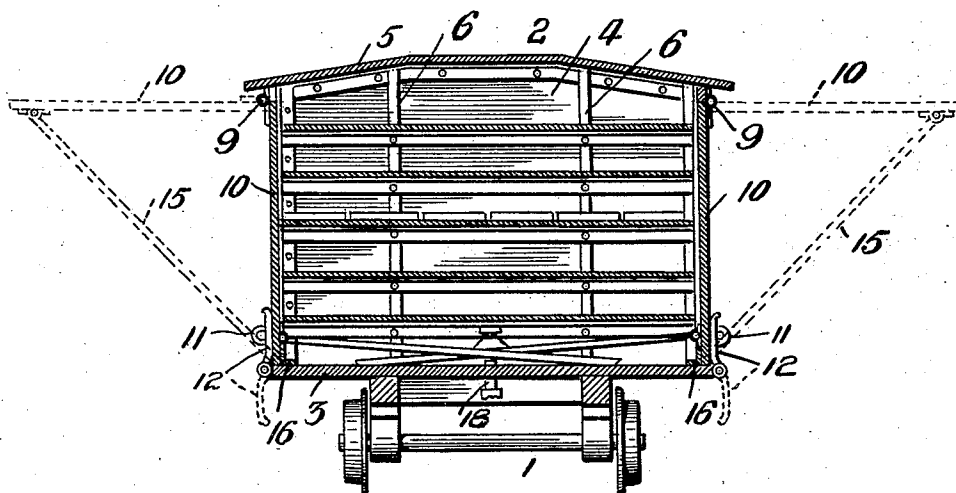


Fig. 2.

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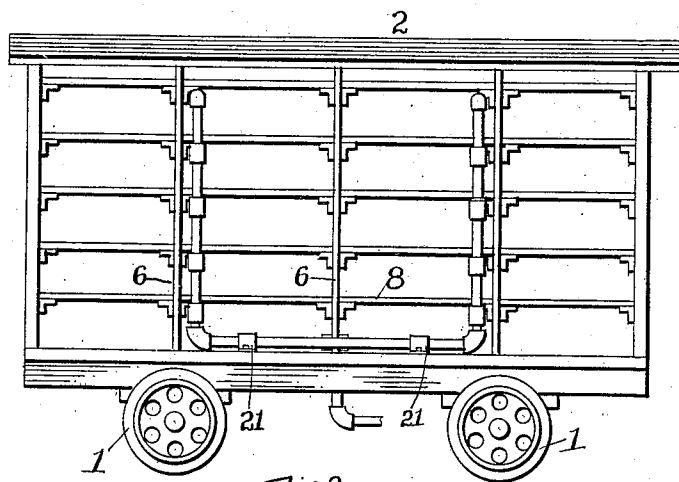


Fig. 3.

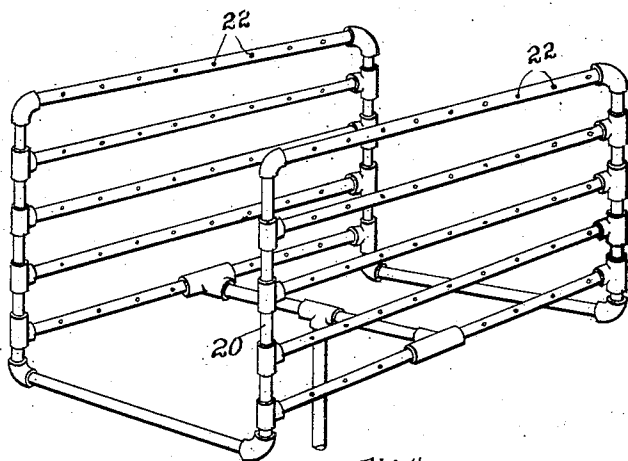


Fig. 4.

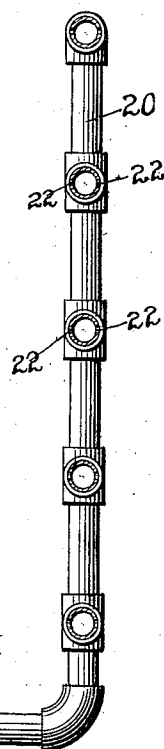


Fig. 5.

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UNITED STATES PATENT OFFICE.

ALBERT A. PAULY, OF YOUNGSTOWN, OHIO.

WET-STONE CAR.

No. 849,160.

Specification of Letters Patent.

Patented April 2, 1907.

Original applications filed January 22, 1906, Serial Nos. 297,167 and 297,168. Divided and this application filed February 20, 1906.
Serial No. 302,112.

To all whom it may concern:

Be it known that I, ALBERT A. PAULY, a citizen of the United States of America, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Wet-Stone Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in cars, and the invention relates more particularly to cars adapted to be used in the manufacture of artificial building blocks or stones made from concrete or like plastic material.

The primary object of my invention is to provide cars adapted for utilization in the hardening and seasoning of concrete building-blocks.

In the manufacture of concrete building blocks or stones considerable trouble has been experienced in properly hardening and seasoning the same, whereby they will have sufficient waterproof qualifications for all practical building purposes.

My invention aims to provide cars, which I have termed "wet-stone" cars, for hardening and seasoning artificial stones and blocks made from a plastic material, and in this connection I have devised novel means for treating and subjecting an entire car-load of blocks or stones to steam, preferably wet steam. The cars employed for this purpose are constructed to form an air-tight chamber, to which steam is admitted from a boiler or suitable pipe-line, and I have found by experience that a large number of blocks or stones when subjected to the action of wet steam for a short period of time are thoroughly hardened and seasoned and have sufficient waterproof qualifications to withstand the forces of nature for a long period of time.

The present invention represents a division in my application filed January 22, 1906, Serial No. 297,167, and patented May 29, 1906, No. 822,013, said application being for an apparatus for forming artificial-stone building-blocks.

The invention will be hereinafter more fully described in detail, and reference will now be had to the drawings accompanying this application, wherein like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of one of my improved cars, one of the doors thereof being partly broken away. Fig. 2 is a cross-sectional view taken on the line *x x* of Fig. 1, illustrating the doors thereof in an open position in dotted lines. Fig. 3 is a side elevation of a car, illustrating a slightly-modified form of construction; and Fig. 4 is a perspective view of a portion of a frame of tubing or pipes erected in the car illustrated in Fig. 3 of the drawings. Fig. 5 is a vertical sectional view through one of the series of perforated pipes shown in Fig. 4, the end connecting-pipe being broken away.

To put my invention into practice, I use trucks 11 of a conventional form, upon which the body 2 of my improved car is mounted. The body of the car consists of a floor 3, ends 4 4, and a roof 5. Between the floor and the roof of the car are arranged a plurality of uprights 6 6, said uprights, together with the ends 4 4 of the car, being provided with a plurality of equally-spaced angle-irons or brackets 7, adapted to support shelvings 8, which may be constructed of plates or lattice-work capable of sustaining a considerable weight.

Hinged, as at 9 9, to the longitudinal edges of the roof are doors 10 10, said doors being adapted to inclose the sides of the car and form an air-tight compartment therein. The lower edges of the doors are provided with staples 11 11, adapted to be engaged by hasps 12, whereby the doors can be locked in a closed position by pins 14. However, I do not care to confine myself to the means employed for locking the doors in a closed position, as an ordinary lock or clasp may be employed.

To retain the doors 10 10 in an open position, as illustrated in dotted lines, Fig. 2 of the drawings, the lower inner edges of the doors are provided with pivoted bars 15 15, adapted to lie within the car beneath the lowermost shelving when the doors are closed, but when open are adapted to support the doors by resting against longitudinally-disposed angle-irons 16 16, arranged upon the floor 3 of the car adjacent to the longitudinal edges thereof, as clearly illustrated in Fig. 2 of the drawings.

A cone-shaped deflector 17 is arranged centrally of the car and is carried by the lowermost shelving of said car. Extending up—

wardly through the bottom of the car in close proximity to the deflector is a steam-inlet pipe 18, the lower end of which carries a hose or flexible connection 19, whereby it can
5 be connected to a pipe-line supplied with steam from a suitable boiler, it being not necessary to illustrate the two last-mentioned elements.

In Figs. 3 and 4 of the drawings I have
10 illustrated a slightly-modified construction wherein a rectangular frame of tubing or piping 20 is mounted within the car and supported by brackets or cleats 21 21, carried by
15 the bottom of the car. This frame of tubing or pipes is used to thoroughly distribute the wet steam throughout the car and between the various shelves thereof, whereby freshly-formed concrete blocks or stones carried by the shelves will be thoroughly impregnated
20 with the steam and hardened and seasoned in a short period of time. The frame of tubing or piping 20 is provided with a plurality of apertures 22, which are formed to project the steam passing into the frame to the center of
25 a car, thereby insuring a positive distribution of the steam throughout the entire compartment of the car.

As described in one of the above-mentioned applications, particularly the process
30 of manufacturing artificial-stone building-blocks, Serial No. 297,168, the cars are loaded with freshly-molded stones or blocks and are closed and moved into a suitable building, where their connections 19 are connected
35 to pipe-lines arranged between the tracks upon which the cars travel. The pipe-lines

are supplied with wet steam from a suitable boiler, and the interior of the cars are subjected to the action of steam until the blocks or stones contained within them are thoroughly
40 hardened and seasoned and have waterproof qualifications which permit them to be used for practically all building purposes.

From the foregoing it will be observed that my invention in its broadest aspect embodies
45 a car for seasoning and hardening concrete blocks or stones, and in this connection I do not care to confine myself to any specific type of car otherwise than a tight compartment in which stones or blocks may be placed
50 and subjected to the action of steam. In lieu of steam I may use water or a similar liquid for thoroughly seasoning blocks placed in my improved cars.

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

A car of the type described comprising a body, shelving arranged within said body, a steam connection carried by said body for conveying steam to the interior thereof, a
60 rectangular framing of perforated pipes supported on the bottom of the car, said framing being in communication with said steam connection and arranged that one or more of the perforated pipes lie directly underneath each
65 shelf in the car, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

ALBERT A. PAULY.

Witnesses:

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