(No Model.)

G. LIVINGSTON & A. A. SPENNY.

LUBRICATING CARRIAGE FOR TILE MACHINES.

No. 379,795. Patented Mar. 20, 1888.

Fig. 1.

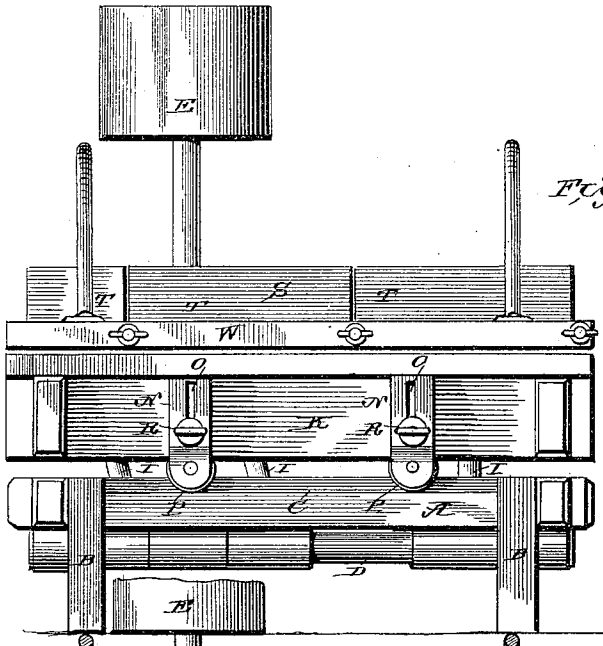


Fig. 3.

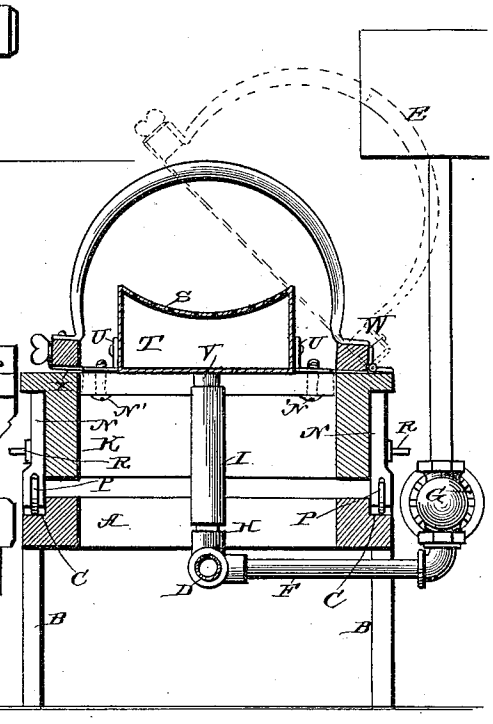
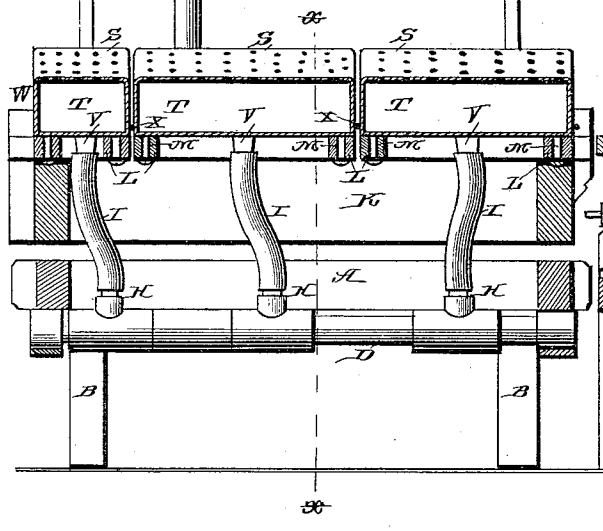


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE LIVINGSTON AND ADAM A. SPENNY, OF OSKALOOSA, IOWA.

LUBRICATING-CARRIAGE FOR TILE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 379,795, dated March 20, 1888.

Application filed June 3, 1887. Serial No. 240,186. (No model.)

To all whom it may concern:

Be it known that we, GEORGE LIVINGSTON and ADAM A. SPENNY, citizens of the United States, residing at Oskaloosa, in the county of Mahaska and State of Iowa, have invented a new and useful Improvement in Self-Lubricating Carriages, of which the following is a specification.

Our invention relates to an improvement in self-lubricating carriages for tile and brick machines; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

The object of our invention is to provide a tile and brick machine carriage with devices to lubricate the green tiles or bricks as they move over the carriage, and thereby prevent them from sticking to the carriage and causing their surfaces to be roughened, thus destroying the gloss and rendering the tiles and bricks liable to crack in drying and burning.

In the accompanying drawings, Figure 1 is a side elevation of a lubricating-carriage embodying our improvements. Fig. 2 is a vertical longitudinal central sectional view of the same. Fig. 3 is a vertical transverse section of the same, taken on the line *x x* of Fig. 2.

A represents the rectangular supporting-frame, which is provided at its corners with depending supporting feet or standards B. On the outer side of the frame A are formed longitudinal tracks C.

D represents a water-pipe, which extends longitudinally under the frame A at the center thereof; and E represents a tank or reservoir, which is elevated above the frame A and is connected to the pipe D by means of a pipe, F. The said pipe F is provided with a stop-cock, G.

From the upper side of the pipe D, at suitable distances apart, project vertical nozzles H, to which are connected the lower ends of flexible tubes I.

K represents the carriage, which is rectangular in shape, as shown, and is provided on its upper side with a series of cross-bars, L, which are arranged at suitable distance apart, and are provided with slots M.

N represents vertical standards, which are provided with vertical slots O. The said standards have bearing wheels or rollers P, journaled in their lower ends and adapted to bear upon the track C.

R represents clamping-bolts, which extend through the slots O and enter the sides of the carriage K, and thereby secure the standards to the said carriage and permit the standards to be vertically adjusted on the carriage, and thus enable the carriage to be raised or lowered, as will be readily understood.

On the upper side of the carriage is the slide S, which constitutes a number of separate divisions or sections, T, which are arranged in line with each other and have their ends separated by a narrow space, as shown. These slide-sections are each made of metal or other preferred material, and are hollowed, and their upper sides are adapted to the shape of the bricks or tiles which move over them.

The machine illustrated in the accompanying drawings is adapted for use in making tiles, and the slide-sections T have their upper sides concave, as shown, and perforated. The upper sides of the slide-sections may be made of perforated sheet metal, or they may be composed of cloth or other suitable material adapted to let water pass through under pressure. These slide-sections are provided at their corners with upwardly-extending ears U, which bear upon the cross-bars L, and clamping-bolts N′ extend upward through the slots in the cross-bar and engage threaded openings in the ears U, and thus clamp the slide-sections on the cross-bars and permit the same to be laterally adjusted thereon.

It will be readily understood from the foregoing that the slide-sections are removable from the carriage, and may be exchanged for others of varying sizes, and thus the machine is adapted to be used in connection with machines for making tiles and bricks of various shapes and sizes. Each of the slide-sections T is provided on its lower side with a depending nozzle or tube, V, and the upper ends of the flexible tubes I are attached to the said nozzles or tubes.

W represents the usual rocking frame, which is hinged to one side of the carriage, and is provided with cross-wires X, which are

adapted to pass through the spaces between the opposing ends of the slide-sections T when the rocking frame is lowered, and thereby cut the green tiles on the said slide-sections into sections of suitable length.

The operation of our invention is as follows: The tank is filled with water, stop-cock is opened, and water flows into the pipe D, up through the flexible tubes I, and into the slide-sections T. As the green tiles or bricks move over the slide-sections from the tile or brick machine, the water oozes through the openings or perforations in the upper sides of the tile sections, thereby wetting the same, and thus lubricating the under sides of the tiles or bricks and enabling them to move over the slides without a tendency to adhere thereto, and thus cause their surfaces to be roughened and the glaze to be injured or destroyed.

Having thus described our invention, we claim—

1. In a carriage for tile and brick machines, the hollow slide-sections T, having the perforated upper sides, and the pipes to convey water under pressure to the interiors of the said slide-sections, whereby the water will pass through the perforations and lubricate the upper sides of the slide-sections, for the purpose set forth, substantially as described.

2. The combination of the frame A, having the track C and the water-pipe D, the carriage having wheels or rollers bearing on the track C, the slide-sections arranged on the said carriage, the said slide-sections being hollowed and having perforated upper sides, and the flexible tubes I, connecting the slide-sections with the water-pipe D, for the purpose set forth, substantially as described.

3. The combination of the carriage, the hollow slide-sections adjusted laterally thereon and having the perforated upper sides, and the flexible pipes connected to the said slide-sections, to convey water to the interiors thereof, substantially as described.

4. The combination of the frame A, having the track C, the carriage having the vertically-adjustable standards provided with the wheels or rollers bearing on the track, the hollow slide-sections supported on the carriage and having the perforated upper sides, the pipe D, attached to the frame and communicating with a reservoir or other source of water, and the flexible pipes I, connecting the said pipe D with the hollow slide-sections, to introduce water to the interiors thereof, substantially as described.

5. The combination of the carriage having the hollow slide-sections, arranged end to end and at a slight distance from each other, said slide-sections having the perforated upper sides, means to convey water to the interiors of the said sections, for the purpose set forth, and the rocking frame hinged to one side of the carriage, and having the cross-wires X, adapted to pass through the spaces between the opposing ends of the slide-sections, substantially as described.

6. In a lubricating-carriage for tile and brick machines, the individual hollow slide-sections T, having the perforated sides mounted on a longitudinally and vertically adjustable carriage, the flexible pipes I, to convey water to the said slide-sections, and the stationarily-mounted water-pipe D, to which the flexible pipes I are connected, for the purpose set forth, substantially as described.

7. In a tile and brick machine, the combination of the stationary frame A, having the track C, the longitudinal and vertically-adjustable carriage K, having the vertically-adjustable slotted standards N secured thereto, provided with wheels or rollers P to bear upon the track C, the hollow perforated slide-sections T, having depending nozzles V, the water-pipe D, having the nozzles H, and the flexible pipes I, connecting the water-pipe D with the hollow tile-sections T, substantially as described.

8. The longitudinal and vertically adjustable carriage W, having the slotted cross-bars L, in combination with the individual hollow perforated slide-sections T, having the ears U bearing on the said cross-bars L, the clamping-bolts extending through the slots in the cross-bars L and through the threaded openings in the ears U, and the flexible water-pipes I, connected with each section T, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

GEORGE LIVINGSTON.
ADAM A. SPENNY.

Witnesses:
W. A. GREER,
S. F. CANNADAY.