(No Model.)

L. EARTH.

MORTAR SPREADER FOR BRICK WORK.

No. 303,501. Patented Aug. 12, 1884.

Fig. 1.

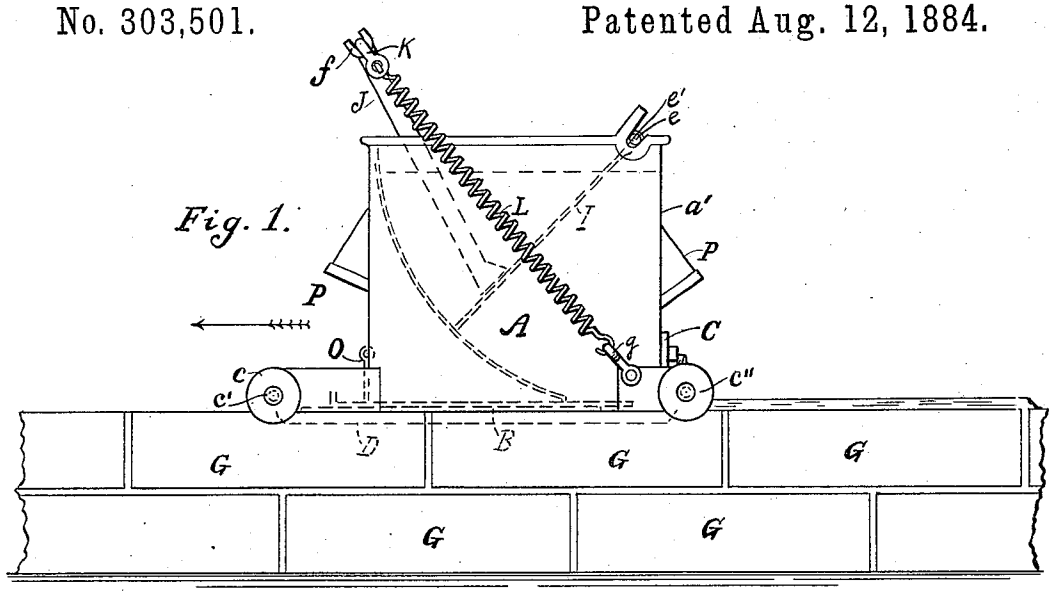
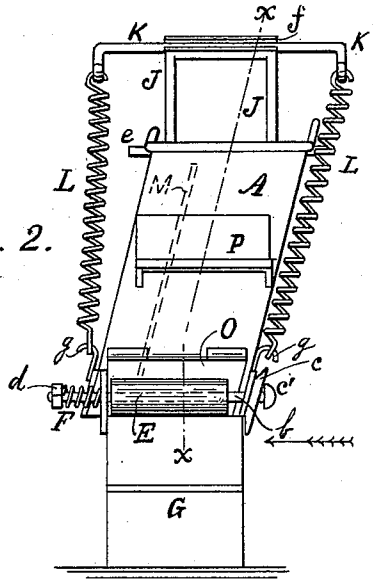


Fig. 2.



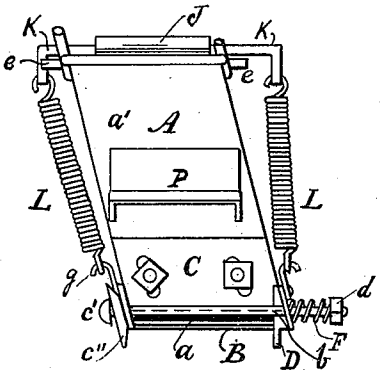
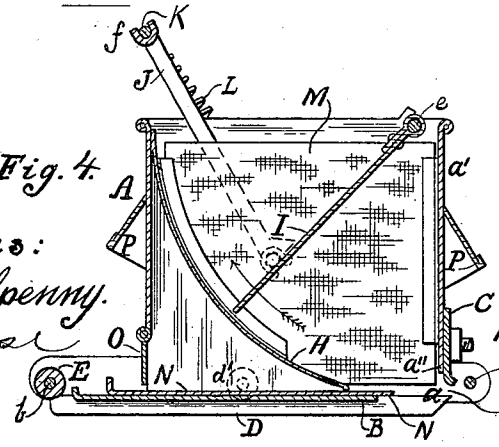


Fig. 3.

Fig. 4.



Witnesses:
J. B. Halpenny.
P. J. Moran

Inventor:
Levi Earth
per F. F. Warner his
Attorney.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

LEVI EARTH, OF CHICAGO, ILLINOIS.

MORTAR-SPREADER FOR BRICK-WORK.

SPECIFICATION forming part of Letters Patent No. 303,501, dated August 12, 1884.

Application filed March 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, LEVI EARTH, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Mortar-Spreaders for Brick-Work, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a side elevation of a mortar-spreader embodying my invention. Fig. 2 is an end view of the forward end of the spreader, showing the presser as raised about half the distance of its movement. Fig. 3 is an end view of the opposite end of the spreader, showing the presser in its lowest position; and Fig. 4 is a section in the plane of the line *x x* of Fig. 2, viewed in the direction indicated by the arrow there shown.

Like letters of reference indicate like parts.

A represents a box-like structure, which I make, by preference, of sheet metal.

B is the bottom of the box A, and *a* is an opening in the bottom at the rear end of the box, and the rear end, *a'*, does not extend down to the plane of the bottom B, as indicated at *a''*, Fig. 4.

C is a vertically adjustable door, slide, or gage applied to the lower part of the end *a'*.

D is a flange depending slightly from the lower outer corner or edge of the box A.

E is a roller turning on an axle, *b*, at the forward part of the spreader. This axle passes freely through its bearings, and has mounted on one end a guide-wheel, *c*, mounted loosely thereon, and retained in place by means of a head or button, *c'*.

F is a spring surrounding the other end of the axle B and arranged between a nut, *d*, thereon, and the bearing in which that end of the axle turns. By this means the wheel *c*, which is beveled on its inner face, as shown, is adapted to yield laterally for the purpose hereinafter explained. I also deem it best to apply a like yielding wheel, *c''*, at the rear inner corner of the box A, as is clearly shown in Figs. 1 and 3.

A spreader constructed in the manner thus far described will be operative for the purposes for which it is intended, and I here may briefly explain the manner in which I use it. For example, G G represent a portion of a brick wall, the inner side or face of which is intended to be represented in Fig. 1. I place the spreader upon the upper layer of brick in such a position that the flange D will overlap the outer side, and the wheels *c* and *c''* the inner side of these bricks, as indicated in Figs. 1 and 2. I then move the spreader along in the direction indicated by the arrow shown in Fig. 1, when the mortar will pass out through the opening *a* and be deposited upon the bricks in that course, it being understood that the box A is first filled or partly filled with mortar, and that the door C is set at a height to regulate the thickness or depth of the mortar so deposited. It will be perceived that the flange D and rollers *c* and *c''* will cause the spreader to move truly upon the course to be spread, and that the said wheels, by being laterally yielding, will adjust themselves to uneven surfaces or small projections. In spreaders of the largest class it may be expedient to employ a central roller, as indicated by the dotted lines at *d'*, Fig. 4; but I do not here intend to be restricted precisely to herein-described means for guiding the spreader.

While it is true that the spreader would be operative when made as now described, and when thin mortar is used, I employ other expedients for rendering it better adapted for thick mortar, and these expedients I will now describe.

H is a curvilineal bottom in the box A, the convexity of this bottom being downward.

I is a presser having spindles *e e* turning freely in open bearings or notches *e' e'* in the upper edges of the box, and near one end thereof. The lower end of the presser I meets or nearly meets the bottom H, and the said presser turns on a center, which is also the center of the curvature of the said bottom.

J is a handle loosely jointed at its lower end to the presser I. The upper end of the handle J is made U-shaped or half tubular, as shown at *f*.

K is a removable rod, lying in the upper end of the handle J, and L L are spiral springs connected to the ends of the said rod, and also to hooks *g g* on the box A.

It will be perceived that the presser I will operate to gradually press out stiff mortar through the opening *a;* but the presser may

either be removed with facility or rendered unyielding, the latter result being attained by simply removing the rod K from its seat, by which means the presser may also be either raised or removed with facility to permit the box to be refilled.

It is a frequent practice to spread colored mortar along the outer edges of the courses, and a common or inexpensive mortar on the remaining portions of the courses. To adapt my spreader to that practice I provide a removable partition, M, for separating these different mortars in the box, and when such a partition is employed I split the presser I so that it will operate upon both kinds of mortar. It may also sometimes be advantageous to regulate the size of the opening *a* otherwise than by means of the slide C, and for that purpose I employ a slide, N, arranged to move on the bottom D.

To admit of access to the box at its forward end I have made there the small door O.

P P are handles to facilitate moving and handling the box.

In the example shown the sides of the box A are represented as inclined with reference to the bottom. I deem this inclination preferable, in order that the horizontal line for gagging or determining the proper position in each course need not be disturbed; but such inclination is not absolutely essential, as the disturbance of the said line may be avoided in other ways. For example, the said line may be arranged or made true for the next course after the mortar has been laid or spread upon each upper course, respectively.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A mortar-spreader for brick-work, consisting of a box-like structure having therein an opening to permit the mortar to pass out from the bottom thereof, and provided with one or more flanges or guides for guiding the spreader on a course of bricks, substantially as and for the purposes set forth.

2. A mortar-spreader consisting of the box A, having thereon a guiding-flange, and having therein the opening *a*, and provided with a vertically-adjustable door or slide, C, arranged as shown with relation to the said opening, substantially as and for the purposes specified.

3. A mortar-spreader consisting of the box A, having therein an opening, *a*, and provided with a roller, E, and an adjustable door, C, substantially as and for the purposes specified.

4. A mortar-spreader consisting of the box A, having therein an opening, *a*, and provided with a roller, E, and with a guiding-flange, and in which are arranged the slides C and N, substantially as shown and described, with relation to each other, substantially as and for the purposes set forth.

5. A mortar-spreader in which are combined the roller E, the fixed flange or guide D, and the laterally-yielding wheels *c c''*, substantially as and for the purposes specified.

6. The combination, in a mortar-spreader, of a box for holding mortar, and having an opening in its bottom, and a yielding presser arranged above the said bottom, substantially as and for the purposes specified.

7. The combination, in a mortar-spreader consisting of a box-like structure having therein an opening, *a*, of the curved bottom H and the yielding presser I, substantially as and for the purposes set forth.

8. The combination, in a mortar-spreader, of the hinged presser I, the handle J, the rod K, the springs L L, and the box for holding the mortar, substantially as and for the purposes set forth.

9. A mortar-spreader consisting of a box-like structure having a removable vertical partition, M, substantially as and for the purposes specified.

In testimony that I claim the foregoing as my own I hereto affix my signature in presence of two witnesses.

LEVI EARTH.

Witnesses:
F. F. WARNER,
J. B. HALPENNY.