I. C. NICHOLS.
Tile-Machine.

No. 209,354. Patented Oct. 29, 1878.

Fig 1

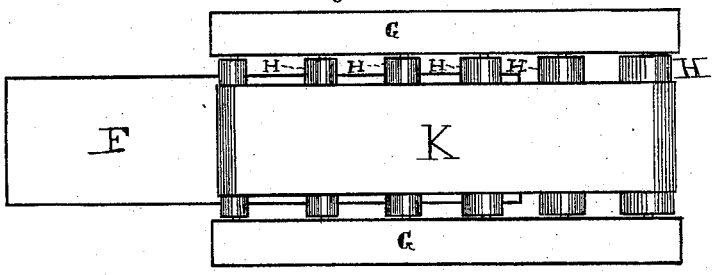


Fig 2

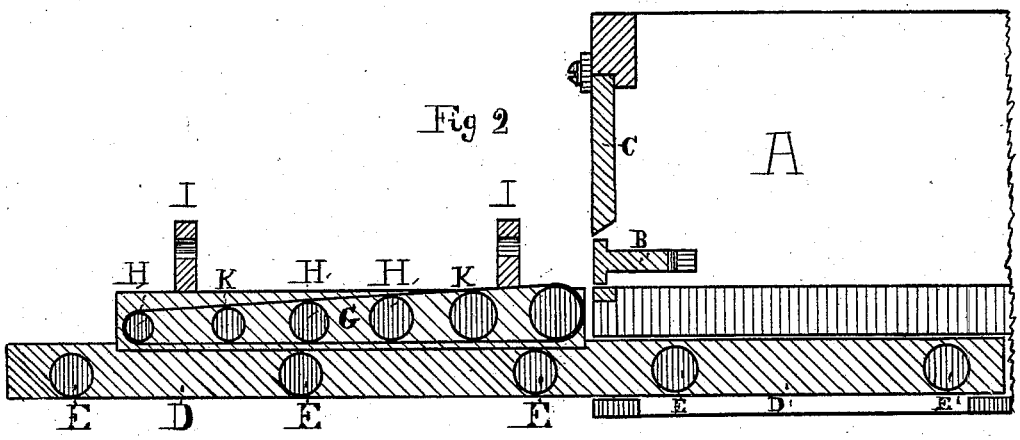
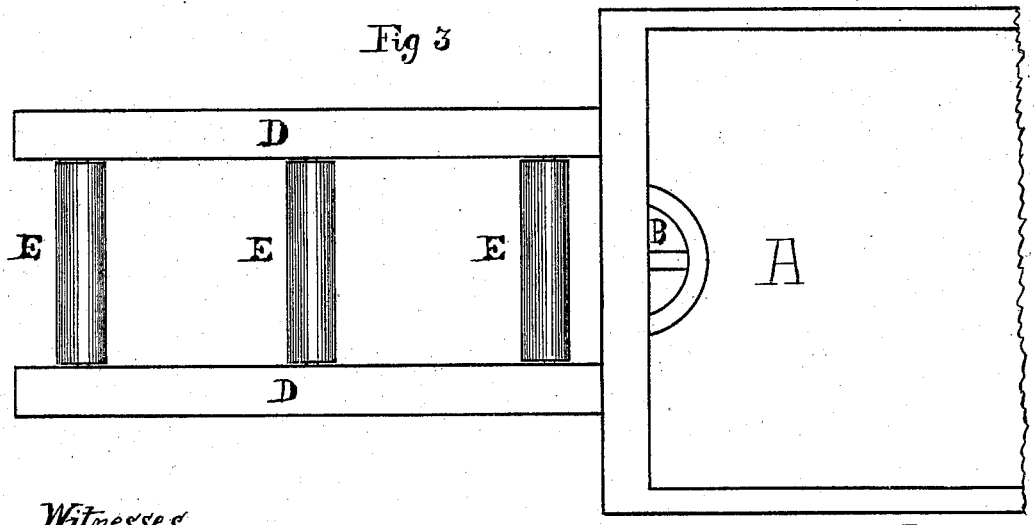


Fig 3



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UNITED STATES PATENT OFFICE.

ISAAC C. NICHOLS, OF WEST LIBERTY, IOWA.

IMPROVEMENT IN TILE-MACHINES.

Specification forming part of Letters Patent No. **209,354**, dated October 29, 1878; application filed September 9, 1878.

To all whom it may concern:

Be it known that I, ISAAC C. NICHOLS, of West Liberty, in the county of Muscatine and State of Iowa, have invented certain Improvements in Board-Delivery to Tile-Machines, of which the following is a specification:

My invention relates to a series of graduated supplementary rollers inclosed by an apron, and operating to deliver the tile upon a board, as hereinafter fully set forth in the specification and claims.

Figure 1 is a plan view of the supplementary rollers and their frame with the apron attached. Fig. 2 is a top or plan view, with the supplementary rollers and apron removed. Fig. 3 is a longitudinal vertical section.

A represents the base of an ordinary tile-machine, with the die B attached to the head C; and D is a bottom frame, upon which the base A is arranged, and has a series of rollers, E E E, attached thereto, which rollers extend back under the base of the machine and sustain the board F, upon which the tile is delivered.

The frame G, Fig. 1, carrying the graduated supplementary rollers H H H, which rollers, in turn, carry the apron K, is placed upon the frame D, carrying the rollers E E E. The series of rollers H gradually become smaller as they recede from the machine, and thus lessen the distance from the apron to the board where the tile is delivered, and thereby decrease the liability of the tile being bent or broken as it descends from the apron to the board.

It will also readily be seen that, as the tile issues from the die B and strikes the apron K, immediately above the largest roller H, next to the machine, the tendency is to retard the motion of the tile as it issues from the die, as the small roller, at the farther end of frame G, must either travel faster than the large roller, next the die, or the apron must slip. The intermediate rollers have a counteracting tendency, thus placing the tile between two opposite forces to a certain extent, to hold it together and prevent it from bending or breaking until it is delivered upon the board F. The frame G is provided with bails or handles I I, by means of which it may be handled conveniently.

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

1. In a tile-machine, the frame D having a series of rollers, E, extending back under the base thereof, in combination with a series of graduated rollers, H, substantially as shown and described, for the purpose specified.

2. In combination with the base A and die B, the graduated supplementary rollers H, for the purpose specified.

3. The frame G, carrying the graduated rollers H and apron K, in combination with frame D and rollers E, substantially as set forth.

4. The frame G, carrying the graduated supplementary rollers H and apron K, in combination with the base A, die B, and board F, substantially as set forth.

5. The combination and arrangement of the frame G, carrying the graduated supplementary rollers H and apron K, with the base A, die B, board F, frame D, and rollers E, substantially as set forth.

ISAAC C. NICHOLS.

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