UNITED STATES PATENT OFFICE.

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MACHINE FOR MAKING IMITATION-TILE FLOORING.


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To all whom it may concern:

Be it known that I, WILLIAM F. WALLING, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Machine for Making Imitation-Tile Flooring, of which the following is a specification.

This invention has reference to machines for making imitation tile flooring and the like, and its object is to produce a floor or like covering in such close imitation to tiling as to be indistinguishable therefrom by observation only.

It is the universal practice to produce what is customarily known as tile flooring by laying upon a suitable prepared surface a layer of small blocks of natural or artificial composition known as tiles, each block being individual, distinct and separate from every other block, and usually of very limited superficial area, say from a few square inches down to less than a square inch in area, and these tiles are customarily of conventional form, either round, triangular, square or hexagonal, and sometimes of other shapes.

The laying of tile flooring as has heretofore been universally practised requires a pronounced degree of skill, the process is slow, and the cost is high. Moreover, even with the employment of highly skilled labor there is no assurance but that some of the tiles will loosen since the cement used as a bed and binder is not strongly adherent to the tiles, and such loosening of the individual tiles is not only productive of annoyance and sometimes of danger, but repairs cannot be made without becoming more or less unsightly.

By the present invention a flooring is produced which even to a close observer is indistinguishable from a flooring made of individual tiles carefully laid and finished, but instead of employing tiles the floor is substantially monolithic or homogeneous throughout the entire area or throughout very large areas where the floor may be too extensive to admit of the finishing of the entire floor at one time as might occur in large buildings of public or semi-public character, or in extensive roadways or plazas.

In carrying out the present invention the surface to be finished is prepared with a cement coating of proper character depending upon the desired final appearance and then this surface is stamped by a suitable tool or form including the outlines of an associated small number of tile patterns and the stamping is continued progressively throughout the entire surface to be treated until there is produced a web of connected grooves covering the whole surface, or a material portion of the surface if too large to be treated at one time, the stamping being done while the surface is still in a sufficiently green condition. By employing a tool having the stamping edges tapering, the tool or pattern will leave the cement without disturbing the walls of the grooves which remain in a condition sensibly true and unbroken. In the preferred form of the invention the cement is then permitted to set until hard enough to withstand the subsequent treatment when the grooves are filled with a material of contrasting color to the color of the surfaces simulating individual tiles, and the filling of the grooves may be performed by brushing over the impressed surface a sufficiently thin cement composition or other like composition, after which the surplus overlying the portion of the surface included between the grooves may be scraped off and the material filled into the grooves permitted to set. Then the whole surface is rubbed down in any suitable manner known in the art of finishing tile flooring, when there is left a smooth surface exhibiting conventional tile shapes throughout with sharp clear cut outlines defined by narrow bands of contrasting material simulating the filling in cement employed between the edges of individually laid tiles and even close observation cannot detect the fact that the floor so produced is practically homogeneous throughout. In such a floor there is no possibility of the loosening of individual tiles, since such do not exist and the inconvenience, danger and unsightliness so often found in tile flooring where the tiles are separate and separately laid is wholly avoided.

A similar effect may be produced by providing the edges of the form with a staining material prior to each stamping operation, so that the walls of the groove formed by the pattern become colored in contrast with the surface being ornamented, whereby the tile effect is closely simulated and the subsequent filling of the grooves is avoided, but ordinarily it is preferred to fill the grooves.
and finish the surface off smooth through- 5 out. Of course when the walls of the gooves are simply stained or colored the surface may be rubbed down as before to avoid any unevenness.

10 The present invention comprises a machine whereby the impressions may be produced with such accuracy that each succeeding impression will continue the preceding impression without break or distortion until the entire area to be operated upon at any one time has been gone over, with the result that the appearance is equal or superior to the appearance of a floor made of individual tiles most carefully laid by a skilled workman. To accomplish the result the machine is so made as to be capable of carrying the pattern over the surface in two directions usually perpendicular one to the other, but always so related that the pattern may be moved progressively in such directions over the surface to be ornamented as to reach every portion thereof without break in the continuity of the impressions produced. To bring about this result the machine is provided with guide and stop members accurately positioning the pattern to continue the impressions without noticeable interruption throughout the area to be ornamented.

15 Actual experience has demonstrated that no particular skill is required and a finished floor equal or superior to the best laid tile floor where individual tiles are used can be produced by unskilled, and, therefore, cheap labor, whereby an imitation tile floor indistinguishable by observation alone from a well laid floor may be produced at a comparatively small fraction of the cost of what may be termed a real tile floor, while the durability of a flooring produced by the machine of the present invention is markedly superior to that of a real tile floor. Moreover, the time needed to produce an imitation tile floor by the machine of the present invention is but a small fraction of the time required to lay a real tile floor, thus materially reducing the time necessary to finish a building wherein tile flooring is desired.

20 A flooring produced by the machine of the present invention is not necessarily confined to any particular pattern nor to the production of a flooring wholly of one pattern, and, again, the flooring may be produced in different colors where such ornamentation is desired and while the production of a flooring in different colors may necessitate some additional work, such added work still leaves the total time consumed in the production of the flooring far less than that required for the production of the simplest and most expeditiously laid type of real tile flooring.

25 In order that the invention may be fully understood, reference is had to the accompanying drawings forming a part of this specification with the understanding, however, that while said drawings illustrate a practical embodiment of the invention the latter is susceptible of various other practical embodiments and, therefore, the invention is not confined to any strict conformity to the showing of the drawings, but the structure may be variously changed and modified so long as the salient features of the invention are retained.

30 In the drawings:—Figure 1 is a plan view of a machine constructed in accordance with the present invention, the machine being shown in operative relation to a section of flooring or pavement or the like with a conventional tile pattern already produced thereon. Fig. 2 is a section on the line 2—2 of Fig. 1. Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a perspective view, partly in section and with some parts omitted, of the main carriage. Fig. 5 is a cross section through a form and support therefor by which the form may be adjusted to the surface to be stamped or impressed. Fig. 6 is a section on the line 6—6 of Fig. 2, with some parts in elevation and some parts omitted.

35 Referring to the drawings there is shown a frame comprising sills 1, 1 joined near the ends by tie rods 2, each of which may be made of two members connected at their meeting ends by turn-buckles 3, while the other ends of the members of each tie rod pass through the sills and are secured there-to by nuts 4 and shoulders or collars 5 on opposite sides of the sills. In order that the weight of the structure may not be excessive and still the sills be sufficiently elevated, they may be mounted upon blocks 6 constituting feet or supports near the ends of the sills. Each sill has on what in operative position constitutes its upper surface a plate 7 having an intermediate longitudinal rib 8 preferably of inverted V-shape although the particular form is not mandatory, but since, as will hereinafter appear, accuracy of operation is of importance, the inverted V-shaped rib which constitutes a track answers the purpose to better advantage than another shape of track. It is not necessary that the plate 7 constituting the track plate be as wide as the sill, but such a plate is protective of the sill and is preferably made of equal width therewith. Along one edge of the plate 7 at one side of the track 8 there is formed a series of notches 9 equi-distantly spaced for a purpose which will presently appear. Each sill is provided with a track 8 and the two tracks may be brought into practical parallelism by the tie rods 2 which may be lengthened or shortened as needed by the turn-buckles 3. Close conformity to parallelism of the tracks is quite
material to the accuracy of the production of the impressions over the surface to be ornamented.

The rails 8 receive grooved wheels 10 at opposite ends of trucks 11 joined by bars 12 which may be permanently fastened to the trucks in parallelism with one another, so that the trucks are at opposite ends of the bars 12 and together with the latter constitute a carrier which may be moved along the tracks 8 from end to end of the main frame. It is of importance that the truck should be capable of movement along the tracks 8 for definite distances and for this purpose one of the trucks is shown as provided with a latch lever 13 pivoted thereto and provided with a nose end 14 adapted to any one of the recesses 9. Of course, both trucks may be provided with latch members 13. The connecting bars 15 of the carrier are shown in Fig. 4 as each made of two pieces connected by a lap joint 16 and each bar is also shown as provided on the corner toward the other bar with an angle metal strip 16 designed to serve as a track, the strip 16 being divided in conformity with the division of the respective bar 15. The purpose of dividing the carrier into two parts is to provide for different distances between the sills 1, so that the carrier may be elongated or shortened by removing one end thereof and substituting a like end of greater or less length, as the case may be. One of the strips 16 is formed along the angle edge with a series of notches 17, these notches being equi-distant one from the other, and extend toward the rear part of the length of the strip under consideration.

Mounted on the carrier is a carriage, the main body of which is in the form of a frame 18 which for lightness and strength may be of web and flange construction. The frame 18 has a basic portion 19 elongated in the direction of the length of the bars 12 and at the end carrying wheels 20 on opposite sides, each wheel having a tread portion adapted to a respective strip 16, which, therefore, constitutes a track for the carriage, and a flange portion 21 adapted to engage against that portion of the angle strip 16 lying against the side of each bar 12 facing the other bar 12. The wheels 25 may be made to snugly yet easily fit between the tracks 16 so that the carriage may be moved along the carrier without noticeable lost motion, but without binding. Near each one of the bars 12 is pivoted thereto a lock member 23 in the form of an inverted T with the stem and cross piece so related as to length that the cross piece may be turned to override both bars 12 or may be turned to extend in the direction of the length of the bars 12, the carriage of the same being readily lifted from the bars 12 for removal from the carrier, but when each lock member is so placed that the cross member under-rides the bars 12, the carriage may in no manner be lifted from the tracks 16 but is retained thereon.

The carriage is movable along the carrier in the direction of the length of the bars 12 and the carrier is movable along the tracks 8 on the sill 1 in the carriage of the length of the latter, so that within the area covered by the main frame of the structure the carriage may be moved to any point therein. It is important that the carriage be movable for definite predetermined distances along the carrier, and for this purpose there is provided a latch member 28 mounted on the basic portion 19 and having a nose 24 adapted to any one of the notches 17, the latch member being normally urged to engage a notch by a spring 25 bearing on the latch member and carried by the basic member 19.

The main frame of the carriage upstands from the basic member in the form of separated posts or standards 26 joined at what constitutes the upper ends when the machine is in operation by a web 27, while these upper ends are outturned as shown at 28 in opposite directions from the web 27 and terminate in ears 29. On one of the posts or standards 26 there is mounted a small manipulating lever 30 connected by a link 31 to a bell crank lever 32 which in turn is connected by a link 33 to the latch 22, so that by a suitable manipulation of the lever 30 the nose 24 of the latch 23 may be lifted from a notch 17 and a carriage may then be moved along the tracks until the next notch 17 in order is reached when the spring 25 will cause the nose 25 to snap into the said notch, thus locking the carriage in a new position.

At an intermediate point in the basic member 19 there is formed a bearing 34 and in the web 27 there is formed a like bearing 35. These two bearings are in line with one another and through them there is passed a rod 36 carrying between the bearings an adjustable set collar 37. Between the bearing 34 and the collar 37 the rod 36 is surrounded by a spring 38 tending normally to elevate the rod 36. Connected to one pair of ears 29 by a pivot pin 39 is a link 40 which in turn is connected by a pivot pin 41 to one end of a lever 42, the other end of which terminates in a manipulating handle 43. This lever at a point between the ends is formed with a lateral extension 44 to which the rod 36 is connected by a pivot pin 45, said rod terminating in ears 46 straddling the extension 44 and traversed by the pin 45. To regulate the extent of movement of the lever 43 there is provided a rod 47 pivoted in the ears 49 of the extension 48 opposite to that carrying the link 49.
40, and this rod traverses a boss 48 formed on the lever 42 at an appropriate point, but with sufficient play in the boss to admit of the requisite movement of the lever. Set collars 49 and 50, respectively, on the rod 47 on opposite sides of the lever 42 determine the extent of movement of the lever and of the rod 36 under the action of the lever, and the spring 38 acting on the rod 36 tends to maintain the lever in the elevated position in engagement with the stop collar 49. That end of the rod 36 which when the machine is in operation constitutes the lower end extends below the basic member 19 between the bars 12 and terminates in a substantially semi-spherical enlargement 51, the rod 36 being at the same end and notched or recessed on one side as shown at 52 for the reception of a plate 53 terminating in a substantially semi-spherical enlargement 54 matching the enlargement 51. The plate 53 is held to the rod 36 within the recess 52 by a screw 55 near one end of the plate 53 and by another screw 56 closer to the enlargement 54, the screw 56 being a thumb screw for convenience of manipulation. The enlargements 51 and 54 are hollowed out to form a suitable socket for the reception of a ball 57 extending from a bracket 58 in turn carrying a pattern 59, so that the pattern is connected to the rod 36 by a ball and socket joint which may be made rigid at will by a suitable manipulation of the thumb screw 56. The pattern 59 is shown as a form made up of webs integrally joined one to the other to constitute a regular series of hexagonal figures in the particular form of pattern shown in the drawings, but it will be understood that any other pattern capable of repetition throughout a large surface may be employed. The pattern is made of convenient size for handling and may include an appropriate number of sections each defining the outline of a conventional tile form so that the pattern may be repeated successively over a surface to form an unbroken web throughout such surface irrespective of the area of the surface. The active edges of the webs making up the pattern are the edges remote from the bracket 58 and the webs taper toward these edges, which latter are indicated at 60 so that when the edges 60 are presented to and forced into an impressionable surface, such as green cement, they will enter into the surface for an appropriate distance and when withdrawn from such surface the tapered edges pull away from the walls of the grooves formed by the active impressing without any tendency to adhere to or tear or otherwise mar the walls, whereby such walls are left as clean and sharp as are the margins of individual tiles, and when such grooves are filled with suitable material and the surface is smoothed down by rubbing or grinding to an even surface, the filling material which is purposely made contrasting with the inclosed surfaces exhibits clean sharp edges, so markedly similar to the cement filling between the individual tiles of a real tile floor that even a careful observer is unable to detect the difference, especially where the inclosed surface is made of an appropriate cement to closely imitate the appearance of individual tiles.

Prior to using the apparatus described, there is provided a cement layer, indicated at 61, over the area to be finished with the imitation tile flooring or pavement. The silts 1 are placed in position and connected and adjusted by the rods 2, the carrier adapted to the tracks on the silts is then placed in position and the carriage supporting the impressing form is placed upon the carrier and the whole structure is so located that the first impression of the form may be made where the pavement or flooring is to commence. If, as often happens, the surface to be impressed is not parallel with the tracks 16, but may dip or slope a little one way or the other the form is adjusted to the dip or slope by loosening the thumb screw 56 and tipping the form one way or the other by means of the ball and socket joint, after which the thumb screw is tightened. The operator now grasps the handle 43 and depresses the same until stopped by the set collar 50, the spring 38 being compressed and the edges 60 of the form being forced into the cement surface, which latter has been permitted to come to the proper consistency. The depth of impression is determined by the adjustment of the collar 50 and this is of importance in the production of perfect work. The lever 42 is now permitted to rise under the action of the spring 38 lifting the form from the cement surface but leaving an impression corresponding to the form in the shape of a small web of grooves of tapered form in the surface. The carriage 18 is released from its first position by a manipulation of the lever 30 raising the latch 23 and the carriage is pushed forward until the latch engages the next notch 17 when the lever is again depressed and the form is forced once more into the cement surface, but at a new position with, however, the new grooves accurately joining those already formed. This operation is repeated until the carriage has moved the entire width of the section to be impressed, when the carriage is released from its locked position with relation to the track 8 and is moved along the track to the next notch 9 which is spaced from the first notch 9 a distance equal to the width of the pattern or form. Now the impressions are again made as before, the carriage being moved in the reverse...
direction step by step until back to the first edge of the space to be impressed, when there will be found to have been formed two rows of impressions joined so accurately as to impart the idea of but a single impression of like area. The process is continued until the entire area to be impressed has been gone over, and it will then be found that the surface is covered with a web of grooves all accurately united without noticeable appearance of joints or imperfections, this having been found to be the fact from actual experience. After the stamped or impressed surface has sufficiently set it is painted over with any suitable filler, such as stone paint, cement mixture, magnesite preparation or the like mixed to about the consistency of paint, and the operation is continued until the grooves are all filled, after which the superfluous material is scraped off, care being taken to avoid removing any of the filling from the grooves and then the filler is permitted to set. When the surface is ready for the final treatment it is ground down smooth by any suitable grinding means, an electric grinder answering the purpose admirably.

By means of the machine of the present invention a monolithic cement surface is transformed into a similitude of tile flooring or walls of greater durability than real tile flooring or paving at but a fraction of the cost of real tile work and which cannot be distinguished by the eye from real tile flooring or paving, and, furthermore, the flooring or paving can be finished in but a fraction of the time required for the laying of individual tiles over the same area.

While the use of the invention has been described in connection with cement surfaces, other materials of similar characteristics to cement may be used.

By mounting the form or pattern so that its relation to the longitudinal axis of the operating plunger may be changed, the same depth of groove throughout the surface is used, even where the plane of the surface and the plane of travel of the carriage are not in strict parallelism. By this means the grooves maintain their width throughout the surface and uniformity of appearance is obtainable.

The taper form of the impressing edge of the stamp or pattern contributes very materially to the perfection of the edges of the grooves, since on withdrawing the pattern the taper walls thereof at once leave the walls of the groove, thus preventing suction which would tend to distort and mar the walls of the groove.

The use of a filler to define the lines of demarcation outlining the tile forms may be avoided by providing means for inking the impressing edges of the pattern and only sinking such edges for a very short distance into the impressionable surface. Any suitable coloring matter will answer and will outline the tile forms. In such case rubbing down is not necessary and by the slight sinking of the lines of demarcation below the wearing surface such lines are not subjected to wear. To carry out this outlining of the tile forms without the necessity of producing comparatively deep grooves to be afterward filled with material of a color contrasting with the grooved surface, there is provided a shaft 62 provided with a bearing 63 fast to the frame 18 and with a set collar 64 which may engage the bearing 63 to hold the shaft in predetermined position. This shaft is substantially parallel with the rod 36 and when the machine is in operative position the shaft 62 is upright. On the lower end of the shaft there is secured a table or holder 64* designed to sustain an inking pad. The other or upper end of the shaft is provided with a manipulating handle 65 and a locking segment 66 made fast to the frame 18 and provided with suitable notches 67 into which the handle 65 may be engaged. In one position of the handle the table or holder 64* is out of the path of the form or pattern 59, while in another position of the handle the holder 64* is in the path of the form or pattern 59.

By substituting for the pattern 59 designed for the production of comparatively deep grooves in the surface to be treated, a pattern of like character having the active edges rubber tipped, the operator by manipulating the handle 65 moves the holder 64* into the path of the pattern and then depresses the latter until it is brought into contact with the inking pad. Then by raising the lever 42 the pattern is moved away from the pad and the latter is moved out of the path of the pattern, after which the pattern is depressed until in contact with the cement or other surface to be ornamented, whereby the ink carried by the pattern is deposited on the surface to be ornamented and such ink lines are slightly depressed below the surface. The pattern carriage is then adjusted as before and a second imprinting with the slight impression is performed and the operation is continued in the manner already described for the formation of the web of grooves.

When the surface to be ornamented is impressed with grooves deep enough to require filling the life of the surface is greatly extended, since the surface will wear for long periods of time before any of the grooves become obliterated, but this is not of great moment since two or three pavements or floors may be produced by the use of the machine of the present invention at not greater cost than a single tile floor, while the durability of a floor or pavement made in ac-
cordance with the present invention will exceed that of a real tile floor or pavement, and, furthermore, avoids certain inherent defects of real tile floors. When the lines of demarcation are produced directly by color-
ing matter carried by the pattern, the depth of the impressions may be such that the surface will wear for years without obliterator-
ing the lines.

What is claimed is:
1. A machine for producing an imitation tile surface upon impressionable material comprising a carrying means and support therefor adapted to be placed in operative relation to the surface to be impressed, a form or pattern adapted to be supported by the carrying means and constituting a fractional portion of the complete pattern to be produced by successive impressions made by the fractional pattern, and manipulating means on the carrying means for the fractional pattern or form having a predetermined range of movement to cause successive impressions of sensibly even depth in the surface to be treated.

2. A machine for treating surface to produce an imitation tile surface thereon comprising a frame composed of sills, each with a track member thereof, adjustable connectors between the sills, a carrier adapted to the tracks on the sills, coacting positioning means on the carrier and form for locating the carrier at predetermined points on the frame, tracks on the carrier extending therealong in a direction differing from the direction of extension of the tracks on the frame, a carriage adapted to the tracks on the carrier, coacting positioning means on the carriage and carrier for locating the carriage at predetermined points on the carrier, a pattern support on the carriage, and means for the manipulation of the pattern carrier to move the pattern carried thereby into impressing relation to the surface to be treated when the machine is in operative relation to such surface.

3. A machine for treating impressionable surfaces to finish such surfaces in imitation of tiling comprising a frame consisting of spaced sills each carrying a track, connecting rods for the sills each provided with a turn-buckle for adjustment, a carrier having trucks at opposite ends adapted to the tracks on the sills, said carrier including bars connecting the trucks with each bar provided with a track, coacting positioning means on the carrier and supporting frame for locating the carrier at different points along the supporting frame, a carriage having wheels adapted to the tracks on the bars of the carrier, coacting means on the carriage and carrier for positioning the carriage at different points along the carrier, a pattern supported on the carriage, and means on the carriage for the manipulation of the pattern support to move a pattern carried thereby into impressing relation to the surface to be treated.

4. A machine for treating surfaces to finish the same in imitation of tiling comprising a supporting frame composed of sills each carrying a track and connecting rods each including a turn-buckle for adjusting the length of the rods, a carrier having terminal trucks each provided with wheels adapted to a respective track on the sills, and connecting bars for the tracks each composed of two parts joined together for ready separation, tracks carried by the bars and conforming to the separable structure of the bars, a carriage adapted to the tracks on the bars, a form or pattern supported on the carriage, and means on the carriage for the manipulation of the pattern support to move a pattern carried by such support into impressing relation to the surface to be treated when the machine is in operative relation to such surface.

5. A machine for treating surfaces to finish the same in imitation of tiling comprising a supporting frame composed of sills each carrying a track and connecting rods each including a turn-buckle for adjusting the length of the rod, a carrier having terminal trucks each provided with wheels adapted to a respective track on the sills, and connecting bars for the tracks each composed of two parts joined together for ready separation, tracks carried by the bars and conforming to the separable structure of the bars, a carriage adapted to the tracks on the bars, a form or pattern supported on the carriage, and means on the carriage for the manipulation of the pattern support to move the pattern carried by such support into impressing relation to the surface to be treated when the machine is in operative position.

6. A machine for treating surfaces to produce thereon an imitation of tiling comprising a frame composed of sills on opposite sides and connecting bars each adjustable as to length to establish parallelism of the sills, tracks carried by the sills, a carrier comprising trucks having wheels adapted to the tracks on the sills, and bars connecting the tracks and extending in a direction substantially perpendicular to the direction of extension of the tracks, tracks on the bars, a carriage adapted to the tracks on the bars, a pattern or form support on the carriage, means for the operation of the form support to move a form carried thereby into impressing relation to the surface to be treated when the machine is in operative position.
coacting means on the carrier and supporting frame for positioning the carrier at different points along the supporting frame, and coacting means on the carriage and carrier for positioning the carriage at different points along the carrier.

7. In a machine for treating surfaces to produce imitation tiling, a form or pattern shaped to make impressions in the surface to be treated in simulation to the outlines of tiles, a reciprocable supporting member for the pattern, a manipulating member for said supporting member, and adjustable means for regulating the extent of movement of the pattern into the surface to be impressed.

8. In a machine for treating surfaces to imitate tiling, a form or pattern in shape corresponding to the outlines of a group of individual tiles, a reciprocable carrying member for the pattern having a normal constraint toward the inactive position, means for moving the reciprocable member to carry the pattern into the surface to be treated, and means for limiting the movement of the pattern into said surface to determine the depth of the impression.

9. In a machine for treating surfaces to produce imitation of tiling, a pattern defining an outline corresponding to the outlines of a group of associated individual tiles, a reciprocable rod carrying said pattern, a supporting frame for said rod, a lever carrying said rod and capable of manipulation to move the rod in the direction of its length, and a guide member for the lever having a stop member thereon for determining the depth of movement of the pattern into the surface to be impressed.

10. In a machine for treating surfaces to produce imitation tiling, an impressing form or pattern in shape corresponding to the outlines of an associated group of tiling, means for reciprocating said form to impress it into the surface to be treated, and means movable into and out of the path of the form for applying coloring matter to the active edges of said form.

11. In a machine for treating surfaces to produce imitation tiling, an impressing form or pattern in shape corresponding to the outlines of an associated group of tiling, means for reciprocating said form to impress it into the surface to be treated, and means movable into and out of the path of the form for applying coloring matter to the active edges of said form, said last named means comprising a table or holder for an inking pad, a rock shaft carrying said table or holder, and a manipulating member for said rock shaft, provided with means for locking it in adjusted positions.

12. In a machine for treating surfaces to produce imitation of tiling, a carriage, a support therefor with respect to which the carriage is movable in each of two directions at will, a reciprocable rod mounted on the carriage, a manipulating lever connected to the rod and also mounted on the carriage, a guide rod mounted on the carriage and engaging the lever, said guide rod being provided with stop members for determining the extent of movement of the lever, a spring in operative relation to the rod and tending to elevate the rod and parts connected thereto, and a pattern or form mounted on the rod at the end remote from the lever and having impressing edges defining the outlines of a group of associated individual tiles.

13. In a machine for treating surfaces to produce imitation of tiling, a carriage, a support therefor with respect to which the carriage is movable in each of two directions at will, a reciprocable rod mounted on the carriage, a manipulating lever connected to the rod and also mounted on the carriage, a guide rod mounted on the carriage and engaging the lever, said guide rod being provided with stop members for determining the extent of movement of the lever, a spring in operative relation to the rod and tending to elevate the rod and parts connected thereto, and a pattern or form mounted on the rod at the end remote from the lever and having impressing edges defining the outlines of a group of associated individual tiles, the pattern or form and the rod carrying it having a universal joint connection.

14. In a machine for treating surfaces to produce imitation of tiling thereon, a frame or pattern adapted to make impressions in the surface to be treated, carrying means therefor, a longitudinally movable rod mounted on the carrying means, and a manipulating means for the rod, said rod and the frame or pattern having a ball and socket connection one with the other with means for locking the ball and socket connection in adjusted positions of the frame or pattern with relation to the rod.

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

WILLIAM FRED WALLING.

Witnesses:
STANTON A. BRUNER,
HARRY H. CHASE.