May 8, 1923. 1,454,731

W. H. FRANCIS

SURFACING MACHINE

Filed April 19, 1922

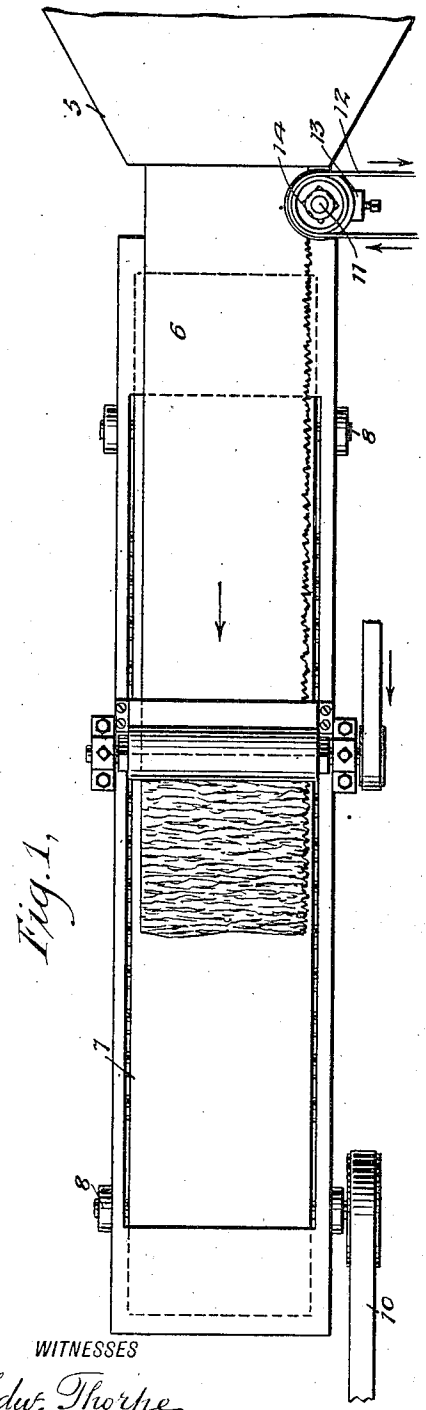


Fig. 1.

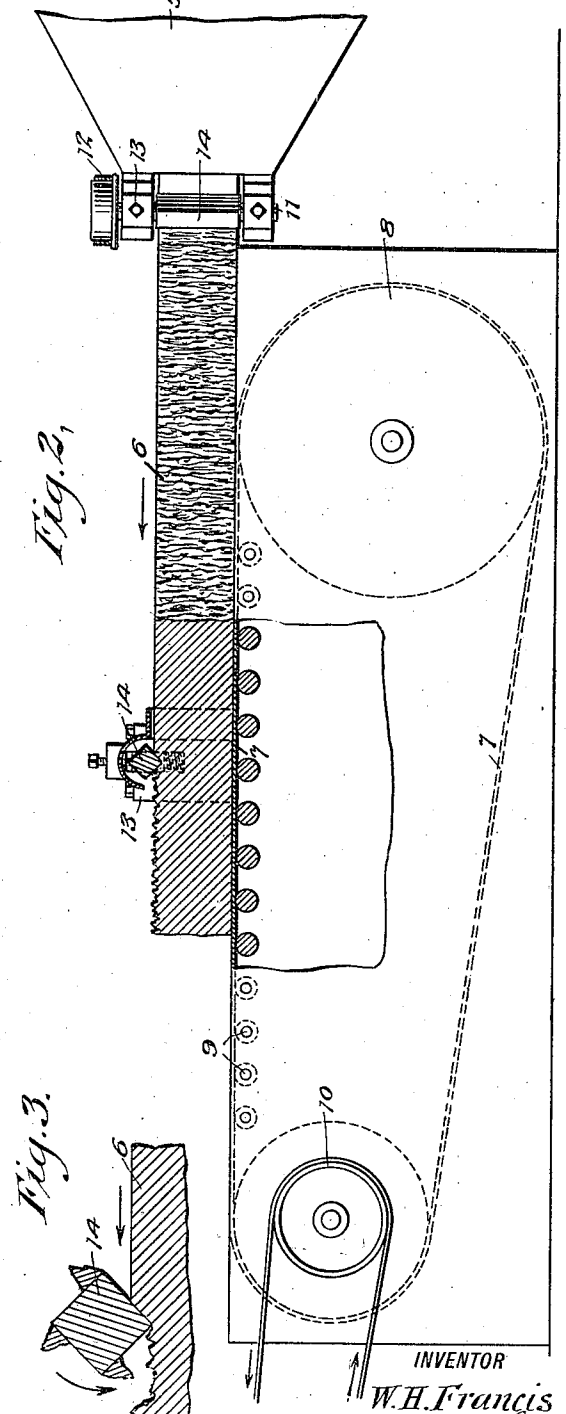


Fig. 2.

Fig. 3.

WITNESSES

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Patented May 8, 1923. 1,454,731

UNITED STATES PATENT OFFICE.

WILLIAM H. FRANCIS, OF CHERRYVALE, KANSAS.

SURFACING MACHINE.

Application filed April 19, 1922. Serial No. 555,650.

To all whom it may concern:

Be it known that I, WILLIAM H. FRANCIS, a citizen of the United States, and resident of Cherryvale, in the county of Montgomery and State of Kansas, have invented a new and Improved Surfacing Machine, of which the following is a full, clear, and exact description.

My invention relates to a surfacing machine, and aims to provide a device of this character adapted to be used in conjunction with the manufacture of bricks, and for the purpose of making a mat-textured facing brick or similar member.

It is a well appreciated fact that numerous expedients have been resorted to with a view of providing a machine or process whereby a brick or similar member might be produced which would be suitable for facing purposes, and present an artistic effect, such as that of a mat-texture, but the present invention aims to provide a device of this character capable of handling a great number of members such as bricks, and also aims to provide an extremely simple construction permitting of this effect being produced.

It is a further object of this invention to provide a machine of the type described by means of which the effect desired will also be enhanced, incident to the fact that mechanism will be provided not alone serving to dig the surface of the member being treated, but this mechanism will also re-deposit the dug material upon the face of the member.

Further objects of this invention will become apparent in the annexed specification taken in connection with the drawings, which latter illustrate one practical embodiment of the same and in which;

Figure 1 is a plan view of a machine embodying my improved construction.

Figure 2 is a partly sectional side elevation thereof, and

Figure 3 is an enlarged fragmentary view of a detail of construction.

In these views the reference numeral 5 indicates the discharge end of the brick making machine adjacent which my surfacing machine is positioned, it being noted, that as the column 6 of flexible material is fed from the machine 5 onto my surfacing machine that the same comes to rest upon a suitable type of conveyor, which in the embodiment illustrated includes an endless belt 7 passing around wheels 8 and resting upon rollers 9.

Thus assuming that the brick making machine is being actuated, and that one of the wheels 8 is being driven by any suitable means such as a belt 10, it will be appreciated that the column of material 6 will move along the upper face of the surfacing machine, and be discharged from the rear end thereof, to a suitable receiving member (not shown).

Now assuming that the upper, and one of the side faces of the column 6 is to be surfaced in the manner indicated, it will be seen that I employ two similar members for accomplishing this purpose, and it will be noted that each of these members includes a shaft 11 which may be driven by suitable mechanism 12, and is carried in bearings 13 positioned adjacent to the column of material which is fed along the surfacing machine. Each of these shafts provides an operative portion preferably comprising a square bar 14, and, as has been indicated by the arrows in Figures 1 and 2, these bars are revolved in a direction opposite to that in which the column 6 moves.

Attention is now invited to the fact that the corners of the bars when revolved will extend in a plane beyond that in which the outer and side faces of the column 6 extends. Thus, assuming that the column is being moved in the direction of the arrow indicated in Figure 1 by means of the mechanism within the brick machine, together with the conveyor belt 7, and further, assuming that the shafts 11 are being revolved at a relatively high speed in the direction of the arrows also indicated in Figure 1, it will be appreciated that as the column 6 moves along the face of the machine that the corners of the bars 14 will bite, or dig into the column of material thus obviously removing a certain amount of the same, which surplusage of material will adhere to the faces of the bar, as has been clearly shown in Figure 3, and will be re-deposited upon the face of the column 6 upon the next revolution of the bar.

Thus, contrary to machines of this character in which a scraping action takes place, my machine provides a digging action, and a re-depositing action, which will not alone serve to provide a mat-surface, but will also

produce an extremely artistic facing brick or similar member incident to the fact that numerous portions of the face of the member are excavated to a certain depth, and the material accruing from these excavations is re-deposited upon the face of said member to thus enhance the artistic effect produced.

Thus it will be appreciated that the objects of this invention have been accomplished and it will further be understood that numerous modifications of structure might readily be resorted to without in the least departing from the scope of my claims; which are—

1. A surfacing machine including a conveyor adapted to receive a column of material, means adjacent to said conveyor for digging into the face of said column, said means including a rotatable member having a digging edge elongated axially of the member and rigidly carried by said member and means for rotating said member in the direction opposite the direction of movement of the column of material on the conveyor whereby on regulating the speed of rotation of the member the digging edge thereof operates to remove material from the column, convey such removed material away from and then toward the column, and redispose such removed material on the column.

2. A surfacing machine including a conveyor adapted to receive a column of material, means adjacent to said conveyor for digging into the face of said column, said means including a rotatable member having a digging edge elongated axially of the member, said member being of polygonal cross-section and said edge being formed at the meeting line of a pair of adjoining faces of the member and means for rotating said member in the direction opposite the direction of movement of the column of material on the conveyor whereby on regulating the speed of rotation of the member the digging edge thereof operates to remove material from the column, convey such removed material away from and then toward the column, and redispose such removed material on the column.

3. A surfacing machine including a conveyor, means for moving said conveyor, said conveyor being adapted to receive material, surfacing means positioned adjacent to said conveyor and to the material carried thereby, said surfacing means being adapted to deposit material upon said first named material and means for advancing the means last-mentioned toward the material on the conveyor and in a direction opposite to the direction of movement of such material on the conveyor.

4. A surfacing machine including a conveyor, means for moving said conveyor, said conveyor being adapted to receive a column of material, surfacing means positioned adjacent to said conveyor and material, and means forming a part of said last named means for digging the surface of said material and re-depositing the material thus removed upon the face of said column and means for advancing the means last-mentioned toward the material on the conveyor and in a direction opposite to the direction of movement of such material on the conveyor.

5. A surfacing machine including a conveyor, means for moving said conveyor, a bar movably positioned adjacent to said conveyor, said bar presenting a plurality of elongate edge portions formed from the material of the member means for rotating said conveyor and bar, and means for rotating said bar in a direction opposite to the direction of movement of the material on the conveyor.

6. A surfacing machine including a conveyor, a shaft mounted adjacent to said conveyor, a square bar attached to said shaft, means for rotating said shaft and means for moving said conveyor and means for coupling the two means last mentioned to rotate the bar in a direction opposite to the direction of travel of the conveyor.

7. A surfacing machine including a conveyor, a shaft mounted adjacent to said conveyor, a square bar attached to said shaft, and means for rotating said shaft and means for moving said conveyor, said conveyor being adapted to carry a column of material, the edges of said bar being adapted to extend to a point beyond the face of said column and means for coupling the two means last mentioned to rotate the bar in a direction opposite to the direction of travel of the conveyor.

WILLIAM H. FRANCIS.