No. 744,245. PATENTED NOV. 17, 1903.

P. SEMMER.

METHOD OF BREAKING TILE STRIPS.

APPLICATION FILED DEC. 27, 1902.

NO MODEL.

Fig. 1.

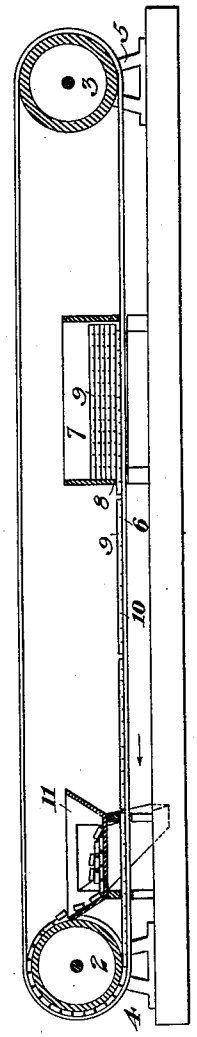
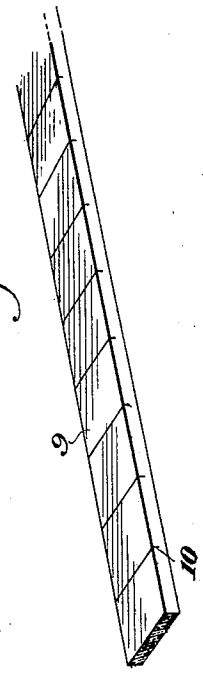


Fig. 2.



WITNESSES

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No. 744,245. Patented November 17, 1903.

UNITED STATES PATENT OFFICE.

PHILLIP SEMMER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE ASSEMBLED TILE AND SLAB COMPANY.

METHOD OF BREAKING TILE STRIPS.

SPECIFICATION forming part of Letters Patent No. 744,245, dated November 17, 1903.

Application filed December 27, 1902. Serial No. 136,801. (No model.)

To all whom it may concern:

Be it known that I, PHILLIP SEMMER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Method of Breaking Tile Strips, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical sectional view of the apparatus which I prefer to use in practicing my invention, and Fig. 2 is a perspective view of a tile strip which has been cut or scored ready for breaking.

In the manufacture of glass or other tile, and especially small pieces of tile used in mosaic work, it has been customary to cut the surface of the glass or other sheet with a diamond or otherwise and then break the same by hand along the lines cut, first into long strips and then these strips into small squares of a size suitable for the work to be done. This method, however, requires so much time and labor as to render the cost of manufacture of such mosaic pieces excessive.

The object of my invention is to break tile strips into small pieces, as is hereinafter described.

I will now describe my invention, so that others may use the same.

In the manufacture of tile such as is used in the laying of mosaic I score the plate or strip of stone, glass, or other material of which the mosaic pieces are to be formed transversely at a plurality of points, which may be done by means of a diamond or other suitable implement, the scoring being of such depth as to cause the strip when bent to break on the scored lines. I then place these strips with the scored face downward upon a flexible carrier of any suitable form or design and bring the strips supported by the flexible carrier against a rigid breaking-surface of curved shape, whereby the strip is caused to bend and break along the lines of the transverse scores, thus producing separated pieces of tile suitable for mosaic. The bringing of the smooth or unscored surface of the strip against the face of the breaker while the scored surface, which is intended to constitute the exposed face of the mosaic, rests against the flexible carrier causes the strip to break evenly on the scored surface and unevenly on the unscored surface, and this produces pieces of tile having regular lines of fracture on their outer faces and irregular lines of fracture on their inner faces, the irregular lines of fracture serving to hold the piece of tile more firmly in the cement with which the mosaic is laid. This even breaking of one surface and irregular breaking of the other portion of the tile is one of the advantages of my invention, although I do not desire to limit my invention to any particular position in which the tile is to be placed or to limit it to any particular form of fracture of the tile.

Although I do not desire to limit my method of breaking tile strips to any particular form of apparatus, I will now describe the apparatus shown in the drawings, which is well adapted to be used for this purpose.

In the drawings, 2 and 3 represent drums mounted on suitable standards or supports 4 and 5, one of said drums being driven by any suitable power mechanism and connections. Extending between and passing around these two drums is an endless belt 6, which may be of leather or other suitable material adapted to serve as a carrier for the tile strips. Situate between the two drums 2 and 3 and over the lower web of the belt 6 is a receptacle 7, made of sufficient size to receive the tile strips. The tile strips 9 are placed one upon another within the receptacle 7 and are adapted to be fed therefrom through the bottom 8, which is of just sufficient size to permit the passage of a single strip. When the receptacle 7 is filled with strips and the belt 6 is caused to move in the direction of the arrow, the strips 9 are carried one after another out of the receptacle 7 and toward the drum 2. These strips (shown in Fig. 2) are formed by cutting sheets of glass or other material with a diamond or otherwise and then breaking them into strips, the sheets having been previously cut also crosswise, forming cross grooves or scores 10. The strips 9 travel with the belt 6 and pass under the drum 2 and around the same between it and the belt. The strips are thus broken on the lines of the cuts or scores 10 and separated into small pieces or squares of the desired size. These

pieces drop from the upper side of the drum into a hopper 11, which leads them from the apparatus to a suitable box or receptacle.

From the foregoing description the advantages of my invention will be appreciated by those skilled in the art. The manual labor incident to breaking the squares or pieces one by one from the strip is obviated, and the pieces are broken with great rapidity, as the strips pass from the receptacle 7 to the drum 2 with the speed at which the belt is driven.

I claim—

1. The method of breaking tile strips, which consists in scoring the strip transversely at a plurality of points, and then bending the scored strip around a breaking-surface so as to break the strip successively on the lines of scoring into pieces of tile; substantially as described.

2. The method of breaking tile strips, which consists in scoring the strips transversely, piling a number of such scored strips one upon another, and then bring the scored strips one after another in succession in contact with a breaking-surface so as to break each strip successively on the lines of its scoring into pieces of tile; substantially as described.

In testimony whereof I have hereunto set my hand.

PHILLIP SEMMER.

Witnesses:

A. M. STEEN,

W. F. STEWART.