J. J. SEMASHKO.

MACHINE FOR ASSEMBLING TILES.

APPLICATION FILED MAR. 17, 1919.

1,315,167.

Patented Sept. 2, 1919.

3 SHEETS—SHEET 1.

FIG. 1.

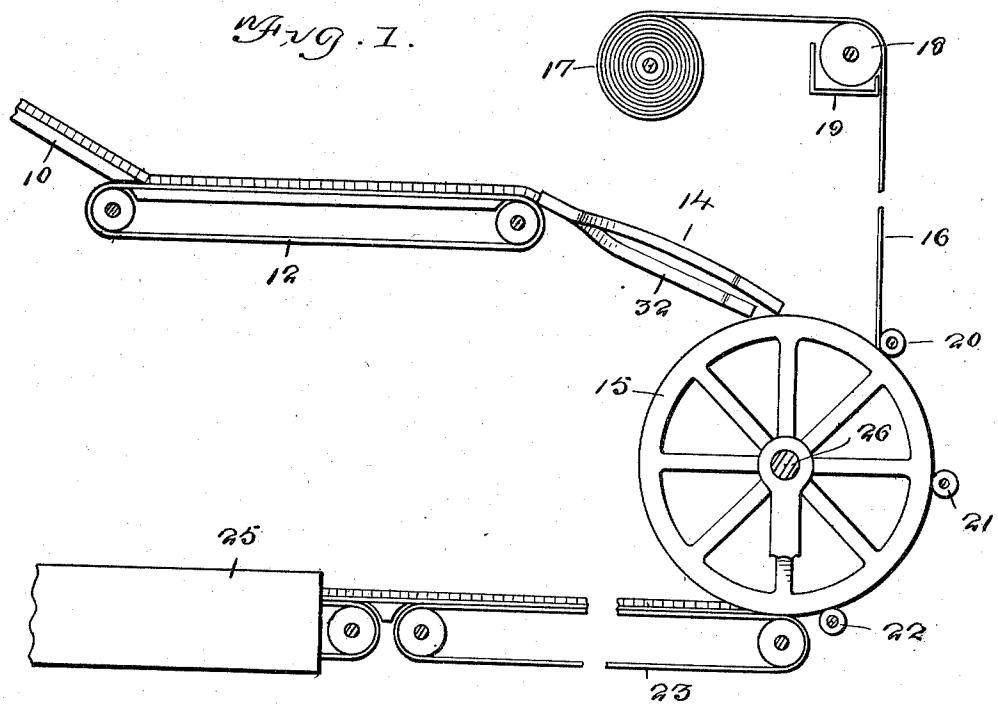
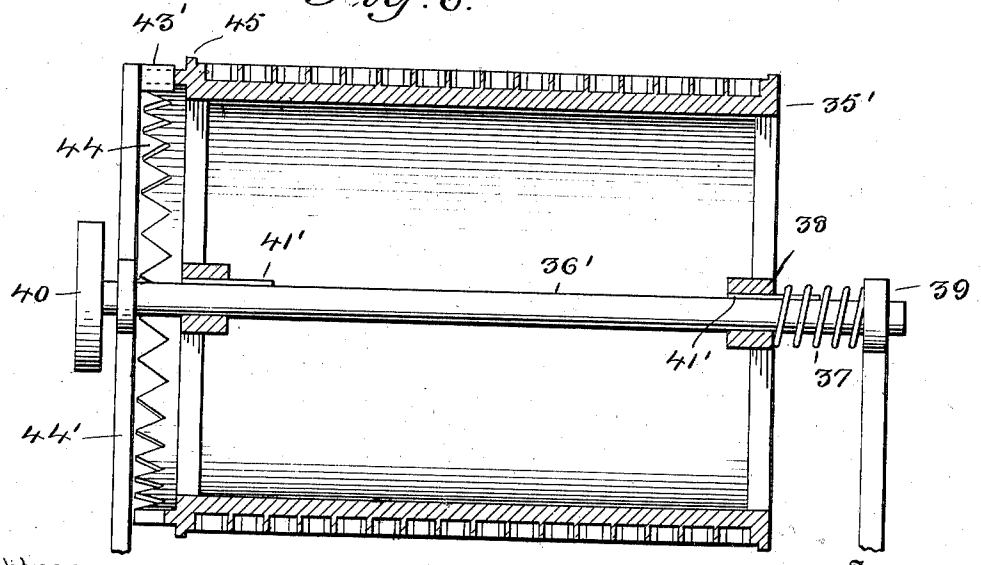


FIG. 6.



Witnesses

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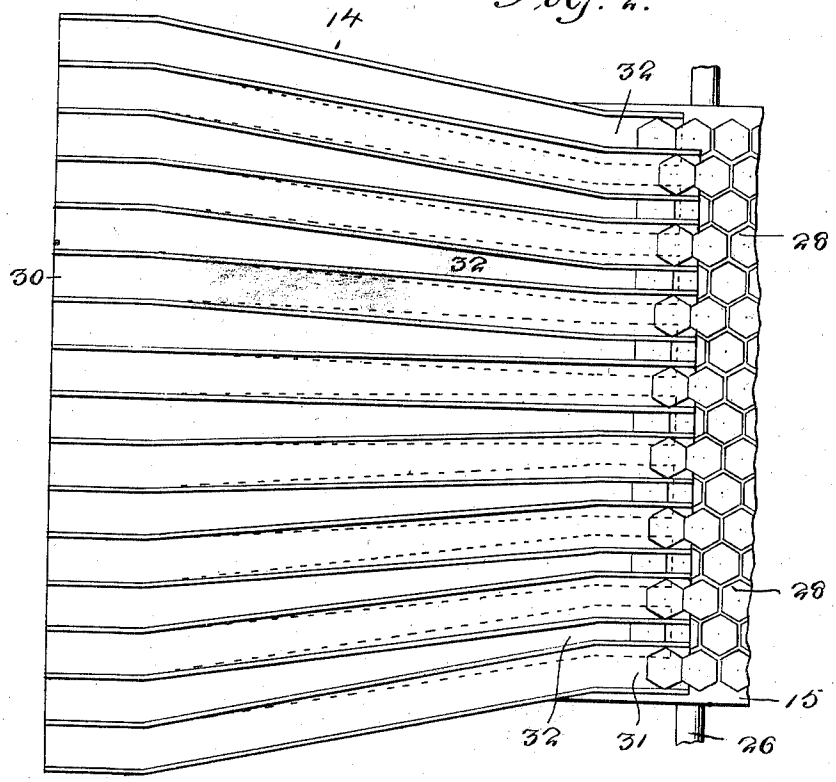
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3 SHEETS—SHEET 2.

Fig. 2.



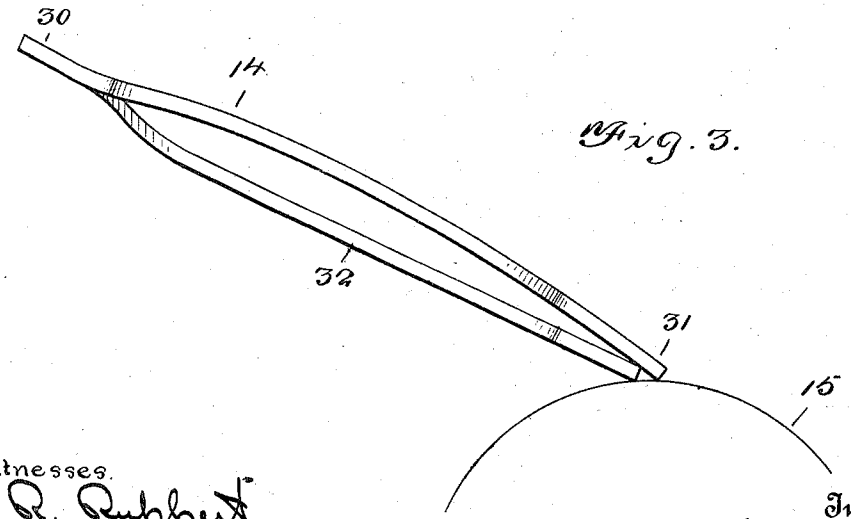


Fig. 3.

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3 SHEETS—SHEET 3.

Fig. 5.

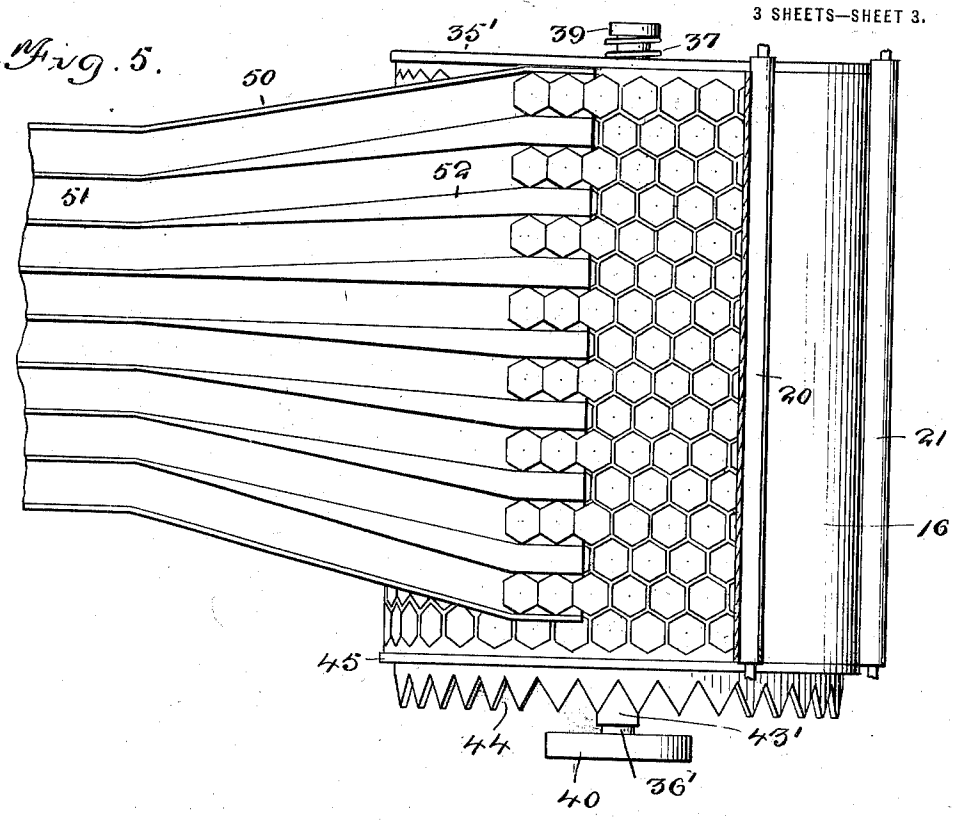
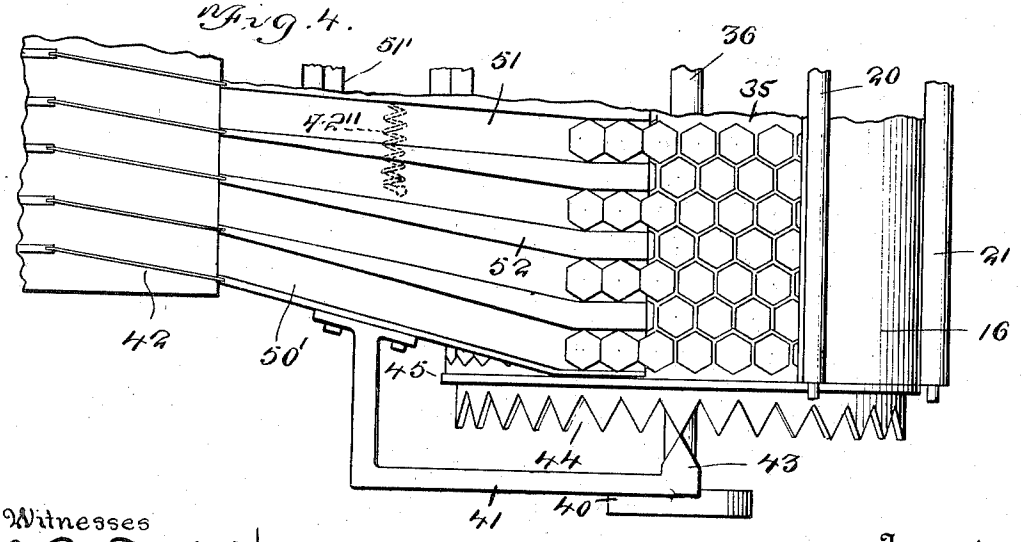


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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MACHINE FOR ASSEMBLING TILES.

1,315,167. Specification of Letters Patent. Patented Sept. 2, 1919.

Application filed March 17, 1919. Serial No. 283,189.

To all whom it may concern:

Be it known that I, JOHN J. SEMASHKO, a citizen of Russia, residing at South River, in the county of Middlesex and State of New Jersey, have invented new and useful Improvements in Machines for Assembling Tiles, of which the following is a specification.

This invention relates to a machine for assembling tiles, and the object is to provide for delivering to a drum a number of tiles which may be of hexagonal or other form and which shall be properly arranged as the tiles are delivered to the drum, so that a continuous strip of paper may be applied to the tiles by means of an adhesive material, thereby producing a continuous sheet with the tiles properly arranged thereon and ready to be transferred to suitable position in the process of constructing a tile floor.

A further object is to provide particular means for transferring the tiles from a chute, comprising a series of channels arranged side by side, to the surface of a drum, the paper strip being applied as the tiles pass around the drum, the tiles arranged in the form of sheets being then transferred to a suitable drier.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of elements hereinafter described and claimed.

In the accompanying drawings:

Figure 1 is a view showing the relative arrangement of the upper conveyer, the drum, the means for conveying tiles to the drum, and the means for transferring the sheet of assembled tiles to a drying device.

Fig. 2 is a top plan view of the series of channels of the chute for delivering tiles to the drum.

Fig. 3 is a detail in side elevation showing the arrangement of alternate channels of the chute in different planes.

Fig. 4 is a top plan view of a modified form.

Fig. 5 is a top plan view of a further modification,

Fig. 6 is a longitudinal section of the drum of Fig. 5, including the mounting and operating means for said drum.

Referring to Fig. 1, the tiles pass downwardly over or through a suitable discharge device designated 10, passing thence over a belt conveyer 12 to a chute 14 which may comprise a series of channels formed as indicated below. A drum 15 receives the tiles as they pass from the chute 14, and a strip of paper 16 is applied as the tiles pass around or partly around the drum. The paper is shown at 17 and the roller 18 operates within a receptacle 19 which is supplied with suitable adhesive material. Guiding rollers are shown at 20, 21 and 22.

The tiles applied to the paper strip are received by a conveyer 23 and are transferred to a drier 25 where a suitable degree of heat is applied.

Drum 15 is mounted on shaft 26 and the surface of the drum is provided with a series of staggered strips 28 between which the tiles are received for the purpose specified.

In the form shown in Fig. 2, 16 channels are illustrated, the entrance portions of these channels being designated 30, and the discharge portions being shown at 31. Alternate channels are arranged below the remaining channels and these channels last mentioned are designated 32 and are shown in detail in Fig. 3. This particular arrangement of channels is designed to bring the tiles in a proper relation with reference to each other, so that they shall be discharged to the drum in the position to which they are to be applied to the sheet. This arrangement is shown at the right of Fig. 2.

Another form of the device is shown in Fig. 4, and in this form the drum is designated 35 and is mounted on shaft 36, the latter being driven by means of a pulley 40. In this form the chute is designated 50 and includes a series of channels 51, the entrance portions of which are parallel, the channels diverging as shown and being separated by tapered intervening walls 52, so that the rows of tiles shall be discharged in proper spaced relation, the distance between the rows just within the discharge ends of the channels formed by partition walls 52 being equivalent to the width of one row.

Chute 50′ comprises a plurality of sections, the lower section being independent of the upper section and being slidably mounted in any suitable manner, as by the use of transverse guides 51′ on the under side of the chute, permitting of the sidewise movement of the lower chute section, so that the rows of tiles shall be discharged in the manner required for producing a continuous sheet.

This sidewise movement of the lower chute

section is effected by means of an arm 41 having an offset end portion 43 engaging the toothed portion 44 extending around the drum at one end thereof and outside of flange 45. Connecting strips 42 are secured at their ends to the partition walls and are movable across the face of the lower end of the upper chute section. If provision is not made for slight play lengthwise, the strips may be of rubber. The chute is positively moved in one direction by arm 41, and is moved in the opposite direction by spring 42''.

In Figs. 5 and 6 the drum is provided with teeth 44, as before, the latter being engaged by a cam or the like 43' carried by bar 44', this bar being mounted in a fixed position, and the drum 35' being mounted for movement longitudinally of the shaft 36' and being keyed thereon. The keys are designated 41', and the drum is held in a given position by means of a spring 37 mounted on shaft 36' and between the drum-bearing 38 and a bearing member 39 supporting the end of the shaft. The longitudinal movement of the drum provides for the spacing of the tiles.

What is claimed is:—

1. In a device of the class described, a drum provided with a series of circumferential strips spaced apart and providing intervening channels, and means for discharging to the drum a plurality of rows of tiles filling all of said channels.

2. In a device of the class described, a drum provided with a series of circumferential strips spaced apart, means for rotating the drum, and means for discharging a plurality of rows of tiles to the drum, said rows being in staggered relation.

3. In a device of the class described, a drum provided with circumferential strips spaced apart and having staggered walls and providing intervening channels, and means for discharging a plurality of rows of tiles to the channels.

4. In a device of the class described, a drum provided with circumferential strips spaced apart, and a chute discharging tiles to the drum in parallel rows, with the tiles in staggered relation.

In testimony whereof I affix my signature.

JOHN J. SEMASHKO.