

Sept. 8, 1953

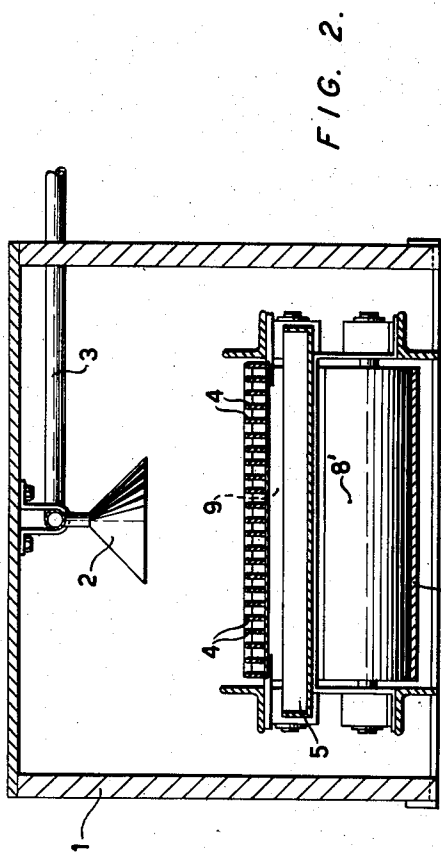
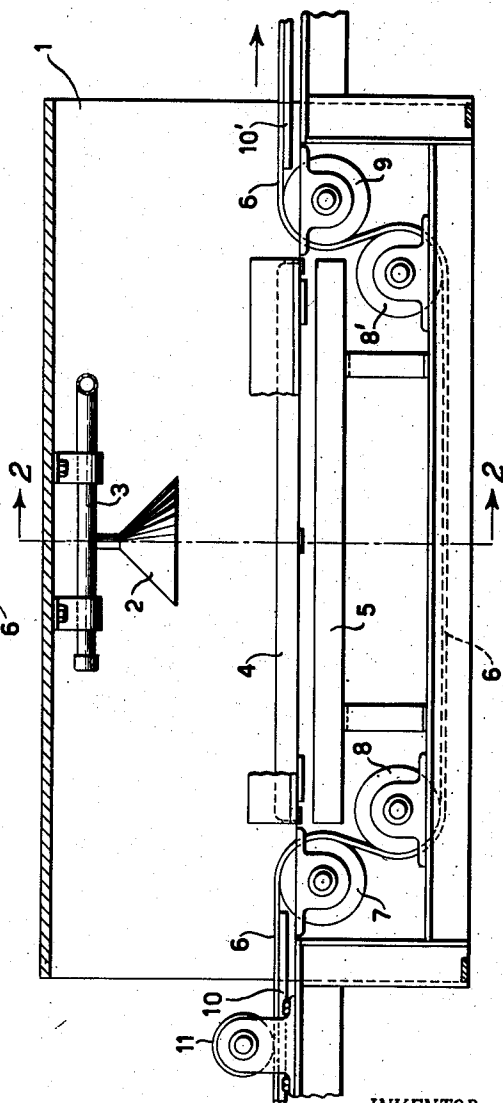
J. E. KITTERMAN

2,651,289

APPARATUS FOR FINISHING WOOD FLOORING UNITS

Filed Jan. 26, 1950

2 Sheets-Sheet 1



INVENTOR.
JOHN E. KITTERMAN
BY *Burr Harding*
ATTORNEYS.

Sept. 8, 1953

J. E. KITTERMAN

2,651,289

APPARATUS FOR FINISHING WOOD FLOORING UNITS

Filed Jan. 26, 1950

2 Sheets-Sheet 2

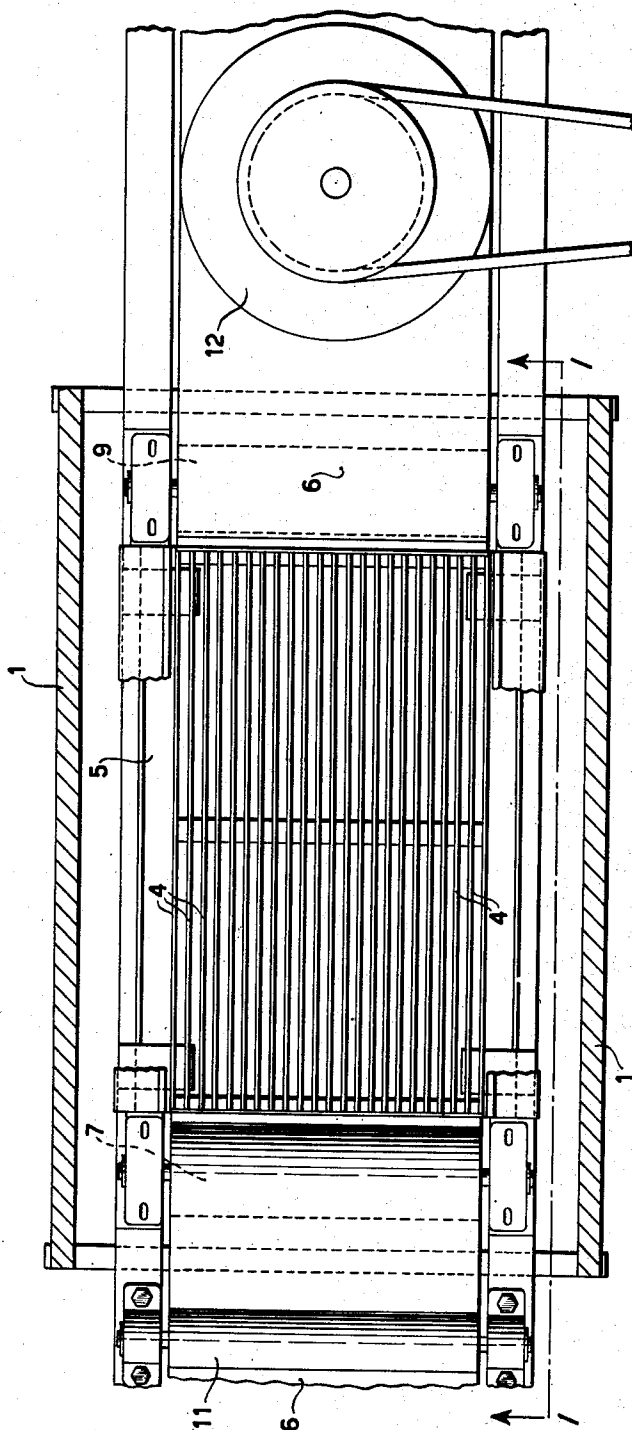


FIG. 3.

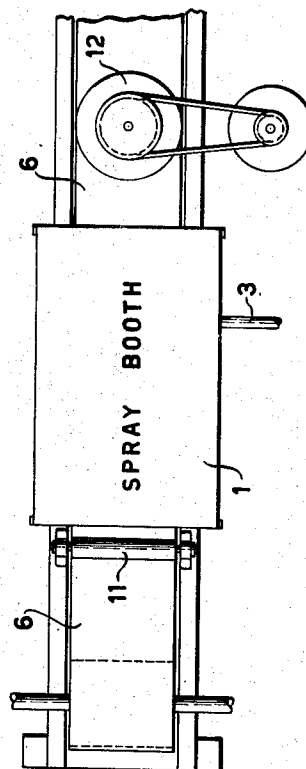


FIG. 4.

INVENTOR.
JOHN E. KITTERMAN
BY

Bureau of Standards

ATTORNEYS.

UNITED STATES PATENT OFFICE

2,651,289

APPARATUS FOR FINISHING WOOD
FLOORING UNITSJohn E. Kitterman, Memphis, Tenn., assignor to
E. L. Bruce Company, Memphis, Tenn., a cor-
poration of Delaware

Application January 26, 1950, Serial No. 140,721

3 Claims. (Cl. 118—324)

1

This invention relates to an improvement in an apparatus for the finishing of wood and, more particularly, for the factory finishing of wood flooring in the form of strips, blocks, and the like.

Heretofore wood flooring, in the form of strips, blocks, and the like, has been finished in the factory so that when laid no further finishing operation is required.

In the factory finishing of wood flooring, it has been customary to apply to a surface of wood flooring a penetrating seal finish composition, in distinction from a surface coating such as a varnish or shellac, work the finishing composition into the pores of the wood, remove excess finish composition, apply heat to dry the finish and finally wax the surface of the wood to complete the finish.

Apparatus for the factory finishing of wood flooring has generally comprised a continuously moving conveyor, as an endless belt, which carries the wood flooring into operative relation with various instrumentalities successively arranged with respect to the conveyor and designed to effect the several operations involved in the finishing operation. Such apparatus is illustrated and described, for example, in U. S. Patent No. 2,341,161, to which reference is hereby made.

The apparatus heretofore used in factory finishing has proved generally efficient. However, it has been found that in the application of the finishing composition to the surface of the flooring, which is usually accomplished by spraying, a substantial amount of the composition is deposited on the surface of the conveyor, usually an endless belt, through gaps between the ends or edges of the flooring units, as strips, blocks, or the like, and building up on the conveyor prevents the flooring units thereon from presenting a flat horizontal surface required for proper finishing, and otherwise negatives efficient operation of the apparatus, requiring frequent interruption of the finishing operation for cleaning of the conveyor and waste of finishing composition.

Now in accordance with this invention, there is provided an improvement in apparatus for factory finishing, more particularly with respect to that portion of the apparatus designed for the application of the finishing composition.

Generally speaking, this invention contemplates the provision of means whereby the conveyor will be protected from the deposit thereon of finishing composition, without interruption of the continuity of travel of the flooring units through the apparatus and with recovery of finishing composition passing between flooring units.

2

Details involved in this invention will be made apparent from the following description with reference to the accompanying drawings, in which:

Figure 1 is a side elevation, partly in section and partly broken away, of an embodiment of this invention.

Figure 2 is a cross sectional view on line 2—2, Figure 1.

Figure 3 is a plan view, partly broken away, of the subject of Figure 1.

Figure 4 is a plan view, partly broken away, showing the relationship of the embodiment of this invention illustrated by Figures 1-3 with other instrumentalities of a factory finishing apparatus.

Referring to the several figures, 1 indicates a usual form of spray booth, provided with spray head 2, supplied with finish composition from any suitable source through a pipe 3, and through which flooring units are passed for application of the finishing composition to a surface thereof.

Beneath the spray head and extending longitudinally within the booth is a grill 4, which may be formed of strips of metal supported edge-wise in spaced relation, and beneath the grill is a removably supported pan 5.

The upper reach of an endless conveyor belt 6, such as is shown in U. S. Patent No. 2,341,161, is led into one end of the booth 1, on a level with the upper surface of the grill 4, over a roll 7, then downwardly and longitudinally below the pan 5 and under a pair of rolls 8, 8 and finally upwardly to a level with the upper surface of the grill 4 and out of the booth 1 over a roll 9.

The upper reach of the conveyor belt 6 in its travel to the roll 7 and in its travel beyond the roll 9 rides on sheet metal plates 10, 10'. A steel pressure roll 11 is provided to insure that flooring units will lie level on the conveyor belt 6 and present flat horizontal surfaces on entering the spray booth 1.

In the operation of the embodiment of this invention above described, flooring units will be placed on the conveyor belt 6 ahead of the pressure roll 11 and will be carried into the booth 1 and delivered onto the upper surface of the grill 4 as the conveyor belt passes over roller 7. The flooring units will be caused to travel over the grill 4, by the delivery of successive units to the grill, to be picked up by the conveyor belt as it passes over roller 9.

As the flooring units travel over the grill 4, finishing composition will be applied to their upper surfaces by the spray head 2. However, any finishing composition which passes between the

3

flooring units will pass through the grill 4 and into pan 5 from which it will be recovered. Since the conveyor belt 6 is interrupted or diverted out of line in the area of the spray from head 2 and passes beneath the pan 5, finishing composition passing between flooring elements will not be deposited on it.

The conveyor belt 6, in its extension beyond booth 1 after passing over roll 9, will carry the flooring units with finishing composition applied thereto into operative relation with such instrumentalities as are common or requisite for completing the finishing of the flooring units, as, for example, a rotating brush 12, as shown in Figure 4, and other instrumentalities as, for example, are described in U. S. Patent No. 2,341,161.

It will be appreciated that various modifications, as the provision of two conveyors, one leading to and the other leading from the grill, instead of a single conveyor, may be made in the embodiment of this invention above described without departing from this invention as defined by the appended claims.

It will be further appreciated that the conveyor belt 6 may be of a width such as to carry a plurality of flooring units side by side, or such as to carry single units as a length of flooring or wood blocks arranged end to end.

What is claimed is:

1. In apparatus for the finishing of wood flooring units, a stationary grill, spray means positioned above said grill, means for the delivery of a liquid finishing composition to said spray means, a drip pan positioned beneath said grill, a roll positioned adjacent each end of said grill, a second pair of rolls positioned below said drip pan and an endless belt having one of its reaches extending oppositely from the ends of said grill

4

and passing over said rolls whereby said reach is passed beneath said drip pan.

2. In apparatus for the finishing of wood flooring units, a stationary grill comprising a series of spaced longitudinally extending members, spray means positioned above said grill, means for the delivery of a liquid finishing composition to said spray means, a drip pan positioned beneath said grill, a roll positioned adjacent each end of said grill, a second pair of rolls positioned below said drip pan, and an endless belt having one of its reaches extending oppositely from the ends of said grill and passing over said rolls whereby said reach is passed beneath said drip pan.

3. In apparatus for the finishing of wood flooring units, a stationary grill comprising a series of spaced longitudinally extending members, spray means positioned above said grill, means for the delivery of a liquid finishing composition to said spray means, a drip pan positioned beneath said grill, a belt supporting roll mounted adjacent each end of said grill, a presser roll mounted adjacent to the infeed end of said grill, a second pair of rolls positioned below said drip pan, and an endless belt having one of its reaches extending oppositely from the ends of said grill and passing over said rolls whereby said reach is passed beneath said drip pan.

JOHN E. KITTERMAN.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,979,758	Merritt	Nov. 6, 1934
2,332,385	Lauring	Oct. 19, 1943