

(No Model.)

T. WILCE & J. P. BURNHAM.
FLOORING.

No. 531,711.

Patented Jan. 1, 1895.

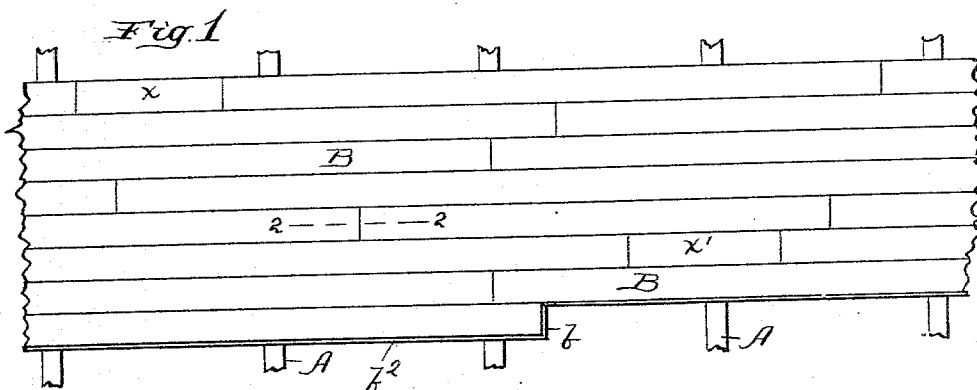


Fig. 2.

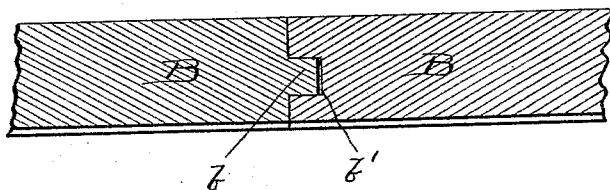
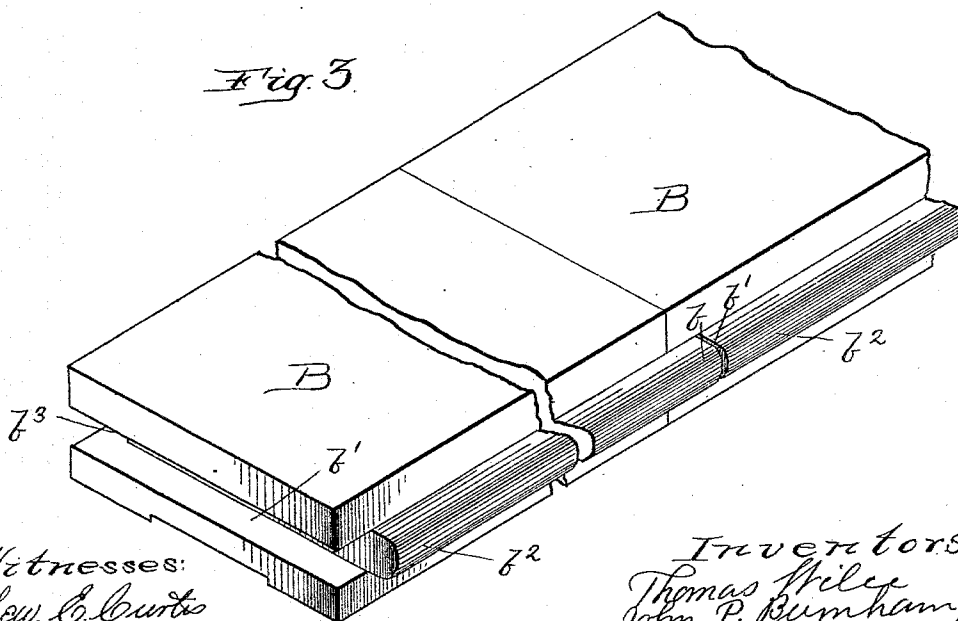


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

THOMAS WILCE AND JOHN P. BURNHAM, OF CHICAGO, ILLINOIS, ASSIGNORS
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FLOORING.

SPECIFICATION forming part of Letters Patent No. 531,711, dated January 1, 1895.

Application filed September 28, 1893. Serial No. 486,697. (No model.)

To all whom it may concern:

Be it known that we, THOMAS WILCE and JOHN P. BURNHAM, citizens of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Flooring, of which the following is a specification.

Our invention relates to floors for buildings, and more particularly to the construction of hard wood flooring.

Heretofore in the construction of hard wood floors it has been customary to simply abut together the squared ends of the adjoining flooring boards or strips, the joint being necessarily made at the joist, so that the free ends of each of the two meeting boards may rest upon and receive support from the joist, and also to enable a nail to be driven at the end of each board into the joist to hold the end of the board down in place and thus keep the floor reasonably smooth. The sawing of the flooring boards or strips to make them meet or match at the joist by the carpenter at the time the flooring is being laid, not only requires a large amount of time and labor, thus greatly increasing the expense of laying floors, but also results in a considerable waste of material; and in addition to this the joints thus formed are always more or less imperfect, liable to warp at the ends and the necessity of driving the nail at the extreme end of the hard wood board, such for example as maple, frequently results in the splitting or injury of the board so that the nail will not hold, or so disfiguring the board that it cannot be used and has to be taken up after having been already partially laid.

The object of our invention is to overcome these objections or difficulties, and to accomplish this result by a means so simple as not to add materially to the cost of manufacture, while at the same time a uniform and perfect joint is always secured at the meeting ends of the flooring boards or strips.

To this end our invention consists in the novel construction and combination of parts or devices herein shown and described.

In the accompanying drawings forming a part of this specification, we have shown at Figure 1 a plan view of a floor, or a portion of a floor, embodying our invention. Fig. 2 is

an enlarged longitudinal section taken on line 2—2 of Fig. 1, and Fig. 3 is an enlarged perspective view showing two of the flooring boards or strips.

In all the figures of the drawings the corresponding parts are indicated by the same letters of reference.

In said drawings A A represent the joists and B B the flooring boards or strips. The flooring boards B are each furnished at the time of manufacture with a tongue *b* at one end and a corresponding groove *b'* at its opposite end, the ends of the board being of course also accurately squared so that they will make a perfect joint with each other, and the tongue and groove being located in relation to each other so that the boards will perfectly match and thus form a perfectly smooth and continuous surface. By this simple means of tonguing and grooving the flooring boards or strips together at their meeting ends, the ends of the boards by their mutual co-operation give support to each other and also hold each other down smooth in place so that they cannot warp or get out of registry with each other; and at the same time, and by the same means, the necessity of making the boards meet at the joist is obviated as well as the danger of splitting or injuring the boards by driving nails at the extreme ends; and we also save the time, labor and waste of material incident to sawing the boards off so that they will meet at the middle of the joint.

The flooring boards B are of course furnished with the usual tongue *b*² and groove *b*³ at their sides. Our new flooring board or strip is thus held down, supported and jointed in place in the floor by interfitting tongues and grooves entirely surrounding it on all sides. Our invention thus enables short pieces—too short to reach between contiguous joists—that have no direct bearing upon any joist, or which extend over but a single joist, to be utilized when desired. In Fig. 1 of the drawings short pieces are shown thus laid in the floor at *x* and *x'*.

We claim—

1. In a floor, the combination of the joist with long narrow flooring boards or strips of varying lengths laid there and jointed together at their meeting ends by interfitting integral

tongues and grooves formed thereon, the separate flooring boards or strips thus jointed together at their meeting ends forming continuous strips or boards extending across the joists and resting thereon and secured thereto at intervals, the tongue-and-groove joints at the meeting ends of the boards in one such continuous strip, breaking joints with those in adjacent continuous strips, whereby the necessity of joining the boards over the joists and nailing each separate board or strip at each of its ends to a joist is obviated, substantially as specified.

2. The improved floor herein shown and described, comprising a series of supporting joists and a series of flooring boards of varying lengths, jointed together at their ends by interfitting integral tongues and grooves formed thereon and also at their sides by in-

terfitting tongues and grooves, the separate flooring boards or strips thus jointed together at their ends forming continuous strips or boards extending across the joists and resting thereon and secured thereto at intervals, the tongue and groove joints at the meeting ends of the boards in one such continuous strip, breaking joints with those in adjacent continuous strips, whereby the necessity of joining the boards over the joists and nailing each separate board or strip at each of its ends to a joist is obviated, substantially as specified.

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