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C. A. BRUCE

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WOOD FLOORING

Filed April 10, 1929

FIG. 1.

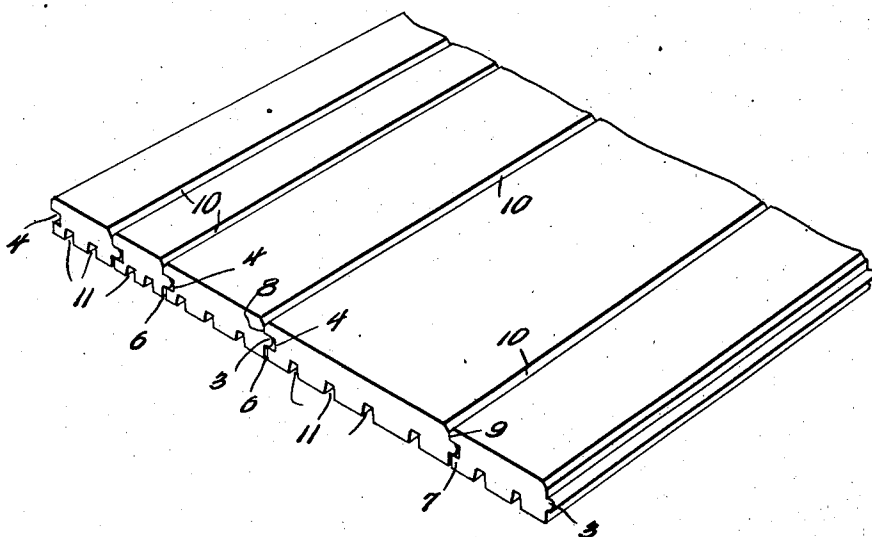
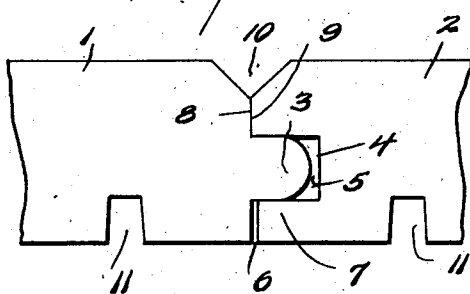


FIG. 2.



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WOOD FLOORING

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My invention relates to wood flooring and one of the objects is to diminish the deleterious effects which arise from swelling of the wood due to moisture absorption.

5 My invention is particularly applicable in connection with plank flooring, for there, the individual boards are wider than usual and for that reason greater expansion takes place upon moisture absorption than is the case with narrower strip flooring. However, 10 the invention can be used with the same effect in strip flooring and block flooring.

Referring to the drawings for a more complete disclosure of the invention,

15 Figure 1 is a perspective view showing the invention applied to plank flooring.

Figure 2 is a fragmentary end view of adjacent planks.

The planks forming the floor are united 20 along their longitudinal edges by tongue and groove joints. As more particularly shown in Figure 2, the plank 1 is provided with the parallel sided tongue 3, which is of the customary size and shape. It fits tightly into 25 the parallel sides of the groove 4 of the plank 2, but when in final position, there is normally a clearance 5 between the tip of the tongue and the bottom of the groove. On the under side of the tongue and groove there 30 is provided the customary "relief" 6, which is normally a space of about $\frac{1}{2}$ of an inch, and usually made by cutting back the underlip 7 to that extent.

Above the tongue and groove joint, the 35 planks 1 and 2 are partly in abutting relationship, this being due to the fact, that the edges 8 and 9 are parallel and at right angles to the face of the planks. If the edges 8 and 9 are carried through to the face of the 40 planks, when any expansion sideways of the wood takes place, one of the sides will become higher than the other. I cut off the corners or edges of the face of each plank so that when the planks are in position, there will 45 be provided a V shaped groove 10 between adjacent planks.

In the case of plank flooring $\frac{3}{4}$ of an inch thick, as shown in Figure 2, there would be cut off of each corner a piece, so that the V 50 will be one-eighth of an inch deep and one-

quarter of an inch wide. The dimensions of the V can be changed to meet different requirements as desired although the proportions indicated have been found satisfactory.

Along the bottom of the planks there are 55 provided the hollow grooves 11 for the purpose of controlling expansion of the back face of the flooring.

From the construction as disclosed, it will be clear that when the planks are in normal 60 position in the flooring that only abutting edges are at 8 and 9; that above and below these edges the flooring can expand sideways freely without compressing the wood.

If the flooring does expand sideways, it 65 will be put under compression only along the edges 8 and 9 and since this is only a small portion of the total width of the side of the flooring, it will not distort the face of the 70 floor to the same extent as in the absence of the groove. But if some distortion does take place it is not so apparent when using the V groove as without it.

I claim:

1. A floor formed of strips of wood united 75 along their edges by a tongue and groove joint, the edges of the strips being in abutting relationship for only a part of the distance between the said tongue and groove and the 80 front face of the strips and spaced apart for the remaining distance whereby the strips can expand edgewise above and below the said abutting edges without compressing the wood at such points.

2. A floor formed of strips of wood united 85 along their edges by a tongue and groove joint, the sides of the tongue and groove being parallel, a portion of the edges of the strips above the tongue and groove being at 90 right angles to the sides of the tongue and groove, and in abutting relationship, the remaining portion of the edges being spaced apart, whereby the strips can expand edgewise above and below the said abutting edges 95 without compressing the wood at such points.

3. A floor formed of strips of wood united along their edges by a tongue and groove joint, the sides of the tongue and groove being parallel with the face of the strips, a clearance between the end of the tongue and 100

the bottom of the groove, a portion of the edges of the strips above the tongue and groove being at right angles to the sides of the tongue and groove and in abutting relationship for only a portion of the distance between the said tongue and groove and the face of the strips whereby the strips can expand edgewise above and below the said abutting edges without compressing the wood at such points, and a groove above the said portions.

In testimony whereof I affix my signature.

C. ARTHUR BRUCE.

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