

March 11, 1952

S. ERLAND ET AL  
NOTCHED PLANK OR LOG

2,588,814

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2 SHEETS—SHEET 1

Fig. 1.

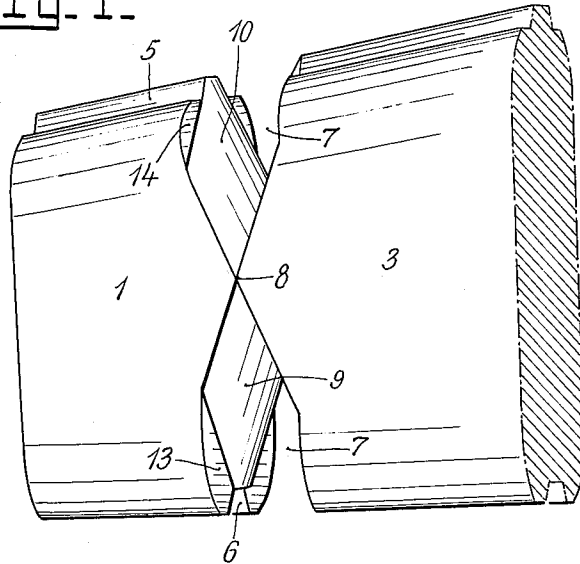
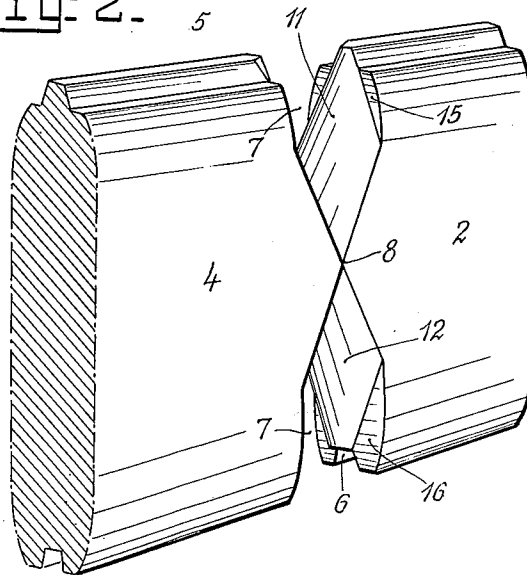


Fig. 2.



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2 SHEETS—SHEET 2

Fig. 3.

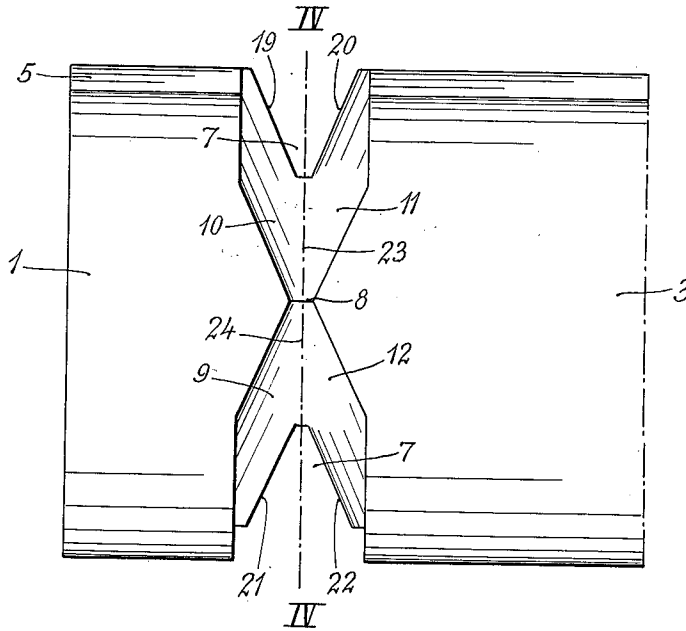
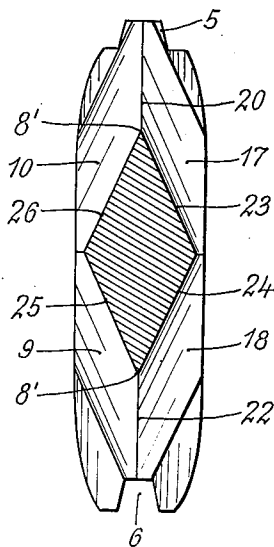


Fig. 4.



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# UNITED STATES PATENT OFFICE

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## NOTCHED PLANK OR LOG

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5 Claims. (Cl. 20—92)

**1**

The present invention relates to a special shape and arrangement of notches in planks or logs which are to be joined at right angles to each other for building purposes.

An object of the invention is to provide a special type of notch which will secure a tight joint when the planks or logs are assembled.

The basic idea of the invention is to make use of wedge action between oblique surfaces of the notches which are of general V-shape longitudinally as well as transversally of the plank or log.

Preferably the notches are so arranged that they overlap somewhat at each side of the plank or log, and the top edges of the notches are made sharp, like knife-edges, which will cut into the plank below when the planks are assembled.

If the planks are provided with tongue and groove the notches are preferably arranged symmetrically with respect to the top of the tongue and to the bottom of the groove.

In order that the invention shall be easily understood it will below be described in connection with the drawings.

Figures 1 and 2 show in perspective two planks provided with notches in accordance with the invention.

Figure 3 is an elevation of a plank provided with notches that are somewhat overlapping each other, and

Figure 4 is a section taken on line IV—IV of Figure 3.

On the drawing 1 and 2 respectively may indicate one, say short, end portion of a plank, whereas 3 and 4 respectively indicate part of a longer end of a plank. In the planks are provided notches which by cooperation serve to join the planks 1—3 and 2—4 respectively, which for this purpose are assembled at right angles to each other, in the usual manner of a notch bond for planks or logs. The planks may be provided with tongue 5 and groove 6 respectively. Each plank is provided with notches 7 of general V-shape extending from the tongue and the groove respectively towards the middle line 8 of the plank. At the outer sides of the plank each of said notches 7 extend to said middle line 8, whereas they within the plank, in the central part thereof, extend only to a location 8' between the tongue 5 or groove 6 respectively and said middle line 8. In this manner are on one side formed rhombic surfaces 9, 10, 11 and 12 and on the other side corresponding rhombic surfaces, of which latter surfaces 17 and 18 are shown in Figure 4.

Figures 3 and 4 also illustrate a modification where the V-shaped notches overlap each other to a certain degree at 8.

At the top parts of the V-shaped notches are provided surfaces 13, 14, 15, 16 that extend in parallel to each other and at right angles to the longitudinal axis of the planks.

**2**

The notches ought preferably to be symmetrically arranged, with the ridge of tongue 5 and the bottom of groove 6 as boundary lines.

Preferably the notches are so arranged, that the coterminous edges of the rhombic surfaces become as sharp or knife-like as possible at the tops 19, 20, 21, 22 thereof, whereas the bottoms form rounded, not sharp coterminous edges 23, 24, 25, 26.

When two planks are joined the sharp edges 19, 20, 21, 22 then will dig into the rounded edge portions 23, 24, 25, 26, and a tight joint is obtained.

We claim:

1. An interlocking joint between two similarly notched planks, each plank having a V-shaped notch in a plane medially between the respective side surfaces of the plank, the apex of said notch being located at  $\frac{1}{4}$  the height of the plank, the material of the plank being cut away on each side of the median plane along lines defined by projecting said notch outwardly and downwardly to the horizontal center line of each of the side surfaces, the lines defined by the projections of the upper extremities of the notch forming the inward limits of additional cuts normal to said median plane, said cuts along the projections of the V-shaped notch defining four rhombic surfaces, those located on one side of the median plane having at least one common edge and all four rhombic surfaces having a common corner.

2. An interlocking joint between two similarly notched planks according to claim 1, in which the coterminous edges of the rhombic surfaces at the top thereof form sharp edges, the coterminous edges at the bottom of the notch being rounded.

3. An interlocking joint between two similarly notched planks according to claim 1, in which the outer corners of the notches have parallel surfaces extending at right angles to the longitudinal axis of the plank.

4. An interlocking joint between two similarly notched planks according to claim 1, including notches overlapping at each side of the plank.

5. An interlocking joint between two similarly notched planks according to claim 1, provided with tongue and groove, in which the notches are symmetrically arranged in relation to the top of the tongue and to the bottom of the groove.

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### REFERENCES CITED

The following references are of record in the file of this patent:

### FOREIGN PATENTS

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