To all whom it may concern:

Be it known that I, SAMUEL THORNTON, residing in Oakland, county of Alameda, and State of California, have invented certain new and useful Improvements in the Production of Water-Tight Joints, of which the following is a specification.

The invention is primarily adapted for making water-tight joints between the planking of decks, floors, bulk heads, tanks, scow hulls, pontoons and the like.

The principal object of my invention is to provide a joint between adjacent strips of planking which is water-tight but at the same time permits a certain degree of expansion and contraction. A further object of the invention is to so construct the joint that a minimum amount of elastic waterproof composition is required in making the joint, and a still further object is to eliminate the labor now required for calking joints in similar work.

With these and other objects in view, the invention consists of certain novel features of construction, combinations and arrangements of parts hereinafter described and more specifically pointed out in the appended claims; it being understood that changes in form, proportion, size and minor details of construction within the scope of the claims may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages thereof.

Refering to the drawing forming a part of this specification,

Figure 1— is a view in perspective showing a portion of deckling constructed in accordance with my invention.

Fig. 2— is a view in horizontal section through the same.

Referring to corresponding parts of the several views by the same numerals of reference, my invention consists of providing the plank 1 with the triangular longitudinal recess 2 on each edge thereof. As here shown the opposite edges of the various planks are slightly beveled as shown at 3 whereby when the strips are placed edge to edge a converging opening 4 is provided for the reception of a packing. The recesses of adjacent strips form a substantially square or diamond-shaped opening between the two adjacent members and in this opening I provide a spline 6 which accurately fits the opening.

The dimensions of the spline are such that when the planks are tightly pressed against opposite sides thereof they do not quite meet at the bottom of the converging crack. This insures that the joint is made along the surface of the spline and the recesses rather than along the narrow line at the inner end of the crack 4.

The spline I prefer to make of Port Oxford cedar which resists decay and the attacks of insects to a greater degree than any other commercial wood.

Above the spline I pack the opening 4 with a suitable composition 7 to further exclude moisture. As here shown, I use, just above the spline, a packing which is elastic and tends to expand with heat. Or there may be used pitch, melted asphaltum, or some composition embodying one or more of these substances. These compositions may be melted and run in place thus obviating much of the labor now required to hand calk joints of this character.

The crack outside of the composition 7 I fill with cement 8 of any desired composition principally for the purpose of giving a smooth exterior finish and to avoid the use of large amounts of pitch or similar filling composition.

A joint of this character will remain practically water-tight even if the planking shrinks away from the filling composition for the water pressure on either the inside or outside presses the spline as a wedge against the two opposite faces. Furthermore, this spline being small, quickly expands under the influence of moisture and fills the entire cavity.

I claim as new and wish to cover by Letters Patent:

1. A water-tight joint comprising longitudinal wooden strips having oppositely disposed longitudinal recesses along their adjacent faces and having an angular crevice therebetween, a spline in said recess, an elastic non-fibrous, water-proof packing adjacent said spline and partly filling said
2. A water-tight joint comprising parallel wooden strips having triangular recesses along their adjacent edges and having an angular crevice between their faces, a diamond-shaped spline in said recesses, an elastic water-proofing composition resting against the outer portion of said spline and partly filling said recess, and a cementitious material filling said crevice outside of said packing.

In testimony whereof I affix my signature.

SAMUEL THORNTON.

Witnesses:

J. E. McDonald,
Alex McDonald.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."