

lightly spotted on both sides one week after the formation of the stack. The staining continued steadily for the next five weeks, at the end of which period four representative boards were lightly spotted and six boards heavily spotted on both sides. From then onwards until the dismantling of the stack, four months later, the staining showed but little increase. The final examination, as shown in Table 5, proved that the majority of the timber was still in very good condition, and that only 13.6 per cent. of the boards had been heavily spotted. The percentage of unstained timber was high, being 34.9 per cent., while lightly spotted timber, which would not degrade the timber at all, represented another 25.2 per cent. In all cases in this stack the maximum depth of the stain was less than $\frac{1}{16}$ in., and could be planed off with very little loss.

Table 3.—Occurrence of Sap-stain in Open-stacked Untreated Pile.

(Ten boards examined.)

| Date. | Sap-stain Occurrence. |
|-------------------|---|
| 1927. | |
| 1st April .. | Stack formed. |
| 9th April .. | Two boards lightly spotted on both sides. |
| 16th April .. | Three boards lightly spotted; two boards thickly spotted on both sides. |
| 23rd April .. | Six boards lightly spotted; two boards thickly spotted on both sides. |
| 30th April .. | Six boards lightly spotted; three boards thickly spotted on both sides. |
| 7th May .. | Five boards lightly spotted; five boards thickly spotted on both sides. |
| 14th May .. | Four boards lightly spotted; six boards thickly spotted on both sides. |
| 21st May .. | Slight increase in spotting. |
| 28th May .. | Practically no increase in staining. |
| 2nd July .. | No increase in stain. |
| 30th July .. | .. |
| 27th August .. | .. |
| 24th September .. | .. |
| 27th October .. | Slight increase in stain. |

NOTE.—Stack sap-stained, but not so badly as the close-stacked untreated pile.

Table 4, which represents the condition of the representative boards in the open-piled treated stack, indicates that though a light staining appeared after six weeks there was no further increase in the stain during the whole period the timber was stacked. Reference to Table 5, representing the final detailed inspection, shows that 54 per cent. of the boards were unstained, 34.1 per cent. lightly stained, while only 4.6 per cent. exhibited heavy stain. In all cases it was proved that the stain was purely on the surface and had no measurable depth. It was also found that only top and edge boards were stained at all, and as these were subjected from time to time to heavy rain it is reasonable