

PLAN AND VIEWS OF LOG PASSENGER STATION DESIGN.

Courtesy of The Railway and Engineering Review.

## DESIGN OF A LOG RAILWAY STATION, C., M. & P. S. RY.

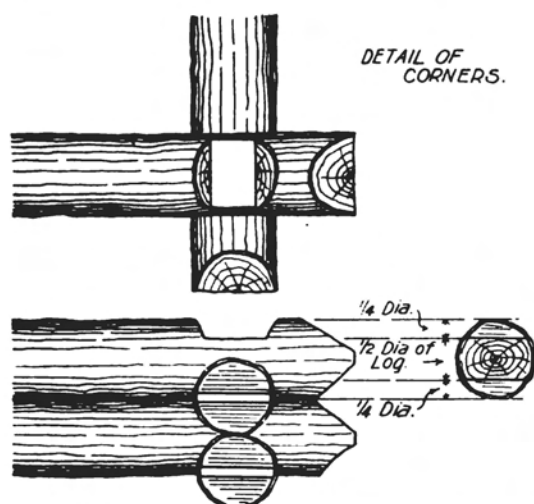
The large log hotels recently erected in the Yellowstone Park and at Hot Springs, South Dakota, have lent interest to that style of architecture. We show illustrations of the design of a log passenger station for the Chicago, Milwaukee & Puget Sound Railway at Musselshell, Mont. The length of the structure is 64 feet and the width 38 feet, with rooms for accommodation of the public on the ground floor, and living rooms in the attic.

The structure is to be built of logs with the bark on and the ends hewn tapered. At the angles the logs are notched one over the others, as shown in the illustration. The logs will be edged off top and bottom, to allow about 3 inches flat surface for bearing, and the joints will be calked with tarred oakum and plastered with ordinary plastering mortar, nails being driven into the logs at intervals of 12 inches, alternating top and bottom, in order to hold

the plaster more securely. The exposed rafters shown in the general view are also small logs. The roof will be of split shingles or shakes about 8x36 inches, exposed 18 inches to the weather. The chimney top will be of field stones. The plan drawing and various smaller views show details of the construction so plainly that verbal description is unnecessary, but it may be stated that the windows will have plank frames with spring catches for the sash. The interior walls will be stripped and finished with V-jointed ceiling, and there will be ornamental strapped hinges for the doors.

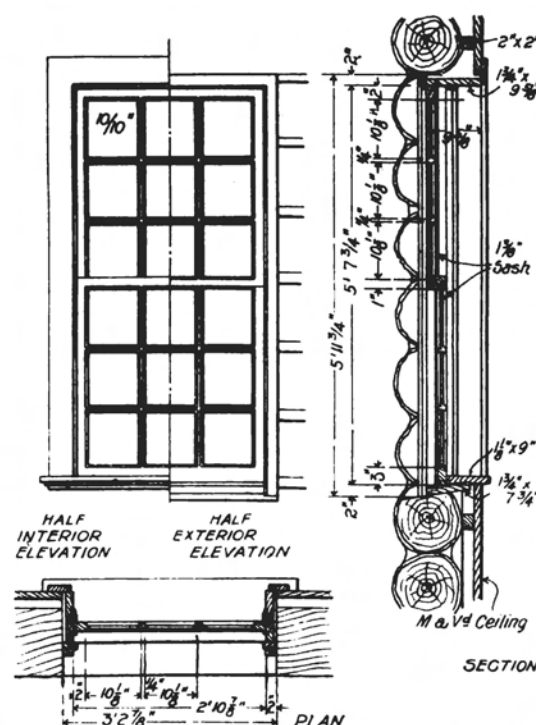
This design is by the bridge and building department of the road, Mr. C. F. Loweth, engineer and superintendent of bridge and buildings, and Mr. J. A. Lindstrand, architect.

A log building of this description is very substantial and economical in construction. The style is perfectly adapted to a location having an abundance of trees and a background of mountains.



DETAILS OF CORNERS, MUSSELSHELL PASSENGER STATION.

A building of logs, usually the first kind of structure to be built in a new country, is ordinarily looked upon as a primitive form of construction. In its simplest form it is so, but in such a building as this station there is occasion for much skill and ingenuity in the planning and building. A knowledge of the usual kinds of timber design and construction is not of especial use when dealing with a building of logs where adequate provision must be made for the comfort and convenience of the traveling public.



DETAILS OF WINDOW FRAMING, MUSSELSHELL LOG PASSENGER STATION.

## FOREST PRODUCTS

THE facts and figures contained in the forthcoming U. S. Census Bureau bulletin on lumber, lath, and shingles in 1908 disclose in most striking manner the adverse conditions obtaining in the lumber industry during that year. The annual Federal report on the statistics of forest products is compiled by a committee of experts from the Census Bureau and the Forest Service. The Census is represented by W. M. Stuart, Chief Statistician for manufacturers, and J. E. Wheelchel, expert chief of division; while R. S. Kellogg, Assistant Forester, and A. H. Pierson, forest assistant, represent the Forest Service.

A comparative summary of the total values for the several groups of forest products investigated for the calendar year 1907 and 1908 follows:

	1908	1907
Lumber, lath, and shingles.....	\$541,545,640	\$707,095,409
Cross ties .....	56,280,568	78,958,695
Pulpwood .....	28,047,473	32,360,276
Tanbark and tanning extracts.....	21,361,719	21,205,547
Slack cooperage stock.....	16,900,651	15,800,253
Tight cooperage stock.....	14,406,443	19,807,370
Poles .....	5,928,824	8,081,768
Veneer .....	7,891,431	6,436,237
Wood distillation .....	5,899,426	8,196,181
Total .....	\$698,262,175	\$897,941,736

The heavy decrease in the total value reported for 1908 reflects the ascertained falling off in the industry. As a result of the business depression, the quantity of lumber, 33,224,369 thousand feet, board measure, produced in 1908 was less than that for any other year for which reliable data are available since 1900. The average cut of lumber per active mill shown by the reports for 1908 was but little more than 1,000,000 feet, as against nearly 1,400,000 feet per mill in 1907. The bulk of this decrease, it is stated, was undoubtedly due to smaller production. The gradual rise in the average values is apparent from the fact that the price in 1900 per thousand feet at the mill for all the lumber produced was \$11.13; in 1904, \$12.76; in 1906, \$16.54; in 1907, \$16.56; with a drop back to \$15.37 in 1908.

While there was an increase of 2,381, or 8.3 per cent in the number of mills engaged in the production of lumber, there was a decrease of 7,031,785,000 feet, or 17.5 per cent, in the total quantity of the output. In the case of most of the states

reports were secured from a greater number of active mills for 1908 than for 1907, while, on the other hand, the cut in 1908 was generally less than in 1907.

Washington, which had remarked first in lumber production for several years, still held this place in 1908, although in quantity the cut of this state was closely approached by that of Louisiana. Nearly all of the lumber manufactured in Washington was of Douglas fir, while Louisiana was first in the production of lumber of two important kinds, yellow pine and cypress. Heavy decreases in the production of Douglas fir and yellow pine were general in 1908, while the cut of cypress was nearly the same in both years; hence the decrease in total production in Louisiana in 1908 was less marked, being only 8.4 per cent, while the decrease in Washington was 22.8 per cent. While Mississippi suffered a decrease of over one-tenth in the quantity of its output of lumber in 1908 as compared with 1907, it advanced in rank from fourth to third place, as a result of the very heavy falling off in the output of Texas, which dropped from third place in 1907 to sixth place in 1908. The cut in Arkansas decreased about one-sixth, but nevertheless the state advanced in rank from sixth to fourth place.

Wisconsin and Michigan, with decreases of about one-fifth held fifth and seventh places, respectively, in both years. In recent years the production in Michigan has been decreasing steadily, falling in 1907 below the two-billion mark for the first time in nearly forty years. Since 1880, however, Michigan has cut nearly 100 billion feet of lumber, a production which has not been approached by that of any other state.

The output in Wisconsin, its nearest competitor during the same period, was probably less than 75 billion feet. The reported output in Georgia was 6 per cent greater in 1908 than in 1907. This apparent increase, however, was due chiefly to the fact that, through the aid of special agents in obtaining reports from delinquent manufacturers, a fuller canvass of the mills was secured in 1908 than in the previous year. Small increases in output are shown for Idaho, Massachusetts, Oklahoma, Utah, and Wyoming.

Yellow pine has been far in the lead as a lumber producer for more than a decade previous to 1908, and this supremacy was more than maintained in that year, when its cut amounted to 33.8 per cent of the total cut from all species, and in spite of a decrease of 1,978,813,000, or 15 per cent, in the output of this species in 1908 as compared with 1907. Douglas fir ranked second both in 1908 and 1907, though with a decrease of 1,073,-