

Railroad Ties and our Forest Supply.

The renewal of wooden railroad ties on the 200,000 miles of railroad track in the United States causes an enormous drain upon the forest fires resources of this country. The hardwood ties used in the Eastern States of a road with fairly heavy traffic have a life of only a few years, and the softwood fir ties used on the middle, western, and southern roads have a useful life lasting only half as long. When we remember that the average number of ties to each 30-foot rail is sixteen, it is easy to compute that the total number of ties on all the railroads is about 35,000,000, and that if the average life of the tie is five years, there must be needed for renewals about 7,000,000 ties yearly. The average size of the tie is about 6 inches in depth by 8 inches in breadth and 9 feet in length, and consequently in each tie there is about 36 linear feet of timber. Hence the total annual renewals throughout the United States must call for the delivery of over 250,000,000 feet of sawed or hewed timber. Allowing one-third for waste, there must be some 330,000,000 linear feet of timber cut annually from our forests to supply this one item of railroad ties.

In view of these facts particular interest attaches to the statement that the Great Northern Railroad has adopted in place of the ordinary 6x8 tie of rectangular cross section, a tie of triangular section with a face 12 inches in width and a depth to the apex of 7 inches; for in the first place it is evident that there will be a great economy of material in using a tie of a section so much smaller; and it will be seen that there is also an economy due to the use of a tie with a broader face, since a smaller number will be required to the rail. The ordinary 6x8 tie has a total cross-sectional area of 48 square inches, whereas the sectional area of the triangular tie is 42 square inches, which in itself means a saving of 12% linear feet in each tie. One of the most important functions of the tie is to increase the ultimate bearing of the track system upon the ballasted roadbed, and, of course, the increase in the width of the tie from 8 to 12 inches means an increase of bearing surface of exactly 50 per cent. Consequently the number of ties per mile may be reduced over one-third without any loss of total bearing surface. Probably no such reduction as this will be made, for the reason that the transverse strength of the triangular tie is not equal to that of the square tie, and the transverse strength has, of course, to be considered. There is a further and incidental advantage in the triangular section, due to the fact that there is a wedging action of the tie when it is under load, tending to make it embed itself more securely in the ballast. In other words, it is to a certain extent self-tamping, adjusting itself in the ballast automatically, and saving a certain amount of oversight and labor on the part of the section gangs. It seems that the new type of tie has passed the experimental stage, since it has been in use in the terminal yards of the Great Northern Railway at St. Paul for several years past, where it is claimed that it has shown it self to be more effective under heavy service than the conventional type. If the same results are shown in main line service under fast and heavy traffic, this very simple expedient will prove to be one of the most radical and beneficial that has been introduced into American railroad practice for many years past.

Big Prune Crop.

With but a few exceptions, the prune trees of Benton are heavily laden with fruit this season according to the Corvallis Times. The exceptions are in the south end of Benton. There the orchards of the Herron Brothers, Hugh Finley and Zierolf Brothers are not as full as on former occasions, but in all, the crop is in no sense a failure.

To the west and the north, the reports give assurance of a bountiful crop. The yield at the big prune orchard, in particular, is expected to be enormous. Preparations for saving it are on, and include improvements to the big drier. The latter is the largest concern of the kind on the Coast if not in the world. It has ten tunnels, each 100 feet long, and four feet square, inside. Its inside content is 16,000 cubic feet. For heat and power it is served by two eighty-horse boilers. It accommodates 3,000 bushels of green fruit at a time. With perfectly favorable weather conditions, its curing capacity is about 65,000 pounds of fruit every 24 hours. When the weather is damp, as is often the case, drying is retarded, and a much smaller output is the result. Improvements based on the experience of past years are being added to the curing plant this season, and Manager Johnson with a gang of workmen has already set about the task.

JULY CLEARANCE SALE.

Below we mention a few of the good things we are offering this month in the way of money savers. Look them over. Perhaps some of them may interest you. At any rate, keep your eye on this space. It is more than likely that you will soon find something that you want and the prices will prove an agreeable surprise.

Summer Dress Goods Reduced 33 1-3 Per Cent..

The line is still fairly complete, comprising mercerized cottons, pebbled silkette, Chambray Madras and other seasonable fabrics. Look them over next time you're in the store.

A Red Hot Special.

We place on sale today about 25 pieces of French Percalé. These were excellent values at 10 and 12 1/2 cents a yard. Sale price 7 1/2 cents. The percalé is fine quality, full width and in every way a notably big value. Test our claim by investigation

Millinery Reductions.

Our entire stock of fresh, seasonable millinery has been marked down to bed rock prices. The assortment is still fairly complete and the prices should prove unusually attractive to the purchaser

Curtains at Cut Prices

We have become slightly overstocked on Ecrú Lace Curtains and have therefore marked every pair of Ecrú Lace Curtains down to an exceedingly low price. Investigate this while the best of the lot are yet unsold.

Ladies' Tan Shoes.

We have taken every pair of Ladies' Tan Shoes in the house including values up to \$3.50 and marked them at the ridiculously low figure of \$1.50 per pair. We want to clean up before fall—that's the whole story. Look into this. The prices will do the rest

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