

CORRESPONDENCE

[This department is a meeting-place for ideas. If you have any suggestions as to new methods or successful methods, let us hear from you. You may not be accustomed to write for publication, but do not hesitate. It is ideas we want. Your suggestion will help another. Ed.]

VALUE OF RED CEDAR.

Makes Rapid Growth Under the Most Unfavorable Conditions.

Sir,—In June, 1864, I was detailed with one hundred men to build a small fort on the high bluff of the Appomattox River, some five or six miles below Petersburg, and about half way between Fort Spring Hill, where a pontoon bridge crossed to Point of Rocks on the Bermuda Hundred front, and Fort McGilvery, where the right of our lines around Petersburg rested on the river. The fort was ordered for eight thirty-two pound Parrot guns, but only five were mounted, the other three embrasures being filled up. It was on a



level tongue of land between a deep ravine that came in and the bluff. The ground had been cultivated and was devoid of trees with the exception of one peach tree that came within the circle of the fort and under which I spread my blanket and made my headquarters day and night till the work was done, the guns mounted and first shots exchanged. There were a few trees growing along the ravine and on the face of the bluff; they were mostly pine, sweet gum, and here and there a red cedar. The trench made about the fort was twelve feet wide and eight or ten feet deep, and the loose gravelly soil was thrown up into the parapets of the fort. The guns were in use night and day until the close of the war, and then the grounds were made into a hog yard. On these earth works trees are now growing. There are forty or fifty red cedars, six pines, one buckeye, and a few sweet gum. The cedars are all healthy, straight, and tall (averaging about fifty feet and from six inches in diameter up to eight, ten, twelve, and the largest one sixteen inches. Two of the pine are larger, but the largest one and two of the smallest ones are dead and the tops had rotted off; evidently they could not stand a dry season on these banks of loose gravel.

The buckeye and the sweet gum trees are not so large as the best of the cedars. The time that has elapsed since the dismantling of the fort at the close of the war is forty-three and one-third years. I cannot tell how long after the war the grounds were used as a hog yard, and tree growths then kept back; neither do I know when the seed of these trees fell on these embankments, nor the vicissitudes of the young trees as they grew on this dry, loose soil to a size strong enough to stand for themselves. The lesson to be learned in

forestry from these and which I want to impress is:—First, the vitality of the seed of the red cedar and the tenacity of life of these young plants and their persistency of growth under adverse conditions; second, their power to stand a soil absolutely dry at times where even the white pines failed as evidenced by the dead stumps of one-half of them; third, the size, health, and beauty of the trees and the number grown on the small space of ground, showing the amount of timber possible to be grown on an acre; and fourth, the value of red cedar for many industrial purposes. All these points show it to be a profitable tree for planting in waste and desolate places as a commercial investment. Lastly, there is the exceeding beauty of the individual tree growing singly or in clusters about our homes, along our roadsides, or in our fields, showing that it has no equal for landscape effect and should be used a great deal more for this purpose than it has been. The cedar is hardy, growing naturally around our northern lakes, both in Canada and the United States, I have seen them growing on the drifting sand dunes at Port Frank, on the east shore of Lake Huron, but they do better on good rich soil.

In the picture, the large cedar to the left is fifty-six inches in circumference.

Yours,
L. B. Rice.

Port Huron, Michigan.

POINT OF FROG.

Sir,—“C. R. S.” might try the following method, I have used it with some satisfaction, although it allows very little latitude in moving the point of frog to avoid cutting rails.

Required:—To find the point on the curve which will be the width of the gauge distant from the main line, this will be the point of frog.

Let R = Radius of Curve.

D = Degree of Curve.

g = gauge = 4.708.

d = angle subtended by x the distance from the B.C. to the point required.

$$\text{Vers } d = \frac{g}{R}$$

$$x = \frac{100 \times d}{D}$$

Yours,
Transit.

March 5th, 1908.

DEPOSITS REQUIRED.

Sir,—The letter of “Contractor” in your issue of the 28th ult., calls attention to the large deposit exacted from tenderers for work, and the severe conditions subsequently imposed in connection with such deposit.

I cannot help thinking that a majority of engineers, who have had much to do with public works will agree that there is a good deal of reason in Contractor’s letter. I have carried through, in recent years, two large works, in which a free hand was given me in the letting of contracts and the general progress of the work, and in no case was a deposit of any kind required from a tenderer. It is true the contracts were individually small, but the work was none the worse for that, and I am confident that it was done cheaper than is usually the case.

The exaction of heavy deposits was originally designed to head off dishonest collusion between tenderers,—but there