

LIFE AND AGE OF A TELEGRAPH POLE.

This subject may seem of trivial account to the great mass of business people, but when it is proved to them that it actually affects the cost and convenience of telegraph messages and of dividends to stockholders, an interest may be awakened that will make the inquiry on the subject one of unusual interest, inasmuch as it affects the high or low price of rates for messages. The original cost of the erection of telegraph lines is important, but not so important in a series of thirty or forty years as is that of its maintenance in working order during that period. Some of the lines now owned and used by the Western Union Telegraph Company were first built more than forty years ago. When one is told that they have been built three or four times since that at great expense, it would seem to lead to the conclusion that a large amount of capital is necessary to represent the actual cost of the telegraph lines which have been in existence for many years.

The size of a telegraph pole has much to do with the duty which it is expected to do—that is, the number of wires it is calculated to carry. Many telegraph companies now owned by the Western Union Telegraph Company of to-day were organized and their lines built many years ago, before the organization of the "N. Y. and Mississippi Valley Printing Telegraph Company" in 1851, its name being changed to that of the "Western Union Telegraph Company" in 1856, by an act of legislature of New York State.

The contract to build the original line required that the posts be not less than thirty feet long and twenty-seven inches or more in circumference, four and a half feet from the butt, and twelve inches in circumference at the top, and set in the ground five feet. There were to be at least thirty of these posts to the mile, and they were to carry two lines of iron wire, one of which should weigh not less than six hundred pounds to the mile, and the other not less than four hundred and fifty pounds to the mile. These posts were to be of the best and most durable timber obtainable along the route they were stationed. These posts were intended for light lines only. When it was found necessary to increase the number of wires it was necessary to have larger and more heavy poles, not necessarily much taller only in cities and large towns.

When considered apart from any local catastrophe or universal storm, the poles which were cut in winter were found to last as follows, according to the wood used, without being renewed:—Cedar, 16 years; chestnut, 13 years; these are used in the Eastern, Middle, and Western States. Juniper and cypress are used in the Southern States, and redwood is used in California. Spruce lasts 7 years and juniper 13 years. If poles are cut in the summer their life will be about five years shorter than if cut in the winter. The soil in which they are set, and also the atmosphere and sunlight, have much to do with their life, for if one breaks off at the surface of the ground, or near the surface, as is usually the case, it will be five feet or more shorter than the others, and hence it is generally regarded as unfit to reset, and a new one must take its place. In some location this is provided for by having all the poles long enough to reset if they are sound enough for it to be economical to do so. The average period of the usefulness of a pole under ordinary circumstances is as above mentioned. It is seldom that mixed woods are used on a line; they are all of one kind of wood.

The official return of the Western Union Telegraph Company to the Superintendent of the United States Census, in July last, shows the following facts as to the poles used during the year:—Average length of poles, 27 feet; diameter at top, 6 inches; kind of wood used, cedar, chestnut, juniper, cypress, and redwood. These poles were obtained in all parts of the United States and in Canada. The average cost of each pole delivered without freight was one dollar and two cents. All these poles were round, except about one-fiftieth, which were sawed or squared. No process was used for preserving poles, and their average life, according to the wood used and the location where set, was twelve to fifteen years, and most durable wood in favorable situations did not exceed twenty-five years. The woods preferred were

red cedar, white cedar, chestnut and redwood. It is to be observed that pine and hemlock are not used. It may be remarked here that American telegraph poles make an agreeable contrast with the crooked and unsightly larch poles used in England.

The falling of a pole generally does much damage to the arms, insulators and wires. If they were all put up now at once, plain wire will last from twelve to fifteen years, and the galvanized wire used at the present day, being the best conductor, will last in the most favorable atmosphere for from sixteen to twenty years, but no longer; and where there are strains by poles or wires falling they will not last so long, and in cities and large towns, where there is much gas and moisture, it will not last more than two or three years. At all events, when a line begins to be about ten or twelve years old, and has plain wire, it is regarded as unreliable, and the safest and most economical way is to rebuild it throughout of new materials. The cost of constant repair and isolated and frequent transportation of posts and other materials, and the labor of repairs and resetting, are almost as much in a short time as it would to rebuild. The gauge of wire and the number of pounds to the mile are as follows: No. 4, 730 pounds; No. 6, 510 pounds; No. 8, 380 pounds; No. 9, 320 pounds.

From these facts we can see that a telegraph line that is thirty-six years old has been entirely rebuilt three times at least under the usual course of things, and that it may have been nearly four times rebuilt. The trunk lines of the Western Union Telegraph Co. were first built more than thirty years ago, and nearly all of their lines have been rebuilt at least once. Where a line is built for only a few years and it is proved that more are required it is then necessary to rebuild it entirely, with longer poles, and in such cases all wires are also put up now, if they are expected to be in constant use.

The maintenance in working order of continual expense to provide for the wear and tear incident thereto, the same as is the case with railroad lines, where it is always calculated that there are to be a certain proportion of new ties, rails, etc., every year, and it is charged to the maintenance account and reckoned as part of the cost of running the road.—*Journal of the Telegraph.*

CANADA AT CHICAGO.

A correspondent of the Montreal *Witness* writes from Chicago as follows:—"Yesterday, Tuesday, I had the opportunity of being driven through the lumber district by Mr. Wilce, senior partner of Thomas Wilce & Co. Mr. Wilce is an old Montrealer, having arrived there from Cornwall forty years ago, and engaged for several years in business as contractor. In 1848 he removed to Chicago, where he continued his contracting. Having secured a competence before the fire, he retired from business, but two or three years after entered the conflict again, having secured possession of a planing mill, which now does the largest amount of work of any in Chicago. About five years ago he added to this a lumber yard at the corner of 22nd and Throop streets, with a frontage of 400 feet by 250 in depth, where annually is handled about 14,000,000 feet of lumber. This is in addition to the 5,500,000 shingles and 32,000,000 feet of lumber consumed in the planing mill. In the planing mill ten machines are at work, running at the highest rate of speed. The employees are mostly Bohemians, and a number of women and girls of that race were engaged in gathering the shavings from around the machines into immense bags, so large and heavy that it was as much as I could do to lift one. These they attach to their shoulders by means of straps and carry to their homes, a mile or more away. These women are the best featured and healthiest looking I have seen in Chicago, with, of course, an occasional exception. Mr. Wilce showed me the plan for feeding the furnaces below the boilers, which was invented by a former engineer. The shavings were made to fall into the furnace like snow in a heavy storm, and as it fell it was consumed, the combustion being perfect. This is a great saving of labor, the fireman being able to regulate the fall by means of a switch, while an automatic poker swaying from side to side kept the fire constantly stirred.

In rear of the planing mill is a very large saw and door factory, in which Mr. Wilce's son is an equal partner. Here are made all kinds of articles for use in the building and finishing of houses in the great North-West.

FOOLED ONCE MORE.

Markdale (Ont.) Standard.

MR. EDITOR,—The most of people relish a good story, provided it be a truthful one. Tales of adventures, daring, heroism, dangers of the deep, battles, &c., all have their charms. Who amongst us could read the adventures of Robinson Crusoe half way through and not have a desire to know the end of it. We confess being of this class. Now, the first thing we do when we receive our weekly newspaper is to hurriedly glance through it and pick out what we consider the most important item. These are generally distinguished by their headings; but you don't catch us trusting any longer to these glaring impositions. We could laugh at being fooled once or twice, but to get caught a third time is our reason for remonstrating. Two or three weeks since we got to reading what we considered a very nice story in one of our Toronto weeklies, and towards the end it informed us about St. Jacobs Oil; we only laughed, and said humbug. The week following we noticed another heading, "How Mark Twain Entertained a Visitor." Well, thinking we might learn a little etiquette, in case Mark should take a fancy to send us an invitation, we read it, but by St. Patrick, if they didn't finish by making Mark introduce St. Jacobs Oil. Well, confound it, we exclaimed, but they have got another dose of that St. Jacobs Oil on us again, and determined not to be caught so simple next time; but now, sir, I admit the corn; along comes our Toronto Mail on Thursday, down we sat, and almost the first thing that caught our eye was the adventures of Capt. Paul Boynton; it appeared quite interesting; it told how he bumped up against sharks, etc. At this point we began to feel a little incredulous, because, from our knowledge of these gentry, they would relish the captain alive or dead, all the same. However, determined to learn more of his exploits, we read a little further, when—O, well, it don't matter what we said, you can't find it in any of the dictionaries. I'm—dashed if the captain wasn't oiling himself all over with St. Jacobs Oil, it may be the more easily to evade the sharks, for we made no further search, our curiosity was satisfied. Now, Mr. Editor, in order to fool us again, it will require to be printed wrong end up. We have made up our minds to look out for anything and everything in the shape of St. or Saint attached to their name.

We are sorry for the readers of any journal to be thus "taken in," so to phrase it, but what can they expect when we editors are caught in the same storm without any protection. Whilst sympathizing with them, we can only admire the ability shown in any enterprise that can thus compel, as it were, the attention of people. When it is considered that only a short time ago St. Jacobs Oil was scarcely known in Canada, and now has so commended itself to the favor of the people of the Dominion as to become the household remedy for rheumatism, neuralgia, pains, bruises, chilblains, etc., and all because of its surprising efficacy in these ailments, we think it will be regarded by everybody as a matter of congratulation that we possess, so easily attainable, such a reliable means for the cure of disease. Such is our view of the matter, although we are "fooled," on an average, about five times a week. If St. Jacob can stand it, we've made up our mind to fight it out on that line, if it takes all winter."

QUEBEC PINE LANDS.

The Quebec Legislative Assembly, on April 11th, went into committee on the following important resolutions respecting public lands:—1. That the pine timber upon public lands shall in future be reserved in all sales, grants, location tickets, leases, or permits of occupation. Such timber shall belong to the Crown, and the reserve thereof shall be mentioned in all location tickets and letters patent, and every person now being the holder, or who shall hereafter be the holder, of a license to cut timber upon such lands may, during the continuance of such

license, by conforming to the regulations now or hereafter to be in force relating to timber on Crown lands, enter upon the uncleared portion of such lands, and cut and remove such trees, doing no unnecessary damage to the property, and make all necessary roads to remove such timber and haul in supplies. Notwithstanding the above proviso, the locattee being holders or not of letters patent, or their assigns, may, however, cut and use such pine timber as may be necessary for the purpose of building and fencing on the said lands, and by paying the same price as the holders of licenses to cut timber or saw logs, they may dispose at pleasure of those which they may cut down in the clearing of the land necessary to obtain letters patent. 2. That when there is no license to cut timber upon such public lands, the commissioner may, in such case, sell at public auction the pine timber so reserved by these resolutions by complying with the provisions of the Act 36 Vic., cap. 9. 3. That the Crown shall out of the consolidated revenue fund of the province pay to the persons who shall in future acquire public lands by sale, grant, location ticket, lease, or permit of occupation, or to their heirs or assigns, for the pine cut upon such lands, and upon which the Crown shall have collected dues, the sum of 25 per cent. of the dues so collected for the timber cut on such lands since their sale. Regulation shall from time to time be made by the Lieutenant-Governor-in-Council for the purpose of ascertaining and determining the persons to receive such payments, the sums to be paid, and the date of payment.

After a brief debate the resolutions were adopted in committee, and a bill based on them read a first time.

Forestry in England.

A paper on the "Teaching of Forestry" was read before the Society of Arts recently by Col. Pearson. The people strongly urged the necessity of establishing in Great Britain a school of forestry in connection with the State, where young foresters could be trained, instead of sending them to Continental schools, before drafting them to India and other colonial possessions for forest service. A committee is to be formed in order to bring the matter under the consideration of the Government.—*Timber Trades Journal.*

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