

# Along the Great Canal

(Special Correspondence.)

**Using Dynamite in the Orchard.**  
From time to time instances come to our notice of the use of dynamite in the orchard. Sometimes it is a stump of a tree that is taken out by this means and sometimes it is the hole for the tree that is being prepared by the use of dynamite. The men that use it is easy to see by either case and perform the work thoroughly. So it is, but the danger is great, and many a man has lost his life trying to get out of the hole in the case of quarrying rock. It is quite necessary to use powder and dynamite, but in orchard work it is not necessary. The trouble is that many a careless man imagines that he is very careful, and as a consequence of this misplaced confidence in his skill he either loses his own life or injures some other person. The digging of holes in the soil to set trees is not such a great task, as many of the users of dynamite claim that a stick of dynamite placed in a hole in the earth and exploded will loosen the earth for five feet around. That may be true, but there is no great advantage in loosening the dirt to a greater depth than is stirred up by the operation of the plow. If the soil is of the clayey texture the loosening of it below the depth to which the plow reaches will simply make a place in which water can settle and become stagnant. If the soil is of light texture no such general stirring up will permit the passage of roots.

**Careful Pruning.**  
Pruning is not a thing that can be done recklessly, although a great many farmers do not seem to realize the fact. The carelessness in pruning will injure the vitality of the tree, and this injury will be most apparent if a severe frost comes on. If the weather is wet through the growing season, sometimes the tree that has been pruned too much will die. If the weather is dry, the tree will die because of the lack of water. The amount of wood to be cut off means the limiting of fruit production. As a general thing, unpruned trees bear but little fruit. Pruning is a science that must be studied. No rule can be given in a single sentence that will be of much value. The man that makes a study of pruning will be able to increase the production of his orchard without increasing the expense, and without increasing the amount of plant food taken out of the soil.

**Stirring Orchard Soil.**  
The depth of stirring which soil depends on the condition existing in the orchard. If the trees are large, and the roots numerous in the ground, the soil should be stirred deep, the main object being to keep the surface soil stirred so that the capillary water can take place. With old orchards that have never been cultivated the stirring will have to be very shallow, because the roots of old orchards are close to the surface, and if they are disturbed the tree cannot readily turn enough new soil to replace the losses. The only orchard soil that may be stirred deep is the soil in the young orchard just after it has been put into bearing. Deep stirring will then pulverize it in advance of its growing roots and so encourage its root extension.

**Profit in Protein.**  
Protein is the most expensive element of food we can use for dairy cows, and for this reason there is a strong tendency to feed very little protein and a good deal of starch matter. But it is quite conclusively proved that if the protein is properly compounded with the other elements of the food it will result in a ration cheaper than if the protein had not been used. This is because in the ration used out of protein, the waste of the fat-forming material is great. At the Bioras Experiment Station recently tests have been made to prove that enough protein was used to increase the milk production at a slightly lesser cost.

**Drainage Laws.**  
The drainage laws of the different states vary, and some of them are very far from perfect. More than that, a good many states have no well-defined laws regulating the building of levees or drainage works. The laws that have been enacted are mostly laws that have been suggested by some circumstance that has arisen. The result of the result of intelligent effort to get a whole system of just laws enacted. This was discovered when Iowa farmers began to get together to discuss the laws. A comparison of such laws is far more abundant and likely than a politician working for some particular interest. Every state of the Union should have a drainage convention, and the two that have been held in Iowa.

**Feed for Chickens.**  
A city lady that had just purchased some chickens asked the farmer why they would eat. He replied that it would take him all his day to get the feed that they would eat, but that if she would not feed salt and cobblestones they would get along all right.

The Panama canal will be much like a great street or boulevard. 150 feet wide and brilliantly lighted from one end to the other by electricity at night. This watery avenue will be perfectly straight throughout for more than half of its entire length and will extend over a distance of about forty-three miles, connecting the Atlantic with the Pacific oceans.

Already the canal is two-thirds dug. To complete it will require fifteen years and an expenditure of \$145,000,000 in money. An army of at least 15,000 laborers will be employed on the job.

The first idea of the great French engineer, De Lesseps, was to dig a sea level canal across the isthmus, just as a small boy might cut a ditch between two ponds. But it became apparent later on that such a plan was not to be feasible, for the mountainous terrain of the two reasons. A mountain chain, with a considerable elevation of the great Cordilleran system.

Accordingly, the canal was carried through the mountain range through a convenient pass, and arrangements were made for locks, in which, by filling the water, the vessels are raised through will be lifted to the necessary elevation. It was a simple matter, required only eight locks in all being required. If it be understood that the profile of the great ditch presents in its middle part a high summit, from which it slopes gradually toward the sea on either side, you will see that each slope, the canal will be perfectly straight.

Now, the canal is already practically finished and navigable for nearly thirteen miles from the Atlantic end to the Pacific end. This one may start in a boat from Colon, on the east side of the isthmus, and travel comfortably for a mile or more than a dozen miles. The next fifteen miles are partly dug, with some deep cuts, such as 131 feet at Bohio, 12 feet at San Pablo and 95 feet at Motacich. The twenty-eighth mile rises the mountain range, the most serious obstacle to the undertaking.

Some Features of the Canal.  
Advantage is taken, however, of a convenient pass, and much of the remaining difficulty has already been removed by cuts, one of which has taken out a long slice of rock 154 feet in depth. At the third mile the slope toward the Pacific begins, and for the rest of the way the canal is made partly by filling completion. It extends out into the open ocean for a little over three miles, because the water was not deep enough to cut more and a channel had to be dredged.

teem miles to Obispo, where the canal leaves the river, covering an area of more than twenty-one square miles. The capacity of the dam will be something like 200,000,000 cubic yards.

A Mammoth Reservoir.  
Another dam will be built at Alhajuela, on the upper Chagres, nine miles from the mouth of the river, forming a reservoir with a surface area of ten square miles and a capacity of 150,000,000 cubic yards. This reservoir will store the flood waters of the Chagres in the wet season, but will do some very useful work. Acting as a feeder to the summit level of the canal, it will supply the great ditch with water in the dry season, through the medium of an aqueduct, and will furnish hydraulic power for operating the huge locks. The locks will be worked by electricity obtained from this water power, and by the same means the canal will be illuminated throughout its entire length with electric lights.

The canal when finished will accommodate merchantmen and war vessels of the largest size, and the time of transit from ocean to ocean will be less than that of the Panama railroad. The canal will bring to the commerce of the world will be, of course, incalculable.

**DEACON TOOK THE CHIPS.**  
Ginful Implements to Be Put to Quiescence.  
While the exhibition of railway appliances on the Monument grounds was intensely interesting to all the people, the most interesting of all was the exhibition of the American Railway Congress, and to those who have a taste for machinery, there were quite a number of visitors to the exhibit who were not so forcibly struck with what they saw.

Among these was Col. Louis Anselmy, treasurer of the Southern railway. Nothing seemed to appeal to him. Finally he stopped in front of an exhibit of rubber appliances, and the man in charge, happening to know that the colonel, remarked to him, "Colonel, I think this is something that will interest you," whereupon the exhibitor handed the colonel a small little box, securely tied. Upon opening it, the colonel, much to his surprise, found that the box contained a variety of rubber gopher chips of all colors and sizes.

"These are the very latest thing," said the man to the colonel, "you cannot beat them either on a table when you are running a little game in the wee hours of the morning, and they will be your chance for the police to discover you."

**THE OLD HOME.**  
An old lane, an old gate, an old house, a wild brook, they will not in a boyhood I knew them, and still they are in my heart.

Down deep in my heart's core I hear through the years, and then beneath my feet I feel the old brook and the old lane, and the old gate, and the old house, and the old lane, and the old gate, and the old house, and the old lane, and the old gate, and the old house.

**COMES OF FIGHTING FAMILY.**  
Baby By Right Took Part in Last Memorial Day Parade.  
Grandson of a veteran of the civil war, son of a veteran of the Spanish war and the youngest son of a veteran in the country who ever took part in a Memorial day parade is 2-year-old baby by right took part in the Memorial day parade in the city of Boston, Mass., on Monday, May 30. He was the youngest of the parade, and he was the only one who was not a veteran.

**Corcoran's Career.**  
Near Fairfax Court House, Va., Dec. 2, 1863, Col. Michael Corcoran met a him while riding with Gen. Thomas Francis Meagher. He was born in Ireland, and he was a captain in the 69th New York Infantry. He was appointed to the rank of lieutenant in 1857, and he was promoted to the rank of captain in 1861. He was wounded in the battle of Antietam, and he was captured by the British. He was held as a prisoner of war for two years, and he was released in 1863.

**REGIMENTAL REUNIONS AND FORTY-SECOND ANNIVERSARY BATTLE CHICKA-CHAUANOOGA.**  
On September 18, 1893, will occur the forty-second anniversary of the battle of Chickamauga. It is proposed to hold a reunion of the regiment that participated in the battle, and to hold a banquet in honor of the occasion. The reunion will be held at the Hotel Hamilton, and the banquet will be held at the Hotel Hamilton.

**Captured Gen. Lee's Son.**  
It was considerable of a surprise to his neighbors when David D. White, Lieut. Colonel of the 1st Virginia Cavalry, was captured by the Union forces near North Adams, Mass., just over the mountains, where he has just returned. He was captured by the Union forces near North Adams, Mass., just over the mountains, where he has just returned. He was captured by the Union forces near North Adams, Mass., just over the mountains, where he has just returned.

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**Clark's White Lead Works.**  
BIRMINGHAM, Mich., Mar. 25, 1902.  
I painted my house 30 years ago with Clark's White Lead Works Best Liquid Paint. I will repaint the house this spring for the first time in 30 years. It has lasted better all these 30 years than any other building I ever saw. It looks well and doesn't crack off. My folks won't have any other brand.  
CLARK BIRMINGHAM.

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