

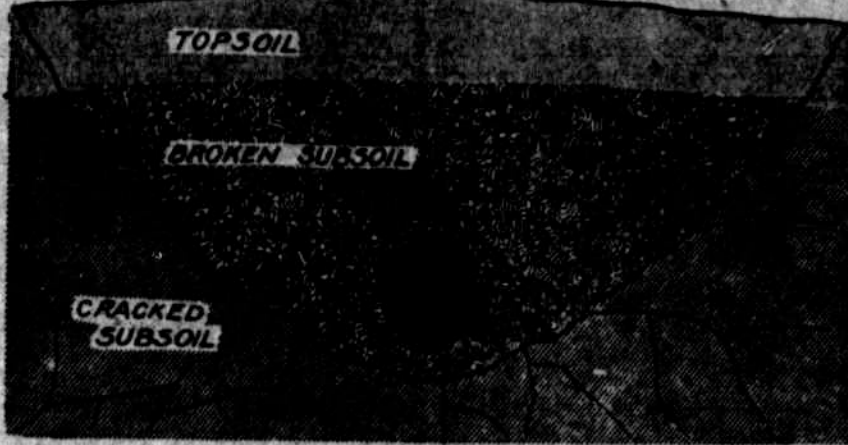
Blasting Ground For Tree Planting

Much has been written on how to plant a tree or trees, but if the experiences of scores of famous orchardists have any weight on the topic, then the practice of using dynamite preliminary to planting young trees has fully proved its merits.

The writer has personally seen specific examples of the value and excellence of tree planting with dynamite on a private orchard in Delaware, the

Blasting for tree planting is best done in the fall, because at this time of the year it is easier to catch the subsoil in dry condition. Blasting in the spring for spring planting, however, is much better than planting in dug holes, notwithstanding the fact that the subsoil is apt to be wet or damp.

If the holes are blasted in advance of the time of setting the trees they are left without further attention until



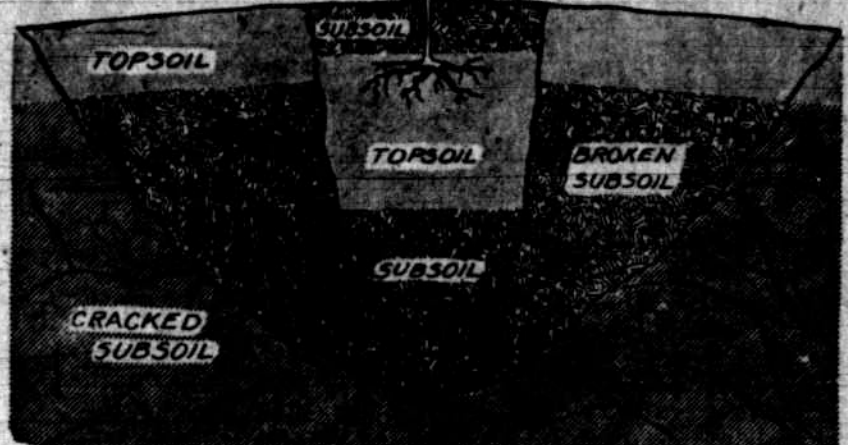
THE BLAST THOROUGHLY CRACKS THE SOIL, BUT USUALLY LEAVES A CAVITY OR POTHOLE AT THE BOTTOM—THIS MUST BE FILLED.

difference in growth between the undynamited tree and the tree planted in blasted ground being so unmistakably in favor of the latter that no adequate comparison could be made.

Furthermore, there are so many sane and logical reasons for this method of tree planting that even the most skeptical could not fail to be convinced. Obviously when a tree has to use a large part of its energies in forcing its roots through the hard soil it cannot be expected to make the same rapid growth and come into such

tree planting time, unless it is desirable to add some manure or fertilizer to be diffused through the soil. This is an excellent practice, especially in a poor soil. If the earth is sour, sticky clay a few pounds of lime scattered in the hole will materially assist in flocculating the clay and keeping it permanently granulated and sweet.

Immediately after the blast the soft blasted ground should be dug out down to the location of the charge, where a hole will usually be found about the size of a bushel basket. This



THE ROOTS ARE FIRMLY EMBEDDED IN RICH TOPSOIL, SURROUNDED BY MELLOW, WELL DRAINED SUBSOIL.

early bearing as a tree would that had had the ground in which it was planted thoroughly prepared by dynamiting beforehand.

No tree should be planted over hardpan or impacted subsoil without first resorting to blasting, so that the soil may be made open and porous. Such blasting not only creates channels, increases absorption of soil moisture and permits deeper rooting, but it also induces better growth and larger yields.

must be filled to prevent settling of the tree after planting. The roots should be placed in a natural position in good top soil, covered with more top soil and tamped down firm. The hole can then be filled to a little above the surface with subsoil.

The fact that nearly all commercial orchardists use this method proves that it pays in reduced first year loss, earlier fruiting and larger and better yields.

Digging a Ditch In a Flash

Things move quickly nowadays. The village of yesterday is tomorrow's metropolis. Speed is a requisite, and newer methods that smack of rapidity and labor and money saving are in demand.

Ditches that once consumed many days of hand or machine labor are now being blasted out in almost the twinkling of an eye. By degrees man is learning to adopt some of nature's simple, but mighty forces. And the gullies and valleys that old Mother Earth has created by her natural upheavals and eruptions are being duplicated in a smaller way by some of the more progressive and up to date farmers.

Digging ditches with dynamite is simply a newer and more improved method of trench building. The method employed in wet work is simply to punch holes from eighteen to twenty-four inches deep along the line desired to ditch and then load each hole with a charge of 50 per cent straight dynamite.

Long stretches of ditch can be loaded and fired at one time. One cap placed

in a cartridge of dynamite in the middle hole of the line of charged holes and fired will do the work.

A single row of holes can usually be depended upon to excavate a ditch from seven to nine feet wide and about thirty to forty inches deep. Where larger ditches are required the holes can be made deeper and loaded heavier, or two or more lines of holes, spaced from three to four feet apart, can be used. Incidentally the holes can be made in the roughest kind of swamp or in flood mud beds, where other methods of ditching are practically impossible.

When the soil is dry or the weather is too cold to use the propagated method of blasting described above low freezing farm or stumping powder is used in holes spaced farther apart, often in large ditches as far as four or five feet. In this case each hole must be primed with an electric cap, as the explosive shock will not propagate in dry ground.

The cheapest lineal foot of small ditch is obtained by using the electric firing method and farm or stumping powder.



Loading.

The Ditch.

BLASTING DITCHES THROUGH SWAMP.

Burrowers—Beware!

Gophers and prairie dogs are the bane of western farmers, while in the east woodchucks are the type of burrowing animals that cause the tillers of the soil to forget some of the things the dominie tells them on Sundays.

Don Leonardo Ruiz, a California rancher, says "dynamite is the proper medicine to give ground squirrels, gophers, prairie dogs, etc."

Take an inch and a half or two inches of dynamite. Put it in a bit of

cloth or several thicknesses of paper to form a small round cartridge. Tie the cloth or paper firmly about one end of a piece of fuse twelve or fourteen inches long, but do not use a cap.

Insert one of these charges well into the mouth of every hole and pack loose dirt around the fuse, leaving enough of the end outside to light easily. Light the fuse and go on to the next hole. There will be no explosion.

There being no cap or other detonator, the dynamite will simply burn, filling the hole with dense, poisonous fumes that will almost instantly stifle and then kill every living thing inside.

Priming a Dynamite Cartridge

To properly prime a dynamite or farm powder cartridge four things are essential—the cap, the fuse, the cartridge and a crimping tool. The method in itself is very simple.

First crimp the priming cap about the fuse, using the crimping tool as

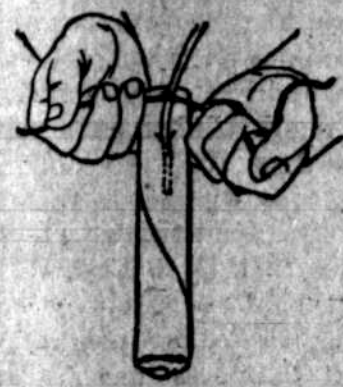


Crimping the Cap to the Fuse.

shown in the illustration. Next punch a diagonal hole in the cartridge with the end of the crimping tool, making the hole deep enough to entirely bury the cap. Insert the cap into this hole and tie the fuse to the side of the car-

tridge, then insert in another diagonal hole below the first hole. No tying is necessary to hold the cap in the cartridge. This method is called "tacing the fuse through the cartridge." It is unsafe and unreliable. The fuse is likely to break at the sharp turns and the powder train spit fire through

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Tying Fuse and Cap to Cartridge.



Making Cap Hole In Cartridge.

tridge securely with a stout piece of cord.

If the job is done carefully and correctly the entire outfit will look like illustration No. 4, and the priming will be complete.

Ignorance, fear or carelessness are the causes of most accidents. There

is no immediate danger in handling a stick of farm powder if the user will use but an ordinary amount of care and intelligence.

A common incorrect method of priming is to punch a hole right through the cartridge, pass the capped fuse through it, then insert in another diagonal hole below the first hole. No tying is necessary to hold the cap in the cartridge. This method is called "tacing the fuse through the cartridge." It is unsafe and unreliable. The fuse is likely to break at the sharp turns and the powder train spit fire through

The Finished Cartridge—Primed.

the break, setting fire to the cartridge instead of exploding it, or the fuse may miss fire altogether, leaving an unexploded charge in the hole, or it may hang fire for half an hour or half a day and cause a serious accident. Short cuts do not pay in handling explosives.

Straightening Streams With Dynamite

The ancient Egyptians were noted for their crops because, as history states, they "sowed their seeds in the Nile." This does not mean that they actually cast the seed in the river. At certain seasons of the year the Nile overflows its banks, depositing on either shore a rich silt or earth that is highly conducive to bumper crops, and the wise ancient Egyptians, realizing this profited thereby.

Water is a necessity. The tiniest brooks up to the largest rivers play an important part in the scheme of things inasmuch as they are nature's way of



Diagram of Stream Troubles That May Be Corrected by Blasting.

both irrigation and drainage. But being formed according to nature's dictates their courses do not always jibe with man's desires or needs.

Rock ledges impede their progress. Overhanging stumps and trees retard their flow. Numerous irregularities cause them to meander about in apparently wasteful ways, and man's carelessness has added to these troubles by allowing driftwood and loose earth to form dams and sandbars.

All of these things help to hold the flood of waters back and cause either flooding or swamps, which not only occupy land that could be more profitably used for farming, but also form breeding places for mosquitoes and other obnoxious pests. Incidentally they cause an annual loss running into millions of dollars per year.

In this day of enlightenment such things are both wasteful and, one might add, criminal, especially so in view of the fact that almost instant relief may be had by a few well placed charges of dynamite. Not only will these blasts straighten out the kinks and bends and remove ledges and sand bars, but they will deepen and improve the channels as nature has really intended. Incidentally by straightening the winding course of a creek much area of tillable land can be obtained and farm operation in many instances made much easier.

Explosives In Road Building

One of the newer methods of road building that is fast winning the in-

terest of the better versed contractor is that of employing dynamite for reducing the heavy work.

Grading through hard ground or rock, for instance, is tedious and requires time and labor. The use of dynamite for blasting such material is a welcome relief. Both rock and hard clay may be loosened in the cut by well placed charges of explosives if holes are drilled into the ground a little way up the bank and loaded. Careful spacing and loading for electrically fired blasts will result in bringing down both classes of materials in the best possible manner



in loosening shale and rock to facilitate hand or steam shovel work dynamite is also very effective, while stumps may be blasted from the roadbed just as though they were being removed from a field to be cleared and cultivated.

Boulders also are easily shattered by suitable loading and when of hard rock may be crushed into surfacing stone. The side ditches as well as the long outfall ditches can also be blasted in keeping with the nature of the ground. In fact, there are no limits practically to the many uses and advantages of dynamite for road building when careful and thoughtful attention is given to the work.

Incidentally the planting of shade-trees for roadside improvement and attractiveness is greatly facilitated by the judicious use of a little dynamite. It is a recognized fact that trees planted in blasted holes grow much more rapidly and progress more favorably than those planted in the average spade dug ground.

THE SMOKING OF TOBACCO.

Maybe Raleigh Was Not the First White Man to Use the Weed.

One's faith in the tradition that Sir Walter Raleigh was the first smoker of tobacco is somewhat shaken by this quotation regarding William Middleton, antedating Raleigh's use of the weed, in G. L. Apperson's "The Social History of Smoking."

"It is said that he, with Captain Thomas Price of Plasvöllin and one Captain Koet, were the first who smoked, or (as they called it) drank tobacco publicly in London and that the Londoners flocked from all parts to see them."

There is a vague doubt, however, about the date of Middleton, and so the Raleigh theory of the introduction of tobacco into England may still find adherents. Europe, however, according to Mr. Apperson, first knew the tobacco plant in 1560. In England William Harrison, writing in 1588, states that in 1573 "the taking in of the smoke of the Indian herb called Tobacco by an instrument formed like a little ladell, whereby it passeth from the mouth into the head and stomach, is grellie taken up and used in England."

Since then tobacco has been

through many vicissitudes. It encountered the condemnation of King James, in whose reign it was furnished by the apothecaries as a sort of pick-me-up. Theologians and others wrote against it until "in the early Victorian days, when it was in complete disrepute, relegated to the stables and outhouses and generally classed as utterly vulgar." Since that period, however, owing largely to the example set by King Edward VII., tobacco has steadily gained in popularity, denounced, it is true, by Swinburne, Ruskin and others and calumniating in that "grand night" when "Tennyson and Carlyle sat in the kitchen of the house in Cheyne row opposite one another for hours, smoking in solemn silence."—New York Times.

Gossip and Scandal. Many people confuse gossip with scandal, but the two things are quite different. The scandalmonger is usually detested, while the gossip is often universally popular. In fact, the popularity which it brings in its train is one of the strongest incentives to gossip. A really accomplished gossip is a social acquisition. Thousands of people who do not gossip themselves like to listen to it. It saves them the trouble of talking. The gossip is generally good natured. The scandalmonger seldom is. After all, what is more interesting than human nature? That is the stock in-trade of the gossip, as it is of the novelist and dramatist.—London Mail.

TWO FACED JANUS.

He Was the Ancient Sun God as Well as the God of War.

Poor old Janus! Do you know how shamefully posterity has maligned him? You have heard all your life that January was named for the Roman god Janus and that Janus was the god of war, hence the first month of the year must be turbulent. Or perhaps you have gone deeper into the significance of the first month's name and have been told that it was given the honor of heralding that gory god because he had two faces, one looking into the past and the other looking into the future, as the first month of the year naturally would do. But through it all you have held rigidly before you the fact that he was the patron, the devotee, perhaps even the instigator of war.

As a matter of history, Janus was a venerable and thoroughly established deity before the little band of Trojans carried eastern culture to Italy, when the primitive Italians had not begun to suspect that war was an institution which called for a "goat." War needed no justification or excuse. Men fought because that seemed the only thing to do. As for Janus, he was their greatest sun god. He presided over the rising and setting of the sun, and hence he was the god who looked after the propitious beginnings and happy endings of all undertakings. He was represented with two faces, which looked to the east and the west. His temple in Rome was closed only in time of peace, and as there seldom was peace it was usually open. Hence he was called the god of war.—St. Louis Globe-Democrat.

TRIBUTE TO THE MULE.

With All His Faults He is a More or Less Noble Character.

The mule is singularly free from the ills to which horseflesh is heir. He has more days' work in him in 365 consecutive days than any farm animal or farm engine. He requires less feed when at work than any horse that can approach his capacity, for when he is idle he can forage successfully where the draft horse finds the picking too slim. He takes pot luck with any owner cheerfully and keeps fit upon it. In peace the mule is man's most faithful servant, although the gentlest of his kind is not entirely free from original sin and the oldest may experience unaccountable sporadic outbreaks of devilment.

In war the mule retains his character as a hard toiler, a good scout and a homely figure about whom the poets and painters at the front do not grow enthusiastic. Although he is unused when living and not greatly honored, he is not unwept when at thirty or beyond he lies down, sighs peacefully rather than regretfully and gives up his Spartan spirit.

If there is a hereafter for animals the mule's paradise is a series of Elysian fields with fences that only a good jumper can clear, with colts to chase, with something alive and preferably two legged to kick and with plenty of rough, plain victuals and a few goats to play with in sportive moods and negro drivers not brutal, yet not too indulgent, for human companionship.—Louisville Courier-Journal.

It is an interesting fact that the fishermen of northern Portugal started and developed the fishing industry on the "banks" off the northern coast of America, and, though they now send fewer ships, their taste for salt cod from Newfoundland is unabated. In fact, it is a national Portuguese dainty. It is found in every little grocery shop, hard and brown as a board. A number of Portuguese have made their homes on the islands to the south of the mainland of Massachusetts, and there the dark eyes of the Iberian maiden, raven locks and a certain picturesque element in dress are not infrequent. This connection with Portugal dates back many years, the ships of Marthas Vineyard bridging the distance over sea and returning with Portuguese crews.—Ex-

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Administrator's Notice of Final Settlement.

Notice is hereby given that the undersigned administrator of the estate of Elizabeth A. White, deceased, has filed his final account as said administrator, in the County Court of Yamhill County, Oregon, and that said Court has appointed Monday, March 27, 1916, at 11 o'clock A. M., of said day as the day and hour for the hearing of objections to said final account and the settlement thereof.

Now, therefore, all persons interested in the estate of said decedent are hereby notified and required to appear at the County Court room at the Court house, at McMinnville, said county and state, at said time to then and there show cause, if any there be, why said account should not be settled, allowed and approved, and said estate forever and finally settled and said administrator and his bondsmen discharged.

Dated this 24th day of February, 1916.

William E. White,
Administrator of the estate of Elizabeth A. White, deceased.

Clarence Butt,
Attorney for estate.
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Last " March 23, "

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