

WHAT DYNAMITE IS

AND HOW IT IS MADE
Interesting Information Concerning
a Much-Used and Little-Known
Explosive.

Few people know what dynamite is, though the word is in common use. It is a giant gun powder; that is, an explosive material varying in strength and safety of handling according to the percentage of nitro-glycerine it contains. Nitro-glycerine, whence it derives its strength, is composed of ordinary glycerine and nitric acid, compounded together in certain proportions and at a certain temperature. Nitro-glycerine, though not the strongest explosive known, being exceeded in power by nitrogen and other products of chemistry, is thus far the most terrible explosive manufactured to any extent. Nitro-glycerine by itself is not safe to handle, hence dynamite is preferred. It is extensively made and consumed in the United States under the various names of Giant, Hercules, Jupiter and Atlas powders, all of which contain anywhere from thirty to eighty per cent of nitro-glycerine, the residue of the compound being made up of rotten stone, non-explosive earth, sawdust, charcoal, plaster of paris, black powder or some other substance that takes up the glycerine and makes a porous, spongy mass.

Nitro-glycerine was discovered by Salvoro, an Italian chemist, in 1845. Dynamite is prepared by simply kneading with the naked hands twenty-five per cent of infusorial earth and seventy-five per cent of nitro-glycerine until the mixture assumes a putty condition, not unlike moist brown sugar. Before mixing the infusorial earth is calcined in a furnace, in order to burn out all organic matter, and it is also sifted to free it of large grains. While still moist it is squeezed into cartridges, which are prepared of parchment paper, and the firing is done by fulminate of silver in copper capsules provided with patent exploders. Nitro-glycerine is made of nitric acid one part and sulphuric acid two parts, to which is added ordinary glycerine, and the mixture is well washed with pure water. The infusion is composed of small microscopic silicious shells, which have lost their living creatures. The cellular parts receive the nitro-glycerine and hold it, by capillary attraction, both inside and out. The earth is very light. Water is expelled from it by means of a furnace, and then, in the form of a powder, it is mixed with nitro-glycerine. Nitro-glycerine has a sweet, aromatic pungent taste, and the peculiar property of causing a violent headache when placed in a small quantity on the tongue or wrist. It freezes as 40 degrees Fahrenheit, becoming a white, half crystallized mass, which must be melted by the application of water at a temperature of about 100 degrees Fahrenheit.

WE EXPORT SOME TEETH.

Some idea of the general use of false teeth may be gathered from the statement that 20,000,000 of them are exported from America to England every year. When we consider that probably not more than half the inhabitants of Great Britain indulge in the luxury of false teeth, no matter how many grinders they may have lost, these figures would seem to indicate that nearly everyone in England suffers from defective or missing teeth. As far as observation goes, the United States is no better off than England in this respect.

IRRIGATION WONDERS

Government Engineer Tell Some Interesting Things About Projects Now Under Construction.

Ability to learn without previous farming experience is the best asset for the newcomer on irrigated lands, says C. H. Swigert, supervising engineer for government reclamation projects in Washington. Swigert with the supervising engineers of other district attended the meeting held recently with R. A. Ballinger, secretary of the interior.

"The men who make the greatest failures on irrigated lands are the men who think they know about farming," he asserted. "Men who have had previous experience on farms come west with the idea that they have nothing left to learn. As a result they give the land too much water or too constantly; it sours or the alkali comes to the surface and the property is rendered valueless.

Needs Artistic Touch.

"Many people think you dig a ditch and get the water to the land and the sun and the earth and the Lord do the rest," Mr. Swigert continued. "As a matter of fact the artistic touches are applied after the crop has been sowed. Under drainage is all important. Land that is soggy must be artificially provided with under drainage.

"Much of the land that we irrigate, however, will drain itself if not given too much water. But I find that in nearly every case the newcomer wants to use too much water. Plant life, though, needs only so much water. More than that is injurious. This is true of irrigated land, as it is of those sections where natural rainfall furnishes the water supply."

Mr. Swigert is just completing the Tilton project, the largest ever undertaken by the government in Washington. It involves some extremely difficult and peculiar engineering features. In places the canal hangs on the mountain side; in another place it passes through a tunnel 10,999 feet long. The whole twelve miles of its length is lined with cement to keep the water from leaking away.

Moved Canal Up Mountain.

It was not found practicable to spread the cement out in layers like a cistern is lined, so the canal was built entirely down in the valley before it was moved up on the mountain side and set in place. It was, of course, impossible to make it all in one piece, so semi-circular forms eight feet in diameter and transversely two feet wide were molded. These were found to fit perfectly together when set in place. In the tunnel the shapes were made six feet in diameter, circular in form.

The canal carries 300 second feet and supplies 30,000 acres of rich land with water; this land all being less than twenty miles from North Yakima.

At the present time a dam is under construction which will store the waters from Bumping lake in a huge reservoir holding 34,000 acre feet, and will be completed in 1910.

Sums Too Vast.

"The reason we do not state the number of gallons a reservoir will hold is because the sums are too great for comprehension," Mr. Swigert explained. "An acre foot of water means that water to the depth of one foot has been spread over one acre. To reduce it to gallons you multiply by 300,000. With the reservoir holding 34,000 acre feet using the multiple suggested you have 10,200,000,000 gallons. Isn't that a little hard to comprehend?"

AS USUAL—IT WAS THE WOMAN

A woman came down town shopping. She first entered a furniture store and bought a hammock. The dealer said, "I have been advertising these hammocks for two weeks." "I never read the ads in a paper. I go till I find what I want." Whereupon the furniture man ceased advertising.

Another woman called at a dry goods store and priced some dress gingham. When told the price, she asked, "You will sell at the same figure that — is advertising his gingham for, won't you?" The dealer hesitated a minute and said, "Yes; if he can afford to sell at that price, I can, too." After the woman left he reasoned thus: "If — advertises and fixes a price that I have to meet, I'll fix my own prices by advertising."

Then some women go about saying that woman's influence should be enlarged by placing the ballot in her hand. Heigh-ho! Poor little dears! So innocently do they run the whole universe that they chatter away and shape even the destinies of nations while sipping tea or change business policies while buying a yard of lace.

ENDORSES STATE OF SISKIYOU

The Crescent City, Del Norte county, Cal., Record endorses the embryo project for an organization of a new State out of portions of Southern Oregon and Northern California. It says:

"Del Norte county and a great portion of Siskiyou would fit well into the State of Siskiyou, while to the north of it lies Curry county, which is dependent on California more than it is on its own State—Oregon.

"For many years efforts have been made to secure government aid to improve the harbors along the coasts of Del Norte and Curry counties, but influence has been brought to bear to kill such projects. Work has been done to improve Humboldt bay sixty miles south of this place, and at Coquille river one hundred miles north. In the neglected portions are a number of harbors—open ports—that are all that can be desired during the summer months, but are exposed to southerly storms during winter months. They require breakwaters.

"From the northern line of Curry county, Ore., to the southern line of Del Norte county, and inland many miles—in fact, to the Cascade mountains—is the richest section of the Pacific Coast. There is no one product to depend on as is the case in other localities. We have vast forests of redwood, fir, sugar pine, cedar, etc., mammoth ledges of copper and other minerals; rich fruit, grain, dairy and stock lands; the Klamath, Rogue, Smith, Chetco, Winchuck, Pistol, Sixes and other streams flowing through an undeveloped empire which will furnish unlimited power for all manufacturing plants. One must go over the field to appreciate what awaits the railroad that will surely be built."

OUR COAST DEFENSES.

We clip the following interesting item from the Scientific American:

The War Department exhibit at the Alaska-Yukon-Pacific exposition contains a model exhibit of the system of protecting harbors by mines which will serve to show the people of the Pacific coast how perfectly secure against the entrance of hostile ships their harbors may be made. The terrific destruction wrought by mines in the Japanese war has rendered it certain that no captain of a costly modern battleship will jeopardize a ten-million-dollar vessel by venturing into properly mined rivers or harbors.

W. J. Williams of Keno was in the city last week.

WHAT SALT WILL DO.

A little rubbed on the cups will take off tea stains. Put into white-wash it will make it stick better. As a tooth powder it will keep the teeth white and the gums hard and rosy. It is one of the best gargles for sore throat and a preventive of diphtheria if taken in time. Use salt and water to clean willow furniture, apply with a brush and rub dry. Salt and water held in the mouth after having a tooth pulled will stop the bleeding. Prints rinsed with it in the water will hold their color and look brighter. Two teaspoonful in half a pint of tepid water is an emetic always on hand, and is an antidote for poisoning from nitrate of silver. Neuralgia of the feet and limbs can be cured by bathing night and morning with salt and water as hot as can be borne. When taken out, rub the feet briskly with a coarse towel. Salt and water is one of the best remedies for sore eyes, and if applied in time will scatter the inflammation. Silk handkerchiefs and ribbons should be washed in salt and water and ironed wet to obtain the best results. As a fertilizer salt is very valuable. Food would be insipid and tasteless without it. Hemorrhages of the lungs or stomach are promptly checked by small doses of salt.

WORDS OF WISDOM.

A good fame is better than a good face.
 A young man idle, an old man needy.
 When fools go to market pedlars make money.
 A good paymaster never wants workmen.
 When a dog is down everyone is ready to bite him.
 He who serves well need not be afraid to ask his wages.
 He who has four and spends five has no need of a purse.
 If you would know what a dollar is worth try to borrow one.
 He who buys wants a hundred eyes, and he who sells need have but one.
 Gold is an idol worshiped in all climates without a single temple and by all classes without a single hypocrite.
 J. G. Pierce and family returned from their Crystal creek retreat Monday afternoon.

SUMMONS.

In the Circuit Court of the State of Oregon for Klamath County.
 J. Frank Adams, plaintiff, vs. F. O. Pierce, defendant.
 To F. O. Pierce, defendant:
 In the name of the State of Oregon, you are hereby required to appear and answer the complaint of the plaintiff filed against you in the above entitled cause on or before the 11th day of September, 1909, being the date prescribed by the above entitled Court in the order for the publication of this summons for you to appear and answer said complaint, and if you fail to so appear and answer on or before said date the plaintiff will take judgment against you for the sum of \$1,322 and for his costs and disbursements of this action.
 This summons is served upon you by publication in the Klamath Republican, a newspaper of general circulation, published at Klamath Falls, Klamath County, Oregon, by order of the Hon. George Noland, judge of the above entitled Court, made on the 3d day of July, 1909. The first publication of this summons is of date July 29th, 1909, and the last will be of date the 12th day of September, 1909.

SUMMONS.

In the Circuit Court of the State of Oregon for Klamath County.
 J. Frank Adams, plaintiff, vs. F. O. Pierce, defendant.
 To F. O. Pierce, defendant:
 In the name of the State of Oregon, you are hereby required to appear and answer the complaint of the plaintiff filed against you in the above entitled cause on or before the 11th day of September, 1909, being the date prescribed by the above entitled Court in the order for the publication of this summons for you to appear and answer said complaint, and if you fail to so appear and answer on or before said date the plaintiff will take judgment against you for the sum of \$1,322 and for his costs and disbursements of this action.
 This summons is served upon you by publication in the Klamath Republican, a newspaper of general circulation, published at Klamath Falls, Klamath County, Oregon, by order of the Hon. George Noland, judge of the above entitled Court, made on the 3d day of July, 1909. The first publication of this summons is of date July 29th, 1909, and the last will be of date the 12th day of September, 1909.

SUMMONS.

In the Circuit Court of the State of Oregon for Klamath County.
 J. Frank Adams, plaintiff, vs. G. L. Frazier, defendant.
 To G. L. Frazier, defendant:
 In the name of the State of Oregon, you are hereby required to appear and answer the complaint of the plaintiff filed against you in the above entitled cause on or before the 11th day of September, 1909, being the date prescribed by the above entitled Court in the order for the publication of this summons for you to appear and answer said complaint, and if you fail to so appear and answer on or before said date the plaintiff will take judgment against you for the sum of \$1,322 and for his costs and disbursements of this action.
 This summons is served upon you by publication in the Klamath Republican, a newspaper of general circulation, published at Klamath Falls, Klamath County, Oregon, by order of the Hon. George Noland, judge of the above entitled Court, made on the 3d day of July, 1909. The first publication of this summons is of date July 29th, 1909, and the last will be of date the 12th day of September, 1909.

SUMMONS.

In the Circuit Court of the State of Oregon for Klamath County.
 J. Frank Adams, plaintiff, vs. G. L. Frazier, defendant.
 To G. L. Frazier, defendant:
 In the name of the State of Oregon, you are hereby required to appear and answer the complaint of the plaintiff filed against you in the above entitled cause on or before the 11th day of September, 1909, being the date prescribed by the above entitled Court in the order for the publication of this summons for you to appear and answer said complaint, and if you fail to so appear and answer on or before said date the plaintiff will take judgment against you for the sum of \$1,322 and for his costs and disbursements of this action.
 This summons is served upon you by publication in the Klamath Republican, a newspaper of general circulation, published at Klamath Falls, Klamath County, Oregon, by order of the Hon. George Noland, judge of the above entitled Court, made on the 3d day of July, 1909. The first publication of this summons is of date July 29th, 1909, and the last will be of date the 12th day of September, 1909.

plaintiff filed against you in the above entitled cause on or before the 11th day of September, 1909, being the date prescribed by the above entitled Court in the order for the publication of this summons for you to appear and answer said complaint, and if you fail to so appear and answer on or before the said date the plaintiff will take judgment against you for the sum of \$1,130.67 and for his costs and disbursements of this action.

This summons is served upon you by publication in the Klamath Republican, a newspaper of general circulation, published at Klamath Falls, Klamath County, Oregon, by order of the Hon. George Noland, judge of the above entitled Court, made on the 3d day of July, 1909. The first publication of this summons is of date July 29th, 1909, and the last will be of date the 12th day of September, 1909.

RICHARD SHORE SMITH,
 and
D. V. KUYKENDALL,
 7-29, 9-12 Attorneys for Plaintiff.

SUMMONS

In the Circuit Court of the State of Oregon for the County of Klamath.
 Rose E. Keese, plaintiff, vs. John Cotes, defendant.
 Suit to quiet title.
 To John Cotes, the above named defendant.
 In the name of the State of Oregon, you are hereby required to appear and answer the complaint filed against you in the above entitled suit on or before the 16th day of September, 1909, being the last day of the time prescribed in the order for the publication of this summons, the first publication hereof being on the 5th of August, 1909; and if you fail to so appear and answer, you are therewith the plaintiff will apply to the Court for the relief prayed for in the complaint herein, to-wit: for a decree that the defendant has no right, title or interest in or to the following described real property: NW 1/4 of NW 1/4, E 1/2 of SW 1/4, and W 1/2 of E 1/2 of Section 35, Township 29 South, Range 11 East of Willamette meridian, and for the costs and disbursements of this suit and for such other and further relief as to the Court may seem just and equitable.
 This summons is served by publication thereof in the Klamath Republican by order of Hon. George Noland, Judge of the Thirteenth Judicial district of the State of Oregon, made, dated and filed in this suit at Klamath Falls, Oregon, on the 29th day of July, 1909, which said order requires that summons in this suit be published once a week for a period of six successive and consecutive weeks from the 5th day of August, 1909.

J. C. RUTENIC,
 and
H. W. KEESSE,
 7-29 8-23 Attorneys for Plaintiff.

NOTICE OF EXAMINATIONS

NOTICE is hereby given that the County Superintendent of Klamath County will hold the regular examinations of applicants for State and County papers at the Klamath County High School building in Klamath Falls as follows:

For State papers—
 Commencing Wednesday, August 11th at 9 o'clock a. m. and continuing until Saturday, August 14th, at 4 p. m.

Wednesday—Penmanship, History, Spelling, Physical Geography, Reading, Psychology.
 Thursday—Written Arithmetic, Theory of Teaching, Grammar, Book-keeping, Physics, Civil Government.
 Friday—Physiology, Geography, Composition, Algebra, English Literature, School Law.
 Saturday—Botany, Plane Geometry, General History.

For County papers—
 Commencing Wednesday, August 11th, at 9 o'clock a. m. and continuing until Friday at 4 p. m.

Wednesday—Penmanship, History, Orthography, Reading, Physical Geography.
 Thursday—Written Arithmetic, Theory of Teaching, Grammar, Physiology.
 Friday—Geography, School Law, Civil Government, English Literature.
 7-29, 8-7 **J. G. SWAN,**
 County Superintendent.

To the Public:

As an introduction to the trade of Klamath Falls and Klamath County I have inaugurated a Great Sacrifice Sale. It will continue until further notice.

The Boston Store

O. M. HECTOR, Proprietor



SINCERITY CLOTHES

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