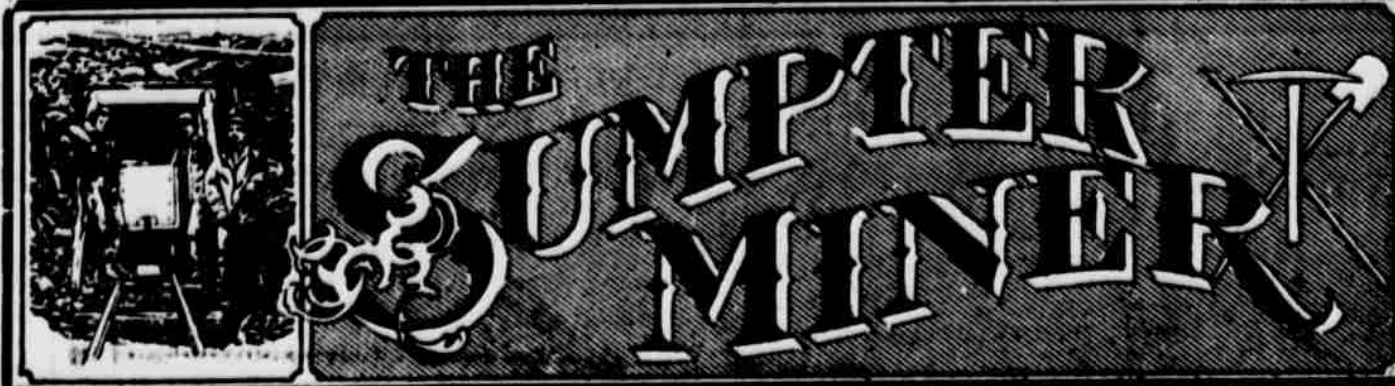


COVERS
THOROUGHLY
THE
GOLD FIELDS
of the
INLAND EMPIRE



EASTERN
INVESTORS
IN
OREGON MINES
Pay for
AND READ IT

NEW BONANZAS WILL BE FOUND

The day is past and gone when mining men will cling to the belief that the exhaustion of any mine limits the future production of the camp or of the district in which such mine is located, and the opinion is becoming more and more universal that richer and better mines will eventually be found in close proximity to old-time producers than were these bonanzas in their most palmy days. And, not only has this idea been gaining in strength year by year, but the belief in the frequent discovery of new and rich mining fields is beginning to have a beneficial effect upon the mining industry of the west.

The fact that the west can make claim to the possession of many rich and productive camps does not in the least weaken the claim advanced by experienced mining men that as many more bonanza districts will yet be found. The west abounds in localities, rich in their deposits of the precious metals, that have never, as yet, been visited by the prospector or miner, and the frequent discovery of rich mines in virgin fields attests the truthfulness of the old assertion that "gold is where you find it." Nevada, with her wonderfully new and rich mining camps, such as Tonopah and Goldfield, is an example of what we may expect to witness in many sections of the west in the near future, and many new camps of this character will yet be discovered in localities now believed by mining men to be worthless and barren; and, strange as it may seem, most of these discoveries will, most likely, be purely accidental. Tonopah, without a shadow of doubt, was an accidental find, notwithstanding the fact that its discoverer, Jim Butler, was out on a prospecting expedition when he made this wonderful discovery.

On the Oregon-California, of late, we have another example of the way that Dame Nature reveals her treasures to those who accidentally fall upon them; and, in this instance, the youthful Briggs finds a "glory hole" while throwing stones at his dog, and the find, within an incredibly short time, has made him and his family independently rich; while this accidental find has caused a stampede to this section, resulting in other new discoveries of such an important nature that the new district is becoming deservedly popular with mining men and investors.

And so it goes. Every year has its new finds and discoveries. We hear of them in Utah camps, in Idaho, Arizona, Nevada, Oregon and California, and in many camps throughout the west, while many localities, for many years ignored and neglected, are steadily coming to the front with new producers,—with new "bread-winners." —Salt Lake Mining Review.

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ATOMIC THEORY KNOWN 500 B. C.

As early as 500 years B. C. the atomic theory of matter was professed by Democritus. It was taken up by Gassendi (about 1650), and after him by Boyle and Newton. It received a greatly increased importance by the discovery by Dalton of the law of multiple proportions. This law of Dalton is the one fundamental conception upon which modern theory is built up. Another is the law of Avogadro, according to which equal volumes of different gases under like conditions of temperature and pressure contain the same number of molecules. Some difficulties to the law of Avogadro were eliminated by Cannizzarna through the application, of the theory of dissociation, founded in 1857 by St. Claire Deville. At the same time we find in the writings of Clausius the first traces of an idea that salts and other electrolytes are partially dissociated in aqueous solutions. A research of the conductivity for electricity of salt solutions led Arrhenius to suppose that not all, but only a part—the so called active part—of the salt-molecules conduct electricity.

The other part is wholly inactive in this regard. At increasing dilution the inactive molecules are converted into active ones, till at extremely high dilutions all molecules become active. Experience now showed that electrical activity of molecules coincides with chemical activity. From this point of view the phenomena of neutralization, of reaction velocity, and of chemical displacement regarding acids and bases, were easily explained.

The important discovery of van't Hoff that the laws for the gasses are also valid for dissolved bodies, gave the key for determining the real nature of the active molecules. By the determination of the molecular weight of partially active substance, according to van't Hoff's law they showed them to be dissociated, and just to the same fraction as the active part of the whole. From this it follows that in very great dilutions the molecules of salts and other electrolytes (acids and bases) are completely dissociated into electrically charged parts, which after Faraday were called ions. Therefore all properties of their solutions may be regarded as the sum of the properties of the present ions; these properties are therefore called "additive."

The law that the properties of electrolytes in aqueous solutions are additive is very far-reaching. All hitherto examined physical properties of these substances, salts, acids, and bases, which play the most important role in common life, can by help of that law be treated in a very simple way. But sufficiently greater is its value for the analytical chemistry, which has found its rational fundament in this law, as the researches of Ostwald show.

By help of this law completed by

van't Hoff's law, it has been possible to apply mathematical analysis to chemical phenomena. This circumstance gives the new part of the chemistry—the physical chemistry—the character of an exact science.

The development has shown that the electricity plays also in the domain of chemistry a highly-important role. Its importance seems to be sufficiently increased by the most recent researches that gave birth to the theory of electrons, to which British authors have contributed in a most effective manner.—Mining Reporter.

HOIST AT THE BLACK BUTTE

Manager O. C. Wright, of the Wheeler properties, had information from the Black Butte yesterday that the raise from the tunnel level would break through to the surface today.

The installation of the hoist will be started at once. The machinery is all on the ground, and Engineer Ryan left today to undertake the construction of the plant. It is to be a 1,200-foot depth capacity plant, and will be finished at the earliest possible date. A load of supplies was sent out to the property today.

Mr. Wright, who came in from the Blue Bird a day or so ago, says that work on this mill is proceeding very satisfactorily. He says also that development results are better than ever. The ore is getting better every shot. At the Buckhorn the ore in the dirt is also improving very rapidly. The force at the Gold Bug has been doubled, and work is going rapidly ahead.

TWO MINING CLAIMS

HAVE SAME NAME

The fact that there are two Gold Coin mining properties in the district has led to more or less confusion. One is located in the Greenhorns and T. S. Kennerly is superintendent of it, and the other is in the Cracker Creek country. J. M. Doyle has charge of the latter.

Mr. Kennerly says that he has been put to a great deal of inconvenience on account of the fact. His mill is frequently opened by the Cracker Creek Gold Coin people and his supplies missent. He says he thinks his property was named first, and he is going to institute an investigation to this end, with a view to having the other people change the name of their mine.

\$100 in Seven Ounces of Rock.

J. K. Romig, the mining man, informs us that the machinery is on the ground and work will begin at once on the property recently acquired by his company. The property consists of several claims, but development work will be concentrated, for the present on the Chicago, and as the new plant has a capacity of two thousand feet, it may be expected that there will be something doing in the vicinity of the Chicago, which now has a shaft 300 feet in depth, from which wonderful ore has been obtained. One sample of this ore shown us by Mr. Romig which weighs only seven ounces is said to contain over one hundred dollars in glittering gold.—Haines Record.

The Miner does job printing.

A stock holders meeting held recently at the Lucy Mine near Greenhorn, Oregon, owned by the Greenhorn Gold Mines and Development Co., the officers and directors decided to sell One Hundred Thousand shares of Treasury stock at 25c per share, par value \$1.00, for the purpose of further development, to erect an electric power plant and to purchase necessary machinery, etc., to put the Lucy Mine on producing basis. We own seven claims, have plenty of timber and water. Our tunnel is now in over Four Hundred and Fifty feet, have cut three ledges which assay from \$15.00 to \$164.00 per ton. We are now driving into the O. K. ledge, whose surface showings show that it is the richest ledge of the property. Our property is fully equipped with bunk and boarding house, blacksmith shop, stable, store house and tunnel house. We have worked two shifts steady for the past eight months and our ore dump has several thousands of dollars of ore ready for treatment. The property is well equipped and the Lucy Mine has the ore. The property will soon be on a paying basis and will stand the closest investigation. Stock can be bought in monthly installments if desired. \$25.00 will buy 100 shares; \$250.00 will buy 1000, etc. Anyone who will invest \$1000 or more we will furnish free transportation and all expenses to visit the property and inspect it.

G. A. Bergland, Lumber Dealer, Milwaukee, Wis., President.
Sam R. Stott, Lucy Mine, Greenhorn, Ore., Vice President.
M. P. Keogh, Merchant, Milwaukee, Wis., Treasurer.
Morris Sullivan, Lucy Mine, Greenhorn, Ore., Asst. Secretary.
Ed. Sullivan, Lucy Mine, Greenhorn, Ore., Manager.
F. R. Morris, Grain Dealer, Milwaukee, Wis., Director.
Chas. Scholl, Broker, Milwaukee, Wis., Secretary.

Make all remittances to Chas. Scholl, Secretary, Milwaukee, Wis., and send for further information to

The Greenhorn Gold Mines & Development Co.

307 Matthews Bldg.

Milwaukee, Wis.