

THE ARIZONA REPUBLICAN. PUBLISHED BY THE ARIZONA PUBLISHING CO.

Exclusive Morning Associated Press Dispatches. The only Perfecting Press in Arizona. The only battery of Linotypes in Arizona.

Subscription Rates. By mail, daily, one year, \$9.00. Weekly, one year, \$2.00. Cash in advance.

By Carrier. Daily, per month, 75 cts.

Arizona visitors to the Coast will find The Daily Republican on sale at the following places in Los Angeles: Hollenbeck book news stand, and B. F. Gardner, 305 South Spring street.

PHOENIX, ARIZONA, JULY 28, 1903.

Soil Bacteria for Farmers.

According to a Washington dispatch to the New York Sun the government has in store for the farmers of the country an interesting gift. To many it will seem like magic.

In 1855 a German scientist, H. Liebig, announced that he had discovered that there exist in the soil a vast number of minute microscopic organisms which make their homes in tubercles, or nodules, on the roots of leguminous plants, such as clovers, vetches, peas, beans, and locust trees.

All this was taken up quickly by scientists throughout the world, and especially in this country. Hundreds of experiments were carried forward, and it is now fundamentally established that this is one of the greatest discoveries known to scientific and practical agriculture.

Nitrogen is the most expensive fertilizer required in farming. The average price per pound is 17 cents, while phosphorus and potash, the two other requisite fertilizers, are to be had for two and three cents a pound.

The way in which the government intends to make use of these particular bacteria is by propagating them under artificial conditions and sending them out in small quantities in all parts of the country for the use of farmers.

The box will contain three packages done up in tin foil. In one is a wad of cotton on which the cultures or germs of the bacteria have been dried and in the other two are nutrient salts which are usually magnesium sulphate, potassium phosphate or ammonium phosphate, with a small mixture of sugar to solidify and hold the cultures.

The department asks every farmer who receives cultures in this way to take notes on the result of his experiment and report. The instructions are simple and practically admit of no failure.

Grass being the money crop of the country, whether sold in hay or livestock, inoculation is expected to add untold millions to the grass and hay crop of the whole country.

This is a true account of one person's idea of "breaking the news gently." The cock, whose home was off in the country, appeared before the "powers above" with a letter in her hand.

Your Hair Perhaps your mother had thin hair, but that is no reason why you must go through life with half-starved hair. If you want long, thick, dark and heavy hair, feed it with Ayer's Hair Vigor.

A Wife and Mother

Should not be exposed to the schemes of self-styled financiers. So think a great many men who, instead of leaving their insurance in bulk to their widows, have counseled with The Mutual Life Insurance Company of New York, and adopted a course, which has eventuated in something like the plan of the late

Archibald N. Woodruff, of Philadelphia, who died last Friday and who left policies amounting to \$80,000 in The Mutual Life Insurance Company of New York.

In writing for terms on similar policies, state what you would like to receive in cash at the end of the limited payment period, amount you would like your beneficiary to receive in event of your death, and give your age.

THE MUTUAL LIFE INSURANCE COMPANY OF NEW YORK. RICHARD A. MCCURDY, President. SHIRLEY CHRISTY, Manager. Phoenix, Ariz.

SOUTHERN CALIFORNIA ADVERTISEMENTS

The American National Bank. OF LOS ANGELES, CAL. Cor. Broadway and Second Sts. Paid up Capital, \$1,000,000. OFFICERS: W. F. Botsford, President. T. E. Newlin, Vice President. J. G. Mossin, Vice President. W. J. Doran, Vice President. T. W. Phelps, Cashier. C. M. Wood, Assistant Cashier.

Farmers & Merchants National Bank. OF LOS ANGELES, CAL. Capital \$1,000,000. Surplus 500,000.00. U. S. Government Bonds 2,000,000.00. Available Assets \$8,943,656.99. DIRECTORS: Isaias W. Hellman, W. H. Perry, Herman W. Hellman, Wm. Lacey, I. N. Van Nuys, H. E. Huntington, J. Baruch, J. B. Francis, O. W. Childs, J. A. Graves, L. W. Hellman, Jr., C. B. Thom, C. A. Ducommun, N. W. Stowell.

GERMAN-AMERICAN SAVINGS BANK. OF LOS ANGELES, CAL. CAPITAL \$200,000.00 ASSETS OVER \$4,000,000.00 SURPLUS \$200,000.00. The Largest Savings Institution in Capital and Surplus on the Pacific Coast outside of San Francisco.

Broadway Bank and Trust Company. Warren Gillespie, President. R. W. Kenny, Cashier. Geo. J. Cochran, Vice Pres. Directors: R. C. Gillis, Warren Gillespie, Geo. W. Walker, Geo. J. Cochran, Chas. H. Howland, W. E. Cummings, R. W. Kenny, Dr. W. W. Beckett, Col. W. W. J. Turner.

Santa Catalina Island. 3 1-2 Hours from Los Angeles. Season 1903. THE FAMOUS CANVAS CITY IS NOW OPEN FOR THE SEASON. Under Beautiful Shade Trees, with an Entirely New Equipment. Perfect Sanitary Drainage.

DAILY CONCERTS BY OUR MARINE BAND OF 30 ARTISTS. Pleasurable Outdoor Pastimes, Boating, Bathing, Fishing, Golf, Etc. HOTEL METROPOLE, with modern appointments, is open the year round.

HOTEL GLENMORE. Enlarged and improved, all new and fresh. A roof pagoda at an elevation of 75 feet, giving a magnificent view of the entire circle of hills and water front.

CORONADO Tent City. is the most popular Pacific Coast Resort. Best boating, bathing and fishing known anywhere. Meals 15c and up. Regular four-course meals only 25c. Maximum charge per person for furnished tent 50c per day.

Redondo Tent City. HEALTH! PLEASURE! COMFORT! EVERYTHING NEW AND ATTRACTIVE. A few of Redondo's Attractions: Sailing Boats, Row Boats, Fishing Boats, Warm Salt Water Plunge, Fishing, Bathing, Boating, Golf, Tennis.

HOTEL REDONDO, Redondo Beach, Cal. The very finest hotel service in a newly renovated, comfortable hotel. Summer rates \$2.50 per day and up. \$12.50 per week and up.

THE JAMES. Now open for summer tourists, new and strictly up-to-date apartment house. Two large rooms giving conveniences of five-room flat.

HOTEL WILSON. 126 WEST FIRST STREET. Remodeled and newly furnished. Centrally located. All street cars pass hotel. Rates 50c up. European plan.

HOTEL NADEAU. 674 Popular Corner of Broadway and 1st St. LOS ANGELES. When in Los Angeles stop at HOTEL BROADWAY 429 S. BROADWAY.

NATICK HOUSE. LOS ANGELES, CAL. RATES: \$1.25 to \$3.00 per day. Latter with private baths. Rooms 50c up.

HOTEL GRAY GABLES, Los Angeles, Cal. A high-class American plan, family hotel for transient and permanent guests at 7th and Hill streets. Close to business center, all car lines and places of amusement.

HOTEL CATALINA... 439 So. Broadway, Los Angeles. Convenient to all street cars, theaters, and the electric lines to the beaches. Elevator, bell service. Suites with baths. We cater to the Arizona trade. ALEXANDER & BOLAND, Props.

HOTEL RAMONA. Only point where all street car lines intersect. Summer rates. F. B. MALLOY, Prop.

HOTEL VANDOME. Rooms only. Convenient to all car lines. All outside rooms. Private baths. Rates moderate. Traction cars from either depot pass within half a block of the house. 221 South Hill St., Los Angeles.

HOTEL RAMONA. Only point where all street car lines intersect. Summer rates. F. B. MALLOY, Prop.

LOS ANGELES PREFERRED LIST. The purpose of this column is to supply the Arizona public with the names and addresses of thoroughly reliable Los Angeles establishments.

REGAL SHOES by Mail. \$25 PER PAIR, CARRIAGE CHARGES PREPAID. In different styles, 150 styles. Self-measurement blanks and Spring catalogue free upon request.

CARPETS AND RUGS. T. BILLINGTON CO., 312-314 S. Broadway. Curtains, draperies, China and Japan matting. All kinds of floor coverings.

EMPLOYMENT AGENTS. Hummel Bros. & Co., 112-118 E. Second St. Carefully selected help.

FORTIN & HAWKINS. The Los Angeles Employment Hustlers. Large gangs a specialty. Both phones Main 415. 194-196 N. Los Angeles st.

MACHINERY, ENGINES, ETC. WESTERN IRON WORKS, 605-623 N. Main st., manufacture crude oil engines and pumps. Complete irrigating plants.

NATIONAL WOOD PIPE CO. (Incorporated) Manufacturers of REDWOOD WATER PIPE. From 3 inch to 10-foot in diameter. For Water Works, Mining and Irrigation Plants.

Kodaks and Photo Supplies. We make a specialty of Developing, Printing and Enlarging. Mail Orders Given Prompt Attention. Send for Catalogue.

RUBEROID ROOFING. Buildings covered with RUBEROID are 50 per cent cooler in summer than when metal or composition and gravel are used.

Southwestern Lumber Co. Lumber and Mill Work, wholesale and retail. General offices: Nos. 601, 602 and 603 Trust Building. Wharves and Yards: San Pedro and Wilmington, Cal. Tel. Main 1112.

SPEND YOUR VACATION at YE ALPINE TAVERN, the finest mountain resort in California. 5,000 feet above sea level in the heart of the Sierra Madre.

Los Angeles-Pacific Railroad Co. CITRIC ROUTE. Via Playa del Rey, Manhattan, North Manhattan and Hermosa to Redondo. Also via Hollywood, Colegrove, Sherman, Sawtelle and Soldiers' Home to Santa Monica and Ocean Park.

When in Los Angeles Visit THE IMPERIAL. The largest and best establishment of its kind on the Pacific coast. Seating capacity 1,250. The best orchestra. The cuisine best on earth.

The Palace Cafe and Restaurant. Opposite the Nadeau Hotel. ARIZONIANS' HEADQUARTERS. Concerts every day from 12 to 1:30, from 6 to 7:30, and from 8 to 12 nightly.

Hollenbeck Hotel. Headquarters for Arizonians. Corner Second and Spring Streets, Los Angeles, California. A. C. BILICKE CO., Props.

LEVY'S DINING PARLORS. Fresh Fish and Shell Fish. Our Specialties. Thoroughly modern, centrally located, excellently equipped, skillfully managed, popularly priced.

HOTEL VANDOME. Rooms only. Convenient to all car lines. All outside rooms. Private baths. Rates moderate. Traction cars from either depot pass within half a block of the house. 221 South Hill St., Los Angeles.

HOTEL RAMONA. Only point where all street car lines intersect. Summer rates. F. B. MALLOY, Prop.

STRAIGHT PIANO TALK. A good piano is a first-class investment, as well as a means of culture and pleasure. There is no article manufactured that will give as large a return for the money invested.

GEO. J. BIRKEL CO. 345-347 S. Spring Street Los Angeles, Cal.

London Clothing Company. The Largest CLOTHING STORE in Los Angeles. Finest Boys' Department on the Coast. Special attention given to MAIL ORDER business from Arizona.

MAIL ORDER business from Arizona. No trouble to answer letters.

MID-SUMMER SALE NOW ON AT A REDUCTION OF ONE-THIRD ON FINE CLOTHING FOR MEN

When in the City visit our store whether you wish to buy or not.