# SCIENTIFIC KNOWLEDGE.

## "RECORD-UNION" NOTES OF DISCOVERY.

### Arc-Light Telephone—The Plague—Lightning Rods—Oil for Roads—Color of Water.

The arc lamp as a telephone, although well within the range of the possible, is as yet but little practiced, says "L'Electricien" (Paris), as translated in "The Electrical Review." The flame of the arc lamp is very sensitive, and is affected by the feeble variations produced in a neighboring circuit traversed by an alternating current. If a microphone is inserted in this neighboring circuit, the arc will reproduce with great fidelity the different sounds and noises by which the microphone is affected. In the same way, a sound received by the arc will produce in its circuit a modification in the resistance and a variation in the current, effects which would affect a telephone. The arc lamp can then be utilized with as much facility as a telephone transmitter as a receiver. These results are very easily obtained, but it would be well to remember, when telephoning in this manner, to protect the eyes with smoked glasses.

* * *

Speaking of the persistence of the contagion of the plague microbe, which is causing so much anxiety in Austria and Germany, the journal "La Suisse" (Geneva) cites a characteristic case. "In 1660 the Dutch city of Haarlem was devastated by the plague. Whole families perished, among them a family by the name of Cloux, whose various members were buried in the Haarlem church. Thirty or forty years ago it was found that the masonry of the tomb was out of repair, and the vault was entirely rebuilt. The masons in charge of the work descended into the vault and remained there during more than a day. Now, although more than two centuries had passed since the epidemic, all these workmen were attacked with the infectious bubo (characteristic glandular swelling) of the plague, and had to undergo long treatment at the hospital. Nevertheless, there were no symptoms of the plague proper, and all recovered."

* * *

"One of the best evidences of the value of lightning rods up to date," says the "Scientific American Supplement," "has been afforded by the Washington monument. It is capped by a small four-sided pyramid of aluminum, which metal, so cheap to-day, was very costly at the time of the building of the greatest obelisk that the world has ever known. This aluminum tip is connected with the ground with four copper rods, which go down deep into the earth. On April 5, 1885, the monument was struck fiercely five times, but it suffered no damage whatever. On June 15th of the same year a more tremendous assault was made upon the monument from the heavens, and the result was a fracture of one of the topmost stones. The crack still remains to show what nature can do in the way of an electrical shock, but the slightness of the damage is evidence of man's power to protect himself from such attacks. The obelisk is ideally located for attracting electrical assaults from the skies, and yet, while many times hit, it has suffered only once, and that time to a trifling extent. The statue of Liberty, New York harbor, is protected by copper rods united to the figure and extending through the pedestal to copper plates buried in wet ground beneath the foundation. Lightning has never injured the statue in the least."

* * *

"The Doctor Carl Peters," says the "Engineering and Mining Journal," translating from "L'Electrochemie," "the boat which carries the name of the German explorer, and which is destined for Lake Victoria Nyanza, in Africa, has made a tour of the Lake of Zurich with the engineers of the makers, Escher Wyss & Co., and invited guests on board. This boat, which had its trial trip on July 20th, in presence of German commissioners delegated by the Minister of the Navy, is of aluminum. The conditions of the contract prescribed that no single part of the boat should weigh over 160 kilograms (352 pounds), and this condition could not be fulfilled with any other metal. The boat is 13 meters (43 feet) long, 2.7 meters (9 feet) wide, and 1.45 meters (5 feet) deep. It may be detached into nine separate sections. The two boilers are independent of each other, and are for burning only wood. The boat can carry fifty persons. In a short time it is to be taken apart, packed in cases, and sent to the east coast of Africa. There they will be received by a caravan of negroes, escorted by troops of the protectorate, and transported into the interior. It is estimated that this transport column will take four months to reach Victoria Nyanza. The Doctor Carl Peters makes about sixteen kilometers (ten miles) an hour, and the engine runs at the high speed of 850 revolutions per minute. The cost of the boat is, in round figures, $10,000.

* * *

At the recent Good Roads Convention in St. Louis a civil engineer of Keokuk, Ia., reported that he had obtained excellent results with crude oil in improving the condition of highways, and recommended a wide experimentation with the system. His attention was first directed to the use of oil by reading in a Pennsylvania paper that oil from a leaking pipe had dried up a spot in the road that was nearly impassable in wet weather. According to the story, the ground became saturated with the oil, and soon it was noticed that the mud dried up and the surface became hard and remained so.

* * *

"Those who have watched the Rhone pouring out of Lake Geneva must often have wondered as to the cause of the beautiful blue color of its water," says the "British Medical Journal." "At the Congress of Hydrology and Climatology, which has just been held at Liego, it has been shown that blue is the natural color of perfectly pure water, and that this tint, as seen in the Lake of Geneva, is neither due to reflection nor to the admixture of suspended particles, as has often been supposed. Very fine, colorless particles in suspension give rise to a yellowness which, combined with the natural blue, make certain waters, as in the lakes of Neuchatel and Constance, appear green, and when such green waters are again slightly tinted by admixture with a slight trace of a reddish, ferruginous mud, as occasionally happens, the red and the green tints neutralize each other, so that the water remains for the time absolutely colorless. Absolutely colorless water, then, is not pure."

* * *

In the thirteenth century in England the manufacture of leather seems to have been important, showing that leather jerkins and breeches were commonly worn. We have nineteen skynners, forty barkars, six saddelers, three cordeweners, 167 souters (shoemakers) and eight glovers. The surname feuster is a trade name denoting a maker of pack saddles. The commonest trades are taylour and smyth, since one lived in almost every village. The taylours number 407, of whom 140 are called by the Latin name of cissor. In addition to 261 smyths, several are specialized. There are two arusmyths, three lokesmyths, three goldsymths, five fferours (shoeing smiths), and six marshalls (farriers). The wryght wrought both in wood and metal. The number catalogued is 186, of whom eighty-one are called by the Latin name faber (French favre); one of the few cases in which the Latin translalation of a trade name has become a common surname. The wryghts' trade, like that of the smyths, was specialized. The arkwryght made the great arks or chests in which the clothes or meal were stored, and we find a ploughwryght, a wheelwryght, two shippewryghts, eleven cartwryghts, and two glasenwryghts (glaziers), who were probably concerned with the windows of churches. Glass windows in houses were rare, as is still the case in Sicily or Egypt. The bakesters are few (fifteen), suggesting that families baked their own bread. There are twenty-six butchers (Fleshewer, Bocher or Carnifex), whence Labouchere, while the surname potter shows that this trade was in existence. The fysshers (forty-three) were opulent, being taxed twelve times as much as laborers.

* * *

Sir Robert Ball, who possesses the by no means common gift of uniting a deep scientific knowledge with a brilliant literary style, writes in the "Humanitarian" on a subject of very real interest, calcium. Though lime, in its many forms, is one of the most ordinary substances met with on this earth, says Sir Robert, yet the essential element which goes to the composition of lime is not by any means a familiar body. As is well known to every one who has learned any chemistry, lime is the result of the union between oxygen gas and the metal calcium. This very remarkable element calcium is, however, never found in nature unless in such intimate chemical union with some other element like oxygen or chlorine that the characteristic properties of the metal are disguised. To see calcium itself you must go to the chemical laboratory, where by ingenious processes the shy element is temporarily divorced from its union with the oxygen or other body for which it has so eager an affinity.

Though most of us have never even seen a particle of calcium, it may well be doubted whether there is any element more important to the economy of this earth or more widely distributed over it. Calcium abounds in every soil. Calcium is in the waters of the sea. The cup of spring water owes much of its invigorating freshness to the calcium which it holds in solution. The white cliffs which have given the name of Albion are but one of the many forms of calcium.

Try to imagine what this earth would be like if calcium were withdrawn. The birds could not lay eggs. The sea could produce no shells. Man and other animals would need to have bones very different from those which they at present possess. Buildings would in great part vanish. Even the hills and mountains would to a considerable extent disappear. Probably a very large part of the total mass of this earth would be taken away if all the calcium were to be removed.

Without calcium a world inhabited in the same manner as our present abode would be clearly impossible. There are, it may be, lowly organisms on this earth to which calcium is apparently of no appreciable consequence, and it is conceivable that a world of living types of some kind could be constructed without the aid of that particular element which is generally so indispensable on our globe. But such a world would be totally different from that world which we know. Under present conditions the significance and importance of calcium in our economy can hardly be over estimated.

Attention has been drawn to the importance of calcium on the earth; we have now to add that this same element appears to be most widely distributed among the various bodies of the universe. Among the most remarkable features in the photographic spectrum of the sun are two very broad and dark and very conspicuous lines. In every photograph of the ultra violet light of the sun these lines stand forth so boldly as to arrest attention more than any other feature of the spectrum. It had been known that these lines were due to calcium, but there were certain difficulties connected with their interpretation. Some recent researches by Sir William and Lady Huggins have cleared away all doubts. It is now certain that the presence of these lines in a spectrum demonstrates that the remarkable element which enters into the composition of lime on this earth is also in the sun. These same lines have indeed been detected in the photographic spectrum of many other bodies. Thus the interesting fact is established that this particular element which plays a part so remarkable on our earth is not peculiar to our globe, but that it is diffused far and wide throughout the universe.

A correspondent sends the London "Chronicle" the following unique certificate given by a Welsh Coroner on the death of a woman: "Fell into the Glamorganshire Canal, whereby she died, and being of unsound mind did kill herself." This, in the opinion of the Buffalo "Commercial," is nearly as good as the verdict once rendered by an old-time Buffalo Coroner, who found that his "subject" died "from intemperance, chronic asthma and the visitation of God."

The foods we eat furnish energy for the body just as burning coal makes steam for an engine.

The experiments of Prof. Frankland, Ph. D., of London, shows that cod-liver oil yields two and one-half times more energy than starches or sweets.

Scott's Emulsion is pure cod-liver oil combined with hypophosphites of lime and soda. It forms fat, gives strength, enriches the blood, invigorates the nerves, and repairs tissues.

50c. and $1.00, all druggists.
SCOTT & BOWNE, Chemists, New York.

## LIST OF LETTERS

Remaining in the Postoffice at Sacramento, February 27, 1899:

LADIES' LIST.

Adams, Mrs Mattie
Armstrong, Mrs C
Betts, Mrs Horace
Berrie, Miss Lulu
Bruce, Mrs Jennie
Burkitt, Mrs Ida
Campbell, Miss T
Camblos, Mrs F
Carter, Mrs A B
Corcked, Miss M
Denson, Mrs M
Dinwiddie, Mrs C J
Dodge, Mrs J R
Dorsey, Mrs F
Enderle, Miss B
Fairbank, Miss G
Flanigan, Miss L
Flynn, Mrs J H
Fountain, Mrs W K
Gaffney, Mrs Mary
Ghruler, Miss P
Griswold, Miss M A
Hasting, Mrs T
Hogan, Katie
Holden, Miss Irene
Hoyer, Mrs N C
Hunt, Mrs D W
Jewett, Misses
Jones, Miss Alice
Knighton, Mrs E L
Lawson, Miss E (2)
Lopeze, Mrs M
Long, Mrs
Machette, Miss M
Mason, Miss L
Matthiesen, Miss C
McDonald, Mrs T
McMillin, Miss Zoe
Melbee, Mrs
Mills, Mrs Betsey
Miller, Mrs Kate
Miller, Emma E
Mullen, Miss Maggie
Mullen, Miss Minnie
Nichols, Mrs Ida
Noyes, Mrs Mary
O'Connor, Miss M
Park, Miss Mamie
Perry, Miss Heline
Pinckney, Mrs H
Plummer, Mrs L
Powell, Mrs Lucy
Pritchard, Miss M
Rath, Mrs G
Sale, Miss Alice
Serine, Mrs S A
Slade, Mrs S E
Smith, Mrs Wm
Tammey, Mrs T
Taylor, Miss M
Taylor, Mrs F
Taylor, Miss Emily
Van Bibber, Eva
Watson, Miss M
Waters, Mrs Mary
Wertheimer, Mrs B L
Whyte, Miss B C
Wilkison, Mrs J M
Willey, Miss Stella
Wilson, Miss J E
Wood, Miss Clara
Yarick, Mrs E

GENTLEMEN'S LIST.

Adams, J T
Anderson, A
Banson, Thos O
Ball, J C
Barnes, W W
Barrett, Edwd
Barton, Billy
Bloom, C
Boden, O J
Bowen, Geo W
Bourland, Wm
Brennen, Marten
Brown, Frank
Burgess, Frank A
Campbell, Fred M
Carner, Ernest
Carlton, Truman (2)
Carson, James
Carpenter, Charles
Carey, Gardner
Castera, C J
Chisholm, H H
Cook, Robert
Coughlan, Jas
Coyle, Geo
Cox, J W
Davis, Gorge
Dickinson, Mr
Donley, Thos
Donnelly, Wm H
Downey, E P
Dryer, Arthur
Duffee, E
Dunster, W E
Duncan, Chas
Dunlap, James
Durrell, Alfred
Feltes, John
Fountain, Jerome
Foster, Tomey
Fowler, H F
Frazer, Monten
Freeman, Clarkson
Friesecke, Fred
Gorman, Mr
Gibbs, Harry
Gilbert, M E
Goddard, John
Graham, Joseph
Griffin, R
Greene, J A
Grokusen, C
Hill, Jno (2)
Hochheimer, Hon A
Hope, B
Howe, H H
Hull, Hirshell
Hunt, Dr. D W
Hunt, E F
Hutchings, W
Jarvis, Dr W Victor
Jones, Robert
Killian, Fritz
King, I W
King, W B
Kirtz, Fred
Krull, J A
Laereman, R H
Lapidaire, E H
Lants, John
Lee, Thos A
Lewis, L W
Lincoln, Lysander M
Lock, Edward
Long, William W
Lowes, L
Ludlow, Clinton E
Malnes, John
McEnerney, P J
McGillivray, G W
McGovern, R W
McMillan, Finley
McPherson, Ed B
Meyer, Wm M
Moreton, Chas L
Moore, Benjamin
Morris, J C
Mott, F
Mullen, Jas
Murphy, R N
Norwood, C C
O'Brien, George
Patten, Frank
Parks, E N
Peck, Bradford
Pratt, Melvin G
Price, Jas W
Red, Wm (colored)
Ricker, E
Rodriquez, Joaquin
Ross, I J
Rusk, Robert
Sanford, E L
Shock, Jno
Sigler, C W
Simpkins, Clinton
Slayter, Harry D
Smith, George
Smith, T M
Starr, Fred'k
Steele, W C
Stewart, Charles
Steaverson, Mr
Stevens, Othermann
Stockman, G H
Sturn, F N
Tager, Wm
Taylor, Warren
Taylor, L W
Thomas, Manoel
Tinnin, T T (3)
Troi, Frank
Troendley, Ludwig
Villira, Lais
Wall, A E
Walthew, Thos A(3)
Wardlaw, James
Watt, Jas Alva
Whitney, Master FT
Wilbur, Oscar
Woolfolk, C A
Wood, F M
Wright, A W

FOREIGN.

Antonio Maria Nois
Joas Lourenco F Azevedo

MISCELLANEOUS.

South Bend Iron Works
Capitol Packing Co

THIRD AND FOURTH CLASS.

John B Buckley
Bert Butler
Mrs L D Crosett
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THOMAS FOX, Postmaster.

### The Queen's Little Guests.

The children of Prince Henry of Battenberg, who married Queen Victoria's youngest daughter, Princess Beatrice, and died of fever during the Ashanti campaign, live with their grandmother at Windsor. Recently two little girls from London came down to spend the day with the little Battenbergs, and so it happened that her majesty paid a visit to the nursery and found them there.

The young visitors were taken aback; they had not expected to see the Queen, and had not been instructed how to conduct themselves in the presence of royalty; but they had been well brought up and knew their Bibles, and they thought at once of Daniel before King Darius. They decided that what Daniel had done must be correct, so the pair threw themselves on the floor at her astonished majesty's feet and cried out with a loud voice:

"O Queen, live forever!"

However, this proved an excellent introduction, and presently the Queen and they became great friends. She took one of them on her knee, and all three chatted together in the friendliest way.

"And whereabouts in London do you young people live?" asked the Queen.

"Oh," said the little girl on her knee, "we live just opposite W.'s," naming one of the new mammoth stores that have become such marked features of the London of to-day.

"But please won't you tell us where you live when you go to London?" said the other little friend.

The Queen looked thoughtful for a moment, and then remembered that in Buckingham Palace Road there is also a mammoth store. "Oh," said she, smiling, "in London I live opposite Gorringe's."—London Chronicle.

### Naval Heroes in the Abbey.

The well known saying, "Westminster Abbey or glorious victory," attributed to Nelson when he boarded the San Josef at the battle of Cape Vincent, seems to point to the hero's own wishes as to an Abbey grave. But for some unknown reason, when the end came at the famous battle at Trafalgar (1805), Nelson was buried at St. Paul's, and the Abbey authorities, finding growds going there to gaze on his last resting-place, had an effigy made of him, and set it up near Kempenfelt's monument, in order to attract people back to Westminster, with the desired result. The figure now stands in the Islip Chantry Chapel with the other funeral effigies, and is a very lifelike and good representation of the great man. It is said to have been copied from a smaller figure for which Nelson sat, and all the clothes except the coat he actually wore. Maclise, who borrowed the hat for his picture of the "Death of Nelson," found the marks of the eye patch on the inner lining, and the stamp of the period in the crown.—Pall Mall Gazette.

"3 DAY" MALARIA CURE"

For All Fevers,
For Aching Bones,
For Tired Feeling,
For Pain in Knees and Elbows.
It gives you ambition and strength. PRICE, 75 CENTS.

A PERMANENT FEATURE—Reliable boys for the quick delivery of Phone and other orders free, of course, of all cost.

EITHER PHONE, No. 10.

FRANCIS S. OTT,
THE PLACE TO BUY DRUGS.
200 K Street, South Side Second and K.

Two brothers of the name of Moore failed for $4,000,000 in Chicago two years ago, and the crash closed up the Chicago Stock Exchange for three months. The two men have now paid all their debts, and are reported to have $1,500,000 each besides. They have, in other words, made something like $7,000,000 in two years.

The consumption of coal per head of population is lowest in Austria, where it is only one-sixth of a ton per annum, and highest in Great Britain, where each person averages three and three-tenths tons per year.

ITCHING HUMORS
Torturing Disfiguring
Eczemas

And every form of itching, burning, bleeding, scaly, pimply, and blotchy skin, scalp, and blood humors, with loss of hair, instantly relieved and speedily cured by warm baths with CUTICURA SOAP, gentle anointings with CUTICURA, the great skin cure, and full doses of CUTICURA RESOLVENT, greatest of blood purifiers and humor cures.

Wanted Young men and women to learn bookkeeping and shorthand at Atkinson's Business College. Business men will want them later on.

## MEETING NOTICES.

SACRAMENTO LODGE, NO. 11, K. of P.—Meeting MONDAY EVENING, February 27th, at 7:30. Business of importance. A good attendance is respectfully requested. M. HIRSCH, C. C. Wm. Hale; K. of R. and S. 1t*

COLUMBUS CHAPTER, NO. 117, O. E. S.—Regular meeting THIS (Monday) EVENING, at Masonic Temple, at 7:30 o'clock. Members of the order cordially invited. FLORA E. HAMMER, W. M. Hattie M. Frazee, Secretary. 1t*

SACRAMENTO COUNCIL, NO. 1, R. and S. M.—Stated meeting THIS FEBRUARY 27TH, at 7:30 p. m. Sojourning companions cordially invited. 1t J. E. THOMPSON, T. I. M.

SPECIAL MEETING OF Tehama Lodge, No. 3, F. and A. M., THIS (Monday) EVENING, at 7:30 o'clock. Third degree. All Master Masons Cordially invited. at 7:30 o'clock. Third degree. 1t J. W. GEESLIN, W. M.

COURT CAPITOL, NO. 6, F. of A., will give a high jinks TO NIGHT. All sojourning and local members of the order are invited to be present.(1t) COMMITTEE.

## LOST—FOUND.

LOST—WATCH CHARM, COMBINATION Odd Fellow and Knights of Pythias. Return to 724 J street, and be liberally rewarded.

FOUND—THE PLACE TO GET YOUR shoes repaired while you wait. 511 K.

LOST—FROM DR. SNIDER'S RANCH, Yolo County, a black horse, with brown points, light brown nose, slightly saddle marked on back; very heavy mane and tail; weighs about 1,200 pounds; small star on forehead. Will pay $25 reward for his return to P. L. LYKINS, Sacramento Bank.

## PHYSICIANS AND SURGEONS.

DR. LEISENRING, Stoll Bldg., Rooms 6 and 7; take elevator. 'Phone, red, 725.

G. HENRIKSON, M. D.—RUHSTALLER Bld'g., Ninth and J. Office Hours—10 to 12 m.; 2 to 4, and 7 to 8 p. m. 'Phone 424 blue.

DR. CARL MURRAY, SURGERY AND general practice, day and night. Specialties, all catarrh diseases; nose, ear and throat; diseases of women and children. Rooms 17 and 18, Breuner Bld'g., K st. Res. 1516 O st. 'Phone, red 539.

DR. J. J. PEARCE, OSTEOPATH, Stoll Building, Rooms 8 and 9. 'Phone Cap. 72.

DR. H. H. LOOK, N. E. COR. FOURTH and K. Eye, ear, nose and throat.

DRS. PENDERY AND ENDICOTT. Office, 819 K street. Chronic diseases of women and children a specialty. 'Phone Cap 728. Hours 10 to 12, 2 to 4:30 and 7 to 9.

DR. R. P. WATTS, 1006 EIGHTH ST.—Office hours 10 to 11 a. m., 2 to 4 and 7 to 8 p. m. Sundays, 1 to 2 p. m.

DR. C. MEALAND, 627½ J—'PHONES Sun. red 931; Cap. 308. Office hours—10 to 12, 2 to 4 and 7 to 8. Res. 1217 O. 'Phones, Sun. white 521; Cap. 308.

DR. MARY M. CRONEMILLER—628½ J; 9 to 10 a. m., 1 to 3:30 and 7 to 7:30 p. m.; tel. office 473; res, 406. 705 Ninth street.

DR. C. O. CARTWRIGHT—OFFICE 913 K st. 'Phones. Sun. white 581; Cap. 369.

DR. W. H. BALDWIN, OFFICE, 1029 2d st. Hours—10 to 12, 2 to 4 and 7 to 8. 'Phones, red 963; Cap. 59. Residence 1100 H street. 'Phone, 431 black; Cap. 88.

DR. J. W. COREY, NINTH AND J. 'Phone, Black 674. Diseases of women and children.

DR. FAY, 627½ J; TEL. SUN. RED 934; 10 to 12 a. m., 2 to 4, 7 to 8 p. m. Res. 1729 G. Tel. Cap. 309. Sunset, blue 31.

## DENTISTRY.

W. A. ROOT, DENTIST—OFFICE, 814 K street, opposite Hale Bros. 'Phones, Sunset black 116, Capital 297.

REMOVED—DR. B. F. STOLL, Dentist, has removed his office to the new Ruhstaller bldg., S. E. cor. Ninth and J sts

ELECTRO DENTAL PARLORS, 702 K, opp. the P. O. Extracting by electricity, 50c. Work at one-half price charged by other dentists. 'Phone Capital 420.

DR. J. B. SIMMS, DENTIST—OFFICE, Stoll building, Fifth and K streets.

DR. R. L. WAIT'S OFFICE, 705 J ST., over Christianson & Co.'s market, painless extraction of teeth by use of a new anesthetic. Examination and consultation free. Hours—8:30 a. m. to 7 p. m. Tel., office 933 red; res. 841 black.

DR. A. J. THOMAS, —DENTIST— Successor to H. H. Pierson, 511½ J st. Hours, 9 to 5.

F. F. TEBBETS, —DENTIST— 914 Sixth street, between I and J, west side, opposite Congregational Church.

## GROCERIES.

WINGARD'S GROCERIES ALWAYS the best in the market, his prices low; delivery prompt. Twenty-fifth and O.

FOR TABLE DELICACIES GO TO R NOBEL, Tenth and I. 'Phone white 95.

## SELECT SCHOOLS.

BOOKKEEPING, SHORTHAND, TYPEwriting, etc. Tuition $6. California business College, Masonic Temple.

## WANTED.

WANTED—FURNISHED ROOM WITH use of kitchen in private family; references. Address R. W., this office. 1t*

WANTED—A POSITION BY A YOUNG man of good habits, with letters; most anything with reasonable salary. Address Position, this office. f26-3t*

WANTED—RELIABLE PERSONS IN every section to distribute circulars, samples and tack signs; no canvassing; cash paid. Will A. Molton Co., Cleveland, Ohio. f26-3t

WANTED—BY A SOBER, Trustworthy young man, employment in shop, mill or packing house; recommendations. Address D. L. C., this office. f25-3t*

WANTED—A LADY OR GENTLEMAN with capital of about $1,500 to take full charge of a good paying business. Address John Halbert, P. O., Sacramento.

SACRAMENTO EMPLOYMENT Office—All kinds of reliable help furnished at short notice. 515½ K. Cap. tel. 422.

THE PEOPLE'S EMPLOYMENT Agency, 922 Sixth street. First-class help of all kinds wanted and furnished.

JAPANESE METHODIST MISSION, Rev. Mrs. Bowen, 310 M st. Good boys for moral places. Tel. Sun. black 356.

PLAZA EMPLOYMENT OFFICE, Ninth and I, Sacramento—None but first-class help furnished. W. A. Wall, Prop. Tels. Capital, 273; Sunset, black 654.

WANTED—HORSES TO BREAK FOR single or double harness. HANS JORGENSEN, stable at Agricultural Park.

PROFITABLE WORK Offered Agents in every town to secure subscriptions to the "Ladies' Home Journal" and "The Saturday Evening Post." Good pay for good work. We want agents to work thoroughly and with business system to cover each section with our illustrated littie booklets and other advertising matter. How well some of our agents have succeeded is told in a little booklet we would like to send you—portraits of some of our best agents, with the story of how they made it pay. The Curtis Publishing Co., Philadelphia, Pa.

WANTED—SECOND-HAND FURNIture, 1021 Fourth street. Cap. 'phone 636.

## GENERAL NOTICES.

MR. AND MRS. EUGENE SHEA WISH to return their heartfelt thanks toward the nurses of the Railroad Hospital, especially Dr. Nourse and Mr. Driver, for the untiring kindness and good treatment they rendered toward our late friend, Edward Waters, during his long illness in the hospital. EUGENE SHEA AND WIFE. 1t

MME. CARMELO, THE CELEBRATED Clairvoyant, will give readings, including the answering of sealed questions; 50c and $1. 409½ K street. f23-7t*

CHEAPEST SOLEING ON EARTH. Gents, 45c; ladies, 35c; at 1011 J street.

MRS. B. CUNNINGHAM, PROFESsional ladies' nurse. Room 2, 507 L st.

BOSTON SHOE SHOP, 511 K ST—WORK done while you wait. Men's soles, 50c; ladies', 35c. C. C. JOEHNK.

FORAN, THE MYSTIC—THE Renowned palmist and clairvoyant will be at 727½ K street on and after February 23d. During his first week he will, for advertising purposes, give readings for 50c. After that time the regular price will be charged.

RAG CARPET WEAVING; OLD Carpets made into rugs. Mrs. Johnson, 1214 8th.

VAULTS AND CESSPOOLS CLEANED. E. HAWES, 1121 C st. 'Phone white 413.

LENTEN IS AGAIN WITH US AND we must eat FISH. How consoling it is to know that the American Fish Company handle everything the market affords in Fish, Oysters, Crabs, Lobsters, etc., every day in the week. They also make free deliveries. Look for our special every Friday; it will pay you. Try those celebrated Eastern Oysters in bulk, sold only by us, at 60c per quart. AMERICAN FISH COMPANY, 724 J street. Both 'phones. THE ONLY FISH MARKET IN SACRAMENTO.

NEW FRENCH DYEING-CLEANING Works; prompt and best work. J. DUCHEZ, 823 L street.

THE AMERICAN UNION RESTAURant, 1025 Sixth street, has lately changed hands. Goodmeals from 10c up; everything fresh. Board and room, $3 week.

BUFF COCHINS AND LIGHT BRAHmas, grand in shape, size and plumage, and carefully bred for laying qualities; won 16 prizes from 21 entries at great State Poultry Show of 1898. Eggs and stock for sale. L. WALDRON, 2615 Y street.

CHOICE ROSES, 10c TO 25c; ALL plants and trees in season at lowest rates; gardens attended to promptly. BARRS, 28th and W sts. 'Phone 484 white.

THE CHEAPEST PLACE FOR THE best hay, grain and feed. J. H. MEREDITH, Twelfth and D streets. Both 'phones.

NOTICE OF REMOVAL—TAHOE MEAT Market has removed to more commodious quarters at Seventeenth and N streets. GEORGE NEALE, proprietor. 'Phones, Cap. 905.

BOOKS BOUGHT, SOLD AND EXchanged 515½ K st. The only place here.

TRUNKS! TRUNKS!! TRUNKS!!! Before you buy one get our prices. Sacramento Trunk Factory, 507 J st. JAS. LONGSHORE, Prop. 'Phone Cap. 727.

SAVE TIME AND MONEY BY GOING to Beals' gallery, 627 J, cor. of Seventh st., and get the photographs of your family taken. Proofs printed until you are satisfied.

OUR GRILL ROOM AND DELICACY Department is noted for neatness and celerity. A trial or inspection is all we ask. THE DELICATESSEN, 814 K st.

HORSES CLIPPED BY MACHINERY at Dr. Fox's hosptial. Both 'phones.

PROFESSIONAL NURSES WILL ANswer all calls, day and night. 1316 Ninth.

DR. T. WAH HING, 707 J ST. HOURS—7-9 a. m., 1-4 and 7-9 p. m. Tel. 934 blk.

ALL THE FEBRUARY MAGAZINES at the Sacramento News Co., 429 K st.

AH KEUNG, LAUNDRYMAN, 500 N ST., corner of Fifth. Washing returned twice a week. 'Phone 628, 4 bells.

UNSURPASSED! O. A. HOIT'S COLORed electric lamps. Watch his window. 821 J street. 'Phone 98 white.

THE BEST AND CHEAPEST PLACE for all kinds of game and poultry. JOHN DIERSSEN, 12th and J sts.

JOHNSON, WILSON & CO.—SACRAmento Foundry and Machine Works, corner Front and N streets. Brass and iron castings, model making and machine work. All on short notice. Work guaranteed.

ALWAYS GET Wright & Kimbrough's to let list. at 607 J. before you move.

## MUSIC AND ART.

SWELL PARTIES ALWAYS ENGAGE Stickney's Society Orchestra; flute, violin, 'cello and harp; more if desired. 415 K.

PIANO-TUNING—Leave Orders With Grafmiller & Heath, 816 J. Paul Schoen.

## DRESS AND CLOAKMAKING.

MISS FREEMAN—MASQUERADE COStumes rented or made to order. 1208 8th.

McDOWELL'S GARMENT DRAFTING system taught by Miss Mitchell, 1201 P.

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WM. MURCELL, ARCHITECT AND builder, 717 L street.

HOEN, ARCHITECT, 718 J STREET. Telephones, Sun. black 82; Cap. 75.

F. H. SCHARDIN, ARCHITECT, BREUner Building, K st., bet. 6th and 7th.

## TO LET OR RENT.

701 N ST.—DESIRABLE FRONT SUITE housekeeping rooms, also single rooms.

820 EIGHTH—LARGE FRONT ROOM with board; suitable for 2 railroad men.

RENT—10 ACRE CHICKEN RANCH; shade, good buildings. See Strobel, 411 J. f26-7td-1tw

$18—FIRST FLOOR, 5 ROOMS, BATH and all modern improvements. Apply 1012 Tenth, between J and K.

SMALL HOUSE, FURNISHED OR UNfurnished; electric lights, etc; low rent. Apply 408 N street.

FOR RENT—42 ACRES ON SHARES; 25 acres vineyard, 15 acres orchard; near Perkins; good chance for right party. HAWLEY & PHILLIPS, 319 J st. f25-3t

UPPER FLAT, 4 ROOMS, BATH AND pantry; partly carpeted. 1011 Tenth street. f23-7t

1924 F—NEW 4-ROOM FLAT for Housekeeping, with bath; unfurnished.

MANHATTAN HOUSE, 315 K STREET—Good housekeeping rooms and others.

RENT, 515 K STREET—MODERN NEW flat; six rooms; closets, bath, electric light, gas. Strobel, agent, 411 J.

113 K—A WELL FURNISHED FRONT room, with hot and cold water.

527 N—NICELY FURNISHED FRONT and outside rooms in quiet home.

THE ELK GROVE HOTEL, 16 Rooms; newly painted and renovated throughout; with some fixtures. On easy terms to right party. For particulars address Mrs. T. Allen, 613½ J st., Sacramento.

1423 SECOND—2 Furnished Front Rooms, by a widow; homelike, reasonable.

405½ K—2 NICELY FURNISHED Housekeeping rooms in private family.

ALBION HOUSE, 519 K—CHANGED hands. Rooms by day, week or month.

916 SEVENTEENTH—A 7-ROOM house with all latest improvements.

611 K—ECKHARDT BUILDING; NICE rooms, recently well furnished and with running and filtered water. Handsome front suites; a strictly first-class place.

NICELY FURNISHED ROOMS BY THE day, week or month. 122 K street.

AFTER MARCH 1ST, MODERN house of 7 rooms and bath; electric lights. 1630 I street. Inquire 912 Seventeenth street.

MODERN TWO-STORY AND BASEment, 7-room house; furnished or unfurnished. Call at noon or after 6 p. m., at 1520 O street.

DAVIS BUILDING, 411 K STREET—The handsomest furnished rooms in the city, and run strictly first class; office rooms, suites and single. Terms very reasonable. Open all night. Cap. 'phone, 80.

TO LET—ONE OF THOSE NICE FLATS in the Berkshire, Sixth and L streets; ground floor. 211 K street.

TO LET—80 ACRES 3 MILES NORTH of Folsom; improved 10 acres in trees and vines; a small cash rental. 211 K.

TO LEASE—FOR TERM OF YEARS, one of the best dairy farms on the Sacramento River, containing 1,600 acres. Address Lock Box 548, Sacramento.

GET H. J. GOETHE'S PRINTED LIST. 1011 Fourth street.

HOUSEKEEPING ROOMS TO LET. 1117 Fourth street; also family rooms.

FOR RENT—A COMPLETELY FURnished 7-room modern cottage, with electric lights and natural gas; one block from Capitol Park; rent reasonable. Inquire of C. M. CAMPBELL, 413 K street.

TO RENT—A NICE 5-ROOM COTTAGE and summer kitchen; modern improvements; good yard. Apply 1318 F street.

CHEAP! FIVE NICELY FURNISHED housekeeping rooms. 410 J street.

1119 AND 1121 THIRD ST—1 FLAT AND store. Rent reasonable. Apply 1223 H.

NICELY FURNISHED ROOMS AT Foresters' Building, I street, 7th and 8th.

A LIST OF GOOD DWELLINGS AND flats at HAWLEY & PHILLIPS, 319 J street.

TO LET—FURNISHED ROOMS, WITH or without board. 1405 Eleventh street.

TO LET—LOWER FLAT, FIVE ROOMS, 800 E. Rent $15 per month. Apply 914 Ninth street.

HAWLEY & PHILLIPS RENT HOUSES and collect rents. 319 J street.

GET PRINTED LIST OF HOUSES TO let from Hickman, Olson & Brown.

BEFORE YOU RENT SEE OUR PRINTed list. Hickman, Olson & Brown.

1230—Q ST.—A NICE UPPER FLAT OF five rooms.

TO RENT—LARGE HALL, 40x60, SUITAble for lodge purposes. Long lease will be given to responsible parties on good terms to them, with privilege to fit up the hall to suit. For particulars inquire at the "Record-Union" office.

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J. Frank Brown. Arthur E. Miller. MILLER & BROWN, —Attorneys-at-Law— 405½ J street. Telephones, Capital 314, Sunset, Main 314.

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MRS. A. REAM, LADY UNDERTAKER, at her home, 1118 J street. Tel. 991 white.

BOSTON SHOE SHOP, 511 K ST—WORK done while you wait. Men's soles, 50c; ladies, 35c. C. C. JOEHNK.

ROOT, NEILSON & CO., UNION Foundry; iron and brass founders and machinists, Front street, between N and O. Castings and machinery of all kinds made to order. H. F. ROOT. ALEX. NEILSON, J. DRISCOLL.

CURTAINS DONE UP, 65 CENTS A pair and upward; fine flannels laundered without injury to the garment. French Laundry, 912 L. Tel. Sunset, 922 black.

## FOR SALE.

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