AGRICULTURE ON THE PACIFIC COAST.

CHEMICAL ELEMENTS OF THE SOIL NECESSARY TO PLANT LIFE.

THE VALUE OF FERTILIZERS.

NOTES FROM ORCHARD AND FARM. OUTLOOK FOR THE SEASON.

Chemical science has settled two very important questions in agriculture. First, that there are only three elements that any soil is likely to be deficient in for the growth and maintenance of plant life, and they are nitrogen, phosphorus and potassium. Second, that these three elements must be in soluble condition in order that plant life may assimilate them.

Nitrogen is an invisible, tasteless and odorless gas. The air we breathe is composed of about four-fifths of this element. It is a constituent of all products of growth, whether animal or vegetable, and exists in several forms. First, in organic matter, as in dried blood, bones, fish scrap, tankage, guano, cotton-seed meal, castor-bean pomace, grape pomace, linseed meal and manures. Second, in nitrates, as nitrate of soda. Third, in ammonia, of which it forms fourteen parts of every seventeen. In this latter form its principal source is sulphate of ammonia. Manures and some organic substances contain ammonia.

Phosphorus is a non-metallic substance which unites with oxygen so readily that it cannot be kept in air, but must be kept under water. It exists in all plants and animals as phosphate of soda, potash, lime and magnesia. Phosphorus for fertilizing purposes is derived from Canada apatite, Charleston rock, tankage, fish scrap, bones, cottonseed meal, castor-bean pomace, grape pomace, linseed meal, marls, iron ore, slag and manure.

Potassium is an alkali metal. Its affinity for oxygen is so great that a piece of metallic potassium thrown upon water immediately takes fire. Its most familiar form is lye. The principal sources from which potash is derived for fertilizing purposes are muriate of potash, kainit, sulphate of potash and magnesium, ashes, cottonseed meal, oil meal, flaxseed meal, castor-bean pomace, grape pomace and manure.

It often happens that soil is rich in all necessary elements for plant food, but the elements are in an insoluble condition. In such cases the elements may often be dissolved by the application of lime.

Other elements that enter into organic life, and which are nearly always present in quantities sufficient to make and sustain growth are oxygen, hydrogen, sulphur, carbon, lime, iron, chlorine, silicon, sodium, magnesium and manganese.

The agricultural value of a fertilizer depends upon the benefit derived from its use—its crop-producing power. Sometimes the highest priced fertilizers are of little value to particular crops or lands. Nitrogen, the most expensive element, has occasionally been used at a loss, where potash, the cheapest element, has been found to be of great agricultural value.

Certain plants remove from the soil certain elements. When by analysis these elements have been determined, the kind of plant food most required is certainly indicated. Plant growth is dependent upon so many factors, however, that no general rules can be applied, and each set of circumstances must be studied and dealt with separately. There are certain peculiarities, too, which are not yet thoroughly understood. It often happens, for instance, that one pound of some certain fertilizer, properly applied, will produce ten pounds of fruit as an increased crop. This has been determined by experiments, and is just as certain as that five pounds of cod liver oil properly administered to a person may result in an increase of flesh amounting to ten pounds. The reason lies partly in the fact that many of the elements which contribute to plant growth are so bountifully disseminated throughout nature that they are nearly always in excess of the requirements of plant growth, many of them being supplied through the air. Thus the plant, when supplied with the elements which may be lacking in the soil, takes up other elements in their proper proportion and thrives accordingly.

Upon the other hand fertilizers are occasionally applied to trees without resulting in an increased crop of fruit. No agricultural chemist would guarantee an average crop, even if his own analysis of an absolutely fair sample of the soil proved that the field contained twenty times as much plant food as any one crop could possibly remove.

However, the fact remains that proper fertilization always pays when it is needed. This has been abundantly proved by experiment. Perhaps it has never been made plainer than at Riverside, where there are orange groves which have been properly fertilized, and in which the trees present a bright, green, healthful appearance and bear heavy crops, separated only by a fence, from trees that have not been fertilized, and which present a pale, yellow, sickly appearance, and which bear small crops of inferior fruit.

Eastern farmers have demonstrated the value of fertilizers also, particularly in the growing of potatoes. Our California farmers think they are doing well when they raise from 300 to 400 bushels of potatoes to the acre, but Colorado farmers, in a far less favorable clime and in a soil not any richer, have, by the intelligent use of fertilizers, been enabled to raise as high as 847 bushels per acre at a cost of $20 50 per acre for fertilizers, as against 491 bushels on a similar plat where only stable manure was used.

Eastern farmers work to great disadvantage in making experiments because of the unreliability of the climate there. The officials of the Agricultural Department frequently explain that "no conclusions can be drawn this year on account of the excessive rains and storms," or "the drought unfortunately caused a failure of the entire plat."

It is surprising that in California, where the elements are so kind, greater progress has not beed made in scientific farming. The lack of experimentation in this line is, no doubt, due in a great degree to the fact that the climatic conditions are such that unusually large crops can be grown without fertilization.

Again, the land is comparatively new, much of it having been brought under cultivation within the past few years. There are soils in several counties which have been used for grain growing purposes for thirty or forty years, without apparent diminution of crops.

This does not mean, however, that proper fertilization would not greatly increase the crops. It only means that the soil is rich in plant food taken up by grain, and that the constituents are in a soluble condition and easily assimilated. It does not mean that elements can forever be continuously withdrawn from the soil without any apparent diminution of the quantity remaining.

Fertilizers have been but little used in California. In fact many valuable fertilizers are thrown away. Castor bean pomace at the California oilmills is burned for fuel. In the East castor pomace sells readily for from $20 to $26 per ton. Hundreds, even thousands of tons of bones are thrown away or burned up by California butchers. Grape pomace is often used to fill a ditch with or some other objectionable depression in the land. The refuse of the sheep and cattle corrals is often allowed to go to waste and barnyard manure is frequently dumped in a garbage heap and burned or otherwise destroyed. Straw is burned annually by the thousands of tons. All refuse straw, pomace and manure, should be cared for, composted and used.

All who have experimented with barnyard manure as a fertilizer knows that it is valuable and largely increases crops whenever it is properly applied. Yet it has little value compared with the prepared fertilizers. It contains, with other ingredients, about 70 per cent water, 0.5 per cent nitrogen, 0.5 per cent phosphoric acid and 0.4 per cent potash. A ton of manure, in other words, contains only about twenty-eight pounds of the essential elements—say ten pounds of nitrogen, ten pounds of phosphoric acid, and eight pounds of potash. These elements would cost about $3, so that is about the real value of barnyard manure per ton as a fertilizer. Of course the cost of hauling must be added, supposing that the manure first cost $3 per ton. As compared with pure prepared fertilizers, its value may be stated about like this: One ton of nitrate of soda contains as much nitrogen as would be found in from thirty to thirty-five tons of manure. One ton of bone black contains as much phosphoric acid as seventy tons of manure. One ton of muriate of potash contains as much potash as 125 tons of manure. One may easily carry in a basket in one hand, more plant food in the shape of nitrogen, phosphoric acid and potash, than is contained in a ton of barnyard manure. The latter, however, is valuable, and may often be cheaply secured and applied.

Luther Burbank, who lives near Santa Rosa, has what he calls a crossbred walnut tree, a hybrid of the English walnut and the American black walnut.

The output of oranges at Oroville, Thermalito and Palermo for the past season has been, according to the Oroville Mercury: Oroville, 20½ carloads; Palermo, 45 carloads.

Apples that are grown in the mountains are firmer, taste better and keep longer than those grown in the valleys. Along the Sierras at elevations of from 2000 to 4000 feet they grow well and bear well. At greater elevations than this the snow often breaks down the trees, especially the younger ones.

The Riverside Press states that the orange crop of that vicinity will this year amount to 2700 carloads or 769,500 boxes, of which a little more than half are navels. The lemon crop will bring the value of the citrus crop of that particular section up to $1,539,000.

Oranges grown near enough to the coast to be subject to the influence of the moisture-laden atmosphere of the ocean are likely to become smutty. Their appearance is greatly impaired and the fruit never commands as much as good clean fruit grown in a more arid atmosphere. J. S. Phillips of National City, San Diego County, says the best wash he has ever found for smutty oranges is two parts water to one of lemon juice.

The Paso Robles Record reports that fig growing in that vicinity has resulted unsatisfactory with the exception of a few instances, in which the orchards were in the warmer belts along the foothills. Most of the trees which were planted there several years ago are now being removed to make room for more profitable fruit trees. The fig reaches its greatest growth in this State in the San Joaquin Valley, south of Merced, in Fresno, Tulare and Kern. The trees there, especially in districts where the soil is irrigated by percolation from irrigating canals, grow very thriftily. Very few farmers, however, succeed in curing and packing figs so they will present a good appearance, taste well and keep. Most of the figs turn sour. It has been claimed that this was due to lack of caprification. However, the blastophaga, introduced a few years ago, brings about pollinization, and yet fig culture has not been profitable except in a few instances. A few growers who have studied the matter very closely have succeeded. The fig—especially the old Mission fig—bears very heavily along the foothills on the eastern edge of the San Joaquin Valley, and those who can place figs in the market in an acceptable manner can certainly reap large profits.

The annual report of the Sutter Fruit Growers' Shipping Association showed that the association had shipped thirty-six carloads of fresh fruits loaded at Yuba City. One car was lost in the strike, leaving thirty-five cars that reached the Eastern markets. The gross sales on twenty-one cars of which a record was kept amounted to $18,866 10—an average of $898 38. After deducting freight and other expenses and commissions this leaves an average net return of $365 49 per car—about 35 cents per package of twenty pounds.

Bone dust, which is all manner of bones ground up into flour, is one of the best fertilizers known. It has to be ground fine so roots can feed at once upon it. Otherwise it is not available until time rots it. We have all heard of carcasses being buried under fruit trees, asparagus beds and so on, because the roots feed only as the mass rots, and that may run into years. If, therefore, it is in your power, buy a bone-grinding mill. You would be astonished at the bones you could collect and the benefits you would derive. Green bones, with with more or less meat thereon, is the very food for laying hens. Even animals, old and rejected, can be turned thus into excellent account.

No one whose trees are affected thus the pernicious scale can afford to neglect spraying. The lime, salt and sulphur mixture seems to give good results, and is made by mixing two pounds of lime and four pounds of sulphur with three gallons of water. The mixture should be boiled an hour and a half. Put three pounds of salt with six pounds of lime and slake with hot water; add to it the boiling mixture and boil for an hour. Then add nine gallons of water and apply to the trees with a spray pump.

The following advertisement appeared in the Fresno Republican of March 3. It was probably inserted as a joke, but is so suggestive that we reprint it for the benefit of Pacific Coast raisin-growers:

"Wanted—A man to go through the colonies and secure contracts on raisin crops for the year 1895. The raisins to be handled on a commission basis. Any one desiring this situation who has any character or principle or any respect for his future need not apply. We want a man who will make all kinds of promises as long as he does not bind us beyond our one-sided contract. Any one who cares not for the future of his soul will do. Cosmopolitan Packing Company, Fresno.

Section 39 of the new county government bill declares that the Boards of Supervisors "shall have jurisdiction and power to encourage, under such regulations as they may adopt, the planting and preservation of shade and ornamental trees on the public roads and highways, and on and about the public grounds and buildings of the county, and to pay to persons planting and cultivating the same for every living tree thus planted at the age of four years a sum not exceeding one dollar." This will undoubtedly do more to promote tree-planting than any other law that has been passed. All that seems to be necessary in order to secure shade-trees along public highways everywhere in the State is to secure permission from the Supervisors to plant them at $1 each.

Barley is already heading out in some sections of the State and haying has commenced in some localities.

Scientists have been unable to find anything poisonous in rattleweed. Upon the other hand, none of them are able to tell us what is the matter with a rattleweeded horse.

The North American Journal of Homeopathy says that sheep fed on grass grown on soil wanting silicate of lime are attacked with pining ill and rot, diseases closely allied to tuberculosis.

Farmers should never waste ashes. Scatter them over the soil in orchard or garden. Lime and ashes are most thoroughly assimilated when applied in dry weather and plowed under.

Horses are seldom bothered with bots in California, but in the East horses are often killed by them. The best preventive is to wash the deposited spots daily with a petroleum emulsion to which a liberal quantity of carbolic acid has been added.

Irrigation canals must eventually be cemented, as they are in some portions of Southern California. With an open ditch more water is wasted than is used for irrigation. Cement is costly, but its use is always profitable in the end. Even the extra expense involved in clearing canals of weeds would eventually pay for the cost of a cemented canal.

The Oakdale Leader reports that meadowlarks have badly damaged a large tract of wheat in that vicinity, owned by J. W. Tulloch. They bore down into the soil with their bills and get the kernels of wheat. Larks very seldom fly in flocks, and are so quick and nervous in their movements that very seldom is an opportunity presented to kill more than one at a shot. The damage done to growing crops by larks is, as a rule, very slight.

The warnings sent out by the Weather Bureau are often of great service to farmers and orchardists. The service can be extended to many of the smaller towns if some reliable citizen will take the trouble to hoist the weather signals and send in reports. The bureau will furnish flags and instruments free of cost to voluntary observers.

Most farmers plan to lighten their own labor, and adopt, when possible, labor-saving machinery. The housewife, in the meantime, often has to work to great disadvantage. Give the women a chance. Provide plenty of good dry wood and kindling. Buy a good range. Arrange to have plenty of hot and cold water piped in the kitchen, and provide sinks for dish-washing and others for laundry work, and see if it doesn't pay.

PUBLICATION OFFICE:

525 Montgomery street, near Clay, open until 11 o'clock P. M. BRANCH OFFICES—710 Market street, near Kearny, open until 12 o'clock midnight; 339 Hayes street, open until 9:30 o'clock; 717 Larkin street, open until 9:30 o'clock; SW. corner Sixteenth and Mission streets, open until 9 o'clock; 2518 Mission street, open until 9 o'clock; and 116 Ninth street, open until 9:30 o'clock

NOTICE OF MEETINGS.

MOUNT MORIAH LODGE NO. 44, F. and A. M.—Meeting THIS (WEDNESDAY) EVENING at 7:30 o'clock. Third degree.
THEO. FROLICH, Secretary.

MISSION LODGE NO. 169, F. AND A. M.—Called meeting THIS (WEDNESDAY) EVENING at 7:30 o'clock. First degree. By order of the W. M.
C. D. BUNKER, Secretary.

EXCELSIOR LODGE NO. 166, F. and A. M.—Called meeting THIS (WEDNESDAY) EVENING, March 13, at 7:30 o'clock. Third degree.
THEO E. SMITH, Secretary.

CROCKETT LODGE NO. 139, F. and A. M.—Called meeting THIS (WEDNESDAY) EVENING at 7:30 o'clock. Third degree. By order of the W. M.
H. FORTRIEDE, Sec.

YERBA BUENA LODGE No. 15, I. O. O. F.—An open meeting will be held under the auspices of this lodge THURSDAY EVENING, March 14, at 8 o'clock. The lodge will meet for the transaction of business at 7:15 o'clock. Visiting brothers cordially welcome.
U. S. G. CLIFFORD, N. G.
E. G. HARRISON, Rec. Secretary.

TRIUMPH LODGE NO. 180, A. O. U. W.—You are notified to meet at your hall, cor. Seventh and Market sts., to attend the funeral of our late brother, ROBERT DAVIDSON, WEDNESDAY, March 13, at 1:30 P. M.
J. A. MCWILLIAMS, M. W.
J. H. CATTRAN, Recorder.

A. O. H., DIVISION NO. 3, WILL hold their regular montly meeting at Drew's Hall, 121 New Montgomery st., on WEDNESDAY EVENING, March 13, 1895.
JOHN BOYALL, President.
MICHAEL KILKENNY, Secretary.

THE REGULAR MONTHLY MEETING of the Laborers' Protective and Benevolent Association will be held in Irish-American Hall on WEDNESDAY EVENING, March 13, at 7:30 P. M.
DENNIS SWEENEY, President.
THOMAS CALLAGHY, Secretary.

THE ANNUAL MEETING OF THE stockholders of Western Sugar Refining Company will be held at the office of the corporation, 327 Market st., San Francisco, Cal., on MONDAY, the 25th day of March, at 12 M., for the election of a board of directors, to serve for the ensuing year, and the transaction of such other business as may come before the meeting.
ROBERT OXNARD, Secretary.

ANNUAL MEETING—THE REGULAR annual meeting of the stockholders of the Sierra Lake Ice Company will be held at the office of the company, room 27, fifth floor, Mills building, San Francisco, Cal., on THURSDAY, the 21st day of March, 1895, at the hour of 2 o'clock P. M., for the purpose of electing a board of directors to serve for the ensuing year and the transaction of such other business as may come before the meeting. Transfer-books will close on WEDNESDAY, the 20th day of March, 1895, at 4 o'clock P. M.
C. A. GROW, Secretary.

STOCKHOLDERS' MEETING—THE annual meeting of the stockholders of the Mendocino Lumber Company will be held at the office of the company, 401 California street, room 1, on MONDAY March 18, 1895, at 11 o'clock A. M., for the election of directors for the ensuing year, the amending and altering of the by-laws and the transaction of such and all other business that may properly be considered at the annual meeting.
E. C. WILLIAMS, President.

SPECIAL NOTICES.

CLARA FOLTZ, ATTORNEY-AT-LAW, rooms 14 and 15, 9th floor, Mills building. Practices in all State and Federal courts.

ROOMS WHITENED, $1 UP; PAPERED $3 50 up. 309 Sixth, George Hartman.

MONEY TO LOAN ON SAN FRANCISCO real estate. W. J. GUNN, 410 Montgomery.

JOHN F. LYONS, NOTARY PUBLIC and Commissioner of Deeds. Passports procured. Office 607 Montgomery st.; telephone 5439; residence 2202 Steiner st.

BAD TENANTS EJECTED FOR $4. Collections made, city or country. Pacific Collection Co., 415 Montgy st., room 6. Tel. 5580.

J. B. MCINTYRE, BOOKBINDER AND Printer. 422 Commercial st.

SITUATIONS WANTED—FEMALE.

LADIES—FOR AN A1 SERVANT SEE J. F. CROSETT & CO., 312 Sutter st.

SWEDISH EMPLOYMENT OFFICE FOR ALL kinds of good respectable girls. 11½ Antonio st., off Jones, near Ellis.

MARTIN & CO., EMPLOYMENT AGENTS, 749 Market st., main telephone No. 1849; furnish all kinds of reliable female help.

AT THE SWEDISH EMPLOYMENT BUreau first-class Swedish and German girls are awaiting situations. 332 Geary st.; telephone 983.

GERMAN GIRL WANTS A SITUATION TO do light housework and plain washing. Call or address 600 Haight st.

GERMAN WOMAN WANTS A SITUATION as German cook; is willing to do some housework; city references; city or country. Please call 206 Fifth st., near Howard.

WANTED—BY EXPERIENCED INFANT'S nurse, care of one child in hotel, country, or companion to invalid lady; wages $12. Address M. C., box 90, Call Branch Office.

WIDOW WANTS GENTLEMEN'S MENDING to do; no triffers. Call 437 Natoma st.

YOUNG GERMAN GIRL WOULD LIKE TO do upstairs work in a private family. Call or address 1022 Jackson st., bet. Mason and Powell.

YOUNG GIRL WOULD LIKE A PLACE TO care one or two children or wait on old lady; wages $8 to $10; reference. Address G., box 144, Call Branch Office.

YOUNG GIRL WANTS SITUATION TO MIND children or to do light housework. Call or address 2438 California st.

COMPETENT GERMAN COOK WANTS place in private family or institution; successful in her undertaking. Apply 957 Market, rm. 1.

GOVERNESS, SECRETARY OR COMPANION position wanted by experienced young lady with sound English education, music, foreign languages; excellent testimonials and references. Address D. F., box 141, Call Branch Office.

WANTED—BY COMPETENT, GOOD COOK to do general housework or downstairs work; will do washing; don't mind large family; kind to children; city or country; wages $15 to $20. Please call for 3 days, 529 Mission st., near First.

CANADIAN GIRL DESIRES SITUATION IN small American family; good cook; no washing; city reference; $15 to $20. 1031 Market st.

SCANDINAVIAN GIRL WOULD LIKE TO have a situation at general housework. Address 45 Sacramento st.

YOUNG GIRL, 18 YEARS, WISHES SITUATION to do light housework. Call 724 Harrison.

WOMAN WANTS TO WORK BY THE DAY or week, housecleaning and window-cleaning; $1 a day. Address W. W., box 144, Call Branch.

WIDOW, LATELY FROM THE EAST, would like a situation as housekeeper for a gentleman. Call one week, 132 Sixth st., room 42.

GERMAN WOMAN WISHES WORK BY the day washing and cleaning. Call 431 Clementina st.

SITUATIONS WANTED BY A NUMBER OF Swedish girls; good cooks and general housework; $20. 11½ Antonio st., off Jones, near Ellis.

SITUATION WANTED BY A GERMAN GIRL to do plain cooking and housework. Address 132 Juniper st., bet. Harrison and Bryant.

GERMAN GIRL WISHES SITUATION TO DO general housework in American family. Call 545 Mission.

RESPECTABLE YOUNG GIRL WISHES A situation to do housework. Apply at 1418 Alabama st.

COMPETENT GIRL WANTS SITUATION TO do cooking and housework or second work; references. Address 233 Fulton st.

SCANDINAVIAN GIRL WISHES POSITION in American family to do general housework and cooking. Call 627½ Ivy ave.

WANTED—HOUSEWORK OR KITCHEN work for a middle-aged woman. Apply 504 Franklin st.

NOVA SCOTIA WOMAN WISHES SITUATION to do housework in small family; good plain cook. Call or address next 3 days 1625 Clay.

SITUATIONS WANTED—Continued.

WAITRESS—SITUATION WANTED BY young lady not afraid of work. Call or address 19½ Clinton st.

SWEDISH GIRL WISHES SITUATION TO do housework. Please call at 173a Clara st.

BY YOUNG GIRL TO ASSIST IN HOUSEwork. Call 138½ Shipley st.

GERMAN WOMAN WISHES STEADY ENgagement for laundry work on Mondays and Fridays. Call at 105 Berry st., near Third.

GOVERNESS—YOUNG LADY DESIRES POsition as visiting governess to young children; English branches and music; references. Address B. B., box 117, Call Branch Office.

DRESSMAKER WOULD LIKE FEW MORE engagements by the day; terms $1 50. Call or address 823 Dolores st.

WIDOW WOULD LIKE A POSITION AS housekeeper; city, or country preferred. Address H. K., box 156, Call Branch Office.

AN ADVANCED WOMAN WISHES SITUAtion in small family, housekeeping; no objection to country. 10 Wetmore place, above Powell and Washington.

FRENCH DRESSMAKER, FIRST-CLASS FITter, wishes few more engagements in families; city or country. Call or address 511 Hyde st.

RESPECTABLE GERMAN LADY, WHO IS A good plain cook and willing to work, desires position as housekeeper in widower's family or lodging-house; no objection to country. 312 Hyde st.

YOUNG FINNISH GIRL WANTS A SITUAtion to do general housework; speaks no English; small wages. Call or address 42 Everett st.

RESPECTABLE GERMAN EASTERN LADY wishes situation at general housework; can cook and bake; German or English family preferred. Address 528 Devisadero st.

YOUNG LADY WOULD LIKE PLACE TO learn hair-dressing; had some experience; will give 2 months. Address I. L. A., 522 Turk st.

A YOUNG WIDOW WISHES GENT'S MENDing to do. Call from 10 to 5:30, 150 Fourth st., room 9.

HOUSEKEEPER—WANTED BY A YOUNG and respectable Scandinavian widow, a position as housekeeper; good cook and seamstress; not afraid of work; no triflers need answer; references given. Address S. L., box 118, Call Branch.

RELIABLE COLORED GIRL WANTS SITUAtion in the country as ladies' maid or a housekeeper in a summer resort. Call or address 14½ Sherwood place, off Third st.

FRENCH MAID, GOOD SEAMSTRESS, HAIRdresser and packer, would like to travel. X. Y., box 119, Call Branch.

SEAMSTRESS WISHES CHILDREN'S clothes and plain sewing; $1 per day. Address S., box 163, Call Branch Office.

YOUNG WOMAN WISHES SITUATION IN the country as housekeeper. Address H., box 105, Call Branch Office.

WOMAN WANTS WORK BY DAY OR WEEK washing or housecleaning. Address or call 1002 Sixteenth ave., S. S. F.

YOUNG GIRL SPEAKING FRENCH, GERman and English, wishes situation at upstairs work and plain sewing; best of references. Please call at 1810 Sutter st.

OFFICE-CLEANING OR POSITION AS JANItress wanted by respectable young English woman with first-class references. Address English, box 156, Call Branch Office.

MIDDLE-AGED AMERICAN WOMAN WISHes situation in a respectable family. Please call or address 423 Fourth st.

YOUNG GERMAN-SWISS WANTS SITUAtion to do housework or care of children. Call or address 621 Commercial st.

YOUNG GERMAN WOMAN WANTS WORK by the day; washing and housecleaning. Call at 325 Larkin st., downstairs.

YOUNG WOMAN WANTS WORK BY THE day; washing or housecleaning; or would like flannel underwear to wash at home. Address 120 Fourth st., room 11

AMERICAN WOMAN WISHES SITUATION for housework; good plain cook; country preferred; no postals. Call at 1239½ Market st., near Ninth.

IF YOU WANT A GOOD SERVANT, MALE or female, city or country, apply MME LEOPOLD'S Employment Office, 957 Market st.; open evenings.

EASTERN LADY WOULD LIKE A SITUAtion as housekeeper. Call or address 7 Margaret place, upper flat, bet. 14 and 16 Turk st.

GERMAN WOMAN, 29 YEARS OF AGE, wishes place as housekeeper. Address 7 August place, bet. Union and Green sts., below Powell.

YOUNG GIRL WISHES A POSITION AS housekeeper for a gentleman. Call at 728½ Howard st., room 1.

REFINED YOUNG LADY WOULD LIKE situation as housekeeper. Call or address 1126 Market st., room 18, second floor.

DRESSMAKERS WANTED; PATTERNS CUT to order, 25c. McDowell Academy, 213 Powell.

SITUATIONS WANTED—MALE.

FOR HOTEL COOKS, WAITERS, CLERKS, male or female, send in your orders to J. F. CROSETT & CO., 628 Sacramento, San Francisco.

YOUNG BEDMAKER DESIRES WORK cheap in small lodging-house. Address B., box 19, this office.

ENGINEER AND MACHINIST WANTS situation; references; city or country. J., 18 Prosper st., San Francisco.

SITUATION WANTED AS BARBER; SIX months' experience. Address Barber, box 126, Call Branch Office.

TO MEET THE HARD TIMES; SALARY $40; expert double-entry bookkeeper wants situation; can speak German; good references. Address H. O., box 140, Call Branch Office.

DRUGSTORE'S WORK WANTED BY JAPAnese high school graduate, who wants to become a druggist. Address Fuso, 805 Geary.

GOOD STRONG BOY (15 YEARS OLD) WHO lives with his parents would like a position in a butcher-shop. Address A. BRUCKER, 1513 Dupont st.

STEADY, RELIABLE YOUNG GERMAN, 22 years old, wishes a situation; has had experience in the grocery business. Address T. PETERSEN, 821 Hampshire street, city.

STRONG BOY, 16, LIVING WITH HIS PARents, wants a situation to make himself generally useful around wholesale house or store. Call or address 790 Stevenson st.

RELIABLE AND COMPETENT ENGINEER wants work; an expert in saving fuel in boiler-room; references. Apply C. THORPE, 1609 California st.

GOOD BREADBAKER, SINGLE, WANTS A place; willing to leave city. Address Baker, box 163, Call Branch Office.

YOUNG MAN WANTS WORK OF ANY KIND. Address P. M., box 163, Call Branch Office.

WINDOW-CLEANING WANTED BY YOUNG, reliable man, either by day or contract. Address W. C., box 156, Call Branch Office.

JAPANESE, FIRST-CLASS COOK, WANTS A situation in family. Address A. S., box 114, Call Branch Office.

COACHMAN AND GARDENER BY A FIRST-class man; milk and make himself useful; best of reference. Address F. G., box 100, Call Branch.

SITUATION WANTED BY AN ENGLISH gardener; can milk and is handy with tools. Address S. M., box 20, this office.

WANTED—SITUATION FOR GARDENING and housework or for gardening and taking care of horses; speaks German; good reference. Address Gardener, Call Branch, 717 Larkin st.

SITUATION WANTED BY YOUNG MARried couple (German); no children; city or country. Inquire Humboldt House, 1309 Stockton.

JAPANESE BOY, YOUNG AND FAITHFUL, wants situation as office-boy or waiting at table. Address J. K., box 105, Call Branch.

SWEDISH MAN WANTS PLACE IN PRIvate family to take care horses, cows, garden, or anything around a place; good reference. Address Swede, box 137, Call Branch Office.

SITUATION WANTED IN PRIVATE FAMily by a German-American coachman; can milk; understands gardening and any kind of work in and about the house; temperate and industrious; city references. Address C. F. & ST., 1300 Turk st., cor. Webster, San Francisco, Cal.

WANTED—POSITION BY MAN AND WIFE as cooks in hotel, ranch or private family. Apply or address 225 Perry st., city.

FEMALE HELP WANTED.

2 SECOND GIRLS, $20; GERMAN OR SCANdinavian girls, housework, $20; waitress, $15; Spanish second girl, $15; 10 girls, light housework, $12 and $15. C. R. HANSEN & CO., 110 Geary st.

WANTED—COOK AND LAUNDRESS, SHORT distance, $25, see lady here at 2 o'clock today; German or Scandinavian cook, no wash, $30; 4 German and French second girls, $20; Protestant second girl and laundress, $25; 2 German nurses, $20; invalid nurse, $20, and girls for housework in city and country. J. F. CROSETT & CO., 312 Sutter st.

WANTED—NURSE, $20, SEE PARTY HERE at 10 o'clock to-day; 2 waitresses and chambermaids, country hotels, $20. J. F. CROSETT & CO., 312 Sutter st.

WANTED—2 SWEDISH OR GERMAN LAUNdresses, $25; first-class cook, $35; first-class French waitress, $25; 2 French nurses, $20 and $15; girls for housework and assist. LEON ANDRE, 315 Stockton st.

GERMAN OR SWEDISH GIRL, GENERAL housework, plain cooking, $25; seamstress, $25; girl for housework, Bakersfield, $25; nurse-girl, $12; number of girls for housework. MRS. HIRD, 705 Polk st.

FRENCH GOVERNESS, ONE CHILD, $20; German cook, $35; cook, American family, $30; 10 housework girls, city and country, $20 and $25; 6 girls to assist, $12 to $15. Apply MISS CULLEN, 105 Stockton st.

FRENCH SECOND GIRL AND SEAMSTRESS, $25; waitress, $25; laundress, $25. Apply MISS CULLEN, 105 Stockton st., room 2.

CHAMBERMAID FOR HOTEL, $20. APPLY MISS CULLEN, 105 Stockton st.

2 NURSES, $15 EACH. MISS CULLEN, 105 Stockton st., room 2.

NURSE FOR CHILDREN, $20 TO $25, SEE boss here; nurse for an invalid, $20; chambermaid, $18; waitress, $20; woman for housework, no washing. MURRAY & READY, 634 Clay st.

GERMAN OR FRENCH CHAMBERMAID, TO assist also with 1 grown child, $25. Apply MISS PLUNKETT, 424 Sutter st.

HELP WANTED—Continued.

2 GERMAN COOKS, OR SCANDINAVIAN girls that understand German cooking, $30 and $35. Apply MISS PLUNKETT, 424 Sutter st.

WANTED—WAITRESS FOR FIRST-CLASS hotel in city, $25; call early. MISS PLUNKETT, 424 Sutter st.

WANTED—A COOK ON PASTRY ALONE for 3 or 4 hours' work every day; good pay. Apply MISS PLUNKETT, 424 Sutter st.

WANTED—WAITRESS, $20 AND ROOM; waitress, $5 a week; waitress, $15 and room, small place; waitress, $16; 3 housegirls, $25; 5 housegirls, $20; 13 housegirls, $15; woman cook for ranch; housekeeper for Oregon; 5 young girls, $8 and $10 a month, for small families, assist, etc.; 3 nursegirls; vest-makers. MARTIN & CO., 749 Market st.

4 SWEDISH GIRLS FOR GENERAL HOUSEwork, wages $25; German girl, $20; nurse, $20; cook, German style, $30; American cook, $25; housegirl, $15; second girl, $20; 4 girls, country, $20 and $25. 332 Geary.

WAITRESS, COUNTRY, $20. FARE ADvanced. HOTEL GAZETTE, 420 Kearny st.

WANTED—EXPERIENCED CLOAK AND skirt makers at M. SIMINOFF'S, 1228 Market st.

STRONG YOUNG GIRL TO ASSIST IN GENeral housework; sleep at home. Address, with references, A., box 20, this office.

WANTED—GIRL TO ASSIST IN HOUSEwork and care of baby; $10. 923 Fillmore.

TAILORESS ON CUSTOM COATS; ALSO APprentice. 765 Mission st.

WANTED—A LITTLE GIRL FOR HOUSEwork and care for children. 449 Noe st.

WANTED—AN APPRENTICE GIRL ON coats. H. DAVIS, 457 Jessie st.

WANTED—GERMAN GIRL AS NURSE, help with second work. 1307 Hyde.

GOOD TAILORESS ON CUSTOM COATS. 349 Fourth st.

YOUNG GIRL TO ASSIST IN GENERAL housework. 1217 Webster st.

GIRL DO GENERAL HOUSEWORK; MUST sleep home. 227 Leavenworth st.

LADY CANVASSERS; HOUSEHOLD ARticle; good paying business. Apply Wilson House, 829 Stevenson st., after 2 P. M.

WANTED—FIRST-CLASS SKIRTMAKERS. 504 Sutter st.

YOUNG GIRL TO TAKE CARE OF CHILdren. 1308a Leavenworth st.

GIRL WANTED IN CHOPHOUSE. 50 THIRD street.

FIRST-CLASS WAISTHANDS. CITY PARIS Building, room 71.

WANTED TO SELL ALL OR HALF INTEREst in Oakland school of art and science in dress cutting, making and teaching the French tailor system simplified; one to take charge of dressmaking; also teachers for other schools. Call Monday at school, 613 Geary st., San Francisco; Tuesday and Wednesday, Oakland, Blake block, on Washington st., room 39. S. S. FREEMAN, United States Agent.

LADY TO LEARN MUSIC AND TEACHING; tuition 1 year for services. Call 1 to 2 o'clock, California Conservatory, 1704 Sacramento st.

GERMAN GIRL, GENERAL HOUSEWORK, small family; good home. 126½ Capp st.

PANTS OPERATOR. COLUMBIAN WOOLENmills, 541 Market st.

CAPABLE GIRL, NOT UNDER 20, FOR housework and assist with children; no cooking; wages $15. Apply 210 Ninth st.

10 FIRST-CLASS CLOAK-FINISHERS; NONE but first class need apply. I. BOTIONI, 723 Market st., room 34.

NEAT GIRL FOR HOUSEWORK. 1507 FOLsom st.

GIRL FOR GENERAL HOUSEWORK. 10 Liberty st., bet. Twentieth and Twenty-first.

WANTED—GOOD STRONG GIRL FOR GENeral housework; German or German descent preferred. 2002 Golden Gate ave.

FIRST-CLASS CAP HANDS; WORK BY power. H. FRIEDLANDER, 10 and 12 Sutter.

GENERAL HOUSEWORK GIRL WANTED AT 3221 Briggs ave., High-street station, Alameda; wages $15.

LADY AS DRUMMER FOR PRINTING; GOOD salary to right party. ORMSBY & CO., 636 Clay st.

WANTED—A YOUNG GERMAN GIRL TO attend to children. Apply at 933 Haight st.

WANTED—NEAT GIRL FOR LIGHT HOUSEwork. 936 Filbert st.

GIRLS WANTED—PATTERNS CUT TO order, 25c, at McDowell Academy, 213 Powell.

FREE—TEST AT LAWRENCE DRESSCUTting School. 1231 Market st.

MALE HELP WANTED.

SECOND COOK, RESTAURANT, $12 WEEK; baker and pastry cook, hotel, $40; Japanese for laundry work, $15 and found. C. R. HANSEN & CO., 110 Geary st.

SCANDINAVIAN COACHMAN WITH REFerences, $30. C. R. HANSEN & CO., 110 Geary st.

REDWOOD-TIE MAKERS, 10c A TIE; WOODchoppers, $1 50 a cord; vegetable gardener, $30 and found; 4 farmers, $15; 3 Scandinavian or German farmers, $15. C. R. HANSEN & CO., 110 Geary st.

WANTED—COACHMAN WITH REFERences for country, $30 and found; young German to drive milk wagon, $25 and found; stableman; farmer, $20 and found; 2 boiler-makers, $6 day, silver; 4 carpenters, $6 day, silver, and millwright for Central America. Apply to J. F. CROSETT & CO., 628 Sacramento st.

25 MORE WOODCHOPPERS, RED, PINE and hardwood, shingle bolts, etc., $1 to $1 50 per cord, 1 year's company work. MURRAY & READY, 634 Clay st.

10 LABORERS AND OFF-BEARERS FOR A country brickyard. MURRAY & READY, 634 Clay st.

SAILOR, GERMAN OR SCANDINAVIAN, for a gentleman's yacht; 2 stablemen city stables. MURRAY & READY, 634 Clay st.

BUTCHER FOR A LARGE RANCH, SEE boss here, $25 and found; farmer and wife, 3 farmers, $20. MURRAY & READY, 634 Clay st.

BAKER, COUNTRY SHOP, $30 TO $40 AND found; 3 hotel cooks, $35 to $60; 3 waiters, $25 and $30; 2 dishwashers; cook for a ranch, $30. MURRAY & READY, 634 Clay st.

WANTED—SHORT-ORDER COOK, $8 A week; window-cleaner, etc. MARTIN & CO., 749 Market street.

WANTED—MAN ACQUAINTED IN THE city to deliver coal, $25 and found. L. ANDRE, 315 Stockton st.

MARTIN & CO., EMPLOYMENT AGENTS, 749 Market st., main telephone No. 1849, furnish all kinds of reliable male help.

YOUNG MAN WANTED TO LEARN MANUfacturing optical trade; one that has had experience as a manufacturing jeweler and can do hard soldering. Apply bet. 9 and 10:30 A. M., California Optical Company, 317 Kearny st.

BARBERS