

FLORIN FARMERS' INSTITUTE

GOOD ATTENDANCE AND MUCH INTEREST SHOWN.

Hayne and Wickson and by Hayne and Wickson and by Charles E. Mack.

The Farmers' Institute opened at Florin yesterday with a good attendance, and it is expected that to-day the attendance will be much increased.

When the two Professors arrived at the Institute convened, T. Davies calling it to order with a few introductory remarks, stating the objects of the meeting and introducing the speakers, John Reese acted as secretary.

Mrs. Mary Kennedy rendered a fine soprano solo with excellent effect, receiving much applause.

Professor E. J. Wickson expressed his gratification at meeting so good a representation of the farmers and fruit growers, showing the interest taken by them in the instruction and aid which the University is trying to give them.

He addressed them on the subject of "The Relations of the University and the Farmers," and explained the policy laid out in this direction in the University extension scheme.

The University, he said, received its support very largely from the farmers, and it was just that it should make such return as it was able.

He invited questions from those desiring knowledge.

E. Gammon of Courtland asked the reason of canning fruits in cold water and was answered that unless the water was changed frequently it would decay and its only purpose would be to preserve from bruising.

Some spores of mildew will not develop under 60 degrees of temperature, while those in wine do not develop under 85 degrees.

In the case of canned tomatoes they are not made perfectly air tight. By the least exposure to air some of these germs might get in and in making cultures of germs much trouble is experienced on this account.

Dry rot in fruit is caused in the same way as mildew, but it is more common. The same germ that causes mildew to spoil is the same one that causes meat to spoil.

The object of ice houses is to keep these germs from developing. It comes back to the matter of heat, moisture and nourishment.

Mr. Booth asked as to the cause of the hairy appearance of fruit shipped a long distance in refrigerator cars, and was answered that the fault was in the car.

If through imperfect refrigeration the spores get a start, they develop so fast that within a few hours after the removal from the car they make their appearance.

Sugar is principally added in canning fruit, for the taste, but in large quantities it preserves it. Whenever sugar is used alcoholic ferment will be set up sooner or later.

Grapes are not so much affected by decay as other fruit, but it is an important question. The spoiling of fruit is caused by the growing in the fruit of certain microscopic products.

When we sow seeds of well-defined species in the earth they produce a like well-defined seed.

Case of fruit instead of the seeds being sown in the earth they are sown in the fruit itself, and the decomposition of the fruit-cells causes the fruit to spoil.

On the outside skin of the fruit is a substance which, although it does not look like cork, is nevertheless cork.

Then comes the inner skin, and finally the cells. All fruit is composed of cells, and the preservation of it consists in preserving these cells unimpaired and unbroken.

If we can keep them indefinitely, but as soon as they are broken decay sets in. People speak of microbes and bacteria as animal life, whereas they are not animal life at all, but vegetable.

We know enough about them now to know that they are just as numerous as the higher plants, and grow along the same lines, and are modified by the same conditions.

The higher plants need heat, moisture and nourishment for their development, and these microscopic products depend on the same things for their growth.

The yeast cells in wine are an example, and are so small that it would take 500,000,000,000 of them to make a cubic inch.

Without them we could have no wine or vinegar. The flavor of our milk and butter is not due to the grass, but to the microbes that are in the grass when it is eaten, and they are so throughout all nature.

They are in the air and in the water and everything else. The common bread-mold, for instance, is in every square yard of air that we breathe.

The spores of various kinds of mold and those of the milder kind are equally widely disseminated. He illustrated these different spores by colored charts, in which they were immensely magnified, and showed how they sprout, grow and ramify throughout the plant, causing the cell walls to break down, stopping the growth of the plant.

They cause a disease to the plant just as our lungs and other organs become diseased, and as they attack the leaves they destroy the fruit by stopping its growth.

The commonest cause of trouble in preserving fruit, he said, is that these spores, being upon the outside of the fruit, grow inward and break down and destroy the cells. If we can destroy them, we can preserve fruit. Why do

we dry fruit? It is because these spores require moisture and when the juice is dried out from fruit it keeps. We boil fruit in canning it, in order to destroy these germs.

The way to preserve fruit then is either to suppress these germs or to cause it to be difficult for them to grow. Thus the reason why refrigerator cars are used, as they deprive the fruit of the heat that would develop the spores or germs.

If we open fruit to the air after it is canned, it allows the germs that are floating in the air to get in and they develop and spoil it. The greatest source of decay is bringing the fruit, which breaks down the cells. It has been found necessary in some packing houses to insist on lemons being brought in unbruised, by requiring that the wagons in which they are brought should have springs and be smooth on a walk.

There was considerable talk in his country over these regulations, but the growers found that adherence to them added ten per cent. to the value of the crop and that it paid. An olive that has been bruised cannot be pickled and has no chance to grow and wash them off the skin. Then when they are put in the brine it acts as a mild poison to them.

If those who pickle them confined themselves to salt it would be all right, but it is the adulteration of antiseptics that makes much trouble. That is the reason we need a pure food law. Sulfuric acid will kill the germs, but it destroys the fruit. For this reason that and similar antiseptics should not be used.

Science has taught us that they are not necessary and that fruit can be best preserved without them.

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moisture in summer. San Jose is a notable instance of this. If it is found on examination that there is plenty of moisture and that fertilization is necessary, the next question is—what fertilizer is best? It is conceded that in many cases rank stable manure is not desirable or, if used, should be used very sparingly.

He wished that those present who had had experience would give the institute the benefit of it.

Some manures are too stimulating. Nitrogen is one of these, and must be used carefully. It has been found that too liberal use of nitrate of soda produced puffy oranges. When nitrogen is applied to grain, it produces a larger growth of straw at the expense of the grain.

Potash is not stimulating and grapes will take a great deal of it. In California and Florida soils have plenty of potash, but some become exhausted and need renewing. There should be local experiment stations, under the supervision of committees of the clubs or associations who are careful and accurate men and who may observe the results. The requirements of the locality should be carefully studied in this way. He hoped to hear from those present.

James Rutter said he was one of the first grape growers in the county, and had considerable experience. On one portion of the vineyard he planted his vines on a liberal coat of wood ashes when it was new, and received a return of three tons a year. Supervisor Curtis prepared to plant a vineyard by hauling out manure for years on the land and the consequence was that when he planted his vineyard it was several years before he got any crops, and did not do so until the excess of ammonia had been eliminated. So, too, the late Josiah Barry planted a vineyard on a knoll strongly fertilized by sheep, with the same result.

E. F. French said he had used barnyard manure for years and noticed that it had materially increased the wood growth, but he had not noticed any deterioration of the crops. His twenty-year-old vines thus treated are the best producing ones on his place. He put on the manure in the winter and plowed it under in the spring.

J. Davies asked as to the best way of applying barnyard manure, and Professor Wickson answered that Mr. French's method was an excellent one. T. E. Davies said he had a patch of grapes that he had manured, and for the past two years the amount of fruit three feet apart, because a young man who worked for him had told him of their immense yield and value. They formed a perfect mat that covered the ground, though there was no rain, and there seemed to be very little moisture in the ground. The best plants at the same time were not a success. He had never used a kind of feed that the stock would eat up so clean. They are excellent for hogs and good for cattle, but as for a fertilizer, he did not see how they could be used.

He had vines six or eight feet long. They will produce more to the acre than anything else he had ever planted, and he would advise any who had a small spot of land to spare to plant it with low peas.

He had a patch of blackberries that he dug up when they were twelve or fifteen years old, and planted the ground to grapes. He had manured the blackberries every year and found that the vines on that land were better than any other in the vineyard. Moisture and cultivation, he thought, were necessary for success. Such land as grows a heavy crop of alfalfa, however, did not need manure, as the alfalfa when plowed under, would be sufficient in the way of manure.

THE QUESTION BOX. The question box was opened and the question as to whether the tap root or the deep root nourished the tree most was answered by Professor Wickson, who said that both nourished it, but in different ways. In regard to the benefits to a community from the formation of a farmers' club, he said that it would be a decided benefit if there was no similar organization in the neighborhood. Several questions on other subjects were asked and answered. Dry soil or system are better to mix with pen manure than wood ashes or any other caustic, which will set free the ammonia and result in its loss. There was a difference of opinion as to the best time to spray for codling moth. One opinion was that a plant food, is an excellent substance to set free plant foods in some soils. The cause of Tokay grapes not coloring well was thought to be on account of weather.

The institute then adjourned until 10 a. m. to-day.

Throat troubles. To allay the irritation that induces coughing use "Brown's Bronchial Troches." A simple and safe remedy.

Hodson's 25c coupon gives you a doz. cabinets at \$1.55. See agents.

Zombro, 2-11, the greatest son of McKinney, 2-11, has arrived at Agricultural Park, and will make the season at \$30.

McMorris sells groceries. Agent for Coronado water and Stockton sarsaparilla and iron. 531 M street.

For a good, sharp glass of steam or larger bore to the El Dorado, 826 J.

E. M. Leitch, piano mover, requests orders left at Kohler & Chase, 721 K street, and not at Pommer's.

Save money by buying your tea and coffee of J. McMorris, 531 M.

One suite of rooms to let in Pommer building, corner Ninth and J streets, suitable for doctor.

Try McMorris's 50c uncolored Japan tea; E. P. tea, 85c; G. P. tea, 75c; P. F. Japan tea, 40c; 531 M street.

Electrical lamps at Scott's, 303 J. Try McMorris's Blend Coffee, 53c.



ONE ENJOYS

Both the method and results when Syrup of Figs is taken; it is pleasant and refreshing to the taste, and acts gently yet promptly on the Kidneys, Liver and Bowels, cleanses the system effectually, dispels colds, headaches and fevers and cures habitual constipation.

Syrup of Figs is the only remedy of its kind ever produced, pleasing to the taste and acceptable to the stomach, prompt in its action and truly beneficial in its effects, prepared only from the most healthy and agreeable substances, its many excellent qualities commend it to all and have made it the most popular remedy known.

Syrup of Figs is for sale in 50 cent bottles by all leading druggists. Any reliable druggist who may not have it on hand will procure it promptly for any one who wishes to try it. Do not accept any substitute.

CALIFORNIA FIG SYRUP CO. SAN FRANCISCO, CAL. LOUISVILLE, KY. NEW YORK, N.Y.

ESCAPED FROM STOCKTON. Arrest of Charles M. Joslyn, an Insane Man.

Quite a commotion was created in the vicinity of Seventh and E streets yesterday by the attempt of Deputy Sheriffs Schwilk and Fisher to take into custody Charles M. Joslyn, an insane man whose home is in that vicinity.

Joslyn was committed to the Stockton Asylum a year ago, but recently made his escape. Neighbors notified Sheriff Johnson that he was again at his home, and he detailed the two deputies to go and bring him in.

But Joslyn refused to submit to arrest. He stood off Schwilk and Fisher, and as they did not wish to proceed to force, unless compelled, Joslyn was not then taken. He declared he would surrender only to Sheriff Johnson himself.

After Sheriff Reese then went over to try his hand, and on confronting the insane man declared himself as the Sheriff.

"Are you the new Sheriff?" demanded Joslyn.

"That's what I am," replied Reese. "What's your name?"

"Frank T. Johnson," said Joslyn. "That's right," said Joslyn. "You're the Sheriff and I'll recognize you, but I'll not have anything to do with these other fellows."

The patrol wagon was rung up, but when it arrived Joslyn balked again. He drew the line of patrol wagons. A big crowd had gathered, and after a while Joslyn was induced to enter the wagon and was taken to the County Jail.

When examined a broken case-knife was found on him, and if an attempt had been made to take him by force, someone might have been injured, as he would undoubtedly have resisted and fought with all the ferocity of an insane man.

Angostura Bitters, prepared by Dr. Siegert for his private use, have become famous as the best appetizing tonic. Accept no other.

Children's Sailor Hats, White, 3c. 100 misses' and children's mats trimmed with flowers and lace, 50c, 60c, 75c to \$1.50; worth triple; 200 ladies' trimmed hats for street and dress from 50c to \$2.50. Lot of extra fine chiffon made hats for \$2.95. Children's 10c small size black hose for 5c, odds and ends in men's underwear for 25c. Large French plate mirrors for \$15 and \$17.50. Show cases, tables, chairs, etc., at the Red House.

Covenant Mutual Members, Attention. All members of the Covenant Mutual Life Association of Galesburg in Sacramento and vicinity are requested to send their names and addresses to Grove L. Johnson, Esq., attorney-at-law, St. Paul building.

Creamery Butter. Bogg & Jersey Creamery Butter. The finest for sweetness and firmness, at the Pacific, J. near Eighth.

Removed—Charles A. Palm has removed his iron works to 1119 Sixth street.

MARRIED. FIEDLER-STURGEON—In Oakland, March 18th, by Rev. Stevens, George H. Fiedler of Sacramento to Lenore Sturgeon of Oakland.

DIED. ALLTICKER—Near McConnell's Station, Sacramento County, Cal., March 18th, Emma C., daughter of Henry and the late Christina Alltucker, a native of California, aged 25 years, 9 months and 19 days.

Friends and acquaintances are respectfully invited to attend the funeral Sunday at 1:30 p. m., from her parents' residence, Interment Masonic Cemetery, Elk Grove.

GORE—In San Francisco, March 18th, William J. Gore, husband of Lillie (and son of John and Amanda Gore, brother of May and John M.), a native of Illinois, aged 51 years.

Funeral notice hereafter.

GABLE—At Colusa, March 18th, Mrs. Mary Ellen Gable, a native of Ireland, aged 65 years, 10 months and 25 days. Funeral notice hereafter.

SMITH—In this city, March 18th, Charles L., son of Mrs. Caroline A. Smith, a native of Chicago, Ill., aged 49 years and 2 days.

Friends and acquaintances are respectfully invited to attend the funeral from Pythian Castle, Ninth and I streets, tomorrow (Sunday) afternoon, at 2 o'clock.

KAMPFEN—In this city, March 17th, Mary J., wife of John Kampfen and sister of Mrs. Josephine Dais of Oakland, a native of Canton, Wis., Sweden, aged 70 years, 4 months and 23 days.

Friends and acquaintances are respectfully invited to attend the funeral Sunday, at 2 o'clock, from her late residence, 522 Ninth street.

Bilious? A common complaint that leads to more serious ills, if not checked. You can stop it at once, pleasantly and permanently, with Emil Frese's Hamburg Tea. Take it in time. At all grocers and druggists.

TEST ONE CAN "Capital" Java Blend

1-pound Sealed Can.....25c 2-pound Sealed Can.....50c 4-pound Sealed Can.....95c 25-pound Sealed Can.....\$5 25 At Your Grocer's.

Capital Coffee Co., 1109 Tenth St., Sacramento

SMOKE THE COCKNEY.

A "bloomin'" fine smoke for a nickel.

BRADLEY FERTILIZERS ARE CHEAPEST

BECAUSE the results are larger than any other fertilizer manufactured. Its use doubles the yield, increases the size, deepens the color and strengthens the flavor.

WOOD, CURTIS & CO., Agents.

"WELL BRED, SOON WED." SAPOLIO

ARE QUICKLY MARRIED. Try it in Your Next House Cleaning.

Straight From Cuba

is the tobacco used in DOMINGUEZ cigars. Raised in the Vuelta district, the most famous of all the tobacco-growing districts of that island. Call for a DOMINGUEZ.

HALL, LUHRS & CO., Agents.

SMOKE

We have a good granulated Smoking Tobacco put up in 4 ounce packages. Per package.....5 cents 5 pounds for.....95 cents At this price you can afford to smoke.

KILGORE & TRACY, CASH GROCERS. Northeast Corner Eighth and J Sts.

YOUR LIVER AND KIDNEYS

If not in perfect order may be at this season of the year the cause of much ill feeling and of eruptions upon your face, neck and body.

McMORRY'S RELIABLE PRESCRIPTION PHARMACY, Sixth and K Streets.

Novelty Sailors.

Not the largest line or the greatest variety of Ladies' Sailor Hats in the city, but the most tasteful assortment—the one including the greatest number of novelties and new and pretty shapes.

VAN ALSTINE'S, 607 J.

To overlook us would be an injustice to your pocketbook.

TESLA COAL

Is Still \$6 50 per Ton Delivered. We can also furnish you with CASTLE GATE. Send in your orders.

M. N. WINANN, Agent. OFFICE—704 K St.; telephone—Sunset, white, Capital, 600. YARD—Twenty-third and R Sts.; telephone—Sunset, red 944; Capital, 604 2-bells.

Dr. GUNN'S IMPROVED LIVER PILLS

For People That Are Sick or "Just Don't Feel Well."

ONLY ONE FOR A DOSE. Removes Pimples, cures Headache, Dyspepsia and Constipation. 25 cts. a box at druggists or by mail Samples Free, address Dr. Bosanko Co., Phila., Pa.



Hartford '97, \$50.

THE FOUR BEST WHEELS ON THE MARKET. Columbia Chainless.....\$125 00 Columbia, Model '97.....\$75 00 Hartford, Model '97.....\$50 00 Progress, Model '98.....\$35 00

W. H. ECKHARDT, 609-611 K Street.

THE WEEKLY UNION—THE BEST weekly on the coast. Only 2 a year.

RAILROAD TIME TABLE

SOUTHERN PACIFIC COMPANY (PACIFIC SYSTEM) JANUARY 1, 1898.

Trains Leave and are Due to Arrive at Sacramento:

Table with columns: LEAVE TRAINS RUN DAILY (P.M.), ARRIVE (P.M.), and train routes including Ashland and Portland, Los Angeles, El Paso, etc.

For morning, P. For afternoon. Sunday excepted. Monday excepted. T. H. GOODMAN, Gen. Pass Agent.

SPECIAL SALE. Eclipse Bicycles

LADIES' MODEL, \$45. SCHAW, INGRAM, BATCHER & CO., 211-219 J St., Sacramento.

UNDERTAKERS. GEO. H. CLARK

(Successor to J. Frank Clark), County Coroner, Undertaker and Funeral Director. UNDERTAKING PARLORS, 1017 and 1019 Fourth street, between J and K streets. Telephone 154.

MILLER & McMULLEN, Undertaking Parlor, 905-907 K Street, Old Fellows' Temple. EMERALD A SPECIALTY. TELEPHONE—Cap. 186; Sunset, red, 652.

W. F. GORMLEY, Undertaker and Funeral Director, Mortuary parlors and hall 914 Broadway, opposite plaza. Telephone: Capital 700; Sunset, blue, 151.

E. M. KAVANAGH, Undertaker and Funeral Director, No. 511 J STREET, SACRAMENTO, CALIF. specialty. Office open day and night. Telephone, Sunset 643, red; Capital, 203.

WHOLESALE LIQUORS. CROGAN & WISSEMAN,

230 K Street and 1108-1110 Third Street, Sacramento, Cal.

IMPORTERS AND WHOLESALE DEALERS in Fine Whiskies, Brandy and Champagne.

EBNER BROS. COMPANY, 116-118 K Street, Front and Second, Sacramento. IMPORTERS WHOLESALE dealers in Wines and Liquors. Tel. 364.

HUGH CASEY, Importer and Wholesale Wine and Liquor Dealer, 215 K Street, Sacramento. Importer of Eagle Soda Works, 215 K Street, Sacramento.

LIQUORS, WINE, BEER, ETC. CALL ON JIM & HARRY,

1009 THIRD STREET. CALIFORNIA EXCHANGE. Hot Lunch Daily. FRED LACHENMYER Proprietor, 1023 THIRD STREET.

PALISADE SALOON, 221 K Street. HARLAN BROS., Proprietors. Western Hotel Building.

GRUHLER'S, THE POPULAR is the favorite resort for a cool glass of Bunstaler's, Pilsener draught every day. Jacob Gruhler, Proprietor, 1014 J street.

GAMBRINUS' 620 K Street, MILL