FARM AND GARDEN

SAN JOSE SCALE.

A Pest of the First Class and How to Fight It.

By Dr. JOHN B. SMITH, New Jersey experiment station.

The San Jose scale infests nearly every shrub and tree ordinarily grown in the garden, although it is not equally destructive on all. It seldom occurs on blackberries and raspberries so as to be injurious. On all fruit trees except cherry and quince it is destructive.

The winter is passed in the half grown condition, covered by a black

SAN JOSE SCALE.
(Seen under a lens, much enlarged.)

scale. In spring growth is resumed. At almost any time after midsummer an infested tree will show moving larvae, the almost snow white recent sets and every stage from that point through a gray to a black scale.

Reproduction continues throughout the summer, and a single pair, starting in June, may become the ancestors of over a thousand million examples before the season closes. Reproduction is usually most active in September, and throughout that month larvae occur in abundance on infested trees. It is the season at which spread is most general. The crawling larvae get upon anything, including the backs of beetles and the feet of birds, and are carried considerable distances. An insect that attacks so many different kinds of plants, that breeds so abundantly and that has no natural enemies to keep it in real check is of course a pest of the first class, and so all gardeners have found it.

Two sorts of campaign can be carried on against this insect—a summer series, directed at the larvae, and a winter campaign, directed against the hibernating forms. None of the ordinary summer mixtures kills all stages of the scale without endangering the foliage. Larvae may be killed by diluted oil emulsions or by soap mixtures—say for whale oil soap one pound in two or three gallons of water, depending upon the kind of plant, or the oils in a 5 or even a 10 per cent dilution, according to the manner in which it is put on and the plant on which it is to be used. In any case the application will kill only crawling lar-

SAN JOSE SCALE.
[On a twig, natural size.]

vae and very recent sets. Applications must, therefore be renewed at short intervals throughout the summer to obtain a really effective result.

This sort of work is feasible in gardens that are under constant supervision, and in such places the insect can be almost completely cleaned out in a single season. The new forms of petroleum made soluble in water will be most effective aids in this sort of campaign.

Dehorning Calves.

It is much easier, to say nothing of being more humane, to dehorn calves when they are young, preferably when from three to four days old. Clip the hair away from the button, take a stick of caustic potash wrapped in some material to protect the fingers, moisten one end with water and rub gently over the button until the skin becomes slightly raw and smarts a little. In a few days a scab will form, which will soon disappear, and, if the work is properly done, will leave the calf without horns. One application is usually enough, but in case the horns start again the application can be repeated. Care should be taken that none of the caustic potash runs down over the hair to injure the eyes and skin. In case the horns break through the skin before the caustic is applied it will probably be necessary to use a knife to cut off the button, after which a little caustic potash can be rubbed over the exposed surface.

BORDEAUX MIXTURE.

Plain Directions For Making It as Conveniently as Possible.

By C. L. SHEAR, department of agriculture.

Bordeaux mixture should be prepared as follows:

Copper sulphate (blue vitriol or bluestone)	4 pounds
Unslaked stone lime	4 pounds
Water	50 gallons

To prepare the mixture most conveniently and economically stock solutions of the ingredients should be made. Secure four barrels, holding at least fifty gallons each, in addition to the barrel which is to be used for the spray pump. Place 100 pounds of good fresh stone lime in one barrel and slake the lime by adding water slowly, allowing the lime to crack and crumble. After the lime has been thoroughly slaked add sufficient water to fill the barrel. When the whole is thoroughly mixed, as it should be before it is used, it will contain two pounds of lime to each gallon.

To prepare the stock solution of copper sulphate place 100 pounds of copper sulphate in a stout, coarse sack and suspend it in another barrel, which should be filled with water. The bluestone will be dissolved in a day or two if placed as near the top of the barrel as possible. Never place the copper sulphate in the barrel loose, as it will take a much longer time to dissolve and will require much stirring. Each gallon of this solution will now contain two pounds of copper sulphate.

Make two half barrels by sawing one of the fifty gallon barrels through the middle and put two gallons of the stock lime—that is, four pounds—in one barrel and add sufficient water to make about twenty-two gallons. Stir this well to make a thorough mixture of the lime. Put three gallons of the stock copper sulphate solution—that is, six pounds—in the other half barrel and add enough water to make about twen-

TO MAKE BORDEAUX MIXTURE.

ty-two gallons. Two men with pails can now pour the two solutions together simultaneously into a barrel, as shown in the figure, and then stir the whole thoroughly with a wooden paddle.

If desired, these stock mixtures may be prepared by using only fifty pounds of lime and fifty pounds of bluestone in each barrel. If prepared in this way the solutions would contain one pound to each gallon, and four gallons of lime and six of bluestone would be necessary for a fifty gallon barrel of bordeaux mixture.

ATMOSPHERIC NITROGEN.

Inoculation Is Not a Panacea For All Soil Evils.

The only direction in which soil inoculation has been rendered more or less practicable is the inoculation with cultures of various tubercle bacteria. Such inoculation can therefore be applied to legumes, and legumes only. By so doing we may make possible the formation of tubercles, and therefore the fixation of nitrogen by leguminous crops in such soils where the proper bacteria are naturally absent.

But it should also be remembered that in most soils the failure of leguminous crops to grow satisfactorily is due not to the absence of the proper soil bacteria, but to general unfavorable soil conditions, to absence of a sufficient amount of lime, of a sufficient amount of humus or of sufficient aeration. The inoculation of such soils without previous improvement would be a waste of effort and money.

There is ample justification, therefore, to utter here a warning against misconception and unjustifiable expectation. Ignorance in this direction will be exploited, as ignorance in other directions has been exploited, by attempts to sell to farmers improperly informed cultures of soil bacteria advertised as the panacea for all soil ills.

Let the man who wishes to inoculate his soil remember that it is not yet practicable to inoculate it for wheat or potatoes or melons, and, while it is practical to inoculate it for alfalfa or soy beans or other legumes, he should inform himself as to the real facts before proceeding with his inoculation.—Messrs. Voorhees and Lipman.

THE GARDEN KEYBOARD

Rich, heavily manured land should be provided for squashes, and these should be planted only when the weather is really settled.

Remove the blossoms from newly set strawberry plants.

A mulch of salt hay or straw between the strawberry rows keeps the soil moist, the berries clean and prevents weeds.

Plant sweet corn, both early and late kinds, and by making enough sowings of each at judicious intervals you may have a feast extending far into the fall.

Plant the veranda boxes now. They will be things of joy.

A most brilliant bedding annual is phlox—such dazzling colors, such masses of bloom, dominating the rest of the plant, besides soft bright shades of pink, rose, lavender, striped and white centered and pure white.

Anniversary Services.

On Sunday, July 9th, the Presbyterian church in this city celebrated the Jubilee anniversary of its organization. Rev. Jacob Gillispy officiated in the organization, and there were present Revs. Samuel Dillard and Samuel Miller, who assisted in the organization. These fathers in the ministry with nearly all who were then present have gone to the beyond but H. C. Veach, "Uncle Burn" and Dr. Wm. Oglesby, who went into the organization were present. Uncle Burn was then ordained a Ruling Elder in the congregation and for fifty years has served his church in that capacity.

Of the number that went into the original congregation there are still living besides the two mentioned above, Mr. and Mrs. Jno. Curren, who live near the city, but are about ninety years of age and too feeble to be present. Mrs. Sarah Arra Bryant and Mrs. Derrick, both living at Yaquina Bay and Jackson Vanderveert of Crook county. There were also present at the organization, Mrs. Jane Veach, S. S. Veach, Jas. Sears, Mrs. Geo. Kayler of Tacoma, Washington, who were at the services Sunday. Rev. C.H. Wallace, Mrs. Harriet Wallace were also present.

Mr. Edgar King, clerk of the session compiled some very interesting statistics from the church records. There have been twenty ministers that have served this church. There are more than three hundred names entered on the records as members and Mr. King thinks there were a great many more because there have been as much as ten years at a time where there is no preserved record and during those times those that are now living can call to mind much activity in the church, but the records have been lost.

Uncle Burn Veach made a very interesting talk on the early history of the church, its hardships, discouragements and its success.

Rev. C. H. Wallace in a brief talk recounted much of the work of the church for the last forty years and touching referred to the work of the old ministers who supported themselves and planted the gospel of Christ in this county.

Dr. Oglesby very interestingly and feelingly refered to the pioneers who braved the dangers of a six months journey across the plains, to those who could drive an ox team and endure the vexations and not lose his religion, and said, "My father was the captain of the train" in which were the class of people to whom I refer and these men and women not only brought their religion with them but their energy and they hewed the logs, and built a house in which to worship God and organized this church.

The choir sang some old time songs as "Rock of Ages," "How Firm a Foundation" and "Amazing grace," and all entered into them with a zest. When these old people began to sing out of the old Christian Psalmist and the Cumberland Presbyterian Hymnal all were interested. At the close of the service Rev. Grace the pastor baptized the two little children of Mr. and Mrs. Jordan. It was a fitting closing of this interesting service. Mr. Grace says it was a good day and will bear fruit.

THE CHILDREN'S FAVORITE

For Coughs, Croup, Whooping Cough, etc., One Minute Cough Cure is the children's favorite. This is because it contains no opiate, is perfectly harmless, tastes good and cures. Sold by The Modern Pharmacy.

The pills that act as tonic, and not as a drastic purge, are DeWitt's Little Early Risers. They cure Headache, Constipation, Biliousness, etc. Early Risers are small easy to take and easy to act—a pills pill. Mack Hamilton, hotel clerk at Valley City N.D., says: 'Two bottle of these Famous Little Pills cured me of chronic constipation. Good for either children or adults.' W. H. Howell, Houlton Tex., says: 'For years I have used Little Early Riser Pills in my family. No better pill can be used for constipation, del headache, etc.' that these famous pills. Scores of testimonials prove their worth. Sold by The Modern Pharmacy.

Bright's Disease and Diabetes.

We regret to announce to the people of this and adjoining counties, that Bright's Disease and Diabetes, a few years ago considered incurable, are now known to be the result of certain well defined causes, and easily cured by simple remedies. Inquiry at Modern Pharmacy will elicit the facts in regard to a remedy which is cured many hopeless cases, and is now recommended by druggists everywhere to be the most successful kidney remedy they have ever handled. Any sufferer may secure a trial bottle free at the Modern Pharmacy, and learn how to be cured of Bright's Disease, Diabetes, Weak Back, Kidney and Bladder troubles, Dropsy, Suppression, Frequent Passage, Gravel, Albuminous and Milky Urine, Pain in the Back, and Rheumatism, by taking one or more of these.

FOLEY'S HONEY AND TAR
Cures Colds; Prevents Pneumonia

PRIVATE WORDS TO WOMEN

The eminent and successful electric and medical physician, Dr. Darrin, has discovered and perfected a system of treatment that has caused a revolution in the treatment of female diseases. Whenever his electrical and medical treatment is tested and known it has done away with excessive dosings, with nauseous drugs and painful surgical operations, whereby so many precious lives have been lost.

As a discovery it ranks with Harvey's discovery of the circulation of the blood. It has proved in more than a thousand cases of the worst kind to be a positive cure for the following female diseases: Ovarian tumors, polypus, ulceration and dropsy of the womb, painful and suppressed menstruation, bearing down pains, backache, headache, racking cough, melancholy, absence of ambition or desire to live, or in fact any complaint having its generative origin in a disordered state of the reproductive and accompanying organs, whether from contagious diseases, hereditary, tight lacing or other causes. His method of treatment is harmless, pleasant and mild. It is applied directly to the parts affected can be applied by the patients themselves, thus securing local treatment at home, and its application is easy and simple. Its curative action on the inflamed parts is immediate.

Dr. Darrin refrains from making public the names of hundreds of ladies who have been restored to health, with due deference to the delicacy of their afflictions.

The following cards were offered by ladies desirous of helping others similarly afflicted:

A FORMER LADIES TESTIMONIAL.

To the Editor: For two years past I have had a severe pain in the region of the liver with enlargement of that organ. It gave me great annoyance and I was compelled to forego my house work. My heart and stomach were giving me much trouble all this time. After a months' electric and medical treatment by Dr. Darrin I feel like a new woman and am now attending to my household duties with great comfort. I am also cured of diseases peculiar to my sex. My husband has been cured of a very troubl some catarrh and general debility. I gladly commend Dr. Darrin. I reside at 911 South Willamette street, Eugene, and can be referred to.

MRS. HENRY HAMILTON

TO THE LADIES

Dr. Darrin treated me one year ago for catarrh, neuralgia and rheumatism, rectal trouble, deafness, general nervous debility, female troubles and partial paralysis of neck of the bladder, with marked success. I feel that words are inadequate to express my gratitude for the great good Dr. Darrin has done me, and I most heartily recommend the doctor to the afflicted.

MRS MINNIE WELLS,
157 18th street, Salem.

Dr. Darrin is located at the Smith de Hotel, Eugene, until October 1, and will give free examination to all, 10 to 3 and 7 to 8 daily. The poor free, except medicine, and those able to pay at the rate of $5 a week or in that proportion of time the case may require. All curable chronic diseases of men and women a specialty.

July 15 and 16 will be devoted to the care of cross eyes, varicocele, hydrocele and stricture, by a simple operation. No one need apply after July 15 and 16 for cross eye operation.

QUALITY VS. QUANTITY

Hard muscles and strong body do not depend on the quantity of food you eat, but on its perfect digestion and proper assimilation. When you take Kodol Dyspepsia Cure your system gets all the nourishment out of all the food you eat. It digests what you eat regardless of the condition of the stomach and conveys the nutrient properties to the blood and tissues. This builds up and strengthens the entire system. Kodol cures Indigestion, Dyspepsia, Belching, Sour Stomach, Weak Heart, etc. Kodol Dyspepsia Cure for what is sometimes called America's national disease—Dyspepsia—is destined to eventually work a wonderful and lasting benefit to sufferers from this distressing and mind harassing condition. Sold by The Modern Pharmacy.

Old papers for sale at the Leader office 15 cents per hundred.

THREE GOOD AND DISTINCT REASONS

There are three reasons why mothers prefer One Minute Cough Cure: First, it is absolutely harmless; Second, it tastes good—children love it; Third, it Cures Coughs, Croup and Whooping Cough when other remedies fail. Sold by The Modern Pharmacy.

Round Trip for One Fare.

The Southern Pacific railroad has decided to make a rate of one fare for the round trip from Portland to all points in Oregon to as far south as Ashland, for visitors from the East to the Lewis and Clark Exposition, to enable them to look over western Oregon, that they may have an opportunity to locate or invest.

The tickets will be good for 15 days, with stop over privileges. Holders of Exposition round trip tickets from the east can purchase these tickets this rate, it will depend upon the energy shown by the community as to the number of visitors secured.

A SMOOTH ARTICLE.

When you find it necessary to use salve use DeWitt's Witch Hazel Salve. It is the purest, and best for Sores, Burns, Boils, Eczema, Piles, Bleeding, Itching, or Protruding Piles. Get the genuine DeWitt's Witch Hazel Salve. Sold by The Modern Pharmacy.

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If in a kind of billious mood,
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No other pill is half so good
As DeWitt's Little Early Risers.

The famous Little Pills EARLY RISERS cure Constipation, Sick Headache, Biliousness, etc. They never gripe or sicken, but impart early vigor and energy. Good for either children or adults. Bob Moore, LaFayette, Ind., says: "No use talking, DeWitts Little Early Risers do their work. All other pills I've used gripe and make sick. DeWitt's Little Early Risers brought the long sought relief. They are perfect." Sold by The Modern Pharmacy.

Lewis and Clark Exposition Ticket Rates.

INDIVIDUAL TICKETS

Cottage Grove to Portland & Ret $5.20, good for 30 days, but not later than Oct. 31st, 1905.

PARTIES OF TEN OR MORE

One fare for the round trip good for ten days, (must travel together on one ticket both ways) $4.40

ORGANIZED PARTIES OF ONE HUNDRED OR MORE

One fare for the round trip party moving on same day, but individual tickets will be sold under this rate and can return at any time within ten days from date of sale. $4.40.

The above tickets on sale daily between May 29th and Oct. 15th, and no stop overs allowed in either direction.

The Original

Foley & Co., Chicago, originated Honey and Tar as a throat and lung remedy, and on account of the great merit and popularity of Foley's Honey and Tar many imitations are offered for the genuine. Ask for Foley's Honey and Tar and refuse any substitute offered as no other preparation will give the same satisfaction. It is mildly laxative. It contains no opiates and is safest for children and delicate persons. For sale by Benson's Pharmacy

Southern Oregon Chatauqua.

The Southern Oregon Chautauqua Assembly will be held at Ashland, July 12th to 21st inclusive. Reduced rates have been made by the Southern Pacific Co. on the certificate plan, from points on Oregon Lines.

This assembly promises to be of unusual interest. Among the prominent speakers will be Dr. F. W. Gunsaulus, Dr. Wm. A. Quayle and Rabbi Stephen S. Wise. Special attention will be given the normal department. The Assembly building has been enlarged to double its former capacity, making ample accommodations for all.

W. H. COMAN,
General Passenger Agent.

NOTICE OF FINAL SETTLEMENT

Notice is hereby given, that the undersigned, administrator of the estate of Samuel A. Gettings, deceased, has filed in the County Court of Lane County, State of Oregon, his final account as such administrator of said estate, and that Saturday the 5th day of June, 1905, at the hour of 1 o'clock p. m. has been fixed by said Court as the time for hearing of objections to said account and the settlement thereof.

J. R. COOLEY,
Administrator of the estate of Samuel A. Gettings, deceased. 6-5

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This Remedy is a Specific.
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It cleanses, soothes, heals, and protects the diseased membrane. It cures Catarrh and drives away a Cold in the Head quickly. Restores the Senses of Taste and Smell. Easy to use. Contains no injurious drugs. Applied into the nostrils and absorbed. Large Size, 50 cents at Druggists or by mail; Trial Size, 10 cents by mail.

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Time Table No. 4
To take effect April 23, 1905.

| East Bound No 2—No 1 | | |