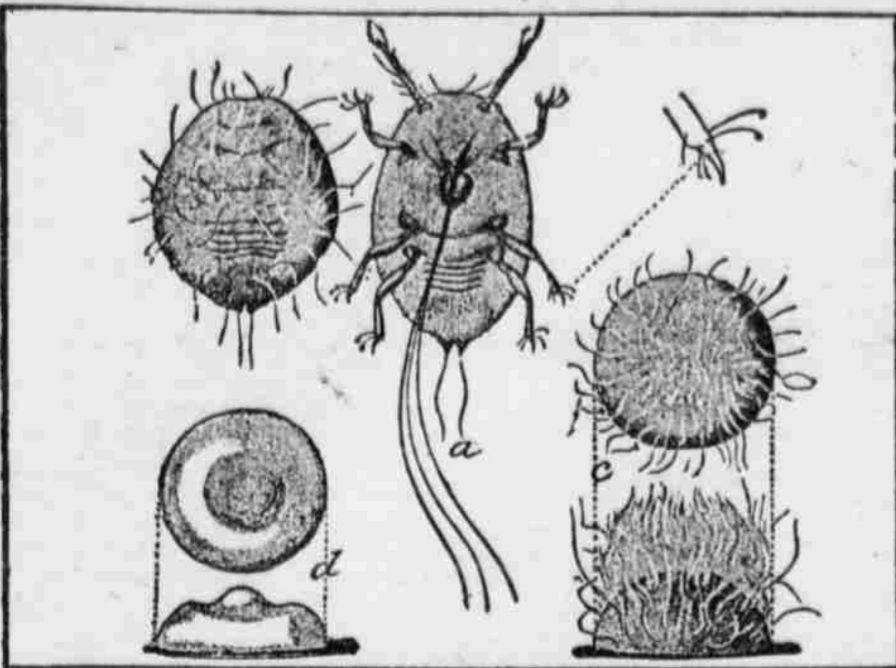


### FALL SPRAYING FOR THE SAN JOSE SCALE



San Jose Scale—Young Larva Sucking Beak; (a) Ventral View of Larva Showing Long Sucking Beak; (b) Dorsal View of Same Slightly Contracted, With First Waxy Filament Appearing; (c) Dorsal and Lateral View of Same Further Developed; (d) Latter Stage of Same Showing Matting of Waxy Secretions to Form Young Scale. (From Bureau of Entomology, United States Department of Agriculture.)

(By C. S. MILLER.)

Until lately it was supposed that there was but one season for spraying for the scale, and that was in the spring before the buds opened. Now, however, experiments have taught that in the fall, just after the leaves fall is even a better time to spray.

There are a number of different kinds of sprays on the market, and some of them in more convenient shape than ever known for those who dwell in towns and suburbs and have only a few yard trees. But for the farmer and fruit grower, nothing has ever been found that combines cheapness and effectiveness in the degree that the well-known lime, sulphur and salt mixture does.

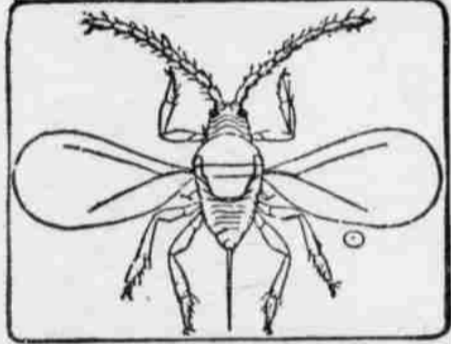
True, it is a little troublesome to make, but not unduly so when we consider how cheap it is and how easy to procure the ingredients anywhere.

Formulas vary some, but one that has been given a thorough test contains equal parts by weight of three materials, 15 pounds each of lime, sulphur and salt, being taken for 50 gallons of water.

Slake the lime with hot water and when boiling pour in the sulphur, which has been dissolved in a little water, and stir it well into the lime, then add the salt.

Boil together for an hour, when the mixture will have become a very dark red. Then add water to make up 50 gallons of spray, and if possible, apply it while warm.

If it stands more than 24 hours, it is best to bring it to boil again before using. This wash can be cooked



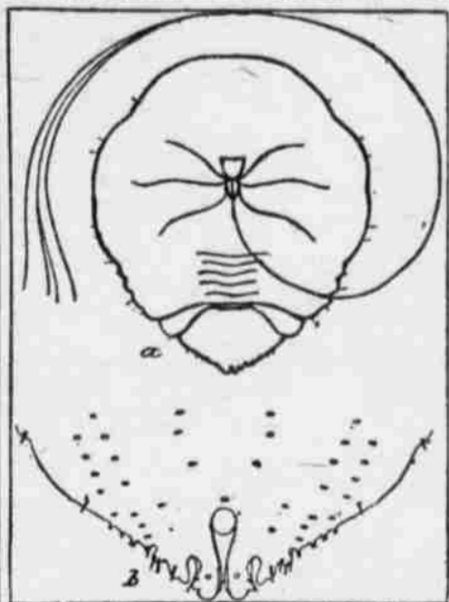
Adult Male Scale, Greatly Enlarged. (From Bureau of Entomology, United States Department of Agriculture.)

in a large iron kettle, but steam is the best heat where it can be procured.

If there is a mill or a factory close by, it is worth while to try to have the steam conveyed to the barrels through a hose. It saves a great deal

of hard work and cooks more thoroughly.

The scale is much more susceptible to the action of sprays in the fall than in the spring, for the reason that during the winter its covering tissue of shell becomes harder to penetrate. It is only the scale born in the fall that



Adult Female Removed From Scale Before Development of Eggs; (a) Ventral View Showing Very Long Sucking Setae; (b) Anal Plate Showing Characteristic Ornamentation, Greatly Enlarged. (From Bureau of Entomology, United States Department of Agriculture.)

survives the winter, and it is therefore soft and easily killed by contact with oils and acids.

A small proportion of fruit buds is sometimes killed by this wash, but the general benefit received by the tree far outweighs this loss. The lime and sulphur wash is not only deadly to the scale but to all forms of insect life and is valuable as a destroyer of fungous germs.

It is a fact that a tree thoroughly sprayed in the fall enters upon the winter free from insects and germs and in the best possible condition to begin its growth in the spring.

When trees are very badly infested, they should be sprayed again in the spring, for it is impossible to exterminate every individual scale at one application.

It has been estimated that a single pair of the San Jose scale will at their rate of increase multiply into a million from June, when they begin breeding, to November, which is about as late as they breed in the middle latitudes.

### NICOTINE SPRAY TO ERADICATE INSECTS

When Properly Applied the Solution Is Fatal to Larvae of Cucumber Beetle.

A concentrated nicotine solution of which there are several brands on the market, properly applied, is fatal to the larvae of the cucumber beetle which sometimes does a large amount of damage to cucumbers whether in the cold frame or in the field. One teaspoonful of a 40 per cent solution of nicotine to a gallon of water is enough.

The gardener should look for the larvae of the beetle just at the surface of the soil. When he discovers them he should pour his nicotine solution on carefully with a narrow half-pint cup, being sure to let it run down all sides of the stalk.

Fighting the larvae of the cucumber beetle is better than fighting the adult beetle itself, as the adults work chiefly on the leaves and do not get at the vital parts of the plant.

Extract of tobacco containing 40 per cent nicotine in the form of nicotine sulphate will destroy plant lice or aphids on trees and shrubs, if properly used. This material is on the market. One-half pint of this in 50 gallons of water is very effective if sprayed on the plants in such a way that every insect is touched with a small particle of the spray. This material is even more effective if mixed with whale oil soap—one pound of whale oil soap to ten gallons of the diluted nicotine solution.

### APPLES NEED GOOD DEPTH OF SUBSOIL

Presence of Unbroken Rock Within Three Feet of Surface Causes Failures.

In choosing a site for apple raising the necessity for good depth of subsoil cannot be emphasized too strongly. Shallow soils should be assiduously avoided for orchard purposes. The presence of unbroken rock, large ledges, or hardpan within three feet of the surface should be considered prohibitive. A soil depth of at least six feet should be insisted upon, and an even greater depth is highly desirable. Soils with the underlying rock too near the surface have been responsible not infrequently for the failure of commercial orchards owing to the incapacity of the subsoil to store sufficient moisture to offset droughty conditions, or to get rid of excess moisture early enough in the spring.

The condition of tree growth and fruit yields makes it evident that soils for any kind of orchard planting should be deep, well drained and friable, yet not so porous as to be droughty. For the red varieties it is often desirable that both soil and subsoil should also be well oxidized as indicated by uniform brown, yellow or possibly grayish-brown colors. Light gray or mottled colors should be avoided.

### Buy Ducks in the Fall.

With ducks always buy new blood in the fall. It takes several months for ducks to become satisfied and contented in a new location.

# The KITCHEN CABINET

Some children roam the fields and hills, And others work in noisy mills; Some dress in silks, and dance and play, While others drudge their lives away; Some glow with health and bound with song, And some must suffer all day long.

### WAYS WITH CHOCOLATE.

Chocolate is such a general favorite with everyone that any dish or combination using it will not come amiss.

**Chocolate Pie.**—Take a pint of milk, a pinch of salt and a half a cupful of butter; put on to boil, add a half cupful of grated chocolate, a half cupful of sugar, well mixed with a quarter of a cupful of flour; cook until smooth. Flavor with vanilla and bake in a bottom crust. Cover with whipped cream. This makes a good sized pie.

Chocolate sauce to serve with ice cream or as a pudding sauce is delicious. Mix well one-half cupful each of grated chocolate and sugar, add a half cupful of cream and heat slowly until well blended.

**Chocolate Gelatin.**—Take a pint each of milk and cream, a half cupful of sugar, a half box of gelatin, two ounces of chocolate and a teaspoonful of vanilla. Cover the gelatin with one-half cupful of cold water and let soak for half an hour. Put the milk over the fire, adding sugar and chocolate, then the gelatin. Take from the fire and add the vanilla and fold in the whipped cream when it is cool. Set away to chill in a mold.

**Chocolate Fudge.**—Take a half cupful of milk, two cupfuls of sugar, a square of chocolate and a third of a cupful of corn sirup. Cook together, adding a tablespoonful of butter during the boiling. When a ball is formed by dropping in cold water, remove and stir, adding nuts if desired. Let it cool a while before stirring or set it into a dish of cold water while stirring.

Cream puffs filled with a chocolate mixture dipped in chocolate frosting make a most delicious small cake.

**Chocolate Filling.**—This is a most delicious filling or frosting for a plain chocolate cake. Take a cupful of sugar, five tablespoonfuls of cream, one egg beaten and two squares of chocolate, cook in a double boiler for an hour. Then beat and when thick enough put on the cake.

Pygmies are pygmies still; though perched on Alps; And pyramids are pyramids in vales, Each man makes his own stature, builds himself; Virtue alone outbuilds the pyramids; Her monuments shall last, when Egypt's fall— This moral grandeur makes the mighty man.

### AIDS TO HOUSEWIFE.

When delicate faces become soiled they may be cleaned by squeezing them through skim milk to which a little bluing has been added. They come out of their bath looking like new with just the right stiffness. Press on a Turkish towel.

Never fill enamel pans with cold water after removing them from the heat, or emptying them of boiling mixtures as the sudden change of temperature cracks the enamel.

When it is necessary to carry bottles of liquid when traveling wrap them well and place them in your rubbers, put the rubbers together and wrap them well.

A simple cure for hiccoughs which will be welcomed as it is a "never fail" remedy. Take the largest possible mouthful of cold water and hold it in the mouth while stopping both ears tightly with the fingers. Then with the ears stopped, swallow the water at a gulp. If the attack is severe repeat two or three times.

When taking off gloves always roll or snap them together, it will save many a moment that is spent turning the drawer upside down to hunt a missing glove. Wash white silk gloves at night so that they may dry in the dark, they will keep white longer.

Save the camera plates, soak them in lukewarm water to dissolve the gelatin. Cut pasteboard the size of the glass and mount any kodak picture using passepartout binding. Small rings with stickers may be bought to use for hangers.

To relieve the strain on the back and feet when ironing use a heavy rug, folded twice on which to stand.

### Had Right to Be Peeved.

Village Storekeeper (as pastor exclaims a masterly retreat from his store)—"Dinged old hypocrite! This is the same lead quarter I put in the collection last Sunday!"—Judge.

### Lucky Gold Seeker.

A nugget of pure gold, weighing 84 ounces, was recently discovered by a prospector, at the Philbara gold field in western Australia, at a comparatively deep level. He also found an other nugget weighing 49 ounces

We rise by things that are under our feet, By what we have mastered of good and gain, By the pride deposed and the passion slain, And the vanquished ill that we hourly meet.

### THE APPETIZING APPLE.

In spite of the fact that the apple was the downfall of our ancestors, we still enjoy the forbidden fruit, and without doubt it has a large place in our affections. There are apples of some variety in the market the year round, but the winter apple is the favorite. It would almost seem that there had been everything said about serving apples, but some new combination or arrangement is springing up each day. For the common baked apple, to add to its attractiveness a marshmallow placed on top while they are still hot, or even before they come from the oven, makes a pretty garnish. Serve them with whipped cream. Whipped cream with a cube of jelly or a sprinkling of nuts on baked apples affords a pleasing change. Fillings for cored apples that are to be baked are many. Nuts, raisins, candied cherries or dates and figs chopped and mixed with lemon juice. Chopped hickory nuts is another well-liked filling; prunes, too give a delicious variety.

**Apple Conde.**—Carefully stew sliced apples in a rich sirup, being careful to keep them unbroken. Cook rice and pack it into cups to mold, setting it on ice to chill. Turn out the rice on serving plates, arrange the apples neatly around the mold, then pour the hot sirup over all. Surround with sweetened cream and serve. Apple dumplings are favorites of the boys, young and old. Roll out a rich biscuit dough, cut in squares and wrap a cored, peeled apple in each square, pinching the corners to keep them tight. Bake and serve with sugar and cream.

Apple mixed with celery nuts and a plain boiled dressing served in pretty apple cups, which are made by scooping out the apple at the stem end after cutting off a neat slice leaving the stem in, makes a most fetching salad, dish and all.

Apples added to chicken salad make it go farther and are also an improvement.

An apple added to a potato salad is well liked, giving an added zest.

Life is an arrow—therefore you must know What mark to aim at, how to use the bow— Then draw to the head, and let it go!

### THE TOOTHsome OYSTER.

Although oysters are not so nutritious as we once were led to believe, they are easily digested and are most delightful flavor in many dishes.

**Fried Oysters.**—Dip oysters into beaten egg diluted with milk, then into crisp cracker crumbs. Fry in deep fat and garnish with sliced lemon.

**Curried Oysters.**—Allow six oysters to each person. Prepare a sauce by frying two large sliced onions in butter and mixing with two tablespoonfuls of curry powder, two ounces of grated coconut, a little sour orange and soup stock. Simmer for half an hour, thicken with flour, then add the oysters with their liquid. Simmer for three minutes. Then squeeze in the juice of a lemon and serve very hot.

**Baked Oysters.**—Take about two dozen oysters, two cupfuls of bread crumbs, half a pound of cheese and two cupfuls of milk. Butter a baking dish and cover the bottom with a layer of buttered crumbs, lay a layer of oysters on this and cover with cheese, seasonings and a layer of crumbs; add another layer of oysters but do not repeat again as three layers of oysters is not cook well. When the upper layer is done the middle one is uncooked. Finish with cheese and crumbs and bake 30 minutes in a moderate oven. Two cupfuls of milk are added before the top layer of crumbs.

Cooked rice in place of bread crumbs is another method of baking oysters, and is well liked, omitting the cheese. The combination of cheese and oysters is not relished by everyone.

Grammar. Grammar is the science, or art, of correct speech. It is quite true that some people are able to speak and write correctly without having studied the rules as laid down in grammar, but it is none the less true that but for a knowledge of the rules the majority of people would write and speak in a most barbarous fashion.

Optimistic Though it. Misfortunes we cannot prevent are mitigated by resignation.

One of Them Came Out Ahead. Hoping to be the first to relate some unwelcome news, the youth rushed into the house and said: "Father, I had a fight with Percy Raymond today."

"I know you did," replied the father soberly. "Mr. Raymond came to see me about it."

"Well," said the son, "I hope you came out as well as I did."—Ladies' Home Journal.

Giving Them Away. Neighbor's Little Girl—When did you get back, Mrs. Spruggins? Mrs. Spruggins—Why, child, I haven't been away.

Neighbor's Little Girl—That's funny, I heard mother say you and Mr. Spruggins had been at Loggerheads for a week.

Location. "What was the weight of that fish you were talking about all summer?" "Which fish?" inquired the unblushing boaster. "The one I had on my line or the one I only had on my mind?"

The Leader. Knicker—What is his motto? Becker—First be sure you're right, then lose your head.

Reason for His Looks. She—Our waiter looks awfully tough He—That's all right. I have a bill to tender.

Talks From Experience. "Do you believe that there is a higher power?" "My dear sir, I married her."—Life.

### JUST FORCED TO COME DOWN

Reader Will See That Smith's Reason for Descent Was an Entirely Good One.

Here is a story that was told by Congressman James C. Cantrill of Kentucky the other afternoon in illustrating a remark on the force of necessity:

Recently Smith hired a horse for a canter along the pike, but the animal, having neither a sweet nature nor a great desire to work strenuously, began to buck, and the rider was ungracefully thrown through the air and dropped by the wayside.

"Hello, Smith," smilingly remarked a friend the following day; "I saw you out horsebacking yesterday."

"You did?" responded Smith, beginning to wonder a bit.

"Yes," continued the other, his smile broadening. "What made you drop down so quickly?"

"Case of necessity," answered Smith. "Did you see anything up where I was to hold on to?"

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### COULDN'T STAND THE TEST

Applicant for College Chair Had to Confess His Ignorance of One Modern Language.

"You aspire to become our professor of modern language?" asked the president of the board of trustees of the Milledgeville college.

"Yes, sir," was the respectful answer of the applicant.

"Koennen Sie Deutsch sprechen?" asked the trustee sharply.

"Jowohl!" came the answer of the applicant, not to be taken off his guard thus easily.

"Parlez-vous francais?" demanded the interrogator, giving the applicant no time for recovery.

"Oui," said the applicant. The president beamed with pleasure upon his fellow members of the board.

"It seems," he said addressing no one in particular, "that the gentleman is eminently qualified for the post. But," turning again to the applicant, "there is one more question that I must ask you. What is the simian equivalent of fear as expressed in the monkey language as transcribed by Professor Garner?"

Realizing that he had failed in the supreme test, the applicant turned sadly away.

Strict Neutrality. Little Betty was in the habit of praying for her naughty playmate, Tommy. One evening she omitted to mention him. Asked by her mother why she did so, the child replied: "He was howlid to me today. He frow mud in my face. So I won't ask God to bless him."

Her mother tucked her in bed, and then went into the next room, leaving the door open.

She heard Betty toss restlessly about for five or ten minutes. Then there was a snuffle; then a sound of getting up, and, finally, a furtive voice: "Please, God, you c'n bless Tommy if you want to—but you needn't do it on my account."

His Turn Coming. "Why do you go out rowing with that man? He thinks it's funny to rock the boat."

"I've heard so," replied the athletic girl. "I took a dislike to him the first time I saw him, and I'm just dying for an excuse to hit him over the head with an oar."—Washington Star.

He and She. She—Have you ever read "Lives of the Hunted?" He—No; what's it about—bachelors?—New York Post.



## Many Positions Carrying Large Salaries

are open today to men in every walk of life. But the men must possess vigorous bodies and keen, active minds.

Success-making mental and physical activity relies largely upon right living wherein the right kind of food plays a most vital part.

In many cases the daily diet lacks certain of Nature's elements essential to energizing and upbuilding the mental and physical faculties. Most white flour products, such as white bread and many other commonly used foods, are in that class.

A food especially designed to offset this lack—

# Grape-Nuts

—made of wheat and malted barley, supplies all the nutriment of the grains, including the mineral salts—sturdy builders of brain, nerve and muscle.

Grape-Nuts is thoroughly processed, ready to serve from the package, fresh, crisp and delicious. Then, too, there's a wonderful return of the power to "do" and to "be" for the small energy required in its digestion.

After repeated set-backs thousands have found a change to right eating means forging ahead.

**"There's a Reason" for Grape-Nuts**  
Sold by Grocers everywhere.