

SERICULTURE—CHAPTER 2.

THE SILK WORM.

On Feed for the worms: There are five different substances in the mulberry—first, the solid or fibrous; second, the coloring matter; third, water; fourth, saccharine; fifth, resinous.

The fibrous substance, the coloring matter and the water, excepting that which composes the body of the silk worm, cannot be said to be nutritive to that insect. The Saccharine matter is that which nourishes the insect, that enlarges it and forms its animal substance. The resinous substance is that which separating itself gradually from the leaf, and attracted by the animal organization, accumulates to itself and insensibly fills the two reservoirs and silk vessels which form the integral parts of the silk worm. Therefore the different proportions of elements which compose the leaf, follow that cases may occur in which a greater weight of leaf may yield less that is useful to the silk worm. "Thus the leaf of the black mulberry, hard, harsh and tough, produces abundance of silk, the threads of which are very strong but coarse. The white mulberry leaf of the tree planted in high lands, exposed to cold, dry winds, and in light soil, produces a large quantity of strong silk of the purest and finest quality. The leaf of the same tree planted in damp situations, in low grounds, or in stiff soil, produces less silk and of a quality less pure and fine." The less nutritive substance the leaf contains, the more must be consumed to complete its development; in consequence, the worm, from its fatigue by taking less nutritive substance, would be more liable to disease than the worm of a more nutritive kind.

The same may be said of those leaves which contain sufficient nutritive matter, but of less resinous substances in this case the insects would thrive and grow, but probably would not produce either a thick or strong cocoon, proportionate to the weight of the worm.

State of leaves proper for feeding: All silk-growers have recommended the feeding with dry leaves, or leaves free from both dew and rain; nothing is so obnoxious to the insect as wet leaves from either. Count Dandolo, one of the greatest experts on the silkworm, remarks: "These insects would be injured by eating leaves moist with either dew or rains," p. 39. "The stripping of leaves should not be begun before the disappearance of the dews and ought to be concluded before the setting of the sun; it is all important to have always a supply of dry leaves." Count de Hazz, p. 65—67. "The preservation of the health of silkworms depends essentially on the leaves being perfectly dry when given to them. Wet leaves invariably produce a diarrhoea.—Manual published by order of Congress in 1828, p. 128.

It would be needless to multiply authorities on this topic. The worst leaf that can be given to the silkworm, and which has always injured it, is that which is termed manner, and which arrives from the diseased state of the tree. The blighted or rust spotted leaves do not injure. The worm will eat this leaf, carefully avoiding the spots.

Preserving the leaves: Hence, to avoid these accidents and to supply a resource for many days, a stock should be always kept on hand, sufficient for two or three days, which may be kept without prejudice in cold places, sheltered from the light but not too dry: such as cellars, storehouses, back floors, etc. They would lose their dampness in too dry a place and not in one too damp. They should not be heaped up together too much, so as to promote fermentation.

Mode of gathering leaves: Count Nerrie recommends the passing of the hand from the lower part of the branch to the top and to strip the tree of its leaves upwards and not downwards, as the latter would injure the buds. This should be particularly enjoined on children and others who are employed in picking.—By D. Graves.

SERICULTURE—CHAPTER 3.

ON HATCHING.

The hatching should not be attempted until the leaves of the mulberry are fully developed to promote an abundant foliage. It is always safer to be a few days late than a day too soon. The method

in hatching of eggs pursued at Brocca, says Mr. Rhind, is "The temperature of the chamber or coconery or any other place used for the purpose should be 63 to 64 degrees, this is effected by the increasing of the fire or reducing by opening the windows, etc. This should be carefully maintained for two consecutive days, and on the third day to 66, fourth 68 and fifth 70, sixth 72, seventh 75, eighth 77, ninth 81, this goes to show that it is not mere precision that is here essential to success, but rather a gradual elevation of temperature to that maximum of heat which a transition from the egg to the larva requires when the eggs are carefully exposed to heat in the manner desired, they will show signs of vitality from the seventh to the ninth day. Count Dandolo says: "The following are the signs of the speedy viviparation of the silk worm. The ash gray color of the eggs grows bluish, then purplish, it then again grows grey with a cast of yellow, and finally of a tingy white. The young larva resembles a small black worm, generally appears from sun rise to 10 o'clock in the morning. It is important to keep each day's hatching by itself by placing leaves over it. They may be easily separated from the eggs and put upon the hurdles or tables where meant to be raised and kept apart, if one day's hatching, so as to be together through the season. Never should there be two consecutive days of hatching put together, on account of their various stages of moulting. At times they will travel far if kept with food. The silkworm, if not properly attended to, is subject to disease. The congressional report on the silkworm enumerates eight causes of disease in them, viz:

1. Errors in the hatching of eggs in the treatment of very young worms.
 2. Unwholesome air of the district in which they were bred.
 3. Impurity in the air in which they are kept, arising from imperfect ventilation from the exhalation of the litter and feces of the worms, which have been permitted to accumulate.
 4. Too close crowding, owing to which cause their spiracles or breathing orifices were vented.
 5. The quantity and quality of food.
 6. Improper change of food.
 7. Peculiar constitution of the air in certain seasons, against which no precaution can avail.
 8. Frequent changes of temperature in the room in which they are kept.
- Before proceeding any further, it would be well to speak of the many enemies to which the silkworm is subjected.
- The hurdles or shelves or tables should not be put near the wall, and the walls of the rooms should be swept clean and kept free from cobwebs, as the spider in its earliest stages is very destructive; ants, mudwasps, mice, birds, toads, poultry, and many other insects.

Correspondence.

Provo City Items.

PROVO CITY, May 9, 1878.

Editors Deseret News:

Our city seems to be more lively since the woolen factory resumed operations. The factory whistle began to blow again last Monday, but some of the hands were working a few days previous. The *Enquirer* says that, "Hearing again the factory whistle is like welcoming the return of an old friend," and so it is.

The people of the Fourth Ward are alive to their duties; they have already laid the foundation of a new meeting house, which they intend to finish in a short time.

The Sunday schools here are in a flourishing state, especially the First Ward Sunday school, which numbers about 300 pupils and teachers. Great praise is due to Bishop Johnson, who is the superintendent of this school, for his activity to assist in teaching and educating the children of this ward. This school took an excursion to Little Cañon, about three miles south of the city, on the morning of May day, and spent the day in picnicking. All the party, consisting of about 350, were taken up to the mountain by teams; a brass band and string band accompanied the school excursionists and played during the day.

The monthly Priesthood meeting

of the Utah Stake of Zion, was held last Saturday, in the large meeting house, which was well attended. President Smoot and his counselors and several of the bishops gave very interesting instructions. It seems by the reports from the wards that this Stake is increasing and doing well. The next Quarterly Conference of this Stake will be held in the same place on the first Saturday and Sunday in June.

Preparations are being made to hold a County Fair in September next. The presidency of the Stake and the local priesthood are taking up the matter in earnest; a committee consisting of a delegate from each ward in the county will meet on Saturday next in the meeting house. BRUTUS.

How to Make Glass.

SPRINGVILLE, June 14th, 1878.

Editors Deseret News:

Having been engaged in making glass when I resided in England, I thought it would be serviceable to the enterprising in our midst if I were to publish the necessary ingredients or materials for making flint glass, or any kind of glass. If you will publish the information communicated in this note you will confer an obligation on the undersigned.

Best Flint Metal.

Sand, 336 lbs; lead, 224 lb.; ash, 112 lbs; nitre, 28 lbs; arsenic, 1 oz; manganese 2 1/2 oz.

Recipe No. 2.

Sand, lead, ash, nitre, arsenic, borax, manganese.

Recipe No. 3.

Sand, lead, ash, manganese, antimony.

For furnaces and crucibles: the best clay that can be found.

Yours, &c.,

WILLIAM HARRISON.

Bloodless Operation.

LOGAN, May 11th, 1878.

Editors Deseret News:

A bloodless surgical operation was performed this forenoon by Dr. O. C. Ormsby, of this place, upon a 12 year old son of Mr. Jonathan Bower, of Providence. About six months ago the left leg of the boy in question became affected between the ankle and knee, causing him great pain. Upon examination it was found necessary to cut out 5 1/2 inches of the bone, the upper incision being made directly below the knee joint; the bone was found to be much diseased, and pronounced, in surgical parlance, an instance of necrosis.

The operation occupied one hour, and was entirely satisfactory to the practitioner and those who assisted and witnessed it. The patient was under the influence of chloroform, and later in the day was doing well.

Yours, very respectfully,
JAMES A. LEISHMAN.

FOR THE LADIES.

A MORAL FOR EXTRAVAGANT

GIRLS.

[From the San Francisco Chronicle.]

My friend Clotilde is a slight, graceful girl of nineteen, with a queenly step and lustrous brown eyes, at times aglow with fun and laughter, tender with compassion, or dreamy and doubting. Her young life fascinates and interests me, for I see in it the promise of a noble and gracious womanhood, and I pray God the blight may never touch it which will destroy these generous impulses in their dawn and convert the young life into a tragedy, as with so many young girls in these days. A few mornings ago, as I sat in my little sitting room, engaged in the very wisely task of restoring absconding buttons to certain articles of Christopher's apparel, the door opened and Clotilde came in. Her dress was a rich brown silk, with trimmings of a gold-brown shade, and the blended colors rippled and shimmered as she walked. A nut-brown plume on her hat dropped down on her chestnut hair, and had it not been for the face with its shell tints, I might have imagined her some young empress cast in bronze, stepped down from her pedestal. Clotilde's father is a wealthy banker, and she is always

elegantly dressed. She dropped down on a low hassock at my feet, and as I looked into the upturned face, I saw not a trace of the empress there, but a woful look of sorrow and self-reproach and the trace of tears on her cheeks.

"Oh, Mrs. Christopher, my life is a bitter mistake," she cried. "I, and a thousand other girls in San Francisco like me, am daily bringing distress and misery into happy households, and driving struggling and worthy men to wreck and ruin."

"You, my dear? You must be wild to accuse yourself so bitterly."

"No, I am not wild, though I have just come from a scene that might well make me so. Oh, my friend! I have just seen poor Harry Maynard lying dead in his house—that pretty little cottage he furnished for his bride not two years ago—the blood oozing from a wound in his head, and the pistol still clutched in his lifeless hand."

"Harry Maynard! What could bring him to that?" for I had known him as a merry-hearted young fellow, the life of his set and a favorite with all who knew him.

"I say we have done it, Mrs. Christopher. It is the work of the fashionable girls and women of San Francisco. Lucy Maynard was one of us before her marriage. Could she bear to be our inferior in dress after she had entered into the prouder estate of wifehood? Could her husband, with his loving, generous heart—you know how devoted to her he has always been—bear to see her mortified or discontented? Yet his salary was not sufficient to supply the silks and laces and jewels she craved. You know he has been for years the confidential clerk of V—Bros. The senior partner of the firm said to-day that they trusted him as they trusted themselves. He began eight months ago by appropriating small amounts, thinking he could replace them. Gradually the amounts grew larger, and finally, fearing discovery, he took a desperate step. Twenty thousand dollars came into his hands in advance of the time the remittance was expected by the firm, and he rashly invested it in stocks, thinking that inside of a week he would have the money back in his hands doubled. The market fell instead of rising, and this is the result! Oh, Mrs. Christopher, do you know last night was our grandest ball of the season. At the last moment Harry complained of a headache, and said he would not go, but insisted on sending Lucy off with a friend who had called to accompany them. There was not one on the floor more handsomely attired than Mrs. Maynard. She was radiant. Every one observed how well she looked. At 4 o'clock this morning she returned home to find that her splendor had been purchased at the cost of the life dearest to her on earth. He left behind him one pathetic note of farewell, in which he takes all the blame upon himself, and absolves her from reproach. But she sees at last the sin she has been living, and her despairing cries, her bitter self-reproach is ringing in my brain. From this moment on she is a wretched, broken woman."

It makes me despise, hate these things," and she gave the silken robe a vicious shake with her daintily-gloved hand. "Why don't we girls devote our lives to something better than this vain worship of dress, that is doing so much mischief? You needn't shake your head at me, Mrs. Christopher. You think an attempt at reformation would be useless. But I tell you that California girls have good, brave, generous souls under all the glitter, and it would only take the concerted action of a very few of our acknowledged leaders, and some direct, plain talk—oh, that I had the eloquence of a Cicero, to band us all together in a determined army, resisting extravagance in dress. Not to adopt any horrible uncouth uniform—I do not mean that—but to resolve to dress in simple, inexpensive materials, and wear for ornaments the beautiful floral jewels that nature furnishes us all the year round in California. If ever the day comes when we can accomplish this we shall have fewer absconding clerks, and stock-brokers, and bankers, and our eyes will no longer be tortured with the spectacle we now view on our streets every day, of poor shop girls and apprentices attempting in their feeble way to imitate our dress, and becoming laughable, grotesque caricatures in consequence. Why, Mrs. Christopher"—and Clotilde's

eyes sparkled—"if every woman in San Francisco should set aside, for two years, the money she spends for needless finery, we could rear temples prouder than those which graced ancient Athens. Art and literature could be fostered, and industries be established that would save from ruin and shame many a poor man and woman in our city. But if we go on as we are going now"—and the girl's eyes drooped—"we shall fall like Naples in her days of luxury, splendor, extravagance and profligacy."

MRS. CHRISTOPHER.

SHORT AND SHARP.

"My brethren," said Swift, in a sermon, "there are three sorts of pride—of birth, of riches and of talents. I shall not now speak of the latter, none of you being liable to that abominable vice."

Said a Genesee restaurant man this morning: "When a customer calls for a five cent plate of soup and pockets ten cents worth of tooth picks, I am satisfied that Carl Schurz can't make it too hot for the timber thieves."

It may be observed that the young lady who wears a massive gold ring upon her first finger is more troubled about the set of her color than she whose hands are unadorned save by the marks of the needle.

Dentist, to old lady about purchasing some false teeth: "For matification, my dear madam, they can only be surpassed by nature herself." Old lady: "O laws, doctor! I don't care nothing about the matification if I can only chaw with 'em."

A Texan bride, after the conclusion of the marriage ceremony, gracefully stepped forward and requested the clergyman to give out the hymn:

This is the way I long have sought
And mourned because I found it not.

"What would you call a model Sunday school?" asked the superintendent of a mal-content pupil, who had threatened to leave. "Well, one where they pass around apple pie every Sunday, and don't have no lessons to learn. That's the hair pin of a Sunday school for me!"

A witty young lady was once remarked to by a gentleman friend of her acquaintance that "he thought he must have been born with a silver spoon in his mouth." She looked at him carefully and upon realizing the size of his mouth, replied: "I don't doubt it; but it must have been a soup ladle."

"You need not be afraid of giving to much," the old darkey said. "If any ob you know ob any church w'at died ob liberality, jest tell me whar it is, an' I will make a pilgrimage to it, an' by de soft light ob de pale moon I will crawl upon its moss-covered roof, an' write upon the topmost shingle, 'blessed am de dead who die in de Lord.'"

It has just leaked out that in the northern part of the state the girls have been boiling the clippings of their toe nails in coffee, and giving it to the young men, with the hope of winning their affections, and now toe nails are very scarce in that community, and you can't get a young man within half a mile of a cup of coffee.—*Ohio State Journal*.

When a lover leaves the house of his adored one at a late hour in the evening, and walks musingly homeward beneath the twinkling stars, his fond fancy pictures her, clothed in white samite, resting sweetly upon her pillow, with her unbound hair tossed about her sleeping face, and angels bending over her couch, whispering heavenly dreams. Perhaps at that very moment, though, she is in the pantry, gnawing hungrily upon a ham bone.

A policeman heard this joke perpetrated last winter, but it never dawned upon his mind to tell it until to-day. "I'm traveling the Jericho road," mournfully said an old bumbar at the police court. "Yes," feelingly said Recorder Taylor, "the Tom and Jerry Co. road," and the man could have made a respectable start in the ice business, if he had picked up the frozen tears which fell from the spectators' eyes.—*Keokuk Constitution*.