

Correspondence.

SERICULTURE. SILKWORMS.—THEIR DIFFERENT VARIETIES.

BY LOUIS A. BERTRAND.

VI.

There are two principal races of silkworms in the world—one that produces white cocoons, from which the white silk is reeled; the other that gives yellow cocoons from which proceeds the yellow silk. During the feeding season, silkworms of the white race can only be distinguished from the yellow ones by the color of the feet of the oldest ones. Of course, the feet of the former are white, and those of the latter yellow.

In France, the best varieties of the white race are the Sina race—the white race of Annonay, that of Novi, and that of Bourg-Argental. The Sina race, particularly the Sina race of Annonay, produces the most beautiful and pure white silk. But it must be remembered that much depends on the nature of the cocoons; the skill of the reeler is also of capital consequence.

The first of the Sina race was imported in 1784, by King Louis XVI. The Sina cocoons are less heavy than the yellow ones, raised in France, but they are very rich in beautiful silk, when perfectly pure. The worms, themselves, are of a bright color, and, on that account, are called *leis argentés*, "the silvered ones," by the breeders of Provence, my native country. In 1839, the Sina cocoons were worth 8 francs 50 c., and 9 francs 40 c., a kilogramme (one dollar seventy cents, and one dollar eighty-eight cents in gold, for two and one-fifth pounds. The raw silk was sold at 200 francs a kilogramme, about \$20 a pound.) These are the highest prices obtained for cocoons and raw silk in the present century. According to my notions, the City Creek water is particularly adapted to the reeling of the Sina cocoons. I expect an ounce of silkworm eggs of that variety from Annonay.

A large number of yellow races exist in France, and new ones are continually created. Among the last, I will mention a very large one produced by M. d'Arbustier, of Loriol (Drome); also the Milan race and the small Spanish one, as being extensively raised. The first white and yellow races of silkworms so successfully bred in Utah, by sister Josephine Ursenbach, during six years, are now both totally extinct. Before starting for his mission, Br. Ursenbach kindly sent a few eggs to Tooele. Several magnificent mulberry trees are flourishing in that lovely town. These eggs were naturally hatched in my room, but in spite of my careful attention they died in a few days. The same result has been obtained by my friend George D. Watt. I was struck with admiration at the beautiful cocoons and healthy eggs of his last crop. These eggs were a little too thick on the papers—a very light fault for a novice. An important question naturally arises here, which will prove more profitable for our breeders to raise, the white or the yellow silk? I answer, the general climate of our mountain home is so well adapted to sericulture, that both can be profitably cultivated in almost every county of Utah. But that rich business being still here in its infancy, the above industrial question will be better solved by our future experiments.

During a residence of six months at Bourbon or Reunion, a French island in the Indian sea, I saw a particular class of worms called *Trivolines*, because they hatch there six or seven times every year. Under that tropical latitude, the *Multicaulis* reaches an enormous size, and like every variety of the grape is an evergreen. All the exertions made by experienced silk culturists to naturalize the *Trivolines* worms in France have proved abortive. There are other species of silkworms that merit a brief notice, and particularly the following:

CASTOR OIL PLANT SILKWORM (*Bombyx Arrindia*).

This species of silkworm is a native of Bengal and of British India. It lives, both in its wild and in its domesticated condition, upon common castor oil plants and other vegetation. It was but recently introduced into Europe by means of a few living cocoons imported into Malta. Their propagation was not only successful, but was continued in Italy, whence many were sent to France and to the Canary Islands.

Wherever the castor oil plant grows spontaneously, as in Algiers, Brazil and Rio de la Plata, the efforts to raise this species of silkworm have been crowned with success. Its cocoons can not be reeled in the ordinary way, but they

furnish a staple, which, when spun into thread, produces fabrics of great suppleness and durability, though almost destitute of lustre.

AILANTHUS SILKWORMS (*Bombyx Cynthia Vera*).

This kind of worm is indigenous to the temperate regions of China, where it lives mainly on the *Ailanthus*. It has long been cultivated by the Chinese in the open air, and produces an elongated cocoon of a reddish shade, furnishing a kind of silk floss, from which is made a very strong and durable tissue.

This silkworm was introduced into France in 1848, where the first successful rearing of it is chiefly due to Madame Drouyn de Shuis. But it is to Mr. Guerin de Meneville, an eminent entomologist who, under the patronage of the Emperor, experimented extensively and with success, that the credit belongs for having given to this silk its growing importance and industrial value.

THE TUSSEH SILKWORM (*Bombyx Milita*).

This notable insect lives in a wild state in Bengal and in the hot regions of India, in the woods, where the inhabitants go to gather the cocoons, which are remarkable for their size and form. Its favorite food is the leaves of the jujube tree. Efforts have been made repeatedly to introduce it in France, but in vain. The cocoons of this insect produce a fine and brilliant silk, very strong and known in India as *Tusseh*, of which large quantities are exported to Europe.

THE WILD SILKWORM OF JAPAN, (*Bombyx Yama May*).

This worm, raised from eggs sent from Japan by the Consul-General of France at Yedo, has been successfully reared. The oak leaf and trees of the same kind are its only nourishment. It does not require great heat and is easy to raise. Its cocoon, of a greenish yellow, is formed like that of the ordinary silkworm, and can be reeled into a beautiful silk.

BOMBYX CECROPIA.

This description of worm, indigenous to the temperate regions of North America, is found principally in the Carolinas, Louisiana and Virginia. In its uncultivated state it lives upon the elm, the willow and other trees. It produces a large cocoon of a loose texture and coarse silk.

At the last Exposition of Paris there was a collection of silkworms in their different stages. A quantity of eggs, mulberry leaves and all that relate to the rearing of the silkworm, were also displayed there.

The silkworm is tender and delicate. The experiences of the last twenty years have proven that it is liable to epidemics which rage with peculiar violence and fatality.

WELLSVILLE, Cache Co.,

October 15th, 1868.

Editor *Deseret News*:—By publishing this letter concerning our lost child, you will be conferring a great favor upon myself, my companion, and doubtless, also, upon many of our relations and friends; and will at the same time correct a number of false reports of her having been found. You will also make more generally known the principle grounds upon which we base our belief that the Indians have stolen her. This will probably have a tendency to put many people (who otherwise through lack of faith would do nothing) on the lookout to obtain information concerning her, and may thus render efficient aid in her recovery.

In the first place, we consider the fact of the unaccountably mysterious disappearance, a circumstantial evidence of her having been stolen; and if stolen, who so likely to have stolen her as Indians, and among bad Indians Po-ca-tello and his band are ranked the worst.

She was less than two and a half years old; was unwell at the time and only the day previous to her being stolen kept her bed most of the day. She had not been out of the house more than 20 minutes, and nearly or about half that time was with an older sister, whom her mother had sent with her to take care of her. On missing her, instant and thorough search was instituted, which continued for about ten days around about home, until not one foot of ground or pond or stream of water where there was the least possible chance for her to go remained unexplored. She was missed about the middle of the day, and the search was so soon commenced that it would have been utterly impossible for her to have gone beyond our reach. She could not have gone through the field to the east, as it was lined with men farming; neither could she have passed

to the south for water; towards the north and west lay the only chance to stray away, and never before (to my knowledge) had she strayed the distance of ten rods from the house alone.

The race we almost entirely emptied of water, so that every inch of its bottom could be seen. The slough into which it emptied, which was several rods wide, and was grown up thickly with bull-rushes, so that nothing could float in it, and the water, also, being very shallow, was thoroughly searched. The pond, the nearest point of which was about 40 rods distant, was dragged; cannon, also, at various points were fired over it, but to no purpose. Some suppose that the reason she has not risen is because she must have caught hold of something that keeps her down; but such persons have not seen the place. The ground where the pond is, is perfectly smooth, and it is not steep to the water; and a child would have to walk in the water several steps to reach a point that would be over its head. And further, the first thing done both by whites and Indians, who came to look, was to search along the water for tracks, and as the soil was clay some trace would have been left.

The whole country from the river to the snow line in the mountains, as far as Mendon, three miles north, and about one and a half miles to the south, was thoroughly and systematically searched.

Indians were seen in the vicinity of the house by several different persons, yet none of them came to the house for bread as they had previously done when they came around, and none of us had seen them. This we considered and still consider an additional circumstantial evidence against them.

I saw Sag-wich and his band at Wells-ville, and by request, a number of them came and assisted in the search. Po-ca-tello and his band moved from Mendon to Logan on the day our child disappeared. I went and saw him likewise, to employ him and his band to assist in the search, as I was well convinced Indians must have stolen her. I offered a reward for the body dead or alive, but he would not agree to come unless I would promise to give him a 50 lb. sack of flour whether he found her or not. I agreed to do so, and the next day he came alone. Sag-wich and a number of his Indians came, and the Bishop of Mendon and all the ward were at my place hunting, and had a talk with the Indians, and promised to give them ten sacks of flour and a beeve to find and bring us the dead body, and a horse in addition to the above for her living. They promised to hunt. Po-ca-tello got his dinner, called for his flour and got it, and neither he nor any of his Indians ever made their appearance to hunt. His conduct in this affair we consider another and a stronger circumstantial evidence of his guilt.

A number of other circumstances conspired to confirm my belief that Po-ca-tello had stolen her; and in company with several brethren from Millville I visited his camp, at a later date, in Malad Valley, made him some presents, calling him a good Indian, and telling him I was sure some bad Indians in the west had got the child, and requesting him to hunt and get her. Here, in addition to the before-named rewards, I promised to give him 13 horses to bring her safe to me. I sometimes think that we might have obtained her on these conditions, but for the numerous threats thrown out against the Indians by thoughtless people by which they were intimidated.

In addition to the forgoing evidences, Sag-wich has told, both at Mendon, Paradise and Willow Creek, that Po-ca-tello stole the child. He told when and where he got her, where they took her to, how long they kept her in Cache valley, and the night they passed through Mendon with her when they left the valley.

A young man from Wellsville on his way to the mines wrote to his father, (Br. Kerr, who showed me the letter) that three Indians came to his camp, on Blackfoot, to buy flour, and began talking about the little girl stolen from Cache Valley, and said they knew Po-ca-tello had her, for one of them had been at his camp and had seen her there.

Brother Petingall, a young man who lives a little south of North Willow Creek, in Salt Lake valley, who I understand is a very good interpreter, told me a short time since that Sag-wich had been there and told him that Po-ca-tello stole the child; and also that at another time he had overheard two other Indians talking privately about the child, who said that Po-ca-tello stole her and sent her to Salmon River.

Assisted by a number of brethren

who reside in this valley, I have spent a good deal of time in hunting and have ransacked the country far and near. I have left no stone unturned nor any means untried, that I could devise or my friends suggest, but all to no purpose. Still I have faith that in some way or other our little one will finally be restored to us, and I do most sincerely believe that the publication of the above in your paper would materially assist in bringing about this restoration.

I am, very respectfully, your brother in the Gospel,

G. W. THURSTON.

January, 16th, 1869.

Since writing the above, I have seen young Brother Kerr. He says the Indian he saw on Blackfoot spoke very good English, and told him that Po-ca-tello had the little girl that was stolen in Cache Valley, for he had been at Po-ca-tello's camp in the Logan bottoms and had seen her there. He also told him that Po-ca-tello hired other Indians who knew of it to keep the secret, and paid them several horses to do so. And further, he said Po-ca-tello was going on a buffalo hunt, and was intending to take her with him, and I understand he is now on his hunt.

G. W. T.

The National Woman's Rights Convention met at Washington City on the 19th inst. The convention was opened by Dr. Gray, Chaplain of the Senate, who asked that the time might soon come when woman, who was from the rib of man, would assume her social and civil rights alongside those of man. This prayer did not suit. Mr. E. M. Davis, of Philadelphia, was the first to take exception to Dr. Gray's prayer. He said the gentleman had spoken of women as of the rib of man, while all history and the Bible proved that woman was the equal of man. Mrs. Lucretia Mott and Mrs. Cady Stanton endorsed what Mr. Davis said. Mrs. Mott said that at that portion of the prayer she raised her head because she could not admit any such inequality. It is not recorded how the Doctor felt or what he said about this criticism, but it may fairly be presumed that if he again attempts to pray for a Woman's Rights Convention, he will be more careful in the selection of his words.

It is a fearful thing, we imagine, to fall into the hands or under the lash of the tongues of a convention of strong-minded women. As for Mr. Davis, Dr. Gray must have felt, in the expressive, but not elegant, language of Sir Wylton Downe, in the Lottery of Life, that he would have liked to have "punched his head," metaphorically of course.

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ESTRAYS!

FROM LEHI.

HEIFER, 1 year old, red, brockle face, crop both ears.

HEIFER, 1 year old, roan.

Said Heifers, if not claimed, will be sold to the highest bidder at the County Pound, Provo, February 30, 1869.

s103 2&w52 1 EDSON WHIPPLE,
Utah County Poundkeeper.

ESTRAYS!

ONE bay MARE, 5 years old, white in face, three white feet, no brands. Said animal has a bay Mare Colt.

One sorrel COLT, white in face, three white feet.

The above animals came to the Estray Pound, January 9th, and if not claimed by the owner on or before the 8th of February next, will be sold at the Estray Pound, at 1 o'clock p.m.

One HEIFER, 2 years old, brindle and white, no marks nor brands visible. Came on the 18th inst., and if not claimed by the owner on or before the 17th of February next, will be sold at the Estray Pound, at 1 p.m.

HENRY McMULLIN,
Poundkeeper, Heber City, Wasatch County.
January 18th, 1869. s103 2w:2 2