

THE CULTURE OF THE SILKWORM

DESCRIBED BY A TRAVELLER
IN JAPAN

Life of This Delicate Creature From
Time It Ceases to be an Egg
Until Making of Its Cocoon.

Few occupations seem more delicate and kindly than that of the silkworm culture. In Japan at First Hand, Mr. Joseph I. C. Clarke gives an unusually interesting picture of it as seen under the guidance of a young girl in a gray kimono, who exhibited in a loving way the various stages of worm life. First, says the author, the shoji, or sliding door of a wooden shed, was pushed open, revealing a dusky interior, and a boy came carefully forward bearing a tray out of many scores seen dimly on racks within. The tray was about two feet by four, covered with shredded mulberry leaves, and showing the silver-white bodies of hundreds of silkworms writhing lazily among the bright green shreds of leaf.

All seemed one wriggling mass at first, but the dainty fingers of O Suza San pointed to differences. These particular worms, two inches long, she said, were nearing their fourth sleep. You must not approach too close to them; they are sensitive to human breath. They sicken with a blast of air. They die of bad odors.

"They take cold," she said.
"Do they sneeze?" I asked.
"No, they do not sneeze." Then she gave me a sidelong glance, as if asking whether I meant it.
I noticed that the worms had faint but pretty markings of yellowish brown. Ever more of them seemed to be working up to the surface through the mulberry leaves, and surely they did eat voraciously, their little jaws closing on the juicy scraps like little pinners. Listening closely, I heard a faint, low munching sound like a whisper of mastication.

"They eat like that all the time for five days. They must be fed with fresh leaves five or six times a day and two times at night. Look, here is one gone to sleep!"

The worm in question had raised its head until it looked like a miniature contour of the ravenish signs of the Norsemen with their figureheads, and so it remained.

"There is one that will be asleep in a few minutes," she said.
It was not eating, but was swaying, lifting and dropping its head.

"And then what?"
"Then it will be transferred to make its cocoon."

It takes thirty-three days for a worm, from the time it ceases to be an egg, to reach the making of its cocoon. With every batch of worms a certain few of the finest are selected for breeding. These are laid aside, and the butterfly is permitted to eat its way out of the completed cocoon—which it does after twenty-one days. It is a handsome butterfly, but it never flies. Without any feeding it is placed in a little round box an inch and a half in diameter, one of many that are laid in rows on a sheet of thick paper. In these boxes the butterflies lay their hundreds of eggs—little dots—in concentric circles.

"Then they die," said O Suza San with real pity in her tone.

The eggs hatch, and the resulting little thread-like worms are brushed off with a fine hair brush, placed on the tenderest buds of the mulberry and at once begin to feed for four or five days until their first sleep. They sleep two days, and then repeat the sequence a second, third and fourth time. They grow rapidly, and after the fourth sleep they are fed for a week and are ready to spin.

Then they are placed on mats to which bent straws are fastened. They climb the straws to the highest point, and there they begin giving forth the silk in a fine golden stream that as it hardens to a thread they wind about them. He—or is it she?—has had a grand time for a month, but that is the end of him—or her. About the time he feels ready to come out the farmer places him in a lethal chamber, where he is heated and over-heated until he gives up his ghost. But then the glory of his sickness begins, for O Suza San or some other fine-fingered, clear-eyed daughter of Japan will tear off the outer skin of the cocoon and, finding an end of the miraculous glistening thread, will place it in a little flature machine invented in Italy, and unwind it all upon a reel.

Penty of Fresh Air Is Good Health Insurance.

Do not close up the house the first cold day.

The best protection against colds and influenza is plenty of fresh air.
Open all the doors several times a day and thoroughly air the whole house.

Fresh air is more quickly heated than stale, hence it saves fuel as well as health to have good ventilation.
All winter leave at least one screen in a window in each room. Cover it with muslin—an old flour sack is excellent for this purpose. In this way fresh air is secured without a draft and dirt is kept out.

Sleep at night with the windows open. The body replaces the waste of the day during the sleeping hours and plenty of oxygen is its first aid.

Montreal Daily Star.

WHAT SOLDIERS WANT.

A suggestion to those who are sending gifts to soldiers overseas comes from Lt.-Col. (Canon) Frederick George Scott, Senior Chaplain of the First Division, in a cable received by friends in Montreal. He says "The men want playing cards and chewing tobacco."

CHEW STAG TOBACCO

"Ever-lastingly Good"

STRANGE CUSTOMS OF THE ORIENT

WAYS OF THE EAST STRANGE TO OCCIDENTAL EYES

Persians Object to Type-Setting and Employ Lithography for Production of Books.

Mohammedanism is as much a social system as a religion. The mosque is no more like a church than it is like a clubhouse. People do not consider it improper to eat or sleep in it, to discuss secular matters, or to read books or newspapers. It serves as a refuge for homeless strangers and as a meeting place for the folk of the town.

Sometimes the mosque sees even stranger sights. In this relation an American tells of a curious incident. On the last day of Ramadan, or the period of fasting, a tumult arose in the town where he was stopping.

It might have had a serious consequence, though the cause of the disturbance was absurdly trivial. A man who belonged to the heretical Wahabi sect was in the mosque while some persons were visiting the tomb of a prophet who is supposed to be buried there. These visitations consist in standing in front of the vault and reciting a long salutation. By the Wahabis they are held to be idolatrous.

A Strange Riot.
This man started to declaim against the custom and attracted a considerable audience, one of whom, a Meccan Arab, a learned man, put an end to the sermon by hitting the preacher on the head. The governor of the city, who happened to be in the mosque at the time, observed these indecorous proceedings and ordered the arrest of the Arab without troubling to make inquiries.

Nothing further happened until evening, when a crowd began to gather in front of the Government offices and demanded that the prisoner be released. When the crowd began to assemble the American was under the impression that they had seen the new moon, which marks the end of the fast and is always an occasion for rejoicing.

Lithography in Persia.
Type printing is unpopular in Persia. The straightness of the lines of the Persian's artistic sense, and he feels that in printed books the character of the letters is entirely lost.

Persia is to-day largely dependent upon lithography for its own production of books. Naturally these are very scarce. At the beginning of the nineteenth century a press with movable types was set up in Tabriz, and a certain number of books was printed. The effort met with no encouragement, however, and had shortly to be abandoned.

The same taste which makes a Persian esteem so highly the great calligraphic character in a type printed book. What delights him most in this relation is a well written manuscript, and he takes the same delight in the copyist's work that we take in the touch of an old master. Failing this, he contents himself with a lithograph, which is usually a facsimile of the writing of some fairly good scribe, and has, at any rate, a human element in it.

It is hard for us to credit the vast amount of attention that is paid to calligraphy in the East, where men of learning devote years to its acquisition and their best days to making artistic copies of classical works. Although this art is to a certain extent dying out, owing to the cheapening of lithography, a man may even yet in Persia become as famous for his writing as a poet is for his verses. A curious contrast is thus presented by the Persians, who cling to written books, while elsewhere in the East there is a rapid spread of type printed books, printing, bookselling and journalism in the Orient in the last twenty years or so having developed to a comparatively high degree. Both Cairo and Constantinople possess excellent printing presses, which turn out numberless books and journals.

Gambling in India.
An odd form of gambling has developed in India, for which the New York cotton market is indirectly responsible. Five quotations from the New York market are called to India every day, and the natives conceived this to be a direct invitation to them to establish a simple but none the less absorbing form of gambling.

The gambling consists in guessing what the five figures would amount to and the persons most nearly approximating the right amount wins. So fascinating did this game prove that the authorities became greatly worried over the indulgence of the poorer class of natives in it. Efforts have been made to lessen it, and it is believed that at last some success has been attained by those who are unwilling that the poorer people should squander their scanty funds in this pastime.

"True: men and they will be true to you; treat them greatly and they will show themselves great, though they make an exception in your favor to all their rules of trade."—Emerson.

When making plea for a change, fill a pie plate with sliced apples seasonally as usual, or apple prepared as for frying, then pour over it a thin corn or johnnycake batter, and bake.

Need you be reminded how Belgium was the first to jump into the breach and so make our Victorious Peace possible?

Don't let it be said WE let Belgium starve. Let us cable over your offering to the mothers and children of Brave Little Belgium AT ONCE!

Make cheques payable and send contributions to
Belgian Relief Fund
(Registered under the War Charities Act) 127
to your Local Committee, or to
Ontario Branch—Belgian Relief Fund—95 King St. W., Toronto

The Weekly Fashions



What a fascinating little design for the kiddie! The fullness at either side of front and back may be smoked, shirred or tiny tucks used as illustrated. McCall Pattern No. 8656, Child's Dress. In 5 sizes, 6 months to 6 years. Price, 15 cents.



An entirely new idea for a house dress. The belt and pockets are in one, being connected with the back belt. McCall Pattern No. 8637, Ladies' House Dress. In 3 sizes, small, 34 to 36; medium, 38 to 40; large, 42 to 44 bust. Price, 25 cents. These patterns may be obtained from your local McCall dealer, or from the McCall Co., 70 Bond St., Toronto, Dept. W.

Nothing finer has come out of this war than this line from an epitaph in a British graveyard in France: "For your to-morrow they gave their to-day."

I was cured of Rheumatic Gout by MINARD'S LINIMENT. Andrew King, Halifax.
I was cured of Acute Bronchitis by MINARD'S LINIMENT. Lt.-Col. C. CREWE READ, Sussex.
I was cured of Acute Rheumatism by MINARD'S LINIMENT. Markham, Ont. C. S. BILLING, Lakefield, Que., Oct. 9, 1907.

"Heroism is the brilliant triumph of the soul over the flesh—that is to say, over fear; fear of poverty, of isolation and death. There is no serious piety without heroism. Heroism is the dazzling and glorious concentration of courage."—Amiel.

Minard's Liniment Cures Colds, Etc.
Canada is a land of motor cars, holding third place in the number of automobiles in use. In 1917 there were 199,902 cars registered in Canada, an increase of 47,705 over 1916, while the number of new cars registered in that year was nearly 76,000. The increase for 1918 is expected to be on a proportionate scale. One Canadian in every 40 owns a car, and roughly speaking, there is one automobile for every eight families.

Keep your shoes neat
2 IN 1
SHOE POLISHES
LIQUIDS and PASTES
BLACK, WHITE, TAN, BUNA BROWN OR OX-BLOOD SHOES
PRESERVE the LEATHER
THE McCALL CORPORATION, NEW YORK, U.S.A.
TORONTO, ONT. MONTREAL, P.Q.

ED. 7. ISSUE 51—18.

ROYAL YEAST
Has been Canada's favorite yeast for over a quarter of a century. Bread baked with Royal Yeast will keep fresh and moist longer than that made with any other, so that a full week's supply can easily be made at one baking, and the loaf will be just as good as the first.
MADE IN CANADA
EW. GILLET COMPANY LIMITED
WHOLESALE TORONTO, ONT. MONTREAL

To the Sleeping Heroes.
For you who answered duty's call
We deeply grieve to-day.
You, who went forth to win or fall,
Yours was the warrior's way.

Where'er you lie 'tis honored dust.
Of you be truly said:
Our comfort is the old-time trust,
God rests his own brave dead.

And now at last the dove of peace
O'er us her pinions spread.
Our thanks to you shall never cease,
'Twas victory's fires you fed.

Minard's Liniment Cures Garglet in Cows

Quite a Feat.
A sergeant was drilling an awkward squad.
"Company! Attention, company; lift up your left leg and hold it straight out in front of you!"
One of the squad held out his right leg by mistake. This brought his right-hand companion's left leg and his own right leg close together. The officer, seeing this, exclaimed angrily: "And who is that blooming galoot over there holding up both legs?"

A double boiler should have a good large base, so that the water will not boil away quickly.

The Hospital for Sick Children
TORONTO

War Laid Heavy Hand on Children's Charity.

Dear Mr. Editor:—
The annual report of the Hospital for Sick Children, Toronto, marks a new record, despite the heavy handicap the war placed upon its work.

The task of ministering to the suffering youngsters of this province was no light one in view of the Hospital's splendid response to the national call 25 doctors and 43 nurses from its forces have seen service overseas.

Yet the number of patients treated in 1918, or 1,398 more than last year. Of these in-patients, 759 were from 286 places outside of Toronto. The tireless efforts of the staff made possible also a reduction in the average length of stay necessary for the little patients from 24 days in 1914 to 14 this year.

These results show that the Hospital has again paid to the children rich dividends of health upon the invested kindness of its supporters. There has been careful stewardship of the funds entrusted to the Hospital. There has been saving—almost scrupling—in every direction except where it would prevent the Hospital's soothing the suffering or shortening the sickness of one child. The daily cost of operation was held at the lowest point which would still allow the children entrusted to the Hospital to get the best medicine and the best of care.

And yet so high has risen the cost of every item in the Hospital's budget—in labor, in fuel, in food, and, above all, in medical supplies—that the minimum expense of taking care of one child for one day has risen from \$2.24 back in 1914 to \$3.21 in 1918. Of that, \$1.69—the amount per patient per day that the official Government grants do not cover—must come from voluntary contributions.

During the past four years debts were incurred to the extent of \$100,000, which the Trustees felt assured would be wiped out by the public as soon as the war drew to its close, and these heavy demands cease which have been made upon the generosity of the loyal people of this province. The time has now come when it is necessary to make known the Hospital's dire need of financial assistance.

If this 43rd Christmas appeal fails to rally the friends of this Charity to its support, it will be necessary to mortgage its land, buildings and plant. By the bounty of the late John Ross Robertson that property has just been cleared of debt for the first time since it began its ministry of healing mercy. Little children have lost a big-hearted friend, and the province a noble benefactor. It is for the public to decide whether his life-work shall be shadowed with a mortgage within less than a year of his passing.

What think you?
Send your answer as soon as possible to the Secretary-Treasurer, Hospital for Sick Children, College Street, Toronto. Meanwhile the Charity will "Carry on," trusting in your support.

IRVING E. ROBERTSON,
Chairman of Appeal Committee

Tonnage Lost During War.
The world's total losses of merchant tonnage from the beginning of the war to the end of October, 1918, by enemy action and marine risk was 15,068,786 gross tons, according to official announcement issued in London on Dec. 6th.

During the same period vessels totalling 10,849,527 tons were constructed, and enemy tonnage totalling 2,392,675 was captured, making a net loss of tonnage during the war of 1,811,564.

Minard's Liniment Cures Disemper.
"A true friend embraces our objects as his own. We feel another mind bent on the same end, enjoying it, insuring it, reflecting it, and delighting in our devotion to it."—Channing.

MONEY ORDERS.

The safe way to send money, by mail is by Dominion Express Money Order.
Mix salt and pepper ten to one in a large bottle for kitchen use.

FOR SALE

WELL-EQUIPPED NEWSPAPER and Job Printing plant in Eastern Ontario. Insurance carried \$1,500. Will go for \$1,500 on quick sale. Box 68, Wilson Publishing Co. Ltd., Toronto.

WEEKLY NEWSPAPER FOR SALE in New Ontario. Owner going to France. Will sell \$2,000. Worth double that amount. Apply J. H. Wilson Publishing Co. Limited, Toronto.

STORM WINDOWS FOR SALE

GET OUR PRICE LIST SHOWING cost of windows glazed complete, any size. Hailshield Company, Box B 61, Hamilton.

MISCELLANEOUS

CANCER TUMORS LUMPS ETC. Internal and external, cured without pain by our home treatment. Write us before too late. Dr. Bellamy Medical Co. Limited, Chillingwood, Ont.

ACHES AND PAINS QUICKLY RELIEVED

You'll find Sloan's Liniment softens the severe rheumatic ache

Put it on freely. Don't rub it in. Just let it penetrate naturally. What a sense of soothing relief soon follows! External aches, stiffness, soreness, cramped muscles, strained sinews, back "cricks"—those ailments can't fight off the relieving qualities of Sloan's Liniment. Clean, convenient, economical. Made in Canada. Ask any druggist for it.

Sloan's Liniment Kills Pain

20c, 60c, \$1.20.



Cuticura Promotes Beauty of Hair and Skin

If the Soap is used for every-day toilet purposes assisted by occasional touches of Cuticura Ointment to first signs of pimples, redness, roughness or dandruff. Do not confound these fragrant soap - creamy emollients with coarsely medicated, often dangerous preparations urged as substitutes.

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