or the present

About his futur

st of it. And

iollowing interesting accourt of silk and of silk manufacture in Canada by the Montreal Herald: wilk moth lays its eggs on the leaves

mulberry tree upon which the caterieds, and these caterpillars form the from which the silk is manufac-The eggs are hatched in an apart. heated to the proper temperature by When the hatching process comas soon as the young caterpillars their appearance a paper perforated holes, and covered with mulberry is spread over the basket in which we placed, and in passing through the to get at the mulberry leaves they themselves from their shells. The speedily settle on the leaves and of mulberry, and are thus easily tranto trays, and removed to a cooler room

A NURSERY. is a dry room, the temperature of is regulated, and which is well vento purify the air from the noisome dations produced by the excrements caterpillars and the decayed leaves. are not unfrequently, unless due jutions are taken, fertile sources of igar's marriage amongst the worms. In this wicker shelves are arranged at conoria had been distances, lined with paper, on the worms are placed. The mulleaves presented to the caterpillars popped. Four meals a day as a reguale, and luncheons between, when the s are particularly voracious, is the liballowance for their subsistence.

him when he silk worms live in the larval state six to eight weeks, during which period Lady Dyson, Joults or changes its skin four times, inthat it is to be sing its size and voracity with every It, and when fully grown is about three and she behaved in length. When about to spin, the worms are provided with little bushes Lily was mar 100m, heath, or other flexible substance, Church, and which they suspend themselves after of her wedding ning a few threads. By continually their bodies they gradually envelop melves into a thick, silken

OVAL SHAPED COCOON. recimens of these bushes laden with Dyson," that appeared in the London Exhibition il, like diminutive trees bearing golden

quence of her he silk itself is a secretion of a pair of which terminate in a prominent pore have married sinneret on the under lip of the caterned to Stella The two fine filaments are glued Lily was fool giner by another secretion from a small t in every way at, so that the apparently single thread in forms the cocoon is really double. The cocoons, when completed, are thrown

warm water, which dissolves the gluas and goodness matter, causing the threads to adhere, er been guilty separate them. The end of the thread men found and placed upon a reel, and was over, and silk wound from off the cocoon into what e away, and the alled a bank. The length of the silken n again after ad obtained from a silken cocoon is ne very lonel tetimes from 750 to 1,150 feet long, or of requent letters average length of 300 yards. Twelve ery unsatisfactions of eccoons yield one pound of raw Walter Dyson i, from 200 to 250 cocoons going to the one gambling and weight. About

e Continent. ONE OUNCE OF SILKWORMS' EGGS n to Rouge-et produce one hundred pounds of cocoons; ies he won, bu jounds of mulberry leaves are food sufficid then Cecily for the production of one pound of coe was evident ins, and each mulberry tree yields about ounded on self founds of leaves.

d in sunshing and how to rear silkworms, unravel the as fast perish mads spun by them, and manufacture the ads of poverty : thus obtained into articles of dress and ament. Silk appears to have been worn do something the Chinrse and Japanese from time imher husband emorial—even 2,000 years ago, when our ne would pro testors were naked savages. The silker, impossible am moth and the mulberry tree are in Norman; and both natives of China, whence both were ation, one day might to Europe during the sixth century London, prostite reign of the Emperor Justinian. At g to Cecily at the culture of silk was confined wn ample for the particularly to the Peloponesus, live in come the it spread so much that this part of begged him to mee derived its modern name Morea he might con tin morus, a mulberry) from that circum-

ice. From Greece THE SILK MANUFACTURE SPREAD was very un Sicily, Italy, Spain and finally France. the breeding of this valuable insect is on the edge to possible in warm climates the silk culn. The found is necessarily confined in Europe to it, the south of France, and Spain. From ld-rish looked the countries it is exported to England, ess the trans !! United States and now to Canada,

the it is manufactured into threads and

Tile fabrics. 2 1863 the firm of Belding Brothers & commenced the madufacture of sewing aly all at once and twist at Rrockville, Conn., where the fountain by have two mills, each 300 feet long and und Norman arstoreys high. They have also mills at orthampton, Mass., for the manufacture me yo: have silk fabrics and hosiery, with warehouses aid reproach New York, Boston, Philadelphia, Chicahis; but his Cincinnati and St. Louis. They rank and happing the largest houses, if they are not Tally the largest house, in the silk manuan!" she restare in the United States and their goods ou expect me the highest reputation.

als67 a branch of this establishment was nink I would ranized in this ciyt. Mr. F. Paul beoming hopes into sident member of the firm and manager of old man you eestablishment, the business being carried u to write to ander the style of

BELDING, PAUL AND CO., ed, quickly the purpose of manufacturing sewing " and then as, threads, ribbons, and handkerchiefs. lowly, "Nor this time the production was limited as that money intention was so to speak "to feel, the "The manufacture being from 50 to 100 which vot mads per week. From this, however, it id, with al rapidly developed into what may be ; and then thed a nice business, now producing put his arm 100 1b3. per week with a rapidly and connot give mently increasing demand for a more enand with 1 ged production. At the outset it was cassary to observe caution, owing to the that the fashions change rapidly and it undesirable to have manufactured stock hand. No apprehension is now felt on account, inasmuch as the demand exthe supply. At first it was impossiprocure skilled labor here, and it was out of the and necessary to import it from the mil's Brockville, Conn., but, one by one these we have all returned to the States, and now operatives, with the exception of the man, cousist of those engaged and train-These consist of representatives

> madians, who are found to be very quick, cile and excellent operatives. THE BUILDINGS NOW IN USE Wo in number. One of these, built of

nationalities, buttprincipaly of French-

brick and iron, fronts on St. George street, being number 30. It is 45x75 feet, four storeys high, with basement. The basement is used as a machine shop and storeroom, the ground floor, as an office and sample room, the second floor as a spinning room, and the fourth as a weaving room. The machinery is operated by steam power, which is obtained from the adjoining establishment of Messrs. Rogers & King. The second building is located at St. Gabriel Locks, on the south bank of the Lachine Canal, adjacent to the McGee Bridge. It has a frontage on the canal of 100 feet, with a depth of 45 feet, is of brick and is four storeys high. It was formerly used as Tees' chair factory, and has been altered and fitted up for its present purpose.

### THE MOTIVE POWER

here is derived from the canal, the machinery being operated by a water wheel. Great inconvenience is experienced from having the works thus divided up, and to obviate this the firm is now erecting a new building at the cnnal, running parallel with the one it now possesses there. This will be 160 feet long by 45 wide, four storeys high, with an entrance tower in the centre, in which will be placed closets, wash rooms, &c., &c., for the use of the operatives. Between the new and the old building there will be a clear space serving as a passage 47 feet long. Each floor will be unobstructed from end to end so as to secure a perfect light, the floors above being supported by two rows of pillars which will form an alley, on each side of which will be ranged the different machines. The first floor will be devoted to spinning, the second to winding, the third to doubling, and the fourth to weaving. While the building will by a plain structure in so far as appearance is concerned, it will be fitted up with the latest and most approved appliances. There will also be a dye house on the canal front, separate from the mills, covering a space of 2,200 square feet. There will be two boilers, 5x16 feet, for supplying the necessary steam required in the operations.

Having described the buildings, the next and by far the most interesting is

THE MANUFCTURE. The raw silk is obtained from the New York House. On its arrival here the raw threads are sorted, an operation which requires a quick eye and proficiency. This is done by the eye. All the threads of the same cocoon are not alike but vary considerably at times. It is then soaked in water at a temperature of 110° F. to soften the natural gum and facilitate the process of winding. This done, it is wound on bobbins, an operation which though apparently simple requires great care, owing to the fact that the silk thread is very fine. It is then doubled, that is two or more threads according to the purpose for which it is intended, are joined together. It is then put on the spinning machine and spun, after which it is twisted, which consists in doubling and spinning three of these threads, the twist being reversed to make the thread stronger. The number of threads depends upon the

## FINENESS OF THE RAW SILK,

and also upon the character of the goods to be woven. It is then taken to the stretching machine, the patent for which is controlled by the firm, to remove the rough or knotty appearance which appears. It does not, as its name might imply, stretch the silk, it evens it out, removing the lumpy appearance, and imparting to it a uniform tension. It is made up into skeins preparatory to being dyed. This is done by real. ing, each skein consisting of 350 yards. It is then put upon delicate scales, and its weight marked, after which it is ready for the dyer. It has now reached the condition of thrown silk and the process is completed.

DYEING PROCESS is the next adopted. In this there are three hundred colors, requiring a large stock and assortment of dyes to be kept on hand. From the dye-house the silk is again taken to be spooled in the lengths and sizes required. The dyer first boils the silk in soap and water, to free it from any remaining gum, and to give it a more lustrous appearance. By the boiling precess the silk, if pure, looses about 24 per cent. of its weight, so that a pound of silk will weigh about 12 ounces. This is the reason that American silk is put up in 12 ounces to the pound. Sewing silk thread runs from 150 yards to 1,800 yards to the ounce, while silk for ribbons, which is much finer, runs from 6,000 yards to 10,000 yards per ounce.

# THE COLORED DYES.

The ribbon manufacture is one from which more is expected than that of handkerchiefs, plain goods in the latter article being only now made up.

The operatives employed average 300. The remuneration to these is \$2 per week for green hands from the day of engagement, to \$6 and \$7 per week for more advanced

The Montreal firms derives no little advantage from its connection with the American house referred to, from the fact that can procure from them the newest and latest patterns and all desirable information, in addition to which they allow the American firm to test new appliances and when success attends them they avail them-

selves of the others experience. This firm manufactures here the same brands of sewing silks that have become so universally popular in the States, and if ladies see that Belding, Paul & Co's. name is stamped in the end of the spool they may depend on getting an excellent article.

Nearly all the silk manufactured is for the Canadian market, the remainder being sent to Newfoundland, where there is an excellent market, considering the number of

the population. The firm have had samples of their ailk manufactures on exhibition at Toronto and St. John, where we understand they took

high honors.

The distinguished Arctic explorer Sir George Nares thinks there is still hope that Lieutenant Greely may have reached Port Faulke late in the season.

A Chicago maiden has embroidered the motto, "Walk in Love" on tarleton, done with 100 cotton, very fine. After the gets a fellow she will embroider in a comma after the "Walk in," and then it will be super-

# A Grand Trunk Employee Instantly Killed

at Toronto-A Most Horribio. Spectacle.

An accident of a shocking nature recently occurred in the old Great Western Depot, at the foot of Yonge street, Toronto, by which a Grand Trunk employee named John Johnston was instantly killed. A short time ago a bridge was constructed inside the depot, about half way between the two ends and extending from one rlatform to the other across the building. Underneath this structure the trains, when shunted into the depot, pass, leaving not quite five feet of standing room for brakesmen on the top of the trains. Johnston, who was employed as Esplanade conductor for shunting trains, was standing on a car near the centre of a train which was moving out of the station. His back was turned toward the engine, and not thinking he would have to stoop so as to avoid striking the bridge he stood erect

WITHIN A FEW FEET OF THE DANGER. The shouts of some workmen who were standing on the platform aroused him, but as he was just in the act of turning and making a stoop the girder of the bridge struck him on the side on the head. The force and suddennness of the blow knocked him of his feet and precipitated him between two of the cars. He managed to cling to the coupling works for a second or two, but soon he dropped underneath on the right track. Several wheels passed over his body in the region of the abdomen, severing it almost in two, and spattering the track in the vicinity with his blood. Death was instantaneous. When the train had passed

A REVOLTING SPECTACLE was presented to the horrified bystanders who crowded around. The unfortunate man was almost completely cut in two, the two portions hanging together by shreds of flesh and clothing. The remains were taken up and removed to the morgue. The deceased was a min well up in years, and leaves a large family of children most of whom are grown up. He was during his whole lifetime a railroad man, beginning life on English roads. For twenty-seven years he has been in the employ of the Grand Trunk Railway, and was also a trusted and painstaking employee.

THE INQUEST. An inquest was held yesterday evening at the morgue, at which Coroner Duncan presided. A number of persons were examined, the majority of whom were employees of the Grand Trunk. The most important evidence was given by Edwin Till, David N. Black, and J. Thompson, driver of the engine attached to the train. Till stated that he saw Johnson standing on top of the train as it was moving out of the station. Seeing that he did not appear to notice the bridge, he and some fellow-employees shouted to him. He was, however, warned too late; he was struck by the girder and knocked between the cars and killed almost immediately. Other eye-witnesses were examined whose statements were similar to Till's. The Jury, after retiring, brought in the following verdict :- "That the said John Johnson came to his death by accident by being struckly an overhead bridge at the Great Western Station, and that the jury find that the said bridge was too low to allow a man on a car to pass under, and that the bridge should be raised higher."

# Testimony to Darwin.

Dr. W. B. Carpenter, the great physiologist, in the Modern Review, says :- There is no need to go back now over the melancholy story of the slanderous attacks which were made on the greatest interpreter of the "order of (organic) nature" who has ever stood between its author and man; but they ought to be remembered as a lesson to the theologians of the future. No one has now ventured to throw a stone at Darwin's grave, since were any to do so it would bring upon him general condemnation. The revolution in public feeling of this country, which has been silently and almost insensibly going on, but of which his departure from among us has brought out the manifestation, has been a surprise no less to his friends than it must have been to his former opponents. The highest eulogies have been pronounced upon him from pulpits in which he was once reviled; and his life no less and than his word has been held up as a model for imitation where his character as a man was formerly included in the depreciation of his achievements as a philosopher. . Those who knew Charles Darwin most intimately are unanimous in their appreciation of the unsurpassed nobility and beauty of his whole character. In him there was "no other side." Not only was he the philosopher who has wrought a greater revolution in human thought within a quarter of a century than any man of our time-or, perhaps, of any time—and has given what is proving the death-blow to theological systems, -which had been clinging yet more tenaciously to men's shoulders because of the efforts made to throw them off-but as aman he exemplified in his own life that the life. true re'igion which is deeper, wider, loftier, than any theology. For this not only inspired him with the devotion to truth, which was the master passion of his great nature. but made him the most admirable husband, brother, and father, the kindest friend, neighbor, and master, the genuine lover not only of his fellow-man, but of every crea-

He Was Such a Fresh Young Man. "Aw, yas, Miss Eveline, you knaw I came to the sea shoah because, you knaw, I felt that I needed such a twip, you knaw."

"Ah, indeed, Mr. Du Dee?"

"Yas, Miss Eveline." people need salt air more than anything Complaints than Dr. Fowler's Extract of

Then everybody snickered, and Mr. D. wondered what was funny in a simple health report like that.

Gone Never to Return. GARDINER, Mr. - Mr. Daniel Gray, a Music. prominent lumber merchant writes that his

## FORTY BILLION GERMS. Wonderful Theory that Concerns the Welfare, Happiness and Life of Everyone.

In his quiet and cosy library at the close of a busy day nat a gentleman and his wife, he absorbed in a new book and she in the newspaper. Quickly glancing toward her husband, she asked, at a certain point in the article.

"John, what is the germ theory?" "The germ theory—well—yes; just look in the encyclopedia under (Germ," shat will explain it so much better than I can."

Accordingly his wife opened the book at

the word named and read: Germ Theory of Disease-A theory advanced by the ablest and best investigators and scientists of the times. It supposes the surface of the earth, the air and water to be inhabited to a greater or less extent with a peculiar growth of the lowest form of fangi-commonly termed bacteria, whose power of reproduction, under favorable conditions, is so great that a single germ will increase to fifteen million in twenty-four hours time, and unchecked in its increase would grow to a mass of eight hundred tons, in three days' time, it space and food be furnished. There is no condition under which it can be said to be absent, unless it be from fire or air filtered through cotton-batting in numerous layers. A single drop of water containing a germ, put into water, boiled, filtered and thus freed from bacteria, will grow murky in a day or two from the development of new germs. When it is considered that it requires about forty billion to weigh one grain, some remote idea can be had of the capabity of germ reproduction. Professor John Tynds I, im a late work, elaborately treats of the influence of germs in the propagation of disease and charges upon this cause, the inception and development of very many of the ailments most injurious to man. Professor Pasteur, an eminent French savant, has car-

ried his original and beautiful experiments so far, and from them deduced such practical results as very greatly to diminish the number of cases of anthrax among sheep and chicken cholera among fowl,—proving his theory that these are essentially and actually germ diseases. These germs are carried into the system through the lungs, the stomach and possibly the skin, but through the lungs chiefly. Once in the system, they begin to develop, poisoning the blood, invading the nerve centres, disturbing the functional activity of the great organs of the body and inducing a general impairment of the vital processes. They are the cause of fevers, rheumatism, Bright's disease of the kidneys, preumonia, blood poisoning, liver disease, diphtheria and many other ail. ments. Lately Professor Koch, a famous German physician, has proved that consumption of the lungs is due to this cause the presence of a peculiar germ. When the circulation is bounding, the

nerves elastic and the system all aglow with

life and energy, the germs seem to develop poorly, if at all. But with weakened nerves, poor digestion or malassimilation of food or a lowering of vitality from any cause, a change ensues, and in this impoverished and weakened fluid the germ finds a genial home and develops until symptoms of disease are distinctly manifested. This is seen in the everyday experience of all. The healthy man resists the influences around him and does not take cold, while those whose systems have become weak from any cause readily contract colds. This is on the same principle as the germ theory. The germs attack any weakened spot in the body, and fixing themselves upon it, begin their propagation. It is plain therefore that it is only by fortifying the weak portions of the body that the germs of disease can be resisted and driven from the system. But this has proved almost an impossibility heretofore, and it has been the study of physicians for years how best to accomplish it. Within the past few years, however, a preparation has been attracting great attention, not only throughout the entire land, but among the medical profession and scientists generally, which is based upon this theory, and it may safely said, no remedy has ever been found which can so successfully place the system in a condition to resist the germs of disease as Warner's Safe Cure. This article is unquestionably the best and most efficient that has ever been discovered for this purpose,

"John, say, John! does the encyclopedia advertise Warner's Safe Gure?" "I should not wonder, dear, it's a grand

remedy, and that pamphlet we received the other day stated that Dr. Gunn, of the United States Medical College, endorsed it. At all events the wonderful cures it is accomplishing entitle it to be honorably noted among the great discoveries of the present century."

However the facts above stated may be. the truth remains, that the germ theory of disease is the correct one and that the great remedy mentioned is the only one which has ever been found that can put the system in a condition to kill these germs before they obtain a hold upon the body, and undermine

Canon Farrar has been a total abstainer from wine and spirits for six years, and John Bright has been for ten.

True merit brings its own reward, in the case of Burdock Blood Bitters it is rapidly bringing its reward in its increasing sales; as a prominent druggist recently said, "it now sells on its merits." It is the grand specific for diseases of Blood, Liver and Kidneys. 25,000 bottles have been sold, during the last three months. (34)

There is as much variety in millinery ornaments as there is in shapes and materials. There is no remedy known to medical science that is more positive in its effect, to cure Cholera Morbus, Colic, Diarrhosa, Dy-"No doubt you will be benefitted, Some sentery, Cholera Infantum, and all Bowel

> Wild Strawberry. (35) The baton used by Sir Michael Costs for years, and tipped with a coral effigy of Garibaldi, together with the manuscript scores of five operas and four ballets, has been given by him to the Naples College of

It is a fact that Dr. Fowler's Extract of wife had severe rheumatic pains; so severe as | Wild Strawberry has more well-carned testo render her unable to sleep. From the first | timonials of praise for its virtues in curing application of the famous Garman Remedy, Cholera, Colic, Cholera Infantum, Dysen-St. Jacobs O.l, she experienced unspeakable | tery, etc., than all other remedies of that relief, and in two hours the pain had entire- class combined. It will stand investiga-

Erindale, Credit P. O., Jan. 8th, 1883. MY DEAR SUTHERLAND : Some two months since I became so afflicted with Rheumatism of the neck and right shoulder as to render my right arm nearly powerless. I determined to try your "Rheumatine" and the result is that I am now free from pain, and enjoy the full use of my arm. My general health is also much improved by the use of the medicine. The first two bottles relieved me-the third bettle freed me from all pain! WM. MAGRATH

From MR. WILLIAM MAGRATE.

J. N. Sutherland, St. Catharines. Judge Black left by his will \$2,000 to his

grandson on condition that he should drop

the name of Jeremiah Sullivan and assume that of Henry Vantriess. C. S. Judson, Wallaceburg, says Dr. Fowler's Extract of Wild Strawberry, for Sammer Complaints is a splendid preparation, and I do not know of a single case in

which it has not given satisfaction, but on the contrary have had many testimonials to its efficacy. (32) Mr. Du Maurier so dislikes to be personal that if he finds he has a particular individual in mind while drawing, he immediately

makes a thorough sketch of that person, so as to be able to avoid a likeness in his subject. Age should always command respe nct. the case of Dr. Fowler's Extract of Wild

Strawberry it certainly does, for 25 years that has been the standard remedy with the people, for Cholera Morbus, Dysentery. Diarrhœa, Colic and all Bowel Complaints,

Gres without saying—the deaf and dum alphabet.

The use of Pills, Salts, Castor Oil, &c. and other nauseous, griping Cathactics is unnecessary, as a pleasant substitute is found in Dr. Carson's Bitters, which act as a Cathartic without griping or causing nausea. All druggists sell it. 50 cents a bottle.

The Queen has had telephone wires run from Balmoral to Abergeldie, the Scotch place of the Frince of Wales, and to adjacent places, and between Windsor Castle, Frogmore Garden, and the Farm.

Show is not substance, realities govern wise men and the numberless certificates of wise men show that the great petroleum Hair Renewer and Dressing Carboline is a stern reality.

"Tom Hughes, who, by-the-way, is now sixty years old, says that eventually everybody on the other will come over to America to make money, and everybody here will go over there to spend it.

The navy blue, seal brown, clive green and other rich dark colors of the Triangle Dyes ars as perfect as the bright shades. They never disappoint the user. 10 cents.

The Chinese Minister to France, Marquis Tseng, having seemed disinclined to treat with the French Ministers, believing them insincere, M. Ferry arranged with the English Earl Grenville to act for them.

THE MOST SALEABLE HORSE. -Mr. Joseph Lamb, one of Chicago's best known extensive horse dealers, in paying a tribute to the superiority of the grade Percheron-Norman horses, said: "Most of my trade is with lumbermen and in the city. I handle more Normans than of any other breed, because they are more salable and eagerly sought after, the only drawback to the business now being that I cannot get them fast euough. They are possessed of more endurance than other breeds, give good satisfaction, and wear well; have better feet, last better on our pavements, and are more easily acclimated than any other breed. It is very rarely you get a Norman horse with bad feet. They are good, cheerful walkers, and more attractive and finer looking, with better action, than the other large breeds." - Chicago Tribune. M. W. Dunham, Wayne, Ill., has imported from France and bred in their purity about 1,400 Percheron-Normans. and 390 of them within the past few months, particular attention being given to pedigree and French record.

Miss Booth, of the Salvation Army, was forbidden to hold services in Geneva. She violated the order twice in twenty-four hours, was arrested in each instance, and conducted by the police to the frontier of the santon. WHAT! LIMPING YET? Why should you go

limping around when Putnam's Painless Corn Extractor will remove your corns in a tew days. It will give almost instant relief and a guaranteed cure in the end. Be sure you get the genuine Putnam's Corn Extractor, made by Polson & Co., Kingston, for many substitutes are being offered, and it is always better to get the best. Safe, sure, painless. The Comte de Chambord's will began as

follows: "I die a good Christian and a Catholic. I feel no hatred for any one. forgive all those who have injured me, and I beg all those whom I have wronged in any way to pardon me. I pray Almighty God to save my soul." Mrs. J. McPhee, Appin, writes: - During

the last eight years I have used almost every medicine recommended for Biliousness, but found nothing equal to Carson's Bitters. If you suffer try it. Price 50 cents.

The ordinary restaurant waiter measures all his customers from tip to tip.

They all tell the same story. Mr. W. Thompson, Jeweller, Delhi, suffered for years from Dyspepsia, got no relief until he used Dr. Carson's Stomach Bitters. He s was just the medicine I needed. It h is cured me." A.P 147



THE GREAT GERMAN REMEDY Relieves and cures RHEUMATISM Neuralgla, Sciatica, Lumbago, BACKACHE, HEADACHE, TOOTHACHE, SORE THROAT, QUINSY, SWELLINGS, SPRAINS, 63 Screness, Cuts, Bruises, FROSTBITES, BURNS, SCALDS, And all other bodily aches

and pains. FIFTY CENTS A BOTTLE Sold by all Druggists and Dealers. Directions in 11 languages. The Charles A. Vegeler Co. Consessors to A. VOGELER & CO.)