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VOL. I.—NO. 2.

TORONTO, ONT., OCTOBER 30, 1880.

PRICE FIVE CENTS.

PROSPECTUS.

The CANADA LUMBERMAN is now introduced to its patrons, and so far has met with a favourable reception.

Before its publication a large number of lumber and timber merchants and mill owners in the Provinces of Ontario, Quebec, New Brunswick, and Nova Scotia, and manufacturers whose line is to supply machinery for mills, saws, axes, files, oil, bolting, sleighs, &c., were consulted in reference to the advisability of publishing such a journal.

Their opinion was that such a publication could be made highly useful to parties engaged in the various branches of trade above alluded to, as well as to those more directly interested in the mines and minerals of Canada.

Acting on their suggestions, THE CANADA LUMBERMAN has entered on this extensive and important field, with an adequate sense of the responsibility of the undertaking; and whilst craving leniency until fairly under way, we may repeat a portion of our introductory, viz: nothing shall be wanting on our part to make this journal a full and complete record of the lumber business, and all that relates to the trade in Canada. To this end the latest market reports, the contributions of trustworthy correspondents, trade circulars, etc., will be freely used, to give our readers the best, the earliest, and most reliable information that can be ascertained, concerning the important branch of business to which the journal will be especially devoted; while the mining, the milling, and the manufacturing interests will receive attention proportionate to their great claims on the public.

In short, it will be our endeavor to make THE LUMBERMAN worthy of its title in every respect; and, while giving special attention to the great staple industry to which it is devoted, it will also furnish a carefully selected amount of general reading that will make it a welcome visitor in every family.

Advertisers, especially those dealing in mill, mining, and lumbering supplies and machinery, will find THE LUMBERMAN a very favourable medium of reaching their customers, as it will circulate among those classes, and receive more attention from them than they have the time or inclination to bestow on a general newspaper.

The success of the LUMBERMAN must depend on the support it will receive from the classes above referred to; we trust, therefore, that they will overlook shortcomings at the commencement, and accord to the enterprise their generous and hearty support.

PRESERVE THE FORESTS.

The following is so applicable to the wooded portions of Canada that we consider it worthy of reproduction:—

"A great deal of interest is being manifested now-a-days in the preservation of the great forests of timber with which this country is overrun. The over-production of lumber each year is immense, and, if continued, will surely end in the disappearance entire of our forests. The question of how to prevent this misuse? is an important one and is worthy of much consideration. We certainly do not envy the position of the English people, as regards lumber, and before mill men and forest land owners leap they should think. We should have some proper safeguards for the preservation of timber and the question should always be considered, "How much lumber will be needed to supply the market this year?"

In some parts of the east there is no over-production, and oftentimes the supply of lumber is not large enough to meet the demand. At such times lumber dealers order many thousands of feet from the west, for they are aware of the fact that western mill-men do over-produce and are not so chary with their timber lands as they ought to be. There is one very good reason for this economy on the one side and wastefulness on the other. In the east the lumbermen have seen the forests of magnificent trees disappear; they have seen the mills shut down; they have seen the workmen leave for western parts. Hence it is that the second growth is being cut very sparingly, and what more is needed each year is sent from the western part of the country.

You all know what stringent laws are enforced in England and other European countries, relative to the consumption of timber lands and the felling of trees. And in the oriental countries many portions have become uninhabitable because of the disappearance of the forests, and are now given up to ruin and desolation. The great bulk of lumber, which goes into Europe, proceeds from North America. Canada furnishes large quantities to England and the English people much prefer to buy their timber from abroad than cut down the few remaining forest trees. On ships, which carry large loads of deals from this country to Liverpool, are all sorts of pieces many of which would seem utterly useless to the average Michigan mill owner, but uses enough are found for them in a country which can boast of no lumber production, and happy they are to get them.

At the twenty-ninth annual meeting of the "American Association for the Advancement of Science," which was held in Boston,

several days, beginning Aug. 25th, there was a striking and most excellent paper read on the importance of taking requisite steps to preserve and cultivate the woodlands of the country. The paper, or report, was accompanied by a draft of a memorial which invites the attention of state legislatures to the "great and increasing importance of providing, by adequate legislation, for the protection of the existing woodlands of the country" against "needless waste" and for the "encouragement of measures tending to a more economical use and proper maintenance of our timber supply." The report was to the effect that the forests of our country are being used and wasted to a much greater degree than their restoration by natural growth.

The committee recommended a law to protect trees planted along the highways, and to encourage such plantings by deductions from highway taxes; also the passage of a law which shall exempt from taxation the increased value of land arising from the planting of their trees where none were previously growing, for such a period as may seem proper, or until something shall have been realized from the plantation. This law may be enforced they think, by "appropriations of money to agricultural and horticultural societies, to be applied as premiums for their planting and for prizes for the best essays and reports upon subjects of practical forest culture, by encouraging educational institutions to introduce courses of instruction having reference to practical silviculture; by laws tending to prevent forest fires; by imposing penalties against wilful or careless lighting of such fires, and enlarging and defining the powers of local officers in calling for assistance and in adopting measures for suppressing them; by establishing under favourable circumstances model plantations, and by the appointment of a commission of forestry under state authority analogous to the commission of fisheries."

The action of the association on this subject is timely and sensible and it is to be hoped that the appeal will reach the eyes and ears of the legislators in this country. If there was a limit to the number of trees felled each year, there would be no over-production. As it is, a flooded market weakens prices and a light market strengthens them. Look at the subject from every point of view: it thus wastes; goes on the extinction of timber will not only be the outcome, but it may work the ruin of the town or city in which you live. We hardly think that this extinction will come so soon as anticipated by many, but, at the same time, we feel it to be the duty of every man, to do whatever is in his power for the good of this country. Let your aim be to produce just as much as can be disposed of at a fair price and there can then be no such thing as fluctuation, and the end of the production will be postponed indefinitely.

It is quite safe to predict that many years will not elapse before the legislatures of the several states will pass laws limiting the timber cut to a certain number of thousand feet, by each mill, per year. It cannot be

otherwise. The newspapers are beginning to look into the matter, the wisest men of the country are beginning to investigate the subject and soon the mill men will see the folly of their ways. This is an age of progression.

SHADE TREES.

Our farmers make a great mistake when they neglect to plant young trees along the roads and their fences; and when they indiscriminately and ruthlessly cut down all the trees on the homestead. It is true that in clearing land, it is sometimes difficult to save any portion from the fire; yet groves should be planted in corners of fields, and fences, and roadsides should not be neglected. The Association of Agriculture and Arts granted a gold medal, this year for the best kept farm, to J. P. Carpenter of Townsend, in the County of Norfolk. The judges were so much pleased with the wooded portion of the farm which had been preserved, that they noticed it specially in their report as follows:

"Towards the back part it becomes undulating and gradually rising, finishes up with a magnificent piece of woods at the farm. This wood of twenty acres is beautifully kept and park-like, and forms a very attractive feature, running along a good part of the back of the farm, where the land rises to the highest point. It forms a background and a finish to what no doubt is one of the finest farms in Ontario. And fortunate it is that this property did not fall into the hands of some Vandal, who, by this time, might have had this, as well as the other two pieces of wood, which are equally beautiful, converted into so many barrels of potash, and thereby have destroyed what would require the cost of two or three generations to replace it."

WHITBY.

Last Wednesday the schooners Bentley with 500,000 feet, Adrianna with 150,000 feet, and Pakoly, with 140,000 feet of lumber on board, sailed from Whitby harbour, for Oswego, making the largest shipment of deals from that point, on any given day, within the recollection of the oldest inhabitant. The lumber belonged to Messrs. Bigelow & Tronnce, Port Perry.

A lumber arm of Carleton Place is said to have paid \$14,000 to the Canada Central railway for freight on lumber during the past four months.

Shipping at Montreal is going on with all possible speed. Piles of lumber are rapidly diminishing. It is expected that the present stock of lumber will be all cleaned out within the next two weeks.

A REALLY GOOD CASE.

A LEGEND OF ST. MICHAEL'S HOSPITAL.

Every one knows that St. Michael's, as we shall take the liberty of calling it, is the largest and most celebrated of the London hospitals. It is situated quite in the heart of the city; and is about equidistant from London Bridge, Westminster, Gower Street, Smithfield, and Whitechapel. I was student there, and there the happiest days of my life were passed. And now to my story.

A large number of the students had gone down for the short Christmas vacation, and I should have gone also, but was just then "dressed" to Carver Smith, and could not leave town; moreover, it was my week of residence. I must beg you to remember, what is perhaps but little understood by the general public, that a large part of the watching and care, and a certain proportion also of the treatment of hospital patients, devolve upon assistants selected from the senior students. Some of the less important appointments, such as the "dressing-ships," are held by every student in turn; but the more responsible offices, some of which require twelve months' residence in the hospital, can only be gained by a few men each year; and for these appointments, which are esteemed positions of great trust and honour, and which are exceedingly valuable as stepping-stones to professional success, there is very keen competition. On the surgical side of the hospital, each of the four visiting surgeons had a resident house-surgeon; and to be Sir Carver Smith's "H.S." was one of the highest ambitions of a "St. Mike," for Sir Carver was at that time one of the leading English surgeons.

A man named George Adams held the post at this time; and as he is the hero of my story, so far as I have a hero, I will just say a word about him. He was one of those men that we occasionally meet with, who seem to stand head and shoulders above their fellows—very quiet and reserved, and when he chose, quite inscrutable. No one knew where he came from. But his very great ability, his calmness in all emergencies—I never saw him discomposed except once—his mature judgment, and his great kindness, won him the respect alike of the students, the nursing staff, and the surgeons. Under him were four dressers, junior men, who assisted in the hospital under his direction. I was one of them. Each week, one of us in turn resided in the hospital; and as I said, Christmas week fell to my turn, and that is how I came to spend Christmas in St. Michael's. I ought to add that there were four assistant-surgeons to the hospital; but their care was over the out-patient department, and it was only in the absence of the visiting surgeons that they had any duty in the wards.

Well, it was Christmas night, and our work for the day was done, except, some late visits to the wards by-and-by; and of course any casualities that might turn up. But Christmas day is usually slack in that respect. It is medical rather than surgical casualities that Christmas day produces. We had got up in honour of the day a little entertainment in an empty ward, for any of the hospital inmates who cared to attend and were able to do so.

We had a famous little programme. One or two of our residents could play and sing well; another had a curious facility in whistling to the piano; another was an amateur ventriloquist and prestidigitator; and I fancy there were also some recitations and tableaux to come off. Also, there was one of the patients, an old sailor, who could sing in a grand rich stentorian, baritone and bring down the house. Our chairman—Adams, of course—had just begun, and was delivering himself in a semi-serious way of some very eloquent remarks, amidst great applause—for nothing pleases the lower classes better than a few oratorical flourishes—when "tinkle, tinkle, tinkle, tinkle" went a small high-pitched imperious bell. It was the accident-bell!

Oh, ye lay mortals, ye little know how the social and domestic joy of a medical man ari at the mercy of a bell! We invite our friends to tea, we welcome them, and anticipate a pleasant evening, and there goes the bell! We come home tired and wet, change boots for slippers, and get comfortable by the fireside, and—there goes the bell! We turn into bed on a cold night, and just get warm and snug when—there goes the bell! My bell-experience began that night at St. Michael's, and I shall not soon forget it.

It was Sir Carver's "taking in week;" and his assistants had to attend to the acci-

dents. Adams nodded to me; and off I went to investigate, knowing it might be anything from a cut finger to a railway smash. I found a scene of considerable excitement in the accident-room. Two policemen, aided by a crossing-sweeper and a cabman, had just brought in a patient, and some other spectators had pushed their way in out of curiosity.

"Just happened outside, sir; knocked down by a runaway cab, sir."

"Lost a lot of blood; 'fraid it's a bad case, sir." Thus the policemen.

"Ask Mr. Adams to come down at once; clear the room," I said.

It was a young fair-haired girl of eighteen or nineteen, perfectly pale, unconscious, and almost pulseless. A strange contrast to her rough, swarthy, weather-beaten bearers. A deep wound in the neck was bleeding profusely; but on tearing open the dress, I found I could stop the hemorrhage almost entirely with my finger.

Adams was there immediately; in a minute he knew all about it, and had settled his course of action. Quietly he said: "Send for Sir Carver. Take her to the operating-room at once. Ask the other men to come." And then to me: "Keep up steady pressure, and don't take your finger away for an instant."

Nothing could be found out concerning her. No one was with her when she was struck down. She was very tastefully, though not expensively dressed. Her features were exceedingly regular and pretty, and when the colour was in her face she must have possessed a very considerable share of good looks. Nothing but a purse and a handkerchief were found in her pocket. The former was well filled, and the latter was marked "E. Stead." Adams said at once that she was a lady.

I do not know whether it ever happened before at St. Michael's that on the occurrence of a sudden emergency, no one of the surgical staff was at hand. Strange to say, it happened so to-night. Sir Carver Smith and three of the assistant-surgeons lived close to the hospital; but in five minutes the messenger returned with the news that Sir Carver had been called to some aristocratic celebrity at the West End, who had met with an accident, and had taken one of the assistant-surgeons with him. The second was out of town; and the third, who had been left to act in emergencies, had been taken suddenly ill.

We had been discussing the case, and offering advice upon it with all that calm assurance which characterizes embryo surgeons. But matters now became serious. Half an hour would suffice to summon one of the other surgeons; but it was plain that something must be done at once. We all looked at Adams, who had said very little hitherto, but had gone on making everything ready. He simply said: "Begin to give chloroform; I am going to operate."

"What are you going to do?" we asked.

He told us; but I will not inflict any details upon my readers, but will simply say that the sharp end of a broken shaft had made a narrow deep gash in the root of the neck, and had wounded a large artery. The operation contemplated, afforded almost the only chance of life; and to delay it any longer would, Adams said, be throwing that chance away. It was an operation of the highest difficulty and danger under the present condition of the parts; and could its performance have been anticipated, the theatre would have been crowded with spectators from all the hospitals in London. And here was a young surgeon of twenty-five, called on at a few minutes' notice, to undertake what many a long experienced surgeon might hesitate to attempt; for it was impossible to perform it without much additional loss of blood; and it was not at all improbable that the patient might not survive the operation, to say nothing of after-dangers.

Adams carefully explained to the other house-surgeons what assistance they would have to give him; and when the patient was ready, commenced at once. Perfect silence reigned, broken only at intervals by a word from the operator; but indeed he had little need to speak, for we were well drilled at St. Michael's, and everything he needed was put into his hand almost before he asked for it. I think I can still see that quiet eager group of young men under the brilliant gas-light, standing around the pallid, slumbering, unconscious girl; and in the centre the young surgeon, cool, collected, with steady hand, without hurry, without hesitation, doing his work. I have witnessed many of the most brilliant operators in England, and of course have seen Adams himself many times in that operating-room in later years;

but I think I never saw that night's operation surpassed either by himself or by any one else. A special demand sometimes calls for special powers, and acts almost like an inspiration; and so it seemed now.

In a short time it was done, and successfully done; and the patient was carried away to a quiet ward, where she was duly cared for by the nurse in charge, Adams, and Sir Carver Smith, who came later on. I think Adams stayed up all night.

Our miscellaneous entertainment did not come off; but we scarcely regretted the change of programme. In a place where accidents are hourly, and operations daily occurrences, one more or less seldom creates much excitement; and when I go on to say that this case excited more interest among residents and non-residents than almost any other case I ever saw in the hospital, I wish you clearly to understand that this fact was due entirely to the extreme professional interest of the case, and the great enthusiasm of St. Michael's men for the study of surgery. At the same time I may state, although not particularly bearing on the question, that the patient was an uncommonly pretty girl; and day after day passed by without any light being shed on the question as to who she was and whence she came—circumstances quite sufficient to excite in a mind not preoccupied with such matters as burden the intellect of the average medical student, the liveliest interest and curiosity.

After the operation, she was at first too ill to be interrogated; and when she got a little better, she declined to give any information; at any rate none could be obtained from her. Perhaps she was a little "queer" with feverish or hysterical excitement.

At the expiry of two days I went in to help with the dressing. She was very grateful for everything done for her, and bore her pain very well. For a long time she was in a very critical state. As the euphonious phrase of the young profession went, "She had a very close shave for it." At the end of three weeks however, she was in fairly smooth-water; and for the first time some of the clinical class went in with Sir Carver to see the case. He had hitherto said nothing on the subject of the operation. He was a man of few words; but one word of praise or blame from him was never forgotten by any of us. Turning to us from the patient, he said: "This, gentlemen, is a case of so-and-so;" and he briefly explained it. Then he added: "Nothing but the most exceptional circumstances could justify a house-surgeon in this hospital in undertaking an operation of such importance. In this case, those exceptional circumstances existed. The operation is one of great difficulty and rarity. I have once, many years ago, performed it myself, and the patient died. Had my patient recovered, such a recovery would then, I believe, have been without precedent. But the gratification to myself of having performed the first successful operation, would not have been greater than is my gratification now at having under my care a case which will, I believe, recover, and whose recovery will be due without doubt to the prompt and skilful action of a St. Michael's student, my own house-surgeon, Mr. Adams."

"Strong for Carvy, and good for Adams," was the general comment. Adams pretended to be writing notes; but there was not one of us who would not readily have suffered "ploughing" in our "final college" to gain such a word from Carver Smith.

Yes; she recovered rapidly; and prettier and prettier she grew as she got better. She talked very little, and said nothing at all to help her identification. Inquiry was fruitless, even though the case got into the newspapers. The interest among the students increased daily. It was reported that she was an heiress who had quarrelled with her guardian; that Adams was madly in love with her; that she was waiting for him to propose, and then would marry off-hand; that Adams knew all about her, but kept it snug. And the men got to chaffing him in a mild sort of way, wanting to know the "state of the heart" and the chances of "union by first intention." But Adams was impenetrable. Personally, I am inclined to think that whatever the condition of his patient's heart might be, he was a little affected in that region. She was evidently very fond of him, and liked no one but him to dress the wound. Still the mystery increased.

At last one afternoon I was sitting in Adam's room in a leisure interval, when a lady's card was brought in. It had a deep black border, and bore the inscription: MRS. STEAD, The Cedars. She wished to see Mr. Adams. Immediately afterwards, the lady was shown in. Adams motioned

me to stay. She was a fine, tall woman of fifty, dressed in deep mourning, with hair just turning gray, a firm mouth, soft keen gray eyes, and a face combining intellect and kindness.

"Have I the pleasure of speaking to Mr. Adams?" she said.

He bowed.

She then produced a paper which gave an account of our famous case and of the part Adams had played in it.

"May I inquire whether this patient is still in the hospital? Can I see her?"

"Yes; certainly. Would the lady be able to identify her? Would it not be better for the patient to see the card first, to avoid sudden excitement; that is, if the lady's visit were likely to cause excitement?"

"Perhaps it would be better to take up the card, and say that Mrs. Stead desired to see her."

Wonderfully calm and self-possessed the lady seemed to us; and yet she could not entirely suppress some signs of emotion or excitement. She said that illness in her family had prevented her from seeing the papers for some time, or she would probably have been here before.

I took the card up and showed it to the patient. She turned very pale, then buried her face in her pillow and burst into tears.

"Shall the lady come up?" I said.

I thought she sobbed out "Yes."

The visitor came up. Slowly and calmly she walked up the ward. The news had somehow got about, and several of the men found that they had business in that part of the hospital just then. The lady stood by the bed, and said softly:

"Elizabeth!"

The girl looked up, and their eyes met. One glance at the face was enough.

"Yes," said the lady; "I can identify her."

"It is your daughter?" asked Adams.

"It is my cook," said the lady—"Elizabeth Saunders."

I think I said that I only once saw Adams considerably discomposed, and that was on the present occasion,

"I—I—thought her name was Stead," he said, and his eyes rested on a pocket-handkerchief lying on the pillow. The lady's eyes followed his, and a slight smile played on her features.

Yes; it was even so. The acute scientific observer, the far-sighted young surgeon, famed for his diagnostic acumen, had seen through this case, but had not seen through his patient. It turned out that the girl, being remarkably good-looking, and having acquired, from a previous situation in a nobleman's family, a very correct way of speaking and some very ladyish manners, and frequenting places of public amusement, where she usually attracted a good deal of attention. Her mistress having been called away from home to nurse a sick relative, had allowed her servant to go, as she thought, to visit her parents in the country; but the girl, having her wages in her pocket, had preferred to remain with an acquaintance in London, where she enjoyed her Christmas holidays very much to her own satisfaction, until her accident put a stop to her manoeuvres, or rather changed her field of action. Finding, as she recovered, that she was being addressed as "Miss Stead," and that she was the object of much interest and attention, it seems to me—judging by what experience of human nature on its female side I have since acquired—not very remarkable that she preferred to keep up the delusion; golden silence being her main line of tactics. And, fair readers, do you think it very contrary to your experience of human nature on its male side, that an otherwise exceedingly acute young man should be the subject of a delusion of this particular kind?

The lady spoke very kindly to the girl; and guessing, I fancy, how matters stood, said some very graceful things to Adams. Subsequently, you will perhaps be glad to hear, she proved a very kind friend to him, and her influence was of no small assistance to him in his future professional advancement. She became, in fact, quite a mother to him, though not a mother-in-law.

I really do not know what befel the girl, except that, at her own desire, the lady obtained for her "a situation in the country, out of the way of temptation;" and that she proved to be a faithful servant.

I am sorry to have to state that public interest in this case at St. Michael's somewhat rapidly declined after Mrs. Stead's visit; perhaps because, as the *Lancet* said, the interesting symptoms had all disappeared. But I said then, say now, and always will say, that it was, from all points of view, "A Really Good Case."

WOMAN GOSSIP.

A Bridal Greeting.

On thy bridal morning
Skies are blue and bright;
With how sweet an aspect
Day has followed night!
O! thou gentle maiden,
With the amber hair,
Be thy future bright and pleasant
As this morn is fair.

Fashion Notes.

BUTTONS are more wildly extravagant than ever.

BOTH square and round trains are worn in evening toilet.

FANCY feathers show the influence of the craze for plaided effects.

SOME very small bonnets appear among late novelties in millinery.

THE "Abbo" is the new hat worn by ladies returned from abroad.

A TRIMMING much in vogue is black net embroidered with jet beads.

DRAP tucks on dresses are a recent revival of a fashion of ye olden time.

FRENCH modistes add flowers as accessories to all but the simplest dresses.

PLUSH roses form the favourite garnitures of many lovely evening dresses.

IRISH point and church lace form the most fashionable mull neck scarfs.

BLACK dresses still hold their own and are as elegant and fashionable as ever.

AFTER the rage for big bonnets has subsided, the medium sizes will probably be most worn.

BONNETS, muffs and costumes match when worn by the most fastidiously fashionable women.

JET or coloured crystal beads enrich all the richest trimmings and embroideries on dressy costumes.

Waifs.

A GOOD soldier is an easy catch. He is always ready for an engagement.

THE spots on the sun do not begin to create the disturbance produced by the freckles on the daughter.

WHEN a man and a woman are made one, the question "Which one?" is a bothersome one until it is settled, as it soon is.

A LADY assistant in a glove shop was almost mad when a fellow asked her if she had any nice dark coloured kids.

WHEN does a budding young damsel burst into fruit?—When she becomes the apple of somebody's eye.

SOME crusty, rusty, fusty, musty, dusty, gusty curmudgeon of a man gave the following toast at a celebration:—"Our fire-engines—may they be like our old maids ever ready, but never wanted!"

"I CAN'T go to Europe," a lady is reported to have said; "I am reading forty-five continued stories, and my limited means would not let me pay the postage."

WHEN old Mrs. Pinaphor heard that a certain young lady had "gone to Europe to catch a husband," she innocently observed: "Why, is there no one in this country who will have the girl?"

THE faculty of an Ohio female seminary has issued orders that no pupil shall have more than one male visitor per week. The smart girls invite their young men to call on Sunday, so that when their fathers come on Monday the old men find themselves barred out.

A YOUNG man with an umbrella overtook an unprotected lady acquaintance in a rain-storm, and, extending his umbrella over her, requested the pleasure of acting as her rainbow. "Oh!" exclaimed the young lady, taking his arm, "you wish me to be your rain-dear." Two souls with but a single umbrella, two forms that stepped as one.

Poetry of the Table.

More appetizing than all patent tonics is a perfectly arranged table, sparkling with cleanliness. So let us be a little extravagant in our fresh tablecloths, when soap, water, and a little labour are all we have had to pay. And now we must decide, shall we have the best china and dr with some stone-ware for every day? Or shall we pay ourselves the respect usually reserved for company? Clearly, we are the persons to whom it is of the most importance shall we sit down to odd plates and cracked saucers six

days, that we may enjoy gilded china on the seventh? By no means. We will have plain white French china, which can always be matched when broken, and we will sit down to it every day. In the same way we will bring out the plated knives and silver forks, and partake of our food with a sense of our own deserts. We shall feel increased respect for ourselves, also, with napkins and butter plates; so those we will have.

A Girl Monk.

Matrona Ivanovna, a Russian peasant girl of two-and-twenty, has recently acquired considerable notoriety in her native land, says *The London Telegraph*, through the fact that, under the monastic designation of "Father Michael," she succeeded in passing several months in the cloister of Staraja Ladoga, without incurring the least suspicion on the part of her fellow monks that she was other than she seemed to be. Forced by her father to marry a person whom she detested, she disappeared from her home on the day succeeding her wedding, and, upon search being made, her clothes and two long plaits of her "back hair" were found near the Wolhoff river, as well as a letter in her handwriting, stating that, rather than live with her husband, she had resolved to drown herself. Her relatives, believing that she had really committed suicide, forbore any further inquiry, and mourned for her as one dead. She, however, dressed in man's clothing, applied last March for admission to the above-named monastery, and was duly received into the confraternity on probation, taking the minor vows, and officiating as coachman to the prior. There is no knowing to what oeclesiastical dignities she might not in time have risen, had not unkind fortune decreed that a native of her own village should have been sent to Straja Ladoga by his master for correction at the hands of the brethren, his offense being inveterate drunkenness. Promptly recognized and denounced by this indiscreet toper as Matrona Ivanovna, a friend of his youth, "Father Michael" was handed over to the police authorities by the indignant monks, and is now awaiting trial for impoison upon a religious community—a crime likely to be visited with severe punishment in so priest-ridden a country as Russia.

Small Feet.

An American missionary, Miss Norwood, of Swatow, has lately described how the size of the foot is reduced in Chinese women. The binding of the feet is not begun till the child has learned to walk and do various things. The bandages are specially manufactured, and are about two inches wide and two yards long for the first year, and five yards long for subsequent years. The end of the strip is laid on the inside of the foot at the instep, then carried over the toes, under the foot, and round the heel, the toes being thus drawn toward and over the sole, while a bulge is produced on the instep, and a deep indentation in the sole. The indentation, it is considered, should measure about an inch and a half from the part of the foot that rests on the ground up to the instep. Successive layers of bandages are put on till the strip is all used, and the end is then sewn tightly to the ground. Large quantities of powdered alum are used to prevent ulceration, and lessen the offensive odour. After a month the foot is put in hot water to soak some time; then the bandage is carefully unwound, much dead cuticle coming off with it. Ulcers and other sores are often found on the foot. Frequently, too, a large piece of flesh sloughs off the sole, and one or two toes may even drop off, in which case the woman feels afterward repaid by having smaller and more delicate feet. Each time the bandage is taken off the feet are kneaded, to make the joints more flexible, and are then bound up again as quickly as possible with a fresh bandage, which is drawn up more tightly. During the first year the pain is so intense that the victim can do nothing, and for about two years the foot aches continually, and is the seat of a pain which is like the pricking of sharp needles. With continued rigorous binding, the foot in two years becomes dead, and ceases to ache, and the whole leg, from the knee downward, becomes shrunk, so as to be little more than skin and bone. When once formed, the "golden hly," as the Chinese lady calls her delicate little foot, can never recover its original shape.

How a Married Woman Goes to Sleep

There is an article going the rounds entitled "How Girls Go to Sleep." The manner in which they go to sleep, according to

the article, can't hold a candle to the way a married woman goes to sleep. Instead of thinking what she would have attended to before going to bed, she thinks of it afterward. While she is revolving these matters in her mind, and while snugly tucked up in bed, the old man is scratching his legs in front of the fire, and wondering how he will pay the next month's rent. Suddenly she says:

"James, did you look the door?"

"Which door?" says Jim.

"The collar door," she says.

"No," says James.

"Well, you had better go down and lock it, for I heard some person in the back-yard last night."

Accordingly Jim paddles down stairs and locks the door. About the time James returns and is going to get into bed, she remarks:

"Did you shut the stair door?"

"No," said James.

"Well, if it isn't shut the cat will get up into the bedroom."

"Let her come up, then," says James, ill-naturally.

"My goodness, no," returned the wife. "She'd suck the baby's breath."

Then James paddles down stairs again, and steps on a tack and closes the stair door, and curses the cat and returns to the bedroom. Just as he begins to climb into his couch his wife observes:

"I forgot to bring up some water. Suppose you bring up some in the big tin."

And so James with amuttered curse goes down into the dark kitchen and falls over a chair, and rakes all the tinware off the wall in search of the "big" tin, and then jerks the stair door open and howls:

"Where the deuce are the matches?"

She gives him minute instructions where to find the matches, and adds that she would rather go and get the water herself than have the neighbourhood raised about it. After which James finds the matches, procures the water, comes up stairs, and prepares himself to retire. Before accomplishing this feat the wife suddenly remembers that she forgot to chain the dog. A trip to the kennel follows, and he once more jumps into bed.

Presently his wife says:

"James, let's have an understanding about money matters. Now next week, I've got to pay—"

"I don't know what you'll have to pay, and I don't care," shouts James, as he lurches around and jams his face against the wall; "all I want now is sleep."

"That's all very well for you," snaps his wife, as she pulls the covers viciously, "you never think of the worry and trouble I have."

A Mixed Telephone.

The telephone, the wonderful offspring of Edison's great mind, is an instrument which is now looked upon as indispensable to the world's good, but it, like a great many other things, will sometimes get out of humor and act in a very crooked manner.

Mr. Charles Augustus Fitzmont is an enterprising but bashful young clerk, whose place of business is on King street, and he is most warmly attached to a fair maiden who lives in an up-town residence with a telephone in it. Oft the telephone has been used as a medium through which he has breathed words of heart-pounding love in the ears of the one he so fondly worshipped, and never did he know it to fail in the performance of its duty until yesterday, when it caused him to moan—yes, to tremble like an aspen leaf, and smite one knee against the center.

At the time mentioned Charles had not seen his affinity for over forty-eight hours, and he determined to inform her of whom he was fondly dreaming that he would be up to the house that night and sit out on the front porch with her and sigh at the moon. Seeking the telephone while no one was in the office, he said:

"Is Miss Minnie at home?"

"Yes."

"Tell her to step to the 'phone, please."

"Is that you, Charlie?" inquired a cooing voice skimming along the wire.

"Yes, dearest, it is your own Charles."

"Oh, Charles, what made you stay away so long? You must come up to-night because—"

"The baby was born an hour ago."

"Wh-at baby?"

"Your own baby."

"My baby!" shrieked the young woman, "why, I'm—I'm surprised that you—you would say such a thing. I—I didn't expect it—"

"Neither did I; I just heard it a moment ago."

"You don't believe this—this fearful report? Stay—stay you don't. You know I haven't got a baby. I never did have a baby in my life," howled the young woman in a frenzy.

"Ha! ha! old fellow, you feel so proud and happy that you have to indulge in a joke, do you? Allow me to congratulate you. It's a boy, and weighs twelve pounds. Good-bye."

"Miss Bunter—I say, Miss Bunter—"

"Oh, Charlie! what is the matter?"

"Matter enough. I want to know the man's name who told you that scandalous falsehood. I'll have his gore before sunrise. I'll follow him over sixteen different states to kill him. I'll crush him. I'll mutilate him. Tell me, was it that squint-eyed Bangs who brought that horrible lie to your ears?"

"What lie, Charlie? What do you mean?"

"I want to know who told you what—that I had a baby born to me an hour ago that weighed twelve pounds. Who is the villain?"

A piercing shriek was the only reply that came over the wire, and then Charles realized for the first time that there was some dreadful mistake, that the telephone had become mixed, and he fainted.

Trouble Brewing in Norway.

THE KING ACCUSES THE STORTHING OF EXCEEDING ITS CONSTITUTIONAL POWERS.

(From the Paris *France*.)

Not long ago I wrote to you about the constitutional conflict between the Storting and the Crown on the subject of the attendance of Ministers at the debates in the National Legislature. This conflict is not the only one. A second has arisen which seems likely to reach irritating proportions. At the close of the recent session, several projects for the reorganization of the army, which had been referred to Military Commission, were still incomplete. At one of its last sittings, that of June 10, the Storting authorized the Commission to sit after the adjournment, and until the beginning of the next session.

Upon the advice of the Norwegian Ministers, the King refused, on August 18, to sanction this action, declaring that it was impossible for him to acquiesce in the introduction of a practice by virtue of which the Storting could empower a certain number of its members to sit and deliberate in the intervals of the sessions under the name of a committee. The royal decree sets forth that, "in naming a Parliamentary Commission of this nature, the Storting committed a trespass upon the domain of the Executive, and usurped administrative functions not belonging to it. Furthermore, in authorizing one of its committees to work outside of the sessions, it exceeded its powers in another way, notably by extending the duration of its sessions beyond the term fixed by the Constitution; that is to say, beyond two months." Moreover, "a commission constituted as this one is [three military men, two of whom are very advanced members of the Opposition] does not offer the necessary guarantee that the projects, several of which have not even been examined by the Government, will be subjected to a sufficiently intelligent and impartial study."

It was this last consideration, evidently, that decided the King, for he immediately proposed a royal commission, to be composed of the three members of the Parliamentary Committee and three new and competent members to be named by the Crown. It is clear that this proposition will have to be ratified by the Storting, which must decide whether or not to permit its members to sit on this new Commission. At this moment it is announced that the President of the Military Commission, has called a meeting of the latter. Naturally this step is represented by the Ministerial press as a grave insult to the sovereign.

BISHOP ELIGIO COSTI, at Chang-Tong, in China, has invented an alphabet of 33 letters, by means of which all the sounds of the Chinese language can, it is said, be represented. The Emperor of Austria has been so well pleased with the invention that he has presented the Bishop with a complete typographical apparatus, so that the new alphabet may be employed in printing. The characters used by the Chinese number 30,000.

QUEBEC.

Since the opening of navigation over eight hundred vessels have entered at the Custom House.

The market continues firm. Last week's transactions were—Liverpool, all timber, 25s. Greenock, timber, 25s. and 26s. Plymouth, timber, 25s. Limerick, timber, 23s., deals, 70s. London, deals, 65s., nominal.

Steamship freights—Liverpool—a parcel of deals, 60s.

The Morning Chronicle reports that in timber, deals and staves, the market continues firm. There have been few transactions during the week. Some small parcels, for immediate shipment, have changed hands. A quantity of elm of 45 feet average, was sold at 23 cents per foot.

Deals—Few sales have taken place during the week, and both pine and spruce are in demand.

Staves—Are scarce. A parcel of pipe was sold at something above £80.

The sale of Crown Land timber limits, which took place on the 16th inst., realized about \$280,000. All the lots offered, except a few in the lower St. Lawrence, were sold at an advance in the upset price. There was brisk competition for the berths on the Upper Ottawa, Block A. The attendance was large.

Among those present were Hon. Senator Skedd, Messrs. Jas. G. Ross, (President of the Quebec Bank,) J. Gouin, James McLaron (President of the Ottawa Bank), James Poupore, M. P., Moore, McLaughlin, Thistle, Thomas Smith, W. C. Edwards, David Moore, King Church, E. Fitch, J. Bowen, W. Brodie, Col. Forsyth, Smith Lynch, Campbell, Edwards, Fitzpatrick, Ward Higginson, Henderson. The Assistant Commissioner, Mr. Tache, announced the particulars and conditions of the sale, when Mr. Lemoine proceeded to roll the different lots by auction. The limits which brought the highest prices are those in the Ottawa District.

In the first range, Upper Ottawa Agency, limit No. 4, 3 1/2 miles, was sold to E. Fitch for \$260, the upset price \$75; No. 5, 6 1/2 miles, was sold to James Conolly for \$240, upset price \$100; No. 6, 3 1/2 miles, was sold to W. C. Edwards for \$220, upset price \$100; No. 7, 1 1/2 miles, was sold to Mr. Lynch for \$236, upset price \$100; No. 8, 1 1/2 miles, was sold to Mr. Lynch for \$190, upset price \$100; No. 9, 2 1/2 miles, was sold to Mr. Lynch for \$165, upset price \$75; No. 10, 4 1/2 miles, was sold to Mr. Fitzpatrick for \$85, upset price \$75; No. 11, 4 1/2 miles, sold to Mr. Fitzpatrick for \$92, upset price \$50; No. 12, 3 1/2 miles, sold to Mr. Lynch for \$79, upset price \$50. In the second range Mr. Fitzpatrick purchased limit No. 4, 40 square miles, for \$80, upset price \$75; No. 2, to Mr. Ward, at \$325, upset price 75; No. 3, to Mr. Ward at \$345, upset price \$60; No. 4, to Mr. Moore, for \$310, upset price \$100; No. 5, to Mr. Edwards, for \$300, upset price \$100; No. 6, limit was bought by Mr. Fitzpatrick for \$290, upset price \$100; No. 7, limit by Mr. Jas. Conolly for \$190, upset price \$100; No. 8, by Mr. Thistle, for \$86, upset price \$75; No. 9, by Mr. Moore, for \$80, upset price \$75; No. 10, 11, and 12 limits were sold to Mr. Campbell, for the upset price of \$60, \$60, and \$50. The whole of the limits in the third range, Block A, were sold as follows:—No. 1, to Mr. Thistle for 100, being the upset price; No. 2, to Mr. Campbell for \$80, upset price \$75; No. 3, to Mr. James Conolly for \$100, upset price \$60; No. 4, to the same, for \$105, upset price \$75. The other numbers—5, 6, 7, 8, 9, 10, 11, and 12 were sold to Mr. Campbell at prices which were fully 20 per cent in advance of the upset price. The limit in Litchfield of six miles was sold to Mr. W. C. Edwards for \$115, upset price \$100. In the Lower Ottawa Agency Letter A was sold to Mr. Henderson for \$105, upset price \$30; Letter B to Mr. Higginson for \$55, upset price \$50. The other lots were principally to the Montigny, Rimouski, Granville, and Saguenay agencies, and brought somewhat lower prices.

SUPERVISOR OF CULLEN'S OFFICE.

Comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to date:—

	1878.	1879.	1880.
Waney White Pine	1,816,640	1,444,000	2,099,454
White Pine	7,917,768	2,607,729	3,878,612
Red Pine	1,359,768	741,499	1,017,000
Oak	1,610,223	828,407	1,639,141
Elm	177,683	318,074	932,784
Ash	36,607	47,101	237,142
Basewood	923	280	303
Butternut	39	70	646
Tamarac	29,306	9,991	30,803
Birch and Maple	189,416	121,224	676,464
Masts and Bowsprits	93 pcs	60 pcs	4 pcs
Spars	42 pcs	20 pcs	23 pcs
Std Staves	299 3 1/8	171 5 3/7	620 2 1/4
W 1 Staves	664 1 3/9	169 2 2/20	417 5 3/10
Brl. Staves			

WM. QUINN,
Supervisor.

Quebec, 22nd Oct., 1880.

NEW BRUNSWICK ITEMS.

Our St. John's correspondent supplies the following statement of operations on the St. John River and tributaries:

Mr. A. F. Randolph is estimated to take out this winter about 20 million. The principal operators for him are, W. F. F. ; 5 million; Coulter & Hagorman, 2; G. J. Baird, 4; Beringe Bros., 2; E. Brooks, 1; C. Clayton, 1; Grantham Hopkins, 1; Harroy Lawrence, 1/2 million. The balance will be obtained in smaller lots.

Mr. W. H. Murray, 27 millions. Mr. Robt. Connors will take out for him 13 million, F. Moore, 5, J. McKoon, 2; W. H. Culliffe, 4.

Messrs. Miller & Woodman, 17 million. The principal operators for this firm are, James Hays, 8 million; Hammond & Watson, 1, and J. Yerxa, 2 million.

Mr. Alex. Barnhill, 3 million, by Mr. West.

Messrs. Hayford & Stetson, 2 million cedar for shingles, and 6 million spruce logs.

G. B. Dunn, & Son, 10 million.

Mr. Jewett will take out by Jarvis Hayward, 6 million, and by W. S. Stephens, 3 million.

Mr. Robert Aiken will cut 2 million for Mr. Cushing.

Mr. Hale's cut is estimated at 4 million.

Mr. Layton also 4 million.

Mr. A. Gibson will take out 40 million, all by contract.

Messrs. R. & H. Stewart, per Mr. Richards, 20 million.

MANITOULIN ISLAND.

The latest news from this island is, that lumbering goes on actively, the following parties being at work in the woods taking out logs:

Robert and J. Henry are hard at work at Mudge Bay. They have two camps started, and will take out about one million and a half.

The Providence Bay Co. are operating on the south side of the island. They will also take out about one million and a half feet.

Mr Howard, of Mademoya Lake (steam mill) is taking out a small quantity for local purposes.

Sandford Mills, on Lake Manitou, are also taking out a supply for local use.

The mill at Gore Bay will get out enough for local supply.

The Toronto Lumber Co., Michael's Bay, (R. A. Lyon, manager), are the heaviest operators. They will take out about five million feet this winter. They have three camps under way at present. The location of these mills is central and convenient for shipping to any point, either south or west. Their business last season is said to have amounted to over \$70,000. The lumbering business has tended largely to settle up the island, which has increased in population 15,000 during the past eight years.

A large business is done from the island in cedar ties, for the Chicago market—200,000 will be taken out this winter at the south side of the island, and a large quantity of cedar paving timber, being pieces eight long and not less than five inches at the top.

THE UPPER ST. JOHN.

From Arrostook, on the upper waters of the St. John river, we learn that operations in getting out logs will be largely increased this winter. An exchange says,—"The demand for lumber in the United States and other markets, is much improved, and operators feel encouraged to proceed. Where

last year one individual cut 2,000,000 ft. of logs, this year five or six operators will cut from 5,000,000 to 10,000,000 ft. This increases the demand for labour and causes a rise in price; it will result in enlarged prices for hay, oats and etc., in Arrostook. Those persons that are hiring men here now pay \$5 more per month for labour than they did last year. Pork is an article largely consumed in the woods. Operators are buying pork now at the present high prices, which have been put on the article by the recent "corner" brought about by speculators. The fact will of course increase the cost of getting out the lumber above that of last season. Spruce deals are now selling in St. John for \$12, and an extra quality brings \$12.25, where last year the prices were \$7 to \$8 and even lower. The present high rating of deals is owing to the fact of large numbers of vessels being at St. John wanting freights. There are now no logs for sale, as the surplus logs are in first hands.

NIPISSING DISTRICT.

Lumbering operations are going on briskly both on the north and south shores of Lake Nipissing, and preparations are being made by A. P. Cockburn, Esq., to build a steamer for the purpose of towing, as well as for passenger traffic. The new steamer, to be named the *Intercean* is designed by Mr. Chaffoy, of Toronto. She will be provided with double engines and a twin screw, and will be of about 150 horse power. The equipments will all be first class, as Mr. Cockburn has had experience in building several steamers. Some of the fittings have already been sent out. The heavier portions of the machinery will arrive by the first through train of the Canada Central Railway, which is expected to reach the east end of Lake Nipissing by July next, by which time the hull of the new steamer is also expected to be ready. Mr. Cockburn was out at Lake Nipissing lately, and has chosen where the steamboat landing wharf will be. The *Intercean* will run up Sturgeon River as far as the first falls, and French River to Chaudiere. Mr. Cockburn deserves great credit for his pioneer enterprise. The engines and machinery will likely be furnished by Mr. Doty, of Toronto, as the improved engine he put in last season in the steamer *Rosseau* has given good satisfaction.

Tree Planting and Raising.

Those who are interested in forestry will be glad to know that many of the seeds of valuable timber and ornamental trees ripen during the months of September and October, amongst these may be mentioned the horse chestnut, the birch, the ash, the oak, the butternut, the black walnut and the sweet chestnut. It will be well, therefore, for those contemplating the rearing of a large quantity of these from seed to be on the look out during the present month for suitable trees to gather seeds from. The seed should be planted so soon as obtained, and for that purpose ground ought to be at once prepared to receive the nuts and seeds. The planting should be made in rows of a sufficient distance apart to admit of the hoe being used between them, and the soil should be made rich and light by being well and deeply worked. A generous treatment of the soil for the seed-bed cannot be too strongly insisted upon.

Trees of medium age should be selected to gather seeds from as those taken from trees which are too young often prove barren, whilst those from trees of a mature age frequently furnish plants of weakly growth. Nuts and seeds such as ash often refuse to germinate until the second year, so that all hope should not be lost if the first season's crop should not prove a success. So soon as the leaves have fallen and the wood is well ripened, cuttings may be made of the various kinds of willows and poplars, these should be made about eighteen inches long of the present year's shoots, and inserted one foot in the ground. The great success in growing all cuttings is to have the earth firmly deposited at the base of them, and for this purpose the trench in which they are set should be only partially filled and the soil pressed down with a suitable instrument, and then filled up tightly, a piece of slat or board six or eight inches wide and two inches thick, sawn squarely across one end and tapered to a handle at the other makes a handy implement for setting all kinds of cuttings. The cuttings should be planted

from six inches to a foot apart, in rows, so as to allow the hoe or cultivator to pass freely between them from two to three feet between the rows would be found a suitable distance both for cuttings and seeds. It would be well if more attention were given to nut bearing trees, amongst which are some of the best for timber, and the handsome for shade and ornamental purposes, and the fact of their bearing nuts should be no detriment to their being cultivated. Who cannot recall the days of his youth when he sat over the winter evening fire cracking his nuts and chaffing his girl? But the nut bearing trees are getting scarcer as the evenings grow longer, and now there are fewer nuts to crack than formerly; but there is no reason why the rising generation should not have quite as much innocent amusement as their fathers had before them, if only a little judicious forethought was exercised. Most of the nut bearing trees grow rapidly. The writer has seen a growth of six feet made by a black walnut since last spring, and a growth of this length is no unusual sight on young butternut trees. The writer has some young plants of this variety, the nuts of which he planted seven years ago. The trees had catkins on them this spring but did not bear. He has no doubt they will be productive next year. These trees have been twice and three times transplanted, and for the last few years have been growing in a heavy lawn sod, so that although the soil was good the experiment was not on the whole favourable to the rapid growth of the young trees. The wild sweet chestnut, whose fruit though small is of excellent quality, is a very rapid grower where soil and climate are congenial, and will stand the winters very well along the St. Lawrence river front as far east as Cornwall, and is very suitable for planting all over the western peninsula as far north as Owen Sound. The timber of this tree cannot be excelled for furniture, and is chiefly used as bed-room sets. It has a fresh light and neat appearance when oiled and varnished, which brings out its large open grain, and its peculiar rich yellow hue gives it a cheerful appearance. A firm in Detroit manufactures from this wood very largely.

We would recommend the raising of all nut bearing trees from the seed, and transplanting them to their permanent position when from four to six feet high, as these trees are not considered as a rule so easily removed as the seed bearing varieties. Although we know of some set out at 10 to 12 feet high with very great success, but they had been root pruned and re-set before. We believe any one wishing to obtain nuts of the black walnut, or young trees, may get an almost unlimited quantity at a trifling cost from Chief Johnson of the Six Nation Indian reserve at Brantford. This is now the right time in the year to secure nuts, which should be planted as soon as obtained. It would be well for our experimental farm to produce a couple of bushels for planting, in order to show the general public how readily they can be grown, and with what rapidity the denudation of our forests can be restored. The variety, date of planting, etc., should be kept on a stake at the end of the row so that visitors could see at a glance the progress made from time to time.—*National*.

Horse-Meat as Food.

From the Parisian.

Some very interesting statistics have been published by the society for promoting the use of horse-flesh and the flesh of asses and mules as food, showing how steadily the consumption of these articles of diet has been increasing in Paris and the Provinces since the foundation of the society in 1866. The weight has increased from 171,300 pounds in 1866, to 1,982,620 pounds in 1879. In the principal cities of the Provinces the consumption of horse-flesh may be considered to have fairly taken root. At Marseilles, in 1870 there were 599 horses eaten; 1,031 in 1875 and 1,233 in 1878. At Nancy, 165 in 1873, over 350 in 1876, and 705 in 1878; at Rheims 591 in 1874, 423 in 1876, and 834 in 1878; at Lyons 1,839 in 1873, and 1,313 in 1875. In both the latter cases some difficulties had been thrown in the way by the town authorities, as was the case recently at Chalons-sur-Marne, where the Mayor fixed the price of horse-flesh at a higher rate than that of beef. The average price of horse meat is from 25 to 30 cents per pound. Each horse furnishes about 200 kilogrammes (400 weight) of meat, which is capable of being prepared in many by no means unappetizing ways. Such as *pot-au-feu* boiled, roast, hashed, haricot, jugged, flet, &c.

A Successful Case of Transfusion of Blood.

The following case, which exhibits in a marked degree the beneficial effects of transfusion of blood when performed in cases of impending death from excessive hemorrhage, is reported in the *New York Medical Journal*, for August, 1880, by Joseph W. Home, M. D.:

Mrs. B., aged twenty-two years, was delivered of a three months' fetus, November, 7, 1879. From that date until November 11 she had repeated and profuse hemorrhages from the uterus. On the 16th the bleeding was continuous. Drs. Reynolds and Comstock, who were first called in, succeeded in controlling the hemorrhage, but not before the patient had reached the stage of collapse. They remained with her all night, endeavoring, with the ordinary means of stimulation, to rouse her, but without avail. She continued to sink in spite of everything.

On the morning of the 11th I was sent for. The patient was then completely pulseless and partially unconscious. The extremities were cold and clammy, and it was evident that unless some fresh blood were introduced death would soon supervene. She was so far gone that I made up my mind not to spend any time in defibrinating the blood. I opened the median basilic vein in the right arm of the patient and introduced the closed cannula of Colin's instrument, and after passing some warm water through the cylinder of the instrument, attached it to the cannula in the patient's arm. The median cephalic vein in the right arm of the donor was then opened, and the blood was allowed to flow directly into the cylinder without defibrination. When a sufficient quantity had been obtained, and while the blood was still flowing, I injected, without any difficulty, between seven and eight ounces. The whole operation did not occupy more than five minutes in its performance.

Within half an hour the pulse returned at the wrist, the voice became clear and distinct, and she asked for something to eat saying that she felt stronger and better in every way. One of the medical gentlemen who had been with her all night assisting in the attempts at resuscitation, and who left in the morning, believing that there was no hope of her recovery, came in an hour after the operation, and said it was "a perfect transformation scene"—that he had no idea that a few ounces of blood could restore lost vitality so rapidly.

From that time on the patient continued to improve, and when I last heard from her she was in the enjoyment of good health and attending to her household duties without any discomfort whatever.

Hose Pipe Nozzles.

Who is going to invent the nozzle of the future? There is no nozzle that we have ever seen that seems to us to control the stream it delivers as it should do. Instead of projecting a solid stream for a long distance, the water breaks soon after leaving the nozzle, and soon sprays and breaks up altogether. We often hear of steamers throwing 250 and 300 feet, but we recently heard a veteran chief say that he had yet to see the apparatus of any kind that would throw a solid stream 100 feet. The difficulty may be all with the water, which is naturally inclined to separate, but we are of the opinion that part of the trouble lies in the construction of the nozzle. An experiment made at Boston by putting a core into a play pipe, and thus dividing the stream into four parts, depriving it of its rotatory motion, showed a gain of thirty feet in distance playing. But even this does not seem sufficient. Our steamers give us power enough for throwing, and the hose in use gives every facility for carrying a large volume of water; there should be some means devised for delivering that volume in a solid stream at long distances. Great difficulty has been found in making nozzles operate uniformly at all times. A manufacturer of steamers once found a nozzle that gave him great satisfaction; with it his steamers could throw greater distances than with any he had ever tried before. He ordered half a dozen more just like it. The half a dozen were made precisely like the first, but never equalled it in delivering water. There is much to be learned yet regarding this question of delivering water on fires, and the exact relations existing between pressure, hose, play pipes, nozzles, and the friction of water more clearly understood.—*Firman's Journal*.

SCIENTIFIC GOSSIP.

THE Hungarian State railways are in all 1,119½ miles in length, and they yield an income of about 1½ per cent. per annum on the capital invested in them.

To the alteration and metamorphism of rocks by the infiltration of rain and other meteoric waters, M. de Konik, of the Belgian Academy of Sciences, assigns the cause of many hitherto unexplained phenomena in geology.

FROM the inquiries conducted by Prof Hermann Cohn, of Breslau, since 1860, it appears that short-sightedness is rarely or never born with those subject to it, and is almost always the result of strains sustained by the eye during study in early youth. Myopia, as it is called, is seldom found among pupils of village schools, and its frequency increases in proportion to the demand made upon the eye in higher schools and in colleges. A better construction of school desks, an improved typography of text-books, and a sufficient lighting of class rooms, are the remedies proposed to abate this malady.

THE *Electrician* tells this story: A number of gentlemen were the other day about to dine, and one of the covered dishes was especially cared for, containing, as it was seriously averred, a *gymnotus*, fresh from the rivers of South America, which was to form part of the repast. Usually, electricians scrupulously observe decorum, but the Chairman, instead of pronouncing the benediction, turned to the dish containing the eel and solemnly requested grace, when, with a sweet cadence, as if from a mermaid in cavernous regions, was heard all over the place: "Be present at our table, Lord," &c. The cover was then raised and the anticipated electric eel turned out to be a telephone, which had been ingeniously connected to a distant room, and which, being a religiously good telephone, not only produced a pleasing sensation to all present, but afterward returned thanks in a powerful but well-known voice to the admiring listeners.

THERE is no question now among the most conservative of engineers that this time the electric light has come to stay. Perhaps as yet the most extensive use of this light in any one establishment is that in the Royal Albert Dock, London, an extension of the Victoria Docks, which covers 80 acres of water space, and has nearly eight miles of quays. The lamps used are the Siemens pendulum kind, with the body of the lamp above the arc, and the carbons so regulated that the position of the arc is fixed. Each lamp is placed on the top of a pole 80 feet high, and its effective illumination overlaps that of its neighbours. To generate the electricity, the Siemens "D 2" dynamo-machines are employed, one to each lamp. The *Engineering* says that the most interesting feature of the sets of generators is that the whole of the available current generated in each machine is conveyed to its corresponding lamp, none being utilized and absorbed in its passage for exciting the field magnets. In order to do this a separate dynamo-machine, specially constructed, is employed, the current developed by which is transmitted through the magnet coils of all the illuminating machines in series. By this arrangement, the essential principles of which was first conceived and announced by Mr. Henry Wilde, of Manchester, motive power is economized and greater constancy of current is insured. It is reported that the illumination of the dock, with its quays and surroundings, is very perfect, and that the effect is most beautiful. Between the machines and the lamps the distances vary from 120 to 1,100 yards.

How did we come to possess our present form of dress? This is one of the many questions answered by a reviewer in the *Nature*, who had under his notice the catalogue of the Gen. Pitt Rivers anthropological collection lately noticed in this column. Clothing at first was almost entirely ornamental. The exceptions were such articles as belts from which instruments of various kinds could be suspended so as to be ready for use while the hands were left free. A savage does not enjoy the luxury of a pocket. Even at the present day a Japanese has to stow his tobacco pipe and pouch from his belt, and the only pockets he has are in his shoes. The simple cinchure was the germ so to speak, of the clothing we wear. After some time a bunch of pandanus slips was added in front, and this was gradually extended until it made a complete fringe around the body. When the arts became so far advanced that man could make paper cloth or some woven material these latter were substituted for the primitive fringe, and the kilt was thus

developed. Curiously enough, the dress of the Scottish Highlanders embodies these two stages of progress in the kilt and the sporran. As man advanced there were inconveniences attending the use of the kilt, which were abated by fastening that garment at one point between the legs, and the human mind was then fairly set upon the path to arrive at the attainment of a pair of trousers. When the back and shoulders needed protection the savage used the skin of some animal, and it is from this sort of covering for the upper part of the body that we have derived our coats, vests, shirts, &c. But the ancient cloak form is even yet retained, not only by such people as Zulu chiefs, but in all robes of ceremony by dignitaries of court and college of the most highly civilized nations on the face of the earth. The elaborate and varied head coverings of the present day all sprang from a very simple original type.

Scotland's First Printed Books.

(From the Pall Mall Gazette.)

IF one or two of the Scots who travelled abroad in search of fame and fortune could have made up their minds to return to their native land, the art of printing might have been introduced into Scotland at a much earlier date than 1507. As it was, it took 30 years for the new practice to travel from Westminster to Edinburgh. The first printing-press in Scotland (as was stated at yesterday's meeting of the Library Association) was established in that year somewhere off Cowgate by a printer called Walter Chapman, who was employed in some capacity about the court, and was presumably permitted to set it up in payment for some services he had rendered to his patron. The first books printed were a volume of "Metrical Ballads" and "The Aberdeen Breviary," in two parts. Of the former work there is but one copy in existence; the latter was printed under the superintendence of a Bishop of Aberdeen, and four copies are still preserved, though only one possesses a title-page. No other works were printed until 1531, but from that year to the end of the century a vast quantity of printed matter was struck off for the benefit of the nation. Most of these volumes were no sooner in existence than they seemed to have perished. We know from the wills of the printers that in many cases they left behind several hundreds of copies of particular works, although the most learned bibliographer can only now tell the *habitat* of one or two of them. What became of the rest is a question which has puzzled many minds. Possibly they were thumbed by their owners out of their lives.

Dulcigno.

The *Paris Temps* gives the following account of Dulcigno: "The town is composed of two parts, separated from each other by the port—the old town, containing the citadel, and the new town, in which the population is almost entirely concentrated, and which comprises about 400 houses. It is evident that if the squadron had opened fire it would have directed it solely against the citadel, where there are not eighty houses. The inhabitants would not have had to suffer from the bombardment. The certainty of not being in danger, even in case of military action, has, perhaps, had something to do with the obstinate resistance the inhabitants of Dulcigno have made to the cession of their town to the Montenegrins. The chief reason, however, is that they are nearly all Musulmans; they number from 2,500 to 2,000, and it is said that till 1853 no Christian was allowed to choose his residence at Dulcigno. Lastly, it is said that the Musulmans are a race of pirates, who have only given up piracy since 1815—that is, since Austria has had possession of Dalmatia and has created a navy.

A LONDON tailor has invented "the united suit," which consists of a man's complete attire in one garment.

THE Russian traveller Remiaowitch-Dantschenko, has discovered on the highland of Daghestan a tribe resembling Cossacks, but following the Mosaic law strictly, and retaining ancient Jewish names—undoubtedly one of the lost tribes.

THE number of yearling thoroughbreds from the great breeding establishments of England sold during the past year aggregated 451, the progeny of 112 sires. They realized 89,996 guineas—a decrease in the amount paid to breeders of 41,773 guineas as compared with 1877, when 486 yearlings brought 131,666 guineas.

A Revengeful Owl.

A remarkable instance of intelligence shown by an owl in conceiving and carrying out a project of vengeance on a farm labourer who had destroyed a whole family of young ones before they had gained the requisite strength to take wing is related by a French provincial journal. An owl had built its nest in an old oak-tree which grew near a farm in the commune of Bsaury. Its mate had laid during the month of July several eggs, which in due time developed into a promising progeny of young birds. A farm labourer, moved by a sentiment of aversion for owls, which is common in country parts, determined a few days ago to cut short the lives of the young ones, and choosing a favourable opportunity, put his project into execution. The infant owls were taken away from the maternal nest and massacred, but by what followed it will be seen the parent birds did not allow their tragical fate to remain unavenged. On several evenings succeeding that during which the nest had been plundered, the villagers returning from the fields remarked the male owl flying in an agitated manner round the farm, but no attention was paid to the circumstance, which was put down to a lingering attachment on the part of the bird to the spot where the nest had been. The event proved, however, that it haunted the neighborhood of the oak-tree from an instinct of revenge, and was lying in wait for the destroyer of its family. During a whole week it hovered near the farm, biding its time, and at length the right moment arrived. The young man who had so ruthlessly exterminated the brood of owls was crossing the threshold of the farm at dusk when the bereaved bird swooped down on him from the tree where it was keeping watch, and with surprising swiftness tore out his eye with its claws. The intolerable pain caused by this sudden attack made the victim of it swoon away. When he recovered consciousness, and had his wound dressed, he related the circumstances under which he had received it, and a search was instituted to discover whether the owl was still lurking in the vicinity. No traces of it were, however, to be found; but the young man will have reason to remember the lodger in the old oak-tree, since for rest of his life he will have to make one eye do duty for two.

Bessemer Steel.

The London correspondent of the *Manchester Examiner* says: "The city of London has to-day done itself honour in conferring its freedom upon Sir Henry Bessemer, whose name certainly deserves to rank among those of most illustrious men who have signed the roll. Sir Henry is best known by his great invention for making steel, but how busy he has been in other directions may be understood from the fact that there are no less than 114 patents which have been taken out in his name. How valuable his steel process is we already know, but nothing could explain the extent of the revolution which his invention created better than the figures which he quoted this afternoon. When the invention was introduced into Sheffield the entire make of the steel was 51,000 tons per annum, whereas last year it was no less than 830,000 tons or more than 16 times the former produce of the country. The difference in price is still more wonderful. This year he estimates that 2,000,000 tons of steel will be made in Europe and 1,000,000 tons in England, at a cost of £39,000,000, whereas, under the old process it would cost £150,000,000. The man whose genius has effected such enormous good to the community is entitled to take a high place on the roll of national benefactors, and the city may well be proud to have him among her freemen.

THERE are two different ways of conducting stock business out West. The one is to buy young steers, keep them two years on your range, and sell them as four-year olds. Per head the increase in value varies between \$10 and \$15, thus enabling the ranchman to double his capital in a short time if his losses do not exceed five per cent. and he has luck. The other method is to raise stock, buying Texan, Oregon, or Utah cows and the necessary number of Eastern or English bulls. This, if you make up your mind not to sell a single animal in the first three years, is in the end more profitable than the feeding up of stock. At first few men went into it, the capital needed being large, but as in the last few years the larger profits of the business became known it is the favourite with men tempted by the chance of making a fortune in five or six years.

The Island of Madeira.

One of the principal drawbacks to Madeira is the difficulty of getting about. There are no carriage roads, and the horse tracks are steep pitches up and down; they are also almost invariably paved with hard pebbles. This renders it impossible to ride anywhere except at a foot's pace, so that the time consumed in going a few miles is very great, and the mode of progression very tiresome. On the other hand, the island ponies, shod in a peculiar manner to encounter the aforesaid roads, are usually sure-footed and good walkers, so that within a certain distance of Funchal pleasant expeditions are to be made if you find the time and strength. Thus the fine mountain scenery of the Grand Corral—a gloomy gorge, into which you look down some 2,000 feet or so from the mountains overhanging it—the Ribeiro Frio, and other landscapes beautiful of their kind, can on well-chosen days be visited without much difficulty. To get further afield is not so easy. There are but few tolerable hotels in the country districts, and you never can be sure that you will not find the higher levels wrapped in mist or drenched with rain, even whilst fine weather is prevailing. I am speaking of the winter months; anybody who happened to pass a summer in Madeira could visit all parts of the island readily enough.

The remark that there are few comfortable inns out of Funchal does not apply to Santa Cruz (Santa Cruz in Madeira, I mean). The hotel there belongs to a Senhor Gonzalez, but is mainly upheld by the untiring exertions of a worthy woman called Maria. She is a Portuguese by birth, but speaks English quite well, and is indefatigable in her efforts to please. This quiet inn is a pleasant change from the hot tables d'hotels at Funchal; the village may be perhaps somewhat cooler, and is said to possess a lighter and finer air; it is also well situated as a place to make excursions from. A mile or two beyond it lies the well-known Machico Bay, where, according to the tradition, Madeira was first landed upon by an Englishman Machin. The story is that this Machin, an English esquire, incurred the resentment of a powerful family by gaining the affections of the daughter of its chief. He was thrown into prison, but escaped, and then persuaded the lady to elope with him to France. A violent storm drove their vessel for thirteen days in a southerly direction, and at last they found themselves in a small brig on the shores of an unknown island. Here they landed, but the fatigues of the voyage had exhausted the strength of Machin's companion, Anna d'Asfet; she died there, and was there buried. The fragments of a cross erected over her grave are still shown by the Machico villagers. Her lover did not long survive her, and his companions, in their attempt to sail away home, fell into the hands of the Moors. During their captivity they spoke of this island to an old Portuguese pilot, who, on being ransomed, and returning to his own country, suggested and accompanied the first expedition to Madeira, which thus became a dependency of Portugal. Skepticism, of course, has been at work upon this old maternal tale, but there seems no reason for rejecting the legend, except that it is a legend, and that the fashionable wisdom of the hour pronounces, as usual, anything which has long been a matter of popular belief to be a necessity incredible; otherwise the narrative hangs perfectly well together in all its parts, and, moreover, furnishes a reason why the Portuguese government sent out their expedition a little later to discover the island so reported to them—a reason which otherwise would be wanting. Beyond this bay you can proceed in a boat, along another range of rugged and lofty hills, to the supposed fossil beds at the extremity of the island: these fossils are apparently concretions of lime, which have put on the appearance of branches or roots, as the case may be. An ignorant person would believe that they had formed themselves round real pieces of wood, and that these have decayed, leaving their form to the encompassing stone; but geologists, I fancy, put this opinion aside, and look upon them as being what they are, merely in obedience to some caprice of nature; they are not, according to them, fossils at all, but merely a good imitation of fossils.

Two and a half millions of tropical oranges were received in the past six months at San Francisco from the French islands of Tahiti. They have come in equal numbers every month from March to September, showing that the trees are in perpetual bearing.

The Excavation of Flood Rock, Hell Gate.

The mining of Flood Rock, Hell Gate, in the East River at the northerly part of New York city, preparatory to blowing it up after the manner of the Hallett's Point work, is being pushed forward rapidly. The expenditure last year amounted to \$140,000, and a large part of the \$200,000 appropriated this year for the improvement of East River will go to this work. Employment is now given to 135 men, divided into three shifts of eight hours each. The central shaft is fifty feet deep.

Running across the river are twenty headings; at right angles to these are eleven cross headings, none of which have yet been extended their entire length. They average seven feet high and ten feet wide, and are situated about twenty feet apart. Near the main shaft, however, where more light and space are required for working, they are larger. Three acres have thus been undermined, or one-third of the whole. It is not intended to enlarge the headings until each one has been carried out to its full length. Then the chambers will be widened and made higher, so that the whole excavation will resemble an immense cave, the roof being supported by the rock pillars which now form the sides of the headings. The thickness of the rock forming the roof will then be about ten feet, varying according to the character of the rock, whereas it is now from fifteen to thirty feet in thickness.

The work of tunneling proceeds very slowly, owing to the hardness of the rock of which the reef is composed. The rate at which it is now going on is from 500 to 600 feet a month, representing an excavation of about 1,500 cubic yards. It is impossible to tell when the whole will be accomplished, even at this rate. Frequently a seam is struck in blasting which stops the work in that heading altogether, on account of the leakage. In such a case it is customary to work around the leak. According to the last report, the work done during the past year was much greater than in any previous year; 24,000 cubic yards of rock were removed, 43,000 blasts made, and 57,066 drills sharpened. The number of blasts made each night now average 150. The rock thus broken up is loaded on scows and dumped in the deep water to the south of the reef. Part of it was also used to fill up the space between Big and Little Mill Rocks, which lie to the north.

Diamond Cutting in New York.

Among the curious and interesting industrial facts brought to light during the census inquires, not the least is the fact that the recently introduced art of diamond cutting has been so admirably developed here that diamonds cut in Amsterdam are sent to this city for recutting. Hitherto Amsterdam has monopolized the work of diamond cutting; and the aim there has been to remove in cutting the least possible weight of the gem. The American plan is to cut mathematically, according to recognized laws of light, so as to secure the utmost brilliancy for the finished stone. The greater loss in weight, as compared with the Amsterdam cutting, is thus more than made good by the superior brilliancy of the product. From the inquiries made by chief special census agent, Chas. E. Hill, it appears that the average increasing value given to diamonds by New York cutting is \$5,000 for each person employed for twelve months; also, that our dealers are receiving the best Amsterdam-cut gems from abroad to be recut here and returned.

The lines of railway in the five divisions of the earth cost, in round numbers, \$16,000,000,000, and would, according to Baron Kolb, reach eight times round the globe, although it is but little over half a century since the first railway worked by steam was opened between Darlington and Stockton, Sept. 27, 1825, and between Manchester and Liverpool, Sept. 15, 1830. It is shown that in France, previous to the existence of railway, there was one passenger in every 335,000 killed, and one out of every 30,000 wounded, whereas between 1835 and 1875 there was but one in 5,177,890 killed, and one in 580,450 wounded, so that we may infer that the tendency to accidents is yearly diminishing. Railway travelling in England is attended with greater risk than in any other country in Europe. A French statistician observes that if a person were to live continually in a railway carriage and spend all his time in railway travelling, the chances in favour of his dying from a railway accident would not occur until he was 360 years old.

A New Safety Sail Boat.

To the Editor of the Scientific American:

"Don't trust yourself in that craft; you'll be overboard sure." Such was the warning of a professional boatman at the barge office on the Battery, as I stepped upon a frail boat on a "fresh" afternoon. I think I know something of boats myself, and but that I know this one to be provided with means intended to overcome the very danger against which the honest boatman warned me, I should have more than hesitated. But the pursuit of science must be deterred by no dangers, and, moreover, my pursuit in this instance was in behalf of the whole world, as represented by the *Scientific American*.

The Jane was an especially dangerous looking craft, 18 or 20 feet long, whose bottom and deck formed the sharp V-shaped edge which pre claim an entire want of bearing power, while her immenso sails, main and jib, were ample for a boat of twice her dimensions. Her captain was a New Zealander, whose motions were the reverse of safety-inspiring. My own conception of the care needed under the existing circumstances had no place with him, and, but for entire faith in my ability to swim, I should never have ventured.

As the Jane shot beyond the pier head, her huge sails were struck by a blast more than sufficient for instant destruction. Involuntarily I made ready for an imminent bath, and the boatman tauntingly called out, "What'd I tell ye?" but only the mast yielded. The boat came to her bearings and moved on as steadily as though impelled by the mildest zephyr. The triumph was already complete; but more was to come. Presently we were in a large seaway, and, with our good speed, a large inflow of sea water over the low and sharp bow was a matter of course. In that, also, I was agreeably disappointed. The boat, instead of carrying the weight of the wind and being thus forced through the sea, rose to it and she glided easily over. Again it was the mast that yielded—yielded to the motion of the boat as easily as before it yielded to the force of the blast. The surplus force of wind, instead of racking the boat and making misery for her passengers, was simply "spilled" over the top of the sail. The motion was free from the thumps and jars usual under the same circumstances.

How all this was accomplished may be difficult of explanation without the aid of an engraving. Instead of being "stepped" in the usual way, the mast was held in a rocking shaft at the deck, and to the keel, on either side, springs were attached, having their opposite ends secured under the deck. Thus the mast, in the absence of pressure, remained upright, but under pressure yielded on either side. The amount of pressure needed to compel this yielding was regulated by nuts and screw on a guide rod inside the springs. A second pair of springs, placed longitudinally under the deck, were connected by pulleys with the shrouds, and these aided to stiffen the mast while they yielded to its movements under pressure.

For pleasure boats, this spring mast is a great addition. It not only insures safety, but gives an ease of motion which cannot but prove especially delightful to those who are timid upon the water. More than this, it permits an unvarying course for the boat, and thus avoids the checks and delays inseparable from "luffing," as also the necessity of unusual skill and care in the management of even a "crank" vessel in a "flowy" wind.

M. S. B.

New York, October, 1880.

[The invention, a practical trial of which is above described, is that of Mr. John McLeod, Hill's Pavilion, Flushing, N. Y. A patent has been allowed. It appears to be a really valuable and practical improvement.—Eds. *Scientific American*.]

Gold in Arabia.

The official journal of the vilayet of Yemen, Sana, announces that a gold mine has been discovered in the Sana district, and, in the usual style of Oriental expansiveness, declares that this mine "is one of the richest in the world." A detachment of soldiers has been sent to guard the place against the attack of Bedouins, and a commission has been appointed to examine and report upon the mineral prospects. A productive gold mine would be a useful acquisition just now to the Turkish Government.

The Hibernian Bible Society has circulated in Ireland, since it was formed, nearly 4,500,000 copies of the Bible.

The Pocket Handkerchief.

We may forget our purse, our pocket, and many other things, says the London *Zetter*, without experiencing any great inconvenience, and even without its being known at times, but to lose or mislay the handkerchief, may be followed by very grave consequences, as we all know. Moreover, we make use of this article in many other different ways. All who make use of spectacles do not remove them from their nose in order to put them very carefully into the case without using the handkerchief, and they use it again before putting them on, wiping the glasses with great care. The majority of people pay by far too little attention to an object so indispensable. Many put it into the same pocket with their keys, their purse, their snuff-box, without troubling themselves concerning the many strange substances with which its tissue will not fail to come in contact in so miscellaneous a company, and which might sully the purity which the handkerchief ought to possess. Does one go to pay a visit? Before presenting themselves to the person they wish to thank or solicit, some have been known to dust their boots with the handkerchief. Does the careful wife see some grains of dust left on her ornaments? She makes them disappear with her handkerchief. Boys in the school room clean their slates with them; in the playground their handkerchief is the necessary attendant of a multitude of games. With this they wipe off the dirt; they strike off the dust. It is used to stop the blood that flows from wounds—always very numerous in the age of leap-frog and prisoners, base; the age also of communism in handkerchiefs. With wounds come tears, and the handkerchief, full of dust, spotted with dirt, with the blood of bodies known or unknown, serves again for wiping the eyes, the nose, or the cheeks furrowed with tears. We do not wish, and we cannot tell here all the strange uses that people make of the pocket handkerchief. And then what signals have been conveyed by it! How many sad farewells, how many cheerful congratulations! The very method of waving it has a language, as the motions of the fan also have. But no one has hitherto discoursed on the language of the pocket handkerchief. And how useful it often is as a help to the pocket or the hand-bag! How many mushrooms, myrtle-berries, strawberries, and raspberries have been gathered into the handkerchief in young days, and more valuable things in later life! Then there may be evil results traced to it—a number of ailments of which one cannot guess the origin; diseases of the nose and eyes. Fortunate it is for him that incurs nothing worse; diphtheria, for example, which the handkerchief may heedlessly transmit. Let us not use the handkerchief except for its proper purpose; let us devote to it a special place; let us change it as often as possible, and inspire our children with a great disgust for another's handkerchief on account of the disagreeable, nay, dangerous consequences that may ensue. Much more might be said about the pocket handkerchief, but enough has been hinted at to set my readers a-thinking upon its importance, its uses, and its abuses.

FIFTY-SEVEN tons of Greek marble have been delivered in London, free of all charges, by the Greek Government, for the Byron pedestal.

The Marquis Robert de San Marzano, who married an American, Miss Helen Gilder, has ordered in this country some things for their baby. A willow cradle has a canopy decorated with draperies, medallions, points of Valenciennes lace, and blue satin ribbon. There are sheets with tucked borders and bands of French embroidery, and others of lawn, with lace enough on them to make the cost \$500 for four. An eider down quilt and some exquisitely fine blankets are included in the outfit. There are three dozen dresses in the wardrobe, many of them of lawn, mull, and fine laces. "Young mothers," says a correspondent of the *Philadelphia Times*, "can easily imagine the dainty beauty of the tiny silken socks, the exquisitely embroidered lawn skirts garnished with the finest of fine laces, the richest of the flannel skirts with silken embroidery, and the handsome tucked, trimmed, and lace-finished petticoats, but it is difficult to conceive of anything so lovely as the robes of real lace, arranged in diamonds, medallions, squares, and all manner of conceits, with applique of embroidery in roses and other flowers, each figure in the Valenciennes lace being punched or upraised until it looks like round point."

Breeding from Arab Sires.

(The Nineteenth Century.)

As size is a condition *ansæ qua non* for most purposes in England, I feel that something needs to be said on that head. I have every reason to believe that pure Arabian produce, bred in England, will in the first generation reach the height of 15 hands 2 inches, although his dam is hardly that height, and I believe it to be a fact that cross-bred produce from an Arabian sire is always taller than the mean height of sire and dam. That this should be so seems to me quite accountable. The Arabian of 15 hands is not a big pony but a little horse—little only through the circumstances of his breeding, and ready at once to develop as nature, under kinder influences, intended him to do. It may seem a paradox to say it, but I believe size to be no less a quality of the racing Anazeh than speed. The English race-horse of 1700, if we may believe Admiral Rous, was under 15 hands in height, being then, as I have shown, by no means a pure Arabian, whereas immediately after the infusion of Darley blood he rose to 16 and 16.2. The soil and climate of England will, I doubt not, do now what it did then, and I think it is the Duke of Newcastle who remarks, "There is no fear of having too small horses in England, since the moisture of the climate, and the fatness of the land rather produce horses too large." Neither do I doubt that in Arabian cross-breeding a like result will be obtained. Lastly, the Arabian has this in his favour as a sire. He is less likely, from the real purity of his blood, to get those strange sports of nature which are the curse of breeders, misshapen offspring, recalling some ancient stain in not a stainless pedigree. The true Arabian may be trusted to reproduce his kind after his own image and likeness, and of a particular type. It will rarely happen to the breeder of Arabians that a colt is born useless for any purpose in the world, except, as they say, "to have his throat cut or be run in a hansom." Whether he be bred a race-horse or not, the Arab will always find a market as long as cavalry is used in England or on the Continent. He is a cheap horse to breed, doing well in what would starve an English thoroughbred, and requiring less stable work from his docility. Above all, whatever diseases he may acquire in time, he starts now with a clean bill of health, inheriting none of those weaknesses of constitution which beset our present racing stock. He endures cold as he endures heat, fasting, as plenty, and hard work as idleness. Nothing comes to him amiss. For what other creature under heaven can we say so much?

The Teeth of the Ancient Greeks.

(From the London News.)

One of the most remarkable features of the discovery of the band of Thebans who fell at Cheronea is that, according to the report, all the teeth of each member of the Sacred Band are sound and complete. Either these gallant patriots were exceptionally lucky, or the condition of teeth in old Greece was inevitably different from that of later and more degenerate days. The Romans were well acquainted with the evils that attend on the possession of teeth, and had some considerable knowledge of the use of gold in counteracting these evils. If we remember rightly, an exception to the rule of not burying precious objects with departed Romans was made in favour of the gold that had been used for stopping teeth. We moderns may compare favourably with the Romans in the skill of our dentists, but we cannot pretend to rival the defenders of Thebes in their superiority to the necessity for those gentlemen. Rare, indeed, are the happy mortals of to-day who can truly boast that their teeth are in the perfect condition that nature intended, and that the craft of the dentist has never been employed upon them. It would be a difficult task to select from our Army, or any modern army, 300 men with teeth as sound as those of the Theban warriors are reported to be.

Two marble busts of the Prince Imperial have lately been finished by M. Cost, the sculptor, one for Queen Victoria, representing the cadet at Chislehurst, and the other for Gen. Simmons, which is to be presented to the Royal Military Academy, at which the ill-fated youth studied. It is said that the Empress will have the bodies of her husband and son brought to wherever she may pitch upon for her residence, and placed in a mausoleum there. She is in very delicate health.

SCIENTIFIC GOSSIP.

In the first of the series of his Cantor lectures, Robert W. Edis thus concisely states how decoration and furniture of town houses should be treated: "The great aim of the designer should be simplicity and appropriateness of form and design, with harmony of colour, and to show that the cheapest and commonest things need not be ugly, and that truth in art and design need not of necessity involve costliness and lavish expenditure. Fitness and absolute truth are essential to all real art, and be it remembered that 'design is not the offspring of idle fancy; it is the studied result of accumulative observation and delightful habit'; and by a careful regard to this we may make our homes and habitations, if not absolutely shrines of beauty and good taste, at least pleasant places, where the educated eye may look around without being shocked and offended by gross vulgarity and gaudy commonplace."

By means of an ingenious clock-work apparatus, Marey the French biologist, has obtained a number of exceedingly interesting graphic illustrations of the manner in which man walks. The instrument is a vertical barrel, covered with finely ruled paper, and as the barrel is made to revolve by the gearing within it, a little pencil makes a mark on the paper, as the person whose walk is under investigation steps along with the registering device. A little air-compressor, worked by the foot of the walker at each step, sends a current of air through a flexible pipe to the instrument, and gives a more or less up-and-down movement to the pencil. It has been found that the step in going up hill is longer than in going down hill; that the step is longer for an unburdened man than for a burdened one, and that the step is longer when the sole of the boot is thick and prolonged beyond the toe than when it is short and flexible. When a person ascends a hill he quickens his pace, but diminishes its length, and he does just exactly the opposite when descending an inclination on the ground. It would seem that Marey's observations point to the advisability of pedestrians in general adopting low-heeled boots, with thick projecting soles.

The *Chemical News* gives the following pertinent piece of advice to the young student of science in Great Britain, and neither young nor old students on this side of the Atlantic need evade reading it at least. When a man has got so far as to decline, even in his secret thoughts, science as a mere something to be examined in, he is intellectually dead. In conjunction with this caution we must make a demand upon the moral nature of the student. We must exhort him, at whatever cost of time and labour, to eschew cram, including under the term all the tricks and dodges by which a really undisciplined mind is made to put on a false appearance of mastery. It is not safe to argue that the English system of examination being essentially a sham it may be legitimately evaded. He who wins degrees and diplomas by deceit will have acquired habits of dishonesty which will cling to him in after life, and which will manifest themselves in a propensity for trimming and cooking results, for suppressing inconvenient facts, and forging evidences for a tottering theory. He who cheats examiners in youth will in after life be apt to cheat scientific societies and the learned world at large for his own glorification, and may perhaps for a time succeed.

The Tower of Silence.

On a hill in the island of Bombay (called by the Europeans Malabar Hill) stand, all within a short distance of each other, the churchyard of the Christians, the cemetery of the Mussulman, the place where the Hindoos cremate their dead, and the Tower of Silence, where the Parsees leave theirs uncoffined, to be devoured by the birds of the air. It is a lofty square enclosure, without roof or covering of any kind. Huge bleated vultures and kites, gorged with human flesh, throng lazily the summit of the lofty wall surrounding the stone pavement, which is divided into three compartments, wherein the corpses of men, of women, and of children are laid apart, and all nude as they came into the world. Some relative or friend anxiously watches, at a short distance, to ascertain which eye is first plucked out by the birds, and from thence it is inferred whether the soul of the departed is happy or miserable. The Parsees regard with horror the Hindoo method of disposing of the dead, by throwing the bodies or ashes into rivers; yet their own custom is even more repugnant to the feelings of the Europeans in India.

FACTS AND INCIDENTS.

THE Swiss pleasure season has been the best for six years. Up to June 30 the Laverno Steamboat Company had carried 40,000 more passengers than up to the same date last year.

A MAN leaped from a third-story window, in Philadelphia, to escape from his infuriated wife. His leg was broken; but that was nothing, he said, to what he would have suffered if he hadn't jumped.

LAST December the London Peabody Fund of \$2,500,000 had grown to \$3,500,000. The trustees up to that time had housed 9,905 persons in 2,355 separate dwellings. The average weekly earnings of the head of each family in a Peabody house were \$6, the average rent \$1, and a single room 50 cents.

TWO Kestuckians had been stopping at a Chicago hotel. One of them was fiercely disputing the correctness of the bill which the clerk had just presented to him, when the other took him by the arm and said, "Colonel, never forget that you are a Kestuckian. Kill the clerk, but pay the bill."

THE excitement consequent on the discoveries of new diamonds in the Free State of South Africa, according to latest intelligence, had not abated in intensity. Three new rushes have been reported. A gem of the first water, weighing fifty carats, and worth \$30,000, has been unearthed at the Jagorostoin diggings.

SIR CHARLES GAVAN DUFF'S new work, on which he is now engaged, adheres to the old phrase with which he was himself identified from its inception to its collapse, and he calls his book "Young Ireland." It is not a history in broad and well-connected narrative, but a sort of personal memoir. O'Brien, Dillon, O'Connell, and Meagher are spoken of very highly, but Michael is very severely handled.

THE Swedish and Norwegian press are discussing in somewhat heated terms the agitation prevailing among a section of Norwegians for the repeal of the act of union between Sweden and Norway, and the establishment of a Norwegian republic. The Swedish journals, while hinting that the separation of Norway would be a good thing, maintain that the honour of Sweden is involved, and that, if necessary, strong measures must be employed to re-awaken the loyalty of the Norwegians. The relations between the Norwegian deputies and the King are greatly strained, the right of the King to a final vote having been denied by a large majority.

THERE has lately been published a very interesting official paper by Capt. Morant of the British navy, on the operations of the six vessels sent under command of the Duke of Edinburgh to give aid on the west coast of Ireland. The report says that the distress did not come suddenly on the inhabitants of this wild region by reason of the failure of last year's harvest, but was due in great measure to the falling off in value of kelp. This compelled the people to fall back upon tillage and fishing; but the crops capable of being grown are utterly insufficient to support the population, while the appliances for fishing are too imperfect to help much in sustaining the community. The population is far larger than such a soil and climate can support, and the people have been imprudent in making very early marriages. Emigration is the only remedy for these people.

DR. LOUIS POSSE of St. Louis was married last July. Now his wife is suing for a divorce. Her chief cause of complaint is given in her testimony as follows: "We had a roast duck for dinner, with onion stuffing. When he saw the onions he got just like a wild man and threw down his knife and fork, cursed me and called me names, and asked me what kind of eating that was. He wouldn't sit down to the table then, but went and sat down in the kitchen. I wasn't eating then, and he asked me why I didn't eat. I said to him, 'If you will not eat I will not eat either.'" He then said, "If you don't sit down this very minute and eat, I will show you who is boss in this house, you or I." He forced me to go to the table and sit down, and I took some victuals on my plate just to please him, but I couldn't eat. He then went and got a stick and stood behind my chair and said to me: 'Here, do you see that stick? That is for you, and if you will not eat now I will break this stick on your back. I will break every bone in your body. Fill up your plate and eat.' I even filled my plate for good, and he kept standing behind me till I had the whole plate emptied."

GRINLETS.

"A Terrible Infant!"

I recollect a nurse call'd Ann,
Who carried me about the grass,
And one fine day a fine young man
Came up, and kissed the pretty lass;
She did not make the least objection!
Thinks I, "Alas!
When I can talk I'll tell mamma."
And that's my earliest recollection.

They had just exchanged their rings,
And sat on the sofa together,
Discussing the subject of weather
And several others things.

It was midnight ere he rose.
And a bit of court plaster
From her cheek of fair alabaster,
Was stuck on the end of his nose.

"How is your husband this afternoon, Mrs. Quigg?" "Why, the doctor says as how if he lives till mornin' he shall have some hopes of him; but if he don't he must give him up."

WHEN a boy is ordered against his will to take the coal-scuttle down stairs and fill it, it is astonishing the number of articles he will accidentally strike the scuttle against before getting back.

THE European powers to Dulcigno—Will you surrender? Dulcigno to the European powers—No, I won't. The European powers to Dulcigno—Then we think you're real mean—so, there!

A BRILLIANT little girl, who had successfully spelt the word "that," was asked by her teacher what would remain after the "t" had been taken away. "The dirty cups and saucers," was the reply.

THE following letter was received by an undertaker recently from an afflicted widow. "Sir—my war is ded and wouls to be buried to-morrow at Woner clock. U nose war to dig the Hole by the sid of my two other wifs let it be deep."

LAWYER—(entering the office of his friend, Dr. M—, and speaking in a hoarse whisper: "Fred, I've got such a cold this morning that I can't speak the truth." Dr. M—: "Well, I'm glad that it's nothing that will interfere with your business."

A CERTAIN English general, being at the point of death, opened his eyes, and seeing a consultation of four physicians, who were standing close by his bedside, faintly exclaimed: "Gentlemen, if you fire by platoons it's all over with me," and instantly expired.

Mrs. DUNNUP—Awfully dull down here, isn't it, Miss Maria? Miss Maria—Do you think so? Why don't you go, then? You're a bachelor, and have only yourself to please. Maj. Dunnup—Only myself to please! You don't know what a doosed difficult thing that is to do.

THE Irishman had a correct appreciation of the fitness of things who, being asked by the judge when he applied for a license to sell whisky if he was of good moral character, replied: "Faith, yer honour, I don't see the necessity of a good moral character to sell whisky!"

HERE is a verbatim sample of a preacher's prayer of a coloured camp-meeting at Sonca, Md., last summer. "Oh, Lord! send down thy spirit! Let down do right foot ob Thy power! Oh, Lord! mount do gray horse ob Zion, an' come down an' stir us up wid long poles."

JUST as a Brooklyn citizen called his five-year-old son into the house, the other day, a playmate gave the boy a slap in the face, and he ran to his father for protection. "My son," said the fond father, "when a boy hits you like that, you must always strike back." "Oh, papa, I did. I hit him yesterday."

WHEN old Mrs. Bunsby had got through reading in the morning paper an account of the last fire, she turned her spectacles from her eyes to the top of her head and remarked: "If the city firemen would wear the genuine hum knit stockings, such as we make and wear in the country, they wouldn't be a bustin' of their hose at every fire."

THE base-ball season has ended, and the mellifluous mouthings of the umpire, as he manfully argues with the second-base man, are hushed. The arnica market is dull, and the new wing for the hospital will not need to be built for another season. The base runner has "got under" for the last time (we wish some of them had), the home plate and got a "slide," "fly" time has passed, the has only batter in the land is in the griddle-cake pan. The boys have earned this run.

THE CANADA LUMBERMAN

AND MILLERS', MANUFACTURERS', AND MINERS' GAZETTE.

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TORONTO, ONT., OCTOBER 30, 1880.

"Rome was not built in a day." Our patrons will kindly bear with the LUMBERMAN, for a few weeks until fairly under way. In the meantime send in the subscriptions. We have had to write out a number of receipts and enjoy the exercise.

A NEW AND VALUABLE INVENTION.

Mr. Finlay Ross, of Byng Inlet, has invented and patented a gang of circular saws, which will probably supersede the ordinary stock gangs of upright saws. Mr. Ross can, by a simple contrivance, arrange on one mandril any required number of saws, which may be taken off at pleasure, as easily as the ordinary gang by shifting a key and coupling, placed near a pulley at each end of the mandril. The inventor claims that his gang of circulars will cut a much larger quantity of lumber than the usual gang, and that the face will be smoother. Another advantage claimed by Mr. Ross is, that as the saws are arranged so as to run with the grain of the timber they will cut easier and make smoother work than the ordinary circular saw revolving against the grain of the log. Two logs are fed with press rollers in the ordinary way. There seems to be a mine of wealth in this simple invention, when fairly introduced.

A WARNING.

A writer describing the lumbering operations on the Penobscot river, State of Maine, refers to the City of Bangor, at the head of navigation on that river. He says, Bangor contains between 17,000 and 18,000 inhabitants, and it never can grow larger. In the past it has been noted for its immense lumber trade, but now that business is rapidly coming to a close. Up to 1872, lumbering was carried on briskly at Bangor,—now a large number of saw mills have discontinued operations, and the humming of saws, the puffing of tugs, the rafts of logs and the crowds of lumbermen which once frequented them, are sights and sounds which are seen and heard no more. Here was a region settled in the latter part of the 18th century, and lumbering had been its chief industry for about 50 years. The axe of the lumberman and the saw of the mill had done their work in depleting the forests of their grand old trees.

The river, for miles, was lined with saw mills. These mills so filled with animation, so heretofore to their proprietors, are now gone into disuse. The haste and waste, with which the forests were cut down and the timber sawn into lumber, compelled the abandonment and brought the growth of the city of Bangor to a standstill.

THE MINERAL WEALTH OF CANADA.

In every Province of the Dominion, discoveries are frequently being made of gold, silver, and a host of economic minerals. Nova Scotia has for years been celebrated for its gold bearing quartz. The latest special item from that Province is that a new bar of gold from the Yarmouth Greenport mine has been shown to a St. John Telegraph reporter by Mr. Henderson, the secretary of the company. It weighed 42 ounces—four ounces less than the last specimen from that mine exhibited, but is much purer—and is worth in the neighbourhood of \$800. The company intend shortly putting in machinery that will crush fifteen tons a day instead of three as at present; this can be done at but trifling cost, and with but few additional hands. The prospects of this mine are said to be excellent.

The Halifax Mail says The Tangier gold field is being rapidly developed, and promises to be one of the richest in the province. A few days since a son of Mr. Timothy Archibald, who owns and runs the line of stage-coaches that runs to the eastward, discovered a lead near Salmon River, in the Tangier district, which is thirty-three inches in width, and from the indications given by boulders on the surface, and by quartz taken just below, will prove of unusual richness. A company has been formed to work the new mine, and operations will be vigorously pushed. Another lead, thirty-six inches wide, has also been recently discovered in the same district. Surface samples that have been taken out, crushed, and assayed show an average yield of ten pennyweights to the ton. A handsome brick of gold, valued at \$1,100, was shown us to-day. It was taken from the mine at Moose river, owned by Messrs. J. R. Johnson and W. G. Cole. This mine is yielding very fair returns, and this last result is the result of thirty days' work for five men.

From Pitou six thousand and twenty tons of coal were shipped last week, making the total shipments to date 231,708. Following are the figures:—Halifax, 171; Acadia, 1,106; Intercolonial, 2,259; Vale Co., 2,482; total 3,020. Total to date—Halifax, 86,202; Acadia Co., 46,791; Intercolonial Co., 49,627; Vale Co., 46,082; total 231,708.

Word comes that the Lake George, N. B., Antimony Mining and Smelting Co. have struck a large vein of silver ore, the specimens shown being very rich. This mine is employing from 25 to 50 persons, and has made two shipments of very pure ore to Great Britain lately; and that Mr. Hibbard's mine has been sold to the Hibbard Antimony Mining Company for \$200,000, one half paid in cash and the other half in the stock of the company.

A large mineral belt has been discovered in Cape Breton, between Marble Mountain and Malawatch, in which gold, silver and copper are found.

In the Province of Quebec, the discovery of a gold nugget weighing six ounces is reported from the Delery concession, River Gilbert. Mr. Delery has formed a new company to work the precious metal, under the name of the East Branch Gold Mining Company. Copper mining is also profitably carried on in the Province.

A glance at the Ottawa Valley shows, according to a sketch recently furnished by Mr. Garret, a trust-worthy geologist residing at Ottawa, that a very large number of economic minerals are found in that valley. He first refers to Apatite (phosphate of lime) which is found in abundance in that region, and as an economic fertilizer has developed itself to such an extent as to claim the rank of a staple and indispensable mineral. Year by year it continues to be developed, and the promise for the future is bright and substantial.

Felspar is abundant. Mr. Garret thinks, that as the grey variety which is important in the manufacture of porcelain chinaware, manufactures might be established with profit, for the production of ceramic materials.

Plumbago, in large deposits has been discovered and worked. The ores are rich in pure and "dissipated" quality. Liberal capital, labour and patience have been expended to carry forward this valuable enterprise, to perfect the manufacture, and it is acknowledged, in pencil work particularly, equal, if not superior to the best European stock.

Molybdenum—a new species of graphite was recently discovered in the County of

Renfrew and is now being brought into a commercial position for export. The market is limited and only for exportation, at \$1,000 per ton. Its localities for location is mostly confined to the neighbourhood of iron and plumbago.

Mr. Garret, also mentions as products of the Ottawa Valley, nickel, (oxide), manganese, baryta, (sulphate of lime), asbestos, bog iron ore, iron pyrites, antimony, celestine or ston-tia, copper, iron ore, silver, gold, soap stone, syenite, or granite, mica, marble, peat, and marl. Mining in the Ottawa region gives employment to a large number of men.

Iron mining is becoming a large industry in Madoc, Marmora, and further westward in the range of townships extending toward Lake Superior.

Gold has been discovered near Perth, which yields \$123 to the ton. The mine is situated on a lot of one hundred acres, about seven-tenths miles from the town, and is the property of W. Hicks, who, with several other gentlemen, are arranging to develop it.

The lake Superior region is well known to be rich in silver, gold and copper.

From the region near the Lake of the Woods, it is reported that Mr. E. Faye, an engineer lately in the employ of the Pacific Railway has found specimens of rich gold bearing quartz. Some of the nuggets were as large as peas, while in much of the quartz the "flower gold" showed the glittering particles profusely all through. Mr. Faye reports the discovery of silver, copper and asbestos. The mineral is found chiefly on the rocky islands, which are interspersed throughout the lake.

These discoveries were made near Rat Portage. Mr. Faye has obtained 25 cents' worth of gold from three-fourths of a pound of ore, which is equal to \$666 per ton, and there is every reason to believe that the gold mines in the that section will pan out fully as well as its discoverers are led to believe.

In the North-west Territories coal is found in abundance; and towards the Rocky Mountains, gold in sufficient paying quantities has been already obtained. Passing on to British Columbia—that Province is rich in gold, silver and other valuable minerals.

When to this is added our salt and petroleum springs, it is evident that the Dominion of Canada has, within itself, enough mineral wealth which only needs development, to add immensely to the producing industries of the country.

NOTES FROM GEORGIAN BAY.

Last week we intended visiting the saw mills at Midland and vicinity before they closed down for the season, but found that time did not permit the trip to be extended farther than the Waubausheno and Severn mills. The latter mills closed on Thursday, the 21st inst., to allow the men to go to camp for winter operations. The past season's work at the Severn mills has been satisfactory. There is yet on hand in the mill yard about 6 million feet of lumber. Probably about 3 million feet of this will be transferred to Waubausheno docks before the close of navigation. The Waubausheno mills were in full operation, and likely to continue at work for two weeks yet or longer, as a further supply of logs is expected. The mills are situate at the mouth of Matchedash Bay, on the Midland Railway, which has six tracks running through the mill yard, and a leading track extending along the dock, where barges unload lumber intended to be conveyed by railway from the Severn mills, about four miles distant. This extensive and complete establishment, which gives employment to over 150 men, during the summer season, is a pattern of neatness and convenience. A church and schoolhouse have been erected by the Company (Hon. W. Hodge & Co., New York,) for the accommodation of the workmen. Similar accommodation is provided by the Company at the Severn mills, which also gives employment to over 150 men. The Company have also erected a large building, with 26 bedrooms, for the use of parties having business to transact at the mills, as well as for transient travellers. This is named "The Dunkin House," which, as its name indicates, is a temperance hotel. The temperance principle extends over the whole

Company's works, it being a stipulation with employees, when engaged, that they shall abstain from intoxicating drinks while in the Company's service. The present landlord of "the Dunkin House," is Mr Perkins, measurer and culler. He keeps an excellent horse, at the ordinary charge of \$1.00 per day.

It may be noticed here that the Waubausheno establishment is head quarters of several extensive saw mills on the East coast of the Georgian Bay, incorporated about ten years ago, at the instance of the Hon. Mr. Dodge, of New York, and others, under the names of the Collingwood Lumber Co. (at present under the management of Mr. D. G. Cooper) the Georgian Bay Lumber Co., (including the Waubausheno and Severn Mills, under the management of Mr. T. W. Buck;) the Parry Sound Lumber Co. (mills at Parry Sound, since sold to J. C. Miller, Esq.,) and the Maganotawan Lumber Co., under the management of Mr. J. H. Beck. The general supervision of the whole concern is vested in Mr. T. W. Buck, Waubausheno, who has proved himself a very capable manager. We had not the pleasure of seeing Mr. Buck on this trip.

Besides the powerful propeller Maganotawan and the tug Hayes, the Company have a handsome steam yacht, which when in port is protected from the weather by an enclosed shed built alongside the dock. Preparations are being made to have another steam tug, 90 feet keel, built this winter.

Each establishment belonging to the Company is provided with a well-appointed machine shop, so that everything is kept in the very best repair. The manager's residence—a handsome mansion—is built on a rising ground, a short distance south, commanding a complete view of the bay and mills. The office and general store are near by the mills, and together with the workmen's residences, make quite a village. Every branch of the work is thoroughly systematized, so that, for instance, if a sale of lumber is made, the manager can tell, from the reports sent in to him, where a certain pile stands, its quality, etc., without leaving his office.

To give some idea of the extent of the business done at this place, it may be stated that one day lately there were one hundred and six cars of lumber and square timber in the yard consigned to points over the Midland Railway, principally for eastern markets.

Wages during the summer range from 65 to \$35 per month—paid, the workmen say, promptly and regularly. In the woods at present, wages range from \$15 to \$18, so that the rate during winter, with board, is equal to the summer rate, without board.

Towards Midland, along the railway, are Tanner's mills and Christie's mills, each of a capacity of turning out 25,000 to 30,000 feet per day, and Power's mills,—capacity 75,000 feet per day.

On the Midland Railway, towards Orillia, is Mr. Ross's mill, at Fesserton, about two miles east of Waubausheno. This mill has a capacity of about 25,000 feet per day.

At Coldwater is the shingle mill of Mr. Lovering, and (that of Messrs. Hall & Co. They turn out a large quantity of shingles each year.

At the Alma station, another mill has just been put up by Messrs. Wyley & Tait. When it is completed, which it will be in a month or six weeks, its capacity will be 25,000 feet daily, besides two shingle machines, capable of cutting 40,000 per diem. There is also a lath machine attached. Mr. Wyley will have the management of the working of the establishment, and as there is a good supply of timber convenient, will be likely to make the concern pay well.

A little farther east is Mr. Haddin's mill, and at Uttox station, another mill, run by

Mr. Overend, both are doing a good business. Although the woods in the neighborhood were worked over by lumbermen ten years ago, there will be found enough timber to keep these mills running for eight or ten years yet. Reaching Orillia, we come to Andrew Tait's mills, with a capacity of 25,000, and two shingle machines of a capacity of 40,000 per diem. A local paper, recently referring to this mill, says:—

Mr. Tait came here some fourteen or fifteen years ago, and started a little shingle mill on the premises still occupied by him, and by industry, perseverance, and business tact he has succeeded in bringing up his trade to its present dimensions. Visiting the establishment a few days ago, we found a large number of workmen employed in the various departments of bringing up timber to the saws, to be out into boards, shingles, and square timber, measuring, piling, shipping, etc., the machinery used enabling the men to do their work with great despatch. But though Mr. Tait does an extensive lumber business in his own mills (for he has several), yet he passes, possibly, as much through his hands as an agent, and thereby considerably increases his income. It is in this way of turning over large quantities of stuff, rather than by large profits that Mr. Tait makes money, for, after all, the large profits talked of in the lumbering trade, are more imaginary than real.

OUR QUEBEC LETTER.

THE LUMBER TRADE—THE GREAT SALE OF CROWN LANDS—ENGAGING MEN FOR THE SHANTIES—NEXT YEAR'S SUPPLY—PRICES CURRENT.

QUEBEC, 25th Oct.—The most important event in the timber trade since the date of my last letter, is undoubtedly the recent great sale of timber limits by the Crown Lands of the Local Government. It is an encouraging sign to those engaged in lumber, that the prices obtained were much higher than have been paid for many years past. Nor can these prices be attributed in my estimation to any sudden excitement in the minds of buyers from the competition of the auction, or even from extravagant and speculative anticipations of further improvement in trade. The attendance at the sale included all the best known lumbermen from the districts of the Ottawa, Three Rivers, Quebec, and St. John N. B. The purchasers were principally found to be of the most cautious, conservative, and experienced operators of the country. Most of them had either personally investigated the limits upon which they bid, or possessed confidential information from explorers employed by them. Close observers at the sale noticed that some of the lots sold were knocked down to parties, who were undoubtedly buying for leading capitalists sitting near them. Several of such were present;—well-known business men, who though not actually engaged in lumbering operations themselves, have been in the habit of advancing large amounts to those actually engaged in the trade. Larger prices than would have been otherwise realized, were doubtless in some degree obtained by the prevalence of the impression that the pine limits offered at this auction were amongst the last really first class wooded lands remaining in the hands of the Government of Quebec. Three hundred and forty-five dollars a mile is undoubtedly a big price, but there are in the trade very few who would care to insinuate that the money paid for the lands in block "A" of the Upper Ottawa Agency is too high. If the reports of the railway surveying party which explored this portion of the forest some ten years ago are to be credited, most of the purchasers of these lots will realize fortunes out of them. For some few years to come they can of course look for no return, their lumber being in the main, quite inaccessible. The Federal Government will have to be looked to, for improvements in the streams; but as the pine becomes more scarce, those improvements will have to be made as a matter of course. It is too, by no

means improbable, that some of the lands will be partially opened up by the contemplated extensions of the various lines of railways in the district of Ottawa. Speaking of railways reminds me of the fact that several operators in the Ottawa district are seeking to make terms with

THE Q. M. O. AND O. R. R.

for the conveyance of their lumber to Quebec next season, by this line, instead of by water. I do not think it necessary to give here the prices obtained and the names of the purchasers at the Local Government sale of timber limits, since they have all been published in the daily papers. The Provincial Treasury has been swelled by the sale to the extent of some \$282,000. Whether or not the Honorable Commissioner of Crown Lands has served the interests of Quebec's future by throwing all these valuable lots into the market together, will be judged of better hereafter than now. The trade has certainly no ground of complaint in the matter, since no one apprehends another glut in the market.

SHANTYMEN.

The local timber brokers and agents of western lumbermen are busy engaging shantymen. This is a much less easy matter this fall than it has been for some years past. Fortunately for themselves, and consequently for general business, the number of unemployed workmen is now much less than it has ever been since the commencement of the late financial depression. Some hundreds of men have been already sent to the bush from this city and ninety more leave to-night. Of these, the greatest number are bound for the oak forests of Ohio and Michigan. Wages run from \$24 per month for hewers to \$45 and \$46 for broad axe men. Almost all of this batch are French Canadians. After this date it will be difficult to engage many more shantymen here this winter.

SALES AND PRICES CURRENT.

Within the past week or ten days a great many sales have been made for future delivery. Something like 500,000 feet of oak have been sold in various lots at the undermentioned prices:—

Oak, Ohio, 70 feet, average... 50 cents.
" Michigan, 60 ft. " ... 48 cents.
" Canada, 60 ft. " ... 45 cents.

Nothing has been done here in pipe staves since the date of my last letter. Quotations remain as before. For West India, white oak—\$80 can be had on contract.

West India, red oak, could be sold 1 1/2 thick, for \$74.

Board pine, 20 inch string, 33 cents. A quantity has been contracted for at this price.

In elm and birch there is nothing doing. Hickory, 45 feet average, commands 32 cents per cubic foot.

Black walnut is scarce and in demand. Western ash, 14 inches and upwards, 32 cents.

MINING NOTES.

Mining intelligence just now is almost nil. The rights of the Canada Gold Mining Co. in Beauce have been bought up by Mr. De Lory and others, who are forming themselves into a new Co. A large development is looked for next year in the phosphate industry, owing to Canada's wealth in that direction having attracted the favourable attention of French capitalists.

THE CREDIT FONCIER.

The capital stock of this institution has all been subscribed in Franco, and Mr. Thors, Assistant Manager of the Bank of Paris has arrived here to enquire into the resources of the country and report upon the advisability of increasing the capital to 50,000,000 francs. Money is certainly cheap enough here at present, but this influx of foreign capital will doubtless cause a further reduction of one to two per cent.

THE SEASON OF NAVIGATION.

will be closed here in about a fortnight. Already the ship labourers are leaving to seek employment for the winter in the southern ports.

STADACONA.

The Brockville lumber shippers have presented a beautiful epergne to Mr. J. A. McKinnon.

Mr. Milne, of the township of Scarborough, whose saw mill was destroyed by fire last week, estimates his loss at \$22,000, on which the insurance is only \$2,000. He will commence re-building at once.

OUR PARRY SOUND LETTER.

ACTIVE OPERATIONS—SHIPPING—STEAM BARGES—LUMBER CAMPS.

Parry Sound, Oct. 23, 1880.

The season's operations, as far as sawing is concerned, are drawing to a close, but yet considerable remains to be done. To expedite shipping, J. C. Miller, Esq., M. P. P., has purchased a steam barge and schooner rigged consort. They will carry about 700,000 feet of lumber, each trip, and left this week with a full cargo for Tonawanda.

Men are at work in the woods getting out next season's stock.

The Ontario Bank is estimated to take out seven million feet direct, this ensuing winter, and three millions under contract by Messrs. S. & J. Armstrong, of McKellar, lumber jobbers.

J. C. Miller, Parry Sound Lumber Co., will take out with his own men about ten million feet, and per Messrs. Armstrong, three millions, which is about the same quantity he took out last winter.

The Maganetawan Lumber Co., Byng Inlet, (J. H. Buck, Manager), will, with their own men, take out about eight million, and by Messrs. Armstrong, in the Townships of McKellar, Hagorman, Farrie and Croft, about six millions. Mr. Isaac Cockburn will take out about five million feet for the same company, via Deo Lake, and Maganetawan River.

Mr. Wm. Beattie, Parry Sound, will take out with his own men about three million, in the Township of McDougall, and by Messrs. Armstrong, in the Township of McKellar, about one million.

Mr. O. F. Wright, of Barrie, is operating in the Townships of McKellar, McDougall and Smith taking out pine. He also has a gang of men at work taking out oak. The oak after being drawn to Parry Sound on sleighs, will be snipped thence by water without transhipment to Quebec.

Mr. Wright has two gangs of men at work taking down board timber by the Shavanaga river.

Mr. Lewis Stiller, is also taking out three million feet, by the same river, for Mr. Beck, of Penetang.

Operations are also progressing in Moon river.

Mr. Neagle is taking out board timber on South river emptying into Lake Nipissing, this will come by French river, the first raft by that route came down last season.

Messrs. McDougall & Smith are operating on the north shore of Lake Nipissing where there is some fine timber.

Messrs. Armstrong have five camps, with about 120 men at work.

Wages range at from \$12 to \$18 per month, hewers from \$35 to \$40.

SEQUIN.

FROM MIRAMICHI.

Our Chatham, Miramichi, correspondent states that shipping continues brisk from the different stations on the Miramichi river. Notwithstanding the large number of logs "hung up" but very few ships have been delayed in loading.

The stocks of deals at the different mills are much less than they have been for many years, and there are yet expected to arrive, some 15 or 20 vessels, which will still further reduce the winter stock. Had all last winter's logs been brought to the mills and been sawed up, the stock remaining to be held over would fall far short of what it has been for many seasons past. The lumber trade has never been better than at present here.

Large numbers of logging parties have been in the woods for some time, and many are just preparing to go (Oct. 22nd.) Logging will be carried on more extensively this winter than last, but our merchants will have to act with great caution in making contracts owing to the uncertainty of getting logs to market the same season they are cut.

This arises from the fact that the greater portion of the logs are now cut on a small stream far from the main waters of the Miramichi, and in spring especially, when there is not much snow, as was the case last winter, the water is so scarce that thousands have to remain until the fall rains.

About 10,000,000 feet of last month's logs are expected at the rafting ground this week, some of which may be down to the mills next week, but few of them will likely be cut this fall, if not absolutely required to make up cargoes.

The recent rains have caused St. John river to rise five feet, and the gain of logs at Grand Falls has been in consequence broken. A considerable quantity of timber has also been set free on the Miramichi river.

A young Mocklenburg noble went recently to Monaca with an old family servant, and won at a sitting \$60,000. Judge his amazement when on the next morning the old and trusted servant was nowhere to be found, having fled and taken the money with him. The man, it was presently discovered, had taken the money to the young noble's home, that it might be safely out of harm's way.

REID & CO., WHOLESALE LUMBER DEALERS. Lumber, bath, shingles, &c. Car lots to suit customers. Best cuts in the market for from \$6 to \$7 per M. OFFICE ON DOCK—Esplanade, foot of Sherbourne Street, Toronto. 211

DISSOLUTION OF PARTNERSHIP.

THE PARTNERSHIP HERETOFORE existing between Geo. BRUNOON and Wm. DINGMAN, as Machinery Brokers, has this day been dissolved by mutual consent. All accounts will be settled, and the business carried on by Geo. Brunoon, under the name and style of Wm. Dingman & Co.

Geo BRUNOON,

Wm. DINGMAN,

Witness: Ed. E. KING.

LAUDER & THORNTON MFG. CO. MANUFACTURERS OF

Steam Gauges, Vacuum Gauges

ENGINEERS & PLUMBERS' BRASS GOODS, &c.

98 Adelaide Street East, Toronto.

Steam Gauges correctly tested and repaired. 2-611



Ontario Agricultural College.

TENDER FOR COAL.

Saled Tenders will be received by the undersigned until the evening of Friday, the 5th of November for the following supplies for the Ontario Agricultural College, Guelph:—

200 TONS SOFT COAL.
50 TONS HARD COAL.

The above coal to be Scranton or Pittston. The tender to name varieties and prices of soft coal. Coal to be well screened, and free from slack, and to be delivered satisfactorily at the Institution as required during the month of November. For forms and conditions of tender apply to

JAMES MILLS,

President.

Guelph, Oct. 23rd, 1880.



Andrew Mercer Ontario Reformatory for Females.

Tender for Labour of Inmates

Offers addressed to the undersigned will be received up to noon of

WEDNESDAY, 10th NOVEMBER,

for labour for a term of five years the labour of fifty or more of the adult female prisoners committed to the REFORMATORY FOR FEMALES, TORONTO, together with the requisite amount of shop space, properly heated and lighted, which is all the Government will furnish.

Tenderers will require to state the number of prisoners required, the exact nature of the industry it is proposed to carry on, and the amount of shop-room required. The highest or any tender not necessarily accepted.

The shops and premises may be seen any day, between the hours of two and five p.m., and any further information may be obtained from the undersigned.

J. W. LANGMUIR,

Inspector of Prisons and Public Charities. Parliament Buildings, Toronto, 20th Oct., 1880. 2

King of the Cannibal Islands.

A TALK WITH THE GOVERNOR OF THE ISLANDS OF FIJI.

The newly-appointed governor of the Fiji islands, George W. Des Vaux, and staff arrived from England a few days since. He left this city yesterday en route for the Fiji island. A reporter for the Graphic called upon Gov. Vaux at the Fifth avenue hotel and obtained much interesting information concerning that almost unknown and greatly misrepresented group of islands. Of the present condition of the Fijis and their commercial relations with other countries the governor said he could speak from personal knowledge, having spent many months there.

"To begin with," he said, "I will say that the natives are no longer cannibals, but all of them are civilized and Christians. The islands since 1874 have been under British rule, the ex-King Cakoban having ceded his domains to Queen Victoria, only asking in return that England take future control of them. Since that time great prosperity has been the result. Our farmers received the gold medal at the Centennial exhibition, the Paris exhibition, and at the Sydney exhibition for Sea Island cotton. They also took the gold medal for coffee at the late Sydney exhibition. The growth of cotton has only been recently introduced on the islands, but is making great strides. In the production of sugar much progress has been made, and in the next few years large crops will be exported. A Sydney corporation has recently invested £150,000 in sugar plantations, and it is expected that other companies will follow, the climate being excellent for the growth of sugar cane. There are many thousands of acres of land on the larger islands set apart for the production of coconuts, and quite a trade has been established with the Sydney and Australian colonies. The copra, which is really the meat of the coconut, is valuable and turned into oil. The coffee yield in the third year after plantation is excellent and has, in many instances, flowered in the second year. The labour market is all that is needed. The government does not encourage the employment of native labour at a distance from their homes, as it tends to decrease the population of the islands. Abundant labour can be obtained through the government from the Solomon islands and New Hebrides at a very cheap rate. The cost to the planter with food is less than 1s. per day. Emigration has lately been started with the Indian colonies, so as to provide for any demand that may be made by reason of the extra cultivation of land. These labourers are generally engaged for three years, and receive their pay at one time, at the end of the contract, which cannot exceed that period. Then they are sent home, and if they choose to return they can do so after a limited time. They are paid through the government, and the only cost to the planter in the three years is the price of the importation and return of the men.

"Trade, in various commercial productions, is growing rapidly, and in the next year or two it is expected to be still more enlarged. The revenue returns, before the islands were ceded to the English government, amounted to about £13,000. In 1878, after four years of the present administration, the returns footed up £70,000, and last year £90,000. The white population now numbers a little over 2,000, and the native 100,000. Last year the births exceeded the deaths to a large degree. The area of the islands is about 80,000 acres, and the inhabited part is greater than the whole of the West Indies. The largest and representative island is Fiti Levu, about the size of Jamaica, and the second of importance, Suva, similar to that of Porto Rico. The climate is wonderfully good for that of a tropical country, and there is an utter absence of malarial fever, the only disease being dysentery, occasioned by poor living, and drinking to excess. The natives are by no means of an indolent disposition as one would imagine. A large number of them employ themselves in cultivating cotton or coconuts on their own account, and as a whole, are a peaceable race. There are no European soldiers on the islands except of those attached to the government department. The islands are divided into ten provinces, and each is governed by a sub-governor, or raka, as they are termed. These are assisted by the advice of a European magistrate. They make a return of about £20,000 to the government yearly on account of expenses. The colony is self-supporting, and pays for a mail between Sydney and Viti Levu.

"Cannibalism is a thing of the past. No more of it is seen or ever will be heard of again. The natives have become Christians through the agency of the Wesleyan churches and the Roman Catholic missionaries. In 1876 there were some ten thousand cannibals, who chiefly resided in the mountainous interior of the Viti Levu. They committed serious outrages upon the coast natives, and to-day all of them are as peaceable and as loyal as one could wish them to be.

Bathing.

It is important to recognize that the only virtues of water as used by the bather are two—namely, its value as a cleansing agent, and as a surface stimulant. In this last capacity it simply acts as a medium affecting the temperature of the part to which it is applied, or which is immersed in it. Right views of the fact in reference to this matter are important, as there can be no question that some persons overrate the uses of cold water, and run considerable risks in their pursuit of them. Every beneficial action that can be exerted by a bath is secured by simply dipping in the sea, or a very moderate affusion of cold water! Except in cases of high fever, when it is desired to reduce the heat of the body by prolonged contact with cold, a bath of any considerable duration is likely to be injurious. Then, again, it is necessary to recognize the risk of suddenly driving the blood from the surface in upon the organs. The "plunge," or "dip," or "shower," or "douche," is intended to produce a momentary depression of the temperature of the surface in the hope of occasioning a reaction which will bring the blood back to the surface with increased vigour, and almost instantly. If this return does not take place; if, in a word, redness of the skin is not a very rapid consequence of the immersion, it is impossible that the bath can have been useful, and in nine cases out of ten, when the surface is left white or cold, it does harm. The measure of value is the redness which ensues promptly after the bath, and this reaction should be produced without the need of much friction, or the bath is not worth taking.

Water Telescopes for Watching the Movements of Fish.

I have read somewhere a good account of water telescopes. I think it is in Galton's "Art of Travelling," which is full of information. I also when a student, read of their being used on some engineering work. I think it was during the improvement of the Shannon over thirty years ago. The principle is that you can see plainly to a great depth in water, especially if the bottom of the sea or river is of a light colour, if the surface is perfectly smooth. On a perfectly calm day, when the surface of the sea was like a mirror, I have seen scallops netted at Port Magee, Valencia, in from three to four fathoms of water, and on other occasions, on the west coast I have plainly seen the bottom of the sea to a far greater depth, while fishermen have told me that on such calm days they have seen the bottom in over forty or fifty fathoms. Such calm days are of rare occurrence, and if there is the least ripple on the surface you cannot see into the water. The use of the telescope, therefore, is to get below the disturbed surface into solid water. I made a water-telescope that I found very effective. It was a tin macecase, about three inches in diameter, and about three and a half feet long. I took off the top and knocked out the bottom, and looked through the tube when the end was about a foot, or a foot and a half below the surface. I had no glass in it, but a glass might be an advantage, as it would keep a column of air in the tube, and thus prevent the water oscillating in it. I would like to know to what depth the Norwegian fishermen can see. The water in their ponds is very clear, like the water off the west coast of Ireland, into which you can see, for much greater depths than into the water off the east coast. In fact, when the tide is on "flow" in the Irish Sea it is rarely possible that you can see down into it anywhere within half a mile of the coast, as the "tidal current" and the usual "ground swell" keep it dirty. On this account I am afraid the telescope might not be as effective as it ought to be in the localities mentioned by Dr. Backland.

The French Government has cut off the usual allowance of 8,000 f. or 10,000 f. to the Reformed Church of France for the formation of new parishes. The Chambers will be asked to renew the grant.

The Sound of Thunder.

The next remarkable feature of the storm is the thunder, corresponding, of course, on the large scale, to the snap of an electric spark. Here we are on comparatively sure ground, for sound is much more thoroughly understood than is electricity. We speak habitually and without exaggeration of the crash of thunder, the rolling of thunder, and of a peal of thunder; and various other terms will suggest themselves to you as being aptly employed in different cases. All of those are easily explained by known properties of sound. The origin of the sound is, in all cases, to be looked for in the instantaneous and violent dilatation of the air along the track of the lightning-flash, partly, no doubt, due to the disruptive effects of electricity of which I have already spoken, but mainly due to the excessive rise of temperature which renders the air for a moment so brilliantly incandescent. There is thus an extremely sudden compression of the air all round the track of the spark, and a less sudden, but still rapid, rush of the air into the partial vacuum which it produces. Thus the sound-wave produced must at first be of the nature of a bore or breaker. But as such a state of motion is unstable, after proceeding a moderate distance the sound becomes analogous to other loud but less violent sounds, such as those of the discharge of guns. Were there few clouds, were the air of nearly universal density, and the flash a short one, this would completely describe the phenomenon, and we should have a thunder crash or thunder clap, according to the greater or less proximity of the seat of discharge. But, as has long been well known, not merely clouds but surfaces of separation of masses of air of different density, such as constantly occur in thunder storms, reflect vibrations in the air; and thus we may have many successive echoes, prolonging the original sound. But there is another cause, often more efficient than these. When the flash is a long one, all its parts being nearly equidistant from the observer, he hears the sound from all these parts simultaneously; but if its parts be at very different distances from him, he hears successively the sounds from portions further and further distant from him. If the flash be much zig-zagged, long portions of its course may run at one and the same distance from him, and the sounds from these arrive simultaneously at his ear. Thus we have no difficulty in accounting for the rolling and pealing of thunder. It is, in fact, a mere consequence, sometimes of the reflection of sound, sometimes of the finite velocity with which it is promulgated. The usual rough estimate of five seconds to a mile is near enough to the truth for all ordinary calculation of the distance of a flash from the observer. The extreme distance at which thunder is heard is not great, when we consider the frequent great intensity of the sound. No trustworthy observation gives in general more than about 9 or 10 miles, though there are cases in which it is possible that it may have been heard 14 miles off. But the discharge of a single cannon is often heard at 50 miles, and the noise of a siege or naval engagement has certainly been heard at a distance of much more than a hundred miles. There are two reasons for this: the first depends upon the extreme suddenness of the production of thunder; the second, and perhaps the most effective, on the excessive variations of density in the atmosphere, which are invariably associated with a thunder-storm. In certain cases thunder has been propagated, for moderate distances from its apparent source, with a velocity far exceeding that of ordinary sounds. This used to be attributed to the extreme suddenness of its production; but it is not easy, if we adopt this hypothesis, to see why it should not occur in all cases. Sir W. Thomson has supplied a very different explanation, which requires no unusual velocity of sound, because it asserts the production of the sound simultaneously at all parts of the air between the ground and the cloud from which the lightning is discharged.

MR. MACKAY, the Bonanza millionaire, is said to have become morose and suspicious, so many adventurers and impostors having practiced on him that he has lost faith in human nature.

It makes a mother's heart revert to her younger days when she comes into the parlour next morning after her daughter's boat has been found, and finds only one chair in front of the fireplace and the others sitting along the wall as if they hadn't been touched for three years.

Big Farms on the Pacific Coast.

The "Mammoth Farm," of the Blacklock Wheat Growing Company of Washington Territory, comprises 60,000 acres of wheat land, of which 25,000 acres are fenced. Ground has been broken for a crop which is expected to foot up between 300,000 and 400,000 bushels.

Another large farm is that of Dr. Hugh J. Glenn, of California. It is in the Sacramento Valley, and comprises 65,000 acres of which 45,000 acres were in wheat this year. The owner had provided 350,000 sacks, each holding 140 pounds, but at last reports they promised to be unequal to the task of holding the crop. Dr. Glenn has his own machine shops, blacksmith shop, saw and planing mills, etc. He manufactures his own waggons, separators, headers, harrows, and nearly all the machinery and implements used. He has employed 60 men in sowing and 150 in harvest, 200 head of horses and mules, 55 grain headers and other waggons, 150 sets of harness, 12 twelve-foot headers, 5 sulky hay rakes, 12 eight-mule cultivators, 4 Gem seed sowers, 8 Buckeye drills, 8 mowers, 1 forty-eight inch separator, 36 feet long and 13½ feet high, with a capacity of 10 bushels per minute; 1 forty-inch separator, 36 feet long; 2 forty-foot elevators for self-feeder, 1 steam barley or feed mill, and 2 twenty horse power engines. The forty-eight inch separator thrashed, on the 8th of August, 1879, 5,779 bushels of wheat.

Hysteria.

Hysteria is by no means confined to women, for one of the worst attacks which I have witnessed occurred in a man. This gentleman one day found he had lost his all, and on returning home, he became the victim of laughing and crying, until sheer exhaustion brought an end to the attack. This was quite involuntary. But it might be remarked that even in hysteria such a thing as fashion prevails, showing that a certain power of restraint may be used. When I was a boy, hysteria was the fashion; and if during conversation any remark was made to touch a lady's sensibilities, she would clench her hands, make a wry face, her eyelids would undergo a rapid vibration, she would give a sob or two, and sink from her chair. The cure was accomplished by throwing cold water over her face; and if this encroached on her neck or weited her dress, the cure was very sudden and complete. During church service, it was the usual practice to have a young lady carried out; but I think as a rule she belonged to an inferior class, whose kind of work during the week did not allow them to play dress-making tricks with themselves on a Sunday; for if I remember rightly the cure was effected in their case by the call for a pen-knife. This was used to loosen the body-armor, when a loud explosion took place, followed by a deep sigh and a speedy recovery of the patient. So fashionable was fainting or hysterics in church, that I have a lively remembrance of a young lady who had a weekly attack, and was often carried out by a gentleman in the next pew. As these two were afterward married, I apprehend that this was one mode of courtship. I am only too thankful to think, for the peace of other people, that this method of forcing matrimony has gone out.

Disappearance of a Railway Train.

For a railway train to be lost, to entirely disappear, would seem to be almost impossible, yet this curious casualty has actually happened in the United States to the Kansas Pacific Railway, which has spent \$2500 in searching for the runaway, and has at last given it up in despair. About 100 miles west of Kansas city, the line runs through a place called Monatony, which was visited some time ago by a terrible storm and water-spout, over 600 feet of track having been washed away. The adjacent neighbourhood, which consisted of huge rolling prairie, was eight feet under water, and it is conjectured that the locomotive waggons (it luckily not being a passenger train) were carried away and buried under a landslip. This is the second time of such an occurrence, an engine having been lost in a quicksand at Kiown Creek in 1818.

"How musically his hoof-beats sound!" exclaimed an enthusiastic lover of the turf, as St. Julien speeded around the course at Brighton last week. "Yes," replied his matter-of-fact companion; "he is boating time."

A New Oil Monopoly.

A very powerful combination of western capitalists has obtained control of the oil producing country of California discovered up to the present time, which consists of a section of the Coast Range mountains, five hundred and fifty miles in length, stretching from Santa Cruz to Santa Barbara and two hundred thousand acres. For four years the work of examining the region by experts has been going on and is now completed, and every spot giving indication of oil has been secured. Part of the region was government lands and part of it has been leased for twenty years from farmers and ranch owners who had obtained possession. During the last twelve years three parts of the oil-bearing region have been partly developed by various men, and the present monopoly is the result of successful combination of the original owners, who finally sold their interests to the three leading men: C. N. Felton, ex Assistant United States Treasurer, and one of California's large capitalists; Lloyd Tevis the president of Wells, Fargo & Co. Express and Bank, and D. G. Scofield. They have formed the Pacific Coast Oil Company, and under its control the California oil country promises to be one of the great important oil-producing regions of the world. During the last six months rapid strides have been made in developing the region. Wells have been sunk which show excellent results, machinery bought, works and refineries constructed, pipe lines laid, barrel and cask factories built, and with unlimited capital enormous negotiations are effected for the equipment in every respect of a gigantic business enterprise, which is probably destined to exert a strong influence upon the Pennsylvania district, and upon all existing oil markets.

A short time ago Messrs. Felton, Tevis, and Scofield bought the entire stock of the company, and now have sole control of the business. About twenty one "rigs" for drilling are now in process of construction, and the development of the country will be pushed as quickly as money can push it. The last well which has been drilled was a fifty barrel pumping well in the Santa Cruz district, which was struck last week. The company now has sixteen wells down in the region which yield three hundred barrels daily, and new wells are begun nearly every day. The average per centum of lubricating oil gained from the crude is seventy-five per centum, which is a large average. The home market at the present time absorbs all the oil that the country can produce, but the amount produced will soon run beyond the capacity of the home market, which includes California, Nevada, and Oregon.

Touching the markets which the Pacific Company claims for their oil, a few facts will suggest the condition under which these men enter into competition, with eastern oil producers in the United States. California, Oregon, and Nevada together consume 3,500,000 gallons yearly. Japan, which is from five to six months sail "around the horn" from New York, and thirty-five days' sail from San Francisco, consumes 15,000,000 gallons a year, China, which is fifty days' sail from San Francisco, and Japan consumes 5,000,000 gallons a year; Java, sixty days from San Francisco, and five or six months from New York, consumes 5,000,000 gallons a year, and Mexico, Australia, and the Sandwich Islands, each large consumers, are also advantageously situated for the California trade.

Last year the production of the Pennsylvania region was nearly 20,000,000 barrels. Nearly all the oil sent to China, and Japan from this part of the United States, is carried by ship around the Horn and the Cape of Good Hope. The shorter voyage from California is an immense advantage to the new monopoly.

Fasting Horses.

To determine the capacity of horses to undergo the privations incident to a state of siege, a series of experiments were made with these animals in Paris, some years ago. The experiments proved (1) that a horse can hold out for twenty-five days without any solid nourishment, provided it is supplied with sufficient and good drinking water. (2) A horse can barely hold out for five days without water. (3) If a horse is well fed for ten days, but insufficiently provided with water throughout the same period, it will not outlive the eleventh day. One horse, from which water had been entirely withheld for three days, drank on the fourth day sixty litres of water within three minutes. A horse which received no solid nourishment for twelve days was nevertheless in a condition, on the twelfth day of its fast, to draw a load of 270 kilos.

USEFUL RECEIPTS.

THE SKIN OF A BOILED EGG is the most efficacious remedy that can be applied to a boil. Peel it carefully, wet and apply it to the part affected. It will draw off the matter and relieve the soreness in a few hours.

TO CLARIFY FAT.—Cut into small pieces, fat of either beef or mutton. Put into a saucopan and cover the pieces with cold water. Still until the water boils, skim carefully and allow to boil until the water has all been discharged in vapour—the fat will then be of the colour of salad oil—strain and it will keep any length of time.

APPLE BATTER PUDDING.—Four beaten eggs, one pint of rich milk, two cups of flour, one teaspoonful of salt, two oven- or spoonfuls of baking powder. Peel and core eight ripe, tart apples; put into a deep, baking-dish; fill the centre of each with sugar and pour the beaten batter over them. Bake an hour and eat with cream and sugar, flavoured with nutmeg or melon.

GOOD APPLE BUTTER.—Boil a kettleful of new cider until reduced two-thirds. Have a quantity of tart, juicy apples pared, cored and sliced, and put as many into the kettle as the cider will cover. Cook slowly until tender, skim out and put in a second supply of apples. When tender turn all out and let stand over-night. In the morning return to the kettle and boil down until quite thick. Add whatever spice you please. It requires almost constant stirring.

QUINCE PRESERVES.—Pare, quarter, and core, saving the skins and core. Just cover the quarters of quince with cold water and simmer until tender. Take out the pieces carefully, and lay on flat plates. Add the parings, etc., to the water cover tightly and stew an hour. Strain through a jelly bag and to each pint of the juice add a pound of granulated sugar. Boil, skim, and add the pieces of quince and boil gently 10 minutes. Turn out and let stand over-night. In the morning skim out the pieces, boil up the syrup, put in the pieces, simmer 10 minutes, take out on to flat dishes and set in the sun. Let the syrup boil until it begins to jelly, then fill the glass cans two-thirds full of the fruit and cover with the syrup.

TO ROAST A TURKEY.—Make a stuffing of bread crumbs, pepper, salt, and a little piece of butter; mix it lightly with an egg. Stuff the craw. Split it, and lay it down a good distance from the fire, which should be clear and brisk. Dust it with flour, and baste it with cold lard several times. When done, serve it with its own gravy. Be sure to skim the oil from the top of the gravy before serving it in the boat proper for its appearance at table. If it be of a middle size, that is to say, seven or eight pounds in weight, an hour and a quarter should be allowed for roasting. The same directions answer for baking in a stove, only the process is slower, and will require from two to three hours, according to the tenderness of the flesh. If by any accident a turkey has been allowed to get stale or in the least tainted, wash it thoroughly in vinegar and water, in which a tablespoonful of bicarbonate of soda has been dissolved. It will remove all unpleasant taste and odour, and render the flesh more tender.

A Singular Privilege.

Lord Kingsale and Lord Forster both enjoy the singular privilege of standing covered in the presence of royalty. Lord Forster obtained this concession from Henry VIII., but the right belonging to Lord Kingsale dates from the reign of King John. It originated thus:—His ancestor, the Earl of Ulster had a very strong arm, and one day, at the desire of the King, he chopped a massive helmet in twain in presence of the French Sovereign. King John was so pleased at the feat that he deared him to ask at his hands any favour that he pleased, and the Earl replied that, as he had estates and wealth enough, he would only ask for himself the singular privilege referred to. It is related that on one occasion at a drawing-room George III. rather nettled at the length of time the hat was kept on, remarked, that although he had no wish to call in question Lord Kingsale's right to wear it in his presence, still his lordship might have remembered that there was a lady (the Queen) in the room.

A TELEPHONE operator, when asked to say grace at a dinner, the other day, horrified party, in a fit of absent-mindedness, by bowing his head and shouting, "Hello! hello!" Force of habit.

A Farmer's Creed.

At a recent farmer's convention held in Providence, the following creed was adopted:

"We believe in small farms and through cultivation; we believe that the soil lives to eat, as well as the owner, and ought, therefore, to be well manured; we believe in going to the bottom of this, and therefore deep ploughing, and enough of it; all the better if it be a subsoil plough; we believe in large crops, which leaves the land better than they found it, making both the farm and farmer rich at once; we believe that every farm should have a good farmer; we believe the fertilizer of any soil is a spirit of industry, enterprise, and intelligence; without these, lime, gypsum, and guano would be of little use; we believe in good fences, good farmhouses, good orchards, and good children enough to gather the fruit; we believe in a clean kitchen, a neat wife in it, a clean cupboard, a clean dairy, and a clean conscience; we believe that to ask a man's advice is not stooping, but of much benefit; we believe that to keep a place for everything and everything in its place, saves many a step, and is pretty sure to lead to good tools and to keep them in good order; we believe that kindness to stock, like good shelter, is saving of fodder; we believe that it is a good thing to keep an eye on experiments and note all, good and bad; we believe that it is a good rule to sell grain when it is ready; we believe in producing the best butter and cheese, and marketing it when it is ready."

SALT FOR SHEEP.—It is said that in Spain whenever sheep are kept in the neighbourhood of rock salt hills or sea salt and have access to it, they thrive better than in other situations, and in France the same thing is found to exist in the neighbourhood of the sea coasts and the salt works of the north, sheep give more and better wool, and the mutton is more highly esteemed than that from other localities. Where it is given to them when at pasture, the amount should be from half an ounce to an ounce each, daily; and it is a well-known fact that sheep never stray from an enclosure in which salt and water are provided for them.

Saddle Horses.

At the present moment there is a great market in England for almost every variety of agricultural produce, but prices for the general run of such animals as are exported, though satisfactory to the common graziers and stock farmers, are not high enough to tempt men of capital to breed, raise and prepare them for market.

Raising trotting and other horses does not remunerate very highly, because so few become fast enough to sell for the best prices, and as trotting is an unnatural pace to race in, a great deal of expense is necessary to keep and pay trotting men to handle the colts. Breeding race horses is no better, on account of the tendency among thoroughbreds to grow light and weedy, so that, should they fail in being fleetier than the average, there is no demand for them.

Now, as the best saddle horses in England are always in demand, and these of extra merit sell for very large sums, any gentleman who would go intelligently to work in selecting dams of powerful frames, and using a selection of the most fashionable blood, might secure an income of many thousands per annum by such management as would bring out from 10 to 20 young horses just fit for riding in the chase, and the thousands might be tens of thousands if with proper breeding and management, these young horses were large and strong enough to carry gentlemen of heavy weight up to the hounds.

The art of successful stock farming consists in producing such animals as will sell for great prices, without being obliged to expend heavily in preparing them, and these animals can be brought out fit for sale without any expensive training.

Saddle horses commanding prices equal to those of the best trotters here, will require no breaking to harness, for it would be a serious drawback to a valuable hunter to have been used in any way in harness.

"Who are these Pan-Probyterians that have been having a convention?" asked Mr. Slogger of his friend Jolliboy. "That's what I want to know myself," said Jolliboy. "I never heard of them till now. I suspect, though, it's only another name for the orthodox fellows who stick to the belief in eternal punishment. They probably call themselves Pan-Probyterians because whoever leaves them jumps out of the frying-pan into the fire."

Cider Vinegar.

The enormous supply of apples all over the country suggests the idea that a good part of them may be turned into cider vinegar with profit. Vinegar may be made directly from the apples, but it is much preferable to first extract the cider.

When cider is intended for vinegar it should be made with the same cleanliness as if intended for drinking or keeping, and the casks into which it is put for fermentation, should be equally sweet, and if old whisky casks are used, it improves the cider as well for vinegar as for drink.

There should be nothing added to the juice, as pure juice is best; the mustard seed, sulphate of lime, and other such ingredients used for stopping fermentation, injure the vinegar. The better the apples, the better the vinegar, and cider made late in the autumn from fruit rich in juices, is much better than that from windfalls and early-gathered fruit, as cider is better for the same reasons.

Vinegar may be made from crushed apples, or from the pomace after the cider is pressed out, as is often done from the pomace of grapes and of other fruits. The apples are ground and put into shallow holders where they are left to ferment for a couple of days, then pressed and the juice put directly into old vinegar casks containing mother of vinegar. If the weather is cool the casks are placed where they will be kept warm, and in a few months the vinegar may be drawn off into clean vessels. The chief auxiliary to producing vinegar quickly is exposing the fluid to the air at a mild temperature, but for the best cider vinegar, where haste is not necessary, it is better to extract and barrel the cider, allowing it to ferment as in the best process of cider making, and then using the cider as desired. Most cider vinegar, and perhaps the best, is made by leaving the bung open and allowing the change to take place gradually, which will be in a longer or shorter time as the temperature is warmer or cooler.

Numerous methods are in practice by large manufacturers who purchase large quantities of cider and expose it to the air in large vats in various ways. One process is to allow the cider to run slowly over beech shavings; another allows it to trickle down over boards or shelves, while still another process is to force bubbles of air through the liquor continuously.

A French method consists in scalding the barrels with water and then pouring boiling vinegar into them and rolling them until the barrels are thoroughly saturated, when the barrels are filled about one-third full of cider vinegar, and some two gallons of cider poured in each seventh or eighth day until the casks are two-thirds full. In two weeks from the time of adding the last two gallons, one-half is drawn off and the process repeated. The casks are kept as near a temperature of 50 degrees as possible.

This last process gives farmers a hint for producing cider as may be desired, by keeping the barrel in a warm place and adding cider to the vinegar barrel, or by putting a quantity of sharp vinegar into the cider.

The cores and parings left from drying apples may be used as above described, or they may be placed in jars or tubs, and warm water poured over them, and set in the sun or other warm place for a week or ten days and the juice added to the vinegar barrel, or used with the addition of cider. The principle of vinegar making is fermentation, and this comes from the presence of sugar, and may be hastened by yeast or similar aids, but the best agent to produce fermentation is strong old vinegar. The richer the juice in saccharine matter the stronger the vinegar, and the warmer the temperature and the more the vinegar is exposed to the air the more rapid the process.

The Roman Catholic bishop of R— is a most energetic cleric. He performs as much parish duty, I believe, as most priests. He received the other day the confession of a little boy. At the close said his right reverence: "Well, have you anything more to tell me?" "No," said the lad, deprecatingly, "but I'll have more next time!"

The other day a census-taker presents himself at a house where all is in confusion and several women are running to and fro with pieces of red flannel, camphor, and the like. "Have you any children," says the employer to the agitated head of the household. "I have two," replies the latter, "and—as it will save you the trouble of calling round again—if you will have the goodness to take a seat for a moment, I will have three—at least three."

MARKET REPORTS.

CANADA LUMBERMAN OFFICE, } TORONTO, 28th Oct., 1880. }

The stock of lumber on hand is small, and the demand for export continues in advance of the transport facilities afforded by the Northern Railway, which is practically the only route which feeds this market. Large quantities are on hand along the railway line waiting shipment. There is a brisk demand for vessels for United States ports. Rates to Oswego, stiff at \$1.50; but within ten days or two weeks the stock for that market will be about all shipped. There will probably then be a lull in the trade as local market is dull and will likely continue so. The docks in Oswego are full of lumber. The demand there is good, and while no great advance of price is looked for, the business is expected to continue healthy until spring, when if the anticipated large supplies are taken out this winter a decline will likely take place in prices. Building operations are brisk, and a good many buildings are expected to be put up next spring. Carpenters wages range from \$1.25 per day.

WHOLESALE RATES.

Table listing lumber prices in Toronto, including items like Mill culls, Shipping cull stocks, Dressing inch, Flooring, Joisting, Mill run sidings, Pickings, Clear and pickings, Lath, and Shingles.

LONDON, ONT.

Table listing lumber prices in London, Ontario, including items like Common Lumber, Stock boards, Clear in, and Lath.

OTTAWA.

Table listing lumber prices in Ottawa, including items like 12 in. stocks, S. culls, Flooring, Lath, Deals, and Cull deals.

DETROIT.

Table listing lumber prices in Detroit, including items like Yard rates, Uppers, Selects, Pine common, No. 1 common, Common shippers, Flooring, Roofing, Siding, Ceiling, Shipping culls, Mill cull boards, and Dimension or bill stuff.

Table for Buffalo market, listing items like Uppers, Common, Culls, Assorted lumber in car lots, 3 uppers 1 inch, Do. 2 in., Do. 2 1/2 and 3 in. special, Pickings, Sholving, Cutting up, Sidings, Common stocks, Box, 18 in XXX shingles, 18 inch clear butts, Lath, and Wholesale prices of hardwood lumber.

Table for Chicago market, listing items like Walnut, White ash, Whitewood, Chestnuts, Maple, White oak, Cherry, Butternut, Hickory, and Yard rates.

Table for Oswego, N. Y. market, listing items like Three uppers, Pickings, Pine, common, Common, Culls, Mill run lots, Sidings, Mill run, Selected shippers, Mill run, 1 and 1 1/2 in. strips, Culls, Shingles, XXX, 18 in. cedar, Lath.

Table for Albany market, listing items like To New York, To Bridgeport, To New Haven, To Providence, To Pawtucket, To Norwalk, To Hartford, To Middletown, To New London, To Philadelphia.

Table listing freight rates and quotations at the yards for various lumber types like Pine, Spruce, Hemlock, Black walnut, Sycamore, White wood, Ash, Cherry, Oak, Bisswood, Hickory, Maple, Chestnut, Shingles, Lath, and Spruce.

Table for Cleveland market, listing items like Uppers, Box, 2 1/2, 3 and 4 in clear special, Flooring strips, Fencing strips, Select common, Common, Culls, B. bds, No. 1, No. 2, No. 1 1/2 ft., No. 2 1/2 ft., No. 3 1/2 ft., Bill stuff to 18 ft., Bill stuff over 18 ft., Shingles, Lath, Surfacing one side, 2 sides, Norway bds and strips.

Table for Dressed Lumber, listing items like Flooring and drop siding, Siding, Working lumber matching flooring and drop siding.

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GLASS BALL CASTORS

Advertisement for Glass Ball Castors, featuring an image of a castor and text describing its use for furniture, organs, etc., and its benefits for rheumatism and nervousness.

HAMILTON, ONT.

IN PRESS—TO BE PUBLISHED IN JANUARY, 1881. LOVELL'S

Gazetteer of British North America.

Containing the latest and most authentic descriptions of over 7,500 Cities, Towns and Villages in the Provinces of Ontario, Quebec, Nova Scotia, New Brunswick, Newfoundland, Prince Edward Island, Manitoba, British Columbia and the North-West Territories, and other general information, drawn from official sources, as to the names, locality, extent, etc., of over 1,800 Lakes and Rivers; a TABLE OF ROUTES, showing the proximity of the Railroad Stations, and Sea Lake and River Ports, to the Cities, Towns, Villages, etc., in the several Provinces, (this Table will be found invaluable); and a neat Coloured Map of the Dominion of Canada. Edited by P. A. Crosby, assisted by a corps of Writers. Subscribers' names respectfully solicited. Agents wanted. PRICE 85—Payable on Delivery. JOHN LOVELL & SON, Publishers. Montreal, August, 1880.



PUBLIC NOTICE.

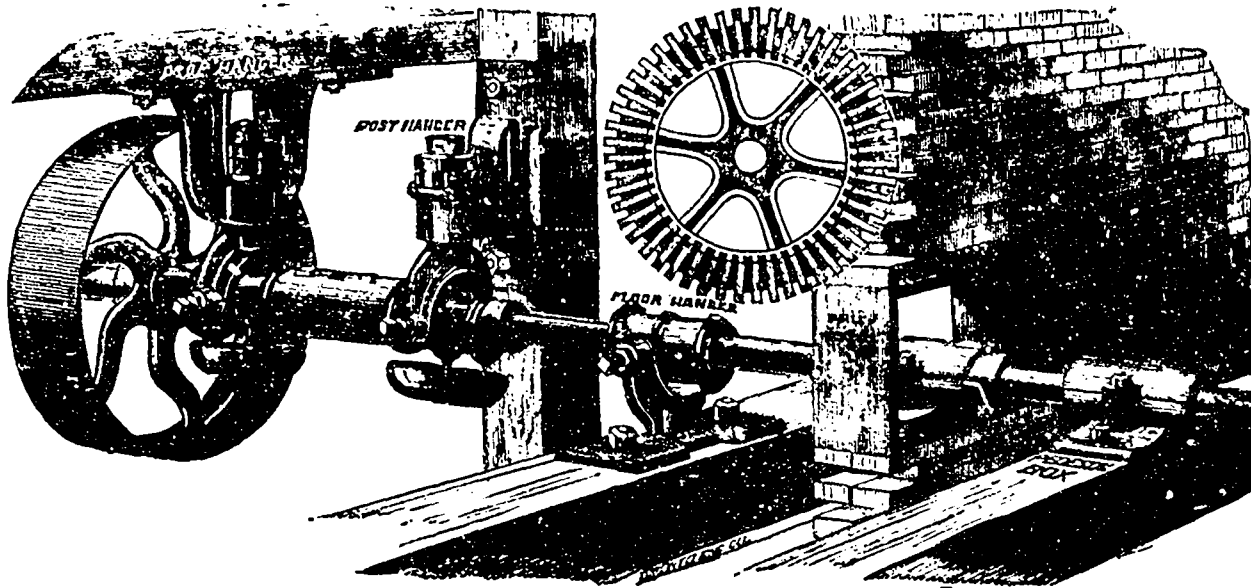
ALL PERSONS NOW SQUATED. Upon any Public Lands within the Nipissing Crown Land Agency are hereby requested to apply without delay to John S. Scarlett, Esquire, Crown Land Agent at Nipissing, and have their locations carried out in due form, failing which their claims cannot be recognized by the Department. THOS. H. JOHNSON, Assistant Commissioner. Department of Crown Lands, Toronto, 15th Oct., 1880.

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Favourite Resort of the Leading Public men of the Dominion attending the annual Sessions of Parliament.

Ministers of the Crown, Senators, Members of Parliament, Public Officials, as well as those having business with the various Departments of the Government. It is also the head-quarters of those having dealings with the princely Lumber Manufacturers in the great Pine Valley, of which Ottawa is the acknowledged centre.

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SWORN STATEMENTS MADE BY LIFE INSURANCE COMPANIES TO THE CANADIAN GOVERNMENT.

NAMES OF COMPANIES.	TOTAL BUSINESS IN CANADA.		NEW BUSINESS OBTAINED IN '79.		POLICIES BECOME CLAIMS IN 1879.	DEPOSIT AT OTTAWA.
	Total Prem. re. in 1877.	Total Ins. in Force.	No. of Pol. Issued.	Amount of Pol. Issued.		
CANADIAN.						
Canada, Hamilton	530,223	18,945,715	1,402	2,633,100	157,821	51,000
Confederation	164,898	5,228,323	1,012	1,547,650	31,424	77,650
Sun. of Montreal	101,814	3,620,783	621	818,000	18,000	50,000
Ontario Mutual	62,537	2,151,413	427	1,110,000	11,500	50,541
Mutual, Hamilton	30,806	1,262,855	156	301,500	7,500	81,075
Citizens', Montreal	28,222	1,171,845	183	406,250	11,000	50,400
Toronto	4,674	163,609	19	17,408	1,000	29,160
BRITISH.*						
Standard	152,237	5,437,066	300	637,600	67,836	153,000
Lon. & Lancashire	13,456	1,783,188	225	400,600	20,470	110,000
Brit. & Mercantile	20,989	1,019,224	6	38,000	39,057	Fire & L.
Royal	27,725	1,012,568	20	65,575	20,554	Fire & L.
Commercial Union	22,206	674,669	16	61,373	24,616	Fire & L.
Star	17,640	681,422	38	107,067	21,282	100,343
Liv. Lon. & Globe	10,136	286,004	7	15,433	1,117	Fire & L.
Queen	10,643	394,281	14	77,760	6,000	Fire & L.
Briton Life	4,094	106,910	6	10,500	2,000	54,223
AMERICAN.*						
ETNA LIFE	307,647	9,282,225	935	1,396,600	131,563	103,000
Equitable of N.Y.	180,327	5,226,662	475	1,285,500	38,205	105,000
Union Mutual, Mo	81,631	2,732,914	167	277,650	43,704	115,000
Travelers	80,691	3,072,702	216	336,150	10,930	129,100

*In examining the table it must be borne in mind that it relates only to business done in Canada. This comprises the whole of the business done by the local companies, but only the Canadian business of the British and American Company. The latter's total income was \$4,350,897.30 in 1879. Of the "183 of "Policies become claims" in the case of the ETNA LIFE, \$33,000 was by the maturity of Endowment Policies—i.e., policies payable at death or the end of 10, 15 or 20 years if living. In the other 19 companies, all combined, only a total of \$21,943 of this excellent kind of insurance was paid in 1879.

\$30,000 was added by the ETNA LIFE, the past year, to its Government Deposit, making it the largest of any Company, and nearly 4 times that of most Canadian Companies.

The superior standing of the ETNA LIFE is shown by its total income being \$4,350,897.30, and by its Canada Branch income being nearly equal to the combined premium income of the whole 9 British Companies, or that of the 3 lesser American Companies, or that of all the Canadian Companies put one. This one has been 32 years getting \$50,223, while the Etina's \$307,647 has grown from less than \$100 in the past 11 years.

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R. GILCHRIST, Proprietor.

Interesting Trial of the 100-Ton Gun.

On Monday afternoon the 100-ton gun and the model emplacement in which it is mounted at the proof butts in the Government marshes adjoining the Royal Arsenal, Woolwich, where the objects of experiment, and the novelty as well as the importance of the occasion created considerable interest, as was manifested by the large number of officers and other visitors present. It was explained that the four 100-ton guns purchased of Sir William Armstrong some two years since are to be mounted on the defences of Malta and Gibraltar, and that as it has been considered desirable to load them by hydraulic machinery, this experiment had been proposed in the hope of gaining some experience before proceeding extensively in permanent preparations. Elevated as the gun was, and pointed over the glacis of the parapet, it presented a most commanding aspect, and has probably never appeared to such advantage. More than 34 feet long, with the diameter at the breech of 6 feet 6 inches, tapering gradually off to 2 feet 6 inches at the muzzle, it had a more slender and less sturdy outline than that of the natural system of heavy ordnance, but its admirers praised it as the combination of strength and elegance, and claimed for it the advantages due to the saving of weight and met l. Size and weight appeared of no consideration at all when a lever was touched, and the bulky breach rose and fell as the muzzle was elevated or depressed with no more apparent effort than a 9-pounder requires at the hand of a gunner; and the admirable adjustment of the machinery when the whole mass swept grandly round to the opposite point of the compass was unanimously confessed. Then the order was given to load. A small elongated carriage or cradle stood on a miniature railway close at hand, and upon this were placed two cartridges and the shot. The charge was 425 lbs. of pebble powder, and it was made up into two cartridges for convenience of carriage; but a tube ran through both and just at the point of communication a small primer of small grain powder had been inserted for the purpose of igniting the charge in the centre. The projectile was a huge bolt 17 1/2 inches in diameter, and nearly 3 feet long, its weight being, with the gas check attached, 2,020 lbs., or nearly a ton. The cradle with its burden ran along the rails, and entered an iron turret about 12 feet in breadth. One side was an open fort, to which the muzzle of the gun on the outside descended. On a turn-table in the centre of the apartment the cradle revolved bringing the charge close up to the muzzle of the gun, when out from the other side rose the head of the rammer and drove cartridges and shot into the mouth, and rammed them well home. The rammer, which was a 6-inch piston 5 1/2 feet in length, is moved by hydraulic rams with a 4-foot stroke and multiplying gear, and it descends through a tube into the earth. The monster gun, as soon as it was loaded, was elevated clear of the parapet, and was trained about 15 degrees to the left, which brought it exactly opposite to one of the sand bags at the butts, the act of moving the gun at the same time automatically closing the iron door of the loading port, which is in like manner opened by the return motion. The gun is to be fired through the axial vent, and the electric wire is passed through an arrangement of copper discs which have been contrived with the long desired object of effectually closing the vent and saving the evil consequences which arise from the escape of powder gases. The spectators withdraw to a safe distance, and after an interval of suspense an appalling roar, which makes the earth vibrate, is heard and deadens the sense for a time, and the enormous gun is observed calmly sliding down from the recoil amid a cloud of smoke, dirt, and debris. The first anxiety was to examine the structure, and the inspection was perfectly satisfactory, for nothing whatever had suffered from the discharge, and the durability of concrete even for real fortifications had become a subject for consideration. In this work upwards of 3000 tons of concrete has been used, about half of which is below and half above the ground, the lower half being compounded of cement and Thames ballast, and the upper half of cement and furnace slag. The latter was prepared with great labour, owing to the difficulty of crushing the refuse metal, and it is believed that it would stand a fair examination as well as the famous Gozo coralline with which the Maltese works are constructed. The hydraulic lever at the Mediterranean ports will be furnished with an arrangement similar to that used in Monday's experiments an accumulation weight-

ed up to 67 tons, with a 16-inch ram and an 8-foot stroke. This can be raised by steam sapper, of traction engine, in one minute, or forty men can pump it up by hand in seven minutes. The one round fired on Monday, is but the first in a series of experiments of a similar character, and it will be some time before the gun leaves Woolwich for its final destination in one of the Mediterranean fortresses. — Times.

The Cabul Mint.

HOW AFGHAN MONEY IS MADE—ENGLISH RUPEES RECEIVED.

[Cabul Letter to the London Times.]

Let me now describe the process through which the English rupees at present pass to bring them out from the Cabul mint in the shape of Cabulee rupees. In one of the rude sheds which I have described as, running round the court-yard, are two rows of small, round clay hearths, elevated an inch or two above the floor, and depressed, like a plate, in the middle. A pile of rupees—generally 300 is added to the furnace. The load, in combination with the bone ashes, separates, as is well known, the alloy. This first process converts the rupees into a dull, unsightly mass of silver, free, or nearly so, from alloy. The pure silver thus extracted is then carried to another shed, carefully weighed, and an amount of English rupees equal to its weight added to it. Rupees and silver are then melted together in a clay crucible, and the melted mixture is then ladled by hand into molds, which give it the shape of flattened bars about twelve inches long. These bars are then taken to a third shed, to be annealed by hammering, and given the form of slender, round rods. The next process is that of drawing these rods through a plate of iron, perforated with round holes, to give them a uniform circumference. This is done by means of a rude hand-wheel, after which the rods are cut by hammer and chisel into the lengths requisite to form the future rupee, each of which lengths is carefully weighed in a pair of scales. Any that are too heavy are handed to a workman whose business it is to slice off a fragment with his chisel; any that, on the contrary, are too light are handed to another workman, who notches the little cylinder by a blow on his chisel, and inserts the required fragment into the notch. The cylinders are next carried to a fifth shed, and, after gently heating, are hammered into small, round disks, which have a yellowish-white colour. To remove this colour and give them brightness they are next plunged into a caldron of boiling water, in which they are boiled for some time along with apricot fruit and salt. This process imparts brightness to the dull disks of silver, and they are then ready for the last process they have to go through, that of stamping. This is, perhaps, the most interesting part of the operation. Two operators sit facing one another, half naked, on the ground, with a little iron anvil between them. Into the face of the anvil is inserted a steel stamp, destined to give the impression which the under side of the rupee will bear. One operator places the little silver disks with great quickness and accuracy upon the stamp, and the other, who is armed with a heavy hammer in his right hand, and a steel stamp bearing the inscription destined for the upper side of the rupee in his left, with one heavy, well-delivered blow, impresses the device on the soft lump of silver. Lastly, each rupee thus stamped is again weighed, and deficiencies in weight made up by the same rude process.

Settling in England.

(From the Parisian.)

It is announced that the ex-Empress Eugenie has just bought the Farborough Hill estate, in Hampshire, close to the borders of the county of Surrey, for £50,000. The estate was the property of the late Mr. Longman, the well-known publisher, and consists of about 257 acres, with a charmingly picturesque mansion, erected, by the late owner eighteen years ago. The ex-Empress will not go into possession of it until January, as Mrs. Longman, the widow, is very anxious to spend another Christmas there. A memorial chapel will be built to receive the bodies of the Emperor and the Prince Imperial. The lease of Camden Place expires in March next.

AN Oregon ranchman throw a lasso clumsily, and the noose fell around his own neck. Just then the horse unseated him, and, one end of the rope being fast to the saddle, he was choked to death.

You Have no Excuse.

Have you any excuse for suffering with Dyspepsia or Liver Complaint? Is there any reason why you should go on from day to day complaining with Sour Stomach, Sick Headache, Habitual Costiveness, palpitation of the Heart, Heart burn, Water-brash, Gnawing and burning pains at the pit of the Stomach, Yellow Skin, Coated tongue, and disagreeable taste in the mouth, Coming up of food after eating, Low Spirits, &c. No! It is positively your own fault if you do. Go to your Druggist—and get a bottle of GREEN'S AUGUST FLOWER for 75 cents your cure is certain, but if you doubt this, get a Sample Bottle for 10 cents and try it. Two doses will relieve you.

"THEY ALL DO IT."—For beautifying the teeth and preserving, for sweetening and giving fragrance to the Breath use "Tea-berry" the new Toilet gem delightfully cooling and refreshing.

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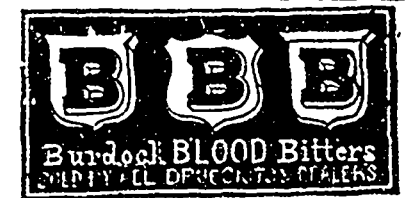
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A Roman Holiday.

(Rom. Cor. N. Y. Sun.)

The tenth anniversary of the capture of Rome was celebrated here on the 20th of September with more than ordinary rejoicings by the ministry and municipality.

When the Italian Government decided to seize Rome in 1870, after the recall of the French troops, Signor Giovanni Lanza was the prime minister. In parliamentary debate it has leaked out that he was then fearful of taking such a step, but that his judgment having been overruled by sundry influential advisers of the crown, he at length consented to order Gens. Cadorna and Sioxio to advance on the city of the popes. The bombardment of one of the gates, Porta Pia, having placed the defenseless city at their mercy. Signor Lanza at once put in a claim to all the glory of taking Rome, and he has steadily and sturdily maintained this claim. Since that memorable year of 1870, Italy has been immersed in a constant political turmoil, one clique of governing politicians giving place to another in quick succession. There have been no less than half a dozen ministries, Lanza, Minghetti, Depretis (twice premier), and Cairoli (now in his second administration) in turn held sway. The most statesmanlike quality these ministers exhibited was to keep themselves and their favourites in power by a series of hand-to-mouth expedients. Lanza and Minghetti, belonging to the party of the right, claimed to rule from a conservative point of view; Depretis and Cairoli, at the head of the party of the left, put themselves forward as the champions of the people. Although supported by popular opinion and indorsed by Garibaldi, the two last premiers proved, in some respects, to be more royalist than the king himself, especially in court matters. Their deference to the royal prerogative and etiquette, and their failure to institute any popular reforms, notably that of the enlargement of the suffrage, were abundantly satirized by both the right and the left. In reality, they followed in the footsteps of their predecessors in religious, military, and financial affairs. While these four men claimed to be carrying out Cavour's policy of unification and consolidation, Rattazzi and La Marmora, the two leaders, who, in conjunction with the famous Piedmontese statesman, did most to found the new kingdom, were thrust aside, and died, as is generally believed, broken-hearted.

The transfer of the government to Rome in 1871 was disastrous to Florence, which, during seven years, had been put to great expense in preparing to become a capital. Its trade and society dwindled until the authorities had to suspend payment because the municipality was bankrupt. Only two years ago it was even contemplated to place the "City of Flowers" in the hands of a receiver; and though this was not done, because the national government promised a help which has been only partially afforded, the financial plight of Florence remains deplorable,—its debts unpaid, and its paper dishonoured. Turin, the original capital, had been somewhat similarly damaged when it ceased to be the seat of government; but then Turin readily recuperated, because it was a wealthy commercial centre, which Florence never was.

Upon the instalment of the royal court in the Quirinal, and of the parliament in the wooden structure hastily erected at Monte Citorio, the celebrated guarantees to the pope which had been voted at Florence were promulgated officially. In substance these guarantees, while declaring the government supreme over the newly-captured city, left the pope in possession of the palace of the Vatican, as a great personage entitled to privileges, and allotted him a salary of \$65,000 a year. This salary has never yet been paid, because neither Pius IX. nor Leo XIII. would take it, and the amount has only nominally figured in the national budget; if called on to pay its accrued total the government would be sorely pressed. The law of guarantees, with the exception of paying this salary—and the series of laws passed in 1873, confiscating a portion of the church property and abolishing the religious orders and fraternities in Rome, have been rigorously executed. Much of the confiscated property was sold at auction at merely nominal figures to government favourites and intriguing speculators.

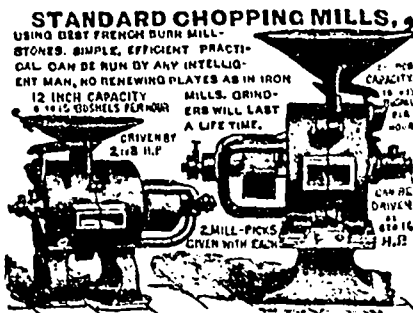
The ten years' interval since 1860 has wrought changes in the new capital. At first the Romans were disposed to be jubilant, as unusual privileges were showered upon them at a stroke of the pen, and as, under the settlement in the Corso and Via Con-

dotti of a host of bustling merchants' trade had a brisk send-off. The population was dazzled, and looked for wonders. But the tinsel of first appearances soon wore off when it was found that the promised prosperity had feeble foundation. What had been the support of the city suddenly ceased. The wealthy foreign visitors, who had been accustomed to spend their winters between the Coliseum and the Vatican, failed to put in an appearance or to furnish the "ways and means." There has consequently been no little misery and grumbling among the citizens, reduced to live off the dribbles vouchsafed by government employees and cheap tourists, travelling for the most part with small satchels instead of big trunks. Owing to the influx of settlers in the wake of government and court, the population amounted, according to the census taken on Dec. 31 of last year, to 301,680, showing an increase of 75,000 in the last decade. From the very commencement of the new era, rent, provisions, and clothes, and living in general grow dearer. Gold and silver vanished early, and are never seen now as in the days when the foreign world distributed so lavishly the precious metals. Trade and manufactures have not, so far, been built up extensively, except among a small minority of the citizens. The ruins have been excavated, restored, repaired; new houses built; entire quarters put up by a syndicate of speculating capitalists, old ones demolished or freshly washed, and new streets run, until the city's old picturesqueness has been seriously curtailed. From a modern point of view, of course, numerous improvements have been made. At the same time, as Rome was not built in one day, neither can it be pulled down in a day, and the modernizing process has not gone so far but that an abundance of the antique is left to maintain the city's reputation as the richest of curiosity shops. The municipality has been chiefly at the expense of constructing new streets—foremost among which is the Via Nazionale—and in establishing public free schools, which are now more numerous and better managed than those of any other Italian city. The pupils learn with a remarkable aptness, and the younger generation of Romans, unlike their fathers and mothers, will start in life with a fair amount of elementary knowledge. The children of the nobility and upper classes of Roman society are still invariably educated in the Roman Catholic schools.

A decade with Rome as capital has rendered a change very perceptible in Italian society at large. It has, above all, become far more practical and less impressionable than in the ante-revolutionary war. Uniformity of aims and methods has already levelled those individualisms which were formerly established landmarks in town and country. Even the peasantry have joined in the modern chase after comfort, and, no longer content to vegetate in their poverty-stricken districts, are emigrating in swarms to both Americas in search of fortunes. Not so much to the density of population in the kingdom, numbering now twenty-seven millions of inhabitants, is this emigration due, as to the awakening of a new spirit which has rendered the old starvation unpalatable.

But the completion of Italy's long-expected unity has within the last ten years doubled its debt. Its currency of paper money is at a discount of 15 per cent.; taxes and deficits are yearly on the increase. The finances have been wretchedly mismanaged since Cavour's death, the expenses being many times over what they should have been. The excuse has been wars, great armies, and works of internal improvement, such as the Mont Cenis and Gotthard tunnels, docks, ports, ships, and railroads. In constructing them the Italian legislators and financiers acted as if several Californians were under their thumb, and, indeed, as if no bills were ultimately to be presented for payment. An army and navy, increased out of all proportion to the requirements of the nation, continue to drain the national exchequer, and no prospect of stopping this drain is seen to glimmer even faintly on the horizon. Withal it is amusing to see with what levity the ministerial organs at Rome touch upon the national indebtedness. "Baron Rothschild, of Paris," said one of them, lately, "spoke very encouragingly of our finances." He must have spoken, then, with a view to his own pocket, or to get possession of a portion of the country as collateral for the money the rulers borrowed from him and dissipated.

The London, Sevenoaks, Tunbridge Wells and Brighton coach horses, eighty in number, were sold by Messrs. Tattersall, on Sept. 20, and realized \$18,500.



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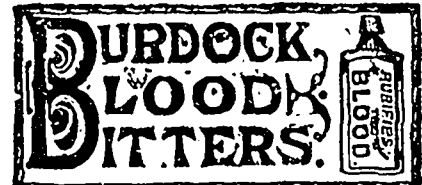
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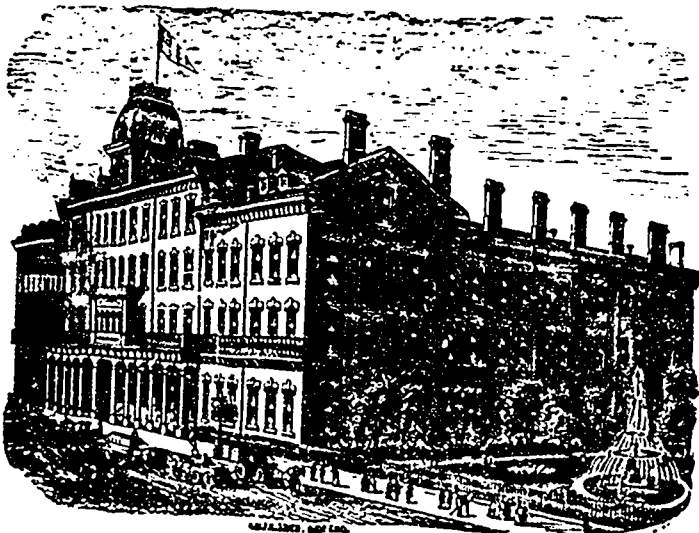
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