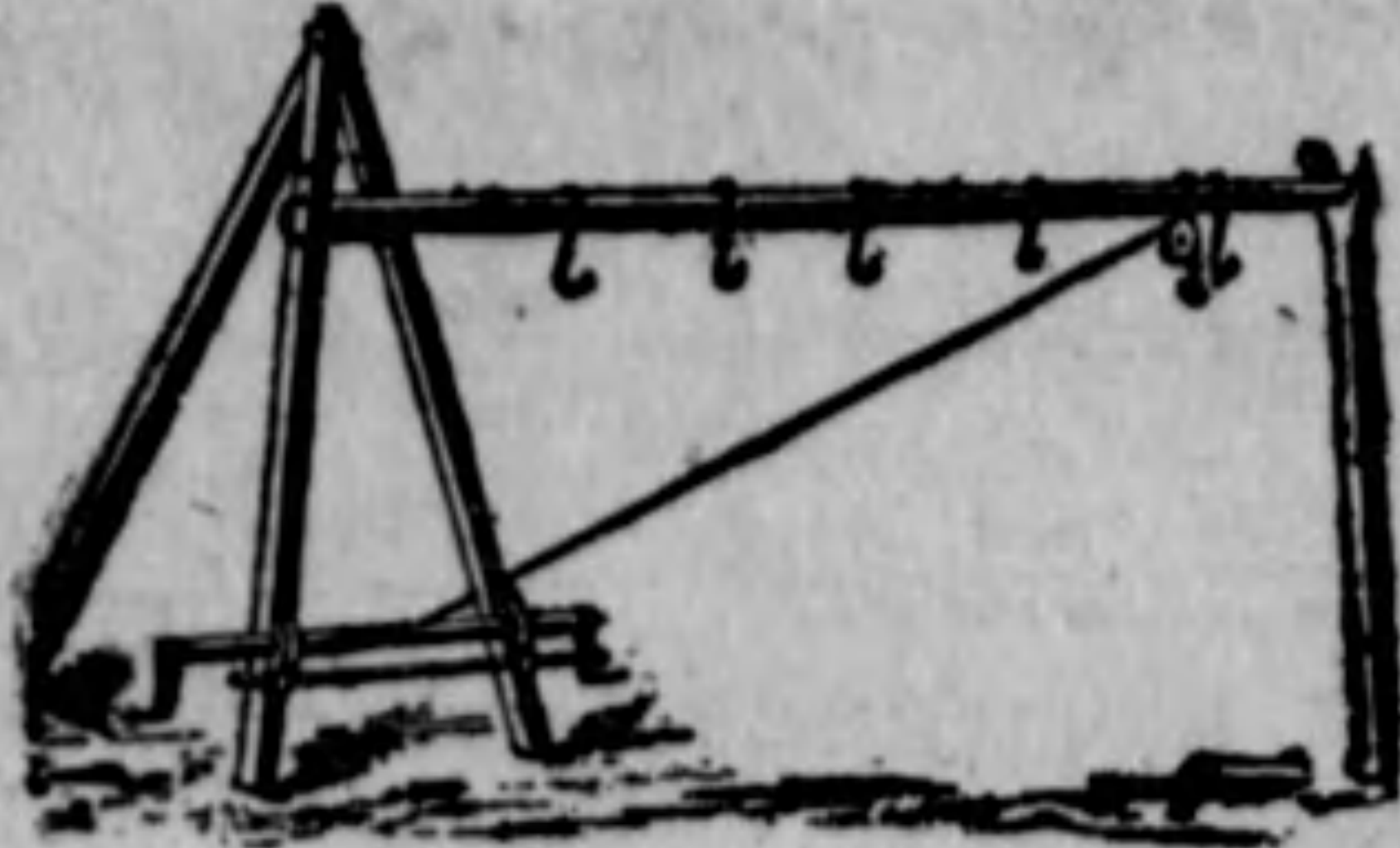


## AGRICULTURAL.

### Handy Derrick for Butchering.

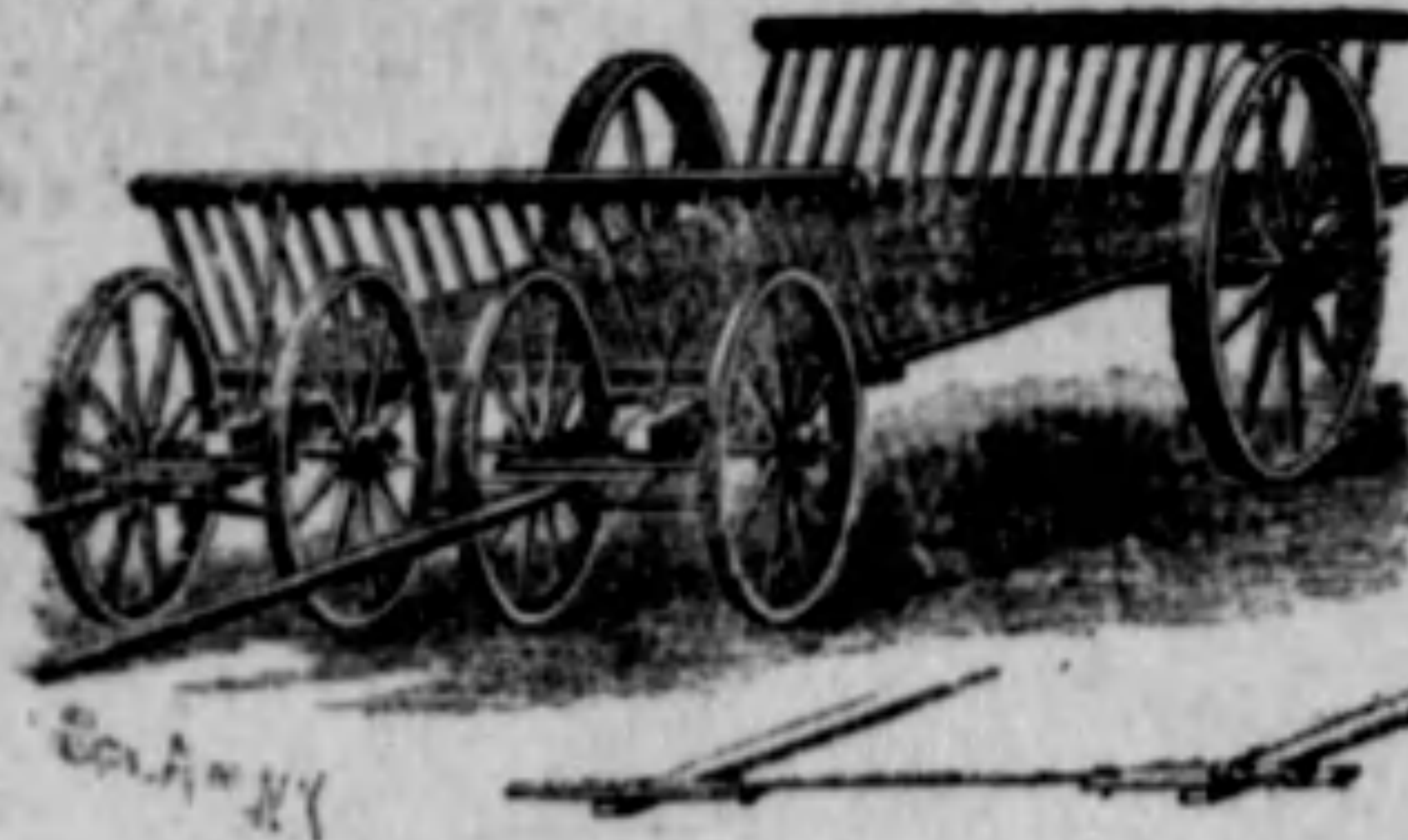
Useful in butchering one beef or one hog as well as a number of them. The derrick is constructed of three sticks of strong timber, 13 feet long. The roller for windlass is 4 feet between bearings, and is 3 1/2 inches in diameter. The best way is to have it turned from sound maple or other tough wood. A blacksmith can make the



hooks and other fixtures. For a number of hogs, use a strong pole or scantling, suitable to hold the weight, by resting one end on the derrick and the other end on a crocheted post or a tree with a croch in it. For one hog or beef, use the tackle in top of the derrick, as usual. Use ropes and tackle to suit. Then you will have a handy tool for a number of uses.

### An Improved Wagon.

A wagon having its hauling gear arranged in such a way that a large team of horses may be hitched close to the wagon, which may be easily hauled and the team readily controlled, is shown in the accompanying illustration, and has been patented by Mr. David W. Cotes, of Guthrie Centre, Iowa. The wagon has a bed much wider than usual, and with sills projecting forward to be fastened with the ordinary king bolt to short axles, each of which carries a pair of



COTES' WAGON.

wheels. The axles have forwardly extending tongues, with the customary wheel-trees whereby four horses may be hitched abreast, the neck yokes of the tongues being coupled together by a detachable rod so that the horses will pull together effectively. When the wagon is used for hauling hay or other bulky material it may be provided with racks at the front and rear, or all round, but, without such rack, the wagon presents a broad, firm bed, affording a firm foundation, and adapted to receive scraper loads of dirt or other material.

### Women as Drivers.

Have you ever taken note of the average woman driver? No wonder the men always relegate to her use the oldest, laziest horse on the farm. Here she comes, well braced up, elbows crooked and hands up, with a rein in each, and every few yards emitting a sound very much like the clucking of a hen by which means she hopes to encourage the poor old Dobbin to a little faster gait. No use, — Dobbin knows quite well who is driving, and plods along with head down and general stupidity in all his manner.

Now, take this same horse and a driver who manages properly and note the difference. By holding the reins in the proper way, you not only have better control over your horse but are able to sit in a more comfortable position. Take your reins in the left hand, crossing them and holding firmly in the palm; then when you require to draw either it can easily be done by an inclination of the hand, thus leaving the right hand free, should it be necessary to use the whip ever so lightly.

Never make your horse trot up or down hill or roads where there are many small, loose stones, (to step on a rolling stone while trotting might inflict a severe strain) but make him go along smartly on good level road. A horse that has a habit of shying must be carefully watched, but if accustomed to driving such a one you will soon know what objects are likely to prove alarming, and will be on guard. Let your horse know that, while kind, yet you are master, and you will get on all right. Another necessary lesson for a girl brought up on a farm is, how to harness and unharness, and the proper use of every strap and buckle and then at any time, should a breakage occur while driving alone, she will be able to mend it in a temporary way.

One time, when all the men were away from home, I saw some girls attempt to unharness a horse and they simply unfastened every buckle. The man who put that harness together again had quite a complicated task, and was in anything but a good humor by the time it was accomplished. Another green one took the reins off and wound them round the shafts, beside the hold backs and upon requiring them again was in a terrible dilemma, and only succeeded in finding them after a long search. If you have to stable your own horse never leave him wet with snow or rain.

After taking off the harness rub him thoroughly down, and if chilly and in a cold stable, better blanket him and then give him a good feed. He will appreciate it, and will be more willing to go for you when next you take him out. After a while you will find a real pleasure in hearing the horses whinny at the sound of your voice.

Another thing to be remembered is, if the reins are not in your own hands never interfere with the driver or attempt to grasp the lines if the horse is frightened, and never make a nuisance of yourself by screaming at such a time. Set your teeth firmly together, bite your lips until they bleed, clenched your hands until the nails sink into the flesh, but be quiet.

This summer I was placed in a position at once ludicrous and dangerous. I was driving a rather spirited pony and had an elderly woman and child with me; and it was necessary that I should cross a railway track. But when we were about one hundred yards off the down train approached and stopped a short distance above the crossing. The sight of the locomotive seemed to throw this woman into a panic, and she commenced shouting.

Two men came and held the horse (which was not showing the slightest sign of fear) and attempted to reassure her; but no, she declared that should she sit there until she died she "wadna stir a fit farrow" until that train had gone. The trainmen called "no danger," but she was obstinate, and I knew that if we were still there when the train began to move, with its noise and clangor, there might be a very serious accident. The pony would most assuredly swerve and bolt and, though at other times perfectly able to control it, I did not know how I might manage when hampered with two helpless ones; so decided that discretion was the better of valor, and turned up a side street and drove around the train, going nearly a mile out of my way. When I landed that woman at her own door the train was still at the crossing, but she has never forgiven me for not getting frightened; and many times I seem to hear her say: "Oh, oh, this is what comes of woman folks trying to drive; we'll be killed sure."

### Spreading Manure in the Winter.

The worst use to which good manure can be put is to cart it to the fields and leave it in heaps to be spread in the spring. The result of this mistake will be that the soluble part of the manure will be washed into the ground under the heaps, saturating the soil there to excess, causing the crop to grow to excess, and fall down and lodge, or if it is wheat, to rust and become worthless, while the rest of the land is robbed of its share. The best use to put the manure to, is to draw it to the field on the snow in low sleds, making it easier to load and draw and spread, and scatter it at once where it is intended to make use of it. It is then doing the most good it can. It speedily sinks in the snow to the ground, and there is absorbed and in the spring it is easily turned under at the first opportunity, often saving two or three weeks and sometimes a month in the sowing of the oat crop, thus making it safe, when otherwise it would have to contend with every risk possible. Nothing can be lost in this way, for whatever is made soluble by decomposition goes into the land just where it is wanted. If the manure is kept in the yard until the spring there is the delay and the difficulty in getting it on to the land, saturated as it is with the melting snow or early rains, and softened by the thawing.

### The Kitchen of a Farm House.

The kitchen of the farm house should have the best attention in the laying out of a plan for building. To slightly alter Solomon's advice about the field, it may be said "First make the kitchen fit, and then build the house." This is due to the most important part of farm home, the wife and mother. Her health and life often depend upon the kind of kitchen she spends a large part of her time in. It is preferably built as an annex to the house on the east side, getting the morning sun, and escaping the mid-day heat. On the south side should be an outside kitchen for storage, for a laundry and the refrigerator. There should be windows on three sides, and the fire should be on the side joining the house. Plenty of light is pleasant and useful and sunshine encourages a sunny temper.

### Choice of Soils.

In selecting farms and gardens in new places, purchasers often make the mistake of giving preference to light sandy soils, which can be worked with less labor than clay, and never become muddy. But such light soils, although good for some special crops, possess much less strength than others, and are enriched at more expense, and while a clay soil will retain for years the manure that is washed into it, a sandy soil can never be permanently enriched. Some years ago, a gentleman called for advice on the late Mr. Barry whose extensive nurseries had given him an excellent opportunity for testing the value of his previous wide knowledge on the subject. Mr. Barry, in order to convey his estimate of the value of each, said: "If you can give \$100 an acre for the sandy ground, you may well afford to pay \$200, an acre for the clayey loam. Underdrain it and manure it, and your improvement is permanent; but the fertility is soon worked out of the sand." These views have been strongly confirmed to us by our cultivation of both kinds of soil.

This subject was thoroughly discussed some time ago at a meeting of the Fruit-Growers' Association of Ontario, when Mr. Race said that on visiting the exhibitions of the finest fruit, he found the best were grown on a clay loam that had been underdrained, and in many cases where samples were found that came in competition with the best, they were found to be grown on underdrained clay. Mr. Pattison said that on clay the fertility is not easily exhausted, and can be kept up with a moderate supply of manure, while in sand it is fed, feed, feed all the time. A great many orchards do not bear upon sand; this is nothing less than soil exhaustion. The clay will retain all the fertility you can supply it with. He said that grapes, pears, plums, apples, quinces and red and black currants can be grown profitably on clay or clay loam, which of course must be well underdrained if needed.

### Practical Pointers.

An Omaha special says foreign capitalists have agreed to establish in that city a \$1,000,000 beet-sugar factory if the farmers will agree to plant 6,000 acres of beets. It is understood that the capital comes from Poland.

Within the last two weeks French papers have taken 2,000,000 bushels spot wheat for export account and paid for it, and the market is up 30 per cent with further buying.

It is a waste of time and money to try and grow profitable crops upon low, wet ground. The best thing that you can do, if you have such a piece, is to invest a little of your surplus in draining it. Probably it is rich, and the extra crops that it will produce will soon repay you for the outlay.

The U.S. Department of Agriculture has of late years been of much real service to the farmer. But we cannot help wondering how much more it might have done if it had received financial aid from Congress in proportion to the value of the interest which it represents.

It is a fact that our farm homes do not have the comforts and facilities of living easily, that town homes of the same class

have. This comes pretty hard on the farmers' wives, and this is one thing that makes the daughters long for the town. See if you cannot correct this matter a little.

If you have a field of rye that you intend to plow under in the spring and want to put it to the most profitable use that is possible, let us advise you to manure it heavily this winter on top of the rye, and then plant potatoes there. By this means, aided by subsequent good cultivation, you will secure a crop that will be its own warrant for the means employed.

### Poultry Pickings.

Haste in producing fatness destroys the appetite and disturbs digestion, and so defeats the very end for which you have aimed. Be moderate, and you get to the goal more quickly, and find a better profit awaiting you there.

Wheat is one of the best foods for stimulating egg production. At its present price it can be fed for this purpose with profit. But remember that it is also a fat producing food, so do not give too much of it, and see that the fowls that it is fed to have ample opportunity for exercise.

We see by the papers that some farmers are experimenting with the feeding of wheat to stock. There is no way in which a bushel of grain can be converted into so much good, nutritious, marketable food, as by feeding it to hens to turn into eggs.

See that the fowls have a place where they can exercise comfortably every day throughout the winter. They need a place where they will not be exposed to cold, blustering winds.

## PEOPLE YOU KNOW.

Coquelin, the French comedian, now playing at New York, is, according to Mr. Benjamin Sulte, of Canadian descent. His ancestors settled at Three Rivers in the seventeenth century.

The Khedive has received a magnificent present from his mother, in the shape of a toilet service of gold, superbly chased, and enclosed in a huge ebony chest. There are about thirty pieces, each of which bears the monogram of the Khedive in diamonds.

Lord Aberdeen is said to be an Episcopalian when in England and a Presbyterian when in Scotland. The Queen also belongs to the two churches. One of the features of Rideau Hall life is family prayer. The household assembles every morning for worship, which is conducted by the Governor-General, or in his absence, by Lady Aberdeen. A hymn is sung, a chapter is read, and then his Excellency reads the prayers.

Governor Moresby, of the New Westminster gold, has just completed his quarter of a century of service. He was originally a gold miner. Speaking of the gold excitement, he says: "What would the present generation say to having to pay \$20 for a sack of flour, the same for a pair of gum boots, and \$5 a pound for tea or coffee? Yet the miners paid these prices cheerfully, and never rued the money, or gold dust, or nuggets, as the case might be."

Before the Princess May became the bride of the Duke of York, she had an ardent admirer in the person of an errand boy. He wrote her a letter declaring his affection, and the Princess promptly handed the epistle over to her father. The Duke of Teck sent for the young lover and told him it was unmanly conduct to propose to a lady unless he was prepared to support her in the style to which she was accustomed. Whereupon the lad withdrew his suit.

Sir Joseph Hickson has sufficiently recovered from the severe cold which has confined him to the house in Montreal for the last fortnight to go to his office.

Rev. C. H. Rice, of Fairville, N. B., who shot himself the other day, was a Methodist clergyman. The coroner's jury was unable to determine whether death was accidental or intentional.

Mr. Laurier has consented to defend L'Electeur, of Quebec, in its numerous libel cases. One of the charges of libel has been brought by Mr. Angers, who, it was alleged, had profited by the Beaufort deal.

Many prominent Canadians died during the year just closed. Here are a few: — Sir John Abbott, Sir Alex. Galt, Hon. R. Laflamme, John McLennan, ex-M.P., Bishop Horden, Moosonee; Lieut-Governor Nelson, of British Columbia; Lieut-Governor Boyd, of New Brunswick; John Lovell, Charles Sangster, W. H. Howland and Judge Taschereau.

The forty-niners, as the participants in the gold fever of 1849 are termed, are dying fast. The Charlotetown Examiner records the death at the age of 92 of Charles Batch, a Prince Edward Islander who sailed from Charlotetown to San Francisco on the brig Fanny in the year of the great excitement. By special charter this vessel carried the emigrant Islanders round the Horn and landed them in California, where they sought their fortunes. Five of them returned to their native place after many years, richer only in experience.

A new story is told about the Princess Louise during her sojourn in Canada. Her Royal Highness had but recently arrived at Ottawa, and was taking a walk, when overtaken by thirst she called in at a cottage and asked for a drink. The good woman, who was ironing, had not time to draw water, for she was hurrying through her work that she might be off to see "Our Queen's child." "I will iron for you while you get water," was the Princess's offer. The proposal was accepted, and the Princess applied herself to the old man's shirt. When the drink was produced the Princess made herself known, whereupon the shirt was carefully laid aside, for the loyal housewife would never allow ironing done by the Queen's child to be spoiled.

There is a political crisis at Yokohama, and scenes of the utmost disorder were witnessed on Friday, when Parliament re-assembled, arising out of the excitement over the question of the presidency. The Government ended the tumult by proroguing the Parliament until January 12.

A fierce conflict has taken place between the Lume and Cabosach tribes in Albania and much blood has been shed.

The Russian Government has ordered an ironclad of 8,880 tons, a torpedo catcher, and three torpedo-boats, to be commenced immediately at Nicolaieff.

## CONCERNING ROYALTY.

The Prince of Wales captured only two purses on the turf this season, and they were worth less than \$2,000.

Queen Victoria will spend Easter in Florence, and from there she will go to Coburg. She will celebrate her 74th anniversary in May.

Emperor William is trying to buy the new Cape diamond, the largest in the world, for the crown now being made for him in Berlin.

The Princesses Maud and Victoria of Wales gave their mother a piano on her recent birthday. It had been used by Paderewski when he crossed the ocean on the Teutonic, and was recommended by Signor Tosti.

It is not often that a King takes to journalism as a profession. This, however, is what the ex-King of the Maoris has done. He is editor of a journal called Te Pakio Matariki, in whose columns are related the manifold troubles of the ex-monarch.

The German Emperor is a hard-working man of restless and unceasing activity. He needs but little sleep himself, and exacts long hours from every one in attendance. Four or five hours' rest is all that he cares for, and the physicians say that he is burning the candle at both ends.

The Princess of Wales always sends word to those who wish to present her with bouquets as to the size and weight of the presentation. The rose is her favourite flower, and is usually indicated. There is no spontaneity in relations with royalty. Everything is regulated and formulated and arranged.

There is only one sovereign who has ever been up in a balloon. This is Queen Christina of Spain. Some years ago she happened to be passing a field in which some ballooning experiments were being made, and it immediately occurred to her Majesty that she would like to experience the sensation of being up in mid-air. After sending her squerry to make the necessary arrangements, the royal party ascended and remained in space for some considerable time.

Word has been sent to the Courts of Europe that the Shah of Persia intends to visit Berlin, St. Petersburg, Paris, and Vienna next spring. He will start on his journey in May or June, and will remain in Europe several months. The rulers whom he is to honour are in an unhappy state of mind already on account of the proposed visit. No living sovereign, in all probability, is a more unwelcome guest than the Shah, but his cousins in Europe are obliged to receive him with all the honours due to his rank. Entertaining him is more expensive than entertaining any other monarch. His retinue is almost a legion.

### New Discoveries in Africa.

That vast central region of Africa which was marked on the old maps "unknown" to-day is known as the most fertile, fruitful and well watered and populous of all Africa, a region that would not suffer in comparison with the best part of any other continent on any of these points. In this very region it is found that for long ages there has been, as there is now, a wondrous, teeming dwelling place for the largest, most vigorous and promising of all the African races, the great Bantue family, which comprises at least two hundred tribes, who speak one hundred and sixty-eight cognate languages and fifty-five dialects, and no doubt number sixty million souls.

Africa, taken as a whole, instead of being a dry, desolate, barren, waterless waste, is known as a land of great, uplifted, fertile, populous plateaus, of magnificent inland lakes, of majestic rivers that brim their banks, and for thousands and thousands of miles furnish grand highways for boats, steamers and ships, as up the Congo, the Nile and the Zambezi; a land of gold, ivory, diamonds and gums, of sugar cane, coffee, cotton, camwood and a thousand other things that all the rest of the world needs, and will yet have in exchange for the products of its looms and anvils, spindles and hammers.

### Some Beetles May Have 25,000 Eyes.

Most insects have two kinds of eyes; the large compound eye, one on each side of the head, and the ocelli, or simple eyes, of which there are generally three, placed in triangle between the other two. The compound eyes are complex in structure, consisting of a number of hexagonal facets, each with its system of nerves. It is not known whether the combination forms one aggregate eye, or whether each facet is an eye. Many insects have thousands of these facets—some beetles as many as 25,000. The vision of scorpions, though they have six eyes, is imperfect, and that of spiders, equally well provided as to the number of ocelli, is not much better. The chameleon has the additional faculty of moving its eyes independently of each other, so that it can look up with one eye while looking down with the other, backward and forward, or in other different directions. The eyes of deep-sea fish are very varied; some have greatly enlarged eyeballs, and others are provided with phosphorescent processes or spots. Birds and many of the smaller mammals have very acute vision, while that of the larger animals is very much like our own.

### Showery of Star Dust in Siberia.

Nordenskjöld's journal of his trip across Siberia mentions several occasions of falls of comical dust from the regions of space, and when Professor Marx was stationed at Jenisek in that country, he resolved to test the matter for himself, which he finally succeeded in doing in a manner that was highly satisfactory. One morning he found a considerable quantity of dust in his pluviometer (floating on water which the instrument had collected during a shower of the night previous). This dust was of a brick-red color, and upon being subjected to a careful analysis proved to consist of iron, nickel and cobalt. Professor Marx communicated the matter to his academy and Professor Lenz, an eminent authority, gave it as his opinion that the dust was of comical origin, and points to the fact that it was collected during the regular annual showers of November meteors or "falling stars."

Indigestion troubled Abner McDowell, of Quincy, Ill., and a friend, who knew a remedy for every ill advised him to saw wood. McDowell sawed half through one log and then fell dead.

## MILIONS IN A

## NOVA SCOTIA ISLAND.

### Loads of Gold and Jewels Sunk by Pirates in the Good Old Times.

Before the Memory of Men now Living a Shaft 190 Feet Deep Was Made, Which Connects with an Underground Tunnel, Where the Precious Things Were Placed in Wooden Boxes.

Much fiction has been written concerning great sums of money and vast quantities of jewels buried by pirates some 200 years ago somewhere along the Atlantic coast. But the following account of buried treasure has to do only with facts as stated by men now living and who had a hand in them or as was told by men now dead: That a shaft about 13 feet in diameter and 100 feet deep was sunk on Oak Island, in Mahone bay, Nova Scotia, before the memory of any now living; that this shaft was connected by an underground tunnel with the open ocean, about 365 feet distant; that at the bottom of this shaft were placed large wooden boxes, in which were precious metals and jewels; that many attempts have been made, without success, to obtain this treasure; that it is reasonably certain the treasure is large, because so great a trouble would never have been taken to conceal any small sum; that it is now entirely feasible to thoroughly explore this shaft and recover the treasure still located therein.

Oak Island is situated near the head of Mahone bay, Nova Scotia. A narrow channel separates it from the mainland at that point known as the western shore and four miles from the town of Chester. The island is about a mile in length and half a mile broad. The formation is a very hard, rough clay. The eastern end was originally covered with oak timber, several groves of which still remain. There are

### OVER 300 ISLANDS IN THE BAY.

At the close of the last century this part of the country was very sparsely populated, and the island in question was without an inhabitant. In 1795 three men—Smith, McGinnis, and Vaughn—visited the island, and while rambling over the eastern part of it came to a spot of which the unusual and strange conditions at once engaged their attention. Mr. Vaughn himself, who was only a lad of 16 at this time, subsequently related these facts to Robert Creelman, who still lives at Upper Steviacke, N.S., and who was afterwards the manager of a company formed to recover the treasure. It had every appearance of having been cleared many years before. Red clover and other plants foreign to the soil were growing. Near the center stood a large oak tree with marks and figures on the trunk. One of the lower and larger branches of this had been sawed off, and projected directly over the centre of a deep circular depression in the land about thirteen feet in diameter. These and other "signs" shortly after led the three men named to commence work. After digging a few feet they found that they were working in a well defined shaft, the walls of which were so hard and solid that in some places old pick marks could be seen, and within these walls the earth was so loose that picks were not required. On reaching a depth of ten feet they came to a covering of oak plank. They kept on digging until a depth of thirty feet was reached, finding marks at each ten feet. Here the work

### PROVED TOO HEAVY FOR THEM,

and owing to the fact that superstitious beliefs were in full force in that part of the country they were unable to get help and were forced to abandon it. After seven years Dr. Gynds of Truro visited the island, interviewed the three men, and on his return to Truro organized a company.

Among those interested at the time were Cpl. Robert Archibald, Sheriff Harris, and Capt. David Archibald. They made an excavation to the depth of ninety-five feet, marks being found every ten feet. The ninety-foot mark was a flat stone about 3 feet long and 16 inches wide. On it marks or characters had been cut. Afterward it was placed in the jamb of a fireplace in Mr. Smith's house, and while there was viewed by thousands of people. Many years afterward it was taken out of the chimney and taken to Halifax to have, if possible, the characters deciphered. One expert gave his reading of the inscription as follows: "Ten feet below are £2,000,000 buried." We give this statement for what it is worth. It was Saturday night when it reached the depth of ninety-five feet, and when they returned Monday morning the shaft was found to be full of water within twenty-five or thirty feet from the top. They tried bailing it out, but the task proved utterly hopeless. They then sank a new shaft a few feet from the old or money pit and went to a depth of 110 feet, and then they began to tunnel under, when suddenly the water burst in upon them and they escaped with their lives and a fine drenching. This disaster practically ended the operation of this company. In 1849 a second attempt was made. Dr. Gynds and Mr. Vaughn were still alive and gave much valuable information.

They sunk a shaft on the site of the old money pit, which had been filled up, and struck water at eighty-six feet. They, also, tried bailing it out and were forced to abandon it. Shortly after men with boring apparatus of a very primitive description were sent to the island. J. B. McCully of Truro, who is still living, and tells these facts, was manager. A platform was rigged in the "money pit" thirty feet below the surface and just above the water. The boring started, and we submit a verbatim statement of the manager: The platform was struck at ninety-nine feet. After going through five inches of spruce the auger dropped twelve inches, then through four inches of oak, then it went through twenty-two inches of metal in pieces, but the auger failed to take any of it in except three links resembling an ancient watch chain.

It then went through eight inches of oak supposed to be the bottom of one chest and the top of the next; then twenty-two inches of metal, as before; then four inches of oak and six inches of spruce; then into clay seven feet without striking anything else. Then the next boring they struck the platform at ninety-eight feet; then a fall of eighteen inches, when the auger came into contact with, as supposed, the side of the cask, as the auger revolving close to the side of the cask gave a jerky and irregular motion. The auger brought up several splinters of oak and a brown, fibrous substance