

the solid and unyielding column of water. On the other hand, the power windmill is geared up to run the vertical shaft at a high rate of speed for a wholly DIFFERENT PURPOSE.

A windmill for power purposes is generally set on top of the barn. The shaft well braced to keep it in perfect alignment and make as little vibration as possible. At the lower end is attached a pulley for a series of cog wheels to transmit the power to the machinery. Sometimes the power grinder is geared or attached directly to the lower end of the shaft. Every effort should be made to avoid the use of a line shaft, unless by such means a large percentage of the power is absorbed particularly where shafting is operated at high speed.

A test of a power windmill by Prof. E. S. King showed that a 12-foot wheel would grind from 19.25 pounds of corn per hour, with a wind velocity of 71 miles, with a wind velocity of 71 miles, with a wind velocity of 71 miles.

**BAD TEETH IN A COW.**

Irregularities of the teeth may be corrected by the unequal wearing of some of the teeth by some of the disorders being broken, which may happen when cattle are pastured on sandy or gravelly soil. The molar teeth may also show irregular wear from similar causes. Their edges may become sharp or it may happen that a molar tooth is accidentally fractured. It may also occur that an operatory tooth has developed an abnormal position, and that it interferes with the natural and regular mastication of the food. The mouth may be examined by grasping the animal's tongue with one hand and partially withdrawing it from the mouth so as to expose the teeth for inspection. When it is desired to examine the back teeth with the hand so as to obtain a more precise idea of their condition the speculum, which is used for horses, should be introduced into the mouth so as to separate the jaws and keep them apart while the examination is being made. Sharp edges of the teeth must be removed by the tooth rasp. Any tooth which interferes with mastication or which is fractured or loose should be extracted. In performing such an operation it is best to throw the head of the cow or horse and have it held securely so as to enable the operator to do what is necessary.

**WELL AND STRONG.**

**AFTER ELEVEN YEARS OF GREAT SUFFERING.**

**A Wonderful Tribute to the Power of Dr. Williams' Pink Pills to Cure Stubborn Diseases.**

Proof upon proof has accumulated that Dr. Williams' Pink Pills will cure when doctors, hospital treatment and all other medicines fail. Paralyzed limbs have been restored to strength, rheumatic sufferers made well, weak, anæmic girls and women made bright, active and strong; neuralgic pains banished; and the poor dyspeptic given a new digestion when it seemed almost hopeless to expect a cure. Here is a bit of strong proof that Dr. Williams' Pink Pills bring health and strength after years of suffering. Mr. Louis Brien is a well known resident of St. Denis, Que., and tells of his years of suffering as follows: "Eleven years ago, while working in the bush, I strained myself and brought on terrible pains in my stomach and back, where the trouble seemed to localize. I had frequent fits of vomiting, which caused much distress. Sometimes I could work, and then again for months at a time I would be wholly unable to do anything; but even at the time I could work I was always suffering. At frequent times I was treated by three doctors, but they were unable to help me. Then I went to Montreal and put myself under the care of a doctor there. His medicine relieved me while I was inactive, but as soon as I attempted work or exertion of any kind, the pains returned worse than before. All this time I was growing weaker and less able to resist the incursions of trouble. Then Dr. Williams' Pink Pills were brought to my notice, and I began to use them. From that time I began to regain my health and by the time I had used thirteen boxes I was once more a well, strong man. The proof of this is that I can do as hard a day's work as anyone and never have the slightest symptoms of the old trouble. I am only sorry that I did not know of the pills sooner—they would have saved me much suffering and money as well."

With such proof as this, that even apparently hopeless cases can be cured, there can be no reasonable doubt that Dr. Williams' Pink Pills will restore health in all cases where given a fair trial. These pills are sold by all medicine dealers or will be sent by mail at 50c per box or six boxes for \$2.50, by writing direct to the Dr. Williams' Medicine Co., Brockville, Ont. See that the full name, "Dr. Williams' Pink Pills for Pale People," is printed on the wrapper around every box.

**BRAINY MEN.**

The ordinary brain begins to lose weight after the fortieth year at the rate of one ounce every decade. Webster's continued to grow till the day of his death. Even his skull increased in size, as if to make room for the brain.

The heaviest brain of which there is accurate record was that of Terentius, the celebrated Russian poet and novelist. It weighed 71 1/3 ounces, nearly ten ounces more than Webster's.

Cuvier, father of modern comparative anatomy, a man of gigantic intellect and ceaseless activity, had a big brain. It weighed 65.7 ounces, or 1 1/2 ounces more than Webster's. Blyden had brains to spare. His cerebral organs were nearly as large as Webster's weighing 63.3 ounces. Schiller, another poet, weighed 63.8 ounces, a greater matter. While Dante still another, weighed 62.5 ounces, Gauss the great German mathematician, had a brain of 52.7 ounces. Professor Virchow has found a brain weighing 67.7 ounces, but its owner was absolutely without high mental development.

**HELPFUL.**

Arriving home one evening a man found the house locked up. After many futile attempts at the various windows on the first floor he finally climbed upon the shed roof and finally through a second-story window.

On the dining room table he found a note from his wife: "I have gone out. You will find the key under the mat."

**A LETTER TO MOTHERS.**

Mrs. Jas. E. Harley, Worthington, Ont., has permission to publish the following letter for the benefit of other mothers who have young children in their homes. She says: "I have many reasons to be grateful to Baby's Own Tablets and to recommend them to other mothers. Our little girl is now about fourteen months old, and she has taken the Tablets at intervals since she was two months old, and I cannot speak too highly of them. Since I came here about a year ago, every mother who has small children has asked me what I gave our baby to keep her in such good health, and I have replied 'absolutely nothing but Baby's Own Tablets.' Now nearly every child here gets the Tablets when a medicine is needed, and the old-fashioned crude medicines, such as castor oil and soothing preparations, which the mothers formerly gave their little ones, are discarded. Our family doctor also strongly praises the Tablets, and says they are a wonderful medicine for children. Accept my thanks for all the good your Tablets have done my little one, and I hope other mothers will profit by my experience."

Baby's Own Tablets can be given with absolute safety to the youngest, feeblest child, and they are guaranteed to cure all the minor ailments of little ones. Sold by all medicine dealers or mailed at 25 cents a box by writing the Dr. Williams' Medicine Co., Brockville, Ont.

**SECRET OF RADIUM HEAT.**

Suggested It May Be Supplied by Ethereal Waves.

What Prof. C. V. Boys termed "the miracle of radium" has naturally received much attention in scientific circles. At the meeting of the science branch of the British Association Lord Kelvin, in a paper which he read, made an interesting suggestion in connection with its perpetual emission of heat at, according to M. Curie's calculation, a rate of about 90 centigrade calories per gramme per hour.

He said that if the emission of heat at this rate went on for 10,000 years there would be as much heat as would raise the temperature of 900,000 grammes of water 1 degree centigrade. It seemed utterly impossible to Lord Kelvin that there would come from the store of energy in 10,000 years. It seemed, therefore, absolutely certain that the energy must somehow be supplied from without. He suggested that ethereal waves might in some way supply energy to radium while it was emitting heat to matter around it.

Lord Kelvin illustrated his theory by the following comparison: Suppose a piece of white and a piece of black cloth, hermetically sealed in similar glass cases, were submerged in similar glass vessels of water and exposed to the sun. The water in the vessel containing the black cloth would be kept very sensibly warmer than that containing the white cloth. Here the thermal energy was communicated to the black cloth by waves of sunlight and was given out as thermometric heat to the water in the glass around it. Thus through the water there was actually an energy travelling inward in virtue of the waves of light and outward through the same space in virtue of thermal conduction.

Lord Kelvin suggested that experiments be made comparing the heat emission from radium wholly surrounded with thick lead with that found in the surroundings heretofore used.

**WRITING BY TELEGRAPH.**

A new form of the "facsimile telegraph," by which a message, written at the transmitting end, is reproduced at the receiving end, has been invented in Germany under the name of the "telechirograph." The message is written upon a sheet of paper with lead held in a pencil having flexible connections with two rheostats. As it moves over the letters, the pencil shifts sliding contacts which vary the electrical resistance. At the receiving end two electromagnets, influenced by the changing currents transmitted, govern the movements of a small mirror which, by the aid of a beam of light, reproduces the writing on a sheet of sensitized paper, the point of light following exactly the movements of the point of the pencil at the other end of the line.

**POSTMASTER IS MADE HAPPY**

**AFTER YEARS OF SICKNESS DODD'S KIDNEY PILLS CURED HIM.**

Plain Statement of a New Brunswick Postmaster Whose Kidney Pains Have Gone Never to Return.

Lower Windsor, Carleton Co., N. B., Sept. 29.—(Special)—T. H. Belyea, postmaster here, well known and widely respected, is happy in the discovery of a permanent cure for the kidney pains that have troubled him for years.

"I have been bothered with kidney trouble for years," Postmaster Belyea says. "I have tried many medicines and plasters without getting any lasting benefit till hearing of Dodd's Kidney Pills so highly spoken of. I determined to try them. They seem to have made a complete cure in my case as I feel as well as ever I was."

"I believe that Dodd's Kidney Pills are the right medicine for kidney trouble and will do all they are claimed to do."

Dodd's Kidney Pills cure the kidneys and with healthy kidneys no one can have Bright's Disease, Lumbago, Rheumatism, Dropsy or Pain in the Back. Thousands will tell you this out of their own experience.

**ARTIFICIAL MARBLE.**

A new process for making imitations of statuary marble, onyx and other multicolored stones has been devised in Europe. About 1,000 parts of alum to from 10 to 100 parts of heavy spar (barium sulphate) and 100 parts of water are mixed with the requisite pigments, and the liquid mass is held down and cast in a mold. The amount of heavy spar used varies with the degree of translucence desired. After being molded and dried, the artificial stone thus produced can be polished and finished as desired.

**RAILWAY AND TELEGRAPH.**

The deficit on account of the British postal telegraph is \$4,500,000 for the year.

The average railway journey in the United States is twenty-eight and a half miles.

A locomotive testing laboratory will be a feature of the transportation building at the world's fair.

The wireless telegraph congress just closed in Berlin declared unanimously in favor of making wireless telegraphy the business of the various governments, as Johann Zepp's map now is in Europe. This kills Marconi's hope of monopoly.

**Minard's Liniment Cures Colds, etc.**

Too many cooks spoil the policeman's digestion.

**Results from common soaps: eczema, coarse hands, ragged clothes, shrunken flannels.**

**SUNLIGHT SOAP REDUCES EXPENSE**

**ASK FOR THE OCTAGON BRAND**

**GAVE THE SECRET AWAY.**

There was a dinner party at the Smiths and Mrs. S. was desirous of daily impressing her guests. And all might have gone well but for Tommy Smith who had been allowed at the table on condition that he behaved himself. Wonderful to say, he did so till dessert came on. Then he could hold out no longer and he asked—nay, demanded—a third helping of apple Charlotte. It was refused and then the childish tibble was raised.

"Very well," he said, "if I can't have another piece I shall tell."

"Leave the room, sir!" stormed Smith, senior, and obediently Tommy slipped from his seat and betook himself to the door. Before he opened it, however, he turned.

"My knickerbockers are made out of the old dining room curtains," and he swung open the door and vanished.

**DIFFERENT BRANDS.**

Jack—I hear you are going to marry Miss Prettyman. Permit me to congratulate you on your excellent taste.

Tom—The engagement is off. I'm not going to marry her or any one else.

Jack—Indeed! Then allow me to congratulate you on your good sense.

Truth is a stranger that a good many people don't care to meet.

**Cataract Cannot Be Cured**

with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Cataract is a blood of the disease, and in order to cure it you must take internal remedies. Hall's Cataract Cure is taken internally and acts directly on the blood and mucous surfaces of the eye. It is the best cure known. It is composed of the best blood purifiers, combined with the most powerful cathartics. The perfect combination of the two ingredients is what produces such wonderful results in curing Cataract. Send for testimonials free.

**F. J. CHENEY & CO., Props., Sold by druggists, price 75c. Hall's Family Pills are the best.**

**PERSONAL AND GENERAL.**

**Some Interesting Miscellaneous Paragraphs.**

One-half the time of Count Tolstoy is devoted to answering letters and receiving visitors.

Walther Kuntze, of Halle, Germany, who has been deaf and dumb from his birth in 1869, has taken out the degree of doctor of philosophy at the Leipzig University.

Rome has a water supply of 200,000,000 gallons a day, London only 160,000,000 and Paris 90,000,000. The average daily consumption of Greater New York is about 400,000,000 gallons.

Jules Verne, the French novelist, whose health has lately been reported as failing rapidly, is to have a cataract removed from one of his eyes. He hopes to be able to resume his writing.

W. C. Whiting, of Iowa, is a believer in the promotion of agriculture. He has given to Ames College a silver and onyx trophy, which is to be awarded annually for seventy-five years, for the best results in corn growing.

Wilhelm, father of the famous violinist of the same name, recently celebrated his nineteenth birthday. He was born in the town of Liszt, Wagner, von Bülow, Raff, Rubinstein and other great composers and virtuosi, and he plays the violin himself.

Princess Ferdinand, of Roumania, is said to be an excellent violinist. Her talent is doubtless inherited from her father, the late Duke of Coburg, who was devoted to music. Her pet hobby, like that of the late Empress of Russia, is said to be the collecting of perfumery bottles.

The famous clock tower of Chartres cathedral has just been successfully restored. For many years it had been crumbling, and a fear was entertained that it would fall. Like the Campanile of Venice, the tower dates from the end of the twelfth century. It is 345 feet high.

The German Kaiser's belief in the value of public display is shown in the announcement that the Berlin Tiergarten is soon to have fourteen new monuments. His influence for the erection of public monuments has had a pronounced effect in Germany. Among the famous men to be commemorated in the new statues are Moltke, Roon, Wagner, Haydn, Mozart, Beethoven, Helmholtz, Zeller, and Blumenthal.

In one of the harness rooms at Sandringham King Edward's country seat, is a row of polished hoods, each with a horse's name inscribed upon it. These are relics of favorite horses of the King's and Queen's. Their majesties also have favorite dogs, it seems, and although King Edward has not gone to the length of Frederick the Great of Prussia, who gave his dogs elaborate interment at Sans Souci, there is at Sandringham one stone, bearing the inscription: "To the memory of dear, old Rover."

There has arisen in Germany a movement directed against the "drinking song" against the muse as a "handmaid of alcohol." The society that has taken the ground claims that "much intoxication" is caused by drinking songs, which paint the joys of the wine cup so brightly. Another recent movement in Germany is that of the "Nature

men," who live out-of-doors nearly all the time and wear virtually no clothing. Its apostle, Gustav Nagol, has a mud hut on the outskirts of Berlin. He has won some fifty converts, but, alas! he sells his photographs.

Lord Roberts will be unable to visit the United States this fall. His change of plan is necessitated by the postponement of the British army manoeuvres until the middle of September and by the situation in South Africa, which demands attention. It is interesting that years ago Lord Roberts chose the figure of a Highlander for one of the supporters of his coat-of-arms. The reason is that Highlanders have had prominent parts in all his campaigns, from the siege of Candahar.

Maud (who has answered the door bell herself): "George, you must not come into this house to-night. If you love me, darling, fly at once, and do not let my father discover your presence."

George (tragically): "Oh, Maud, my darling! What serpent has entered our Eden to wreck our happiness? Speak, girl, speak!" Maud (tearfully): "Father has just had the gas bell."

J. H. Holmeyer, for many years leader of the Dutch party in Cape Colony, has retired from political life.

**ANOTHER BIG INDUSTRY.**

Wire Company Erecting a Plant to Turn out 100 Tons of Wire Daily—Looking for the Northwest Trade.

Whilst wire is an article that is used by everybody, it is amazing how few people know anything about its manufacture. This observation is prompted by the reading of a neat pamphlet entitled "Wire, Its Manufacture and Uses," circulated free by the North-American Securities Company, Temple Building, Toronto. It contains a complete history of the wire industry, and a description and half-tone engravings of the various processes and machines used in the manufacture of wires and its immediate products, such as wire fencing, wire nails, etc. The book, which is mailed free on application, also contains a description of the plant of the Imperial Steel & Wire Company Limited, now in course of erection at Collingwood. This company is erecting at that point one of the finest wire plants on the continent. The ultimate output will be 100 tons of wire daily; 500 skilled workmen will be employed, and the ground area covered by the buildings will occupy 50 acres. This company is offering \$40,000 of the first block of \$100,000 of the company's stock for sale. The stock is \$10 shares cumulative preferred 7 per cent., with a bonus of one share common for every share of preferred. Some \$60,000 has already been subscribed. Those interested in the vast industrial progress of this country should send for the pamphlet, and those who have surplus capital available to invest in the growing industries of the country cannot do better than put some of it in such a staple industry as wire.

"I don't know why it should surprise you to find that I love you," said the elderly galloway. "But, really, Mr. Oldbuck," replied the fair girl, "I always thought you were an old woman-hater." "Quite so, but I'm not a young-woman hater."

**For Over Sixty Years**

Miss Winstone's Soothing Syrup has been used by millions of mothers for their children while teething. It soothes the child, relieves the pain, cures colic, cures the stomach, and is the best remedy for diarrhoea. Twenty-five cents a bottle. Sold by druggists throughout the world. Be sure and ask for "Miss Winstone's Soothing Syrup."

True (engaged a week): "George and I have never had a quarrel!"

Mrs. De Terminé: "Oh, I think you ought to have one before you are married; otherwise you can't be quite sure whether you are going to have your own way or not!"

**Minard's Liniment Cures Diarrhoea.**

A man never fully realizes what a big world this is until he is compelled to walk ten blocks with a strenuous corn on his toe.

**Minard's Liniment Cures Gout in Cows.**

"Does the baby talk yet?" asked a friend of the family. "No," replied the baby's disgruntled little brother, "the baby doesn't have to talk." "Doesn't he have to talk?" "No. All the baby has to do is to yell and it gets anything there is in the house that's worth having."



**Old Folk and Blue Ribbon Tea**

Elderly people appreciate good tea. They're usually connosisseurs and know the most delicious—that's why

**Blue Ribbon Ceylon Tea**

is particularly old folks' suits their exacting tastes and solaces them with its fragrance and soothing power.

Ask for the Red Label For Cents Black, Mixed Ceylon Green

**Boeckh's Broom**

Any one possessing one will never again be troubled with an old-fashioned broom. Boeckh's are sold by all dealers at low prices.

Look for the name "Boeckh" on Handle.

Buttons (western hotel): "newcomer says you are a staid fellow. Proprietor (furious): "him I'll make him eat his words. Buttons: "I did, sir, and they would be better than no."

Use Liver's Dry Soap (a new) to wash sweaters and flannels, you'll like it.

Dr. Pills: "Yes, old Millman on the verge of nervous prostration all through worrying about money." Dr. Squills: "How you cure him?" Dr. Pills: "I moved the cause of the trouble."

**ENGLISH SPAVIN LINIMENT**

Removes all hard, soft or calloused spots, and blisters from horses, blood curbs, sprains, sore shins, swollen joints, sprains, sore and swollen throat, cures save \$20 by use of one bottle. Write for most wonderful medicinal cure.

"I understand that visionary is regarded as being twenty years ahead of his time." "Yes," said the grave-looking citizen, "my landlord, and I know better than that. He is about six months behind time."

**Minard's Liniment Cures Eruptions.**

Edith: "I thought you and I were fast friends." Nellie: "You said to be." Edith: "And you not now?" Nellie: "No." Edith: "What was his name?"

**Stansford Junction, P. Q., 12th Aug., 1894.**

**MESSRS. C. C. RICHARDS & CO.**

Gentlemen,—I fell from the leading from a platform of a local car while assisting my men in loading a load of grain. The car went down as well as the load, my back and I struck on the engine, the sleeper causing a serious injury to my leg. Only for its being in hard would have broken it. In an hour could not walk a step. Commenced using MINARD'S Liniment and the third day went to Montreal on business and got about well the use of a cane. In ten days was nearly well. I can sincerely recommend it as the best Liniment that I know of in use. Yours truly, C. H. GORDON.

The wise man has sense enough to take good advice, and generally follows his own.

**BOOK NOTICE.**

—By W. H. Shaw.

**THE STORY OF A BUSINESS SCHOOL**

A terse description of Canada's leading business college, a school which registers 1000 students a year, employs 12 regular teachers, and uses 100 typewriters. This school also has a thorough system of instruction by mail. Complete courses are given in Bookkeeping, Shorthand, Typewriting, Telegraphy and Illustration. The book is descriptive of all, and an enquirer is given FREE.

**Central Business College OF TORONTO.**

W. H. SHAW, President.

**FOR SALE.**

**WILSON'S AUTOMOBILE TOUNG**

Car, new springs all round, machine not worn in the slightest, tires new this spring, spring cushions, duplicate parts. For sale at great sacrifice. Cost \$2,500. Box 7, Truth Office, Toronto.

**FOR SALE, CHEAP FOR CASH.**

Portable pressure blower, No. 4 in outlet.

Galve valves—4 in. flanged.

Galve valve—6 in. flanged.

Earl steam blower—10 in. inlet.

Iron branch cast iron leaders for in pipe.

Iron pulleys—30x12.

Iron pulleys—22x12.

Iron pulleys—22x6.

Iron pulleys—18x6.

Also an assortment of iron cone pulleys.

**S. FRANK WILSON,**  
73 West Adelaide St., Toronto.

**DR. A. W. CHASE'S 25c CATARRH CURE**

Is sent direct to the diseased parts by the Improved Blower. Heals the ulcer, clears the sinuses, stops droppings in the throat and permanently cures. Sold by all medicine dealers or mailed at 25 cents a box by writing the Dr. Williams' Medicine Co., Brockville, Ont.

**BLESSING OF SUNSHINE.**

Curious Result of the Studies of a Swiss Professor.

Prof. Lugon of the University of Geneva has been studying the population of the valley of the Rhone between Martigny and the Rhone river. The statistics show that the right bank of the river between these points has a population of 100,000 while only 20,000 persons live along the left bank.

There are two reasons for this difference in the density of population between the two banks of the Rhone. One is that the right bank is less hilly and therefore offers better natural conditions for the building of hamlets and towns; but Prof. Lugon is convinced that a more important influence is exerted by the different degrees of sunshine enjoyed by the two banks.

He has found that along a part of the river banks which present exactly the same topographic conditions the population of the side which is exposed to the sun is from five to eight times as many inhabitants as the other bank which is in the shadow of the mountains that rise up on most of the direct rays of sun. With one or two exceptions the villages have been built on the bank which is most fully exposed to the sun's rays.

The influence of the presence or absence of sunlight also manifests itself in the psychic characteristics and material conditions of the population of the two river banks. On the right side of the river in the sun population live more at their ease, are more prosperous and present a degree of civilization more advanced than those of the opposite bank.

He calls those who are most favored with sunlight the solar aristocracy and says that they contemplate with a certain disdain the inferior population which dwells in the shadow of the river.

The people of the village of Recken, which occupies both banks of the Rhone, are notably divided into two distinct castes whose origin, in his last analysis, may be attributed to the difference of sunshine to which the two groups are exposed.

**ST. JACOBS OIL**

**POSITIVELY CURES**

Rheumatism, Neuralgia, Lumbago, Backache, Sciatica, Sprains, Bruises, Soreness, Stiffness

**CONQUERS PAIN.**

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