

CANADA'S LARGEST TELESCOPE IN B.C.

SECOND LARGEST IN THE WORLD EQUALS BEST.

Was Built for Dominion Gov- ernment Just Before the War Started.

It will be news to many to learn that near Victoria, B.C., is an astronomical observatory possessing a telescope which for some time was the largest and most perfect of its kind in operation, and which is still a good second in point of size, while equal to the best in efficiency.

In order to peer farther and farther into the depths of space and to discover the true nature of our universe, it is necessary to use more and more powerful instruments. For a number of years the largest telescope in Canada was at the Dominion Observatory at Ottawa. It is 15 inches in diameter and about 20 feet in length. It has been used continually from its erection in 1905, but the need of something greater was felt, and in 1913 the Government placed an order for one larger than any then in existence.

Two Types of Telescope.

Now there are two distinct types of telescopes. In one type there is placed at the upper end of the tube a lens, through which the light from the heavenly body passes and is thereby converged to a focus, or to form an image of the body. Such a telescope is called a refractor. In the second type there is a concave mirror at the lower end of the tube. This is of glass, silvered on the front surface, not the back as in an ordinary looking glass. Upon this the light falls, is thrown back, and thus brought to a focus. Such a telescope is a reflector. The telescope at Ottawa is a reflector. The refractor is the kind we are most accustomed to. Indeed, refractors could not possibly be made as large as the latest reflectors.

The contract for supplying the mirror and the other optical parts was given to the Brushner Co., of Pittsburgh, while that for the mounting was given to Warner and Swasey, of Cleveland. This was in October, 1917. Immediately an order was sent to the St. Gobain Glass Co., of Paris, France, for the glass disc required for the great mirror. On the second attempt the disc was successfully cast at the works of the company at Charleroi, Belgium; and by great good fortune it was shipped from Antwerp a few days before the declaration of war. It arrived in Pittsburgh early in August. The glassworks were wrecked by the Germans soon afterwards.

When it was received the great disc was 73 1/2 inches in diameter, 13 to 15 1/2 inches in thickness, and it weighed nearly 5,000 pounds. After six months of work upon it, the edge had been cut truly round, the lower surface had been made flat and the upper surface had been hollowed out in spherical shape. At the edge it was then 12 inches thick, at the centre 11 1/2 inches, and its weight had been reduced to 4,340 pounds.

Then began the process of "figuring" the surface. By this the surface is changed from a spherical to a paraboloid form. To get this shape about one-eighth of an inch of glass had to be removed from the centre of the mirror, and less and less as one approached the edge.

While the great mirror was being slowly fashioned the massive and complicated mounting had been constructed at Cleveland. It is a triumph of mechanical engineering. The moving parts weigh 45 tons, and yet it is so nicely balanced that the current from an ordinary electric lamp, passing through a motor, is sufficient to move it promptly into any position required for observing any object in the sky.

Fulfills All Expectations.

The mounting was completed in May, 1916, and during the following summer it was shipped to Victoria. The observatory, on San Juan Hill, 700 feet above sea level and eight miles from Victoria, The B.C. Electric Railway passes along the foot of the hill, and a fine road, one and a half miles long, to the summit, was built by the B.C. Government. One section of the mounting weighed 9 1/2 tons and twelve horses were required to pull the truck carrying it to the observatory. The sheet metal observatory building and the mounting were completed in the autumn of 1916, but the great mirror did not come until 18 months later.

The instrument has been in use over two years, and it has fulfilled all expectations. The staff of the observatory consists of Dr. J. S. Plaskett, who was for some years at the University of Toronto and later at Ottawa; W. E. Harper, whose home was near Owen Sound; R. K. Young, of Blinbrook, near Hamilton; and H. H. Plaskett, son of the director.

Some beautiful photographs of some of the heavenly bodies have been taken, but the telescope is chiefly used for photographing the spectra of stars, in this way determining what substances are in those stars and also the speed at which they are moving toward or from us.

Pungent and acid tastes are perceived by the tip of the tongue; the middle tastes sweets and bitters; while the back and lower parts taste fatty substances.

AUTO SPARE PARTS
For most makes and models of cars. Your old, broken or worn-out parts replaced. Write or wire us describing what you want. We carry the largest and most complete stock in Canada of slightly used or new parts and automobile equipment. We ship C.O.D. anywhere in Canada. Satisfaction or refund in full our motto. Shaw's Auto Salvage Part Supply, 922-921 Dundas St. W., Toronto, Ont.

I Profit by Parcel Post.

After four years of selling direct to consumers by mail, I have learned that the parcel-post system is one of the biggest boons that has ever come to country people, providing they use it intelligently. I have also discovered that advertising pays big profits, as I have used it extensively during the past few years.

I began selling by mail on a small scale at first, because I was a little dubious of its feasibility. But after my doubts were dispelled, I gradually added to my line of mail products. The mail plan of shipping saves me much expense in marketing; besides, I get better prices for my goods by this method. If I sold my products to retailers I could not expect so much as consumers are willing to pay.

My plan also saves consumers some money, as I can afford to sell for a little less than retailers ask for the same products. In addition to the money saving, consumers have the advantage of getting strictly fresh goods that have not laid around the store a few days before they are sold. Everything that can be shipped by parcel-post I sell in this way. I get my customers through advertising. During the spring and summer, when vegetables are in season, I run a small advertisement once a week in the local papers, telling of some vegetable that is ready for the market, and soliciting orders. This is all that is necessary, for after the first sale to a customer of each vegetable, I get enough repeat orders to exhaust my supply of that particular vegetable.

In the fall I dispose of my poultry in the same way. I raise ducks, geese and chickens. Of course, they must be dressed and packed in ice before shipping, but the higher price I get for them more than pays for my trouble. Dressed poultry always brings better prices than live poultry, and during the holidays I reap a big harvest from my ready-made supply.

During the late fall and early winter, dressed wild rabbits are another source of income to me. I have more orders for these than I can fill. Hickory-nuts and butternuts are easily shipped by parcel-post, and I usually sell all that I can gather. I never expect to get rich from the sale of nuts, but the best part of their sale is that they are largely profit.

Attractively displayed and neatly packed wares, and the superior quality of my goods, are my best advertisement.

Keeping Desert Chiefs Friendly

By her successful protection of the caravan routes France has earned the gratitude of the people of the regions that border on the great Sahara. Many of these great trade caravans are literally moving cities. They sometimes consist of 12,000 camels, to say nothing of horses, donkeys, sheep and goats.

As showing the constant effort that the French officials make to establish friendly relations with the natives it may be mentioned that several times each year the commandants of the French posts along the edge of the Sahara organize fantasia in honor of the Arab sheiks of the region. The sheiks come in to attend them followed by great retinues of turbaned and splendidly mounted retainers, and with the same enthusiasm with which an American countryside turns out to see the circus.

Races with valuable money prizes are arranged for the visitors' horses, and before the sheiks leave they are presented with ornate saddles, gold mounted rifles and sometimes with crosses of the Legion of Honor.

In return for this hospitality they willingly agree to capture and surrender certain fugitives from justice, to warn the more lawless of their tribesmen that the plundering of caravans must cease, to furnish quotas of recruits for the native cavalry and to send in for sale to the remount department a large number of desert bred horses. Most important of all, they go back to their tented homes in the desert immensely impressed.

The Rich Flavor of POSTUM CEREAL

is at its best after boiling a full twenty minutes; and a well made cup of Postum is hard to beat.

Another form, "INSTANT POSTUM," is made quick as a wink, in the cup. Grocers sell both.

DELICIOUS and ECONOMICAL



tisement. The repeat orders are the result of quality products neatly packed and shipped. They look appealing to the consumer when he receives them, and they taste just as good as they look.

Some things, of course, can not be distributed by parcel-post, but it pays to deal direct with everything that can be shipped by mail.

BABY'S GREAT DANGER DURING HOT WEATHER

More little ones die during the hot weather than at any other time of the year. Diarrhoea, dysentery, cholera infantum and stomach troubles come without warning, and when a medicine is not at hand to give promptly the short delay too frequently means that the child has passed beyond aid. Baby's Own Tablets should always be kept in the house where there are young children. An occasional dose of the Tablets will prevent stomach and bowel troubles, or if the trouble comes suddenly the prompt use of the Tablets will relieve the baby. The Tablets are sold by medicine dealers or by mail at 25 cents a box from The Dr. Williams' Medicine Co., Brockville, Ont.

The Farmer.

He loves his hearth, and seldom ventures far. Beyond his placid homestead on the hill, Simple his wants, few his ambitions are;

His sturdy hands prepared his needs to fill. Days pass, and find him ever in the fields;

The evening sees him in exhausted sleep; Month follows month, and season to season yields;

He carries on his task to sow and reap. No glory crowns his work. Elusive Fame,

The warrior's guardon, scorns his rustic brow. Exploits of sword or pen may win a name;

But not the humbler conquests of the plow. Yet I would hail him super-knight,—

Who dares Do battle with the very earth, and aims!

The Harvest.

Others, I doubt not, if not we, The issue of our toils shall see, And (they forgotten and unknown) Young children gather as their own The harvest that the dead had sown.

—Browning.

Ask for Minard's and take no other.

TWO CHARMING DESIGNS



9616—Ladies' Dress (37 or 35-inch length from waistline). Price, 35 cents. 9274—Ladies' Dress (inset or shorter length). Price, 25 cents. In 7 sizes, 34 to 46 ins. bust measure. Size 36 requires 3 1/2 yds. 36 ins. wide. Width, 1 1/4 yds.

McCall Transfer Design No. 1045. Price, 25 cents. Dress (inset or shorter length). Price, 25 cents. In 7 sizes, 34 to 46 ins. bust measure. Size 36 requires 5 yds. 40 ins. wide; contrasting, 1 yd. 36 ins. wide. Width, 1 1/4 yds.

These patterns may be obtained from your local McCall dealer, or from the McCall Co., 70 Bond St., Toronto, Ont. W.

A TONIC FOR THE NERVES

The Only Real Nerve Tonic is a Good Supply of Rich, Red Blood.

"If people would only attend to their blood, instead of worrying themselves ill," said an eminent nerve specialist, "we doctors would not see our consulting rooms crowded with nervous wrecks. More people suffer from worry than anything else."

The sort of thing which the specialist spoke of is the nervous run-down condition caused by overwork and the many anxieties of today. Sufferers find themselves tired, low-spirited and unable to keep their minds on anything. Any sudden noise hurts like a blow. They are full of groundless fears, and do not sleep well at night. Headaches and other nerve pains are part of the misery, and it all comes from starved nerves.

Doctoring the nerves with poisonous sedatives is a terrible mistake. The only real nerve tonic is a good supply of rich, red blood. Therefore to relieve nervousness and run-down health Dr. Williams' Pink Pills should be taken. These pills make new, rich blood, which strengthens the nerves, improves the appetite, gives new strength and spirits, and makes hitherto despondent people bright and cheerful. If you are at all "out of sorts" you should begin taking Dr. Williams' Pink Pills.

You can get these pills through any dealer in medicine, or by mail at 50 cents a box or six boxes for \$2.50 from The Dr. Williams' Medicine Co., Brockville, Ont.

Writing Letters Miles Away. A wonderful typewriter has just been tried for the first time between Newcastle and London. That sounds odd, as if it were a motor-car, but this typewriter types its letters hundreds of miles away.

It is a new form of telegraph instrument, and as the key of any letter is tapped, this letter is printed on a paper ribbon by a little lettered wheel, whose movements are controlled by the electric currents sent from the instruments.

The keyboard is just like that of an ordinary typewriter, and forty words a minute can be written in York or Glasgow by a man tapping his machine in Birmingham or London.

Their Wireless Wedding.

With the bride at the church and the groom in a battleship, what is believed to be the first marriage by wireless is reported.

The bridegroom, Mr. John R. Wakeman, is a sailor on board the U.S.S. Birmingham, and the bride is Miss Mabel Ebert, of Detroit, U.S.A. About 1,000 miles off the California coast, the ship's chaplain read the ritual received by the ship's wireless, while Miss Ebert and her friends were assembled in the First Presbyterian Church, Detroit.

Here the Rev. C. E. Moir telephoned the bride's answers to a telegraph office, to be transmitted to the Great Lakes Naval Training Station and thence flashed on to the battleship by wireless.

It is usually the man who doesn't know the secret of success who is willing to impart it to others.

An old milk can makes a good rat-trap. Place bacon rind, cheese, cracked walnuts or other good bait in the bottom, and set the can in a likely place. Once inside the can, the rats will have a hard session to get out again.

Rheumatism

Now is the time to get rid of it! Nature is pulling for you—The warm weather's here—This is your chance—grasp it—take

Templeton's Rheumatic Capsules

Get it out of your system the easiest way! Sold by reliable druggists for a dollar. Ask our agent or write us for a free sample. Templeton's, 142 King St. W., Toronto, Ont.

Many "Lost Arts" Are Merely Abandoned.

Tradition credits the ancients with many "lost arts." It is still common to hear people say that means unknown to us must have been employed to erect the pyramids, that the Damascus blade is beyond the power of modern cutlers, and that the art of hardening copper died with some little brown Arctic.

In point of fact, larger stones than any found in the pyramids have been quarried in America, carried across the sea and erected in buildings in England and France. If any one cared to pay for the cost there are plenty of contractors who would build a duplicate of the largest pyramid and not take so very long about it. It is doubtful if a "Damascus blade" will stand as much as a good modern hand saw or the spring of a cheap clock. Copper can be hardened by modern methods to equal any specimen that has been left to us by the ancients.

Many arts that are said to be lost are simply abandoned because there is no modern need of cultivating them, and others not even abandoned, but are employed every day and improved upon.

Sweet Potatoes.

The sweet potato may soon be a much more common vegetable in our markets than heretofore. Its season has been restricted by the difficulty of keeping it for any length of time in storage. Unlike the white potato, it began to deteriorate as soon as it came out of the ground.

This trouble is understood to have been overcome by new methods of curing, and plants specially designed for the storage of sweet potatoes have recently been established at many points in the Southern States. The sweet potato, of course, is not really a potato at all, but a kind of yam. It is, like the so-called "Irish" potato, an American vegetable by origin.

Wise Men Say—

That luck is only a short way of spelling pluck. That the day's mile can be shortened by prefixing an "s" to it. That to make good resolutions is all right, but it is better to make good.

That to get things coming your way it is first necessary to go after them. That every dog has his day, but it's not every dog that knows when he's having it. That if you will learn the true meaning of the word N-O-W, you will soon be able to spell it the other way—W-O-N.

Country Rest.

Not only in loud hymn and psalm is God's love sung. Within the calm Of lush upon the fields and moors A holy anthem swells and soars! Tired feet tread out a sweet delight. When paths of moss come into sight! Spent hearts sing silently; dim eyes Turn looks of praise to quiet skies! And souls a-weary city-pressed Send God dumb thanks for country rest.

Minard's Liniment Co., Limited. Gentlemen,—I have used MINARD'S LINIMENT on my vessel and in my family for years, and for the every-day ills and accidents of life I consider it has no equal. I would not start on a voyage without it, if it cost a dollar a bottle.

CAPT. F. R. DESJARDIN.

Schr. Storke, St. Andre, Kamouraska.

Rough on Browne.

The Browne family possessed a whole sheaf of umbrellas, but they were all in sad need of repair. One morning on his way to the office Browne took them all to be mended. At lunch time he went into a restaurant, and on leaving absent-mindedly walked off with a lady's umbrella; She overtook him, he apologized profusely and returned it.

In the evening he called for the umbrellas again. He boarded a street car, and found himself sitting opposite the lady of the lunch-time episode. She leaned over and whispered, dramatically:—

"I say, you've had a good day, haven't you?"

Good stuff sells at a good price when poor stuff will not sell at all. Fire escapes were used in Paris as long ago as 1761.

When it comes to jumping, the toad has the college athlete beaten to a frazzle.

BITS OF HUMOR FROM HERE & THERE

Stuck Up.

Johnny startled his mother by asking, suddenly: "Mama, is there hair oil in this bottle?" "Mercy, no, dear!" she exclaimed, "that's glue."

"Oh!" said Johnny. Then after a short silence, "Perhaps that's why I can't get my hat off."

Unjust Suspicion.

A proud young father telegraphed the news of his happiness to his brother in these words:—"A handsome boy has come to my house and claims to be your nephew. We are doing our best to give him a proper welcome."

The brother, however, failed to see the point and wrote back:—"I have no nephew. The young man is an impostor."

Tripped the Traveller.

A business man employed a traveller who thought reports were of no account. He sent in one showing several calls that he had made.

When he got back to the head office at the end of the week his employer went through the reports with him, and said, "I notice you called upon Mr. Brown. Did you find him well? Is his business prosperous?"

"Oh, yes," replied the traveller; "he is looking well and seems to be doing well."

"I am glad to hear that," replied the employer. "He was an old friend of mine when he was alive; he died six months ago and the business was closed. You must have made your report from an old directory."

MONEY ORDERS.

Pay your out-of-town accounts by Dominion Express Money Order. Five Dollars costs three cents.

The Bog of Allen has an area of about 240,000 acres, and extends into four Irish counties.

Some men will pay \$200 for a binder, use it two days in the year; \$65 for a planter, use it two days in the year; \$130 for a wheat-drill, use it a few days. Meanwhile their wives rub, rub, rub on a washboard all day long, fifty-two days in the year. A power-washer will do its work as well as a binder or any other machine, and is quite as necessary.

MOTHER!

"California Syrup of Figs"
Child's Best Laxative



Accept "California" Syrup of Figs only—look for the name California on the package, then you are sure your child is having the best and most harmless physic for the little stomach, liver and bowels. Children love its fruity taste. Full directions on each bottle. You must say "California."

America's Pioneer Dog Remedies
DOG DISEASES
and How to Feed Mailed Free to any Address by the Author
32, Gray Street, Ont. Stn.
113 West 31st Street
New York, U.S.A.

Classified Advertisements.

CHOICE SILVER BLACK BREEDING
Foxes. Reed Bros., Bothwell, Ont.

Eking it Out.

Followed by seven sturdy and eager-eyed children, the lady with the firm lips entered the restaurant and looked round for a suitable table.

An obsequious waiter showed her to a comfortable corner and offered her the menu, anticipating a large order and a substantial tip.

"Let me see! Beefsteak!" murmured the lady thoughtfully. Then she turned to her eldest daughter. "Steak for you, Bertha?" she asked.

"Yes, please, ma."

"You, Reginald?"

"Yes, please, ma."

And so on till her seven offspring had plumped for beefsteak. Then she spoke to the waiter:

"Bring me a nice, well-cooked steak and eight plates, please!"

The astounded maitre—good phrase, that!—gasped.

"Didn't you hear me?" she demanded.

"Yes, ma'am!" he gasped. "Only I was thinking that if your family sat at that table next the lift and snuffed 'ard, they'd get more of a meal."

Minard's Liniment for sale everywhere

Lawn tennis only came into existence in 1874.

DOUBLE BEAU!
OF YOUR HAIR

"Danderine" creates mass of thick, gleamy waves

In a few moments you can transform your plain, dull, flat hair. You can have it abundant, soft, glossy and full of life. Just get at any drug or toilet counter a small bottle of "Danderine" for a few cents. Then moisten a soft cloth with the "Danderine" and draw this through your hair, taking one small strand at a time. Instantly, yes, immediately, you have doubled the beauty of your hair. It will be a mass, so soft, lustrous, and so easy to do up. All dust, dirt and excessive oil is removed.

Let Danderine put new life, color, vigor, and brightness in your hair. This stimulating tonic will freshen your scalp, check dandruff and falling hair and help your hair to grow long, thick, strong and beautiful.



**Know The Joy Of
A Beautiful Complexion
Hair And Hands**

They may be yours if you make Cuticura Soap and Ointment your every-day toilet preparations. The Soap cleanses and purifies, the Ointment soothes and heals redness, roughness, pimples, and dandruff. Soap 25c. Ointment 25c and 50c. Sold throughout the Dominion. Canadian Depot: Lyons, Limited, St. Paul St., Montreal. Cuticura Soap shaves without stings.

ONLY TABLETS MARKED

"BAYER" ARE ASPIRIN

Not Aspirin at All without the "Bayer Cross"



For Colds, Pain, Headache, Neuralgia, Toothache, Earache, and for Rheumatism, Lumbago, Sciatica, Neuritis, take Aspirin marked with the name "Bayer" or you are not taking Aspirin at all.

In the evening he called for the umbrellas again. He boarded a street car, and found himself sitting opposite the lady of the lunch-time episode. She leaned over and whispered, dramatically:—

"I say, you've had a good day, haven't you?"

Good stuff sells at a good price when poor stuff will not sell at all. Fire escapes were used in Paris as long ago as 1761.

When it comes to jumping, the toad has the college athlete beaten to a frazzle.

Aspirin is the trade mark (registered in Canada) of Bayer Manufacturers of Mono-acetate of Salicylic acid. While it is well known that Aspirin means Bayer manufacture, to assist the public against imitation, the Tablets of Bayer Company will be stamped with their general trade mark, the "Bayer Cross."