

supervision of Prof Cherriman of University College, until the appointment of the present director in 1855. The original observatory was demolished in 1854, and was replaced by the present stone building in 1855. The staff of observers when the observatory came into the hands of the Canadian Government, consisted of Messrs. Walker, Menzies, and Stewart. Since the death of Mr. Walker, in 1866, his place has been most ably filled by Mr. W. F. Davison, who had been employed for several years as a supernumerary. The general character of the objects of the institution having been stated, I shall now go more into detail. The meteorological instruments hitherto and still in use, with the exception of the anemometer, are not adapted to give a continuous automatic record. They are, however, of a very excellent quality. The barometer is by Newmann, and has an internal diameter of 506 inches. The standard thermometers are by Fastré, of Paris, and are graduated in arbitrary divisions, the readings being converted into Fahrenheit scale by tables. From observations taken at Toronto several years ago, at every hour through the day and night, for six consecutive years, tables were computed giving, for every fifth day in the year, the diurnal variations of temperature at every hour. The tables have been extensively used at other places as well as Toronto in the reduction of temperature observations; but, as there is reason to believe, that the diurnal variations of later years have undergone considerable modifications, it became requisite to collect materials for new tables. This will commence shortly by means of photographic self-recording instruments which have recently arrived. The direction and velocity of the wind is obtained by a continuous self-recording process. The instrument, one by Robinson, of the earliest construction, has been at work since 1848, and is nearly worn out. It will be superseded soon by a very superior apparatus, similar to that in use at Kew, and at most observatories of any note. In addition to the instruments named above, we have the following, that were devised here:—(1.) An electrical clock anemometer and wind vane. (2.) Apparatus for showing the rain that falls in every hour. (3.) Apparatus for showing the rainfall which accompanies different winds. Astronomical observations.

The observatory is not furnished with apparatus suited for astronomical researches. Our astronomical observations are not made in the interests of astronomy, but are subservient to other purposes, and are almost entirely confined to transits for time. The correct time determined at this establishment is necessary for our magnetic and meteorological observations; and it is also the standard by which all the clocks and watches in Ontario have been regulated for more than thirty years; and for more than three years the observatory has given time daily to the city by striking all the fire alarm bells at a fixed instant. Extraneous work.

There are sundry services rendered by us to the public which add considerably to our work, and which, although they do not strictly form part of the duties of the observatory, are naturally associated with them. The following are some of the services referred to:—

- a. Giving information on scientific subjects to visitors.
- b. Supplying information in writing to applicants in Canada and other countries.
- c. Examination of instruments brought for comparison.

County Rifle Association.

The annual meeting of the Northumberland County Rifle Association was held on Wednesday evening in the office of Brigade Major McCully, President, who occupied the chair. The accounts were submitted by the Secretary, Capt Howard showing a balance on hand. There being no regular rules to govern the Association a committee was appointed to make a constitution and bye laws to be submitted for approval at the next regular meeting. Lt. Col. McCully, Lt. Col. Ferguson and Capt. Howard were respectively re-elected President, Vice-President and Secretary Treasurer. On motion it was resolved that the Association adopt the style of target used at the matches of the Provincial Association. It was resolved that an Association Competition be held at Chatham range on Saturday 31st inst. There will be one match as follows:

Ranges 300, 400 and 600 yards, 3 rounds at each range, 32 prizes in cash to the amount of \$75 beside any articles that may be donated by citizens; open to all members of the Association. The division of the money is as follows:

Money Prizes.	
1st.....	\$8.00
2nd.....	7.00
3rd.....	6.00
4th.....	5.00
5th.....	4.50
6th.....	4.00
7th.....	3.50
8th.....	3.00
3 prizes of \$2.50 each.....	7.50
5 " " 2.50.....	10.00
5 " " 1.50.....	7.50
5 " " 1.00.....	5.00
5 " " .75.....	3.75
1 " " .25.....	.25

One sighting shot will be allowed at each range.

Competitors who do not score ten points at the 200 and 400 yards ranges will be ruled out of the match.

Firing at all the ranges to be in any position, but no artificial rest will be allowed. The match will commence at 9 o'clock sharp. It will be observed that two material changes have been made in the former practice of the Association, one in regard to the targets and the other in the position in firing at the 200 yards range. In respect to the latter it may be briefly said that it enables the competitor to take the same position at the two hundred yards range as at all the others. The change in the form of the target is more material, as all the parts are made round instead of rectangular in form. The usual iron targets will be used, but they will be painted as follows:

At 200 yards the "bull's eye" will be a circle 8 inches in diameter, the "centre" 16 inches, the "inner" 28 inches and the "outer" 40 inches. At 400 and 600 yards the bull's eye is 22 inches, the centre 38 inches, the inner 54 inches and the outer 70 inches in diameter.

A bull's eye on these targets counts 5, a centre 4, an inner 3, and an outer 2. Hits that do not count may be heard on the target, because of their being made on the portions outside the "outer" ring.

It will be well for our marksmen to study the above well as the change will, no doubt, be permanent. These targets have been used at the later matches of the Dominion, Provincial, and some of the County matches and are adopted by the Northumberland Association for the sake of uniformity. Those wishing to become members of the Association can do so by applying to W. B. Howard, Esq.—St. Lawrence Advance.

CANCERS

Removed without pain, or the use of either caustics or the knife, and radically cured. If painful, and an open ulcer formed, medicines will be sent by Express to give prompt relief. Consultation by letter, One Dollar. Send 60 cents for Book with descriptive Cases, References and Testimonials.

DR. PARK & McLEISH,  
No. 21 East 10th Street, New York.



MAIL CONTRACT.

TENDERS, addressed to the Postmaster General will be received at Ottawa until noon, on Friday, 13th August, 1875, for the conveyance of Her Majesty's mails, on a proposed contract for four years two times per week each way, during the winter between Rapids des Joachims and Mattawa, and three times per week each way during the season of navigation between Deux Rivieres and Mattawa, from the 1st September next. Conveyance to be made in a canoe, skiff, a suitable vehicle, or on horseback according to the season.

In Winter—The mails to leave Mattawa on Mondays and Thursdays at 8 a.m., and arrive at Rapids des Joachims, on Tuesdays and Fridays at noon. To leave Rapids des Joachims on Tuesdays and Fridays at 2 p.m., or upon arrival of mail from Pembroke and arrive at Mattawa on Wednesdays and Saturdays at 8 p.m.

In Summer—To leave Mattawa on Mondays, Wednesdays, and Fridays at 10 a.m., and arrive Deux Rivieres at 5 p.m. To leave Deux Rivieres on Tuesdays, Thursdays, and Saturdays at 7 a.m., and arrive at Mattawa at 8 p.m.

Printed notices containing further information as to conditions of proposed contract, may be seen, and blank forms of Tender may be obtained at the Post Office of Rapides des Joachims, Rock-Hill, Deux Rivieres, and Mattawa.

J. P. FRENCH

Post Office Inspector.  
Post Office Inspector's Office,  
Ottawa, 15th July, 1875. 8th 29



CUSTOMS DEPARTMENT,

OTTAWA, 23rd July, 1875.

AUTHORIZED DISCOUNT ON AMERICAN INVOICES until further notice, 11 per cent

J. JOHNSON,  
Commissioner of Customs.

PROVINCE OF QUEBEC

Rifle Association.

THE SEVENTH ANNUAL PRIZE MEETING will be held at Point St. Charles Ranges, Montreal, commencing on THURSDAY, 10th AUGUST. List of prizes and certificates of passage may be had on application to

JOHN FLETCHER, Lt.-Col.,

3rd 29 Secretary.

HARDEE'S RIFLE & LIGHT INFANTRY

Tactics, for the instruction, exercises and maneuvers of RIFLEMEN and Light Infantry—including, School of the Soldier and School of the Company by Brevet Lieut. W. J. Hardee, to which is added Duties of Non-commissioned Officers, Military Honors to be paid by Troops. The articles of war, containing rules by which armies are governed, Relating to Courts-Martial; Suppressing Mutiny or Sedition; Granting Furloughs, Commisary of Musters; Accepting a Challenge; Chaplains; Sutlers; to whom any Officer may apply for Redress; Sentinels; False Alarms; Misbehaviour; Making Known the Watchword; Engineers; Spies; How Courts-Martial must be Authorized, etc. Sent on receipt of price 1s. 6d. EVERY SOLDIER SHOULD HAVE ONE.

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3rd 26 3 Sheriff St., New York.