

the Westminster team, he complimented them also upon the good fight they had made for first place, and expressed the conviction that if next year they should in turn be successful the Victoria companies would not begrudge them their well-earned victory. Bombadier F. Mallandine, the winner of the Nursery match, was cordially greeted as a worthy representative of the younger shots coming to the front. Another new-comer on the range, who was very cordially complimented by Col. Prior, was Gunner W. Lettice of No. 3 Company, who amongst other prizes won in this the first competition in which he has taken part, secured the Nanaimo Corporation cup, to hold for the year. Mr. W. W. B. McInnes was next called to receive the Nelson cup, which he won in the Lieutenant-Governor's match, with the splendid total of 48 out of 50 points, and Col. Prior gracefully referred to the fact that in the matter of rifle shooting young Mr. McInnes is following worthily the example set him by his father, Senator McInnes, who also was a competitor and prize winner. The fact that Mr. McInnes was the sole representative from Nanaimo was remarked upon as a subject for regret, the hope being expressed that next year the riflemen from that city will be found in attendance as usual. Gunner R. J. Butler of No. 2 Company then came up for the Victoria Corporation cup, which he had won with 66 points out of 70. The Goldstream match again brought forward Sergeant Langley, who having won the Chapleau cup—the first prize—once before, it now becomes his permanent property. Lieut. B. Williams, captain of the team of No. 2 Company, and Lieut. J. D. Taylor, captain of the Victoria Rifle Club team, were presented the prizes won in the competition of the morning, and which the two teams of ten men each had finished so close, with remarkably high scores. Lieut. M. G. Blanchard, the winner of the Cornwall cup, was complimented upon his splendid score of 48 points out of 50 in ten shots at 600 yards. The aggregates brought Sergeant Langley to the front once more, to receive the Martini-Metford rifle presented by Lt.-Col. Hon. J. H. Turner, and set as first prize in the militia aggregate; and also the gold badge of the association awarded for the highest score in the grand aggregate open to all comers. A prize not on the published list was a pretty medal given by Mr. J. T. Bethune for the highest aggregate made by a civilian, and this was won by Mr. F. R. Sargison, well-known as a military rifle shot, but on this occasion did not compete as a militiaman. The team aggregate prizes were received by Sergt.-Major Hunter for No. 2 and Gunner Henry Chamberlin for No. 4 Company, the captains of their respective teams. The last named was then presented with D.R.A. silver medal just won in the Ottawa team match; and Gunner W. Duncan, who won the D.R.A. bronze medal after contesting a tie for it, was warmly applauded also as he came forward.

Sergeant Arthur Langley was then introduced as the leading man on the team to be sent to Ottawa, and Col. Wolfenden made an address explanatory of Sergeant Langley's performances. By invitation addresses, which proved full of good advice to the riflemen, were made by Lt.-Col. Peters and Senator McInnes, and the meeting broke up with cheers for the chairman.

The Rifle Association Matches

How the Ranges Are Most Easily Reached by Rail.

This is the month in which all the principal rifle matches take place in the Dominion. The dates fixed for those yet to eventuate are:

Province of Quebec Rifle Association, at Montreal, commencing August 14th.

Province of Ontario Rifle Association, at Toronto, commencing August 21st.

Dominion Rifle Association, at Ottawa, commencing August 27th.

To keen marksmen these annual meetings are most enjoyable events, not only for the pleasure afforded by indulgence in their favorite pastime, and renewing old and making new acquaintances, but in the enjoyment of a pleasant holiday outing. All the ranges are most easily and conveniently reached by the Canadian Pacific Railway, the great connecting link in the Imperial highway, whose service in the transportation of Her Majesty's troops between Halifax and Vancouver has received the highest eulogiums from the British Admiralty. With a substantial and well constructed road bed and easy riding cars—the equipment being the finest of any railway on the Continent—the nervous system of the intending competitor is not so shaken and affected that he finds himself out of condition and badly handicapped in the competitions. In the superb sleepers of the Canadian Pacific he is enabled to make a long journey with the greatest ease and comfort, and reaches his destination thoroughly rested and refreshed, and without that weariness and tired feeling usually attendant upon travelling. In the dining and buffet cars, excellent meals are provided, which can be eaten leisurely as the train speeds along; and the elegant first-class coaches are perfectly comfortable.

The Canadian Pacific is the shortest, quickest and pleasantest route to Montreal and Ottawa from Halifax, St. John and other points in the Maritime Provinces, and from Toronto and other western points; as it is also between Montreal and Ottawa; and the reduced rates to competitors is only one of the many inducements it offers to riflemen who intend to compete at any of the matches.

Full information regarding rates, sleepers, etc., can be procured from any of the agents of the company.

An Armored Disappearing Turret Operated by Hand Power.

It is now thirty years ago that the protected turret made its appearance and took a place among the most important adjuncts of permanent fortifications. It was in 1863 that Gen. Brialmont mounted the first cupola upon the redoubt of Fort No. 3 of Anvers. Since then this metallic apparatus has been the object of numerous improvements, the principal of which have been successively brought to the knowledge of our readers; but the

latest word is not yet said. Military engineers are always at this work, and their opinion is far from being definitely settled touching the conditions that should be satisfied by numerous as yet undetermined elements of a question that is so interesting from a military standpoint. All that it is possible for them to do to-day is to formulate a few general principles, which may be unsettled to-morrow by the fact of some new discovery or new combination.

The following are the general rules that they think should be followed, at least provisionally, in the course of their work: Protected turrets for guns of large caliber are of two kinds, the *disappearing*, for the direct firing done by large guns, and the other, *simply revolving* for the curved firing of short guns. The latter should be carefully concealed from the sight of the enemy. The turrets may be called upon to receive one or two guns. The first of these two arrangements is preferable from a military view-point. If the second is quite often adopted, it is solely by reason of economy. As regards the selection of the metal to be employed for the manufacture of the movable armor-plating, experience has permitted the conclusion to reject hard cast-iron, and even the best steel (cast, forged or tempered with lead), which cracks too easily under the action of the impact of torpedo shells. At present it is rolled iron that is in favor; but will it be so long? Hard cast-iron seems also to be admissible for glacia plates that have to withstand only the effects of vertical firing.

The top of a turret may have the form of a convex cap of large radius composed of two or three pieces of rolled iron from 10 to 12 inches in thickness. As for the cylindrical part of the movable armor plating, that should not be less than 18 inches. Every armor casing includes a lining for the purpose of warding off the danger of a falling of fragments of metal detached from the roof through a shock or the explosion of projectiles during a combat. This lining, which is of steel plate, is formed of two thicknesses of $\frac{1}{4}$ inch plates.

Such are the essential rules that are now about admitted; but there is a host of conditions of detail that a well-organized turret must fulfill. The limited space at our disposal obliges us to confine ourselves to a simple enumeration of the accessory questions that are to-day the object of the studies of a number of engineers of merit.

These subjects of study are the following: form of the glacia plate; hermetical closing of the gun chamber; method of revolving the turret; organization of the armament, as well as of forward and upward pointing, direct or indirect; masonry substructures; lighting; acoustic and telephonic communications; observatories; ventilation; methods of getting rid of the foul air, etc.

While waiting for each of these questions to receive a rational solution, it is well to make known an extremely simple disappearing apparatus, conceived by commandant of engineers Galopin. A model of this apparatus constructed at the Creusot works has been tried with complete success under the eyes of a delegate of the council of war.

FOR SALE.

Rifle Officer's Saddlery complete Saddle, Bridle, Shabraque, plume etc. In good order.

C. S. JONES.

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