

year. Mr. Platt was in favor of battalion camps, the abolition of canteens, the abolition of target practice as at present conducted, and the encouragement of bands.

On item 60 Sir R. Cartwright bespoke for the R. M. C. graduates a share of the commissions in the augmented Police and permanent militia corps.

On item 61 Mr. Caron gave some particulars about the proposed organization of "C" battery of artillery in British Columbia, necessitating an increase of \$20,000. Mr. Foster complained of the demoralizing effect of the canteen at "A" Infantry School at Fredericton and asked for its abolition.

Mr. Caron explained that item 62 was to complete the purchase of 12 rifled 9-pounders, which he had secured for the amount voted for eight, through the aid of the Imperial Government. Four of the guns had been sent to the Miramichi Battery, four were going to the Richmond battery, and the others were going to other batteries according to seniority.

On the next item Mr. Watson asked for additional aid for the Stony Mountain Range.

On the last item passed, No. 64, Sir Richard Cartwright drew attention to the condition of the front wall of Fort Henry, at Kingston, which should be repaired, if only to preserve Canada's credit in the eyes of tourists passing it.

THE D. R. A. PROGRAMME.

The programme of the Dominion of Canada Rifle Association's annual prize meeting, which is to begin on the Rideau ranges, Ottawa, on Monday, the 31st August next, was published on Wednesday last, and proves to be very similar to that of last year; all the principal matches being fired at the same ranges and under the same conditions. To show at a glance the relation between the two years' programmes, we subjoin a list of all the matches, with the number and value of all the prizes in each year; but in consequence of want of space, must postpone, till our next issue, the full prize list.

NAME OF MATCH.	1884.			1885.		
	Team prizes	Individual Prizes	Value of Prizes	Team Prizes	Individual Prizes	Value of Prizes
Nursery.....	.....	82	\$380	.....	77	\$380
Manufacturers'.....	.....	76	430	.....	81	455
Rideau.....	.....	53	315	.....	68	375
Macdougali.....	.....	58	360	.....	63	380
Ouimet (late Masson).....	.....	72	420	.....	72	420
Minister of Militia.....	6	54	460	6	59	485
Dominion of Canada.....	5	78	770	5	83	790
London Merchants Cup.....	2	.....	144	2	.....	144
Grand Aggregate.....	.....	50	365	.....	60	448
Governor General's.....	.....	3	500	.....	3	500
Long Range.....	.....	10	150	.....	9	140
Gzowski.....	5	.....	300	5	.....	125
British Challenge Shield.....	2	.....	73	2	.....	65
Marquis of Lorne's prizes.....	3	.....	300	2	.....	200
Martini, A (late Hamilton Powder Co).....	.....	33	185	.....	53	270
" B " " ".....	.....	35	185	.....	53	265
Extra Series, No. 1.....	.....	10	50	.....	19	100
" " 2.....	.....	10	50	.....	19	100
" " 3 (Martini).....	.....	.....	.....	.....	23	139
Standing.....	.....	.....	.....	.....	54	235
Revolver.....	.....	1	00	.....	24	108

Taking the matches in the above order we find that, with the exception of slightly increasing the number of prizes, there is no great change in any of the matches up to the grand aggregate. A new name appears in the "Ouimet" match, but it simply replaces the "Masson" match—as Lieut.-Col. Ouimet replaced Lieut.-Governor Masson in the capacity of Chairman of the Council. The grand aggregate consists of the same number of shots as last year, namely: Seven at 200, five at 400, twenty-eight at 500, and twenty-six at 600 yards. There are, however, ten new prizes added to it, bringing the number up to sixty; and, in accordance with a recommendation of the general meeting held on the range last year, a badge is to be given to each of the five highest aggregates. The Governor-General's match is to be fired as last year, with Martini-Heurys, and is open to the sixty aggregate winners; the number eligible to fire being thus increased by ten. In the Gzowski and British challenge shield matches, the money prizes are materially reduced, but the conditions are unchanged. The special Provincial prizes, offered by our former Governor-General, the Marquis of Lorne, are yet open to Prince Edward Island and British Columbia, which failed to send teams last year, and are to be fired for in a skirmishing competition. The name of the Hamilton Powder Company this year

disappears from the Martini matches. There are two series at 500 yards as last year, with many additional prizes. In the Snider extra series at 500, and 200 kneeling, all the prizes are cash, and their number is nearly doubled. An extra series, No. 3, seven shots at 800 yards with Martini, for twenty-three cash prizes, takes the place of the similar match arranged last year after the programme was printed for prizes in kind.

The match at 200 yards, standing, is an innovation adopted in deference to a recommendation at the last September meeting, and will doubtless prove an attraction, as will the revolver match, with the large number of cash prizes which are this year offered in it. The regulations for this match have been much simplified and improved, the revolver being described as not to exceed 45-calibre, and a single range, 25 yards, being fixed. This will have a tendency to bring to the front the revolver best adapted for hard-hitting in actual service.

In the regulations for conducting the meeting, we notice a few alterations. In the matter of protests the time for making them is now limited to "one hour after the occurrence on which the protest is founded, the Executive Committee reserving the right to refuse or accept any protest received or presented after the expiry of that time." Any person "who shall shoot dressed partly in uniform and partly in plain clothes, shall have his scores for that particular prize disallowed, and if such disallowance refers to the grand aggregate, he shall also forfeit all claim to shoot in the Governor General's match." The machinery for the payment of prizes has been simplified. In the matter of signalling the following two sections have been added to Regulation XXVII:—

5. If on a target being raised the *spotting disc* appears manifestly to disagree with the *signal disc*, the Register Keeper shall stop the firing at the target, and report the circumstance to the Range Officer, who shall decide the shot after enquiry of the Officer in charge at the butt, but no deposit shall be required, nor shall there be any appeal from the decision given.

6. All claims for shots signalled *must be made before* another shot is fired at the target in question.

In the regulations for deciding ties there are some changes. Ties fired off will be decided by the aggregate score of five rounds instead of three as heretofore; in the grand aggregate, equal numerical scores for the first five places and for the last place or places, shall be fired off; as will be all scores of equal numerical value in the Governor General's match.

We notice that some errors and omissions are perpetuated in the regulations; for instance, there is nothing to define the size of target to be used at 400 yards, and it is provided in the grand aggregate tie regulations that scores equal at all other ranges shall be decided by the total scores at 200 yards! The regulation prohibiting two competitors from shooting out of the same rifle has always been a dead letter as far as it relates to the Martini matches, where a quantity have been kept at the butts for common use.

These, however, are very trivial defects, and on the whole the Executive Committee are to be congratulated on the very attractive programme they have prepared.

RIFLES AND RIFLE SHOOTING.—IX.

BY CAPTAIN HENRY F. PERLEY, HEADQUARTERS STAFF.

The "cake" as it comes from the incorporating mill, is passed to the "breaking down house," where the hard flat lumps are reduced to meal by being passed between two pair of gun-metal rollers set in a strong frame of the same material, one roller of each pair working in sliding bearings connected with a sliding lever, so that any hard substance may pass through without dangerous friction. The meal is received in wooden boxes and taken to the "press." These boxes are very strongly made and are 2 ft. 6 in. square, and 2 ft. 9 in. deep, two of the sides and the lid being hinged. In this forty-six gun metal plates 2 ft. 5½ in. square slide vertically, being kept apart by gun metal slips. About 800 lbs. of meal are put into this box while the plates are in a vertical position, and when full the metal slips are removed. The box is then turned over horizontally, the upper side removed, and placed on a table under the ram of a hydraulic press, which enters the box a certain distance when a spring is released which sounds a bell as a signal to stop the pumps, and after the pressure has been maintained for a few minutes, the box is removed and unloaded. This mode of regulating the pressure has been found to give more reliable results than trusting to the indicator gauge of the hydraulic press, for the reason that the elasticity or resistance to pressure of the meal varies with the amount of moisture present in it, and on the state of the atmosphere. To get uniform density, equal quantities of meal containing equal amounts of moisture must be pressed at the same rate into the same space. In practice, however, the moisture in the meal will slightly vary, whatever care be taken with the mill cake, owing to the hygro-