

type of adversary, without knowing intimately beforehand the specific qualities of one and the other.

The conditions of attack and defence in this case alike depend entirely on the qualities and armament of the ships engaged. A direct answer to the foregoing questions appears therefore impossible.

In our next and concluding notice we shall have to consider: What is now the true measure of the fighting powers of a ship of war.

THE SWISS ARMY.

The *Farkbuecher fur die Dutches Army and Marine* in a notice of the Swiss Federal Army furnishes the annexed particulars:—The new Swiss bronze breech loading field gun is 8.4 centimetres in calibre, and weighs 433 kilogrammes; the ordinary charge is 840 grammes. The weight of the projectiles are as follows: shells, 5.53 kilogrammes; shrapnell, 5.61 kilogrammes; canister, 5.53 kilogrammes. The gun is mounted on an iron field carriage, provided with side boxes. The limber is also of iron. Both are fitted for practice with wooden wheels. With forty rounds in the limber boxes, and a team of six horses, the total draught of the piece is 1,600 kilogrammes, or with a detachment of five guns mounted on the gun and limber boxes, 2,000 kilogrammes. The range and accuracy of fire are very favourably reported of. The terminal velocity of the shell was found to be 356 metres, at a range of 600 metres with an elevation of 0° 45'; 239 metres, at a range of 2,500 metres, with an elevation of 7°; and 195 metres at a range of 3,500 metres, with an elevation of 11° 30'. The fuzes used with the shells are a modification of the Prussian fuze. The shrapnells are an improvement on the Boxer shrapnell. They are of wrought iron with cast iron ends the bursting charge being contained in a central brass tube. The charge consists of 130 bullets of 16 millimetres diameter, 20 of them being of zinc, weighing twelve grammes each, and the remaining 110 of hardened lead, weighing 22 grammes each. This compound consists of four parts by weight of lead and one of antimony. Shrapnells of like pattern are used with the steel 10 centimetre and the bronze 12-centimetre guns for artillery of position. The canister shot consists of tin cases fitted with wooden bottoms, and filled with hardened leaden bullets of 24.5 millimetres diameter, weighing 75 grammes. The revolver adopted in the Swiss cavalry and artillery is stated to be an excellent weapon. It is an improvement by a Major Schmidt on the six shooting "Chameot Delvigne" revolver. The manufacture of the weapon is in progress at the establishment of M.M. Perlot freres, at Liege. The total number ordered is 30,000, of which 800 were ready for delivery on 1st February last. A lighter description of the same weapon, to be used with the same ammunition, has been proposed for officers and men of the infantry. Some experiments with this weapon were commenced in November last, which were understood not to be concluded when the notice was written. An order of the Federal Government of 4th November, 1872, provides that the whole of the landwehr infantry should be furnished with breech loading rifles in the course of the current year; also that by the end of the year 1864, the whole of the active and reserve infantry contingents of the Federal Army shall be equipped with the new "Vetterli" repeating rifles. Of these 119,000

stand have been ordered, of which 65,000 have already been delivered. For the annual manoeuvres, which are to take place under the command of Divisional Colonel Scherer, the following troops are detailed: two battalions of rifles, nine battalions of infantry in half battalions, one squadron of dragoons, to 8 centimetre field batteries, one sapper company, one field telegraph detachment, with commissariat and pontoon train in proportion. The Divisionary staff guides will perform the duties of field gendarmes. The sum voted by the Federal Government for military purposes during the current year amounts to 3,000,000 francs (£125,000) the remaining cost of the army being defrayed by the several cantons individually.

RIFLE MATCHES.

RIFLE TOURNAMENT.

The Rifle Tournament which the officers of the Sarnia Battery, Garrison Artillery, were obliged to postpone during the Christmas week on account of the storm, took place at the range on the 23rd and 24th ult. The Battalion, with the exception of the Oil Springs and Forest companies, was represented. The Battery, under the G.T. Rifles, and a few members of the Association took part in the contest. The following is a list of those who took prizes, with the scores of each.

VOLUNTEERS AND ASSOCIATION MATCH.

Ens. McLea.....	29	\$7.00
Capt. Wood.....	28	6.00
Sergt. Vanaken.....	29	5.00
Capt. Cruikshanks.....	27	3.00
Sergt. Adams.....	27	4.00
Pte. McIntyre.....	24	2.00
Sergt. Cruikshanks.....	20	1.00
Corp. Munroe.....	22	1.00
J. F. Elliot.....	19	1.00

SECOND MATCH.

Volunteers, non com'd. officers and men.

Sergt. Ticknor.....	33	\$7.00
Pte. Bass.....	30	5.00
Pte. McIntire.....	29	4.00
Sergt. Adams.....	27	2.00
Sergt. Ellis.....	22	1.00
Sergt. McElheron.....	21	1.00

THIRD MATCH.

Officers of 27th Battalion, G.T. Rifles, and Sarnia Battery.

Lt. O'Neil.....	34	\$10.00
Capt. Cruikshanks.....	30	8.00
Ens. McLea.....	28	6.00
Ens. Dalziel.....	25	4.00
Capt. Wood.....	17	2.00

4TH CHAMPION MATCH.

Open to all who have made an average of outers. Seven rounds at 400 yards.

Sergt. McElheron.....	23	\$10.00
Ens. McLea.....	20	8.00
Pte. Wosley.....	17	6.00
Ens. Dalziel.....	17	4.00
Sergt. Williamson.....	16	2.00
Sergt. Ticknor.....	15	1.00
Capt. Wilson.....	15	1.00
Adj. Fisher.....	13	1.00
Sergt. McIntire.....	13	1.00
Pte. Bass.....	13	1.00

It will be seen by the above that Ensign

McLea made the largest score, his prize being \$21, made up of a morocco satchel, the gift of Mr. D. McKenzie, value \$6.75, a lady's sacque, the gift of Mr. John Crawford, \$3; a pipe, 50 cents, and cash \$10.75. Captain Cruikshanks stands second on the list for \$11—a meerschaum pipe, the gift of Mr. J. Woods, \$5, cash \$6. Sergt. McElheron took \$11 in cash and goods; Lieut. O'Neil took the first prize in the officer's match value \$10.

On the whole the matches were well contested, and, with the exception of the wet ground, the circumstances were all that was desired by the lovers of this rational kind of amusement, which combines pleasurable excitement with a patriotic duty. We are only sorry that the tastes of a larger number did not lead them to the range on the national holiday.—*The Canadian*.

THE SHIPS OF THE FUTURE.

At the Royal Academy banquet on Saturday evening, Sir J. Packington, in responding for the navy, said: "It is with a pang of regret we no longer see depicted on your walls by Stanfield, by Turner, and many other of our marine artists, those beautiful picturesque ships which used to contribute alike to our artistic taste and national pride. Those ships are now the ships of the past. If we turn to the ships of the future, I am afraid there is no chance that any artist will ever be induced to give us the portrait of the *Devastation*, the ships of the future will have no canvas upon them, and I fear we shall never see them on canvas. Our beautiful ships are now changed to unsightly monsters, which I fear will never be seen on the walls of the Royal academy; but we trust and fully believe that they will be better adapted, perhaps, than any others have been to the protection of our shores; and of this I am quite certain—whether or not these ships of the future be exhibited on these walls, they will be commanded by officers as able and as brave, and by crews as gallant and true, as have done honor to our flag, and fought the battles of England in times of yore in our old wooden walls."—*Broad Arrow*.

The *Devastation* made a short cruise yesterday from Queenstown. The ship behaved well, and made 12 knots under easy steam.

Prince Jerome Napoleon has arrived in Paris. His presence causes much agitation in the Lobbies and in the National Assembly.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—The very agreeable character of this preparation has rendered it a general favorite. The *Civil Service Gazette* remarks:—"The singular success which Mr Epps attained by his homoeopathic preparation of cocoa has never been surpassed by any experimentalist. By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition and by a careful application of the fine properties of well selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctors' bills." Made simply with boiling water or milk. Sold by the Trade only in 1lb., 1lb., and 1lb. tin-lined packets, labelled—JAMES EPPS & Co., Homoeopathic Chemists, London, England.