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### MR. ALEXANDER RUSSEL.

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MR. ALEXANDER RUSSEL.

A FEW weeks ago our Journal contained a brief account of a presentation of plate, with 1600 sovereigns, to Mr. Russel, editor of the Scotsman; and we have now great pleasure in giving a Portrait of this deserving and unusually fortunate member of the Fourth Estate.

Mr. Russel was born in Edinburgh on the 10th of December, 1814, and was educated in his native city. His calling was originally intended to have been that of a printer; but as he approached manhood he changed his views, and, after contributing to Tait's Magazine and other periodicals of the day, he became, in 1839, the editor of the Bervick Advertiser. Having occupied that position for three years, he took charge of the Fife Herald, which he continued to be till 1844, when he started a Liberal paper in Kilmarnock. In the beginning of 1844, however, Mr. Russel became connected with the Scotsman as assistant to Mr. Maclaren, finding his place so well supplied, and after a long and successful career as an editor, resigned, and Mr. Russel was chosen as his successor. Besides his able conduct of the Scotsman Mr. Russel has contributed valuable articles to the Edinburgh Review, the Quarterly Review, the Encyclopadia Britannica, Blackwood's Magazine, and other publications.

The testimonials already referred to, which were presented to Mr. Russel by a large number of the leaders of the Liberal party of Edinburgh, consist of an elegant and massive silver salver, a silver claret jug, a timepiece in gold (the whole of which articles were supplied by Mackay and Cunningham, of Edinburgh), a purse containing 1600 sovereigns, and an emblazoned roll of the subscribers, numbering about four hundred and fifty, and including among them many of the most celebrated men of the day. The object of the presentation is best explained by the inscription on the salver, which is as follows:—"Presented, with 1600 sovereigns, to Alexander Russel, Esq., editor of the Scotsman, in recognition of his able and consistent advocacy of enlightened political princ

### VOLUNTEER FORCE, MONTREAL, CANADA.

CANADA.

THE Montreal Volunteer Brigade, organised under the Militia Act of 1855, consists at present of a Commandant, Brigade Major, and Aide-de-Camp; a squadron of cavalry, eleven officers, and 100 sabres; a field battery of artillery, four guns, seven officers, and sixty men; a company of foot artillery, three officers, and fifty men; two companies of the battalion Montreal Artillery, ten officers, and eighty-six men; a battalion of Rifles, consisting of nine companies,



MR. ALEXANDER RUSSEL, EDITOR OF THE "SCOTSMAN."-FROM A PHOTOGRAPH BY

This fine brigade is now in the most efficient state, and has on various occasions cooperated with her Majesty's troops in the field. On the Queen's birthday it invariably parades with them. The late gallant Sir William Eyre, when Commander of the Forces in Canada, took the warmest interest in the force; and on one occasion, that of a sham fight on the St. Lawrence with the troops in the garrison, complimented it by a flattering general order for the efficient manner in which it took part in the evolutions of the day. It was lately reviewed and inspected by the hero of Kars, who expressed his approbation of its general appearance and steadiness under arms. The brigade is now looking forward to having the honour of providing his Royal Highness the Prince of Wales with the suitable escorts and guards of honour due to his rank during his stay in Montreal, on his visit to Canada the coming summer. coming summer.

#### EXPERIMENTS WITH WHITWORTH'S RIFLED CANNON AT SOUTHPORT.

RIFLED CANNON AT SOUTHPORT.

So much has been said and written upon the astonishing results obtained from Mr. Whitworth's cannon in his late experiments that it will be unnecessary to do more than give a general account of what took place at Southport. Mr. Whitworth's experiments were made on the seashore between Southport and Liverpool. By the permission of the Admiralty he availed himself of some six or seven miles of flat seashore, admirably adapted for testing the range of his guns, but not equally suited for target practice at long distances. The targets placed on the flat shore cannot be distinguished so as to enable them to be sighted at the great ranges to which the Whitworth cannon throws its shot. An eminence similar to that from which the cannon are fired at the Shoeburyness range is requisite.

The experiments were made on five different days between the 15th and 24th vit.

to that from which the cannon are fired at the Shoeburyness range is requisite.

The experiments were made on five different days, between the 15th and 24th ult. Southport, which is one of the most frequented of the Lancashire watering-places, roused itself from its winter lethargy to witness the success of the great Lancashire engineer and artilleryman. Crowds of visitors streamed along the flat shores, or climbed the sandy hillocks which fringe the low coast and form a natural dyke against the incursions of the sea.

A small, open space on the shore, about two miles and a half from Southport, was marked out by cords and posts to restrain the press of the spectators, who were, moreover, duly kept in order by the inevitable police. In this space stood four Whitworth breech-loading guns, mounted on their carriages. Two were 3-pounders, one was a 12-pounder, and one an 80-pounder. An 18-pounder was also on the sands, but it was not fired, as so much time was taken up by the experiments with the other guns.

We give in tables, which follow, the best re-

TRUEFITT BROTHERS.

Was taken up by the experiments with the other guns.

We give in tables, which follow, the best results officered, but not yet embodied: making a total of seventy-three officers and 796 men, uniformed as shown in the annexed Engraving.

Was taken up by the experiments with the other guns.

We give in tables, which follow, the best repellation of "astounding" betowed upon them by a leading morning paper. The smallest gun, a 3-pounder, weighing only 2081b., threw



ARTILLERY.

LIGHT INFANTRY.

FIELD BATTERY.

COMMANDANT.

BRIGADE MAJOR.

VOLUNTEER FORCE, MONTREAL, CANADA.—FROM A PHOTOGRAPH BY NOTMAN

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a shot upwards of five miles and a half, and achieved more in point of range than any gun of any calibre that had before been tried, not excepting any made by Sir William Armstrong. He, on one occasion, succeeded in throwing a 32lb. shot five miles and 330 yards, a range which neither he himself nor any one else exceeded until it was far surpassed by Mr. Whitworth.

It has since been said that precision, rather than range, was chiefly aimed at by Sir William Armstrong. It would seem likely, however, that the gun that was able to give its shot the best impetus for flight would also give it the truest impetus for precision. The statement, however, had the high authority of Mr. Sidney Herbert, who supported it in the House of Commons by giving what must be taken to be the best results in precision obtained by Sir W. Armstrong. Out of forty shots fired with the Armstrong 12-pounder, Mr. Herbert gave the results of 15, fired respectively at elevations of 7, 3, and 9 degrees. And here we may contrast this mode, so often adopted in recording artillery practice, of giving the results of selected shots, with that adopted in recording the experiments at Southport. The exact result of every shot fired there has been published, without any selection of a favourable percentage of the hits made. This enables any one acquainted with the subject, even though not present at the experiments, to deduce correct conclusions from them. But to return to the account of the Armstrong 12-pounder, which it will be interesting to compare with the Whitworth 12-pounder, as to precision of fire as well as range. We quote Mr. Herbert's speech made in the House on Friday, Feb. 17:—"The last gun made by Sir William Armstrong, and sent to be tried, was a 12-pounder, as to precision of fire as well as range. We quote Mr. Herbert's speech made in the House on Friday, Feb. 17:—"The last gun made by Sir William Armstrong, and sent to be tried, was a 12-pounder, fired at the same elevation (7 deg.) on Feb. 21, as appears from the table below. The ran

show that in precision, as well as in range, the Whitworth has proved itself the superior gun.

Objections have been made to the Whitworth cannon on the score that is does not fire shell; but if, as Mr. Whitworth states, it is adapted for solid shot, and still better for shell, and hollow shot filled with molten iron, the objection is without foundation. He also states that his guns are actually stronger than they are practically required to be, and may be fired, as mortars, at any elevation, and with the largest charge of powder that they can consume. This was strikingly illustrated by the practice of the 3-pounder at Southport, when it was, with its carriage, elevated on a platform and fired like a mortar at 35 deg, without injuring it in any way. This must be ascribed to the fact that the recoil in guns firing the mechanically-fitting projectiles from the polygonal bore is reduced to its minimum. The projectile is easily started, and, in familiar terms, soon acquires way when it is propelled through the smooth, well-lubricated tube, and, as provision is made for keeping it as it issues perfectly concentric with the bore, it is propelled under the conditions most favourable as to range and precision, and also as to recoil. The bore, as is well known, is a spiral hexagonal in section, the corners being rounded off. The pitch of the rifling, or the turn, is a rapid one. a rapid one.

a rapid one.

The 3-pounder is 70 inches long, and, with a bore of 1½ inch, has one turn in 40 inches, and weighs only 208lb. The 12-pounder with a bore of 3-2 inches, has one turn in 60 inches. The 80-pounder, with a bore of 5-4 inches, has one turn in 100 inches. The quick turn and reduced bore are recognised as being the special features in the Whitworth system, both for rifled cannon and the rifled musket.

ausket.

All the cannon fired at Southport are breech-loaders. The breech

in the Whitworth system, both for rifled cannon and the rifled masket.

All the cannon fired at Southport are breech-loaders. The breech end of the gun is closed when charged by a cap, screwed on something like a magnified top of a pencil-case, except that, being of larger proportions, it is turned by a handle. The cap is not detached, but works in a hoop, which is connected by a hinge-joint to the breech of the gun.

The method of charging and working the gun is as follows:—
Two or three turns of the handle unscrew the breech-cap, which is raceived and supported in a hoop, and is then swung back, or rather on one side, like an opened door, leaving the breech end of the gun exposed. The projectile is then pushed in, and behind it is inserted a tin cartridge-case, containing the powder, and shaped hexagonally to fit the rifled bore. The powder is kept in the cartridge-case by a wad or hexagonal cake of lubricating material, such as a mixture of wax and tallow. In the rear end of the tin case is a small orifice corresponding with the vent, which is made in the centre of the breech-cap. The tin cartridge-case being inserted, the hinged hoop carrying the breech-cap is swung to in door fashion, and by turning the handle it is screwed firmly on the rear of the gun. An ordinary friction fusee is then inserted in the vent, made, as stated, in the centre of the breech-cap, and the piece is discharged generally in less than a minute from the time of beginning to load, and that without any attempt at hurry. When the piece is discharged there is no escape of gases from the breech; and when it is unscrewed and swung aside the end of the tin cartridge-case is discharged there is no escape of gases from the breech; and when it is unscrewed and swung aside the end of the tin cartridge-case is discharged there is no escape of gases from the breech; and when it is unscrewed and swung aside the end of the tin cartridge-case is discharged there is no escape of gases from the breech; and when it is unscrewed and swung aside the end

The military men and engineers, who mustered in strong force to tness the Southport experiments, were as much pleased as sur-The military men and engineers, who mustered in strong force to witness the Southport experiments, were as much pleased as surprised by the extreme simplicity of the breech-loading arrangements, and the ease and certainty with which the guns were worked. It is worthy of remark that, through all the days' experiments, there was no instance of any delay caused by difficulty in loading, or by fouling, or fixing the breech, or any accident in the working of any of the guns. The experiments were necessarily very numerous. The shots were fixed in groups, of various numbers. The place where each shot fell was marked by a peg, and afterwards carefully measured and recorded.

In some of the reported accounts the ranges are tabulated in decreasing or in increasing order. This, it should be observed, gives no indication of the actual order of firing, of which no account was kept, as all the shots were measured at the end of the experiment to prevent loss of time.

was kept, as all the shots were measured at the end of the experiment to prevent loss of time.

Our space will not admit of our giving tables of all the experiments made; we have, therefore, chosen those which give the best and most interesting results, and which specially enable a comparison to be made between the Whitworth and Armstrong guns. We have in each table given the distance of every shot fired in the series or group forming the particular experiment. In some cases average distances are calculated from the ascertained centre of the group of shots fired, and are taken longitudinally and laterally. group of shots fired, and are taken longitudinally and laterally. This is, in fact, applying to the horizontal area in which the shots fell the same principles on which the "figure of merit" is deter-



mined on the vertical targets at the Hythe School of Musketry. This method of calculation is the most accurate, for as the gun was always laid for the line of fire, and no alteration was made in its direction during the firing of a particular group, a certain amount of deviation would be given to all the shots by the wind. Therefore, the closer the shots lay, the better was the shooting, without regard to the general deviation from the line of fire which might be greater or less according to the direction and force of the wind.

	8-pounde vation	of 3°, cha	hots fired at an elerge 7½ oz , Feb. 22.	3-pounder gun, 5 shots, at 35° eleva- tion, charge 3 oz , Feb. 16.			
	Range in yards.	Deviation from line of fire in yards.		Range in yards.	Deviation from line of fire in yards.		
3	1552	1		9453	52 right	Average longitudi-	
3	1568	2	Average longitudi-	9503	72 ,	nal deviation, 81	
	1573	ĩ	nal deviation, 11	9611	89 ,,	yards; average	
	1575	T-top-coadd	vards: average	9645	31	lateral deviation,	
- 1	1577	1	lateral deviation,	9688	85	19 yrds.; from the	
ı	1588	1	a yard; measured	The same of	Barrier (Mar) (8	centre of the group	
7	1589	0	from the centre		-		
3	1593	o o	of 9 shots fired.	12-poun		10 shots, at 5° ele-	
:	1607	1 1	DESCRIPTION OF THE PARTY OF THE		vation,	charge 11lb.	
1		2		2354	2% Right		
6	3-pound	er gun, 1	0 shots, at an ele-	2352	100		
. 1			arge 71 oz., Feb. 23.	2351	1 0	Average longitudi-	
3	3865	93		2348	2 "	nal deviation, 16	
	3888	10		2347	1000 1000	yards ; averge	
,	3871	13	Average longitudi-	2343	01	lateral deviation	
٠.	3913	12	nal deviation, 48	2337	la left	from centre of	
5	3831	13	yards; average	2334	2 right		
- 1	3816	12	lateral deviation,	2304	5	Stoop, 1 July	
. 1	3717	11	9.7 yard from the	2288	1000		
9	3850	8	centre of the	2200	14 11		
	3763	11	group.	12-pour	der gun.	4 shots, at 7° ele-	
5	3905				vation, charge 13lb., Feb. 21.		
s	2-nound	A STATE OF THE PARTY OF THE PAR	II shots at 90° ele-	3098	0	Greatest difference	
	3-pounder gun, 11 shots, at 20° elevation, charge 8 oz., Feb. 23.			3078	& left	in range, 29 yds.;	
,				3107	14 right	greatest differ-	
,	6650	22 right	The Control of the	3107	0	ence in width, 1%	
2	6614	21 ,,	Amount tomother St			yard.	
s	6655	24 ,,	Average longitudi-		- 8	The state of the s	
1	6702	17 ,,	nal deviation, 33	80-pour	der gun,	4 shots, at 7° ele-	
*	6646	17 "	yards; average	1		harge 14lb.	
	6704	120	lateral deviation,	3482	al wight	Greatest difference	
h	6690	19 "	4 yards; taken from the centre of	3487		in range, 21 yds.;	
	6581	7.0		3498	63 ,,	greatest differ-	
f	6692	19 ,,	group.		6 11		
75	6645	7 ,		3503	43 ,,	ence in width, 13	

If three out of the four shots be taken, the greatest difference in range is sixteen yards, while the greatest difference in width is only one foot! Calculating the mean of deviation on the Hythe system, it is only four inches, a precision about equal to that of the Whitworth rifle musket when shot under most favourable conditions at one-seventh of the range of the cannon—that is, at 500 yards. Stating the result in another way, three out of four of the shots would have struck in an area sixteen yards long, and only one foot wide, at a range of about two miles, and would have gone through a target not a yard high and only one foot wide!

# THE ULTIMATUM OF FRANCE TO SARDINIA.

The Moniteur of Saturday last contained a message from M. Thouvenel, dated Feb. 24, addressed to Baron Talleyrand, the French Ambassador at

The Moniteur of Saturday last contained a message from M. Thouvenel, dated Feb. 24, addressed to Baron Talleyrand, the French Ambassador at Turin.

The Minister states the grave situation which has been created by the late events, and explains the dangers which would be incurred by Piedmont in over-extending her territory. M. Thouvenel says:—The idea of annexation to Piedmont is rather a protest against another great Power than a deliberate attraction towards Sardinia. If this feeling did not appear from the beginning it would not delay to show itself in the emergencies which wisdom counsels Sardinia to contest. People would not delay to reproach her passionately for betraying the cause for which she had been aggrandised and armed, and she would be opposed to two emergencies, both equally disastrous—war and revolution. M. Thouvenel proposes a solution having some chances of being accepted by Europe, and preserving to Sardinia the full exercise of the influence which she has a right to enjoy, in the peninsula. That combination would be complete annexation of Parma and Modena to Sardinia; vicarial government of the Romagna by Saddinia, in the name of the Holy See; and re-establishment of Tuscany in her political and territorial autonomy. M. Thouvenel maintains that the project of the annexation of Tuscany reveals a hidden thought of war against Austria for the conquest of Venetia, and an inward idea, if not of revolution, at least of menacing the tranquility of the Pope and the King of Naples. If the Cabinet of Turin would adhere to the solution proposed, France would not only support this combination in a Conference or Congress, but she would also proclaim that no foreign intervention shall be allowed to attack it. The Cabinet of Turin is at liberty to follow another policy, but France would at no price consent to assume the responsibility of such a state of things. M. Thouvenel then treats the responsibility of such a state of things. M. Thouvenel the treats the responsibility of such a state of things in taly,

AUDACIOUS ROBBERY.—The cabinet of the King of the Belgians AUDACIOUS ROBBERY.—The capinet of the king of the Degians in the Palace at Brussels was entered on Monday week, and two paintings by Verboeckhoven, and a clock indicating the dates and the seasons, we stolen. To carry off the pictures easily the thief removed them from the frames. The clock, which, it is said, was a present from Queen Victoria, was highly prized by his Majesty. The police were immediately set on foot, and discovered that the clock had been pawned; but of the thief and of the pictures they have thus far obtained no trace.

## THE FARM

THE FARM.

THE late night frosts have told sadly upon the wheat, and the sun by day has tended to double the mischief. Farmers live on in the hope that spring will come with a rush, as they are having hard work, with chaif, out clover, meal, and other devices for their sheep, to fill up the vacuum between rotten turnips and long delayed grass. The usual drying winds are also wanted, both for the soil and the condition of the newly-thrashed wheat. Markets have, therefore, kept stationary, though, where small supplies have come to hand with drier samples, there has been a more ready placement. As compared with this time last year, wheat, by last Friday wock: Sazetie, was 4s. higher; barley, 1s. 8d.; and rye, 4s. 8d.; while, on the per contrasside, we have oats 1d less; beans, 2s. 3d.; and peas, 4s. 8d.

The first great shorthorn sale of the year took place at Mr. Crawley's last week, and "fifty-eight lots average £63 los. 6d. under Mr. Strafford's glass. Of this average £53 los. must be apportioned to the cows and heifers, £23 to the heifer calves, and £31 to the bulls and bull calves. There was no very distinguishing tribe; and hence, although many of the lots had very telling points about them, the herd as a whole lacked character. It is a source of much regret that Mr. Crawley has given up thus early in the day, and the good average must have shown him that his spirit in paying at least £300 a year for sires to the crack breeders was duly appreciated. The British Prince and Welcoms Guest bloods were the A and B of the day, and well kept up the fame of Warlaby. Mr. Carr, one of the most devoted alherents of those well-kinown pastures, bought the somewhat vulgar-headed Barmaid by the former for 100gs; and Mr. Strafford announced that he had received nearly 20 letters about her. With the exception of the Clementi cross (and he was by Booth's Cossack) she is, we believe, pure Booth; and Mr. Carr also bought her dam Baroness, a daughter of Baron Warlaby, for half the sum. Gertrude, 70gs, was another worthy daughter

## THE NEW REFORM BILL.

The NEW REFORM BILL.

The bill brought in by Lord John Russell further to amend the laws relating to the representation of the people in England and Wales was issued last Saturday. It consists of thirty clauses and four short schedules.

The first clause confers the right of voting in counties upon occupiers of houses or other buildings, separately or jointly with any land occupied therewith as owner or as tenant under the same landlord, of the clear yearly value of not less than £10. Six months' residence previous to the £1st of July is requisite for registration.

Clause 2 enacts that the provisions now in force as to time of occupation, rating, claiming to be rated, payment of rates, and as to successive and joint occupation, in boroughs, are to be applicable, mutatis mutandis, to the county franchise.

In clause 3 it is provided that the yearly value of premises occupied giving a right to vote is to be £6 instead of £10.

Clause 4 enacts that the occupation of a building, other than a dwelling-house jointly with land, is not to confer a right of voting, unless the building be of £5 yearly value in counties, or £3 in boroughs.

Clause 5 sets forth that sections 24 and 25 of the Reform Act of 1832 shall not be applicable when the right to vote in a borough is taken away by the previous section. Those two sections disentifie the persons mentioned in them from voting for a knight of the shire, in respect of their estates, or holdings, or occupation, as described in the former Act.

Clause 6 repeals the enactments requiring payment of assessed taxes by occupiers previous to registration.

Clause 6 repeals the enactments requiring payment of assessed taxes by occupiers previous to registration.

Clause 14 recounts the qualification of electors for the member from each of twenty-five places now returning two, and distributing these members to other boroughs and counties.

Clause 18 repeals the enactments requiring payment of assessed taxes by occupiers previous to registration.

Clause 19 repeals the enactments re

Birkenhead (Cheshire); Burnley (Lancashire); Stalybridge (Cheshire and Lancashire).

SCHEDULE C.—County, riding, parts, and divisions of counties, now returning two knights of the shire, which are to return in future Parliaments three knights of the shire each:—Lancashire, Southern Division; Lancashire, Northern Division; Middlesex; Kent, Western-Division; Devonshire, Southern Division; Yorkshire, North Riding; Lincolnshire, Parts of Lindsey; Essex, Southern Division; Somerset, Eastern Division; Norfolk, Western Division; Cornwall, Western Division; Essex, Northern Division.

SCHEDULE D.—Boroughs now returning two members which are to return in future Parlaments three members each:—Manchester, Liverpool, Birmingham, Leeds.

DESECRATION OF THE CHURCH OF THE HOLY SEPULCHRE.—A letter from Jerusalem complains that this church frequently resembles a public street, as people go to and fro, talk aloud, and sometimes quarrel; children play about and chase each other from column to column; and ragged and dirty mendicants of all nations and both sexes group themselves in the side chapels or on the steps of altars and clamorously demand alms. But what even more than these scenes offends the Christian is, that in this But what even more than these scenes offends the Christian is, that in this august edifice are always to be seen at the entrance, on a sort of platform covered with carpets and cushions, lounging Musulmans smoking pipes and drinking coffee. Within the last few days, it is added, three large fragments of the dome of the Church of the Holy Sepulchre, which wa previously in a bad state, fell in; and the consequence is that now about one-half of the dome admits rain. In fact, when the rain is heavy the rotunda is completely inundated.

one-half of the dome admits rain. In fact, when the rain is heavy the rotunds is completely inundated.

France and Savoy.—The diplomatic correspondence on the subject of Savoy was laid before Parliament yesterday week. The first document is from Captain Harris, our Envoy in Switzerland, dated July 1839. In a letter dated February 13, 1860, addressed by Lord John Russel to Earl Cowley, with the answer of her Majesty's Government to a despatch of the 5th from M. Thouvenel, his Lordship thus unequivocally expresses himself on the subject:—"Although the project of the annexation of Savoy to France has been sometimes mentioned to your Excellency, yet it was incontradiction to the language of the proclamations of the Emperor of the French before and during the war in Italy, and that it is only very lately this annexation has appeared in the light of a probable arrangement. It is only of late, therefore, that it has been thought necessary by her Majesty's Government to state their serious objections to the project of transferring Savoy and Nice to France. Her Majesty's Government cannot conceive that the security of France, a country so rich, so populous, and so military, possessing 36,000,000 of inhabitants, without counting her colonies, can be endangered by the existence, on the other side of the Alps, of a State of 11,000,000 of people, lately joined by a cement not yet dry, threatened, on the side of Lombardy, by Austria, and not very certain of its own independence."