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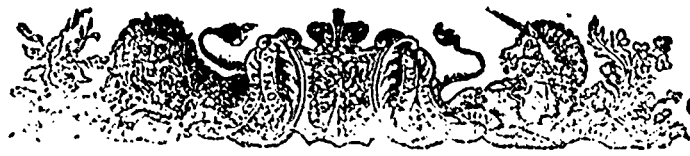
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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

A Journal Devoted to the Interests of the Military and Naval Forces of the Dominion of Canada

VOL. IX. OTTAWA, (CANADA,) TUESDAY, JANUARY 19, 1875. No. 3.

The Volunteer Review
is published EVERY TUESDAY MORNING, at OTTAWA, Dominion of Canada, by DAWSON KERR, Proprietor, to whom all Business Correspondences should be addressed.
TERMS—TWO DOLLARS per annum, strictly in advance.

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Prospectus for 1875...Eighth Year.

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Communications intended for insertion should be written on one side of the paper only.

We cannot undertake to return rejected communications. Correspondents must invariably send us confidentially, their name and address.

All letters must be Post-paid, or they will not be taken out of the Post Office.

Adjutants and Officers of Corps throughout the Provinces are particularly requested to favor us regularly with weekly information concerning the movements and doings of their respective Corps, including the fixtures for drill, marching out, rifle practice, &c.

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The SCIENCE OF HEALTH will be the best exponent of the scientific principles of these subjects, and not the organ of any particular institution, or of the professional practice of any one but devoted to the best interests of the whole people.

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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

A Journal Devoted to the Interests of the Military and Naval Forces of the Dominion of Canada

VOL. IX.

OTTAWA, (CANADA,) TUESDAY, JANUARY 19, 1875.

No. 3.

NEWS OF THE WEEK.

While the Board of Inspection was in Ottawa, Col. James Egleson, brought to the notice of Col. Jackson and Major Irvine, the desirability of having erected on the Major's Hill, a permanent saluting battery. In an economical point of view such a work would be a saving to the country, besides being an ornament to the city. The guns that were formerly used at Fort Wellington, are now lying useless at the drill shed, and could be utilized for this battery being in good condition. It is to be hoped the recommendation of the Board will be favorably entertained by the military authorities and immediate action taken thereon.

The new Legislature of Newfoundland is summoned to meet for the transaction of business on the 4th of February.

The Legislature of New Brunswick meets on the 18th February.

A telegram from Fort Garry Jan. 11th, says that final steps were taken by the Sheriff in the outlawry of Riel on the 10th inst.

The thermometer at Toronto on the night of the 9th inst. was 30° below zero.

The brig *Agnes Raymond* was wrecked near Halifax on the 10th inst., and all hands lost.

The thermometer at Fort Garry on the 11th inst., registered 42° below zero.

The Board of Aldermen of the City of Rochester on Wednesday night 13th inst. passed a resolution condemning the action of the United States military in interfering in the organization of the Louisiana Legislature. The resolution was offered by Alderman Stone (Radical), and was carried by a vote of twenty one to eight.

Both Houses of the Legislature of Louisiana (says a New Orleans despatch of the 13th inst.,) passed a resolution requesting Congress to immediately institute a thorough investigation into the affairs of Louisiana.

A heavy snow storm in Prince Edward has so blocked the Railways that they cannot be opened this winter.

A New Orleans despatch to the *Times* says General Sheridan, last night telegraphed to the Secretary of War his promised report in regard to the lawlessness which he claims exists in the State of Louisiana. He commences by a statement that in 1867 between 3,000 and 4,000 men were murdered in the

parishes because of the political views entertained by them. In proof of this he makes a detailed statement of murders which occurred in districts, reciting a number of cases in which unarmed and defenceless negroes were shot down in cold blood by desperate whitemen. These incidents are introduced for the purpose of proving that a state of lawlessness exists in Louisiana, and that the lives of men attached to the Republican party are not safe here. The general charges the White League with being responsible for most of the bloodshed and crime referred to. He denounces that organization in strong terms. Many of the facts were evidently derived from reports of the congressional investigating committees who have from time to time visited the State. The telegraphic report is only a forerunner of a long and detailed statement of political murders, which the general is now preparing, and which will be transmitted to the War Department in a few days.

A Washington special to the *New York Times* gives the following sketch of the President's message. It is described as being in large part a narrative of events in Louisiana, and of the action of the administration in relation thereto. It is understood that it refers the whole matter again to Congress in substantially the same manner as the message of two years ago. The message describes the reluctance of the President to interfere in the affairs of the State, and his very great reluctance to employ the Federal army for the preservation of peace or the support of a State Government. The message quotes a telegram from the President to Governor Kellog, which expresses his desire to avoid interference in State affairs and advises Kellog to be sure to be in the right and to be moderate and temperate in his exercise of power, and assures him of Federal support to maintain his rightful authority. The key note of the President's action seems to be a belief that the White League party of Louisiana are determined by any means whatever, whether peaceful or violent, to obtain possession of the State Government and that they will not scruple to employ any means to accomplish that object. He was committed to the support of the Kellog Government by the action of the courts and by his message of two years ago, coupled with the failure of Congress to establish a policy for the government of the executive toward the Kellog Government. If any blame should fall anywhere for the action of the Government in Louisiana, it ought to fall largely upon Congress, which by discussion and debate and inaction, left the whole subject to the President who, in case of such inaction, was already committed to the support of the Kellog Govern-

ment. It will appear from the message that the President has no disposition to enforce a policy against the popular will, and there is no doubt he would greatly prefer that Congress should take definite and affirmative action, and establish a line of policy for the executive to pursue and enforce.

Governor Tilden of the State of New York on the 12th sent a message to the Legislature regarding affairs in Louisiana. His positions are fortified by abundant legal citations. He argues that the suggestion contained in Gen. Sheridan's letter that certain portions of the population were banditti and should be delivered up to be dealt with according to martial law, was of a character, should it be applied, to involve all those who aided and abetted such action, from the President down, in the crime of murder as principals. He calls upon the Legislature of the state to make its protest against this act of usurpation and this suggestion of indiscriminate murder, and denounces the act of the military as a violation of the laws and constitution of Louisiana, of the laws and constitution of the United States, and of the liberties of the people.

The following resolutions were passed by the Virginia Legislature on Tuesday, the 14th inst.:—"Resolved by the General Assembly of Virginia that Ulysses S. Grant, President of the United States, by the employment of the army to determine election returns that the qualification of members of the Legislature of Louisiana, has plainly transcended his power, committed an act of gross usurpation, and should receive the condemnation of the American people." "Resolved that we tender the people of Louisiana our profound sympathy, as well as our assurance that their patient forbearance will be rewarded with speedy delivery from military power."

Heartrending accounts are telegraphed from New York of suffering caused in that city by the recent cold snap. The crews of several vessels which have lately arrived have been badly frost bitten.

It is insinuated that the disaster to the New York train on the Baltimore and Potomac Railway was not purely accidental. There was \$600,000 currency on board.

Wendell Phillips has written to General Belknap, endorsing the views of the President and the course of Gen. Sheridan. "The White League," he says, if undistributed and unchecked, "will keep the South in turmoil, and land her in bankruptcy, if not in rebellion."

The disorders in Cuba continue. The news of the accession of Alfonso has been received with some enthusiasm in the interior towns.

A Brief Description of the Royal United Service Institution.

Published under the Authority of the Council.

This Institution was founded in 1831, under the auspices of King William the Fourth, and under the patronage of the Duke of Wellington, and of some of the most distinguished Naval and Military Officers, at that time, in the service of the Country.

In 1860, Her Majesty the Queen was graciously pleased to grant to the Members of the Institution, a Royal Charter of Incorporation, under the title of The Royal United Service Institution.

DESIGN.

The design of the Institution is to promote Naval and Military Art, Science, and Literature.

The above object is carried out by means of a Library; the delivery of Lectures; the exhibition of Inventions; the publication of a Journal; Museum containing Naval and Military Models, a collection of Arms of all Nations, Relics of, and Trophies connected with distinguished Officers and warlike operations; and other objects affording professional information.

QUALIFICATION OF MEMBERS.

The following Officers are entitled to become Members *without ballot*, on payment of their entrance fee and subscription, viz., Princes of the Blood Royal; Lords Lieutenant of Counties; Governors of Colonies and Dependencies; Officers of the Army, Navy, Marines, Her Majesty's Indian Naval and Military Forces, Militia, Yeomanry, Royal Naval Reserve, and Volunteer Corps.

The following are *eligible* to become Members, by ballot, on their names being submitted to the Council by two Members of the Institution, viz.:-

Officers, not previously Members, who have retired from the Service; Ex Governors of Colonies and Dependencies; Deputy Lieutenants of Counties; Civil Functionaries who are, or have been attached to the Naval and Military Departments; also the Master, Deputy Master, and Elder Brethren of the Trinity House, and Army and Navy Agents.

PRIVILEGES OF MEMBERS.

Members, non-resident in the United Kingdom, are entitled to an Absent Member's ticket (not transferable), which will admit their friends to the Museum and to the Theatre. The name and address of the person to whom the ticket is given, should be transmitted to the Secretary and will appear on the ticket. This ticket must be renewed at the commencement of each year.

Members are entitled to as many ordinary tickets of admission to the Museum as they may from time to time require, such tickets being available for every day except Friday, on which day Members must personally introduce their friends.

Members have the privilege of admitting two friends to the Lectures on Evening Meetings, either by personal introduction, or by ticket, except on special occasions, of which due notice will be given.

Members can receive and answer letters at the Institution.

HONORARY MEMBERS.

Honorary Members are only entitled to personal admittance to the Institution.

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An Annual Subscription of One Pound, or a Life Subscription of Ten Pounds (including Entrance Fee).

Subscriptions are due on joining the Institution, and on the 1st of January in each year.

When a Member joins the Institution on or after the 1st of October, he will not be charged a second Subscription of the following 1st of January, but on the 1st of January thereafter ensuing.

THE THEATRE.

LECTURES AND EVENING MEETINGS.

Lectures are delivered in the Theatre of the Institution, on alternate Fridays, at 3 P.M., and Papers, followed by discussions, are read at the Evening Meetings, on alternate Mondays, at 8.30 P.M., from January to June inclusive.

The Council are anxious that Officers (particularly those on Foreign Stations), should contribute Papers, descriptive of Countries or Warlike operations, or containing other professional information.

A very important advantage conferred by the Institution upon the Service and the Public, is the opportunity which it affords to Officers and others, of bringing forward in the theatre, schemes of improvement of a professional character, which might otherwise fail to receive the attention they deserve. Inventors of articles connected with the Naval and Military Professions have also opportunities granted them of exhibiting their inventions at the Evening Meetings, and of depositing models of them in the Institution.

Societies and Charitable Institutions, connected with the Army and Navy, are allowed the privilege of holding their General Meetings in the Theatre of the Institution, subject to the discretion of the Council.

THE JOURNAL.

The Journal published under the authority of the Council, contains the Lectures, the proceedings of the Evening Meetings (and a description of the inventions then exhibited), illustrated, when necessary, by Maps and Diagrams.

This publication, now amounting to 16 annual volumes, has proved eminently successful, and has been received with marked approbation by the Members and by the Public. It is sent, post free, to Annual Subscribers of One Pound, and to Life Subscribers of Nine Pounds.

Officers joining the Institution on and after the 1st October, are only entitled to the numbers of the Journal published subsequent to that date.

THE LIBRARY.

The Library contains 15,800 volumes of Professional, Historical, and Scientific Works. Amongst these, is a complete set of the Specifications of Patents connected with Arms, Ammunition, and Accoutrements, commencing from the year 1617, together with Abridged Specifications of Inventions in various other Departments of Science. This valuable series was presented by H.M.'s Commissioners of Patents.

The Governments of Austria, Belgium, Denmark, France, Italy, the Netherlands, the North German Confederation, Russia, Sweden, Switzerland, and the United States present their professional journals; and the Admiralty, the War, and the India Offices supply the Parliamentary Papers, and other documents issued by them.

The Library has been found most valuable for purposes of study and reference, and is extensively used by the Officers of H.M.'s Services.

In addition to the Library, there is a Reading Room in which the leading Daily Papers; the Quarterly and Monthly Periodicals; as well as the Weekly scientific and professional Newspapers, are taken in.

The Library and Reading Room are open to Members from 10 a.m., to 8 p.m.

THE TOPOGRAPHICAL ROOM.

This Room contains the Charts issued by the Admiralty; the copies of maps, plans, &c., prepared by the Topographical Department, and the photographs of Ordnance, Military Matériel, &c., presented by the War Office; also a large and valuable collection of Maps, Plans of Campaigns, of Battles and Sieges, &c., &c.

During the progress of Military operations, the movements of hostile forces are defined, by means of pins and coloured cards, upon Maps specially arranged for the purpose.

THE MUSEUM.

Naval Department.

In this Department, there is a Series of Models, illustrating the Naval Architecture of different Countries, and of early periods down to the present time. It also contains Models of Life boats (and other Apparatus for saving Life), Masts, Anchors, Rudders, &c., &c.

This department also contains an elaborate model of the Battle of Trafalgar. The table upon which it is placed, and which was presented by the Lords of the Admiralty, was constructed of oak timber removed from H.M.S. *Victory*, when under repair.

Military Department.

The European Armoury contains specimens of Mediæval Armour and Weapons, also of Breech loading Ordnance of an early date; a complete series of Firearms, in use by the British Army from the reign of Charles the Second to the present time; and an interesting collection of Breech loading Small Arms of different Countries.

The Foreign Armoury contains a rich collection of Arms and Armour from India, from China, and from Japan; also the arms of the Esquimaux, of the natives of New Zealand, Australia, Africa, North and South America, and of the Polynesian Islands.

The Military department of the Museum also contains a series of Models of the different patterns of heavy Ordnance and of Field Artillery in H.M.'s Services; of Guns invented by private individuals; and of the various forms of rifling which have, from time to time, been advocated. There are also here arranged, specimens of different kinds of Gunpowder, Fuzes, Shot, Shell, Rockets, and other Missiles, with many other objects of much interest connected with the science of Gunnery.

Steam Engines.

The Institution possesses a very complete series of working Models of Steam Engines, for which it is indebted to Captain Jekyll, late Grenadier Guards.

Accoutrement Room.

This room contains specimens—presented by the respective Governments—of the Uniforms, Arms, Accoutrements, and Field Equipments of Soldiers of the Continental Armies, of the United States, and of Great Britain.

The Waterloo Room.

The Waterloo Room contains three historical Models of great interest, viz., the celebrated Model of the Battle of Waterloo, by the late Captain Siberd, of the South of the Crimea; and Siege of Sevastopol, by Lieut. General F. W. Hamilton, C. B., late Grenadier Guards; and of the Defences of Lintz, by Captain Estreley.

Military Model Room.

In this Room, there are elaborate Models of the Attack and Defence of a Town fortified on Vauban's first system; of Plymouth with its detached Forts; of the "Lines of London," as planned by Colonel Sir Shuffo Adair, Bart., F. R. S. (now Lord Wavenny); of the Fortress of Metz and the surrounding country; of Paris and the German Lines of Investment in 1870-71; of the Battle Fields of Konigraiz; of Sedan, Beaumont, &c., &c.; there are also Models of the various systems of permanent fortification, of Field works, Pontoons, Military bridges, Mining, &c., Camp equipage; and many other objects of interest.

Trophies, Relics, &c., &c.

Amongst these will be found the Sword worn by Lord Nelson at the capture of the *San Josef*, some of his Autograph Letters and other interesting Relics; the Chronometer used by "Captain Cook" when he sailed round the world; the Signal Book of the *Chesapeake*; the Main Truck of *L'Orient*, blown up at the battle of the Nile; with many others of a similar character.

The Museum also contains, besides several Presentation Swords, the Swords of "Cromwell" and "Wolfe"; the Sabre by which "Sir John Moore" was lowered into his grave; "Napoleon's" Fusil, the skeleton of his charger Marengo, and other Relics; "Tippoo Sahib's" Pistols, and the dress worn by him when he was killed; with Trophies from Waterloo, Sevastopol, Inkerman, and other places.

Geological and Mineralogical Collections.

As the sciences of Mineralogy and Geology are included in the Programme of Examinations for Commissions and for Staff Employment, these Collections have been retained in the Museum. Candidates who are preparing for such Examinations, and Officers who are desirous of qualifying themselves for conducting Geological and Mineralogical surveys, will find them interesting and instructive.

Soldiers, Sailors, Policemen, and Volunteers in uniform, have free admission to the Museum. The Public may obtain admission to the Museum by tickets, to be obtained of the Secretary.

Information respecting the Institution is advertised in the Weekly Professional Papers, and in the Times and other daily papers.

The Royal United Service Institution, under the patronage of Her Majesty, aided by the Government, and supported by the different branches of Her Majesty's Services, has now become a National Institution. It will seek in the future, as in the past, not only to cultivate the Sciences connected with the Profession of Arms, but also to concentrate in the Capital of the Empire whatever may tend to illustrate the Services of the Army and Navy of the Country.

B. Burgess, Captain,

Secretary.

The United States Navy.

OUR FLEET MANŒUVRES IN THE BAY OF FLORIDA, AND THE NAVY OF THE FUTURE.

A paper read before the Naval Institute, December 10th 1874, by Commodore Foxhall A. Parker.

Circumstances have made it necessary for our Government at the commencement of the present year to assemble a fleet in the waters of Florida, the Hon. Secretary of the Navy thought the occasion favorable for the instruction of its officers in the various branches of their profession, and especially in naval tactics, that part of it to which enlightened Europe had given most attention, America and Asia least; and it seeming but reasonable that the author of a theory to be practically tested should be permitted to test it himself, provided he desired so to do. I who had drawn up both the tactics and the tactical signal book, was detailed for this service; and, on the 16th of January, reported at Key West to Rear Admiral Cise, as "Chief of Staff of the United Fleets under his command."

It being found that the collective fleet would not be ready for manœuvring before the 1st of February—some of its vessels ordered from distant stations, not having yet reported—the intervening time was passed in boat, grant gun, howitzer and infantry exercises; and on the afternoon of the 20th of January a force of seventeen hundred blue jackets and marines was thrown ashore on the South beach of Key West, formed in line of battle and advanced in this order through a dense chaparral to the light house, distant a half mile from the landing, whence, after a brigade dress parade, it was marched in column of companies right in front, to the Government store house wharf, which had been designated as the place of embarkation. Taking into consideration the fact that at least one half of the men were greenhorns, recently shipped, the affair was an exceedingly creditable one. There was neither straggling nor drunkenness; and although the irregular awaying of the bayonets on the march, betrayed the recruits, yet the manual of arms and the various changes of formation were executed with a precision and style which reflected the highest credit upon the young drill officers, all of whom, with three or four exceptions, were graduates of the Naval Academy.

The howitzer firing from the boats, however, on this occasion, was neither rapid nor well sustained, nor was the howitzer manipulated aloft as dexterously as it should have been. Ashore it appeared to better advantage, yet neither aloft nor ashore did this truly sailor arm compare favorably with the infantry.

Of the boat exercises in fleet manœuvres, the less said the better. They were decided by a failure, and showed clearly how little importance had been attached to the study of fleet tactics by the Navy generally.

On the 31st of January the rear admiral commanding issued the following general order:

The North Atlantic fleet is hereby separated into divisions as follows:

Van, or Right Division.—1. Congress; 2. Ticonderoga; 3. Canandaigua; 4. Fortune. Centre Division.—5. Colorado; 6. Wachusett; 7. Shenandoah; 8. Wyoming.

Rear, or Left Division.—9. Lancaster; 10. Alaska; 11. Kansas; 12. Franklin.

Reserve Division.—Monitors and torpedo vessels.

The senior officer of each Division will

command it, and will wear a division flag at his main. He will lead his Division when the right is in front, and bring up the rear with the left in front. He will report the Admiral's signals, and when all the vessels of his command have answered his signal, will hoist an answering pennant as an indication to the Admiral that the command are prepared to obey it. When all the Division officers have hoisted their answering pennants, and the Admiral is ready, he will haul down his signal; the Divisional officers haul down their signal and answering pennants at the same instant, and the signal is executed.

From the moment of sailing each vessel will keep her distinguishing pennant hoisted until she comes to anchor, when she will haul it down.

When signal 413—*Get Underway*—is hoisted with the preparatory over it, and answered in the manner prescribed above, it will be hauled down, when each vessel will leave in to a short stay, and hoist her distinguishing pennant. So soon as all have their distinguishing pennants flying, signal 413—*Get Underway*—will be made by the Admiral, and when replied to as above directed, and the Admiral is ready, will be hauled down. All now weigh together.

When signal 34—*Anchor*—is hoisted with the preparatory over it, and properly answered, it will be hauled down. At this instant the fleet will slow to three knots.

The Admiral will next hoist signal 32—*Anchor*—and the moment it is man headed each vessel will stop her engine (without waiting for a signal from Divisional officers), letting go her anchor the moment it is hauled down.

When the signal is made to "get underway," the fleet will move out in "columns of vessels" with the van leading, unless another formation is signalled.

If not otherwise directed, vessels will "come to" with their starboard anchors.

All courses signalled are magnetic. Tactical signals at night will be made with Coston lights, and the moment of execution denoted by the discharge of a gun.

In conclusion the Commander-in-chief calls particular attention to the "Explanations," U. S. Navy Signal Book—Navy Tactics, 1874, whose precepts must be rigidly adhered to by Commanding Officers.

A. LUDLOW Cass.

Rear Admiral, U. S. N.

Commanding U. S. Naval Force, North Atlantic Station.

Flagship *Wabash*, 1st Rate, Key West, Fla., Jan. 31, 1874.

On the 3rd of February, the fleet (the reserve excepted), which had been lying in irregular order off Key West, shifted its berth to the "outer buoy" near Sand Key Light, where it anchored in columns of vessels abreast by divisions, commanded by Captain Rhind, being on the right. At daylight on the following morning, general signal was made to get underway, and as no formation had been prescribed, and the vessels were then heading S. S. W., the van division moved forward, while the centre and rear divisions obliqued to the right until in the van's wake, when they steered S. S. W., thus forming a column of vessels; which formation the fleet preserved very badly during the day, coming to an anchor at night in line off buoy No. 9, Dry Tortugas, by a movement analogous to the right into line of the army, the vessels heading S. N. W., and bearing from each other, reciprocally, E. N. E., and W. S. W., the Congress flag ship of the van division, having anchored first and farthest to the N'd and N'd.

At eight a.m., on the 5th the fleet weighed, and forming column of vessels, followed the Congress through the passage between the Dry Tortugas and the Rebecca Shoal into Florida Bay. The direction of the head of the column was several times changed during the day, and at six p.m., the signal "Forward into line—left oblique!" was made followed shortly afterwards by the signal, "Anchor!"

On the 6th we moved to the Eastward, and anchored a tug at the distance of twenty-five miles Southeast from Key West, in which vicinity we remained for more than three weeks, in the almost daily exercise of fleet manoeuvres. These consisted of the various line column and echelon formations laid down in the tactics, and in passing from one to the other, the column varying from single vessel to division front, the echelon being single and double, natural and inverted, and the line either single or double, the fleet moving alternately by the front, flank and rear. After a few days' exercise the various movements were performed with exactness, though with a slowness that was disheartening, since the greatest speed that could be maintained by the fleet as a unit, was four and a half knots an hour.*

As our anchorage was exposed to winds from the Northwest which during the Winter months sometimes sweep with great violence over the Bay of Florida, the fleet always came to at night in columns of vessels abreast by divisions, heading East, and in this order, on February 9th and 10th it rode out a Northwest gale, without the slightest apprehension being felt on the part of the Commander in chief for the safety of any of his command, since being in echelon so long as the wind blew, no vessel could drive on the bows of another.

On the 20th and 24th insts, the fleet, steaming in column of vessels (close order), at the rate of four knots an hour, was exercised in firing at a target distance eight hundred yards; and, on the 25th some exceedingly interesting experiments were made with spar torpedoes, each vessel exploding one or more of these, filled with from 80 to 150 pounds of powder, under or near a floating raft, constructed of casks and spars.

On the 26th and 27th, the fleet, in columns of vessels, abreast by divisions, was exercised principally in changing direction without altering formation, and on the afternoon of the latter day, the vessels being in column of divisions, with the van leading, and flagships on the left, heading East, and the Admiral desiring to anchor for a few hours for the purpose of communicating with the shore, and afterwards to proceed West to the Dry Tortugas, from which direction the tide was then setting, signal was made to the van division—*By the left flank!* to the centre division—*Slow!* to the rear division—*Forward into line—right oblique!* So soon as the rear of the van division was clear of the left of the centre, signals were made to that division—*By the right flank!* *Dress on centre division!* By the time these were executed the rear division had gained its

* It must be remembered that several of these vessels had been long in commission, and wore at most "broken down" in boiler and engines; yet they formed part of a force that did not number one too many for the service that might have been required of it, and their speed could not have been exceeded by the fleet without abandoning them as prizes to the enemy had we been called upon to meet one.

Out of our whole force of wooden and iron vessels not more than eight could have maintained a speed of six and a half knots, and not more than six a speed of eight knots an hour.

The tugs *Pinta* and *Fortune* and the little steamer *Dispatch* are, of course, not included in this summing up.

place, and the whole fleet being now in line under the *Brooklyn's* distinguishing pennant was hoisted 267. "Fleet—from the right and left of—the vessel whose distinguishing pennant is shown above this signal from double echelon inverted."

The moment this signal came down the wings moved forward simultaneously and formed a right angle with each other, of which the *Brooklyn*, of course, was the apex.

In this formation the fleet anchored, and swinging head to tide found itself upon weighing anchor at 8 p.m., in double echelon (natural order), with the *Brooklyn*, carrying her guide lights, leading and steering West. Midway between the two columns on a line with the fifth vessel of each was the *Wabash*, with her tenders, the *Dispatch* and *Pinta* on either quarter.

During the entire night the vessels kept their stations perfectly. Certainly in unity and strength the fleet had gained greatly since the day when it had feebly grouped its way out of the harbor of Key West, and, at irregular intervals, and in struggling groups, made its way to the islands, whither in perfect order it was now returning.

At 6 a.m., signal was made to the Divisional Commanders to bear up for the anchorage previously assigned to them at the Tortugas, and the fleet manoeuvres here ended.

A week later and the reserve division of monitors was exercised for two days in squadron evolutions, and contrary to what was expected, it manoeuvred admirably, its speed, however, being limited to that of the slowest one of its number could maintain for any length of time, was but four knots an hour.

The distances and intervals of the vessels were remarkably well kept, and all but the *Nahopac*, which was evidently out of trim, steered well. The wind was light from the S'd and E'd during both days' evolutions, and on the first day the water was smooth. On the morning of the second a heavy sea was rolling in upon the Florida reef, on the outside edge of which we were, but by noon it had subsided to a gentle swell. Table A shows the relative turning power of the monitors moving at the rate of 4½ knots an hour, with light wind and smooth sea; table B their greatest attainable speed under the most favorable conditions of wind and weather.

TABLE A

Names	Rate.	Turns Full cir. to stbd	Full cir. to port
Saugus	4	550 3 min. 00 sec.	4 min. 00 sec.
Mannahatt	4	550 6 min. 49 sec.	4 min. 45 sec.
Ajax	4	550 7 min. 10 sec.	7 min. 15 sec.
Nahopac	4	550 6 min. 49 sec.	7 min. 59 sec.
Dictator	2	1750 7 min. 54 sec.	8 min. 59 sec.

TABLE B.

Names	Rate	Tons.	Speed in knots.
Dictator	2	1750	10.50
Saugus	4	550	6.00
Ajax	4	550	5.75
Mannahatt	4	550	5.50
Nahopac	4	550	4.75

And now the "great drill," as the New York *Herald* has styled our exercises, being ended, what was the lesson it had taught? That a naval force, no matter of what elements composed, possessed but little strength unless properly organized and thoroughly exercised in tactical manoeuvres, every officer who have witnessed our evolutions was willing to admit; but, apart from all this, it became painfully apparent to us that the vessels before us were, in no respect, worthy of a great nation like our own; for what could be more lamentable—what more painful to one who loves his country and his profession than to see a fleet armed with smooth bore guns, requiring close quarters for their development, mov-

ing at the rate of four and a half knots an hour? What inferior force could it overtake, or what superior one escape from of any of the great naval powers of the earth? Did it rely, in the latter case, upon its spar torpedoes for defence. What Don Quixotte of an admiral was going to run upon them, when, having "the legs" of his adversary, he could concentrate upon his van or rear or upon one of his flanks and, choosing his distance, coolly cut him to pieces with his artillery?

And, in truth, what reliance could be placed upon our torpedo system afloat for either offence or defence?

After many days' preparation seven of the eighteen torpedoes used on the 25th of February and failed to explode, while of those that did explode not more than four were submerged under the target.

If, then, on a beautiful calm day, with nothing to disquiet us, such was the result, what would have happened had the fleet, at the time, been exposed to the disturbing influences of an enemy's shot and shell? Take for example, the *Wabash*, whose battery consists of forty four nine inch guns. Now, while she is approaching an enemy (supposing such a thing possible), with the design of torpedoing him, she will either be using her artillery or not using it.

In the latter case, her enemy, having simply a target to fire at, would riddle her completely and cut all her torpedo gear away before she could get within a hundred yards of him.

In the former, how in the name of practical common sense is the operator at the electric battery amid the confusion and din of battle, and the smoke of his own guns to tell the instant to "close the circuit." For, he has but an instant, remember, and no more. If, however, the object struck is itself to close the circuit, how are you to be assured that, after the melee has once commenced, this object will not be one of your own vessels?

The *Franklin*, the *Colorado*, and the *Lancaster*, leading their respective columns, and the *Wabash* in the centre of the fleet, looked warlike and formidable indeed, with their powerful batteries, as artillery ships; but with their booms rigged out as torpedo vessels they were simply ridiculous. "But," remarks the torpedo officer of the *Wabash*, in his official report of March 9th, which is little more than an apology for the many failures of February 25th, "to say that it is useless for these old wooden ships to even try to use torpedoes or have them, is, in my opinion, a mistake; for, if they ever can get alongside of vessels of superior force and speed, either by surprising them at anchor in the night or in any other way, they can destroy these vessels with torpedoes when it could be accomplished in no other possible manner."

The plain answer to this is that men of war do not suffer themselves to be surprised at night by large bodies moving slowly. The proper way to attack a vessel lying at anchor is with small boats fitted with torpedoes, as Cushing attacked the *Albatross*; for if you run at her with your own vessel, and her commanding officer be not a fool, you will probably find yourselves journeying towards the stars—long before your pole can be brought into requisition; since in this torpedo warfare on soundings the advantage is decidedly with the defence, and it is not to be supposed that a vessel would remain long at anchor without surrounding herself with floating or submerged torpedoes, or a cordon of boats fitted with torpedoes inside of which it would be impossible

for a large vessel to penetrate. Or if with out torpedoes her captain might not unwisely follow the example of one of our officers of farming propensities, who being obliged to remain many weeks at anchor off our southern coast during the civil war quietly fenced himself in and then taking care that the gate of his sea yard was closed at sunset, he slept peacefully every night undisturbed in the slightest degree by torpedo visions.

The exercise of the torpedo in Florida Bay was of great service to us, however, since for the intelligent use of any weapon it is as important to know what cannot as what can be effected by it. It is one thing to promise great results on paper, and another to obtain them in actual practice, and it is clear to my mind now that, rigged out on a pole attached to a large vessel not possessing very great speed and turning power, the torpedo is alike harmless to friend and foe.

Nevertheless for our long line of sea board the torpedo is invaluable, and the submarine mine of the engineer supported by forts, and aided as it would be in time of war, by monitors, tugs, and launches, has almost hermetically sealed our harbors to a hostile fleet, while a rigid blockade of any of them would be next to an impossibility, harassed incessantly as the blockading force would be, by improvised rams and torpedo boats, and by infernal machines of every conceivable device and construction.

It is true that the blockading admiral, supposing him to be a man of energy and resolution, would endeavor to overcome the torpedo with the torpedo, the mine with the countermine; yet, taking into consideration the ingenuity and enterprise of our people, and the disadvantage under which both armies and fleets operate at a distance from their base of supplies, the defeat of the blockades might be relied upon, I think, with almost absolute certainty.

Shall we then, because secure in a great degree from the attacks of hostile fleets upon our shores, conclude with Mr. Boutwell, that ships of war may be dispensed with, and let our vessels rot alongside of decaying wharves?

Is the Great Republic so beloved by all mankind that its citizens are safe in every land and its merchantman on every sea?

We know that such is not the case, and surely all experience should teach us that nothing is so galling to a gallant nation as to be obliged to submit to insult because utterly unprepared to resent it. Unfortunately for the peace makers, the millennium has not yet come, and whatever may be the indications of it in the heavens above there are none whatever on the earth below. Nation is still rising against nation. Europe is a vast military camp, while the fleets of the great naval powers surpass all that the world has yet seen of mighty armaments upon the deep. Turkey with 15 ironclads, 44 screw frigates, and a disciplined army is not dead yet; China with her vast horde imports modern artillery and improved rifles; Japan, destined to bear the same relation to Asia that England bears to Europe has one or more dock yards and an ironclad squadron. What, then, is there in the condition of any of the four quarters of the globe to lead to the belief that wars in the future will be less frequent than in the past? At the risk of being accused of intellectual blindness, I emphatically reply, nothing whatever. I am forced, then, to the conviction that, for the maintenance of our national dignity at home and abroad, the protection of our commerce upon the high seas and our citizens in foreign land, a sea going

fleet is absolutely necessary for us—not a large fleet like that of England, but one which shall be complete in itself, and serve as a safe nucleus to rally around when the hour of trial comes. Let us consider now of what elements this fleet should be composed.

If the object to be kept in view were simply the encountering of a hostile force at sea the ram would, alone, in my opinion, suffice for our purpose, fully convinced as I am that, for fleet fighting, it is the most terrible engine of war that a navy can possess. The fire of artillery may be withstood, the contact of the torpedo guarded against; but that there is no withstanding the shock of the steam ram, the battle of *Lissa*, the sinking of the *Cumberland*, and daily collisions on the ocean bears witness. For attacking forts, however, guns must be brought into play and for creeping stealthily upon a large vessel at night, in thick weather, or amid the smoke of battle, there is nothing equal to the low torpedo boat; consequently to be prepared for all the service that may be expected of it, the fleet of to-morrow must consist of rams, torpedo boats, and artillery vessels, all of which should be steamers of great speed, having auxiliary sail power, and if not propelled by twin screws, some mechanical contrivance which enable them to turn short around with celerity; for turning power is essential to every man of war, and especially so as to the ram which must always keep her head turned towards the enemy. In storms the dependence of these steamers for safety should be on their engines, and if never required to make sail with the wind forward of the beam their masts might be telescopic (as proposed by Rear Admiral Boggs, some years since), and the spars and sails so light as to be easily hauled and sent below; so that an artillery vessel would have nothing but her lower masts, and a ram and torpedo vessel nothing at all left standing above decks when steaming head to wind or going into action. All that I have said above refers to the fighting vessel. For cutting up an enemy's commerce, ships of the *Alabama* and *Shenandoah* type will be required, having a long range pivot gun forward, two steam torpedo cutters and a Gatling battery, and every admiral in time of war should be supplied with a number of extraordinary fast steamers to carry despatches and act as lookouts.

At present our vessels are adapted to the days of Paul Hosto, rather than to the age of steam, loaded down as they are with immense spars and rigging, which, in a general action would infallibly be shot away and, trailing after them, foul their screws, thus rendering them utterly helpless; for were it to that vessel, in future naval battles, whose propeller refuses to turn after the melee commences. Not many minutes can elapse before an enemy will be upon her, steaming at full speed, and striking her in a vital part and send her to the bottom. It becomes, therefore, all important that the motive power of a steamer should be protected from injury, and certainly nothing could more imperil it than the masts and rigging as at present arranged.

At first sight it might seem a very expensive matter to keep up a purely steam marine, but when the high price now paid for surplus masts, spars, rigging and cordage is deducted from the bill I think it will be found that an efficient steam Navy can be maintained at a cost but little exceeding that of our present nondescript one. I know that our Benbows of the present day, young as well as old, cavil at this, for with them

not to "talk rope" is not to be a seaman. These men still delight in dissertations upon the hauling down of a jib and the brailing up of a spanker, and dwell fondly upon the legends of the good old times, when, however potent cotton might be on land, flax was certainly king upon the sea; but the great majority of naval officers are, I am sure, looking forward to a higher order of things, and will agree with me in the opinion that the tar of the past, although a glorious fellow in his day, it would by no means be desirable to resurrect for the Navy of the future.

A ram should be purely a ram, a torpedo boat be restricted to the use of torpedoes, while an artillery vessel, for offence and defence should place all her reliance upon her battery, not turning out of her way to seek an opportunity for ramming, though not, of course, failing to take advantage of one should it chance to offer.

For the man who has several weapons to choose from may hesitate, in action, which to avail himself of, while he who has but one will be quite sure to use that one effectively.

Whether or not our artillery ships should be ironclad is a vexatious and much mooted question; as the duel between iron plating and artillery has already resulted in favor of the latter, if we may believe the reports of experiments in England and Germany; as powder is still being improved so that, without greater strain upon the gun, it will exert more force upon the projectile, and as the ram and torpedo have no more respect for the costly iron clad than the comparatively cheap wooden vessel, I should prefer converting our iron into guns rather than into armor. As to what these guns shall be, whether rifled or smooth bore, our able Chief of Ordnance is a most competent judge. By the world generally, the former is considered in every respect superior to the latter, yet I confess to not being entirely convinced of the justness of the decision.

I was for a long time intimately associated with the late lamented Admiral Dahlgren who, without disparagement to any, I may safely say was the greatest ordnance officer our Navy has yet produced, and up to the day of his death he was firmly persuaded that for "close action"—and no naval battle has ever yet been decided at long range—the smooth bore possessed decided advantages over the rifle. In the experiments initiated by him against iron plating at 400 yards while the rifle bolt went through the target at every discharge, the spherical projectile fell dead apparently at its base for the first three or four fires; but then, suddenly following the report of the smooth bore, came a crashing sound, and it was found that the shot had been shaken to pieces. It must be borne in mind that these trials were made against plating of less than half the thickness of that now used in England, and, therefore, do not afford a fair test of the relative merits of the two guns at this time; but I submit that recent experiments on the other side of the water, have not been exhaustive in this regard, and are, therefore, neither satisfactory nor conclusive.

Placed side by side, with the full power of each developed against targets at short range, the gun which shall be found to have produced the greatest effect after twelve rounds have been fired in quick succession, will, it appears to me, be the best for general purposes whatever may be the merits of the other for special service; for in assembling vessels to attack forts or fleets you could in

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The Volunteer Review,
AND
MILITARY AND NAVAL GAZETTE

"Unbribed, unbought, our swords we draw,
To guard the Monarch, fence the Law."

OTTAWA, TUESDAY, JANUARY 19, 1875.

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Lieut. J. B. VINTER, of Victoria, and Captain H. V. EDMONDS, of New Westminster, are our authorized Agents for British Columbia.

MAJOR GENERAL COLLINSON, R.E., has added a most important essay to the literature of "Strategy" in a paper read before "The Royal United Service Institution," which is to be found in No. LXXVII. of its Journal, under the title of "The Strategic Importance of the Military Harbors in the British Channel as connected with Defensive and Offensive Operations." After paying a just compliment to the late Sir C. PASLEY for the very valuable work on *Imperial Strategy* known as "The Military policy and Institutions of the British Empire," written in 1808, he says:—

"While reading his arguments based on the interests of Great Britain, then concerned in bringing Europe to a state of peace again, I could not but contrast them with the interests she has now spread over all the world far beyond anything that was imagined even in those stirring times. Their limited commerce—scarcely a recognized colony—Canada little known—Australia a mere penal settlement—India a mere trading firm—their long uncertain voyages in sailing ships—the sea commanded it is true, but as an element to fight on. Compare this with Great Britain

of 1874; a commerce multiplied a hundred fold; one Empire in India, another in Australia, another in Canada; the ocean ruled for our commerce by huge iron steamers reducing sea transport nearly to the certainty of land, and their interests not only increased and extended to Asia and Africa, but what is more important having new responsibilities added to them. The Great Indian Peninsula is dependent on us for its progress, the rising States of Australia and Canada draw from the Mother Country their inspiration of social and political life, all are looking to a close connection with the British Empire as a vital element of their strength, all are prepared to assist in preserving the integrity of that Empire. If England was then mightily concerned in keeping the peace of Europe what are now her interests in keeping the peace of the world.

"It is their peculiar responsibilities attaching to our connection with our great dependencies that create a new feature in our interests over the world. When PASLEY wrote thinking only of opposing French domination he urged that alliances should be made and a footing secured in such maritime States of Europe as could materially assist us in controlling the power of NAPOLEON, and he pointed out that with such assistance *the small army of England would have the power of moving round the flanks of all Europe, appearing and disappearing like the cavalry of the desert on the flanks of an invading army.*"

The lecturer then points out how that this system of Strategy can be made definite and that its extension would embrace Asia and Africa, and we may add America also, owing to the reliable motive power the use of steam has placed in the hands of statesmen and strategists, and then says: "An important branch of such a war policy is the position and condition of our military harbors, and in order to have a just appreciation of their relative importance it is necessary that we should briefly consider the position of maritime warfare in the present day, and its connection with this *new policy* I have alluded to."

Three very valuable maps accompany this lecture—the first of the British Isles showing the strategical harbors available for their defence with the harbors on the opposite coasts of France, Belgium, Holland, and Germany to the mouth of the Elbe; the second a chart of the world showing approximately the wealth of Great Britain about—this is a reprint of that accompanying Capt. CATON'S valuable paper on the "Distribution of our war forces read before the "Royal United Service Institution" in 1869—and the last a colored table or chart showing approximately the resources of the principal nations in the world. We learn that "about *one-tenth* of the whole exports and imports of Great Britain, or about *one sixth* of the whole imports of Great Britain, consists of food coming in approximately in equal pro-

portions from Germany, Russia and America, and the stoppage of which would affect us to a far greater degree and far more quickly than the stoppage of any other commerce to any other nation."

This latter paragraph explains the reason why since the close of the Peninsular war and the rise of the *manufacturing* interests that Great Britain has played such a mean and contemptible part in the affairs of Continental Europe, and why she has submitted to our neighbor's bullying—it is the old story of the Lydian King and the Philosopher—the traders have been making gold for the men of blood and iron to possess!

We cannot quite agree with the gallant General's ideas of the object of maritime warfare as regards its strategy—it is a means to an end, just the same as a military force is, and precisely the same consequences would follow the failure of either. He says:—

"What is the object of maritime warfare? Certainly not merely the destruction of a hostile fleet for the complete annihilation of an enemy's naval resources would not of itself necessarily terminate a war, there must be some ulterior object to be gained of which the fleets are only the means. The defeat of an army generally results at once in the occupation of territory—the defeat of a fleet is only the loss of so many ships and men unless it opens the road to some other advantage. It is true the defeat of a fleet may not terminate a war, but it will most assuredly decide the event of the contest. The victory of the Nile saved the independence of Great Britain while that of Trafalgar by the annihilation of the French marine decided the European contest as against French domination. It did not close the war but it enabled Great Britain to operate on the flanks of the French power, so to speak, and ended in the decisive victory of Waterloo.

"There are three distinct objects for which maritime warfare is undertaken.

"1. The defence of our own sea commerce, or the injury of the enemy's.

"2. The protection of our own country from invasion.

"3. The invasion of the enemy's country—of these the first is purely naval, the two others are more or less combined with military operations." The lecturer states that the introduction of steam made naval strategy possible—that previously *naval tactics* were alone practised—now if strategy means the accomplishment of a defined military object by the combination of complicated manoeuvres and measures, either independently of, or in co-operation with, a military force operating with the same design; we say that "Naval Strategy," as a science, has been practised by British seamen since Britain owned a fleet, and that the introduction of steam has in no way changed its application in modern days except in relation to time alone.

What was it that enabled NELSON to frustrate the strategy which sent the French fleets to the Nile and the West Indies? of course it was a knowledge of the very science that would have made their presence felt in the ulterior object of subduing Great Britain if the tactical skill of the officers commanding the expeditions were equal to his—and there never has been nor ever will be an expedition sent out for naval purposes but must be based on a well defined strategic idea. Even ANSON'S expedition undertaken one hundred and forty years ago, badly equipped but ably carried out, had a well defined strategic object in view, naval as well as military, and that was cutting the communications of Spain with the chief source from which her wealth was drawn—her South American colonies on the Pacific—but this is a question we mean to discuss at length because the problem of the defence of the British Empire as well as that of its existence will not be solved by merely constructing works to protect strategic points in the British Islands. We shall therefore reserve for another occasion what should be said in reference to the gallant Major General's views, and although there was a lively discussion principally on the subject of *good holding ground* for anchorage at the close of his paper, not a single officer pointed out that all those defences were merely the *interior works of the citadel* and that the defences *exterior* with the communications had been left entirely out of the record; this same citadel being the *third line* and last line of defence, and its maintenance depending on the exterior lines.

(To be Continued.)

The great problem in naval science is to determine what the war ship of the future shall be. Armour clad ponderous has had their day, and it has been proved that no amount of *metal* which will float can make a ship shot or shell proof. Experience already obtained points to a return to the old wooden wall type as the natural solution of the difficulty, and deductions drawn from actual experiments confirm the soundness of the idea.

Owing to the complications arising out of the *Virginia* tragedy the United States Government found it necessary to muster its naval force in the Bay of Florida during the first month of the past year (1874), and the opportunity offered for performing a series of naval manoeuvres in order to test a system of tactics devised by a most distinguished officer of the United States Navy Commodore FOXHALL A. PARKER was taken advantage of with results which appears in the Report of that gallant officer republished from the *United States Army and Navy Journal* of 26th December, in another column.

The value of the force comprising the evolutionary fleet is candidly given and is

instructive in more ways than one—apart from the already obsolete character of the vessels—the necessity of keeping the seamen and officers employed constantly posted in fleet squadron or ship evolutions is apparent, for it is evident that the interesting *naval drill* inaugurated and carried out by the gallant Commodore as Chief of the Staff was brought to a close at the moment officers and men were beginning to understand and appreciate it—and the want of tactical knowledge before the manoeuvres is clearly shown by the order in which the vessels left port and that in which they returned.

Valuable as the tactical lesson has been the deductions drawn from the manoeuvres by the gallant Commodore are even of greater importance. First, the fleet tactics on the *peleton* system is exploded because it would enable an adversary to crush each detachment separately. Secondly, "close action" is that which will decide naval battles. Thirdly, *torpedoes* are not only of no possible use but dangerous to those using them. Fourthly, heavy smooth bore guns that can be used with certainty and fired with rapidity at short ranges (two cables length, 400 yards) are the proper weapons for naval armament while heavy rifled artillery should be kept for chase guns. Fifthly, war fleets of the future must consist of rams, artillery vessels, and *torpedo* boats, and sixthly, the artillery vessels should be unarmored.

It is evident that the gallant Commodore places great reliance on *rams* as an efficient warlike weapon but under what conditions it could be used is not so evident; in action it is optional with an opponent whether he will await the shock or evade it, motive power being the same on both sides; and that of the ram being liable to damage as the artillery ship, if a chance shot should destroy or partially disable the former all power of offence or defence is gone with the artillery ship; the vessel could still fight but not manoeuvre. Again, no vessel has been built or can be built that will come about on its own centre, and there is thus a pretty large circle within which an active enemy might manoeuvre entirely free from the chance of contact either by ram or *torpedo*, and within which if her artillery was what it should be she would make either party dearly for the privilege of proximity.

The battle of Lissa has been held by some of the first authorities of the present day as decisive in favor of the manoeuvre known as ramming, whereas that was in reality an accident of the position which was itself the result of the want of that tactical knowledge on the part of the Italians which the gallant Commodore is so useful engaged in teaching his countrymen.

On the approach of the Austrians Admiral PERSANO formed the Italian fleet *in line* on the *starboard tack* in three divisions thus exposing himself to the manoeuvre of being

cut obliquely by the advancing Austrian fleet also arranged in three divisions in column with a leading ship in centre of each and the wings thrown back; an order that if PERSANO had the technical knowledge and skill to close on its flanks with his windward and rear divisions would have left TREGETHOFF as little to boast of as VILLENBURY had at Trisfalgar; but PERSANO awaited the attack in line on the *starboard tack* and in the mlee which followed the *Re d' Italia* attempted to cross the bows of the Austrian flagship, meeting the fate of any vessel, ram or otherwise, that would attempt a similar manoeuvre; so that this action really proves nothing as to the value of rams as an efficient weapon of war, the same may be said of *torpedo* boats, they have not been tried and when they will they are sure to be failures. The Report of the gallant Commodore is the best and most instructive document on Naval Tactics which has appeared in modern days.

The following notice of the death of a gallant and daring seaman is taken from the *United States Army and Navy Journal* of 26th December. The brief career daring and distinguished services of Commander CUSHING illustrate what can be done by energy and ability, while his closing or rather crowning exploit the destruction of the *Albemarle* had no small share in expediting the final catastrophe of that great contest in which the rival portions of the United States were then engaged.

It is reasonable to presume that the insanity which closed a career which opened so brilliantly was the result of an over taxed brain, and it is only a fitting tribute to the memory of one that really laid down his life for his country to find its leading military journal publishing an account of services which do not appear to be appreciated by a generous country, although no doubt can exist of their value in that country's dire extremity.

Lieutenant Commander William B. Cushing U.S.N., died on the 17th, at the Government Insane Hospital, near Washington, he had for some time previously to the loss of his mind suffered from scintica in a very severe and painful form, and derangement was traced to that as the immediate cause. For weeks before his removal to the hospital he gave evidence of the loss of the balance of his faculties and soon after reaching the institution, appetite and strength declining together, he gradually sunk into the arms of death. It is the sad and tragic ending of one of the most brilliant careers ever run in either service. We can best describe his naval exploits in the language of a recent article in *Harper's Magazine* (July, 1874). Regarding his first services during the war this article says:

Missipian Cushing sailed from Boston in the brigate *Minnesota*, and reached Hampton Roads in May, 1861—a lad then scarcely 17 years old, but fully determined upon playing a great part in the great events to come. The *Cumberland*, the *Quaker City* and the *Monticello*, men of war, all lay in the roads, and the latter of them, which has the

honor of having been the first ship under fire in the Rebellion, young Cushing subsequently commanled. The fleet had not been at anchor a single day when five schooners, loaded with tobacco, were captured, and that night the young midshipman took into port the *Delaware Farmer*, the first prize of the war.

His gallantry during the operations against Fort Fisher, is thus described:

Directly upon his promotion the young hero took command of the flagship *Malvern*, bearing the broad pennant of the rear-admiral, and in December was part of the force operating against Fort Fisher. Here Commander Cushing performed what, with the exception of the *Albemarle* affair, was in reality the most dangerous exploit in all his term of service, an one requiring a more steady courage, being nothing less than the buoying of a channel in an open skiff—a skiff rivaling the famous little boat of the battle of Lake Erie—in the midst of a shower of round shot, shell and surpnel, the work continuing for six hours, the skiff frequently half filled with water by the plunging shot, and its companion being sunk.

During the brief cessation of more active operations against the Wilmington forts, Commander Cushing offered battle to the *Chickamauga*, a rebel privateer carrying an extra crew; but the challenge being declined, he drove a large blockade-runner ashore under her nose and returned to the fleet, which on the 12th of January resumed the attack upon the forts, the ships being 60 in number, comprising ironclads, frigates, sloops-of-war, and gunboats. An assault being ordered after a three days' bombardment, Commander Cushing, with other officers, accompanied the force of sailors and marines about to storm the sea front of Fort Fisher. Marching to within a few hundred yards of the embrasures, the entire body threw themselves down under the slope of the beach, waiting for the signal of attack, the whole fire of the Navy passing with a deafening noise just over their heads. Springing to their feet at the word of command, they moved forward steadily over the soft white sand, which the sunshine made dazzling, and the relief of which rendered every officer in his uniform of blue and gold lace—and, indeed every man—a conspicuous target, the rebels meanwhile pouring forth an unceasing fire that cut down their foes in windows. Finding himself alone at last, just after reaching the palisades, Commander Cushing turned to rally his men, and was obliged to cross a hundred yards of the bare sand with the bullets pattering about him in such wise that it seems as if he must have borne a charmed life. Most of the ranking officers were either dead or badly wounded by that time, or else remaining under shelter of the palisades till nightfall—more fortunate than their comrades, who, dropping on the beach, were swept out to sea by the rising and falling tide—he therefore assumed the command himself, and gathering some hundreds of men with great effort, he was again proceeding to the assault when requested to relieve with them a regiment which went to the assistance of the army on the other side, which was operating to such an effect under the gallant General Ames that before midnight the works had surrendered.

The *Albemarle*, as it has been mentioned, was an ironclad of tremendous strength, had already defeated the whole Federal fleet, sunk the *Southfield*, exploded the boiler of the *Sassacus*, engaged nine foes at once without danger to herself, forced the

surrender of a brigade, and the abandonment of the whole region of the Roanoke by the Federal forces. The Government having no ironclads capable of crossing Hatteras bar and encountering her, all its operations in that section were rendered practically useless by the *Albemarle's* presence there; and the expense of the squadron necessary to keep watch upon her movements was something enormous. In this emergency Cushing submitted two plans to Admiral Lee for the ram's destruction. The admiral approved of one of them, and sent its projector to Washington to lay it before the Secretary of the Navy, and the latter, though at first a little doubtful of its merits, finally authorized him to procure the means to carry it into execution; and he immediately purchased in New York two open launches, each about 30 feet long, fitted with a small engine and propelled by a screw, carrying a howitzer and provided with a long boom that swung by a hinge which could be raised or lowered at will, and which had a torpedo in the groove at its further extremity. These boats were taken down through the canals to the Chesapeake, one of them being lost on the way, and the other reaching the sounds at last through cut and creeks and an infinitude of toils and perils, and was joined to the fleet which lay at the mouth of the river, the lieutenant disclosing his object to his men, assuring them that they not only must not expect but they must not hope to return, for death was almost inevitable, and then called for volunteers. They all stood by him, and six others presently joined them—Assistant Paymaster Frank Swan and Mr. Howarth who had often accompanied him on his most reckless adventures, being of the number. The *Albemarle* lay moored at the Plymouth wharf, eight miles up the river, both banks of which were lined with batteries and held by several thousand soldiers, while at some distance up that portion of the wreck of the *Southfield* which still lay above water was occupied by a picket-guard, whose duty it was to throw up rockets on the first alarm. For, unknown to the attacking party, rumor of the intended endeavour had in some mysterious way already reached the Plymouth authorities, and every provision had been made for their reception. However, on the night of the 27th of October, the little launch entered the Roanoke River, her engine at low pressure, to make the least noise possible, left behind all obstructions, passed within thirty feet of the unsuspecting picket on the *Southfield*, and approached the wharf where the ram lay, a vast black mass in the darkness. Greatly emboldened by this success, the lieutenant for a moment resolved to change his plan, and, knowing the town perfectly, to put ashore and trust to the effect of a night surprise, with which he was so well acquainted, overpower those on board, get her into the stream before the forts could be aroused, and fight the batteries with her on her way down. But just as he was about to carry his sudden plan into execution, a cry from the ram rang out sharply on the night, repeated on every side, followed by the instantaneous booming of the great guns from ship and shore; and returning no answer, the lieutenant put on all steam and made for her. At the same moment an immense bonfire of pine knots and turpentine blazed up on the bank, most fortunately for him, since it revealed directly the untoward fact that a boom of logs extended around the ram in all directions to guard her from torpedoes, which for one second seemed an insurmountable obstacle.

Only for one second, though. With the next the lieutenant had given orders to sheer off across the stream, so as to get room for acquiring headway and carrying his launch by the force of its own impetus straight across the boom, though it never could get out again, he knew. As they turned, a volley of buckshot wore away the whole back of his coat and the sole of his shoe, and the man by his side fell lifeless. Before the volley could be repeated the launch had struck the boom, was over, and was forging up under the *Albemarle's* quarter, directly beneath the mouth of a rifle-gun, and so close that the mere whisper on board the ram, where they were endeavoring to bring the gun to bear, could be distinctly heard.

That must have been a terrifically exciting moment to those on that little launch, with the vast mountain of iron towering above them, the fire-lit mass of foes upon the shore, and triumph and eternity in the next moment. Lieutenant Cushing stood at the bows of the launch, with several lines before him; one of these lines was attached to the howitzer, one to the ankle of the engineer, one to the officer who was to lower the boom carrying the torpedo, one was that by means of which the torpedo was to be slid under the ram, another was the exploding-line, which should pull away a pin and let a grape shot drop on the percussion cup beneath. The howitzer had already been discharged. The line attached to the engineer was pulled; the engine stopped. The boom was lowered, the torpe to slid slowly off and was under, the air chamber at top bringing it up in position beneath the ram. The last line was pulled, the grape shot fell, just as the rifle gun went off—and the rebel ram and the launch blew up together, and columns of water shot up and fell again, heavy with dead and dying. But just as Lieutenant Cushing pulled the exploding line he cried out to his men to save themselves, and throwing off arms and heavy garments had struck out into the water.

Amid a scene of great tumult Lieutenant Cushing succeeded in reaching the shore, whence, travelling through the swamps, he came to a creek, where he seized a Confederate boat, and by 11 o'clock the next night made his way to the steamer *Valley City*. The gallant officer received for this daring feat a vote of thanks from Congress and a complimentary letter from the Secretary of the Navy.

Advices from Cape Town to 16th Dec., report that a terrific storm and unprecendentedly disastrous floods prevailed throughout the country. Many vessels were wrecked and immense damage was done.

The 9th January being the 2nd anniversary of the death of the Emperor Napoleon, a large number of well known French Imperialists congregated at Chislehurst, the residence of the Ex-Empress Eugenie.

REMITTANCES Received on Subscription to THE VOLUNTEER REVIEW up to Saturday the 16th inst.

Delta, Ont.—Sergt. M. I. Day, to Jan. 1876.... 4.00
Hamilton, Ont.—Lt. P. B. Barnard, to Jan. 75. 4.00
Kingston, Ont.—Yasnig H. Conly, to Jan. 75. 2.00
Stirling, Ont.—Lt. R. J. Grange, to Sept. 1875. 2.00
Wexford, O.—Lt. Col. W. H. Norris, to Jan. 1875. 2.00
Wolfe Island, Ont.—Lt. J. H. Riddford, to Jan. 75. 1.00
Quebec.—Lt. Col. J. F. Turnbull, to Jan. 1875. 4.00
St. Stephen, N.B.—Major Wm. McAdam to [January 1876] 4.00
Carlton, St. John, N.B.—Sgt. Maj. F. A. Fradsham [to January 1875] 4.00
Kentville, N.S.—Capt. J. W. Ryan, to Sept. 75 2.00

(Continued from page 29.)

one fire have the concentrated effect of those twelve rounds many times repeated. In saying this, let it not be understood that I am an advocate of the smooth bore; on the contrary, all that I have read of late inclines me to prefer the rifle, and that which has most influenced me in its favor is a remark of Capt. Jeffers, that from it you "get greater explosive effect for some weight," but I do think that, before substituting one system of armament for another, we should test the matter ourselves to the "bitter end;" and I trust that Congress will see the wisdom of making a liberal appropriation for this purpose.

As to the calibre of the guns, notwithstanding what has been said to the contrary in an exceedingly forcible prize essay, which has met with general favor in England, I espouse the American idea—"the bigger the better;" depend upon it, with Yankees to serve them the shot of mammoth guns will not be thrown away. They have a saying "out West," that it is "bad manners to draw a pistol unless you intend to use it;" and, though it may not be ill-mannered, it is certainly unwise to hit a ship at all unless you do her some damage; for men get a contempt for that which does not hurt when it strikes them. With a fleet composed of the three classes referred to above, an admiral informed by his look-outs of the approach of an enemy, would signal such a formation as he should deem best, always, however, keeping his artillery in the centre of the fleet, and his rams nearest to the enemy, and well in hand, in readiness to begin the attack. No order of battle could be laid down which would suit every occasion, and the effect of adopting one order as absolute would be to give your enemy the advantage of knowing how he should find you, and laying his plans accordingly, while you would be left in doubt, up to the last moment, as to what his method of attack or defence would be. A fleet should be so drilled as to be enabled to assume any formation with readiness, and it should be a unit of force acting under one head. Nothing could be more fatal to us than the acceptance of the idea that it may be separated into groups, each group being, to some extent independent of the other.

For at sea as on the land, "war is nothing more than the art of concentrating a greater force than the enemy upon a given point," and Commander Noel's plan of battle would simply afford one's adversary, in my opinion, a chance of surrounding his detached groups one after the other with a superior force, and thus whipping the whole fleet in detail.

I may remark here, that in our new tactical signal book, the signal—"From the centre of threes, fours, fives, etc.—form double echelon" (natural or inverted), affords us the means of throwing our whole fleet, or any division or squadron of it, into groups offensive or defensive of any required depth, each group, however, being closely supported by all the others.

Opening the ball with artillery vessels "passing each other, at a combined speed of twenty knots," could only result in one of those indecisive actions which every commander in chief should aim to avoid; for three fourths of the projectiles fired would fall into the sea while the guns on both sides would so obscure the vision, as to render the attack of the rams of no avail.

In my judgment, the rams should begin the action by charging the enemy, and throwing him into confusion or bringing him to a stand

then the artillery vessels would open with some effect and the torpedo boats under cover of their fire, proceed stealthily but actively to complete the work of devastation inaugurated by the charge.

After charging through the enemy, the rams should reform and charge back, or, if unable to do this, pass around his fleet at tacking everything in the way, and, after regaining their own lines take their position with the reserve in readiness to act with it when the "supreme moment," as the French term that instant, when the victory or defeat hangs in the balance, has arrived. This is the time too, to put in every boat fitted with torpedoes, that the condition of the sea will permit to be lowered.

It would seem useless, perhaps, for us to talk of the assembling of fleets when our flag scarcely floats from the mast-head of a merchantman upon the sea, and the city of New York, our commercial metropolis seems so far indifferent to the national misfortune as actually to take pride in the number of foreign steamers which daily leave her wharves, yet I cannot but believe that the Great Republic will awaken from her lethargy ere long, and once more put forth her strength upon the deep.

When that day comes, when our commerce is again extended to the remotest corners of the earth, I have faith that a Navy will be created for its protection worthy of a great people, whose fleets some of you, gentlemen, will be called upon to command.

This you can prepare yourselves to do intelligently, only by devoting yourselves zealously to the study of your profession; and let me advise you, above all else, to read diligently the naval history of the past and the present, and to imitate Nelson in his study of naval tactics; for depend upon it, that in future naval battles, other things being equal, victory will belong to that fleet which is most skillfully manoeuvred.

In conclusion, let me repeat what I have so often said before, namely, that a man of war, without speed and turning power, is as useless as "a painted ship upon a painted ocean," no matter what her armament or arm or—and let me beg of you in opposition to the doctrine of dividing fleets into independent detachments, to adopt for your motto: "The ships of our Union, and the union of our ships, may they be like our States, "one and inseparable."

Sights and Elevating Gear for Heavy Guns.

The power of rapid sighting, and consequently of rapid laying an already laid gun in action is obviously a matter of first rate importance in the management of artillery in naval engagements, and the changes which steam and improved armament, both offensive and defensive, will necessitate in the naval warfare of the future, must render it still more important. Particularly as regards the heavy ordnance mounted in turrets, some improved method is absolutely required. That at present in use for giving the necessary elevation to turret guns is far from satisfactory. A wooden scale is adjusted to a mark corresponding to the distance of the object, is held against the breech, and the gun raised or lowered as required. Did the gun platform remain throughout the action absolutely steady, and the enemy's ship never vary its distance, this method would answer well enough, but unfortunately rapid movements will be the chief feature of naval combats, and any one who has observed our great turret ships at sea can testify to their general liveliness and the

readiness to which they heel to any movement of the rudder, or passage of the guns from one broadside to the other. Take the case, for instance, of a ship like the *Devastation*. The captain of one of the turrets has prepared his guns as above for the elevation due to the distance, and is training his turret for the object. Just as it comes on the helm is put over, or the other turret, which has been turned away to reload, swings back into action. The ship heels over in either case 2 deg or 3 deg., and the sights are no longer aligned. In order, therefore, to fire with any chance of hitting the enemy, the guns must be relaid, an operation which if done correctly, takes with the existing arrangement at least a minute of time. But a minute is a considerable interval indeed when ships are moving at very high speeds, and may introduce many new conditions into the action. Furthermore, in all broadside guns, and consequently the firer is at all times aware whether his gun is correctly laid for the object or not. This is not the case in turrets. There the firer is entirely dependant on the manner in which the finely divided wood scale has been used. His sights are not connected with the guns in any way, and consequently afford him no information as to the direction in which they are pointing, the result being that considerable inaccuracies when the firing is rapidly conducted.

To meet these requirements, a plan has been recently proposed by Lieutenant H. H. Grenfell, R.N., and Mr. Edward Newman, R.N., to directly connect the turret sights, with the breech of the guns, so that the slightest movement of the sight is at once communicated to the gun. An hydraulic cylinder, fixed either to the rear of the carriage or to the slide as most convenient, raises or lowers the breech of the gun. The valve by which the water under pressure is admitted to the cylinder is connected with the turret-sight by means of levers and rods in such a manner that the slightest movement of the sight effects an immediate and exactly proportional movement of the breech of the gun. By means of a square or feathered shaft, placed in the plane of the slide and line of recoil of the gun, this communication with the sight is maintained throughout the whole length of the slide, and the guns can be elevated or depressed in any position on the slide, whether in or out. By these means the operation of laying the guns is greatly simplified. After adjusting the turret-sight for the distance of the object, which is effected by marking the top part of the sight double, one part sliding within the other, the firer has merely to turn a small hand-wheel working on the rod which carries the sight and aligned on the object, when the guns which will have simultaneously followed the movement of the sight, will also be correctly laid. In the same way they can be immediately and correctly relaid, however frequent or great may be the oscillations of his own ship, or the changes in distance or position of the enemy.

Don Carlos has issued a proclamation, dated at his headquarters at Vera, January 6th, in which he says that, as head of the Spanish Bourbons he contemplates with profound sorrow the attitude of his cousin Alfonso, whose inexperience has led him to consent to being the instrument of the same persons who expelled him and his mother. Notwithstanding, he makes no protest. The dignity of himself and army is his only protest. He avers that he will remain faithful to his holy mission, and keep the flag unstained.

OUT IN THE WORLD.

The faint ruddy light of the morning
Is flushing the soft eastern gray,
Red banners hung out as a warning
That Phoebus is coming this way.
O stars of the night time, tarry!
O sun in thy pathway stay!
For my loving and brave boy Harry,
Goes out in the world to-day.

Out in the wide world a stranger,
Seeking a fortune to find;
Out in the dark world of danger,
Leaving his loved ones behind.
No father's voice to direct him,
No mother's fond hand to sway;
O Father in Heaven, protect him,
Going out in the world to-day.

Ah! many a weeping mother
Has stood in the first morning light,
And tried the remembrance to smother
That a seat would be vacant at night.
The boy who claimed love's rich out-poring,
The youngest, the dearest, the best,
Must plume his young wings for soaring,
And fly from the sheltered nest.

A father his anguish may smother,
A sister overcome her regret,
And parting be light to a brother,
But a mother can never forget.
And men who seem old to each other—
Yes men with their locks growing gray—
Each one is "my boy" to a mother,
As when in the cradle he lay.

Our boys! They go forth to life's battle,
It seems but a day as we grieve
Since we smil'd at their innocent prattle,
Or rocked them to slumber at eve.
We may keep their child-days ever vernal;
When they leave us we mothers must pray
That God's love which is more than maternal
May keep them from harm every day.

An Interesting Document.

TRAVELS OF THE SHAH OF PERSIA.

"This is a Diary of the Tour in Europe, which we propose to write in auspiciousness and sanctification under the will of God most high, the All powerful, the Merciless, the Forgiving, the Beneficent, provided that health be accorded us." Such is the invocation with which the Shah introduces the story of his journeyings. That it has been written in "auspiciousness" is possible. What "sanctification" has to do with the Diary may be left for the theologians to decide. When royalty writes—even if it be the King of the Ashantees or of the Cannibal Islands who turns author—all the world is expected to read, and there must consequently be some curiosity regarding the impressions which contact with a superior civilization made upon the mind of this unmanageable Shah, whom European monarchs a year ago welcomed with trepidation, to dismiss and send on his way with joy and congratulation.

From the translator's preface to this volume it appears that the tour through Europe was not the first of the travels of the Shah nor is this Diary the first fruit of his authorship. He had previously visited and inspected his own Caspian provinces of Gilan and Mazandran, and had thence journeyed beyond his own dominions to the sacred shrine of Babylon. Of each of these excursions he had published a narrative for the information of his people. These as well as the present Diary were communicated to the Persian public in the official part of the Teheran Gazette. The style of the present Diary is stiff, at least in the translation, which, however, very evidently improves upon the original; its observations are superficial and often ludicrously trivial, while the extent to which personal details are constantly thrust forward accords fully with the impression which was generally given of the selfish regard for his own comfort which the Shah exhibited at every step of his progress through Europe. Thus the first paragraph

of the Diary, which bears date Saturday, 21st Safar, 1290 (i. e., 19th April, 1873) reads thus: "We started from Teheran in the intention of prosecuting our tour in Europe. It is now a whole year since information was given of this (intended) tour in Europe; and it is also some days that we have been suffering from a pain in the chest, and a severe cold in the head, so as to be very unwell, with sensations of fatigue and weakness, to so great a degree that I have never experienced the like before. Placing my trust in God, however, I sallied forth from my private apartments, my Grand Vazir and others being in waiting to receive me." Three days after we have this entry: "Before break fasting I shot a buck of two years old with slugs. Thanks be to God all went off pleasantly, and I returned home in comfort. I am grateful that my health is perfectly restored, and no sense of weakness remains. It is now the season of new green plumbs, which are still very small and not fit to eat." April 25 we are told: "Five of our Princes wore their swords at our levee. Thanks be to God, the wind is not blowing." At Enseli (May 12) the Shah embarked for Astrakhan, which he reached after a two days' voyage. At one time during this sail the sea "became agitated so that the waves rolled mountains high, and everyone on board was taken unwell, except ourselves, our chief photographer, the Corporal, and Dr. Pholoran. We were not cast down, but proved our self-possession. The whole of the crew and officers of the vessel were cast down also, with the exception of the Admiral and a few of the sailors. In fine, we should have been caught in a peril of great magnitude, but the Divine mercy encompassed our situation and a favourable breeze sprung up astern, carrying us more quickly forward to our desired haven." Then on May 14: "Thanks be to God, we have escaped from the high sea, and have entered a large river named the Volga, which has a great charm. . . . The occupation of the people of the villages standing on the banks of the rivers is that of fishing. As our vessel came opposite to each of these villages in succession, the inhabitants flocked to the river bank and cried out 'hurrah.' They had shot down a good quantity of dead fishes into their vessels, and had made the banks of the river stink. Such fishes as they had not been able to salt and preserve, and which had consequently putrified, they cast into the river. The water of the Volga is very light of digestion." Whether this last important fact has any connection with the statements immediately preceding touching the dead fish which form so large a constituent in this river water, the reader is left to infer. Upon landing at Astrakhan the Shah was impressed by the presentation of salt in a silver shell of gold with bread upon a silver salver, both vessels bearing the face of his arrival—a Russian custom, he tells us, only observed in honour of an Emperor or a King. The triumphal arch next attracted his attention, then the baths, "with two taps of water, hot and cold"—a novelty the previous ignorance of which sufficiently confirms the statement regarding the lack of personal cleanliness which distinguished this representative of royalty. Tsritian was the next place on the Volga where the Shah stopped and there he took the cars for Moscow. "This is the first time," he observes "that we travel on a railway, and very nice and comfortable it is; it goes four leagues in an hour." The splendours of the Palace of the Kremlin made a deep impression upon the royal traveller, but of these

he tells his dutiful subjects, for whose benefit these notes were made. "I really cannot undertake to write a description." At St. Petersburg: "His most exalted Majesty the Emperor Alexander II, Autocrat of all the Russias, received us with the perfection of warmth and friendship. The Emperor is a man tall of stature and majestic, who speaks with great gravity and walks with a stately gait. The Nawwab, the heir apparent, is a young man of graceful form and about twenty-five years of age." Balls, theatrical performances—the terpsichorean part of which especially enlisted the attention of His Majesty—official receptions, exhibitions of the fire brigade, &c. occupied his time in the Russian capital. A visit to the hermitage impressed him deeply. There were "rooms full of pictures, of marble statues, large and small, water basins of rare stones from Siberia and elsewhere, the most part of their columns being monoliths, from Finland, tall and stout; tables of stone, enriched with mosaics in coloured; tables and vases of malachite, which is a Siberian stone, and many strange and wonderful things worthy to be seen. More especially there were marble statues in the form of men, women and children, standing or lying down, at which one marvelled. One standing (figure of a woman was most graceful, so that one could have admired it, seated before it, for three whole days. To see every picture and every statue in every room would have required ten days or more; as we merely looked on them for a moment, we really comprehended nothing about them." Following this inspection was a grand dinner given by the Emperor, the description of which may be taken as a type of the succession of Russian banquets. The Shah writes "At the proper time we went. One hundred and seventy individuals were invited—members of the Russian Imperial family, with our Princes and officials. It was a numerous assembly. We first went to a private chamber, where the Heir Apparent, his wife and others were. We sat there awhile, and then, proceeding to the banqueting hall, we took our seats at the table. The Emperor was on our left, the wife of the Heir Apparent on our right. The dinner was eaten, in the middle of the dinner the Emperor arose, upon which we all got up. He drank a glass of wine to my health, and at the very instant guns were fired from the fort. After a minute or so I rose, and again all rose; I drank a glass of sherbet to the health of the Emperor. At length the dinner ended. It had passed pleasantly." Exhibitions of legerdemain are repeatedly described at length. We quote the account of one, given in connection with other performances the Michael Theatre: "One Swedish woman performed well on the tight-rope. Some individuals performed wonderful feats. For example, one man brought forth from a locked wooden box a fat, a graceful woman, and another human being, after having opened it to show it was empty. Another stood upon a large globe, and walked about with it, at the same time casting knives, &c. into the air with both his hands, and catching them during a considerable space of time. Again, a fat woman, clothed in tights, with naked bosom and legs, mounted on a three wheeled velocipede, and went along at a rapid rate; then a black man brought many wine bottles and placed them on the floor, which was covered with cotton wool, wetted with spirits of wine. This was set fire to, and the woman then urged the velocipede among the bottles at a high speed; ultimately she

fell over from the vehicle to the floor and her skirts took fire. It was a great piece of folly." Which last observation may be set down as one of the few which this Diary contains indicative of the fact that the Shah is really possessed of a share of sound common sense. At the State Bank he was shown money and ingots of gold and silver in the form of "half bricks of Teheran" to the value of about \$2,000,000. Cronstadt and Peterhof were duly inspected and the powerful fortifications and artillery of the one, with the regal splendour of the other, received their share of admiration. This profound observation closes the notes upon the tour through Russia: "Of the things frequently seen were the abundance of carriages in St. Petersburg, many tramways of iron in the streets, and also many beautiful dogs, large and small."

On the railroad from St. Petersburg to Konigsberg the Shah encountered another wonder peculiar to railroads, "a hole in the mountain," or a "hole" as he invariably terms tunnels wherever he encounters them. At the Prussian frontier a change of cars was necessary. The Shah writes:-- "We had to wait a considerable time. I was in a small room with the officers of our household, and for a while wrote up my diary. A great crowd of spectators, men and women, scrambled up to the glass of the windows to have a look, and they squabbled with each other. The liberty (or license) of this place is very much more than what was seen in Russia. When they dispersed we went and seated ourselves in our carriage." From Konigsberg the royal party went to Berlin May 31. "Our train," says his Majesty, "was taken sometimes over a bridge, sometimes up and sometimes down, and then again turned back like a horse the bit of which is in the hand of a man. This was to us a source of wonder." "His most exalted Majesty" Emperor William received the Shah at Berlin. "The crowds were great and shouted hurrahs. I saluted them all together with the Emperor

In the account of the stay at Berlin notes of visits to members of the royal family are so oddly intermingled with the description of the denizens of the Zoological Garden, the Aquarium, &c., as to excite the suspicion that the Shah regarded them all very much in the same light—as curiosities put on exhibition for his benefit. In fact, the animals seem to have interested him very much more than did the Princes and Princesses. "Here," (in the Zoological Gardens,) he writes, "were wild beasts that cannot be imagined—maned lions of Africa, which I had not hitherto seen save in books—huge in bulk, terrible in appearance, with very thick black manes hanging down, their heads as large as those of elephants, or larger, with glassy eyes especially terrific, with graceful bodies resembling velvet. The keeper raised high a piece of flesh; the lion rose on his hind feet and seized the flesh. His stature was from three to four el. (ten and one-half to fourteen feet.) The flesh was placed on a truck and so conveyed from den to den and given to the beasts. I was extremely tempted to stay and observe these lions a long while, but through the thronging of the spectators, this was impossible." The sloths, which are described as resembling "melancholy, sorrowful men," so deeply impressed him that he paid the animals a second visit when he examined them "attentively."

On June 7 the royal party left for Cologne and Wiesbaden. "Much as we wished to sleep," the Shah says, "it was impossible.

As soon as my eyes closed we would arrive at a station; talking and discussion would ensue; there was nothing for it but we must dress, and hold ourselves in readiness until the Governor of such a town or the commander of such a fortress should be introduced by the Mul'tanadu-Tk-Mulk, and took himself off again."

At Westphalia the works of Krupp were inspected. M. Krupp himself received the travellers. "He is a tall, thin old man. He has himself in a certain space of time, created the whole of these works. The cannon of every government does he furnish from hence. * * * His plant and workshops, of which steam is the motive power, resemble a mighty city. He employs 15,000 workmen, for the whole of whom he has erected houses and lodgings, paying them salaries and wages. After deducting his expenditure, his own yearly income amounts to 800,000 tumans (£320,000). We went to the shop of the steam hammers. They are singular hammers, like mountains; and worked by steam. fulfil the office of forging cannons. They make those of any pattern they desire. When the hammer strikes the gun the earth floor of the work shop emits a sound and trembles. It was a marvellous thing." Wiesbaden, Coblenz, Baden-Baden were visited. Of the last we are told: "In verity it is not a town of which we can tire. lovers, pleasure-hunters, sybarites, it is a capital nook." At Spa the Shah makes note of the fact that "in Germany the women are much occupied in business and at work; especially at agriculture and in gardening; they labour much more than their husbands. * * * In Berlin and in other towns the little boys fasten soldiers' knapsacks on their own backs, run about the streets and play on fife. How excellent it is that they from infancy upward thus learn to be soldiers." A visit to the mineral springs did not produce a favorable impression. "I drank a little of the water," he says, which tasted very nasty. On the outside of the basin there was a large footprint on the surface of a stone, of which the Governor said "This is the vestige of the footsteps of St. Mark, which saint is one of the holy men of the Franks. 'Whatever women, when childless, comes here and places her foot in this vestige conceives and bears children.' This a very surprising thing. In Persia such beliefs are rife."

After a short stay at Bussels, Dover was reached by way of Ostend. "The British Channel is much noted for its storms and roughness. But, thanks be to God Most High the sea was very calm—like the palm of one's hand—so that no one was incommoded." At Dover the Duke of Edinburgh and Prince Arthur were in waiting. The former is described as "a youth with a very pleasing countenance, and stout. He has crow's eyes, (bluish gray) and a small beard; in stature he is not tall; his age must be twenty seven or eight. The third son is shorter than he, and his complexion is darker, his body slighter."

Upon alighting from the railway train in London the Shah was greeted by "a surprising turmoil. I saluted incessantly with head and hands. The crowd of spectators was never ending. The population of the city is said to be over eight cores (four millions) of souls. It has most lovely women. The nobleness, the gravity, the sedateness of the women and men shine out from their countenances. One sees and comprehends that they are a great people, and that the Lord of the Universe has bestowed upon

them power, and might, and wisdom, and enlightenment. Thus it is that they have conquered a country like India, and hold important possessions in America and elsewhere in the world."

On June 20 the Shah was received at Windsor Castle by the Queen. "The age of the Sovereign," he says, "is fifty, but she does not look more than forty. She is very cheerful and of pleasant countenance." The reception itself is thus described:—"At the foot of the steps of the Castle we alighted. Her most exalted Majesty the Sovereign advanced to meet us at the foot of the staircase. We took our seat. The Sovereign then presented her children, relations and officers. We too, on our part, presented our Princes, the Grand Vazir and the others. The Lord Chamberlain, who is the Minister of the Court of the Sovereign, brought for us the insignia of the Order of the Gar er, set in diamonds, i. e., the knetic which is one of the most esteemed English orders. The Sovereign rose, and with her own hand decorated us with the order and cast the ribbon upon us, presenting us at the same time with a long stocking tie.

* * * I received the order with the utmost respect and sat down. I too, presented to the English Sovereign the Order of the Sun' set in diamonds, with its ribbon, and also the order of my own portrait, which she received with all honour and put them on herself." At the dinner following the reception the Shah saw "three daughters of the Sovereign and one young son who does not yet go anywhere away from her, and whose name is Leopold. * * * He is very young-looking and very graceful. He wore the Scotch costume. The peculiarity of the Scotch costume is this: the knees are left visible up to the thighs. One of the Sovereign's daughters, sixteen years of age, is always at home with her, and has not a husband as yet. Her other two daughters have husbands."

Returning to London, the Shah gives us benefit of his study of the government of the city. "The Police of this town," he says, "is 8,000 strong, all handsome young men in a particular dress. The citizens set great estimation on the Police? Whoever behaves disrespectfully to the Police is adjudged worthy of death." (sic)

The official reception at Guildhall is described at length. "Three thousand individuals," we are told, were invited. The Lord Mayor had on a robe, the hinder skirt of which was very long, and trailed on the ground." After the official reception had terminated, "they gave into the hand of each person a gilt pen, having its ink in it together with a slip of paper, on which they had written a name; so that each one might write thereon the name of whomsoever he might wish to dance with. They also offered the gift of a gilt casket. Now the dancing began, which was surveyed sitting in that self same place. But the heir apparent, together with the ladies and others, all danced." Supper, with the inevitable speech making, to which the Shah seems by this time to have become reconciled as a necessary evil, followed. The manner of proclaiming the toasts, however, impressed him. "Supper finished," he says, "we rose, returned to our home and went to bed. Throughout our return drive, too, when it was midnight, there was the same dense crowd."

The following evening the "theatre" was visited. "They had sent expressly to Paris and had called from thence Patti, who is one of the renowned songstresses of Firan-

gistan (England). She sang most exquisitely. She is an exceedingly graceful woman. She accepted a fabulous sum of money and came to London. There was another also. Albani by name, from Canada, in America, who sang extremely well, and performed some wonderful feats. At last we rose and went home.

In connection with another visit to Drury Lane, we have this memorandum: "There was a young woman, a celebrated singer of the name of Nilsson, (Nilsson,) from Sweden, whom the Heir Apparent caused to be sent up, and with whom some conversation was had. She was very loquacious and shrewd. She goes every year to the theatre of St. Petersburg, the New World, &c. and makes a large income. She is now married to a Frenchman of the name of Gousseau" (Ronzaud.)

It is unnecessary to follow the Shah through the round of receptions with which he was honoured in London and other leading cities of England. Some of his notes touching prominent men are characteristic. Of "Lord Radcliffe" (the Right Hon. Lord Viscount De Radcliffe) he says: "According to one's recollections of those times," referring to some prominent events in his career, "he must be nearly eighty-five years old and still be conversed with the utmost wisdom and knowledge. He suffers from gout. Were he not so afflicted, I am of opinion that he still is in possession of the judgment, intellect and stamina for the English Government to confide important missions to him."

The Crystal Palace, the Bank of England, the Houses of Parliament, and last but not least Mmo. Lussaud's wax-works, were each in their turn visited, and for the benefit of his subjects are described with greater or less detail. At Albert Hall the pictures were inspected, and several purchases were made, but to the disappointment of the Shah "the greater part of the more beautiful pieces were either sold already, or were not to be sold at all." Here the following encounter of wit, in which the Shah evidently flatters himself that he came off best, took place: "The picture of a donkey was seen, and I asked the price of it. The director of the exhibition, a fat, white-bearded man, who gave information about the prices, told me it was £10 sterling, equivalent to 250 tumans of Persia. I remarked: 'The value of a live donkey is, at the outside £5. How is it, then, that this which is but a picture of an ass, is to be paid so dearly for?' The director said 'because it is not a source of expense, as it eats neither straw nor barley,' (the Eastern substitutes for hay and oats.) I replied, 'True, it is not a source of outlay, but neither will it carry a load or give one a ride.' We laughed heartily. Then, as the time was short and we were extremely fatigued, we went home."

Of general notes upon the manners and customs of the English there are the following: "The boggars of Firangistan, instead of asking for alms play musical instruments, as guitars or violins, and never beg. If some one gives them money they take it; if not, they go on playing. . . . There are multitudes of pigeons in Firangistan, and, as in Persia, pigeon flyers send them up. Especially in Belgium did we see many of them. . . . They place sucklings and little children in carriages (perambulators,) and during the daytime wheel them about by hand in the avenues and on the lawns in a very pretty manner, and the children go to sleep in the carriages."

From the paucity of these observations the Shah tenders this naive apology: "Well had we the wish to write as they deserve, all the particulars of the City of London, or of all England, we should have to write a voluminous history of England; but during a stay of only eighteen days in London it really has not been possible to write more than we have done. Injustice (we can but say that) the demeanor of the English and everything of theirs is extremely well regulated and governed, and admirable. In respect to populousness, the wealth of the people, the commerce, the arts, business, and *dolce-famiente*, they are the chief of all nations."

On July 5th the Shah left London for Cherbourg. In this passage across the Channel "every one became so unwell that not an individual could either walk about or sit down. I myself became so ill that I went and lay down until we arrived at the port of Cherbourg." Once in France, his Majesty was impressed with the fact that "the women and men are small and attenuated of limb; they are not like the inhabitants of Russia, Germany and England, but more resemble the people of the East." The attractions of Paris were so strong and varied that the regular entries in the Diary are omitted, and the results of the Shah's observations are summed up with less detail. Two incidents may be quoted as here bears them. He writes: "The celebrated Rothschild, a Jew, who is exceedingly rich, came to an audience, and we conversed with him. He greatly advocates the cause of the Jews, mentioned the Jews of Persia, and claimed tranquility for them. I said to him: 'I have heard, brother, that you possess a thousand crores of money, I consider the best thing to do would be that you should pay fifty crores to some large or small State, and buy a territory in which you could collect all the Jews in the whole world, you becoming their chief and leading them on their way in peace, so that you should no longer be thus scattered and despised.' We laughed heartily, and he made no reply. I gave him an assurance that I do protect every alien nationality that is in Persia." Upon the occasion of a visit to the Church of Notre Dame the Shah relates this colloquy with the "Chief Priest": "I asked him, 'What is your belief concerning his Holiness Jesus, on whom be peace; used he to drink wine or not?' All at once the whole of the priests, as though I had asked a strange question, unanimously said, 'He certainly used to drink wine. That is a small matter. He himself also made wine.' I then said, 'Used he to drink seldom or often?' They said, 'He used even to drink often?' The precise point of this conversation the reader is left to conjecture. Its significance in the mind of the Shah is perhaps explained by a statement he makes later, that "There is in Firangistan a special society, with many members who are continually engaged in furthering the cause of a total abandonment of drink; but this is a very difficult undertaking, and especially in Firangistan." The unconscious satire of this profound observation is sufficiently apparent.

But we have not the space to follow the Shah further on his travels. After nineteen days spent in France and Switzerland, he left Geneva for Turin July 24, passing through that "very dark and terrific" "hole," the Mount Cenis Tunnel. Nineteen days were spent in Austria and Italy, eleven in Turkey, and eleven more in Georgia. On September 6th he arrived at Eozelo after an absence from his dominions of nearly five months.

The summary we have given of this curious volume marks it as unique in the literature of travel. Were it not for the numerous external marks of authenticity which it bears, some readers might doubt its genuineness. The form of the title might be cited as suspicious:—"The Diary of the Shah of Persia, by J. W. Redhouse. A Verbatim Translation." Then the observations are, many of them, so naive as to excite distrust, while the intelligence displayed throughout is certainly of a higher order and the discrimination manifested in general, much keener, than would have been credited to one of the stolidity, and general ignorance alleged against the Shah by nearly all who happened to come in contact with him. The blunders which he makes in the statement of facts are moreover suspiciously trivial and by no means numerous. Still, against all this we have the well known fact that his Majesty was keeping such a diary while he was making this journey, and that while he may have been ignorant or dull himself, that he must have had advisers of sufficient intelligence to have supplied any glaring deficiencies and to guard him against making himself supremely ridiculous as it is easy to believe that he might have done if left entirely to his own devices. Then the form of the publication, and the name of the eminent publisher whose imprint the volume bears, should be ample assurance that the diary is precisely what it pretends to be. As it stands, it is a more curious and, in some degree, an instructive record of the impressions which contact with a higher civilization may make upon the mind of a ruler of a people but a remove above barbarism. It will be noticed that the Shah very rarely in his Diary contrasts the condition of the countries which he visited with that of Persia. Whether he did this in his own mind or not, and in a way to contribute to the elevation of the people whom he governs, the future alone can decide. Thus far, it must be confessed, there are no indications of such a result.

LOSS OF AN AUSTRIAN WAR VESSEL.—The Austrian sailing ship *Szida* perished in a violent storm off Messina, on the night of the 30th of November. A private letter describing the catastrophe speaks in the highest terms of the commander and his crew on the occasion. After the ship had struggled in vain against the storm for several hours it became evident that she could not hold out much longer, and the commander, Lieutenant Trapp, ordered her about 5 p.m. to be turned towards the shore in the hope of finding a suitable place for a landing. At half-past nine the ship struck, and the crew, who were as calm throughout as if they were engaged in a "naval manoeuvre," went up into the rigging to await further orders. The commander then directed them to take off all their clothing, and at a given signal to jump into the sea. He was the last man who left the ship, and shortly afterwards she heeled over and sank. When all hope of saving the ship was lost, all her officers went to the commander to thank him in the name of the crew for the masterly way in which he had performed his duty, and to assure him of their implicit obedience. There is no doubt that it was chiefly owing to the exemplary discipline maintained on board the ship that the crew were saved; one man only was drowned, and he jumped into the sea with his clothes on, contrary to the captain's instructions.

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His Excellency the Governor General in Council on the recommendation of the Hon. Minister of Customs, and under the provisions of the 125th section of the Act 31 Vic., chap. 6, has been pleased to order, and it is hereby ordered, that from and after the first day of January next, the said Order in Council be, and the same is hereby rescinded, and that Collectors of Customs be, and they are hereby authorized and instructed to accept entry of such machinery on and after that date at ten per cent. duty *ad valorem*, requiring the following affidavit to be filled in each case, and a copy thereof to be attached to the entry.

W. A. HINSWORTH.

Clerk Privy Council.

I. A. B, the importer of the following described machinery, viz. :—(there is a full description of each machine, giving name of maker and use to which it is to be applied, shall be inserted) do solemnly swear, that to the best of my knowledge and belief, no machine such as that above described is manufactured in Canada, and that the same is imported for use in the manufactory of which I am the (proprietor or one of the proprietors, or legally authorized agent) and that the same is not to be offered for sale.

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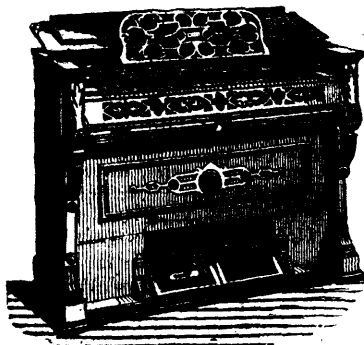
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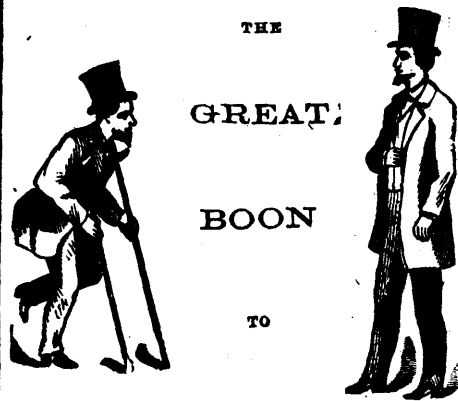
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