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# COMBINED OPERATIONS.

By MAJOR-GENERAL SIR GEORGE ASTON, K.C.B.

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On Wednesday, November 26th, 1919.

Admiral SIR F. C. D. STURDEE, Bart., K.C.B., K.C.M.G., C.V.O.,  
in the Chair.

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THE CHAIRMAN: Gentlemen. It is hardly necessary for me to introduce the lecturer, Sir George Aston, because he is so well known in the Services and has been dealing with the subject of amphibious warfare for many years, besides being a lecturer at the Staff College at Camberley and at Greenwich.

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## LECTURE.

MORE than twelve years have passed away since I was honoured by the Council of this Institution with an invitation to deliver an address on a subject similar to that which we propose to discuss together this afternoon. On that occasion I reminded those who were present of a book called "Conjunct Expeditions," published in 1759, which was written on the text that:—

"The Fleet and Army, acting in concert, seem to be the natural bulwark of these Kingdoms."

From that book I reintroduced to the public the expression, "amphibious war," which is now constantly in use, I think to our advantage, because of the value of catchwords in influencing thought and policy. I ventured at the conclusion of my lecture to urge officers of our sea and land forces not to think only of their own services, in watertight compartments, but to "think amphibiously." I hope that the advice so given may at times have had some little influence both upon the statesmen responsible for the conduct of the late war, and upon the great seamen and soldiers who have been charged with the execution of their decisions.

I have been invited to deal to-day with "combined operations" from the historical point of view, but before doing so I ask you to allow me to recall some of the broad conclusions come to in this hall on the occasion to which I have referred. It was in July, 1907; my object was to draw from history principles which would be of value to us all if ever we were engaged in a great war. I ventured first to issue a serious warning against the expression, "limited war," then in common use. It gave the idea that a war could be embarked upon lightly, with the assurance that liabilities could be limited, as they can be in commerce, a subject to which our national studies

were then devoted to the complete exclusion of the comprehensive study of war. The expression originated in a mis-quotation from Clausewitz, used by an influential writer and publicist. Clausewitz never wrote of "limited wars"; he wrote about "wars with a limited object," a very different matter. Although an object may be limited, its attainment may require all the moral and material resources of the nation. It is difficult to exaggerate the amount of harm that can be done by the misuse or misquotation of such a phrase. It was partly due to such superficial study that we avowedly entered upon the late war with the idea that we should be able to conquer while conducting "business as usual," treating the war as a side-issue.

Before discussing amphibious strategy twelve years ago we made the following assumptions, based upon historical experience:—

(1) That, for one nation to conquer another and force a war to a conclusion, it was advisable to locate and aim at the vitals.

(2) That the simplest, quickest, and cheapest way of doing this was by rapid invasion of home territory, defeat of the field army, and seizure of all resources for organizing another one.

In making this assumption we referred to the example of the Franco-Prussian War of 1870-1, in which the issue was decided rapidly, and the conqueror made a net profit of £174,000,000, causing a net loss to the losers of £603,000,000, according to expert financial opinion (the late Sir Robert Giffen). We did not record the warning of history that failure in such strategy would bring about complete collapse if the culminating point were passed, and the invaders could no longer maintain an active offensive. There is no danger of that lesson being again forgotten.

(3) That industrial countries were becoming increasingly dependent upon free communications with other countries and with oversea markets. Interference with such communications might in time induce a Continental nation to conclude a war, but we had little evidence to go upon. (We now have better evidence.)

That, in dealing with islands like the United Kingdom, serious interference with sea communication might be as speedily effective as successful invasion.

(4) That interference with the external communications of a hostile country had the effect of isolating her oversea possessions.

I do not think that we are likely ever to forget that truism with recent experience at our disposal.

(5) That financial endurance was an important factor in success, and must be looked upon as vital.

We have since learned much about that subject, which is beyond the scope of our subject to-day.

(6) That wars which neither side could conclude by the invasion method were likely to last for a long time, and the endurance of popular sentiment and staying power were essential to success.

I need not now emphasize the importance of that warning.

I have purposely digressed from my immediate subject, "Combined Operations," because I believe in always getting a grasp of the whole pattern before dealing with a small portion of it. Only

by such means is it possible to maintain a general sense of proportion, which is so necessary to the successful conduct of war. The next point mentioned in the lecture, and emphasized by Lord Roberts and Sir Henry Rawlinson on behalf of the Army, by Sir A. K. Wilson on behalf of the Navy, and by Sir Julian Corbett and Mr. John Fortescue, speaking as historians, was the need for devising an executive body for the control of sea and land operations. The warning issued by these high authorities was disregarded. Seven years later we entered upon the great war without having devised an efficient system. Executive power for conducting war was entrusted nominally to a Sanhedrim of twenty-one civilian Statesmen and one soldier. It is generally believed that the continuance of that arrangement would have drifted us to defeat.

The War Cabinet system, subsequently devised, is probably the best that can be applied in democratic countries not containing any single leading Statesman who, like the elder Pitt, has made the conduct and nature of war the study of a life-time.

The control and inception of sea and land operations leads us naturally to our immediate subject, Combined Operations, which, in order to narrow the issue, I will define as the combined action of sea and land forces against a common objective. I use the word "objective" advisedly in its narrow strategic sense, which means the actual thing, be it fleet, army, or town, against which sea and land forces are directed by the controlling authority. Historical experience warns us against geographical objectives such as towns, and the late war has strengthened that experience, so I will narrow the issue further, and deal with combined operations directed against fleets, armies, or portions of such forces. With your permission I will begin in the year 1866, when ships were propelled by steam power, and trace examples of combined action by sea and land forces to destroy an enemy's fleet or army. With the aid of lantern slides I propose to give a brief sketch, from that aspect, of the Austro-Italian War of 1866, the Chile Revolutionary War of 1891, the Chino-Japanese War of 1894-5, the Spanish-American War of 1898, and the Russo-Japanese War of 1904-5. We will deduce a few principles as we go along, and see how far those principles were applied or ignored during the great war, and with what results. The time at our disposal only allows us to take a very superficial glance at our subject. For further details I should like to be able to refer you to my book, "Letters on Amphibious Wars," which I was inspired to write by members of the audience whom I addressed here twelve years ago; but the book is now out of print.

We will pass at once to the Austro-Italian War of 1866.

#### THE CAMPAIGN OF LISSA, 1866.

War between Austria and Italy was declared on June 20th. On the 24th the Austrians won the battle of Custoza, a land campaign coming outside our subject. On June 25th the Italian Fleet, under Persano, arrived at Ancona from Taranto. (The lecturer illustrated by lantern slides the movements of the sea and land forces in this

campaign and in others subsequently referred to.) On the 27th the Austrian Fleet under Tegetthoff, coming from Pola, appeared off Ancona, but Persano remained in harbour. Tegetthoff returned to Pola. On July 8th Persano put to sea, reconnoitred Pola on the 9th, and returned to Ancona on the 13th. Tegetthoff remained in harbour. On the 16th Persano again put to sea, accompanied by transports containing troops, without taking any steps to watch Tegetthoff's fleet at Pola. Persano conducted a combined operation against the fortified island of Lissa on July 18th and 19th. During the morning of the 20th Persano was surprised by Tegetthoff's fleet, which, although far inferior in numbers, armour protection, and in gun-power, won a decisive victory.

*Lessons Learned.*—The object of the stronger sea-power is to induce the weaker fleet to put to sea and fight an action. Persano's combined operation against Lissa, looked at from that point of view, may be counted as a strategic success. His fatal error was to allow himself to be caught unawares and so defeated by the weaker Austrian fleet. Besides having to dispose his scattered forces hastily for action, he ran short of ammunition during the battle because so much had been expended against the Lissa forts.

Passing to the Chile Revolutionary War of 1891:—

#### CHILE REVOLUTIONARY WAR, 1891.

We here find a most valuable example of the skilful application of the mobility of troops by sea, as compared with their movements on land in a difficult country. The conditions in Chile for applying the principles of amphibious strategy are ideal, and very exceptional. Chile is a narrow belt of country with a very long sea-coast. Mountain ranges run right down to the sea, and render lateral communication by land very difficult. (Reference to map.) The war arose out of a conflict between the Congression and President Balmaceda. The fleet took the part of the Congressionals, the army took the part of the President. The net result of the war, which began on January 6th, 1891, was that the Congressionals used their sea-power to blockade the northern ports and capture merchant ships. After obtaining a footing on land they raised and trained an army of about 9,500, distributed as follows:—Iquique, 3,000 odd; Caldera, 3,700 odd; Huasco, 2,500 odd. Captured merchant ships were used as transports, and the forces from Iquique, Caldera, and Huasco effected a junction at sea on August 19th, landed at Quintero unopposed on the 20th, defeated the Balmacedist army, captured Valparaiso on the 28th, and occupied Santiago on the 31st. Valparaiso was fortified on the sea side, and Balmaceda's army numbered 32,500, of which number about 14,000 were stationed at Valparaiso and Santiago, and about 8,400 at other places to the southward with railway communications to those towns; total, 22,400. Most of the remainder of the Balmacedist troops were at Coquimbo.

*Lessons Learned.*—The war is full of lessons for the student of amphibious strategy. The brilliant success of the Congressionals

was not obtained by hasty improvization, but by forethought, good staff work, and careful and laborious preparation, inspired by a German, Colonel Emil Korner, who, when last I heard of him, was a Lieut.-General in the Chilian Army.

Secrecy about destination is the first and most important principle for success in a combined operation. In the Chilian war secrecy was ensured by not disclosing the plan until the various forces met at a rendezvous at sea. The various commanders were then assembled on board one of the ships, the details were fully disclosed, the full orders were issued, and discussed until every commander knew exactly what was to be done. Secrecy was further ensured by approaching the coast by night. Directly the place of disembarkation was realized by the defending army, the importance of secrecy gave way to rapidity. It was urgently necessary to pour troops on shore more rapidly than the defending army could assemble.

The next lesson learned was a naval one—the navigational difficulty of hitting off exactly the right spot on the coast in the dark. Wind and tide took the Congressionalists ten miles out of their course. Instead of beginning at 3 a.m., the disembarkation was delayed until 7.30, when it was broad daylight. Rapidity in emptying the transports was ensured by large flat rafts, lashed to the sides of the transports at sea, and by plenty of ladders let down from the deck.

Land transport is always the difficulty limiting the movement of armies landed in a hostile country. The intention had been to seize local carts and wagons, but the delay enabled these to escape.

Co-operation with the army by gunfire from ships was, as usual, very ineffective, until the enemy took up a position at right angles to the coast line, and the ship's gunners could see and enfilade their targets without fear of hitting their own friends.

When near Valparaiso, the shore batteries compelled the ships to keep out of range.

Let us now take a brief glance at the Spanish-American War of 1898:—

#### SPANISH-AMERICAN WAR, 1898.

With the purely naval operations we are not concerned, nor with the general strategy of the war. It will be enough to mention that two Spanish squadrons were engaged. Montojo's, in the east, was destroyed at anchor in Manila Bay by Admiral Dewey on May 1st, a state of war having been established on April 28th by a declaration by the United States of a blockade of the coast of Cuba. Cervera's squadron was ordered to cross the Atlantic by the Spanish Government against the wishes of its commander and the advice of the sea officers. Some of the Spanish sea-going war vessels were kept for the protection of the coast of Spain, fearing a raid by an American "flying" squadron under Schley, who was kept for some days guarding the east coast of America in compliance with popular pressure, the coastal population being in a state of panic. Cervera left St. Vincent on April 29th, arrived off Martinique on May 11th, Curaçoa on May 14th, and found refuge in the defended harbour of Santiago, in Cuba,

on May 19th. Admiral Sampson, commanding the main American squadron, had endeavoured, without the assistance of Schley, to locate and bring to action Cervera's squadron. Sampson had cruised to the eastward as far as Porto Rico (May 12th), and had returned to Key West on May 19th, the day that Cervera reached Santiago. Schley on that date (May 19th) was also off Key West. This brief introduction leads us to the combined operation undertaken for the destruction of Cervera's squadron.

Schley, passing west-about round Cuba, was off Santiago on May 27th, but did not ascertain that Cervera was in the harbour until May 29th. Sampson, passing east-about round Cuba, joined Schley on June 1st. Cervera remained in harbour. It had taken the American sea forces a whole month to locate his squadron. The forts at the mouth of Santiago harbour were very weak, some of the old guns were described as being "simply and inexpensively mounted on heaps of gravel," but there were four modern guns of 6-inch calibre. Presumably the fear of mines kept Sampson's squadron at bay, unable to get at Cervera. On June 3rd the "Merrimac," a merchant vessel, was sunk by Sampson's orders in the entrance of the channel, but she did not block the fairway completely. There were about 200,000 Spanish troops in Cuba, but a large proportion of the population was in rebellion against Spain. Directly Cervera was located (May 29th) in Santiago harbour the need for combined operations had been foreseen, and General Shafter was given only four days' notice to make all arrangements for embarking 25,000 men rapidly at Tampa, in Florida. We need not go into details about that. After secrecy, the most important factor in the success of a combined operation is careful preparation and good staff work, done beforehand. As we saw in the Chile war, rapidity is all-important when once the expedition has been launched. The time must be measured from the moment when the embarkation begins to the time when the military force is on land, ready for action, with stores, equipment, and transport complete for fighting a battle. Hurried embarkation leads inevitably to interminable delays in disembarkation, which enables the defenders to make their arrangements and concentrations. As a result of haste and want of preparation, the situation at Tampa was one of wild confusion, a crowd of 10,000 of all ranks, from Generals downwards, swaying to and fro on the wharves. Stores and troops were bundled anyhow into the transports. We cannot, in so brief a summary, go into the details, and we are the last people to adopt a critical attitude. Even in the recent war we ignored historical experience ourselves and repeated nearly every mistake that could easily have been avoided, in the conduct of combined operations. It will suffice to repeat the vitally important principle that a hurried and unprepared embarkation leads inevitably to delay at the other end of the voyage. Whatever the troops require first must be put into the transports last.

Then about secrecy, of which we saw the importance in Chile in 1891. Early in May a very serious example occurred of disclosure by the Press of the destination of a raiding force, called the "Gussie Expedition," which was designed to land stores and arms to the

westward of Havana, in Cuba, for the use of the insurgents against the Spanish garrison. The Spaniards learned the destination of the expedition from the American Press, and for that reason the raiders failed in their object. The Government and General Shafter did their best to bring about a different state of affairs, but with little success. Of the Spanish garrison of about 200,000 troops in Cuba about 10,000 were at Santiago, and 13,000 in the neighbouring districts. It is true that the movement of Spanish troops by land was difficult, because of the attitude of the insurgents, but nevertheless secrecy was, as usual, all-important. Owing to transport and other difficulties the strength of Shafter's force had had to be reduced to 16,000.

During the voyage Shafter's convoy of transports was very difficult to handle. The importance of special signalling arrangements and practice in merchant ships in keeping station had been overlooked. On June 22nd the disembarkation, which was not opposed, was commenced about sixteen miles to the eastward of the harbour of Santiago, at a place called Daiquiri. Much delay resulted from the want of steamboats. The first troops to land pushed on about seven miles and seized the harbour of Siboney, about nine miles from Santiago. Subsequent disembarkation took place at Siboney. As the wheeled transport was not landed, indefinite delay would have resulted if those seven miles of bad road had not been saved. Most of the work of land transport was done by pack-mule trains, and the Americans are past masters in handling them. Some difficulty was found in handling the mules. The idea was to bundle them overboard to swim ashore, but so many elected to swim out to sea that the system had to be changed, and they were towed by boats. Six days' delay occurred for want of transport. The Spanish garrison of Santiago had a good chance of attacking, but remained passive, and took no advantage of their opportunities. Shafter's advance was opposed at La Guesinas, close to Siboney, on June 24th, and on the line El Caney—San Juan, close to Santiago, on July 1st. Shafter's army had endured the most appalling discomforts and hardships, and sickness was rampant. It had suffered very heavy casualties, and after capturing the El Caney position was at the end of its tether, under the fire of Cervera's ships, and incapable for the time of further advance. A Spanish relieving force from Manzanillo was approaching Santiago. On July 2nd Sampson's ships bombarded the coast forts. On the 3rd Shafter tried the effect of "bluff" and sent a demand for surrender, but, before his party under a flag of truce could reach Santiago, Cervera's ships put to sea, and were sunk by their own crews after a short action with Sampson's blockading squadron. The Spanish military position on land did not, as we have seen, necessitate the sortie by Cervera's ships. But here again the Spanish Government had intervened, and to Shafter's army must be allotted the credit. On June 24th the Spanish Minister of Marine had informed Cervera that the Government had placed him under the orders of the Captain-General at Havana. On July 2nd, at 5.10 a.m., the Captain-General definitely ordered Cervera to put to sea, with the result stated.



The destruction of Cervera's squadron decided the issue of the war. On July 17th the garrison of Santiago surrendered, as did 23,000 troops in the district. Cuba, with its total garrison of about 200,000 Spanish troops, was surrendered to the Americans, the position of the garrison being hopeless because the Americans had gained command of the local seas by their combined operation against Cervera's squadron. There are few more striking examples in history of the tremendous results obtainable by a combined operation launched against a well-chosen objective.

Before passing to other amphibious wars it is desirable to note that the American strategy was to concentrate all their efforts against Cervera's squadron, until the issue had been determined by the destruction of that squadron. It was not until afterwards that they occupied Porto Rico, on which island General Miles had 18,000 troops by August 18th. It is important, whenever an amphibious operation is considered, to ask whether it is intended (1) to have a direct influence upon the issue of the war? or (2) to influence the terms of peace? Strategists who rely upon historical experience for their principles never employ for the second object any forces which can be used to ensure the first, upon which all else depends. The first object, winning the war, can best be secured by defeating the enemy's forces, and it is a rash proceeding to divert any sea or land forces from that object until it has been attained. We shall find that Japan, in her wars with China and with Russia, followed the same strategy as America did in the war with Spain. It was not until the issue had been determined that Japan occupied the Pescadores Islands in 1895, or Saghalien in 1905, in order to influence the terms of peace.

I have not referred to the American landing in the Philippines on May 23rd to destroy the batteries and arsenal at Manila, or to the subsequent operations there, because they have had no influence upon the issue of the war. The Spanish Admiral, Camara, with his squadron was kept off the coast of Spain until too late to produce any effect. He was ultimately ordered to the East, but did not pass the Suez Canal until July 2nd. It may possibly be advanced that, had he started sooner, and had the defences of Manila been left intact, those defences might possibly have been of use to him; but this is mere surmise.

*Lessons Learned.*—On the American side, the importance of secrecy about combined operations, and the difficulty of ensuring secrecy unless some form of control or co-operation is established with the Press. The absolute necessity for preparation. The effect of popular panic upon sea strategy. The delay caused by a hasty embarkation without system or preparation. The care required in packing transports so that what the troops require first shall be on the top and easily accessible. The need for steamboats, or boats with some motive power, for the actual landing. The impossibility of movement on land without adequate transport. Above all, and transcending all other considerations in importance, the selection of the right objective for a combined operation. In spite of all difficulties and mistakes, the combined operation was successful. Because

Cervera's squadron, by far the most important factor in the war, had been selected as the objective, the Americans rapidly won the war.

On the Spanish side, the most conspicuous lessons were the danger of interference by civilian governments and by military commanders with purely naval matters, movements of war vessels. The Spanish Government sent Cervera's squadron across the Atlantic without waiting for reinforcements, and the Captain-General at Havana ordered Cervera to put to sea under conditions which must inevitably lead to the sinking of his ships.

We will now take Japan's wars against China in 1894-5, and against Russia in 1904-5.

#### CHINA-JAPAN WAR, 1894-5.

Japan's wars are of special interest to us. They were wars of a nation dwelling in islands against Continental Powers. I have left them to the last because, owing to their great similarity, it is better to take them together. Their most conspicuous feature is the way in which operations by fleet and army were controlled by a central authority so as to time the blows struck by sea and land forces respectively, and obtain the greatest effect out of the work of both. Either the enemy's army or the enemy's fleet was always the objective, and the Japanese fleet and army helped each other, first against one, and then against the other. The whole war must be treated as a combined operation, looked at from the widest point of view. But in so brief a summary of the war against China we can only deal very shortly with the general movements, devoting the most attention to the local combined operation in which the war culminated, the destruction of the Chinese fleet in Wei-Hai-Wei Harbour.

The war arose over the question of Chinese sovereignty over Korea. It began by an act of war by Togo, afterwards well known to fame, who sunk a British merchant ship, the "Kowshing," carrying Chinese troops to Korea, on July 25th, 1894, after defeating some Chinese third-class cruisers sent out to escort her to Asan. We will trace the subsequent operations very briefly. In August the Chinese fleet remained at Wei-Hai-Wei, excepting for a cruise to Taku and back again, unmolested by the Japanese, who employed their war vessels in covering their transports. On September 12th the Chinese fleet again put to sea, to cover troop movements to Takushan, and arrived at Ta-lien-wan on September 14th. We thus find that both fleets, instead of seeking for each other, adopted at first a defensive attitude, covering the sea transport of troops. The Japanese, their own troop movements completed, put to sea to prevent further movements by sea of Chinese troops. On September 16th the Chinese fleet left Ta-lien-wan escorting a convoy of transports, from which troops were landed safely on the same day near the mouth of the Yalu River. On September 17th the Japanese fleet, under Admiral Ito, met and defeated the Chinese fleet, under Admiral Ting, in the Battle of the Yalu. After the battle the Japanese anchored off Ping Yang on September 18th; the Chinese sought refuge in the defended

harbour of Port Arthur on the same date. A month later, on October 16th, a Japanese army, under Marshal Oyama, began to embark, with a siege train, and arrived off the mouth of the Hua-yuan River, about twenty miles north of Pitzuwo, on November 5th to attack Port Arthur and the Chinese fleet. The army was in thirty-three transports, and the Japanese fleet escorted them and covered the landing, thus allowing the Chinese fleet an opportunity, of which it took advantage on November 7th, of escaping from Port Arthur to Wei-Hai-Wei. Oyama's army began to disembark on an open beach on November 6th, seized the good harbour of Ta-lien-wan on November 17th, began the attack on Port Arthur on November 21st, and captured the place on the same day.

We will not follow the land operations beyond noting that, having secured sea command, the Japanese landed troops in Korea at Gensan, Fusan, Chemulpo, and Chinampo, combined their armies, crossed the Yalu, and moved on Hai-cheng by December. The army which captured Port Arthur moved northwards and was in touch with the army from Korea by January 30th. The Japanese Navy, besides keeping the sea communication of the armies secure, helped in every way during the landing of troops at the different places on the coast, and subsequently in putting stores for them ashore in convenient places.

We will pass at once to the most important combined operation in the war—the capture and destruction by the Japanese sea and land forces of the remnants of the Chinese fleet in the harbour of Wei-Hai-Wei. As long as that fleet existed the sea movements of the Japanese transports and store ships for the armies were insecure. The Chinese fleet was protected by strong forts and boom defences. The strength of the Chinese garrison was between 9,000 and 12,000, and the Shan-Tung province was full of Chinese troops, such as they were. The month was January, and only those who are familiar with these seas can realize the bitter cold and storms that had to be encountered. The enterprise succeeded because of careful preparation and great heroism and perseverance in the face of great difficulties and severe weather. Marshal Oyama, who had captured Port Arthur, was selected for the command. The bulk of his force left Japan on January 10th, and went first to Ta-lien-wan, thus mystifying and misleading the Chinese as to the destination. Between the 19th and 22nd the convoys left Ta-lien-wan. On January 18th and 19th a false landing was made at Teng-chou-Fu, about seventy miles west of Wei-Hai-Wei, thus drawing the Chinese forces in the Shan Tung province away from the objective. On January 20th fleet and transports arrived unexpectedly at Yung-Cheng Bay; the landing was unopposed, and completed by January 25th. Great care had been taken to provide plenty of steamboats for towing, and plenty of large sampans with overhanging bows, specially strengthened to stand bad weather and the buffeting of ice. Six weeks' supplies were landed. The advance began on January 26th. The total strength of the army was 19,500 fighting men, 3,000 departmental troops, and 10,000 coolies for handling the stores and for transport. Total, 32,500.

Hard fighting began on January 30th, on which day the eastern group of forts on the mainland was captured; Wei-Hai-Wei and the remainder of the mainland forts fell on February 18th. The weather was too bad for the Japanese fleet to keep the sea. The ships were covered with ice, and blocks of ice five inches thick were frozen into the muzzles of the guns. On February 3rd the Japanese fleet and army captured forts on the mainland, bombarded the Chinese fleet and island forts. Japanese torpedo boats tried unsuccessfully to cut the boom. During the night of February 4th they found their way through a difficult channel close to the shore, attacked the Chinese ships, and injured a battleship. The attack was repeated at 4 a.m. on February 6th, two of the boats jumping the boom. Although anchored close to the shore, and surrounded by guard-boats, three Chinese ships were sunk by torpedoes. Bombardments by ships and mainland forts were kept up continually. The fort on Itao Island fell on February 7th. This enabled the Japanese to remove part of the boom on the 9th, a Chinese ship having been sunk, and a fort on Liu-Kung-Tao Island having been destroyed by bombardment on the previous day. On February 12th, twenty-three days after the combined expedition arrived, the remainder of the Chinese fleet and forts surrendered.

After successes by the Japanese Army at Liao-Yang on March 1st, Newchuang on March 4th, and near Ying-Kou on March 9th, the Chinese put up no further fight. The Japanese occupied the Pescadores Islands. On April 17th peace was signed.

*Lessons Learned.*—The value of secrecy about destination. The value of rapid and continuous action when once a combined operation has been launched, and the need for prolonged and careful preparation to ensure this result.

We can also note that the Japanese Army was composed of trained and well-equipped soldiers, inspired by patriotism. China was an anti-military country, and soldiers were looked upon with contempt.

War strategy in China was dealt with solely by civilians, in Japan by a council containing experienced seamen and soldiers, acting with the authority of the Emperor.

The commander of the Chinese fleet had spent most of his service in the cavalry, the Japanese commander was a sea officer.

We will conclude this short study of combined operations by a short summary of the operations by Japan against Russia ten years later, covering the same theatre of war.

#### RUSSO-JAPANESE WAR OF 1904-5.

The Russo-Japanese War of 1904-5 affords the best example in history for students of amphibious warfare; it was skilfully conducted in a theatre of war specially suited for its application. A glance at the map shows the great length of coast-line of the country in which the Russian forces were distributed. Land communications being undeveloped and inferior, a great advantage was presented to the side able to move troops securely by sea. In their war with China, the Japanese protected their convoys of troop transports by defensive

action, keeping their fleet in a covering position and deferring offensive operations against the hostile fleet until the troop movements had been completed. In the war with Russia the Japanese immediately put to sea with orders "to destroy the Russian fleet." Togo put to sea with this object in view on February 6th, 1904. The main Russian fleet in the East was based upon Port Arthur. A small force of cruisers was at Vladivostok, the "Varyag" (cruiser) and "Koryetz" (gunboat) at Chemulpo. At 4 p.m. on February 8th the "Koryetz" left for Port Arthur, met Japanese torpedo-boats, and the first act of war resulted. The Japanese began to land troops at Chemulpo the same night. On the 9th the Japanese called upon the "Varyag" and "Koryetz" to put to sea, where they met a Japanese squadron, were driven back, and sunk in harbour by their own crews.

The Russian fleet in the outer anchorage of Port Arthur was attacked by Japanese destroyers on the night of February 8th-9th, and retired into the inner harbour, three battleships and a first-class cruiser having been put out of action. From that date until the end of the year Togo, by bombardments and by every other means at his disposal, was unable, using naval resources, to "destroy the Russian fleet," but, by constant watching, he saved the transports conveying troops from its menace. The Russian Port Arthur fleet was ultimately captured by a combined operation on a large scale. Before we consider that operation, let us deal briefly with the way in which the Japanese used their amphibious power against the Russian armies in the East, in an ideal theatre of war for such operations.

Let us bear in mind that the length of coast-line shown on the map will mislead us unless we remember how much of it was ice-bound in the early days of the war. The Japanese military strategy followed almost exactly the lines of their strategy ten years beforehand against China, but on this occasion they were dealing with a more formidable and better equipped enemy, with better means of communication. A railway had been completed from Port Arthur to Harbin, where it joined the Russian line to Vladivostok. As in 1894, a Japanese army, landed at various places in Korea, effected a junction near Liao-Yang with another landed on the east side of the Liao-Tung peninsula. On this occasion a third army, to form a link, was landed near Taku-shan. A conspicuous example of the value of sea command to an army occurred during Kuroki's advance of the army through Korea. Kuroki's land transport broke down, and his advance would have been deferred indefinitely if he had not been supplied from stores landed for his use at various points on the west coast of Korea.

Another advantage was gained by the Japanese success in maintaining secrecy as to the destination of the troop convoys. Not knowing from whence the blow would come, the Russian troops were much dispersed, and failed to effect concentration in time to strike an effective blow against Kuroki before he could effect a junction with the other Japanese armies. But, fascinating as the subject is, we must not devote too much attention to the military strategy, or to the advantages in choice of bases for their armies conferred upon the Japanese by their sea command. Let us only note in passing

their patient concentration of effort against hostile fleet or hostile army, their co-ordination of naval and military effort in great combined operations directed against one or other of these objectives, and their avoidance of all diversion of force against anything else until the issue of the war had been determined.

We must note in passing that Admiral Togo was obliged occasionally to divert some of his sea forces to deal with the Russian cruisers which made occasional sallies, beginning as early as February 10th, from Vladivostok, directing their operations chiefly against small merchant craft and fishing vessels, and only scoring success against three Japanese transports, near Gensan (April 23rd) and in the Korean Straits (June 15th), and against two storeships (July 20th).

The combined operations of the greatest interest are those undertaken for the destruction or capture of the Russian fleet in the defended harbour of Port Arthur. These operations began in May and lasted until December.

Admiral Togo tried every device at his disposal, bombardments, mines, and torpedo attacks, to destroy or put permanently out of action the Russian Port Arthur fleet. By the end of May he had only succeeded in sinking one Russian battleship ("Petropaulovsk"), sunk by a mine during a sally; two Japanese battleships ("Hatsuse" and "Yashima") had been sunk by Russian mines. On May 5th Oku's Japanese army began to land on the east coast of the Liao-Tung Peninsula, near the spot where Oyama's army landed in 1894. The landing was unopposed. The last Russian train passed southward to Port Arthur on May 9th, and by May 16th the Japanese were across the peninsula on the Pu-lan-Tien line, cutting Port Arthur off from communication to the northward.

The situation of Oku's army in the middle of May presented a problem of the utmost interest in amphibious strategy. Should he turn northwards against the Russian field army, or southwards against the Russian Port Arthur fleet? The Russian army to the north was being strengthened every day by troops sent along the line from Russia, via Harbin. On the other hand, there was talk of the Russian Baltic Fleet being sent to the East, and unless the Port Arthur fleet was destroyed before its arrival the whole of the Japanese plan might have collapsed through the defeat of Togo at sea by the combined Russian fleets. He would have been obliged to lift the blockade of Port Arthur to deal with the Baltic Fleet before it reached Japan, and in his absence the Russian Port Arthur fleet could have made havoc with transports, storeships, and army bases on the coast. Under such conditions it would have been easy for the Russian army to deal with the Japanese armies, which would have lost all means of supply, equipment, and replenishment. It was a delicate time-problem of great interest to strategists; which danger would develop first? Danger from the Russian army or danger from the Russian fleet? And which force offered the most serious threat?

Oku's army was sent southwards, leaving a covering force about Pu-lan-tien. On May 24th the portion of the Russian field army cut off in the southern part of the peninsula was concentrated in a strongly-

entrenched position extending from sea to sea across the narrow neck of the Kuan-Tung Peninsula, near Nan-shan. Here we find an exceptional example of direct assistance being given by war vessels to armies in battle. The conditions of sea and land gunnery being entirely different—land targets being usually invisible at long ranges, and inter-communication between sea and land forces being seldom practised—the support of troops by gunfire from the sea is generally ineffective. Artillery support for attacking infantry is always a difficult problem, because, to be of any use, it must be kept up until the attackers are within a few yards of the defenders. Togo was unable to support the left of the Japanese army, on account of the Russian minefields, and the Japanese suffered some loss from the fire of five Russian ships on that flank. At the other end of the line, from the westward, Japanese shallow-draught vessels carried out a bombardment of the Russian positions, but the defenders took shelter, and returned in plenty of time to repulse the Japanese attacks. Eventually, when almost at the end of their resources, owing to shortage of transport, the Japanese got through on that flank by hard fighting, and so turned the Russians out of the Nanshan position. The Russians retired to Port Arthur, leaving Ta-lien-wan and Dalny, the latter a far better equipped harbour than Port Arthur, to the Japanese.

Oku moved northward and drove back a Russian force sent to relieve Port Arthur, General Nogi took command of the army to attack the Port Arthur defences. Nogi's force was at first weaker than the Port Arthur garrison, and he had to await reinforcements. After standing for a short time in an outlying defensive position, the Russians withdrew inside Port Arthur defences by July 31st, and the Japanese closely invested the place on the land side. By August 7th two 47-inch guns began to bombard the Russian ships. On August 10th the Russian fleet came out, trying to escape to Vladivostok. Admiral Togo was ready outside. An interesting action followed. The Russians returned to Port Arthur with the loss of one battleship, two first-class cruisers, and four destroyers, all of which escaped to neutral ports, and one second-class cruiser, which ran ashore.

Attacks were constantly launched against the land front of Port Arthur. In 1894 the Japanese had captured the place by assault from the Chinese in a single day. In 1904 the capture took over five months from the date of investment. The Japanese did all they could to destroy the Russian ships by bombardment, using ordnance as big as 11-inch howitzers on concrete platforms, but their fire was not decisive until a position (203 Metre Hill) was captured which gave a view of the target. That hill was taken on December 5th. By the 8th only one Russian ship, the "Sevastopol," was capable of movement. She put out of harbour, anchored, and was attacked by Japanese destroyers. Port Arthur was surrendered on January 2nd.

That successful combined operation settled the issue of the war. Not only was the Russian fleet destroyed, but the defended harbour was from thenceforth unavailable for the use of the Russian Baltic Fleet. Togo knew that Rojestvensky's fleet, when it arrived, must

make for Vladivostok. He cut it off and completely destroyed it in the Tsushima Straits on May 27th-28th.

With the land operations we are not concerned. After the capture of Port Arthur all troops that could possibly be spared were sent northward. After the Battle of Mukden, fought in March, both sides prepared to continue the struggle, but on August 8th, both countries sent representatives to Portsmouth, U.S.A., to discuss peace, having been invited by the President to do so on July 8th.

On July 10th the Japanese occupied Saghalien. Peace was concluded on September 5th.

*Lessons Learned.*—The lessons taught by the Japanese to the world in 1904-5 were those that had stood out conspicuously in the history of every amphibious war. The vital importance of secrecy about the destination of a combined expedition, and, when once the expedition starts, of rapidity in execution, which can only be attained by careful preparation. The selection of an objective which affects most seriously the issue of the war. The importance of devising some executive body to control operations so as to ensure the most effective use of fleet and army, working in conjunction with each other.

On the Japanese side we find that secrecy was maintained throughout. Rapidity was ensured by careful preparation. Transports were loaded so that what the troops required first was always on the top. Small, light-draught vessels were used so that they should be able to anchor as close as possible to the shore, and save long boat trips. Boats specially suitable for landing troops, guns, stores, and supplies were employed. Land transport was all two-wheeled, and guns on pack transport were used for the beach landings, so as to facilitate the disembarkation. For landing heavy weights and siege trains, good harbours were seized by attack from the land side as rapidly as possible. Everything was thought out beforehand, and everything was prepared, including lengths of telegraph cable to keep the landing place of the combined expedition in touch with headquarters; materials for piers, labour for their construction and for landing stores; armament and fortification material for defended bases on islands near the objective. That objective was always a hostile fleet or army, the mobile forces by sea or land that decide the issue of campaigns. There was no diversion of force until Japan's main object had been secured, and then only was Saghalien occupied to influence the terms of peace. For the all-important matter of central control, to ensure combined action, the Japanese executive body consisted of a council of seamen and soldiers, working and issuing orders under the authority of the Emperor. On this council Yamagata, one of the finest brains in Japan, who had devoted his life to the study of combined strategy, was an outstanding figure.

On the Russian side, neither sea or land forces worked on strategic principles; there was much friction and little co-operation between the services. The Russian system of control, on paper, was one of those ideal schemes that are drawn up in office arm-chairs. All authority over sea strategy, over land strategy, and over diplomacy, was vested



in one man, Admiral Alexieff. Perfect paper schemes assume perfection in human beings. This scheme required a super-man for its success. Alexieff's imperfection was conspicuous.

#### CONCLUSION.

These are too early days for us to complete the history of modern combined operations by a detailed account of the great amphibious war. I was once confronted by a friend with the startling announcement that "history was of no use in this war." It may be that it was not used. We ourselves undertook a great combined operation during the first year of the war. We failed conspicuously.

Instead of secrecy, we had advertisement of our intentions. Rapidity was rendered impossible by want of preparation and forethought. The embarkation was hurried, and stores hurled with such confusion into the transports that they had to be unpacked and completely re-stowed, causing a month's delay, of which full advantage was taken by the defenders. The objective selected was a town. The efficiency of the executive body controlling the combined strategy may be judged by the order given to the Navy, in defiance of every example in history, to "prepare to bombard and *take* (sic)," without the aid of troops, a large peninsula containing a hostile army of unknown strength.

I thank you for inviting me to address you on this subject, and I hope that I have made out a case for the value of historical study for those who aspire to the control of combined operations. It may be said that the use of submarines and of air-craft in the future will revolutionize the conduct of such operations. The warnings of history will help those who employ them to work on the right principles. These may be summarized as (1) secrecy as to destination; (2) rapidity in execution, obtainable only by careful preparation; (3) the selection of the right objective; and (4) the establishment of an executive body skilled in the conduct of amphibious warfare.

#### DISCUSSION.

DR. MILLER MAGUIRE: At the risk of being considered rather impudent, I venture to open the discussion upon this very interesting paper. The learned lecturer has said that there has been a good deal of amateur criticism in regard to the great campaign in which we have just been engaged, and in regard to that particular campaign I cannot pretend to be even an amateur. Before that campaign began, the most marvellous success of the island power of Japan against Russia recalls to our memory the success of another island power in Western Europe which rivalled in the 18th and 19th centuries the success of the island power in Eastern Asia in the 20th century. I happened to be engaged in the study of history at that time, and I was consulted officially by a representative of the Japanese Government in regard to the matter, and I can heartily support by experience the views of the learned lecturer about the value of history. The Japanese throughout their war with Russia were most enthusiastic students of history, whereas at the very same time it was studiously ignored by the nation that had more combined naval and military expeditions to its credit than all the other nations put together; that is to say, our own nation. History was at a

discount from the combined military and naval point of view. What it was no one knew; and the principles which have been enforced by the lecturer were ignored deliberately. Now and again gentlemen like General Caldwell, in his book, "Maritime Operations by Sea and Land," and the American Admiral, Mahan, set forth the lessons that history had taught in the Mediterranean in the times of the Greeks and Romans; they argued that they admitted of no discounting and of no variation, and that exactly the same applied whether sailing ships, steamships, aeroplanes, or submarines were the instruments that were used. You must aim at the destruction of the enemy's man-power. You cannot change the nature of man; man will always be the same. The Japanese sent emissaries to this country. Not only did they consult us and send gentlemen to learn at the feet of our professors of history, tactics, and strategy, but they absolutely admit that their campaign of 1904-5 followed in every particular the principles, the strategy, and the change of base and other matters of our campaign in the Peninsula. I do not think that the lecturer told us anything about the change of base. Time does not allow me to enter into the history of the matter fully, but I congratulate the lecturer on having introduced the subject and of demonstrating it so forcibly as he has done in the case of the Japanese. The long line of communications of the Russians did not enable them to cope with a rapid transmission of force by sea from one place to another. The lecturer referred to secrecy and celerity. Our own celebrated observer, Bacon, in his Essay on Dispatch, mentions that secrecy and celerity are the life of dispatch in all military operations. Before you begin to fight you must have secrecy, thought, wisdom, the lessons of experience; and when you come to fight there is no secrecy better than celerity, rapidity, mobility, and that is obtained better by means of ships than by any other means. Secrecy and celerity, the study of history, a good start, and a proper selection of the objective, in the true sense of the word, were what the Japanese had. In the library upstairs there is a book called "Boujet's History of the Russo-Japanese War of 1904-5," and in it you will find that while the Japanese magnified courage, they even more magnified wisdom; and the author also states that the Japanese owed their success to a careful study of Wellington's operations and of our naval operations in 1808, 1809, 1810. As no one else rose to commence the discussion I have ventured to do so, and to congratulate the author on his paper because I am particularly interested in history, and because I dealt myself with the campaign of 1904-5.

WING-COMMANDER H. LE M. BUCK: I think you will all agree that we ought to study history from the point of view of what will happen in the future, and, as a representative of the Air Force, I attended the meeting expecting to hear a few words regarding future operations in the air, although the lecture was not entitled "Air Warfare," but "Combined Operations." I know that Sir George Aston has given a great deal of attention to air warfare, because when I was an instructor, in 1915, at the Central Aviation School, I used to read a good deal of his book on "Further Land and Sea Strategy." When I was there as lecturer on operations I used to read the last two or three chapters of his book particularly. I hope when the next edition of the book is published the lecturer will put those three chapters at the beginning. Books have recently been published by Lord Fisher and by Sir Percy Scott dealing with the subject, and they both remind us of what a great future there is in the air. Sir George Aston has laid great stress on preparation for combined operations, and one point I want to make in that connection is the desirability of having a combined Staff College. If we want to make proper preparation for combined operations in the future I think we must have a combined Staff College comprising the Navy, the Army,

and the Air Force, instead of having three separate Staff Colleges. I think that is a point that is worth pressing if others are in agreement with it.

THE CHAIRMAN: The points which have been so ably raised by the lecturer in his paper are indisputable because they are founded on history. Whether we as a nation have learned them or not is another point. It seems to me, however, it is very fundamental for an island power to learn these lessons, because we cannot move our Army or even our Air Force out of the country without ships, and therefore the work must be a combined operation between the Army, the Navy, and the Air Force. There is one point in connection with combined operations which I do not think the lecturer mentioned, viz., the expeditionary forces to France. I do not think you laid any stress on that?

SIR GEORGE ASTON: No.

THE CHAIRMAN: That combined operation was fundamental to our success in the war, and I think all the departments and officers concerned with the preparation of those operations deserve recognition for their wonderful work and the accuracy and secrecy with which it was carried out. It was carried out with wonderful secrecy, because nothing was known about the expeditionary force, except in the departments concerned, until that force was actually in France right up at the front. It was a wonderful performance. Although we are not always wise we were wise on that occasion. Everything had been well thought out. We did not put the stores in the wrong place as has been so often the case before when we have had other secret expeditions. It must be remembered that we have had other secret expeditions in the past; there was one when Lord Wolseley occupied the Suez Canal. There is one point brought out by the Spanish-American War that I should like to mention. Admiral Cervera was in the harbour of Santiago for a month before the Americans located his squadron. Admiral Schley did not discover him for a week or ten days. That is where the Air Service will take a leading part in future, and also it must be remembered that the squadron would not have been able to lie anchored off Santiago in the presence of submarines. As the lecturer and Dr. Miller Maguire have said, history and strategy remain true, but you must adapt your strategy to suit the weapons in use at the time. Another point that the lecturer has brought out is that in one case that he mentions the Army did not land in the presence of defended ports, but landed away from the defended ports, because they knew that the point of landing was the weakest point of an army or sea force. That was forgotten, perhaps, on certain occasions during the war we have just been through. The Navy did not think they could take defended ports without the use of the Army; and if you notice the main function of the army in both the wars that the lecturer has referred to—the Spanish-American War and the Russo-Japanese War—was to take the port so as to capture the navy of the enemy. In conclusion, I desire to say that I am echoing the wishes of all present in thanking the lecturer for the most interesting and instructive lecture he has given us this afternoon.

MAJOR-GENERAL SIR GEORGE ASTON, in reply said: Gentlemen, you have been very kind to me; I thought I should be confronted with much criticism. I would like to say, in the first place, with what pleasure I have seen my old friend Dr. Miller Maguire here this afternoon and listened to what he had to say. He has given me a very useful line of argument. I referred in my lecture to only one operation in this war, because I think you will remember I mentioned that I did not think the time had come to write fully with regard to the recent war because we have not got the data. Dr. Miller Maguire raised the question whether

our sailors and soldiers were carefully taught before the war. As a humble teacher both of our soldiers and sailors before the war for many years, I can only say that I was associated with a large number of other teachers, and that our soldiers and sailors were thoroughly well taught and thoroughly well conversant with every principle that I have mentioned this afternoon. The operation to which he referred has been investigated by an important Commission, which reported that the whole scheme had only secured, to use their words, the half-hearted and hesitating support of sailors and soldiers. I think that answers the point. With regard to the quotation he made from Bacon of "Secrecy and Celerity," I wish I had managed to get hold of it, because it is a very excellent quotation to put into the lecture. Celerity is the best form of secrecy when once you have given away your objective. I was very much interested in Commander Buck's remarks. I am very glad to hear that he has read my "Sea and Land Strategy," because it has had a very small circulation. I thoroughly agree with the importance of the air problem, but I did not rub in the future because I was almost afraid to prophesy. I should like to say that I have spent a great many years of my life studying the writings of all sorts of people on naval strategy, and, taking the various campaigns, I am sure the Chairman will bear me out that from the Blue Books the strategy adopted in the old days was always with the object of destroying the enemy's ships at sea. If you look at the lessons of history you will see that their destruction in harbour was a much more difficult thing, and I think we should now draw the attention of scientists and those possessing inventive power to the importance of destroying enemy ships in harbour. I think that is a problem that will revolutionize the whole of naval warfare in the future. The problem of the destruction of enemy ships in harbour is as important as their destruction at sea, and the extra opportunities which the tremendous advance in knowledge of movement by means of the air has introduced may create a revolution in the whole of our conception of sea power and of sea warfare. I am very glad that the Chairman gave me the opportunity of making that remark because I hoped to get a chance of bringing it forward this afternoon. I have nothing else to answer except the point raised by the Chairman with regard to the expeditionary forces. You must remember that I had only an hour in which to deliver this lecture; but if instead of taking the Peninsula you put up a map of the world, you can trace out in the present war the whole of the principles that were then adopted. You find that the army which has to do the big fight on land ultimately destroys the fleet. The German Fleet was in harbour and did not put out from that harbour until their *morale* was doubly shaken, first by the Fleet at sea and then by the defeat of the German Army on land, exactly in the same way that the Port Arthur Fleet was destroyed after the destruction of the Russian Army. I thank you very much for the exceedingly kind way in which you have listened to me.

ADMIRAL W. F. S. MANN: Ladies and Gentlemen. I ask you before we separate to accord a very hearty vote of thanks to our Chairman for presiding over the meeting this afternoon. Admiral Sturdee's name is now known all over the world; he arrived in the nick of time off the Falkland Islands and destroyed the German forces through which, unfortunately, we had suffered grievous loss only a short time before. I am sure you will desire to thank him for being present to-day and so ably presiding over the meeting.

The resolution of thanks was carried by acclamation.

THE CHAIRMAN: Gentlemen, I thank you very much indeed for the kind way in which you received the vote of thanks and for your appreciation of my small

efforts. There are two points I should like to refer to before the meeting closes. With regard to the suggestion that was made for a combined Staff College, I think it is very important that there should be representatives of the Air Forces, the War Office, and the Admiralty present, because it is a combined work; but I do not know that you want to do the whole course of military tactics, because that would be a very long course. I think each service ought to appreciate the difficulties and requirements of the other. Sir George Aston also mentioned a very important point, viz., the question of destroying the enemy's fleet in harbour. That has always been a very important problem for a great naval Power, because the weaker naval Power does not send its fleet to sea. I see several young officers present, and I hope we shall get some inventions from them with the object of destroying enemy fleets in harbour. Of course, at the same time, we must remember that they may come and try to destroy ours.

