

eration and its realization of its own character and work, is very inadequately presented.

It is probable that no country has ever invested so much spiritual, moral, and monetary capital in education, taking into account the brevity of its history, as the West; it has done far more for its intellectual life than the East did in the same number of years. It is, in fact, repeating the history of the East; for it is eagerly assimilating the experience of the race, expressed in its thought, its art, and its history. This is the impulse behind the passion for knowledge, — the instinctive desire to know what the race knows, and then to coöperate in the race life and work. In the face of declamatory assertions of inde-

pendence of the past, this instinct steadily asserts itself and has its way. The struggle of the new community to break with the race, and start out for itself, is inspired by a mistaken idea of independence. Real freedom comes from that mastery, through knowledge, of historic conditions and race character which makes possible a free and intelligent use of experience for the purposes of progress. This is the process through which the West is now passing, and which gives its society a deep and appealing interest. For out of this movement for the clear realization in its own consciousness of its race relationships and inheritance, modified by its own conditions and shaped by its own needs, are to come, at no distant date, its own ideals.

*Hamilton Wright Mobie.*

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#### THE NAVY IN THE WAR WITH SPAIN.

THE success of our navy in the war now happily concluded is only what we had reason to expect, considering the difference between the resources of the two countries and the qualities of the men engaged on the two sides. The ships did their work so quickly and with such precision that we are likely to be led into erroneous conclusions, if the conditions which made their victories possible are not very carefully studied. It will not be safe to draw too many lessons from the results. In the first place, we must not forget that our enemy was so weak and unprepared that it seems almost pitiful to glory over him. Military prowess passed away from Spain many years ago, and her organization to manage the modern ship, composed principally of machinery, is wretchedly deficient. In the next place, our ships were never even severely tested, as they would have been against a stronger foe with greater staying power. We have only to imagine

the situation if a Northern port had been attacked by a good-sized fleet, while our whole effective navy was off the coast of Cuba, to obtain some idea of what might have been our condition in a contest with a maritime country. Let us hope that self-confidence over our victories may not lead us to early disaster.

The great triumph of the British navy under Nelson was achieved when the naval administration was utterly corrupt, and the whole system of promotion formed a bitter grievance. Success came only through the entire inadequacy of the other side. Yet the British acquired convictions of their invincibility which made them the easy prey of American seamen in the war of 1812. Not that our navy is at all corrupt or lacking in good judgment, but it may suffer from false notions instilled into the minds of our Congressmen by an easy success. The price of achievement is constant effort.

To a certain extent, the lesson that we

have learned is practically the same as that stated briefly by a French admiral writing of our victories in 1812: "There is success only for those who know how to prepare it." Our chief glory, therefore, is careful preparation and an accurate fitting of means to end. This remark applies mainly to the individual ships in service before the war broke out, and not to the general preparedness of the country for a severe struggle. There are many elements which go toward success in war, and the commonest of these is courage. Most nations, with proper training and good leadership, will produce good soldiers; it is only a question of time. Thorough familiarity with the weapons and instruments placed in their hands is one of the requisites even of courage. The lack of mechanical instinct accounts for the failure of some nations to produce first-rate seamen, especially in these days of machinery upon the sea. This quality is perhaps the vital difference between Americans and Spaniards. The latter seem incapable of grappling with the construction and management of guns and machinery. The war, therefore, sets clearly before our people the value of education and technical training to a specific end, and the lesson is applicable as well to the vocations of peace as to the preparations for war.

But at no time have we been prepared for a prolonged conflict against a well-equipped navy, and our fortunate exodus from the affair should serve as a warning. We had at the outset only a few well-selected types of ships manned by a first-rate personnel, or what has been called the nucleus of a good navy. The smaller craft for picket, patrol, and supply duty had to be obtained and equipped in a great hurry. In not a few cases the money placed at the disposal of the President was squandered, to the minimum benefit of the country. This is doubtless inevitable in stress of emergency, when all the safeguards of

purchase and inspection do not obtain. On the eve of the recent war the supply of powder for the navy was at a very low ebb, through the neglect of Congress, and the Bureau of Ordnance deserves no small credit for making good the deficiency so quickly that not a ship lacked ammunition when the demand for it came. This speaks volumes for the efficiency of the system prevailing in the Navy Department.

While our ships were individually well prepared for the conflict, the fleets as a whole were at first composed of ill-assorted vessels. There had never been a settled policy in Congress looking toward the development of the navy. As a consequence, we find monitors of ten knots speed and torpedo boats of twenty knots associated in the blockade of Cuba. The squadron that went to Porto Rico was made up of battleships, torpedo boats, and monitors, with an average speed pulled down from fifteen to ten knots for the benefit of the last-named. It seems absurd to have expected vessels of little freeboard and of minimum coal capacity, designed especially for harbor defense, to cruise in squadron, and yet the department was forced into the selection of these ships for want of others. Then, again, we had no choice but to send two monitors on the long cruise across the Pacific. The torpedo boats suffered all kinds of ill usage, even taking part in the bombardment of shore fortifications. They served as tenders, dispatch boats, scouts, and in fact as anything except torpedo boats. Some of them carried only a few hours' supply of fresh water for their boilers, which would have been ruined by the free introduction of salt water; nevertheless, they were required to steam hundreds of miles. It seemed a pity, but the officers felt obliged to use what was at hand, rather than to delay the campaign for boats better adapted to the purpose. Later, the converted yachts and tugs, armed in great haste, arrived to take their places.

And it may be added that these little boats rendered effective service; two of them participated in the battle of Santiago.

The history of the naval part of the war falls naturally into four chapters, — the preparation, the blockade, and the total destruction of two fleets; but it is not the purpose of this article to give more than a passing glance at the two principal events. Our small fleet in the Pacific went from Hong Kong to Manila, destroyed a Spanish fleet, and held the bay until an American army arrived to control the situation on land. A fleet in the Atlantic closed up the harbors of Cuba, and destroyed a second Spanish fleet off Santiago. Incidentally, there were many smaller conflicts in Cuban waters.

The problems which confronted the commanders on the two oceans were essentially different, and time will show them to have been solved with equal ability and good sense. The situation at Manila was very simple. Upon the declaration of war, Admiral Dewey was turned out of Hong Kong by Great Britain, and all other Asiatic ports were closed to him. He was seven thousand miles from home, a distance which none of his ships could make without recoaling, and his line of communication was liable to interruption at any time. Furthermore, the safety of our Pacific coast trade was in jeopardy so long as a hostile vessel remained in the Orient. The duty was a plain one, — to obtain a base in the Philippines, and to capture or destroy every Spanish ship that could be found. With rare good judgment, Admiral Dewey made straight for Manila, and caught the whole fleet before they had time to scatter. He had already proven himself to be a man of foresight by loading up with provisions and coal before war was declared. When the English told him to go he was ready. His fleet passed through the fortified entrance of Manila bay by night, and attacked

the ships and shore batteries simultaneously. The victory over what must be conceded to have been a weak and disorganized foe, although gun for gun there was not much difference between the two sides, was a great one, in the splendid management of the American ships, and in the results which must flow from our enforced entrance into Asiatic politics.

There was not an armored ship on either side, and the battle sheds little light upon construction for the future. We know that the Spaniards suffered fearfully from fire, and that our ships escaped with little damage. No victory was ever purchased more cheaply; not a man was killed on the American side.

The task before Admiral Sampson was immensely more complicated. He had to maintain the blockade over a long coast line, to be on the lookout for torpedo boats and ships whose whereabouts he could not fix, and to convoy troop ships. The sustained readiness and vigilance of the fleet, during its long wait before Santiago, were enough in themselves to make the reputation of an ordinary commander-in-chief. Added to these duties he had to contend with certain newspaper reporters and dispatch boats, striving to ascertain his plans for the benefit of their unscrupulous employers. The last was not the least of his difficulties, and the attempt of the Associated Press to besmirch his reputation and to deprive him of the credit of Santiago sprang, no doubt, from disappointment in obtaining authentic news as to his intentions. The first expedition against Porto Rico was practically ruined by the press, and the slightest movement of any ship was promptly cabled home by way of neutral lines over which the government could exercise no control. The Spaniards thus obtained regular information of the location of our squadrons, and profited by it in directing Admiral Cervera's fleet. The astonishing feature of the matter is that the Navy

Department should have prohibited communication of war news by officers, and then have forced newspaper reporters upon them to pick up and to color the bits of information they could glean. It was only natural that our people should want news of their fleet, and some of the newspapers served them well. The end would have been attained far better by placing an officer on the staff of every commander of a squadron, with authority to supply legitimate news which would not affect the conduct of the campaign. The element of the picturesque might have been lacking, but the descriptions would have been accurate. This, however, would not have eliminated the dispatch boat. It was common talk in the fleet, after the return to New York, that an Associated Press boat had led the Oregon a chase of one hundred miles toward Jamaica, and when finally hauled up had displayed her flag, and treated the matter as a huge joke.

The progress of the blockade, the numerous attacks upon Spanish fortifications, and the search for Admiral Cervera's fleet will form an interesting story when all the threads can be gathered together in a connected whole. The work of the navy in the West Indies was virtually completed at Santiago, and our ships were set free for a movement against the coast of Spain. As the Atlantic was at the same time freed from all danger of fleet cruisers, the home coast no longer required protection. The naval battle at Santiago was very different from that at Manila, in the character of the ships engaged. The Spaniards had six of their best vessels: four armored cruisers, and two very fast torpedo destroyers, with an average speed of eighteen and a half knots. We had four battleships, two armored cruisers, and several smaller craft, with a mean speed of fifteen and a half knots. In both cases, the maximum speed of the slowest ship is taken as the average for the fleet. There were only two very fast

ships on the American side, the New York and the Brooklyn, and the former was hull down to eastward of the harbor. Admiral Cervera's plan was, therefore, to go out quickly, turn to the westward along the coast, and disable the Brooklyn before the slower ships could come to her rescue, thus carving out a road to the sea. The plan, though well conceived, could be carried out only in part. He did not succeed in disabling the Brooklyn, which was evidently manœuvred with a view to chasing, and five of his ships were overwhelmed by the American fleet before they had time to gather full headway. The battle had resolved itself into but little more than an exciting target practice for our ships, when each Spanish vessel, in turn, headed toward the beach, and hauled down her flag. The Cristobal Colon, which had passed through the fire without injury, and had escaped to the westward, survived only two hours. The Brooklyn, and, to the surprise of everybody, the Oregon, overtook her about fifty miles from the mouth of the harbor. Her burst of speed had lasted only a short time, and she had not averaged more than fourteen knots, just six knots less than she was capable of making. Her captain struck his flag and ran her ashore without a fight. Our ships did their work with the precision of machines set up on shore, and nothing broke down in stress of action. The rapid and complete destruction of the whole Spanish fleet, within three hours and a half after it had emerged under full head of steam, forms a "victory big enough for all of us," as reported by Admiral Schley; and yet one cannot help sympathizing with the American commander who said, "Don't cheer, boys; they are dying." We lost only one man.

When the Spanish ships came out, the Oregon and the Gloucester appear to have been the only ships ready for them, and nothing but lack of engineering skill prevented two of them from escaping.

Had the Colon really attained her speed, she could easily have outrun all the American ships. As it was, the Brooklyn, which should have overhauled her rapidly, was distanced at the start. The unexpected had occurred, and she was not ready. Some of her boilers had no steam, and the forward propelling engines were not coupled up. Fifteen or twenty miles would have been lost in bringing her to full speed, if the Colon could have done her best. The Iowa and the Indiana were even worse off than the Brooklyn. The Oregon, on the other hand, was able to make even better than her maximum recorded speed in less than half an hour after the order was given. From a position of fourth place in the line, she passed the other ships and overtook even the Brooklyn, a faster ship by four knots. It is very comforting to know that Admiral Cervera's plan would not have succeeded, even if he had been able to overcome the Brooklyn.

The Oregon's performance, which officers of other ships pronounce one of the most magnificent sights ever witnessed, will always remain the ideal toward which our navy must strive. She made a long voyage, at fair speed, from California to the coast of Florida, without accident or repairs, and joined Admiral Sampson's fleet in first-rate condition for immediate duty. After a number of weeks off Santiago, she was still ready to do her best, and even to excel anything else on the station. This splendid record was possible only with good workmanship and a very capable engineering staff. This combination is a necessary requisite to the highest success of a well-conducted battleship under steam. The readiness of the Oregon to do her best illustrates in a forcible manner the influence of small things upon a ship's career. Her steam joints were all tight. Consequently, there was so little waste of steam or of fresh water that no sea water had to be pumped into her boilers, and none of the boilers had to be laid

off for cleaning and repairs during the entire blockade. The other ships had greater or less difficulty in making up the fresh water supply, and their boilers suffered from the use of salt water. When Cervera appeared, the Oregon had good fires in every furnace.

Another marked feature of the battle was the part taken by the Gloucester, a converted yacht with a few rapid-fire guns placed on board. Her maximum speed was fully a knot below that of the slowest Spanish ship, and she had no protection to her machinery; yet her commander fearlessly turned her against the two dreaded torpedo boat destroyers, while they were still under the protection of the shore batteries and of the enemy's fleet. As he says in his report: "It was the plain duty of the Gloucester to look after the destroyers, and she was held back gaining steam until they appeared at the entrance." In the captains' reports, several of the battleships claim to have struck one of them with a heavy shell. It is probable that they were both finished by the Gloucester. If Commander Wainwright's action savors of rashness, let one stop to ask whether it was not better to risk a small yacht against torpedoes than to send in a battleship. It was as deliberate a piece of self-renunciation as we have in our history. There is a curious story connected with this incident. When the Gloucester turned to intercept the torpedo destroyers, she had to cross the line of fire from the Indiana, and her captain felt quite reassured by a signal on the latter ship which he read, "Gunboats will close in." The commanding officer of the Indiana afterward stated that the signal he ordered was, "The torpedo boats are coming out."

The Spaniards appear to have been frightened, and their officers to have taken advantage of the earliest possible excuse for running their ships ashore. As one of the Oregon's officers remarked: "The Colon was weak. She



surrendered with a good two hours' fight left in her." Beyond the fact that they came out to hazard an escape in the face of great odds, there are few acts of heroism recorded in their favor. Their men were slaughtered and their ships destroyed, with little damage to their foe.

The deficiency of mechanical skill throughout the Spanish navy was counted upon to give our sailors a decided advantage, but no one supposed the Spaniards would display what at this distance looks like cowardice. It may have been the untrained man in the presence of the machine. Courage springs from two sources, — experience in the work which the men have to do, and entire confidence in their leaders. Even a brave man may run from a cow, if he has not been brought up on a farm. Familiarity with guns and machinery is the essential element of success in a modern battleship. It was probably ignorance which "robbed" the Spaniard of his courage. Added to this, he found himself so suddenly under a withering fire that he could do nothing with his own guns. The board ordered to examine the wrecks found many of the guns loaded, thus indicating the haste with which their crews had deserted them. Some of the gunsights had evidently been set for thirty-nine hundred yards at the beginning of the action, and they had never been changed, although the ships had closed up to a thousand or fifteen hundred yards. The most significant aspect of this sad failure is that it sprang from deficiency in that kind of knowledge which probably cannot be supplied in many generations.

For obvious reasons, the war has shed little light upon future developments in naval warfare. Many details of construction will be changed, no doubt; but there have been no startling revelations destined to render our battleships antiquated, or even seriously to impair their efficiency. Hereafter the minimum of combustible materials will enter into the

construction of fighting ships. The battle of the Yalu in the Japanese-Chinese war, and the two great battles of this war, have demonstrated beyond peradventure the danger from fire. In many cases the Spaniards were driven from their guns by burning woodwork, and their fire mains were cut by shell. This experience will relegate all water mains and steam pipes to the hold well below the water line, with branches rising to the necessary connections on the upper decks.

The value of rapid-fire guns was so clearly shown at Santiago that improvement can hereafter follow only along the line of a more rapid fire. The smaller guns are already fitted with special mechanism to facilitate loading and firing, and we shall be obliged to extend the system to the whole battery. Our chief lesson, however, in connection with battleships is that we need more of them. The cost is great, but these ships are well-nigh impregnable; and they must continue to hold their own as our main reliance for offense and defense. Higher speeds will undoubtedly be demanded. The coal problem has apparently solved itself. Our ships found no trouble in taking coal from colliers at sea, and it was habitually done at Santiago before Guantanamo bay was captured. It follows, therefore, that a coaling station is a convenience, and not an absolute necessity, in conducting a campaign far from home ports.

Cruisers like the *Columbia* and the *Minneapolis* had no real test. As scouts they are too large, and as fighting vessels they are of no real value against an armored fleet. The country would profit by putting the money for such ships into a subsidy for merchant vessels of sufficient size to serve as transports or scouts in emergency. The smaller cruisers and gunboats did fine work at Manila and on the blockade, but we must not conclude from their immunity against shore batteries in Cuba that they would be

equally fortunate again. Some of the attacks seem almost foolhardy, and the use of torpedo boats in a fortified harbor, except as a desperate measure, should not be encouraged.

We have learned next to nothing about torpedoes. They played no part in the war, except as a moral barrier at Santiago. It seems doubtful if they will ever prove dangerous to any but a careless foe; on the other hand, they may become a source of real peril to the ship which is trying to use them. Two torpedoes exploded on the *Almirante Oquendo*, and killed a great number of men. One was reported to have been struck by the fragments of a shell, and the other to have been set off by the heat of the flames near it. A loaded torpedo may thus become a more serious menace to friend than to foe. The fast torpedo boat accomplished none of the terrific feats we expected. The duties performed by our own boats have already been described, and the principal business of the Spanish destroyers was evidently to keep out of the way. Their defeat by an ordinary yacht must have been very humiliating. One advantage possessed by our fleet around the entrance to Santiago harbor added materially to their harmlessness: the attack could come only from one quarter, and the skillful manipulation of search lights destroyed all hope of success. The contrast between our early fears of the torpedo boat flotilla and its subsequent achievements is simply ludicrous. It would not be safe to draw sweeping conclusions as to the use of these craft in future wars. If the *Pluton* and the *Furor* had been handled by Englishmen, the *Gloucester* would probably be at the bottom of the sea, and some of the larger ships might possibly have suffered a like fate.

The monitors seem to have been out of their element on the blockade. We had no need of them in the defense of coast or harbors, and, with none of the excitement of the chase, they served prin-

cipally as prisons for a few unhappy officers and men. Our experimental craft, such as the dynamite cruiser, the submarine boat, and the ram, had no opportunity to indicate their possible utility. The *Vesuvius* threw a few hundred pounds of dynamite upon the hills outside of Santiago, and she may have exerted some moral pressure toward the surrender, but there is nothing to prove that she is of value to the country.

Men are, after all, more important than types of ships, and we may well inquire what we have learned about them in stress of action. It has been asserted that the war has demonstrated the perfection of our organization, and that it cannot be improved. This is like selecting a crew for a four mile race by a half mile spurt. The trade of the seaman has been changing during the past generation, and while we know him in peace, we have not had time to study him in a war which would call out all his strength and resources. We could make no greater mistake than to rest satisfied with what we have, in the face of the additions and changes destined to come during the next ten years. Congress authorized almost a new navy during its late session, and we have that to consider in the new organization. So far as physical courage is concerned, we have seen that our sailors possess the same qualities in the presence of the machine that their ancestors possessed in the old sailing frigate. Time has not changed their nature, however much it may have modified their occupation.

The attempt of Somers, ninety-four years ago, to destroy the Tripolitan fleet with a fire ship is paralleled by Hobson on the *Merrimac*. The two cases have many points in common: both crews carried explosives for the destruction of their ships; both planned to escape in small boats after having applied the match; both entered boldly a well-fortified channel; both left friends waiting outside to pick them up; and both failed

to accomplish what they had set out to do. There the likeness ceases. One went in under steam, with directive power dependent upon himself, and all his men were saved; the other depended upon wind and sails, and all were lost. The deed of Hobson and his crew is only what we have a right to expect of our men and our race. Many officers of the fleet volunteered for duty as soon as they heard that the Merrimac was to go in. Few other opportunities for individual heroism presented themselves, and our list is brief only on that account. The journey of Lieutenant Blue on a scouting expedition around Santiago, the coolness of Cadet Powell waiting close under the batteries in a steam launch to carry back the Merrimac's crew, and the rescue of many prisoners from their burning ships are all of a piece.

The contrast between the two nations stands out very clearly in connection with the Vizcaya. The torpedo boat Ericsson ran close alongside of her, and sent a small boat to take off all that were alive of her crew. A few boats from the Iowa assisted. The Vizcaya was on fire fore and aft; the ammunition on board was exploding, and the guns that had been left loaded were going off one after another in the intense heat, to say nothing of the proximity of the shore. The position of the little craft has been described as perilous in the extreme. Our men risked their lives repeatedly to help their fallen enemy; but no sooner were the Spaniards transferred to the deck of the Ericsson than they urged immediate withdrawal, without regard to their comrades who had been left behind. To the honor of our navy, Lieutenant Ushur remained until every living being had been rescued from the burning ship. A similar scene was enacted around the two torpedo boat destroyers. It was a case of mad panic on the one side, and of perfect coolness on the other. One officer of the Vizcaya afterward stated, on board the Iowa, that

they were obliged to close the gun ports on the disengaged side of the ship, to prevent the men from jumping overboard rather than face the American gun fire.

Even the cadets fresh from the Naval Academy caught the spirit of their countrymen, and entered into the contest with the greatest zeal and fearlessness. During the blockade, a number of picket launches were kept close around the entrance every night, to guard against surprise. These small boats, in charge of cadets, sometimes approached within a hundred feet of the shore, and remained all night. They had orders to go out at the first streak of dawn, and they were almost invariably fired on. One boat got nine shots through her hull. The danger seemed to be an incentive to these boys, and there was considerable rivalry among them for the privilege of taking the night picket.

The behavior of the seamen, firemen, and marines was beyond praise. Happily few lost their lives, while all were prepared to risk them. The story of the men in the fire rooms of the Oregon has the true ring of the old navy. They had no share in the exciting, spectacular part of the fight. Their duty was simply to push the ship ahead with all their might. Shut up below an armored deck in watertight compartments, they were in the presence of dangers which they could not see, and their safety depended upon the good judgment and courage of their comrades. Yet they thought only of getting their ship into action. In the long chase of the Colon the strain began to tell on them, and the chief engineer, walking up to the bridge, requested the captain to "fire a gun just to cheer my men up." The roar of a thirteen-inch rifle acted like magic upon their flagging energies, and gave them a new incentive to shovel coal. Apart from the rapidity of movement introduced by steam, the whole scene resembles the old fleet actions of the English navy in its best days. We may safely



say that the blockade of Santiago, the carefully planned attack, and the total destruction of six good ships were carried out in a manner worthy of the finest traditions of our race.

Few details of the battle of Manila have reached us, but we may be sure that officers and men were inspired by the example of Admiral Dewey. The great central fact of his entering a landlocked bay on the other side of the world, and without hesitation attacking a fleet under the guns of shore batteries, will forever give a character to this battle. As victory has meant so much, defeat would have been fatal to him. Its profound significance cannot now be measured. The admiral's signal to haul off for breakfast is not the least characteristic part of the battle.

There is another question in relation to organization aside from the qualities of individual men. Every seaman must fulfill a special function in addition to being as generally useful as possible in making his ship a fighting machine. The war has confirmed some theories in this direction, and the tendency to educate all combatants, especially officers, in machinery, or what is better, in engineering, will doubtless be accelerated. The fate of battle will always be governed by men, whatever the changes in store for us may be, but their education must be adapted to the times. The man of wood and hemp must give way to his successor of iron and steel.

Fears were expressed from time to time, before the war, that our engineering force would prove insufficient, and that the machinery would therefore suffer from lack of intelligent care. The first of these fears was found to be justified, and a large number of volunteer engineers, many of them young men of no experience in marine work, were added to the list. Notwithstanding, on the whole they have done as well as could be expected.

The anxiety over the performance of

machinery has proved to be groundless, as engines and boilers have done remarkably well. No serious breakdown hampered the movement of any ship, and the fleets were able to go about their business without undue delay. It was to be expected that materials put into machinery and subjected to wear would suffer, and the Navy Department very wisely made provisions for rapid repairs. The *Vulcan*, a ship specially fitted as a repair shop, and capable of dealing with all ordinary casualties, was sent to Santiago before the battle. This development is a new one, and we have reason to be well satisfied with it.

The whole subject of the education and training of officers had been under serious discussion for a year before war was declared, and the opinion of the navy had gradually crystallized into a bill in Congress for the improvement of the personnel. This bill was drawn up by a board of officers, with Mr. Roosevelt as chairman, and the Secretary of the Navy presented it to Congress with his approval last winter. It was reported favorably to the House of Representatives by the committee, but the pressure of other business forced it into the second session. The measure provides for a combination of the deck officers and engineers into one corps; for such a flow of promotion that officers will reach command rank before they have passed middle life; and for pay substantially equal to that of the army, grade for grade. It remains to be seen how far the results of the war will modify the views of the service on this subject. At present, every clause of the bill seems to have been strengthened. The last two parts will be accepted without dissent by all persons interested in the improvement of the national service. The first part, which really looks toward the education of all officers in engineering, has already been accomplished to a certain extent in the duties of the men without change of title. As the captain of one

of our ships writes me: "I am asked often to account for the little injury to lives or ships. One great reason is that many of us are seamen, and most of us engineers; we should all be both seamen and engineers."

It was a curious phase of the war to find deck officers serving as engineers on torpedo boats, and an engineer serving as deck officer on a converted yacht. The change from one duty to the other is not so violent as it seems, for the men received practically the same education at the Naval Academy. Our striking success is chargeable in a large measure to familiarity with machines. There was little opportunity for the desperate courage which the Spanish might have displayed. It would appear, therefore, that any system which contemplates a more thorough training in engineering all through the navy is in the right direction.

The proper promotion of officers in time of peace has always presented great difficulty, and the navy list is like a long line of men toiling gradually upward without regard to ability or zeal. We dare not adopt a system of selection for advancement, through fear of opening wide the door to political and social intrigue in Washington. The war has developed a method of promotion which might almost be called iniquitous. When the advancement of officers has been accomplished by pushing backward other deserving men, the result is bad enough; but when officers have been advanced simply for being present in an engagement, the whole service may well feel disheartened. All captains, first lieutenants, and chief engineers in the battle of Santiago were promoted in numbers at the expense of their seniors. Most of them contributed to the success of the battle, and are no doubt worthy; but some of them have been carried on the shoulders of their juniors for so many years as to be incapable of responsible service. In justice to the navy, the whole

list should be scrutinized in Congress with the greatest care. It would be better to promote none than to reward men whose careers have been a discredit to the navy.

This war has called attention to prize money as a blot upon the civilization of the dawning century. Congress should abolish it in the same bill which advances the pay of the navy to an equality with that of the army. The better sentiment of the whole service would sustain such action. While so much is appearing in the newspapers about Admiral Sampson and his prize money, a remark of his, bearing indirectly on the subject, may prove illuminating. In a conversation last fall, I suggested a method of increasing the pay of officers as an inducement for continued good service and study, and the admiral said: "No, that won't do. The word 'inducement' is bad. You will get the best work out of officers from a high sense of duty, and not otherwise."

The lessons for peace taught by this war should not pass without profit to the nation. We learn the value and efficiency of training to a specific end. Our consular service and our civil service can be vastly improved by requiring all applicants for office to give some evidence of special fitness for the positions which they seek to fill. On the other hand, the inefficiency and waste of a bad system are plainly exhibited in the unhappy experience of the War Department. The two services present a striking contrast, although the officers of both have been educated at government schools. The army, unfortunately, is not looked upon as a profession, and any one who has sufficient political influence is regarded as competent for a commission. Officers educated at West Point are set aside, and the service is so diluted with inexperienced men that its esprit is well-nigh destroyed, and its efficiency seriously impaired. The same scandal has always attended the forma-

tion of an army in the United States, and our country has in every case been denied the full benefit of its expenditure for the education of army officers. There is no doubt of the quickness with which our enlisted force responds to training. By sheer good sense and native self-reliance, they can sometimes offset the ignorance of their officers, as an intelligent horse often knows the way home better than its master. Their principal difficulty springs from inability of the country to secure the proper men to train them. Through political aspirations or downright stupidity, even a Secretary of War may become an insurmountable obstacle to the effectiveness of his own department.

The army may well take a lesson from the navy in this matter. During the late war many volunteer commissions were issued in the navy, but the recipients were invariably placed in subordinate positions where they came under the directions of regular officers. Besides this precaution, every officer appointed in the line and engineer corps had to pass an examination to establish his competency. The administration of the Navy Department has been wise in this respect, aided doubtless by the nature of the seaman's calling. The chaos that might have been created by a political secretary can be more easily imagined than described. It is to be hoped that years of peace will never lead the country into a volunteer establishment for the navy, like the state organizations for the army. The naval reserves belonging to the different states have filled a gap for the time being, but their permanent usefulness has not been established. However courageous the individual members may be, they carry into the service local influences essentially disorganizing. The habit of reaching the President and the Navy Department through governors and senators cannot fail to undermine discipline. The idea that courage in the face of an en-

emy makes up for other deficiencies is too prevalent. Obedience and attention to a carefully planned routine become at times far more important elements in holding a command to its work for any length of time. The difference in effectiveness between the marines at Guantamano and the soldiers at Santiago, after they had been three weeks in the enemy's country, is sufficient proof of that. The naval reserve should be wholly under national control, and not in any way connected with a state. The relation of the navy to the general government would seem to warrant more effective organization than the army. It must always take the first blow in any foreign war, and its readiness to act may in some cases become the surest guarantee of peace.

• The spectacular side of the war has attracted the whole attention of the press, and we have read much about the nerve and coolness of individuals under fire. It is unquestionably a great thing for a man to risk his life for his country, but there is something to be said for the men who are behind him. Efficiency in supplying the needs of a fleet or an army, and in maintaining it in a condition for effective work, is not so common that we can afford to pass it by in silence, while the combatant is earning distinction and promotion. The creditable record of guns and machinery throughout the war does not spring from chance or solely from the skill of the ship's officers and crews, and Congress should find some method of rewarding the administrative officers responsible for them.

The head of the navy deserves the gratitude of the whole nation for a wise and sensible administration. There has been no interference with the duties belonging properly to trained officers, and no selection of civilians for duties which they could not perform. The efficiency of a navy depends as much upon the strength and intelligence which control

it as it does upon the ships and personnel. Suppose, for instance, that a weak secretary had directed Admiral Dewey to establish a pacific blockade of Manila! The result would have been disastrous, and the war might have been indefinitely prolonged. The case is not an imaginary one, as worse errors have been committed in other wars; in fact,

even in this war they were committed by the Spanish naval administration. We have much to be thankful for in having found two true and loyal sons of America at the head of the Navy Department during the early days of preparation for action, when Dewey was supplied with coal and ammunition, and the standard of accomplishment was set.

*Ira Nelson Hollis.*

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### MESSMATES.

HE gave us all a good-by cheerily  
 At the first dawn of day;  
 We dropped him down the side full drearily  
 When the light died away.  
 It's a dead dark watch that he's a-keeping there,  
 And a long, long night that lags a-creeping there,  
 Where the Trades and the tides roll over him,  
 And the great ships go by.

He's there alone, with green seas rocking him  
 For a thousand miles round;  
 He's there alone, with dumb things mocking him.  
 And we're homeward bound.  
 It's a long, lone watch that he's a-keeping there,  
 And a dead cold night that lags a-creeping there,  
 While the months and the years roll over him,  
 And the great ships go by.

I wonder if the tramps come near enough,  
 As they thrash to and fro,  
 And the battleships' bells ring clear enough  
 To be heard down below;  
 If through all the lone watch that he's a-keeping there,  
 And the long, cold night that lags a-creeping there,  
 The voices of the sailor-men shall comfort him  
 When the great ships go by.

*Henry Newbolt.*