On the Bridge of a Battleship

THE modern battleship is a marvel of concentration and space economy. There is no room for things purely ornamental, but every foot of space is used to some purpose in connection with the storage or operation of the myriad adjuncts necessary for the work, the safety and the comfort of the hundreds of men who crowd one of these floating fortresses. If one were to choose, however, the one section of a battleship which above all others is a veritable nest of wonders and surprises choice would unhesitatingly fall upon the "bridge"—that elevated structure which is so appropriately named and which extends the full width of the deck on the forward part of the ship—in front of the huge smokestacks, as a "land lubber" might designate its location.

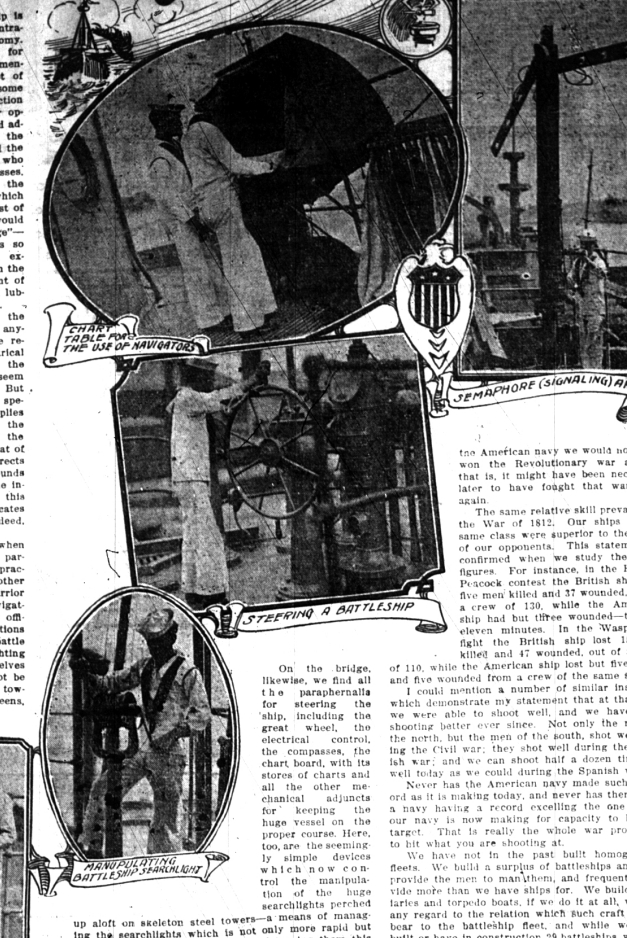
For one thing, we find on the bridge an even greater array than anywhere else on the ship of those remarkable mechanical and electrical devices which do so much of the work on shipboard that would seem to require human intelligence. But the bridge has in addition a special significance which multiplies many times its importance and the interest of its equipment. It is the "nerve center" of the ship, the seat of authority and command which directs all the operations within the bounds of the big armorclad, and also the intelligence office through which this warship community communicates other vessels of the fleet and, indeed, with the entire outside world.

Under ordinary conditions when the battleship is cruising at sea, participating in battle drill or target practitse or engaged in any of the other important functions of a sea warrior the captain commanding, the navigating officer and other responsible officials of the ship have their positions on the bridge. In time of actual battle those directing heads of the fighting machine would not expose themselves on the bridge, but they would not be far away. Sheltered by conning towers or some other protective screens,

they would be as near as possible to the vantage points to be found only on the exposed bridge and from those substitute observatories—some of them located directly behind or otherwise adjacent to the bridge—would direct the action of the battling armorclad.

In order to enable the officers on the bridge to be at all times closely in touch with all parts of the ship this elevated promenade is made the nerve center of elaborate telephone, telegraph and signaling systems that afford instantaneous communication with the engine and fire rooms, the ammunition magazines, all the different "gun stations" throughout the ship, and, in fact, every scene of activity that has part in the complex mission of one of these great fighting machines. The telephone system on a battleship is much like the private telephone system in a great store or manufactory, but with the difference that on shipboard most of the receivers are of the pattern which fit close to the head, covering both ears and strongly resembling those used by the hello girls in telephone exchanges. This special equipment is designed to shut out disturbing noises and is very essential when officers and men may be called upon to listen to telephone conversation when the guns are roaring or against the opposition of the various distracting noises always to be encountered on shipboard.

Near the bridge of a battleship is the wireless telegraph station which is one of the newer yet easily one of the most important adjuncts of the up-to-date battleship. However, the wireless telegraph is not used for interior communication aboard the battleship but solely for the exchange of messages with other ships and with shore stations. What are sometimes referred to as "telegraphs" on shipboard are not telegraphs at all, as the lay reader understands them, but are rather signaling systems. The most common of these communicative systems is that whereby the pressure of a button or lever at one station on a battleship—say on the bridge—will cause a printed command to suddenly appear in illuminated form in a distant part of the ship. For instance, the movement of a certain lever on the bridge of the battleship will cause an illuminated sign to suddenly appear before the eyes of the engineers, "way down below the water line, reading, "Full Speed Ahead," or "Full Speed Astern," or any other command which it is desired to give. By means of this method of signaling a command can, if need be, be communicated simultaneously to a number of different stations scattered throughout the ship. Indeed it is by this expedient that the captain of the battleship insures uniformity of action during target practise or in battle. In a twinkling he can send the command "Begin firing" or "Cease firing," or any other instructions to each and every gun crew scattered throughout the length of the ship.



On the bridge, likewise, we find all the paraphernalia for steering the ship, including the great wheel, the electrical control, the compasses, the chart board, with its stores of charts and all the other mechanical adjuncts for keeping the huge vessel on the proper course. Here, too, are the seemingly simple devices which now control the manipulation of the huge searchlights perched up aloft on skeleton steel towers—a means of managing the searchlights which is not only more rapid but more effective than the old plan of turning them this way and that by manual labor. On the bridge, too, are found the apparatus for supplementing the no end of signaling devices for communication with other ships or with the shore. There are signal flags for use with various codes and with the always useful "wigwag," there are the semaphore and Ardois systems for signaling at night by means of different combinations of red and white lights, and there is the electric torch for unofficial messages.

The American navy has been the most successful military organization, from its very inception, which the world has ever seen. That is a pretty broad statement, but it is absolutely true. There are good reasons for this.

In the early days we were a commercial people. We were natural sailormen. Our people lived along the shores. They made their money in commercial pursuits. The men who commanded merchant ships were not only good sailors; they were good merchants, and the foundations for many of the great fortunes of this country have come from that source. In order to protect themselves they were obliged to go armed. Their ships were armed as were privateers in time of war. The result is that they not only knew navigation, but they knew gunnery, and combined with these qualities the intelligence which makes great merchants.

Naturally, when those men came into positions where they commanded men-of-war, they were equal to the occasion, although they had had no naval training. As time went on they acquired a naval training, so that in the later wars, in the early part of the nineteenth century, they met every requirement, and in the recent wars the graduates of the Naval academy have been equal to every duty which has been imposed upon them. They have made a record of which every American citizen should be proud.

The American sailorman has always been efficient. They were good men in the time of the Revolution; competent men in the time of the war of 1812. They are better men today than they were in those days, because today 95 per cent. of them are American citizens, and not a man is shipped in the American navy who has not declared his intention to become a citizen. Twenty five years ago not more than 30 per cent. of our men-of-war's men were American citizens.

The American navy has been successful because our ships have always been as good ships as any that were built in the world. Our merchantmen, in the Revolutionary times, and down to the Civil war, were the best merchant ships sailing the seas. They were, no doubt, the best manned, and they made the fastest time. During the period of wooden ships, when we built men-of-war they were of the same general character. Our men-of-war, gun for gun, were equal to, probably superior, to those of any other nation.

We have always been able to shoot better than most people. Go back to the early times, to the revolutionary war. We lost 24 men-of-war, carrying less than 500 guns, in the Revolutionary war, while the British lost 102 men-of-war, carrying more than 2,500 guns. We captured 800 of their merchant ships, and it is not too much to say that if it had not been for the damage caused by the American navy we would not have won the Revolutionary war at all; that is, it might have been necessary later to have fought that war over again.

The same relative skill prevailed in the War of 1812. Our ships of the same class were superior to the ships of our opponents. This statement is confirmed when we study the exact figures. For instance, in the Hornet-Peacock contest the British ship lost five men killed and 37 wounded, out of a crew of 130, while the American ship had but three wounded—this in eleven minutes. In the Wasp-Frolic fight the British ship lost 15 men killed and 47 wounded, out of a crew of 110, while the American ship lost but five killed and five wounded from a crew of the same size.

I could mention a number of similar instances which demonstrate my statement that at that time we were able to shoot well, and we have been shooting better ever since. Not only the men of the north, but the men of the south, shot well during the Civil war; they shot well during the Spanish war; and we can shoot half a dozen times as well today as we could during the Spanish war.

Never has the American navy made such a record as it is making today, and never has there been a navy having a record excelling the one which our navy is now making for capacity to hit the target. That is really the whole war problem—to hit what you are shooting at.

We have not in the past built homogeneous fleets. We build a surplus of battleships and then provide the men to man them, and frequently provide more than we have ships for. We build auxiliaries and torpedo boats, if we do it at all, without any regard to the relation which such craft should bear to the battleship fleet, and while we have built or have in construction 29 battleships, we have practically no means of furnishing tenders for them under service conditions.

When the battleship fleet was sent to the Pacific recently it was necessary to charter 40 foreign ships to carry coal for it. If it had been found necessary to send the fleet around the horn in time of war it could not have been attempted, because we could not have furnished American vessels in which to carry the coal.

Very few people realize the deplorable condition we are in, as far as our merchant marine is concerned. If we had a large merchant marine we could draw from it without having special auxiliaries for the navy, but we are so lacking in both that it makes our present situation almost hopeless.

When the Spanish war broke out it was necessary to purchase colliers and transports. One hundred and two vessels were bought at a cost of something over $17,000,000, but they cost a very large percentage more than their market value, and more than twice as much as they could have been sold for if they had been put on the market at the termination of the war. In other words, we paid out millions of dollars because we had not provided ourselves with suitable auxiliaries for our battleship fleet. We should have a navy adequate for our needs; not only adequate in battleships, but adequate in every other respect.

Surgery on Heart

Surgical operations upon the heart have become more or less of a commonplace in medical history. Something approximating 100 cases of the sewing up of heart wounds are on record, and the recoveries have been considerable when one considers the highly dangerous character of such work. Hitherto, however, heart surgery has been limited to accident cases.

In a recent issue of the annals of surgery one of the workers at the Rockefeller institute for medical research discusses the possibility of treating diseased hearts surgically. He has made numerous experiments on animals and believes that such operations will be successfully performed on human beings in the near future. His tests have convinced him that the heart can be opened, scraped out (cleaned, so to speak), sewed up and started off on its "beating" path again without any great, at least insuperable, difficulty. By an ingenious system of side piping and new channeling he is able temporarily to cut out of the circulation portions of such important vessels as the descending aorta the largest artery in the body, without killing the animal. Among his suggested operations is one on the coronary arteries of the heart for the cure of angina pectoris.

This doctor has apparently proved to his own satisfaction on animals that successful surgical interference with the great vessels and the heart itself is a possibility. It is, of course, a long step from these experiments to actual operations on human beings, but there is every indication that the latter feat will be attempted in the near future. The intractability of cardiac affections and their high fatality make the proposed new surgery a thing of great general interest, and may justify the extreme boldness of the proposal.

Mrs. Wiggin as Playwright

Popular Author Tells of Her Amusing Verbal Conflicts With the Stage Director.

I could write pages concerning my verbal conflicts with the stage director, and most amusing they would be; only I am certain he would publish his own reminiscences of the same period.

"Authors seem to be absolutely opaque to all dramatic situations!" he would exclaim; and I would retort: "And stage managers seem to be blind and deaf to anything that is simple and human and natural."

"That will never go over the footlights," he would assert.

"Then let it go through them for a change!" I would reply.

He was wonderful with the children as well as most ingenious in inventing stage business, and in all our differences we each preserved respect and admiration for the other's work. I "wrote in" bits of dialogue at rehearsal for delightful persons who had not nearly enough to say for the salaries they received. I took home certain pathetic scenes very dear to me, and brought them back next day wreathed in smiles; as everybody concerned, from the Olympian head himself to the fourth stage assistant, detested tears and approved of laughter, both on moral and financial grounds. Why they deplored my gentle April showers of pathos when the rivers of tears that flow in such plays as "Madame X." wash thousands of dollars into the box office, I shall never understand, but so it was.—Kate Douglas Wiggin, in Harper's Bazar.

Credulous.

Hojax—You say Dixmyth has a sublime faith in humanity?

Tomdix—He certainly has. Why he even believes that his wife believes everything he tells her.

MICHIGAN HAPPENINGS

Bay City.—Adolis, the ten-year-old daughter of Mr. and Mrs. C. E. Bonnell, was playing with some other children, when one of them put a bean in her ear. She was finally taken to a hospital, where the physicians were forced to remove it by making an incision into the cavity from the back of the ear.—A teacher from one of the northern towns who attended the recent convention of the State Teachers' association in this city, as soon as he returned to his school was put in quarantine by the authorities, and told he would have to stay there, on the theory that he had been exposed to smallpox. There has not been a case of that disease in Bay City in several months, and the teacher has written the local health officer explaining his predicament and asking assistance and advice. The telephone was brought into use to assure the officials that they had made a mistake and it is presumed that the teacher has been released.

Bay City—Kawkawlin experienced a freak snow storm. Two inches fell in the village, and none was reported a mile out.

Carleton—Raymond Baker, 14, son of Mr. and Mrs. Lelbert Baker, accidentally shot himself in the leg a week ago. He died of blood poisoning.

Kalamazoo—Letha Lambertson, 16 years old, died as a result of taking poison early in the day. She was childed by her mother for attending a dance.

Jackson—Dr. George C. Young, who fell four stories down an elevator shaft a few days ago, is dead. He leaves a widow. The body will be shipped to Owen Sound, Ont., his home.

Adrian—The Van Camp Packing Company, of Indianapolis, Ind., will erect a $250,000 building here to house a condensed milk factory. One hundred and forty thousand gallons of milk a day will be used.

Petoskey—Mr. and Mrs. Frank Cole have six children who have but three birthdays. Two girls were born Aug. 7, four years apart. A boy and girl were born July 8, seven years apart, and two boys were born Sept. 18, five years apart.

Owosso.—Walter Hodge, working on the Lansing & Northeastern road, fell 50 feet from the top of a pole, struck on his head on a bar of iron and escaped with a slight scalp wound. The cross arm of the pole broke and let him down head foremost. He is a lineman and was stringing wires.

Petoskey.—As he approached the fuse of a dynamite stick which had twice failed to explode, Henry Tompkins was blown 20 feet in the air, and broke his neck in falling, causing instant death. Mr. Tompkins was about fifty years old and had been employed by the Harbor Springs Lumber company of Harbor Springs since it was established. He leaves a widow and several children.

Owosso.—There were two sudden deaths here. Miss Emma Chandler, aged twenty-five, who came here several years ago from Greenwich, N. Y., to live with her uncle, Albert L. Chandler, died of heart disease. She was a member of the Methodist church.

Owosso.—Orville, the four-year-old son of Norman Cram, was fatally injured when the rear wheel of a loaded wagon passed over his body. The father and another man were loading beams in a field and the boy fell under the wheels, which crushed his lungs and stomach.

Jackson.—Dr. George C. Young, a well-known local physician, fell four stories down an elevator shaft in the People's National Bank building here and suffered a compound fracture of his skull and internal injuries. He will die.

Saginaw.—Mrs. Louise Lutz, sixty-five, is dying from the effects of injuries received by falling downstairs. She is one of the best-known German women in Saginaw.

Owosso.—Dr. William Stroebel, a dentist, who came here a year ago from the University of Michigan, where he graduated, died of paralysis of the respiratory muscles and of the spinal cord, after a few hours illness. He was twenty-seven, and is survived by a widow and two-year-old daughter. The body will be taken to his former home, Moscow, N. Y., for interment.

William Van Velsor, aged sixty, a farmer, died of blood poisoning. He pierced his hand with barb wire several weeks ago.

Cadillac.—Three woodsmen were injured almost simultaneously. Two were sawing while the third was "swamping." One of the sawyers was caught by the foot under the trunk of a felled tree. In attempting a rescue with an ax the rescuer drove the blade into his foot. Then the third man came and in chopping with one hand clipped two fingers from the other hand. The men are Leo Johnson, Jacob Wells and Otto Wilson.

Owosso.—Jay Thompson, 24 years old, was sentenced to 30 days in the county jail, fined $50 with the provision that if the $50 were not paid he would have to serve 90 days for violating the local option law. Silas Shutt, who complained, was sentenced to 15 days for being a tippler. They are the only men in the county jail.

Grand Rapids.—Robert Sproul, president of the State Master Plumbers' association and associated since 1871 with General McGurrin of this city, in the plumbing business, is dead. He was 70 years old and leaves a widow and three children.

Pontiac.—Policyholders in the Monitor Insurance company of Oakland will this year pay $1.95 on each $1,000 insurance. This is an increase of 35 cents over last year's rate. This year's losses were heavier than last year and the expense of doing business less.

Jackson.—Harvey Hedden, prominent advocate of socialism, has disappeared and the police are searching for him. He wrote a letter from Rochester, N. Y., stating that he would probably beat the message home. It is thought he is deranged. He has a wife and several children.

CURED SIX YEARS.

No Fear of Further Kidney Trouble.

Mrs. Josiah Clinker, State St., Tama, Iowa, says: "My first symptom of kidney trouble was intense pain in my back. This grew worse until I ached in every part of my body. I rested poorly and was so stiff in the morning I found it hard to dress. I became tired easily, lost flesh and was in a bad way. I was well pleased with the quick relief Doan's Kidney Pills gave me. They drove the pains away and restored my kidneys to a normal condition. I have been free from kidney trouble for six years."

Remember the name—Doan's.

For sale by all dealers. 50 cents a box. Foster-Milburn Co., Buffalo, N. Y.

THOUGHT SHE HAD PRACTICED

Frenchman's Suspicions Really Something of a Compliment to the Men of America.

Claude Grahame White, the English aviator, praised, at a dinner in New York, the good fellowship of Americans.

"The American woman is regarded abroad as an angel," he said. "The man is admittedly a good fellow, but an angel he is far from being.

"You've heard of the Frenchman perhaps, whose sweetheart spent the summer in America? After her return the poor Frenchman seemed quite blue.

"'What's the matter with you?' a friend asked.

"'I am worried,' the other muttered, 'about my fiancee. You see, since her return from America she kisses so much better than she used to.'"

LOOKING FOR TROUBLE.

"No, I don't think Reggy will ever learn to run his auto."

"Why not?"

"He's always trying to roll a cigarette and guide the machine at the same time."

SICK, SOUR, UPSET STOMACH

Indigestion, Gas, Heartburn or Dyspepsia Relieved Five Minutes After Taking a Little Diapepsin.

Here is a harmless preparation which surely will digest anything you eat and overcome a sour, gassy or out-of-order stomach within five minutes.

If your meals don't fit comfortably, or what you eat lies like a lump of lead in your stomach, or if you have heartburn, that is a sign of indigestion.

Get from your Pharmacist a 50-cent case of Pape's Diapepsin and take a dose just as soon as you can. There will be no sour risings, no belching of undigested food mixed with acid, no stomach gas or heartburn, fullness or heavy feeling in the stomach, Nausea, Debilitating Headaches, Dizziness or Intestinal griping. This will all go, and, besides, there will be no sour food left over in the stomach to poison your breath with nauseous odors.

Pape's Diapepsin is a certain cure for out-of-order stomachs, because it takes hold of your food and digests it just the same as if your stomach wasn't there.

Relief in five minutes from all stomach misery is waiting for you at any drug store here in town.

These large 50-cent cases of Pape's Diapepsin contain more than sufficient to thoroughly cure almost any case of Dyspepsia, Indigestion, Gastritis or any other stomach disorder.

Collateral.

"Can you offer any security?"

"Well, I'm willing to leave my wife."

Important to Mothers

Examine carefully every bottle of CASTORIA, a safe and sure remedy for infants and children, and see that it Bears the Signature of *Chas. H. Fletcher*

In Use For Over 30 Years.

The Kind You Have Always Bought

The Regular Fare.

"What makes you think that young man will be a success in society?"

"The fact that he has such an extraordinary appetite for tea and salads."

What Murine Eye Remedy Does to the Eyes Is to Refresh, Cleanse, Strengthen and Stimulate Healthful Circulation, Promoting Normal Conditions. Try Murine in your Eyes.

Appreciation of good accomplished helps more than much advice on the good yet to be done.

W. L. DOUGLAS $3 $3.50 & $4 SHOES FOR MEN & WOMEN

BOYS' SHOES, $2.00, $2.50 & $3.00. BEST IN THE WORLD.

W. L. Douglas $3.00, $3.50 and $4.00 shoes are made in the same factories and by the same workmen as the finest custom shoes for which they command from $5.00 to $7.00.

Do you realize that my shoes have been the standard for over 30 years, that I make and sell more $3.00, $3.50 and $4.00 shoes than any other manufacturer in the U.S., and that DOUGLAS FOR DOLLAR, I GUARANTEE MY SHOES to hold their shape, look and fit better and wear longer than any other $3.00, $3.50 or $4.00 shoes you can buy? Quality counts. It has made my shoes THE LEADERS OF THE WORLD.

You will be money in pocket when you buy my shoes. Sold direct from factory to wearer at first and appearances, and when it comes time for you to purchase another pair, give me a trial and see if I do not deserve them as well as the last ones were so well, and gave you so much comfort.

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If your dealer cannot supply you, write for Mail Order Catalog. W. L. DOUGLAS, 124 Spark Street, Brockton, Mass.

Can you blame Him!

"Pa, what does 'skeptical' mean?"

"That describes a man's feelings when a woman tells her age."

Strong Winds and Sand Storms cause granulation of the eyelids. PETTIT'S EYE SALVE soothes and quickly relieves. All druggists or Howard Bros., Buffalo, N.Y.

Capacity.

Knicker—How many will your motor car hold?

Bocker—Five and a cop.

Mrs. Winslow's Soothing Syrup.

For children teething, softens the gums, reduces inflammation, allays pain, cures wind colic. 25c a bottle.

Women have been known to shake hands for the purpose of trying to shake secrets out of each other.

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By Lydia E. Pinkham's Vegetable Compound

De Forest, Wis.—"After an operation four years ago I had pains downward in both sides, backache, and a weakness. The doctor wanted me to have another operation. I took Lydia E. Pinkham's Vegetable Compound and Pain entirely cured me of my trouble."—Mrs. AUGUSTE VESERMANN, De Forest, Wisconsin.

Another Operation Avoided.

New Orleans, La.—"For years I suffered from severe female troubles. Finally I was confined to my bed and the doctor said an operation was necessary. I wrote Lydia E. Pinkham's Vegetable Compound a trial first, and was saved from an operation."—Mrs. LILY PEYROUX, 1111 Kerlerec St., New Orleans, La.

Thirty years of unparalleled success confirms the power of Lydia E. Pinkham's Vegetable Compound to cure female diseases. The great volume of unsolicited testimony constantly pouring in proves conclusively that Lydia E. Pinkham's Vegetable Compound is a remarkable remedy for those distressing feminine ills from which so many women suffer.

If you want special advice about your case write to Mrs. Pinkham, at Lynn, Mass. Her advice is free, and always helpful.

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