WHAT MODERN INVENTIONS HAVE DONE FOR THE NAVY

Wonderful Contrivances of Defense and Offense That Add to the Effectiveness of Our Battleships.

Clear Descriptions of Many Equipments the Use of Which is Known to the Aver Landsman.

Almost every National evidence of advancement has made its impress upon our naval vessels within the last ten years, and what our ships are today represents us as a people in every science, every art and every mechanical achievement.

Let us see how this is borne out.

While naval vessels are primarily for offensive purposes, to carry their powers aggressively they must have certain elements of safety and defense, and in touching upon the principal inventions contributing to our naval might today it were best to divide them into inventions for defense, inventions for offense and inventions for safety and efficiency, and in using the term "invention" it is not intended to restrict it to its narrow meaning of patented ideas.

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Inventions for Defense.

The cellular construction of the hull is of chief importance. The subdividing of the interior of naval craft into many water-tight compartments makes them vast honey-combs of steel, and in vessels of the battleship type the result is like 275 of these cells. The purpose of this is to make each compartment absolutely independent of its neighbors, and in case of accident to limit or localize the consequences of injury. An extensive system of drains, under the direct control of pumps of great capacity, either feeding into or exhausting from these compartments, provides reasonably against the consequences of either fire or water.

To make the efficiency of each water-tight compartment complete, water-tight doors are fitted, which, while permitting inter-communication, seal the steel walls against the admission of either fire or water from an adjoining apartment.

The water-tight door has been a source of vexing experiment for years, and only within the past year really has a type been evolved promising efficiency of working and safety to the men in the compartments. This door is known as the "Cowles long-arm" system of water-tight doors, and by experiment has proved itself reliable under all the trying circumstances involved, especially where the doorway has become clogged by the presence of coal, something which would hamper any other door now in use. Aside from that, the door takes up no lateral space—sliding against instead of swinging from the bulkhead, thus leaving more precious room for other purposes of importance. Nearly every large cruiser and battleship in our navy is now fitted with these doors, and when the "collision signal" is given or the first preparation for battle is made, each compartment can be closed at once, many of them being under the direct control of one man from a central station. The fact that all such doors were not closed when the British ship Victoria was run down was the principal reason for her sinking.

CORN-PITH CELLULOSE.

A few years ago who would have thought our waving field of corn harbored an element for the safety of our battleships, and yet such was and is so. Today no American fighting craft is deemed complete without its belt or cofferdam of corn-pith cellulose. The pith of the stalk is cut out and ground into a coarse, mealy mass and then under pressure molded into blocks or briquettes. In this form it is packed into the cells made for it against the sides of the ship and about the region of the water line. The stuff weighs only a fractional part of a similar bulk of water.

Now when an enemy's shot goes tearing through the outside plating and pierces the cellulose, if water be admitted by the rolling of the vessel the cellulose at once swells automatically and plugs the hole in itself as well as in the plating, thus preventing a dangerous admission of water in the ticklish region of the water line. A curious virtue of this stuff is that it does not exert a damaging pressure as corn would do under like circumstances, but rests content simply with plugging the hole. Of course this material would be scattered by explosive shell fire, but even then, being fireproofed, it will not burn.

FIREPROOFED WOOD.

By a chemical process all wood except that for the decks used on shipboard is fireproofed and one of the dangerous consequences of shell fire is thus reduced to a minimum. Before the adoption of this fire-proofing blocks of wood so treated were placed in one of the boiler furnaces in the navy department and after several hours of exposure to heat and flame they were taken out simply charred, but with no evidences of either flame or actual combustion.

In the late Chino-Japanese war the ships suffered severely from fires caused by the explosion of the enemy's shell, and at times nearly all of the gun crews would be called away to work against that foe in their very midst, their guns in the meantime silenced. None of Spain's ships have fireproofed wood, and every splinter on board will be a menace to their safety and their efficiency in battle.

HARVEYIZED ARMOR.

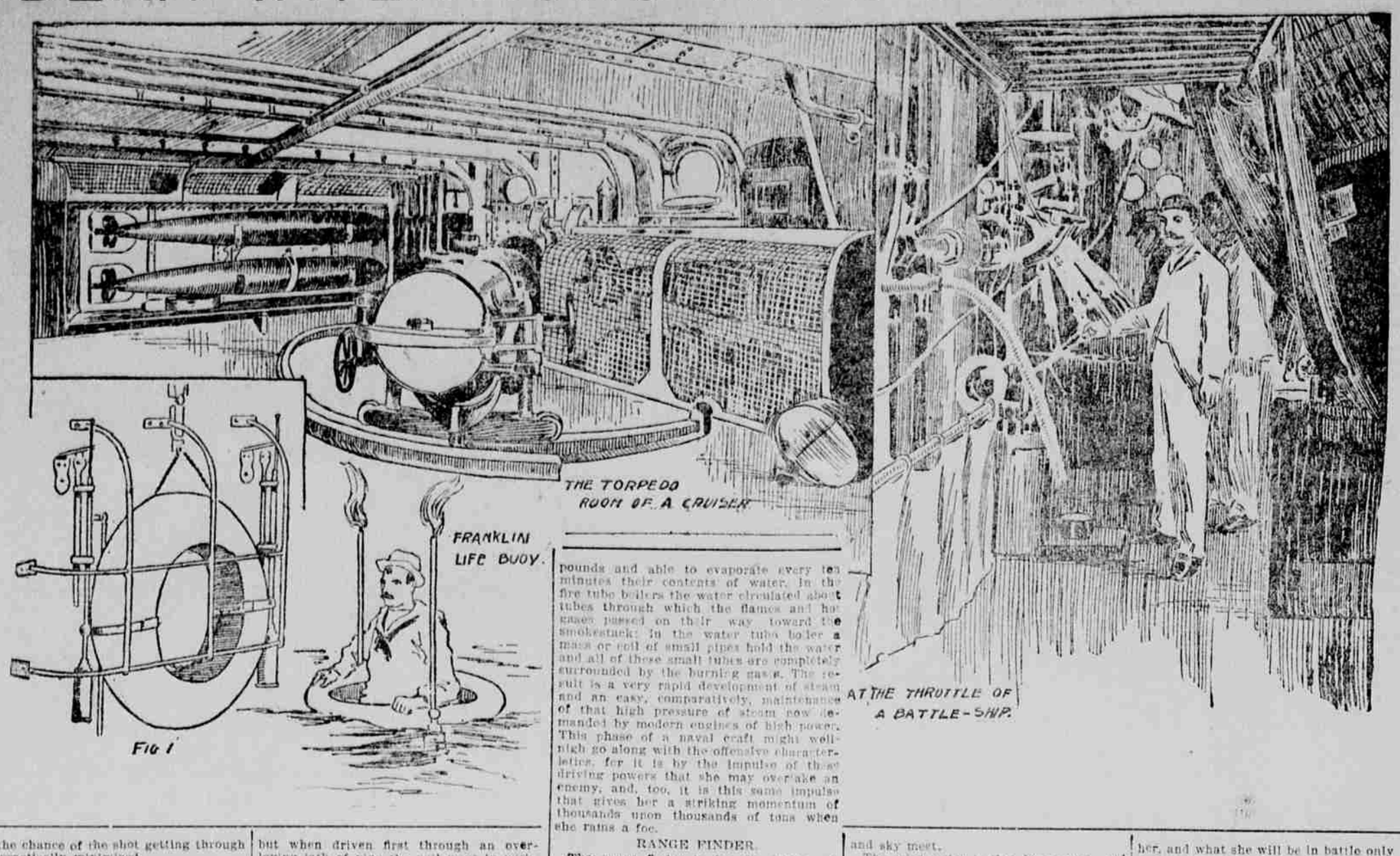
One of the most important inventions of the age is that by which armor can be hardened and made much more powerful against the attack of either shot or shell. The process was invented by a Mr. Harvey, and consists in supercarbonating the face of the armor plate to a depth of an inch or more, as choice may determine. As every one knows, steel differs from iron only in its added element of carbon, and the higher the percentage of carbon—within certain limits—the greater the temper and consequent hardness to which that material becomes susceptible. Nickel, in prescribed portions, adds materially to the toughness of steel. This, too, is a modern element in armor.

Now comes the question: "How do these things help us?" Compound armor—alternate plates of steel and wrought iron—were used by the English to a recent date. The object was that the elasticity of the iron should back up the greater shattering force or hardness of the less pliant steel, the result being a progressive alternation of radical check with a clinging yielding force. In theory the idea was good, but even though the plates were snugly bolted together, they lacked unity of action and that mutual support embodied in imagination.

The Harveyized process solved the difficulty. One great mass of tough nickel steel was made use of, and the defensive face was hardened to the desired depth, making a homogeneous plate. Now when a shot strikes this armor, before the outer or hardened part has been taxed to the breaking point, the strain to a great extent has been absorbed and distributed through a wide area of the tough backing, and the force of the blow is so neutralized that the chance of the shot getting through it is practically minimized.

This momentary halting of the shot by which time is given the tough, unhardened portion of the armor to distribute the shock throughout its mass and to sap the energy of the projectile is the true theory of the working of Harveyized armor.

The result is a defensive increase of nearly 50 per cent upon the same thickness and weight of armor, and but for a curious provision, by which the bolt holes or places for them are left unhardened, it would be practically impossible to drill through the face of this armor after once being Harveyized. Nothing else has done so much to check or meet the growing power of modern ordnance. This invention, like the two preceding, is American.



Inventions of Offense.

The principal inventions of defense are rapid-firing guns, armor-piercing shell, smokeless powder and the automobile torpedo.

Of the great guns, ranging in caliber from 8 to 13 inch, the modern system of built-up construction, i. e., a series of steel tubes of various elastic qualities being shrunk on successively over a single inner tube of greatest strength, is one of general adoption; and our own guns differ from those of other powers only in the processes and skill of manufacture. It is the breech mechanism, guns being otherwise equal, that makes or mars modern ordnance; and the facility and rapidity with which the breech can be opened and safely closed is, today, the most vital essential to effective working of ordnance. For guns of high power, ranging from the 4-inch to the 6-inch rifle, Assistant Naval Constructor Dashiell has done more than any other man in America to provide us with a rapid-fire breech mechanism of proved efficiency; and today he has completed a modification of his earlier design, which will place us ahead of the world in this particular.

In these automatic guns, designed by Hiram S. Maxim, the recoil of the first shot is turned to account in discharging the empty cartridge, case, reloading, and returning the gun to firing readiness; and by the continued pressure upon the trigger the guns continue firing till its ammunition supply becomes exhausted. The cartridges are strung on a belt containing a hundred or more—depending upon the size of the gun—and are fed into the breech of the gun right from the ammunition box. There are two calibers, one of the ordinary rifle size, which weighs but a few pounds, and which a man may hold out at arm's length, and another which fires a one-pound shot. It is this latter which forms the most destructive part of the Spanish torpedo boat destroyer's batteries, and against which no torpedo boat could hope to live. Either of these guns will fire several hundred shots a minute—the smaller gun as many as 700, so it is said, and all the gunner has to do is to point the piece and keep his finger pressing against the trigger; the gun does the rest. A white line of spray will tell where the shot strikes, and a slight shifting in accordance with that ripping line of water will tell just how to lead it up to the foe. No alteration of sights is necessary—merely a following, instead, of that visual thread of flying particles. We now have these guns in our service, thanks to the present emergency.

ARMOR-PIERCING SHELL.

To go through nineteen inches of Harveyized steel, distant 2500 yards, is the function required of a 13-inch armor piercing projectile for the United States navy. That much hardened steel has the defensive equivalent of quite twenty-eight inches of plain steel, and in turn twenty-eight inches of plain steel has a resisting force equal to that presented lengthwise by four of five squares of ordinary brick houses.

The armor piercing shell is the natural answer to the Harveyized armor, and those of the Wheeler-Stirling make are the best. The projectile is manufactured by a secret process, but in principle it is on the order of Harveyized armor. The shell is gradually hardened from the base upward till the climax is reached at the point, and as a result the rest of the shell takes up the strain of impact and helps to support the super-hardened point in its passage through the opposing armor. To make the chances of penetration greater a cap, the design of a Mr. Johnson, is fitted over the point. This cap is made either of soft steel or composition. Its object is to support the point squarely at the moment of entrance, and, in fusing away under the intense heat then generated, to form a lubricant for the easier passage of the projectile. It is interesting to know that this device is the direct result of accident, Mr. Johnson having discovered it in driving nails in hard wood. Usually the nail doubled up and refused to be driven in, but when driven first through an overlaying lath of pine the nail went in without deformation. The principle so discovered has resulted in giving us a most superior projectile.

The purpose of the armor-piercing projectile is to tear its way through the heaviest armor, and, if possible, to reach the vitals, as the engines, the boilers and the magazines are called, which lie below the water line and, behind many inches of armor and several feet of coal. When it is known that such a shot will go straight through the equivalent of nearly thirty inches of plain steel a thousand yards off and come out the other side undeformed, some notion of its power may be got.

SMOKELESS POWDER.

Almost all foreign naval powers now use smokeless powder, and while we have an excellent one of our own compounding, but little of it has been manufactured except for modest experimental purposes. With the exception of our small guns of from one-pounders to six-pounders, our heavier ordnance will use the brown, prismatic powder of domestic manufacture. Aside from the advantages of its comparative smokelessness, the smokeless powder is capable of developing much greater power on a given weight. As a result, more ammunition can be carried and greater powers of penetration developed in the missiles. Gun cotton is the base of this smokeless powder.

AUTOMOBILE TORPEDOES.

Of all modern inventions in the way of death dealing implements of war the torpedo represents the very acme, both in the consequences of its explosion and the skill devoted to its get-up.

In our service today we have two kinds, the Whitehead and the Howell, the latter of purely American design and the idea of Commodore John A. Howell. In the Whitehead the motive power is compressed air, stored in the reservoir at a pressure of 1850 pounds to the square inch, ninety times that of the normal air pressure. This pressure is really a dangerous matter, and the bursting of that tank is a thing to be dreaded. The torpedo is impelled from the tube by a charge of about four ounces of powder, and in passing out a little lever turns on the rower to the torpedo's engine. By the time it has reached the water the mechanism is driving, without sudden jar, the propellers at full speed, and this miniature craft is speeding along from ten to fourteen feet below the water at the rate of thirty knots an hour. It has an effective range of 500 to 600 yards, and when clear of the torpedo boat a short distance a safety device on the nose unscrews and leaves bare the plunger free to detonate on reaching its mark that fateful charge of 220 pounds of gun cotton.

The Howell torpedo is impelled by the force stored up in a heavy wheel, which is spun up just before launching to something like 10,000 revolutions a minute. The gyroscopic tendency of this revolving wheel keeps the torpedo steadily on its pathway, and until recently, when the Whitehead adopted the Obry steering device, a small adaptation of this same principle, the Howell torpedo is wound up by a steam motor. The steering arrangement of the Whitehead is driven by a spring wound up any time before the torpedo is placed in the tube for firing.

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Miscellaneous Inventions.

Of inventions that add directly to the efficiency of modern naval vessels, the engines come easily first. While the navy is thoroughly up to date in the matter of its propelling engines, the types and character of those in use have been evolved by the patient and careful study of the bureau of steam engineering, and no one man, unless it be by the discriminating judgment of Engineer-in-Chief Melville, can claim especial right to the development of any part. All of the corps that have done designing work have helped the good cause, and the performance of our ships is evidence enough.

With us the quadruple expansion engine is the highest type in use today, and, excepting our torpedo boats, the Nashville is the only good sized craft with engines of that kind. The revolution effected by this order of marine engines can not be overestimated; and from one horse power per ton of material we have come to the same result on forty pounds. All this is the outcome of the greater strength of steel and certain mechanical changes made possible thereby.

In the matter of boilers, we have gone from the cumbersome fire tube boilers to the much lighter and more efficient water tube boilers capable of developing and maintaining a constant pressure of 250 pounds and able to evaporate every ten minutes their contents of water. In the fire tube boilers the water circulated about tubes through which the flames and hot gases passed on their way toward the smokestack; in the water tube boiler a mass or coil of small pipes hold the water and all of these small tubes are completely surrounded by the burning gases. The result is a very rapid development of steam and an easy, comparatively, maintenance of that high pressure of steam now demanded by modern engines of high power. This phase of a naval craft might well-nigh go along with the offensive characteristics, for it is by the impulse of these driving powers that she may overtake an enemy, and, too, it is this same impulse that gives her a striking momentum of thousands upon thousands of tons when she rains a foe.

RANGE FINDER.

The range finder is for the quick and accurate determination of the distance of an approaching enemy, and is fashioned upon a simple principle of applied geometry or surveying. Up in two of the tops, one on either mast, or any other two convenient points commanding a clear sweep of the horizon, are placed two range finders. These range finders consist of a telescope and a telephone, and the operator of each is in direct communication with the other.

Upon sighting a foe or an approaching vessel the first one communicates the fact and the direction of the distant craft to the other operator, and both bring their telescopes to bear upon the same point. The distance between the two observing stations is a known factor to the fraction of an inch, and this forms the base line of a triangle, of which the angle of the two other sides must be in accord with the direction of the converging telescopes. By a simple electrical apparatus, a reading is automatically registered, giving the length of the axis of this triangle in yards, which, of course, is the true distance of the object. This is before the receiving station in the conning tower. The man in charge of that station strikes a mean between the readings of the shifting hand and transmits it to the dials before each of the principal gun stations, and it is only left then for the gun captain or elevator man to make the necessary corrections and to bring his piece to bear on the target. In the case of the big guns in the turrets, where the elevator man is unable to see the object to be fired upon, the operation is interesting. The gun captain or divisional officer, perhaps, brings the cross hairs in his telescopic sight to bear in a general vertical direction upon the mark.

By an electrical arrangement the elevation for range is recorded on a dial just before the elevator man, who controls the gear guiding the elevation or depression of the gun. Beside him, also, is the range indicator dial operated by the man in the conning tower, and he must alter the train of his gun till the dial worked by the movement of the gun reads in unison with the dial giving the range-finder reading. When they accord the elevator man places his hand upon a button, and so long as the two dials are kept in agreement by the movement of a wheel on his right his hand remains on the button and the circuit is closed for firing and need only the pressure of the gun captain's finger on a similar button to discharge the gun. The moment the two dials disagree the elevator man raises his finger from the button, and, even though the gun captain may press his button the gun can not be fired till the elevator man presses his again and at the same moment. With things reduced to such a nicety, it is no wonder that the element of chance has been largely cut out from modern gun practice.

THE STADIMETER.

The stadimeter is the range finder for one person where either the known length or height of an object stands in the stead of that base established between the two positions of the range finder just described. The sea line becomes one side of the triangle and the known height of the approaching figure form the base, while the angle of observation touching the top of the mast of the vessel observed must give the distance on the sea line. With the distance known on the sea line the angle of observation also determines the height of the point scanned. The application of the stadimeter is various, but, unlike the range finder, either the distance of the object must be known to determine its height or its height must be known to discover its distance, but one way or another it admits of much quicker reading than were possible with a sextant. Time is everything when your foe is coming toward you at the rate of perhaps twenty knots, yes, forty, if you be moving at the same rate of speed in his direction, and things must be done quickly if done at all.

THE EOPHONE.

The eophone is a modified form of the megaphone. It consists of two large metallic ears with a dividing membrance of metal between. Ear pieces like telephone receivers fit on each of an observer's ears. When he hears a sound either at night or during foggy weather he must turn the mouth of the eophone in the direction of the sound and continue to do so till the volume of sound in each of his ears is the same. The direction of the eophone then is the true direction of the sound or approaching object, and it is very easy to warn the man at the wheel accordingly. Aside from localizing the direction of the sound the eophone also magnifies it and makes it possible to detect and determine the character of the sound long before one's ears unaided could do so.

SOLAROMETER.

Any one who has ever had to take a sight at sea when the weather was bad and the horizon so dim that the mere dwelling upon it made the eyes less sure that they saw it can appreciate the advantages of an instrument that eases the trials of navigation and sky meet.

The solarometer is that instrument, and is the invention of Lieutenant Commander W. H. Beehler of the navy. In brief, the solarometer substitutes an artificial horizon for the natural one, and this is done by a series of swinging rings actuated like the bowl of a compass, which keeps the solarometer always horizontal, no matter how the ship may roll. Now, by night or day, using the sun at one time or a star at the other, the declination or angle of which is known and qualified by tables readily accessible to every navigator, and again we have the principle of triangulation as we had it in the range finder and the stadimeter, but this time to determine the position of the ship itself—the height of the star and horizon being known to establish a base of measurement. Just so the glow of the star can be seen or the faint sense of the half-hidden sun observed, it makes no difference whether or not the horizon be dimmed by fog or haze or broken by a tumbling sea. Too much emphasis can not be laid upon this aid to navigation, and though the instrument is not yet perfect, it is a long, long advance upon previous facilities.

LEAK STOPPERS.

The Colomes leak stopper embodies another use of corn pith cellulose. A circular bag filled with cellulose and with a hole in the center through which the shaft of a pick is passed and backed by a washer form the principal parts of the contrivance. When a hole is made a man rushes to it from the inside, and with such a stopper as he may see is needed. He pushes the shaft through, standing to one side, and allows the pick to engage the drifting man. Next he pushes the bag of cellulose onto the shaft, backs it with a broad washer, and with a double-handled turn screw readily forces the bag up against the hole. In a moment the cellulose, now wet, expands and fills the irregular outlines of the hole. By experiment a 21-inch hole, under a head of twelve feet of water, was effectually closed in three minutes—an operation that necessitated the fitting of two arresters.

FRANKLIN LIFE BUOY.

The safety of the ship herself is not alone the consideration of naval architects, and some provision must be made for the immediate relief of the man who falls overboard. Before a boat can be lowered in response to that dreaded cry, "Man overboard!" the ship perhaps going at top speed, there is time and plenty for even a fairly skillful swimmer to drown. To guard against such a mishap there must be some means of instant relief, and that is embodied in the Franklin life buoy, the design of Chief Constructor Philip Hichborn. The buoy is an annular tank of copper, divided into several water tight compartments, and two upright swinging arms, weighted at the lower ends, are fixed to the sides. The lower ends of these arms—which are pipes—are filled with phosphide of calcium, a chemical which ignites by the action of water.

In response to the cry the quartermaster or man nearest the position of the buoy against the vessel's side trips the triggers and down it plunges. No matter which side turns uppermost, the weighted ends of the arms, with their burden of phosphide of calcium, swing under the water, and from the upper end of the tubes a bright flame burns at night to guide the drifting man, or a cloud of smoke does like service by day. The buoy will hold one man up in a sitting position and support two clinging to it, and a pendant life chain within the ring readily enables men to get up into it and rest. Several lives have already been saved, and the buoy has never failed to work where reasonable care had looked out for its efficiency.

CARE FOR THE SEAMEN.

Everything imaginable contributes to the comfort, the convenience and the health of officers and crew, and nothing is spared to make the ship a thoroughly habitable home for some four or five hundred exacting persons. Sanitation is of the best, and the most scrupulous care is exercised to guard against those awful germs that old people tell us never existed in their day. Seamen died of low fevers and cold with a frequency not now remembered, and only blessed providence knows how much of it was due to the presence of rotting wool, constant dampness, poor food, tainted water, and quarters so badly ventilated that the term hardly applies to the stifling, dim-lit accommodations in the days gone by. Today, thanks to watchfulness, the food is of the best, and, in cold storage, is practically fresh week in and week out, even though far out at sea. Fresh air is pumped or sucked down through the great red nostrils of the bulging ventilators; sunlight in plenty finds its way to all living spaces; water of the purest is to be had in plenty; the quarters are never cold, and attractive facilities for bathing make uncleanliness a crime not to be tolerated.

The modern fighting ship is everything human skill and human foresight can make her, and what she will be in battle only the cool judgment and the faithful performance of men to whom "Old Glory" is dear can tell, but we need have no alarms.

R. G. Skerrett.

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without a ship of war to reply to the powerful navy in the world; the land was between disciplined English and Egyptians that had never fought a foe. The Suez canal gave water connection to the English commander, and for less Egyptian sands are not a different for military operations. We began war without any army, save a total of 20,000 regulars, we shall find 40,000 civilized Spanish in Cuba, armed with modern weapons, yet this ignorant English correspondent about England's "losing no time in the first blow." If we strike by July shall strike as quickly in Cuba as England did in Egypt in 1882.

The Heart of America.

St. Louis Globe-Democrat.

The heart of America is different from that of all other Nations. There have into its making the mystery and romance of the voyages of pioneers across the Atlantic in days long past. There are the tears of separation from friends and lands, from graves of ancestors, from in which generations have toiled, from houses, from familiar streets. There heartbreak of torn ties in it. There it farewells to fading shores of England, Scotland, Ireland, France and Germany.

There are in the heart of America stories of early hardships, of struggles, nature, with wild beasts, with savages. There is the fragrance of the log cabin, the clearing, of the back log fire, of clapboard roof, of the dew and the rain, the snow. There is the memory of familiar wild things, of the deer, the and the squirrel. There are reminiscences of the hunter, of the long rides, of the powder flask, of the greased patch for rifle ball, and of the costumes and skins. There are memories of the forests, of deep shadows, of storms the trees. There are in the American the neighborliness of the pioneers—the light in talk, in simple news, in adventure, in hospitality, in simple in hearty appetite, in comforts of a roof, a blazing fire and roasted meat.

There are in it the love of simplicity, feeling of brotherliness, the comradeship of the woods. There are in it the of the forest, the hardihood of struggle, pluck gained by escape from many dangers, the sense of conquest of a continent. There is fraternity with all things that live, birds, the ground squirrel, and with stumps and trees. There is in it love of spring, and of drinking out of clear brook. There is in it the love scent of grain, of new-mown hay, of of apples in the orchard or piled in the lar, of huskings and barn raisings, of in the fields, of waving wheat, of buckwheat, of walnuts, of the wood pile, of clacking in the yard, of simple flowers growing by the door, of the garden of common vegetables, of rafters hung with herbs, of pork killings, of smoke houses. There is a love of friends, and of trees, of rail fences, and wild vines, and wild ries, and of nuttings, of harvest time, full barns, of stabled horses, of the ing time, of the haystacks and straw, of the house dog lazy in the sunshine, the weeds and their odors.

There are in the American heart memories of the first water with England, the revolution, of the tales of old soldiers, of pride in the success of that struggle and love of its heroes. There are memories of the fight of 1812 and its naval victories. There are memories of the war with Mexico, the California gold days; there are memories of the old pikes, of the stage coaches of the country inns, of school houses, country churches. There are memories of the agonies of the civil war, of desolate homes, of awful battles, of prisons, of sleeveless sleeves, of dead men brought home, cripples, of white-faced widows, of the orphans, of cemeteries with rows of headstones marked each "Unknown."

And later there have come into the American heart strength of victory, breadth of conquest, pride of riches, love of display, worship of success.

But deep underneath there is still the love of the simple, of the true, of the love of the strong, of the good. The scent of the log fire and the memory of the pioneers are fresh with us yet. Therefore our land is great. It is new, yet it is old; it goes back to our beginnings, and yet belongs to today. It carries in it all that we have been and all that we are.

Calvin Dill Wilson.

FOUGHT 200 FOR CIGARETTES.

Cuban Officer Went to a Town Filled with Spaniards to Get a Supply.

New York Sun.

During the early part of the Cuban rebellion an officer of the patriot army, who is now in this city, wanted a few packages of cigarettes, and to obtain them went openly into a town held by the Spanish soldiers, purchased what he desired and safely retreated, holding at bay, single-handed, 200 Spanish soldiers who attempted to capture him.

This officer is Major Henry E. Brooks, who recently came to New York from Jamaica, where he went to recover from wounds received in battle. Major Brooks will soon return to Cuba, either in the service of the United States as a scout or once more to join the Cuban army.

Major Brooks, who was born in the province of Santiago de Cuba of English parents, was among the first to engage in the insurrection against Spain. When in command of the Cuban forces around Guantanamo, which is about fifty miles east of Santiago de Cuba, he ran out of cigarettes so he left his command in charge of the next officer in rank and started for Guantanamo to get them. He crossed the long bridge leading into the city and proceeded to a cigar store, which he knew. He had with him his repeating rifle, his revolver and the always present machete. There were several hundred Spanish soldiers quartered in the town, and they had often attempted to capture Brooks, but had always failed. In telling of his adventure in Guantanamo, Major Brooks, when seen at the offices of the Cuban delegation, said:

"Yes, I did have a little fun there. You see, I wanted some cigarettes and decided to go after them. I got into the town all right and entered the cigar store. I placed my rifle on the counter where it was handy and bought what I wanted. Just after I had placed the cigarettes in my pockets I happened to look toward the door and there I saw a party of Spanish soldiers drawn up in line. They had their guns pointed at me, and their officer said in Spanish the words which in English mean "hands up." Instead of doing that I grabbed my rifle and let go a shot at the crowd. One of the soldiers dropped, and I rushed out of the door during the excitement and got into the street. The soldiers ran after me, shooting all the time.

"I ran up the long street toward the bridge which leads across the river into the country. The soldiers followed me, shooting as they ran. Their bullets flew wild and did not strike me, but one poor old woman was killed by a shot which was intended for me. The soldiers who had first attempted to capture me were joined by reinforcements until there were at least 200 after me. When I got to the bridge I turned and sent a couple of shots at the crowd, and then started across the bridge, which is long and narrow. Several times I turned around and fired at the soldiers, who had attempted to follow me across the bridge, and I rather think I killed a few of them, for I saw some drop. I finally got up into the hills, where I hid behind rocks and took a few more shots at the Spaniards. Then they gave up the chase, and I went back to my men. I got my cigarettes all right, but I am sorry that the poor, innocent old woman was killed."

Among the official Spanish reports at Madrid this adventure of the man who wanted something to smoke is chronicled as a great event of the early part of the war. According to the Spanish historians, a large body of insurgents entered the town of Guantanamo and, after a fierce fight with 200 Spanish soldiers, were driven back into the hills.

Quick Action in War.

Portland Oregonian.

"When England goes to war," writes the anti-American correspondent of the London Chronicle at Tampa, "she loses no time about getting troops to the front and striking the first blow." This correspondent is not well up in the war history of Great Britain, for it was eleven months before England struck the first blow at Alma after the destruction of the Turkish fleet at Sinope, in the Black Sea, by the Russians rendered war certain. In the last week of May, 1882, Arabi Pasha seized the government in Cairo. War began June 11, and a month later the English fleet bombarded Alexandria. Arabi Pasha had an army of 15,000 to 20,000 men, composed of Egyptian peasants, wretched fighting material, but it was two months and a half, from July 12 to August 27, before the English war department had 22,000 men ready to occupy Port Said and begin land operations.

Three months from the beginning of the war the crack British regulars defeated an armed mob of Eyptians at Tel-el-Kebir. This war, which lasted three months, was waged by a power that had 132,000 men in the English army, and a British army, all Englishmen, of 62,603 in India. Arabi Pasha was

A FEARFULLY BUILT SNAKE

The Sea Serpent May Be Amphibious According to This Account.

Here is a snake story which would seem to indicate that the sea serpent has a special fondness for summer sojourners at the seashore, and since they are rather scarce this year he has taken to dry land and gone inland. The story is told by a correspondent of the Chicago Chronicle in Anderson, Ind.

Howard Lewis, a farmer living four miles west of the city, in the neighborhood of a dismal swamp, made famous for years by snakes, was out in the fields working with his father-in-law was with him. They ran across a monster reptile while at work, and the snakeship was most aggressive from the start until he was laid out dead by the two men. They noticed his remarkable points and dragged him home with them to substantiate the story which they give. The authorities on snakes are puzzled in placing this one, the indications are that they will not be able to find a place for him in the snake code. He was 12 feet 3 inches long, and among other remarkable points had a pair of legs and three horns. His head was long and set with a solitary eye in the very center. On each side of this was a horn three inches in length, curving in. They were sharp and well pointed. Back of the eye, in the middle of the head, was a third horn, extending back like that of the rhinoceros. His snaky body tapered to each end.

In the broadest place he was eight inches in diameter while lying dead, while his tail was probably larger. His tail was half as long after that of a swordfish, and in the center of his body, where he was the largest, was a perfectly formed pair of legs, rather small in comparison with his other points, but wings for all that. It is not known what use he had for these. He was of a dark color, but his extraordinary tail was covered with spots of brilliant green and an occasional stripe ran from his head to his tail. People attribute the loss of all live stock, from a cow to a horse, to the reptile, so awe-inspiring was he.

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