

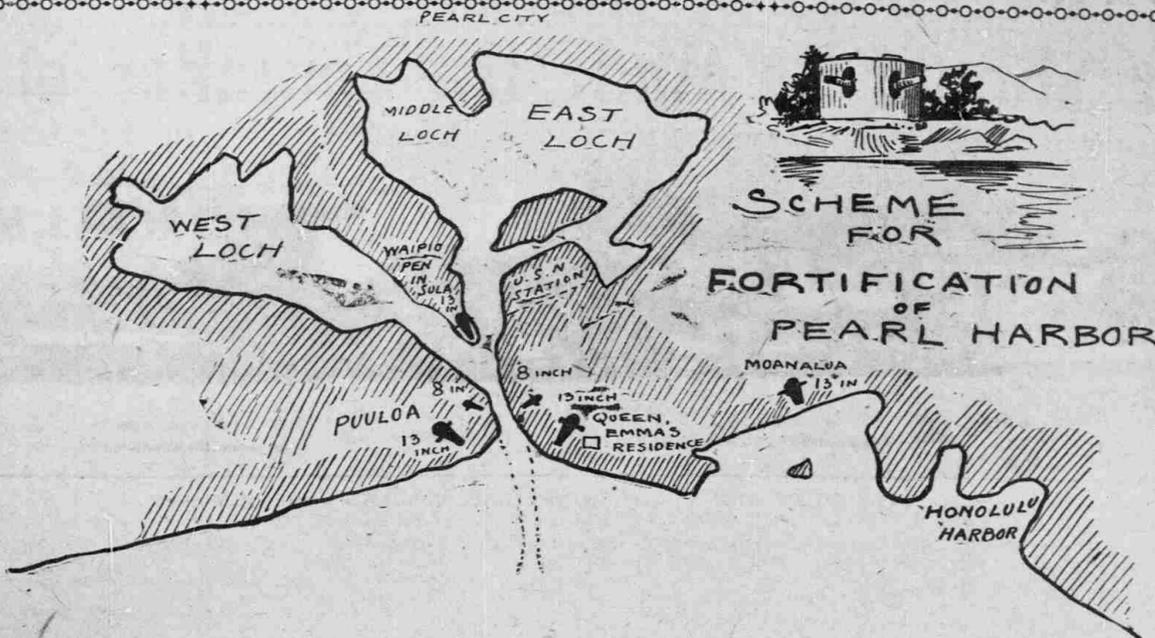
The Proposed Fortifications of Pearl Harbor.

HOW THE HARBOR MAY BE FORTIFIED.

The question of the fortification of the harbor against the attacks of an invading fleet seeking to seize the base or attempt to bottle up inside a fleet, has been made the subject of an inspection by a regularly appointed military board, the defense coming under that branch of the service. Besides the defense of Pearl Harbor the same board considered the general defense of the Territory at large.

It is understood that the island of Oahu, possessing the only real harbors and therefore the only strategic value, will be the only one to be fortified. The passes joining the windward and leeward sides of the island will be with other points on the coast line, commanded by heavy artillery, much of which will be concentrated at Pearl Harbor.

A probable plan of defense is outlined in the accompanying map. Powerful 13-inch batteries would be placed at the natural capes commanding the wider portion of the entrance and also on the point of the Peninsula which



immediately faces the entrance and the open sea. Another battery of heavy caliber would be placed at Moanalua to prevent an enemy's fleet advancing close to the protecting reef and directing a flanking fire upon the proposed naval station.

Small batteries of six or eight-inch guns placed at the narrowest portion of the channel, well within the entrance, would complete a formidable system of defense capable of demolishing any fleet coming within its zone of fire.

Captain U. S. White, engineer of the local naval station, who accompanied the board on its survey, has suggested that the heavier batteries take the form of turrets exactly similar to those on board such battleships as the Wisconsin and Kentucky, operated in the same manner, the requisite power being carried across the harbor channels by cable communication. These would mount two guns apiece. The ground is of sufficiently solid formation to maintain the turrets, and the men serving the batteries would find their safety in the foundation chambers.

Captain White's plans have been strongly approved by many authorities and may very likely take actual form.

HOW THE HARBOR MAY BE PROTECTED.

Present Peaceful Usage of the Lochs.

The present peaceful aspect of the Pearl Harbor lochs will in all probability undergo a mighty transformation within the next decade. Where white winged yachts now glide and junks and sampans ply their peaceful trade of casting nets, the huge floating fortresses of Uncle Sam may drop their heavy anchors and reflect their embattled sides, while the mountains reach to the sound of thunderous salutes.

Big vessels deep laden, harnessed to a fussy tug may pass for miles between the cane crowned shores to the docks and warehouses of the mammoth sugar plantations.

Where now a native fishing village, a faded remnant of olden days, stands, soon will be heard the clang of mighty hammers where cruisers lie in mammoth dry docks. A quite islet, used now only by simple fishermen, is planned to bear the ordnance fraught with many destinies of the United States. Busy sailors and marines will raise the Stars and Stripes and go expeditiously about the business of Uncle Sam, while his soldiers on neighboring shores tend the mighty guns, bulldog types of the protection that follows the flag of Columbia.

THE EMERALD BELT OF CANE.
Quiet as the lochs now lie to federal life, the spirit of commerce has long

dominated its shores. The soil, cinders from long extinct cones, so long idle under the uneventful reigns of island kings, has within the last decade, yielded an emerald setting of sugar cane to the blue waters that reaches in an unbroken belt from Honolulu to the upper slopes of Waianae along the plains and foothills. The cultivation of all available soil in this the mammoth industry of Hawaii, has ferried the seed cane across to Ford Island where yields, almost phenomenal of fourteen tons to the acre are regularly harvested. A hundred foot strip of this valuable land running along the waters edge, was bought for the United States at a price that opened many eyes to the value of sugar growing land at Pearl Harbor.

A railroad girdles the lochs and branches into the three big plantations of Ewa, Oahu and Honolulu, all owning big mills and vast pumping plants equipped with the latest machinery.

FISHES ARE PLENTIFUL.
The lochs abound with fish, the world famous mullet being very plentiful besides many other edible varieties. The Chinese and Japanese practically control these fisheries though there are some native fish ponds, built by man labor in days long gone by, controlled by private owners, where mullet are confined and kept handy for market. Many of the deep sea fishermen, Japanese who venture far out to sea in their frail craft, make the lochs their headquarters.

Feathered game abounds in season, golden plover, snipe, ducks and doves being abundant and the shooting rights are highly esteemed and carefully preserved.

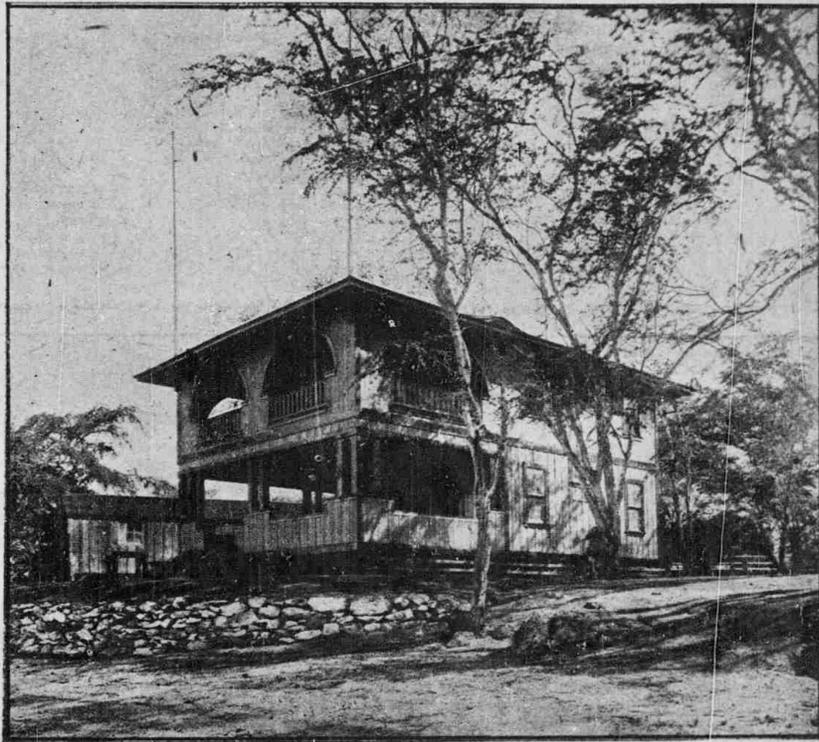
WHERE TRIM YACHTS GLIDE.

The Hawaii Yacht Club, boasting a fleet of forty different styles of craft from 24 tons down and having a membership list of nearly 150, has its headquarters here and owns a spacious clubhouse, besides a smaller erection, used as a post of call during deep water cruises, near the entrance. Frequent regattas are held upon the smooth waters across which the trade wind never falls, while any fine afternoon the trim craft may be seen navigating the beautiful lochs winding between the cane fields.

Shark hunting is a favorable pastime of the yachtsmen in the deep waters near the entrance and a fourteen foot selachian is a common capture. Alert eyes are always on the watch also for big turtle and hihi manu, (a giant ray) as they sun themselves on the surface a possible prey to a wary harpoon.

The surrounding scenery is magnificent the two big mountain ranges of Oahu looking down from their verdant heights over the emerald cane fields and the flashing waters of the lochs. Diamond Head, the well known headland that marks Oahu for the approaching tourist, stands out sharp and clear behind Honolulu, nestling tree-clad eight miles away. On a wooded peninsula stand many pretty residences, the country homes of Honolulu's citizens.

The cloud effects with their sweeping shadows, empurpling the deep cleft valleys of the mountains, as the woolly masses sweep before the trade winds, while the mirrors of the lochs reflect their shapes below, are famous and Pearl Harbor sunsets in their glory defy description.



HOME OF THE HAWAII YACHT CLUB.



PALMS AT RESIDENCE OF CHIEF JUSTICE FREAR.

THE MILITARY NECESSITIES OF THE UNITED STATES

(Continued from page 6.)
commerce on the Pacific would in time rival that on the Atlantic. A future generation, no doubt, will see the prophecy fulfilled.

The immense injury inflicted on American navigation and commerce by Great Britain in the war of 1812-1814, through her possessions of Bermuda and other West India islands, as also that suffered by the English from French privateers from the Isle of France, during the wars between those nations, are instances in proof of the necessity of anticipating and preventing, when we can, similar evils that may exist from these islands if held by other powers.

IS IT PROBABLE THAT ANY EUROPEAN POWER WHO MAY HEREAFTER BE AT WAR WITH

THE UNITED STATES WILL REFRAIN FROM TAKING POSSESSION OF THIS WEAK KINGDOM. IN VIEW OF THE GREAT INJURY THAT COULD BE DONE TO OUR COMMERCE THROUGH THEIR ACQUISITION OF THEM?

In a dispatch to Secretary of State Hamilton Fish, U. S. Minister Pierce describes the riot in Honolulu, at the time of and consequent upon the election of Kalakaua as king, which was suppressed by United States troops.

He concludes:
"Hereafter a United States vessel of war should always be stationed at these islands under a system of reliefs. A time may arrive when the United States government will find it necessary for the interests of our nation and its resident citizens here to take

possession of this country by military occupation."
(Vol. 2, Rep. Sen. Com. on For. Rel., concerning Hawaiian Islands, p. 970.)

U. S. MINISTER JOHN L. STEVENS.
"One of two courses seems to me absolutely necessary to be followed—either bold and vigorous measures for annexation, or a 'customs union,' an ocean cable from the California coast to Honolulu, Pearl Harbor perpetually ceded to the United States, with an implied but not necessarily stipulated American protectorate over the islands."
"So long as the islands retain their own independent government there remains the possibility that England or the Canadian Dominion might secure one of the Hawaiian harbors for a coaling station. Annexation excludes all dangers of this kind."
(Vol. 2, Rep. Sen. Com. on For. Rel., concerning Hawaiian Islands, pp. 1002-3.)

Opinions of U. S. Military and Naval Officers Concerning the

Control or Annexation of Hawaii:

GEN. J. M. SCHOFIELD AND GEN. B. S. ALEXANDER.

On June 24, 1872, Secretary of War Wm. W. Belknap issued confidential instructions to Generals Schofield and Alexander to go to Honolulu and investigate its defensive capabilities, in the event of war between the United States and some other maritime nation. Their report is lengthy, and contains the following:

"... We ascertained from the officers of the U. S. Navy, from maps and from seafaring men that Honolulu is the only good commercial harbor in the whole group of the Sandwich Islands.

"AN ENEMY COULD TAKE UP HIS POSITION OUTSIDE OF THE ENTRANCE TO THE HARBOR AND COMMAND THE ENTIRE ANCHORAGE, AS WELL AS THE TOWN OF HONOLULU ITSELF. THIS HARBOR WOULD, THEREFORE, BE OF NO USE TO US AS A HARBOR OF REFUGE IN A WAR WITH A POWERFUL MARITIME NATION.

"WITH ONE EXCEPTION, THERE IS NO HARBOR ON THE ISLANDS THAT CAN BE MADE TO SATISFY ALL THE CONDITIONS NECESSARY FOR A HARBOR OF REFUGE IN TIME OF WAR. THIS IS THE HARBOR OF EWA OR PEARL RIVER, SITUATED ON THE ISLAND OF OAHU, ABOUT SEVEN MILES WEST OF HONOLULU.

"Pearl River is a fine sheet of deep water extending inland about six miles from its mouth, where it could be completely defended by shore batteries. The depth of water after passing the bar is ample for any vessel.

"Pearl River is not a true river; it partakes more of the character of an estuary. It is divided into three portions called 'lochs'—the east lock, the middle lock and the west lock, the three together affording some thirty miles of water front, with deep water in the channels.

"If the coral barrier were removed, Pearl River harbor would seem to have all, or nearly all, the necessary properties to enable it to be converted into a good harbor of refuge. It could be completely defended by inexpensive batteries on either or both shores, firing across a narrow channel of entrance. Its waters are deep enough for the largest vessels of war, and its 'locks,' particularly around Rabbit Island, are spacious enough for a large number of vessels to ride at anchor in perfect security against all storms. Its shores are suitable for building proper establishments for sheltering the necessary supplies for a naval establishment, such as magazines of ammunition, provisions, coal, spars, rigging, etc., while the island of Oahu, upon which it is situated, could furnish fresh provisions, meats, fruits and vegetables in large quantities."

essary supplies for a naval establishment, such as magazines of ammunition, provisions, coal, spars, rigging, etc., while the island of Oahu, upon which it is situated, could furnish fresh provisions, meats, fruits and vegetables in large quantities."

"IT IS TO BE OBSERVED THAT IF THE UNITED STATES ARE EVER TO HAVE A HARBOR OF REFUGE AND NAVAL STATION IN THE HAWAIIAN ISLANDS IN THE EVENT OF WAR, THE HARBOR MUST BE PREPARED IN ADVANCE BY THE REMOVAL OF THE PEARL RIVER BAR.

"WHEN WAR HAS BEGUN IT WILL BE TOO LATE TO MAKE THIS HARBOR AVAILABLE, AND THERE IS NO OTHER SUITABLE HARBOR ON THESE ISLANDS."
(Vol. 2, Rep. Sen. Com. on For. Rel., concerning Hawaiian Islands, pp. 963-6.)

CAPTAIN A. T. MAHAN.
(Ib., Vol. 1, p. 113, and the Forum, Mar., 1893.)

"To any one viewing a map that shows the full extent of the Pacific, two circumstances will be strikingly and immediately apparent. He will see at a glance that the Sandwich Islands stand by themselves in a state of comparative isolation, amid a vast expanse of sea; and, again, that they form the center of a large circle whose radius is approximately the distance from Honolulu to San Francisco."

"This is substantially the same distance as from Honolulu to the Gilbert, Marshall, Samoan and Society Islands, all under European control except Samoa, in which we have a part influence."

"To have a central position such as this, and to be alone, having no rival and admitting no rival, are conditions that at once fix the attention of the strategist. But to this striking combination is to be added the remarkable relations borne to the great commercial routes traversing this vast expanse."

"TOO MUCH STRESS CANNOT BE LAID UPON THE IMMENSE DISADVANTAGE TO US OF ANY MARITIME ENEMY HAVING A COALING STATION WELL WITHIN 2,500 MILES. AS THIS IS OF EVERY POINT OF OUR COAST LINE FROM PUGET SOUND TO MEXICO. Were there many others available we might find it difficult to exclude from all. There is, however, but the one. Shut out from the Sandwich Islands as a coal base, an enemy is thrown back for supplies of fuel to distances of 3,500 or 4,000 miles—or between 7,000 and 8,000 going and coming—an impediment to sus-

tained maritime operations well nigh prohibitive. It is rarely that so important a factor in the attack or defense of a coast line—of a sea frontier—is concentrated in a single position, and the circumstance renders doubly imperative upon us to secure it if we rightfully can."

GEN. J. M. SCHOFIELD.
"In 1875 General J. M. Schofield, then commanding the Division of the Pacific, gave his views to Congress through Mr. Luttrell concerning the reciprocity treaty, then pending before Congress, as follows:
"THE HAWAIIAN ISLANDS CONSTITUTE THE ONLY NATURAL OUTPOST TO THE DEFENCES OF THE PACIFIC COAST. IN POSSESSION OF A FOREIGN NAVAL POWER, IN TIME OF WAR, AS A DEPOT FROM WHICH TO FIT OUT HOSTILE EXPEDITIONS AGAINST THIS COAST AND OUR COMMERCE ON THE PACIFIC OCEAN, THEY WOULD AFFORD THE MEANS OF INCALCULABLE INJURY TO THE UNITED STATES. If the absolute neutrality of the islands could always be insured, that would suffice; but they have not, and never can have, the power to maintain their own neutrality. The time has come when we must secure forever the desired control over those islands or let it pass into other hands. THE FINANCIAL INTEREST TO THE UNITED STATES INVOLVED IN THIS TREATY IS VERY SMALL AND IF IT WERE MUCH GREATER IT WOULD STILL BE INSIGNIFICANT WHEN COMPARED TO THE IMPORTANCE OF SUCH A MILITARY AND NAVAL STATION TO THE NATIONAL SECURITY AND WELFARE."

ADMIRAL BELKNAP.
"To the people of the United States the present situation is of momentous interest and of vital importance. Indeed, it would seem that nature had established that group to be ultimately occupied as an outpost, as it were, of the great Republic on its western border, and that the time had now come for the fulfillment of such design.

"A GLANCE AT A CHART OF THE PACIFIC WILL INDICATE TO THE MOST CASUAL OBSERVER THE GREAT IMPORTANCE AND UNESTIMABLE VALUE OF THOSE ISLANDS AS A STRATEGIC POINT AND COMMERCIAL CENTER. Situated in mid-north Pacific, the group looks out on every hand toward grand opportunities of trade, political ag-

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