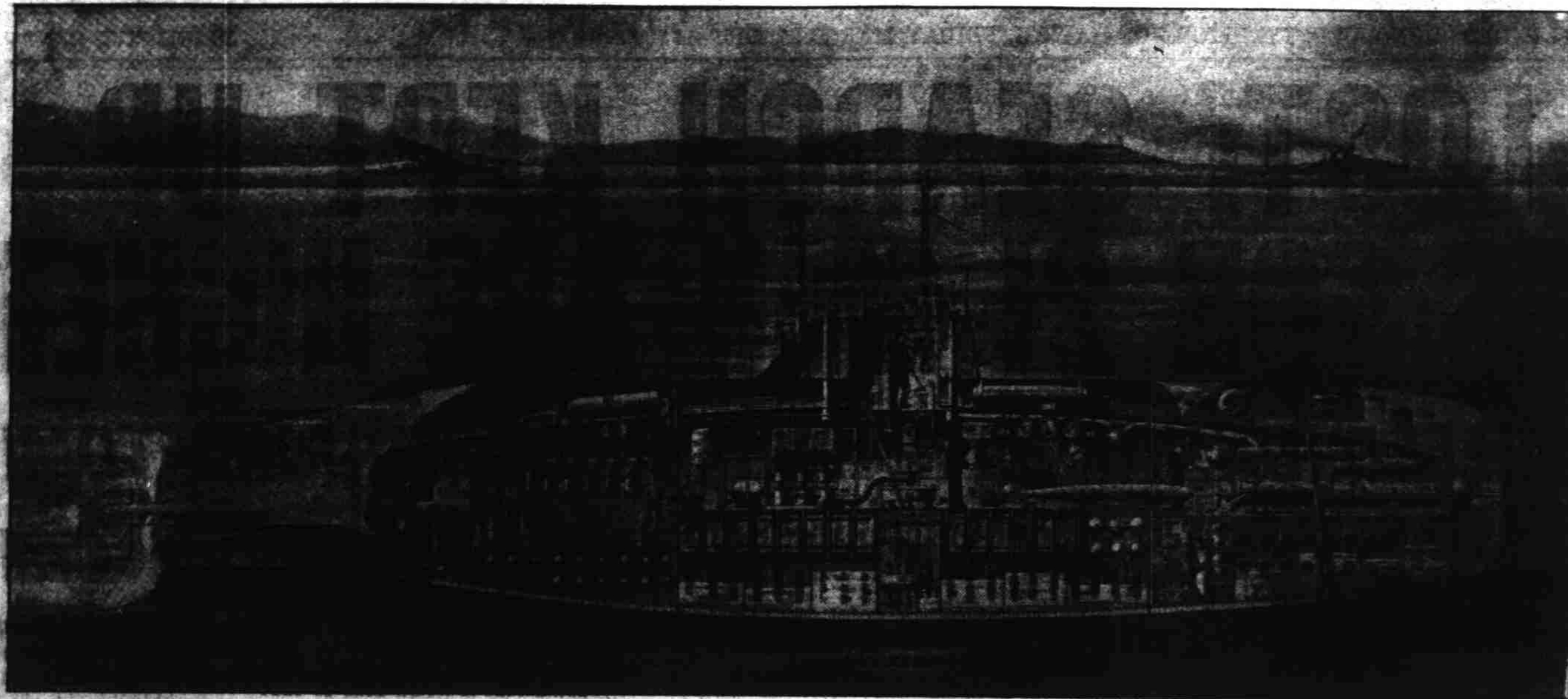


# HUMAN INGENUITY IS TAXED TO GET SAFE SUBMARINE



The photographed drawing above shows a submarine which in all material respects is similar to the F-4. The contour is the same, minor interior features being different. The boat is divided into three compartments, fore, midships and aft. The small room amidships, where the lower of the two men is shown standing, holds the men when the vessel is under water.

## How F Class Submarines Are Constructed; Each of Three Compartments Independent

Submarines of the F class are divided into three watertight compartments. The forward third of the ship is the torpedo room; the midships compartment contains the storage batteries, periscope and instruments, while the engine room is aft. Ordinarily four men are assigned in the torpedo room, and four in the engine room, while the officers and balance of the crew are in the midships compartment.

While submerged the bulkhead doors are not kept closed, as it is necessary for the navigation of the ship to transmit orders throughout the entire length. Men are stationed at the doors, however, and in case of

accident to any compartment, the men in that section are expected to make good their escape before the doors are locked. If, however, the men in a damaged compartment were unable to get to safety, the doors would be closed on them to insure the safety of the others.

## Can Aviator Fly Over Sea And Locate F-4?

Will an aviator of Honolulu be able to soar over the sea just beyond the harbor and locate the bottom where the F-4 is believed to be lying? That is a possibility that arose last night and which human energy and skill today are striving to transform into an actuality.

Francis hopes of the wives and relatives of the 21 men imprisoned in the F-4 are put in the ability of William Bradshaw, an amateur aviator, to get his partly assembled airplane into the air before the end of the month.

## GAMBLING WITH FATE IN A U. S. SUBMARINE; DANGER UNDER WATER

"Gambling With Fate in a Submarine" is graphically described in the Technical World Magazine by Robert O. Barrett, a well-known expert. He asks: Can the submarine be made safe? This question is asked whenever anything happens to one of these vessels, and, unfortunately, the query has been justified a good many times since this "modern order of fighting craft" came into being.

For ordinary navigation the submarine is designed to travel upon the surface of the water very much as any other craft, and in this condition it would take a good many tons of water to sink her. When prepared for underwater navigation she actually has in her ballast tanks almost enough water to carry her to the bottom.

motors stop, and it is against this lifting force that the propellers exert themselves in driving and in keeping the boat beneath the sea.

Scientists and aviators agree that an aviator flying a certain height over 35 fathoms of water off the harbor can plainly see objects of the size of the F-4 at the bottom of the sea.

Until lately most underwater boats were driven upon the surface by means of explosive engines using gasoline. This volatile fuel has caused a large number of the accidents registered against submarine flotillas.

### Ten Days

If it's coffee that is causing your nervousness, headache, heart flutter, biliousness, or sleeplessness, and you want to keep on with these troubles another year, why—stick to coffee!

(It's an established fact that the poisonous drug, caffeine, in coffee causes these and other ills.)

But if you want to know the joys of freedom from coffee troubles—quit coffee and use—

## POSTUM

—the delightful pure food-drink.

Made from prime wheat and a bit of wholesome molasses and free from caffeine, or any other harmful substance.

Usually a ten days' change from coffee to POSTUM is sufficient to convince most coffee drinkers that

**"There's a Reason" for Postum**

As a general rule the submarines in the United States service are towed on long trips and are invariably accompanied by another ship when venturing for any distance over the sea.

When running submerged, the men inside a submarine are, indeed, gambling with fate, because any sudden accident or rupture admitting a comparatively small quantity of water would suffice to send the boat quickly bottomward.

The submarine is safer than it used to be, but not safe by any manner of means, and for that reason our officers and jaekies volunteer for this duty, and the enlisted man is paid a bonus for the time he spends submerged in the dangerous craft.

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## Two Sisters, Wives of Men on F-4, Cruelly Torn With Anxiety

In a small cottage at the corner of Alapai and Beretania streets, Mrs. Frank C. Pierard was found, consoling her younger sister, Mrs. Archie H. Linger, a bride of one month, this morning. Both are wives of members of the F-4's crew.

Pierard's sister was too much overcome to speak. The older sister picked up her two twin babies, whose innocent faces looked on with manifest anxiety.

## TWO MEN OWE THEIR LIVES TO MERE CHANCE

James M. Hogget of Macdonald, Missouri, escaped the fate of his mates the crew of the F-4 by being on shore duty yesterday. Whomever the submarines go out for target practice or maneuvers one man is left on the wharf as watchman.

Lieut. Ede New in Submarine Service  
Lieut. Alfred L. Ede, commander of the missing F-4, was just recently appointed to the submarine service and received his commission as a junior lieutenant. He was born at Truckee, Nevada, 27 years ago and was appointed to Annapolis in 1905.

## SOME SUBMARINE FEATS ACCOMPLISHED IN U. S.

On September 20, last, the submarine E-1, at Newport, R. I., running 12 feet below the surface, accomplished a wonderful feat of torpedo marksmanship by scoring two center hits with torpedoes on a 10-foot moving target 2000 feet distant.

authorized by the previous Congress contemplated vessels much larger than any now in commission, adding: "Although the pioneers in the art of submarine navigation, as in the field of aviation, the United States navy has been outstripped by European engineers in the matter of size, speed and offensive power of the submarines. So the naval designers now are planning much larger and more formidable vessels of that type. Some of them propose the development of the submarine into a giant battleship that will replace the dreadnoughts in the first line of defense, and be capable of temporarily disappearing beneath the surface of the sea to escape a return fire after discharging its great 12-inch rifles at an enemy."

## SUBMARINE BELL HELPS TO CRAFT SAYS AN EXPERT

The use of the "submarine bell," which has come into vogue with the loss of the submarine F-4, is explained by an expert as follows:

The submarine bell, as perfected, consists of a bell rung under water, having it and leading the direction whenever it comes. It is used on lightships, exposed reefs, and buoys for the guidance of ships in darkness and thick weather. The equipment of vessels with its telephonic receivers extends through the great liners down to the smallest coasting vessels. A number have been installed in China and Japan and these waters will soon be as well protected as any in the world.

### New Hats

Panamas in the new Diamond shape - \$6.50 to \$8.50

New Straws, various weaves and styles - \$2 and \$2.50

Palm Beach Suits, - \$8.50 Including Free Belt to match

## The HUB

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