

UNCLE SAM'S NEWEST SUBMARINE



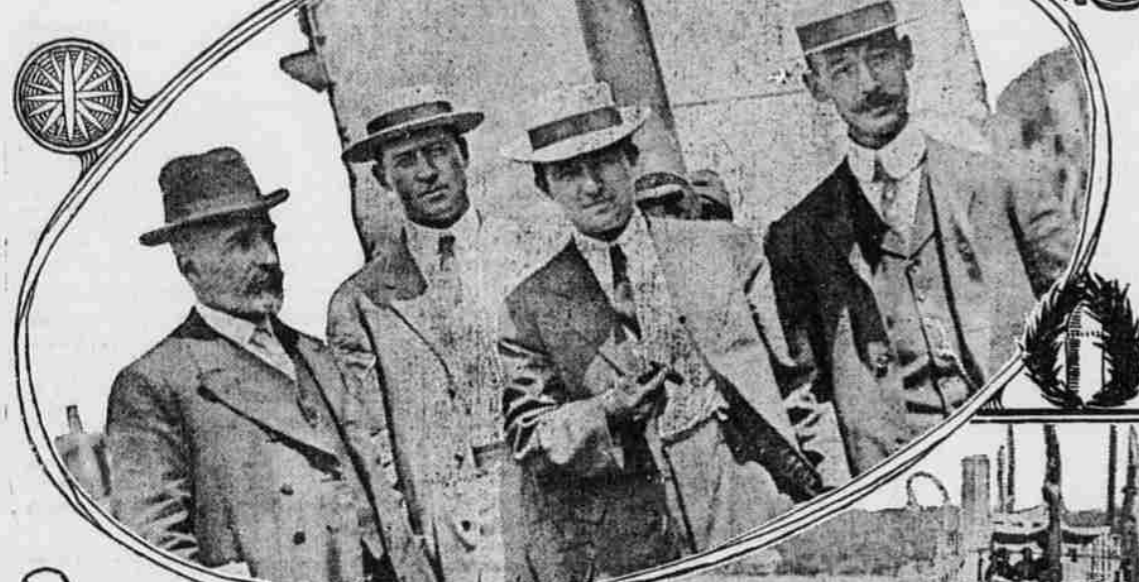
UNCLE SAM'S newest and most interesting submarine boat, the Salmon, is an object of international interest just now and is hailed on both sides of the Atlantic as the most remarkable submarine boat in the world. This fame is due to the Salmon's recent record-breaking cruise from the Atlantic coast to Bermuda and return—a deep-sea voyage such as has had no parallel in the history of under-water craft. The cruise to Bermuda was not only the first cruise by a submarine to a foreign port or out of sight of land, but it was the longest virtually continuous run ever attempted by such a vessel. The total distance covered aggregated nearly 1,700 miles and, as it happened, the little vessel encountered very rough weather during a considerable part of the trip.

Not only did this nautical excursion establish a new record for vessels of the American navy, but it surpassed all foreign achievements. The best performances previously recorded by American vessels of this type was found in the run of the submarine Viper from Cape Lookout to Annapolis, Md., a distance of about 483 knots, and the cruise of a flotilla of submarines from New York to Annapolis, a distance of 385 knots. Among the foreign performances of such vessels there stands out the record of



THE DOUBLE PERISCOPE ON THE SALMON

UNCLE SAM'S NEWEST SUBMARINE, THE SALMON



OFFICERS IN CHARGE OF RECORD-BREAKING CRUISE

English submarines of about the same size as the Salmon, which made the coastwise run from Dover to Dundee, a distance of 512 miles, and the famous performance of the French submarine Papin, which on one occasion made a cruise of 1,200 miles. However, this French achievement is overshadowed by the Salmon's cruise because not only was the distance of the latter much greater, but it was an open sea performance, whereas the Papin cruised along the coast, and, finally, the French vessel is much larger than the new American record-breaker, the Papin being of 550 tons displacement, whereas the Salmon is of but 320 tons displacement.

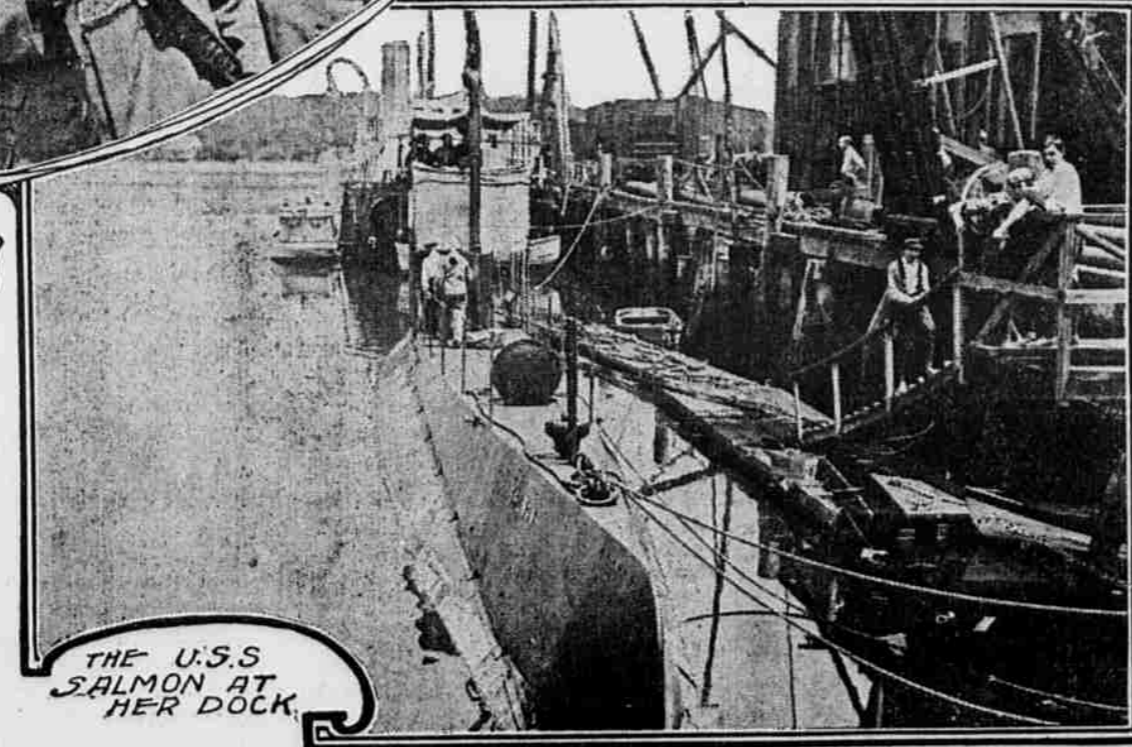
The Salmon, alike to most of the submarines which have lately been added to the United States navy, is a development of the original Holland type of submarine which first gave the Americans the lead in this class of shipbuilding. The Salmon is 135 feet in length by 14 feet beam and is a twin-screw boat, being driven on the surface by two gasoline engines of 300 horsepower each and propelled when submerged by electrical power supplied from storage batteries. By way of fulfilling her mission of destruction the little vessel has four torpedo tubes equipped to fire the latest type of torpedo—that is, a torpedo 17 feet in length and 18 inches in diameter, having a radius of 4,000 yards and carrying an explosive charge of 200 pounds of gun cotton. On her cruise to Bermuda the Salmon carried a crew of 21 men, but it was demonstrated on this cruise that under actual service conditions such a submarine can be operated, in so far as navigation is concerned, by five men—two on the bridge and three in the engine room.

The Salmon is capable of a speed of 14 knots per hour when running awash or on the surface of the water and 12 knots per hour when running wholly submerged. Only three minutes is required to change from surface running by gasoline engines to submerged running by electrical power. The vessel has, on trial, dived to a depth of more than 200 feet without any sign of strain or leakage being manifest anywhere on her steel cigar-shaped body. A unique feature of the equipment of an up-to-date submarine such as the Salmon, is a double periscope whereby, when the vessel is wholly submerged the officers on board can observe all that is going on at the surface of the water. Electrical ranges are provided for cooking the meals of those on board, and there is a reserve supply of 4,800 cubic feet of air, contained in 28 tanks, so that if need be the vessel could be "sealed up" tight and remain under the surface of the water for one or two days and nights without those on board having any communication with the outside world or coming to the surface for fresh air. On the Salmon's Bermuda cruise there were on board, in addition to the officers of the American navy, Capt. Arturo Cuevas of the Chilean navy, who went for the purpose of reporting to his government on the behavior of the vessel.

Modern submarine boats are of two types, the submerged and the submergible. The submerged when in light cruising condition moves with only a small percentage of the hull above the water; the submergible cruises on the surface much like an ordinary torpedo boat, which it resembles externally. The difference in principle between the two types is slight, but in construction details it is very marked. The submerged boats are usually nearly cylindrical with pointed ends, the general shape being much like that of a Whitehead torpedo. Submergence is effected by admitting water to the ballast tanks or by means of inclined rudders, or both. Submergible boats have two hulls, one inside the other. The outer hull resembles closely that of the ordinary torpedo boat, but has as few projections as possible rising from the general outline, in order to present a smooth surface when submerged. Inside this there is a second hull of nearly circular cross-section and as large as the shape of the outer boat permits. To effect submergence water first admitted to the space between the hulls, and this brings the boat to the "awash" condition. Further submergence is effected by permitting the ballast tanks to fill.

When or by whom was built the first submarine boat will probably never be known. It is said that Alexander the Great was interested in submarine navigation, while subaqueous attacks of vessels was studied at least as early as the thirteenth or fourteenth century. M. Delouch states that some English ships were destroyed in 1372 by fire carried under water. In the early part of the seventeenth century submarine boats were numerous, and in 1624 Cornelius Van Drebbel exhibited to King James I. on the Thames a submarine boat of his own design. By 1727 no less than fourteen types of submarines had been patented in England alone. In 1774 Day began experiments with a submarine boat at Plymouth, England, losing his life in the second submergence trial. In the following year David Bushnell built his first boat, with which Sergeant Lee attacked H. M. S. Eagle in New York harbor. Lee actually got under the ship,

and the attack failed only because the screw by which the torpedo was to be attached to the Eagle's bottom was not sharp enough. Robert Fulton's experiments in France and America (1795-1812) demonstrated that a vessel could be built which could descend to any given depth and reascend at will. Plunging mechanism was devised about the middle of the eighteenth century, but Fulton developed the vertical and horizontal rudders and provided for the artificial supply of air. A form of periscope existed in 1692 and an improved kind was patented in 1774; in 1854 Davy still further developed it. Phillips' wooden boat on Lake Erie was crushed by the



THE U.S.S. SALMON AT HER DOCK

A RARE SHEEP OPPORTUNITY

Enormous Receipts at Market—Farmers and Sheep Feeders Can Stock Up at Bargain Prices.

CAUSES OF THE RUN.

200,000 sheep and lambs received in three days—such, in round numbers, is the record-breaking run thus far this week on the Chicago market!

This enormous over-marketing of sheep is the result of temporary and peculiar causes, and offers a rare opportunity for farmers and sheep feeders to stock up at bargain prices.

This great rush of sheep to market comes mainly from Montana and adjoining western range country, and cannot last more than two or three weeks longer. It is no evidence of over-production. Its principal causes are the recent drought, which so burned out the grass that there will be very little winter feed on the range, and which prevented the putting up of sufficient hay to carry any considerable number of sheep over winter, while last winter was a very severe one and hay was so closely fed that there is no old hay left over for the purpose. The consequence is that sheep owners are forced to market the bulk of their sheep this fall, or else lose them in the fierce storms of winter.

The most serious cause of the present general liquidation, however, is the restriction of the range through occupation and fencing by dry farmers, who are grain growers, and not live stock raisers. The tremendous rush of these settlers upon the range within the last three years, and especially within the last twelve months, is hard for eastern people to realize. It is not alone the area actually enclosed by these settlers, but the breaking up thereby of vast regions of grazing lands into such small sections that they are no longer available to stockmen for grazing their flocks, which is one of the main reasons why the sheep supplies of the western range country are being more closely marketed this year than ever before in the history of the trade.

This means an inevitable shortage of live stock later on and next year, and with a constantly growing demand for both mutton and wool, it would seem that future good prices are assured.

The western range country has heretofore been the chief source of sheep market supplies, but unless the farmers of the corn belt begin at once to raise many more sheep than they have ever done before, there will be a great scarcity of both mutton and wool before long in this country.

Moreover, there is a world-shortage of live stock of all kinds. All Europe is short of sheep, and even Australia's supply is declining with rapidity. The same general causes that exist in this country are operating in other countries also. Populations are growing rapidly everywhere, while grazing areas are being reduced. As pasture land is turned to production of cereals, sheep raising declines.

Thousands of American farmers can turn this situation to their benefit, through increase of both soil fertility and money profit, by beginning right now each to keep a small flock of sheep upon his farm. And by taking advantage of the present opportunity to buy healthy, thrifty, growing western range sheep at bargain prices upon the heavily supplied Chicago market, they can stock up at minimum cost, whether they want foundation stock for breeding or the growing kind to fatten for market.

A Distant Compliment.

They were talking about a certain man who did not seem to be particularly popular. At last one of the group decided that it was time for him to say something complimentary about the subject of the conversation.

"That stepchild of his is a good little feller," he remarked, "and they say that he takes after his father, too."—Youth's Companion.

"Smoke" Was Mosquitoes.

A cloud of "smoke" which appeared to be arising from the cathedral tower at Belgrade was found, when the fire brigade arrived, to be a large cluster of mosquitoes, compact at the base and tapering toward the top.

New Idea for Pontoon Bridge.

Denmark is trying out a new pontoon bridge in which the pontoons are anchored beneath the surface of the water, the bridge remaining motionless irrespective of the rise and fall of the tide.

Chinese Seek Education.

The sudden demand for popular education in China is shown by the fact that the school attendance in one province has increased 8,000 per cent. in five years.

Say Raisins Impart Energy.

Speaking of the announcement by scientists that people may become energetic by eating raisins, the Chicago Record-Herald puts in the comment that the trouble is that most of the energy produced by eating raisins has to be expended in removing the seeds.

Abraham's Predicament.

The Sunday school class had reached the part in the lesson where "Abraham entertained the angel unaware." "And what now is the meaning of 'unaware'?" asked the teacher. There was a bashful silence, then the smallest girl in the class piped up: "Un'erware is what you takes off before you puts on your nightie."—Lippincott's.

When a man seals up his head he is apt to think he is holding the fort.

TERRIBLE SUFFERING ENDED.

How An Allegan, Mich., Woman Regained Her Health.

Mrs. Robert Schwabe, R. F. D. No. 8, Allegan, Mich., says: "Doctors could not cure me and I was rapidly running into Bright's disease. Kidney secretions were like blood and I arose 8 to 10 times at night to void them. I became frightened at my condition. My sight began to fail and pains in my back were like knife-thrusts. I cried for hours, unable to control my nerves. After I started using Doan's Kidney Pills, I began to feel better and soon I was cured. I am a living testimonial of their merit."



Remember the name—Doan's. For sale by all dealers. 50c cents a box.

Poster-Milburn Co., Buffalo, N. Y.

The Place of Honor.

Farmer Hodge was of the good, old-fashioned school, and he always gave a feast to his hands at harvest time. It was harvest time and the feast was about to commence.

Giles was the oldest hand and the hostess, with beaming cordiality, motioned him to the seat by her right hand. But Giles remained silently unresponsive.

"Come," said the hostess, "don't be bashful, Mr. Giles"—he was just Giles on ordinary occasions—"you've a right to the place of honor, you know." Giles deliberated a moment, then spoke.

"Thank you kindly, Mrs. Hodge," he said, "but if it's all the same to you, I'd rather sit opposite this pud-den!"

Who Scratched the Bathtub?

Nice, porcelain bathtub, too; and all the folks thought it was just lovely. But somebody was washing it out and used common laundry soap—the yellow kind with rosin and strong caustic in it—and away went the enamel and the finish. (If that kind of soap will harm porcelain enamel, what won't it do to clothes?) "Easy Task Soap," the pure, white, antiseptic, five-cents-a-cake kind, will not harm anything but dirt. Try two cakes and get your money back if it isn't as represented.

History of Red Cross Seal.

"Charity stamps," first used in Boston in 1862 for the soldiers' relief funds during the Civil war, were the original forerunners of the Red Cross Christmas seal, which will be used this year to bring happiness and cheer to millions. The Delaware Anti-Tuberculosis society in 1907 for the first time in America made use of a stamp for the purpose of getting revenue to fight consumption. In a hastily organized campaign of only three weeks they realized \$3,000. The next year, 1908, the American Red Cross conducted the first national tuberculosis stamp campaign. From this sale \$135,000 was realized for the anti-tuberculosis movement. In 1909, under many adverse conditions, \$250,000 was realized from these stamps. This year the slogan of the tuberculosis fighters and the Red Cross is "A Million for Tuberculosis From Red Cross Seals in 1910."

Prudent Bridegroom.

"The uncertainties of life in New York are reflected in wedding rings," said the jeweler. "Of all the wedding rings I have sold this season more than half were brought back after the ceremony to have the date put on. The rest of the inscription was engraved when the ring was purchased, but in order that the date might be correct it was cautiously omitted until after the knot was tied."

News to Her.

He—Concerning love, everything possible has been said and thought. She (cooly)—But not to me.—Fle-gende Blaetter.

COFFEE WAS IT.

People Slowly Learn the Facts.

"All my life I have been such a slave to coffee that the very aroma of it was enough to set my nerves quivering. I kept gradually losing my health but I used to say 'Nonsense, it don't hurt me.'"

"Slowly I was forced to admit the truth and the final result was that my whole nervous force was shattered."

"My heart became weak and uncertain in its action and that frightened me. Finally my physician told me, about a year ago, that I must stop drinking coffee or I could never expect to be well again."

"I was in despair, for the very thought of the medicines I had tried so many times nauseated me. I thought of Postum but could hardly bring myself to give up the coffee."

"Finally I concluded that I owed it to myself to give Postum a trial. So I got a package and carefully followed the directions, and what a delicious, nourishing, rich drink it was! Do you know I found it very easy to shift from coffee to Postum and not mind the change at all!"

"Almost immediately after I made the change I found myself better, and as the days went by I kept on improving. My nerves grew sound and steady, I slept well and felt strong and well-balanced all the time."

"Now I am completely cured, with the old nervousness and sickness all gone. In every way I am well once more."

It pays to give up the drink that acts on some like a poison, for health is the greatest fortune one can have. Read the little book, "The Road to Wellville," in pkgs. "There's a Reason."