THE VICTORY AT SEA

LAYING THE MINES

By Admiral William Sowden Sims

NOW in the open seas, the ten mine-layers formed in two columns, abreast of each other and 500 yards apart, and started for the waters of the barrage. Twelve destroyers surrounded them, on the lookout for submarines, for the ships were now in the track of the U-boats bound for their hunting ground or returning to their home ports. At a flash from the flagship all slackened speed and put out their paravanes—those underwater outrigger affairs protected the ships from mines. It was not at all unlikely that the Germans would place some of their own mines in the field for the benefit of the barrage builders; not only this, but it was not entirely impossible that we might strike a stray mine of our own. This operation took only a few minutes; then another flash, and the squadron again increased its speed. It steamed the whole distance across the North sea to Udsire light, then turned west again and headed for that mathematical spot on the ocean which was known as the "start point"—the place, that is, where the mine laying was to begin. In carrying out all these maneuvers—sighting the light on the Norwegian coast—the commander was thinking, not only of the present, but of the future; for the time would come, after the war had ended, when it would be necessary to remove all these mines, and it was therefore wise to "fix" them as accurately as possible in reference to landmarks, so as to know where to look for them. All this time the men were at their stations, examining the mines to see that everything was ready, testing the laying mechanisms and mentally rehearsing their duties. At about 4 o'clock an important signal came from the flagship: "Have everything ready, for the squadron will reach 'start point' in an hour and mine laying will begin!" Up to this time the ships were sailing in two columns; when they came within seven miles of "start point," another signal was broken out; the ships all wheeled like a company of soldiers, each turning sharply to the right, so that in a few minutes, instead of two columns we had eight ships in line abreast with the remaining two, also in line abreast, sailing ahead of them. This splendid array, keeping perfect position, approached the starting point like a line of race horses passing under the wire. Not a ship was off this line by so much as a quarter length; the whole atmosphere was one of eagerness; the officers all had their eyes fixed upon the stern of the flagship for the glimpse of the red flag which would be the signal to begin. Suddenly the flag went up and the signal came from the flagship:

"First mine over."

If you had been following one of these ships you would probably have been surprised at the apparent simplicity of the task. The vessel was going at its full speed, at intervals of a few seconds a huge black object, about five feet high, would be observed gliding toward the stern; at this point it would pause for a second or two as though suspended in air, it would then give a mighty lurch, fall head first into the water, sending up a great splash and then sink beneath the waves. By the time the disturbance was over the ship would have advanced a considerable distance; then, in a few seconds, another black object would roll toward the stern, make a similar plunge and disappear. You might have followed the same ship for two or three hours, watching these mines fall overboard at intervals of about 15 seconds. There were four planters, each of which could and did on several trips lay about 860 mines in three hours and 35 minutes, in a single line about 44 miles long. These were the Canandaigua, the Canonicus, the Housatonic and the Roanoke. Occasionally the monotony of this procedure would be enlivened by a terrible explosion, a great geyser of water rising where a mine had been recently disappeared; this meant that the "egg," as the sailors called it, had gone off spontaneously, without the assistance of any external contact; such accidents were part of the game, the records showing that about four per cent of all the mines indulged in such initial premature explosions. For the most part, however, nothing happened to disturb the steady mechanical routine. The mines went over with such regularity that, to an observer, the whole proceeding seemed hardly the work of human agency. Yet every detail had been arranged months before in the United States; the mines fell into the sea in accordance with a time table which had been prepared in Newport before the vessels started for Scotland. Every man on the ship had a particular duty to perform and each performed it in the way in which he had been schooled under the able direction of Captain Belknap.

The mine spherical case, which contains the explosive charge, and the mechanism for igniting it, is only a part of the contrivance. While at rest on board the ship this case stands upon a box like affair, about two feet square, known as the anchor; this anchor sinks to the bottom after launching and it contains an elaborate arrangement for maintaining the mine at the desired depth beneath the surface. The bottom of the "anchor" has four wheels, on which it runs along the little railroad track on the launching deck to the jumping off place at the stern. All along these railroad tracks the mines were stationed one back of another; as one went overboard, they would all advance a peg, a mine coming up from below on an elevator to fill up the vacant space at one end of the procession. It took a crew of hardworking, begrimed and sweaty men to keep these mines moving and going over the stern at the regularly appointed intervals. After three or four hours had been spent in this way and the ships had started back to their base, the decks would sometimes be covered with the sleeping figures of these exhausted men. It would be impossible to speak too appreciatively of the spirit which they displayed; in the whole summer there was not a single mishap of any importance. The men all felt that they were engaged in a task which had never been accomplished before, and their exhilaration increased with almost every mine that was laid. "Nails in the coffin of the Kaiser," the men called these grim instruments of vengeance.

I have described one of these thirteen summer excursions, and the description given could be applied to all the rest. Once or twice the periscope of a submarine was sighted—without any disastrous results—but in the main this business of mine laying was uneventful. Just what we accomplished the chart makes clear. In the summer and fall months of 1918 the American forces laid 56,571 mines and the British 13,246. The operation was to have been a continuous one had the war gone on for two years we should probably have laid several hundred thousand; Admiral Strauss' forces kept at the thing steadily up to the time of the armistice; they had become so expert and the barrage was producing such excellent results that we had plans nearly completed for building another at the straits of Otranto, which would have completely closed the Adriatic sea. Besides this undertaking the American mine layer Baltimore laid a minefield in the North Irish Channel, the narrow waters which separate Scotland and Ireland; two German submarines which soon afterward attempted this passage, were blown to pieces, and, after this, the mine field was given a wide berth.

Just what the North sea barrage accomplished in the actual destruction of submarines will never be definitely known. We have information that four submarines certainly were destroyed, and in all probability six and possibly eight; yet these results measure only a small part of the German losses. In the majority of cases the Germans had little or no evidence of sunken submarines. The destroyers, subchasers, and other patrol boats were usually able to obtain some evidences of injury; they could often see their quarry, or the disturbance which it made on the surface; they could pursue and attack it, and the resultant oil patches, wreckages and German prisoners—and sometimes the recovered submarine itself or its location on the bottom—would tell the story either of injury or destruction. But the disconcerting thing about the North sea barrage, from the viewpoint of the Germans, was that it could do its work so secretly that no one, friend or enemy, would necessarily know a thing about it. A German submarine simply left its home port; attempting to cross the barrage, perhaps at night, it would strike one of these mines, or its antenna; an explosion would crumple it up like so much paper; with its crew it would sink to the bottom; and not a soul, perhaps not even the crew itself, would ever know what had happened to it. It would in truth be a case of "sinking without a trace"—though an entirely legitimate one under the rules of warfare. The German records disclosed anywhere from 40 to 50 submarines sunk which did not appear in the records of the allies; how these were destroyed not a soul knows, nor ever will know. They simply left their German ports and were never heard of again. That many of them fell victims to mines, and some of them to the mines of our barrage, is an entirely justifiable assumption. That probably even a larger number of U-boats were injured is also true. A German submarine captain, after the surrender at Scapa Flow, said that he personally knew of three submarines including his own, which had been so badly injured at the barrage that they had to limp back to their German ports.

The results other than the sinking of submarines were exceedingly important in bringing the war to an end. It was the failure of the submarine campaign which defeated the German hopes and forced their surrender; and in this defeat the barrage was an important element. That submarines frequently crossed it is true; there was no expectation, when the enterprise started, that it would absolutely shut the U-boats in the North sea; but its influence in breaking down the German morale must have been great. To understand this just place yourself for a moment in the position of a submarine crew. The width of this barrage ranged from 15 to 35 miles; it took from one to three hours for a submarine to cross this area on the surface and from two to six hours under the surface. Not every square foot, it is true, had been mined; there were certain gaps caused by the spontaneous explosions to which I have referred; but nobody knew where these openings were, or where a single mine was located. The officers and crews knew only that, at any moment an explosion might send them to eternity. A strain of this sort is serious enough if it lasts only a few minutes; imagine being kept in this state of mind anywhere from one to six hours! Submarine prisoners constantly told us how they dreaded the mines; going through such a field, I suppose, was about the most disagreeable experience in this nerve-racking service. Our North sea barrage began to show results almost immediately after our first planting. The German officers evidently kept informed of our progress and had a general idea of the territory which had been covered. For a considerable time a passageway, 60 miles wide, was kept open for the grand fleet just east of the Orkney islands; the result was that the submarines, which had hitherto usually skirted the Norwegian coast, now changed their course and attempted to slip through the western passageway—a course that enabled them to avoid the mine field. When the entire distance from the Orkneys to Norway had been mined, however, it became impossible to "run around the end." The Germans were now obliged to sail boldly into this explosive field, taking their chances of hitting a mine. Stories of this barrage were circulated all over Germany; sailors who had been in contact with it related their experiences to their fellows; and the result was extremely demoralizing to the German submarine flotilla. The North Sea barrage was probably a contributory cause of the mutiny which demoralized the German fleet in the fall of 1918.

I think I am justified in saying that this enterprise was a strong factor in overcoming the submarine menace, though the success of the convoy system had already brought the end in sight, and thus made it practicable to assign, without danger of defeat, the tonnage necessary to lay the barrage and maintain and augment it as long as might be necessary. The Germans saw the barrage not only as it was in the fall of 1918, but as it would be a few months or a year hence. We had started a steady stream of mines from hundreds of factories in the United States to our Scottish base; these establishments were constantly increasing production, and there was practically no limit to their possible output. We had developed a mine-laying organization which was admittedly better than any that had been hitherto known; and this branch of the service we could now enlarge indefinitely. In time we could have planted this area so densely with explosives that it would have been madness for any submarine even to attempt a passage. To be sure, the Pentland Firth, between the Orkneys and Scotland, was always open, and could not be mined on account of its swift tides, but besides being a dangerous passage at best it was constantly patrolled to make it still more dangerous.

The loyal devotion to duty and the skillful seamanship which our officers displayed in this great enterprise was not only thoroughly in keeping with the highest traditions of the navy but actually established new standards to guide and inspire those who follow us. These gallant officers who actually laid the mines are entitled to the nation's gratitude and I take great pleasure in commemorating the work of Captain H. V. Butler, commanding the flagship San Francisco; Captain Harvey J. Tomb, commanding the Aroostook; Captain A. W. Marshall, commanding the Baltimore; Commander W. H. Reynolds, commanding the Canandaigua; Captain T. L. Johnson, commanding the Canonicus; Captain J. W. Greenslade, commanding the Housatonic; Commander D. Pratt Mannix, commanding the Quinnebaug; Captain C. D. Stearns, commanding the Roanoke; Captain Sinclair Gannon, commanding the Saranac, and Captain W. T. Cluverius, commanding the Shawmut.

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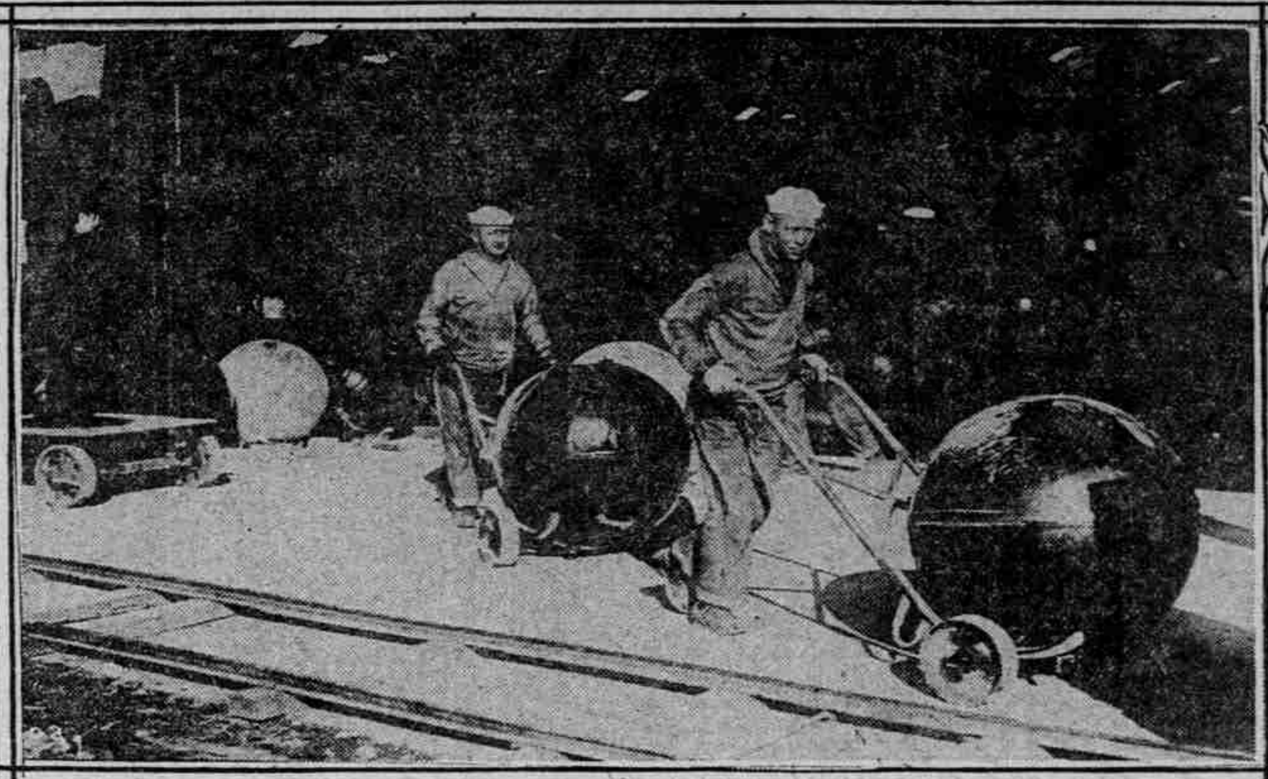
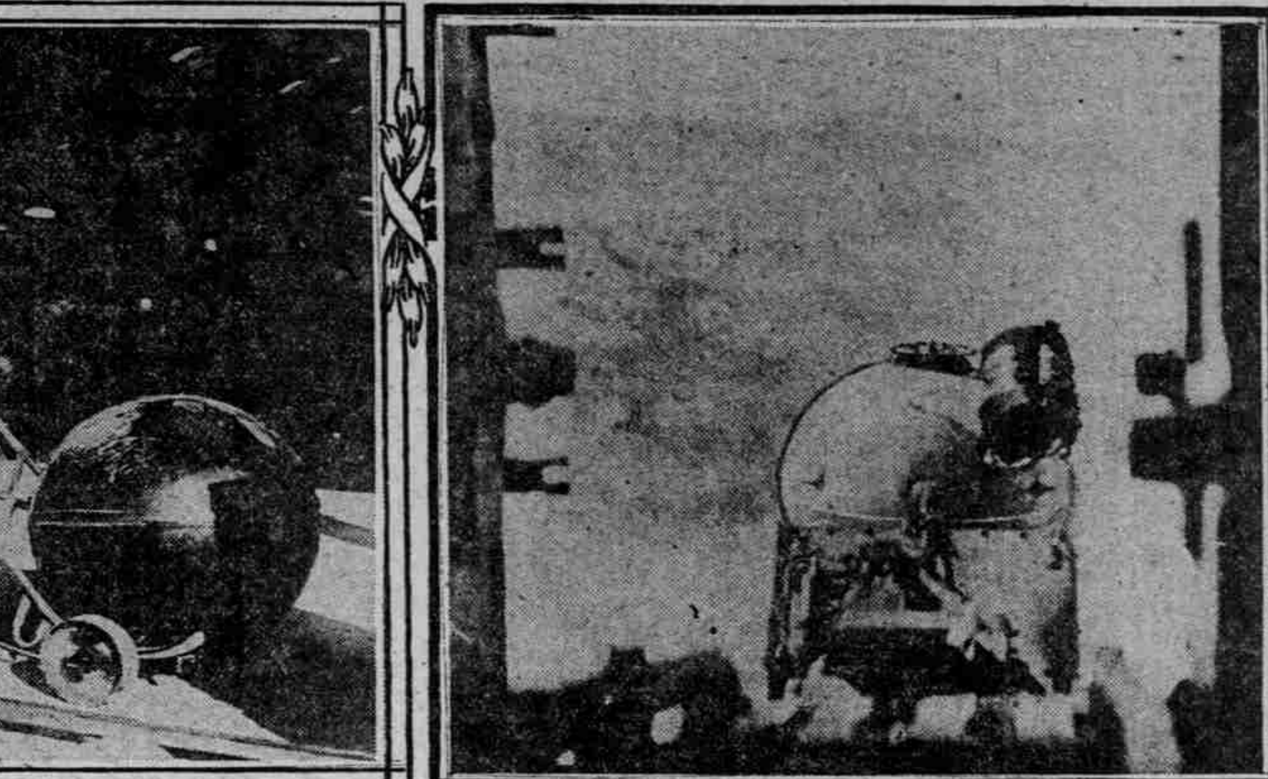
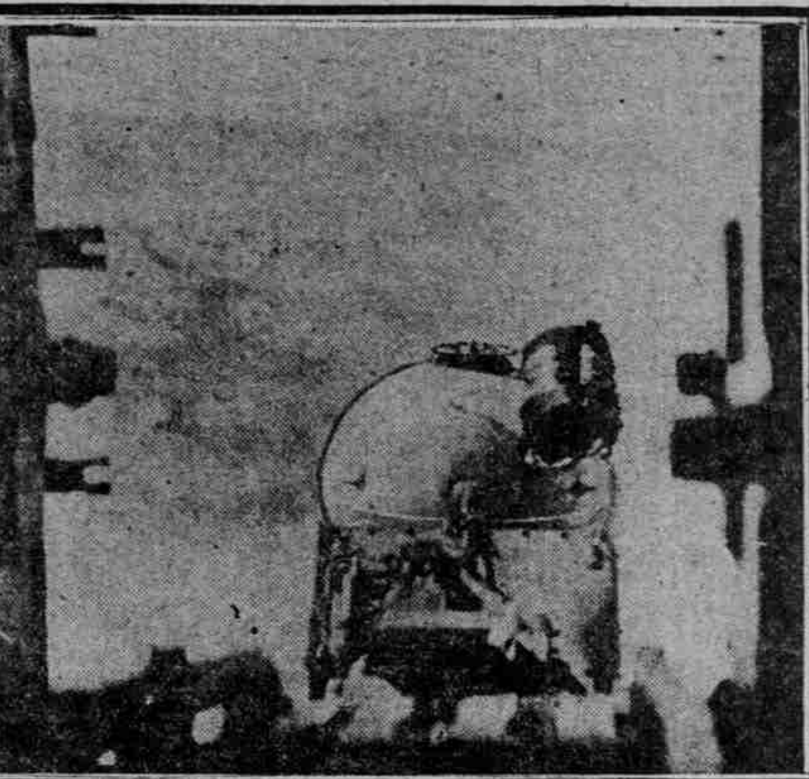


TRUCKING MINE CASES AT INVERNESS.

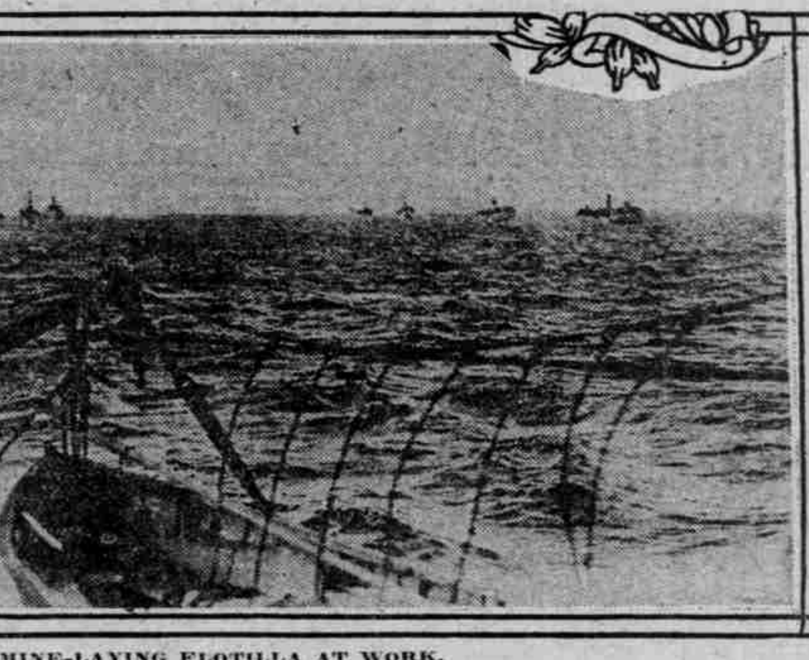
Each one of these globes contains 300 pounds of trinitrotoluol. Of the 70,117 laid in the northern exit to the North sea, the American ships put down 56,571. They gave the death blow to the German submarine campaign.





"FIRST MINE OVER."

All the preparations for laying this barrage were made in the United States, where more than 500 factories received contracts for turning out the various parts of mines. The barrage cost the United States $40,000,000, but it was money well spent.



THE MINE-LAYING FLOTILLA AT WORK.

These vessels, for the most part, had seen many years' service on the American coast. Two of them were the Bunker Hill and the Massachusetts, for many years passenger boats plying between New York and Boston. After the interiors had been ripped out and entirely reconstructed, they were transformed into mine-layers of an advanced type.

RACES BOAST THEIR NAMES ARE TAKEN FROM WOMEN

Generous Tribute Paid to Those of Distinction—Cities, Rivers, Provinces Tell Their Beautiful Story.

WASHINGTON, D. C., June 26.—Names of such women as Joan of Arc and Edith Cavell are written indelibly upon the hearts of people for all ages. Generous and well-deserved tributes have been paid lastingly to others, but so much have their names become a part of our daily lives that many who frequently pronounce them are unmindful of their significance. Cities, rivers, provinces and islands bear the names of women of distinction, says a bulletin from the National Geographical society.

Lady Franklin island, near Baffin island in the Arctic circle, is named for the wife of Sir John Franklin, the explorer who lost his life in first finding the Northwest passage through the great ice of the Polar regions. There is perhaps no more beautiful story of untiring devotion and persistent effort than that of Lady Jane Franklin who, after the failure of many attempts, fitted out a ship which, though it brought back to her the definite proof of the loss of her husband's expedition, established his achievement of his object.

Pocahontas in Favor.

The picturesque stories of the little Indian princess Pocahontas always will hold a loved place in the hearts of American childhood. Counties in Iowa and West Virginia, villages in Bond county, Illinois, and Cape Girardeau county, Missouri, and in the Rocky Mountains in Alberta, Can., are named for her.

Queen Victoria's name is wrapped around the British empire from the capital of British Columbia, over the heart of Africa at Victoria Nyanza and Victoria falls, and beyond into the Queensland and Victoria in far-away Australia.

America, too, in its early days of colonization paid its tribute to the queens of the mother country and to the gracious women who braved the dangers of untried shores with their lords. Elizabeth, a cape in Maine, and Elizabeth City in Virginia, as well as the state itself, together with some 25 other places in the United States, bear the name of the clever, witty, versatile coquette who took the dissension-torn England and whipped it into a place as a world world power. Elizabeth Carteret, the charming wife of one of the aristocratic proprietors of New Jersey, shares with Queen Elizabeth some of the honors of the name. Elizabethtown, in North Carolina, and Elizabeth City in New Jersey, are named for her.

The name of Clara Barton is perpetuated in Barton county, Kansas, and the wife of George Washington, who before her first marriage was Martha Dandridge, is honored in the town of Dandridge, Tennessee.

Has No Martha.

There wasn't any Martha of Martha's Vineyard, however. The first name is supposed to be a corruption of Martin, a friend of the discoverer of the island. The word Vineyard was added later on account of the wild grapes found on the island. Vinland, the name which Lief Ericson gave the North American continent, was suggested in a similar manner.

Maryland and Virginia are fairly bespattered with the names of the queens and princesses of England, the very state names themselves being taken from that of Queen Henrietta Maria, the wife of Charles I, and the disputably fortunate estate of Elizabeth. Then, too, there are Annapolis, named for the wife of James I of England; and Anne Arundel and Caroline counties in Maryland called after the wives of two of the Calverts; Fluvanna county and the North Anna river in Virginia named for Queen Anne; and Charlotte, Amelia and Caroline counties and Charlottesville, the home of the University of Virginia, is called for the wives and daughters of the English kings.

For Marie Antoinette.

Marietta, Ohio, was named for the haughty, charming Marie Antoinette. The Aleutian islands, off the coast of Alaska, when that territory was Russian, were known as Catharine Archipelago in honor of Catharine the great. Ekaterinburg was named for the Russian Catharine who ruled through her husband, Peter the Great.

St. Helena, the rugged little island in the Pacific which has such a soothing effect upon the restless tendencies of autocrats, bears the name of the mother of Constantine the Great, who, according to legend, discovered the cross upon which Christ died during a visit she made to the Holy Land. She was known in the early days of Christianity for her religious zeal and piety. Helena, Montana, though opinions differ as to the origin of the name, is said to have been so called because of the resemblance of its location to that of St. Helena.

The naming of Hart county, Georgia, is a generous tribute to a Dixie heroine of the Revolution, Nancy Hart.

Races Boast Women's Names.

Races do not scorn to boast that their names were taken from those of women. The Scots claim to be descended from Scotia, a daughter of Pharaoh, and the Saracens from Sarah, the wife of Abraham.

The harbor Beara in Ireland is said to have been named by Owen More, king of Munster during the reign of Conn of the Hundred Battles, for his wife, a Spanish princess. No saint perhaps holds a dearer place in the Irish heart than St. Ite, or Ide, often called Brigid of Munster, and we find her name in several variations in the names of many churches and places throughout that country.

A charming little legend hovers about the naming of Charing Cross, the busy London station. At the spot in 1291 Edward I erected one of the 13 crosses marking the route followed by the funeral procession of his wife, his "chere reine," from Nottinghamshire to Westminster Abbey.

Mitsui Heir Enters Army.

HONOLULU, T. H.—T. H. Mitsui, junior partner in Mitsui & Co., sometimes called the "Rockefellers of Japan," passed through here recently as a voluntary recruit for military service in the Japanese army. Mitsui, who is a graduate of Tufts college, explained that college graduates are not required to serve in the Japanese army, but that he was returning to his home land at his own instance to serve a year in the Nipponese forces.

Clothespins of One Length.

Indianapolis News.

About 20,000,000 feet of lumber is used each year in making clothespins. The latter are usually made in three lengths, five, four and one-half and four inches, but eventually, it is said, all clothespins will be made of the four-inch length, thus saving millions of feet of lumber.

MUSHROOM HUNTERS WARNED OF DANGERS OF IGNORANCE

Rules Formulated to Enable Avoidance of Poisonous Species—Personal Knowledge Much Better Than Trusting Self-styled Experts.

WASHINGTON, D. C., June 26.—"Those who, unadvised or ill-advised, would gather wild species of mushrooms for the table should remember that they are embarking upon an adventure that may lead to a sudden and horrible death," says Louis C. C. Krieger to the National Geographic society.

"To ask a person to gather his own mushrooms for the table, without previous instruction that will enable him to avoid the deadly kinds, is equivalent to, if not worse than, inviting him to put his unprotected hand into a den of rattlesnakes," he continues.

"The names of the wild species of mushrooms marketed cannot be ascertained definitely, since there is with us no such legal control of the sale of mushrooms as obtains in most cities in continental Europe. Gatherers in the United States either eat their finds themselves or sell them promiscuously to any mushroom-hungry individual who has the temerity or the knowledge to venture purchasing.

Six Rules Formulated.

"General rules for the guidance of mushroom hunters are trustworthy and serviceable only when formulated by experienced botanists. The following six rules by the late Dr. W. G. Farlow, Harvard university, will prevent, if scrupulously observed, the eating of notoriously poisonous species:

"1. Avoid fungi when in the button or unexpanded stage; also those in which the flesh has begun to decay, even if only slightly.

"2. Avoid all fungi which have death cups, stalks with a swollen base surrounded by a sac-like or scaly envelop, especially if the gills are white.

"3. Avoid fungi having a milky juice, unless the milk is reddish.

"4. Avoid fungi in which the cap, or pileus, is thin in proportion to the gills, and in which the gills are nearly all of equal length, especially if the pileus is bright-colored.

"5 Avoid all tube-bearing fungi in which the flesh changes color when cut or broken or where the mouths of the tubes are reddish, and in the case of other tube-bearing fungi experiment with caution.

"6. Fungi which have a sort of spider web or flocculent ring round the upper part of the stalk should in general be avoided.

"Professor Farlow adds that 'Rules 1, 2, and 5 may for the beginner be regarded as absolute, with the exception to rule 2, Amanita caesarea, the gills of which are yellow. Rules 3, 4 and 6 have more numerous exceptions, but these rules should be followed in all cases unless the collector is content to experiment first with very small quantities and learn the practical result.'

Wooded Areas to Be Avoided.

"Other rules that will help to protect from serious poisoning are:

"Do not collect mushrooms in or near wooded areas except for study purposes.

"This rule is very general, as it does not protect against the green-gilled Lepiota, nor against an occasional Amanita and some others; but it does prevent the beginner from entering the very 'lair' of the mankillers.

"Do not accept mushrooms from a self-styled expert, even if you have to disoblige a dear friend. Learn the subject yourself.

"That an animal (insect, squirrel, turtle, etc.) has eaten a mushroom is no criterion of the edibility of that mushroom for man. Insect larvae thrive and grow fat on the violently poisonous Amanita phalloides.

"Soaking or boiling in water does not render a poisonous species edible."

Pagopago Distributing Depot.

PAGOPAGO, American Samoa.—Rapid progress is being made in the construction of a large customs warehouse here and it is hoped by local business interests that this will mark a step toward making Pagopago a distributing depot for American products in the South seas.

Hawaiian Schools Congested.

HONOLULU, T. H., May 17.—Double sessions of the primary schools of the territory to ease congestion in classes which sometimes run as high as 70 pupils, were urged at a recent conference here of supervising principals.