SUBMARINE WARFARE BEGAN IN AMERICA

When the Hunley Sank the U. S. S. Housatonic, in 1864, the First Victim of a Submarine Went to the Bottom—Northern Newspapers Called It "a Dastardly Attack" and Even to the Head of the Confederate Navy It Was "An Act Unworthy of a Chivalrous Nation"

By Heber Blankenhorn

"—— One Cornelius's son
Hath made the Hollanders an invisible eel
To swim the Haven at Dunkirk and sink all
The shipping there. ——."
—Ben Jonson's reference to Van Dribble's submarine, 1620.

AN American submarine was the first to sink a warship. Had that submarine survived and sunk a fleet, had it been further developed so as to fix its legal uses, we might not in 1915-16 have come so near to war over its power and status.

America has been thrice at the point of giving submarine building a great push; in the war of '76, when a Revolutionary submarine attempted the first known attack on any warship; on the eve of 1812, when Fulton died just as he was in a fair way to make the submarine a work-a-da terror; and in 1863, when America went through the whole submarine cataclysm, both sides of it, within the memory of living men.

With the first two this article will not deal, since the hand of history has written and moved on, but with the third errors which have already crept into the histories of the Federal blockade of '63 are cleared up by the energetic memory of Captain J. H. Tomb, formerly engineer in the Confederate Navy and the only survivor of the first torpedo crew that struck a blow or damaged an enemy's warship.

"UNRECOGNIZED IN CIVILIZED WARFARE," WAS THE SOUTH'S OWN PROTEST.

Seventy-six, erect, white-haired, but full of life, Captain Tomb, with his twinkling eyes, long coat and broad-brim, is a picture of that Southern gentleman over whom grandchildren clamber and persuade to story telling. He and his of '63 were esteemed by the North the Tirpitzes of the Civil War, delightfully blackguarded by the morally indignant. Witness old newspapers talking of "dastardly and unchivalrous attack," while even Commander Ingraham of his own navy declared the use of torpedoes as "unrecognized in civilized warfare and unworthy of a chivalrous nation." Hear, then, with added interest what the captain of engineers, now living in Florida, has to tell of the dread submarine and the stark necessity which led to its origin and use.

"It was early in the '60s, when some of us began to realize that the South was likely to be beaten because of sea power. In 1862 the Yankee blockade was making itself felt. More hung on it than simply getting in supplies. If we could break the blockade England might recognize us, might even intervene. That was how we in Charleston got to experimenting with torpedoes.

TORPEDOES WERE DEEMED "NEW FANGLED" AND "UNWORTHY OF THE SOUTH."

"You can't imagine the difficulties we had. No navy at all, and mighty little metal or chemicals or skilled workmen to build one. Major Francis Lee invented the spar torpedo, and his first warships were rowboats. He couldn't get steam launches because old Commander Ingraham thought torpedoes 'new fangled' and 'unworthy of the South.'

"Lee's torpedo was a copper can holding fifty pounds of rifle powder, with four sensitive fuses in knobs on its end. Each knob was a tube of tin lead, inclosing a glass vial of sulphuric acid. When bumped against a frigate's bottom the tube bent, the vial broke and the acid set off the powder. The device was stuck on a spar slung underneath a rowboat, so that the torpedo was seven feet under water and ten feet ahead of the bow.

"Merchants of Charleston raised a fund and built the first of the Confederate 'Davids.' Dr. St. Julien Ravenel devised her with Captain Theo Stoney. An old German mechanic, named Ebo, from the Ravenel plantation, put a little boiler, engine and propeller into her. She could make about seven knots.

"The David was a cigar shaped boat, thirty-three feet long, six feet beam, of wood. Her torpedo spar was a three-inch boiler tube, twelve feet long, attached to the bow, holding the charge, sixty-five pounds of rifle powder, eight and a half feet below the surface. Then we found a flaw in the tube and had to cut off two feet, putting the torpedo but six and a half feet down, which no doubt prevented more serious injury to the Ironsides when the torpedo exploded.

THE DAVID, A CONFEDERATE CRAFT THAT WAS ALL-BUT-A-SUBMARINE.

"She was an all-but-submarine. Only a few feet of her funnel, her two little ventilators and the coaming of her hatchway, fourteen inches high, showed when she was afloat. Mrs. Ravenel, the authoress, named her David, because of the disparity with the leading blockader, a 3,000-ton ironclad which had been shelling Charleston houses.

"On October 5, 1863, at 7 o'clock in the evening, we set out from Eason's wharf for the first successful attack on an enemy warship made by a torpedo boat. We were four—Lieutenant W. T. Glassell, C. S. N., commanding; Engineer J. H. Tomb, C. S. N.; J. W. Cannon, pilot, and James Sullivan, fireman. Our quarry was the frigate New Ironsides, then the most powerful in any navy.

"It was a black night, chilly outside, but stuffy inside our little egg of a warship. We churned along down the harbor, the hatch coaming awash. Beyond Fort Sumter we began to thread the enemy's guard boats off Morris Island. Not a peep from their pickets. Ahead we made out the fleet—sloops, transports, monitors and the huge bulk and spars of the New Ironsides.

"'If only we had ten or twelve torpedoes how helpless this mighty fleet would be,' we thought. 'Down would go the monitors. Tucker would rush out and scatter the rest, the blockade would be broken, the South saved.' We turned toward the admiral's ship, determined to pay her the highest compliment.

LIEUTENANT GLASSELL TAKES A LITTLE PRECAUTION IN TERMS OF BUCKSHOT.

"It was Lieutenant Glassell's plan to strike on the first of the flood tide, when she would be swinging upstream. We lay on and off. From the fleet came the music of fife and drum. It ceased; then came the 9 o'clock gun for lights out. Yellow dots winked and vanished, all but the riding lights. About 9:05 we seemed certain to be discovered. We put about and headed for the ironclad, full speed.

"Lieutenant Glassell, cool as ever I saw officer, but fully realizing what he had volunteered to accomplish, climbed up and sat on the edge of the hatch, steering us with his feet. Then Cannon handed up to him a double-barrelled shotgun. Its buckshot were for international law. At that time a torpedo boat making a secret attack on a warship had no legal status, and we meant to guard against being hanged in case we were captured.

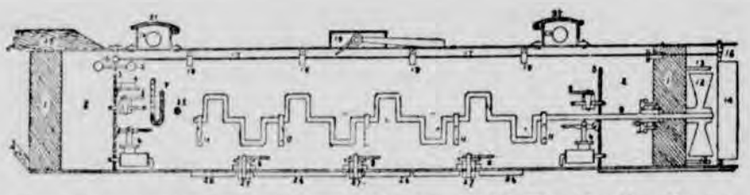
"Gun in hand, feet on wheel, he piloted us to within two minutes of her. Then, down amid our busy machinery, I heard from above a faint hail, "Ahoy ahoy!" Glassell cocked both triggers. Again the hail, a little louder. Suddenly very loud and clear from straight above us: 'What boat is that?' It was the officer of the enemy's deck, Ensign Howard.

"Bang! Glassell's shot brought him down, poor fellow, mortally wounded. That sudden blow must have thrown their deck into confusion. Glassell tossed his gun overboard. Just as their small arms began to let go we were in her shadow, under her starboard quarter. Glassell signalled to reverse the engines. Then we struck.

Captain J. H. Tomb, Confederate Navy, 1863.

"The explosion was terrific. The David plunged and seemed to be going right down. A huge column of water tore up into the night and fell in a flood on the Ironsides' deck and swashed down on the David. It rushed through her hatches and down her funnel, drowned the fires out and began to fill her hold. The engines jammed. We rocked and bumped and settled fast. I could do nothing with the old engine and so reported to Lieutenant Glassell. He calmly ordered us overboard, each man for himself. Their fire was peppering the water all around when I struck off, hoping to swim for Morris Island.

"The Ironsides didn't seem to be sinking very fast, but as well as I could judge in the water, her spars had a tilt. Their guard boats began coming up. Then I made out something like three piles in a line, drifting away unnoticed—the David's funnels. She was still afloat. I swam cautiously back to her.



Plan of the Confederate Submarine Hunley, Which Went by Man-Power.

A voice hailed me in a whisper. It was Cannon, the pilot, clinging to her life lines. The man couldn't swim a stroke. Volunteered for a job like that and couldn't swim! He *was* brave. I got aboard. The water in her wasn't up to her boiler. I caught up the fires, righted the engine, pulled Cannon in and we headed back for Charleston.

"The fleet gave us a real rain of small arms fire. There were thirteen holes in her funnel and hatch when we got back to Atlantic wharf, but none in us.

"President Davis promoted me to chief engineer and I was put in command of the David. Glassell was picked up by a transport, put in irons and sent North to be hanged. He wasn't, however. The Ironsides was stove for forty feet and so shaken that she never fired another gun at Charleston. Finally she was sent to drydock.

MONTHS OF SLEEPLESS SHOOTING AT KEGS AND LOGS IN CHARLESTON HARBOR.

"The effect on the fleet was tremendous. Their morale was shaken. They lived in nightly fear of being blown up, unwarned. For months after they kept themselves sleepless shooting every keg and log that floated out of Charleston Harbor. In Charleston I covered the David over with a quarter-inch of steel and put a cap on her funnel, while they set to building more torpedo boats.

"The most serious effect of their scare was that they put booms around all their big ships. We couldn't get at them with the Davids. That led us to the submarine—Hunley's."

Not quite just like that, with a snap of the fingers. The David, a surface boat, sneaking up like a duckhunter, showed the necessity for the submarine, but was no more a step to it than making a leap on skis was a step to the aeroplane. To submarine is to turn fish. To do it man must be born again. The history of turning fish is as fascinating as turning bird, and, as in aviation, Americans have had more than a finger in it. The Confederate contribution is more important as a sidelight on human nature than as an aid to modern submarine builders. Yet of one of the Confederate submarines no less an authority than Simon Lake has said, with evident surprise, that it had good design. This was the New Orleans, which was launched with its crew of two negroes inside. It dived from the ways, but did not rise. Recently dredges found it intact, two skeletons inside.

THE ETHICS OF SUBMARINE WARFARE AS UNDERSTOOD BY GENERAL BEN BUTLER.

It is to be granted that the history of submarines is a satire on ethics. They play hob even with national consciences, until to-day the official reasons for and against their use as war boats are a ghastly joke on all mankind. Here's a pleasant form the joke took in '64, when General Butler, U. S. A., caught the man who had torpedoed the Federal Commodore Jones into fragments in the James River. He handed his prisoner over to the naval commander, with the kindly message: "If you can use him, do so; if not, hang him." The Confederate was lashed to the cutwater of a gunboat going upriver, and "before we went 300 yards the man called out: 'Stop, captain, for God's sake; there's a torpedo just over there!' So we cleared the channel."

If the South disposed of the "moral" law with a shotgun blast in '63, the laws of physics were harder to overcome when they built their submarine. Untrained in science, the Southerners tried to condense three centuries of submarine planning into a few months. The Hunley fought nature more than the North and, since the South was desperate and determined, the Hunley became the most terrible crew-killer in this sort of history. To invent her, learn how to use her and strike one blow with her cost the Confederates thirty-two men.

Horace L. Hunley's "fish boat" was a real submarine, with a shell of boiler iron, about 30 feet over all, 3½ feet beam and 5 feet deep. It was a large pea pod, its short stem being the spar torpedo. Eight peas inside were the eight men who sat in a row along a crank shaft, turning the screw to propel her at three knots. Two manholes let them out, sometimes alive. Two side fins, short planes, a yard back of the bow and stern, were the means of submerging. McClintock and Howgate built her at Mobile in 1863. Tried out in the bay there, she began her career by killing her entire crew—eight men lost.

Then she was brought to Charleston to be used against the Federal blockaders, and Captain Tomb made her acquaintance. It was first planned that the fish boat should tow her torpedo. She was to ride the surface until in the enemy's vicinity, then submerge, dive under the victim ship and rise on the other side until the torpedo at the end of the hawser should explode by contact on the ship's bottom.

Lying at the wharf in Charleston Harbor with her manholes open, she was swamped by the wash of a passing steamer, and only her commander, Lieutenant Paine, and one other got out of her as she foundered. Raised again, with a new volunteer crew, the same thing happened again, Paine and two others escaping this time. Eighteen men lost, perhaps nineteen, as the records are poorly kept and only half the names of the hardy men who perished in defence of the harbor could be found to place on their monument in Charleston recently.

THERE WAS RISK ENOUGH AND TO SPARE IN SUBMARINE PRACTICE IN THOSE DAYS.

"I remember one day," says Captain Tomb, "when Lieutenant Dixon and I were standing on Atlantic wharf as she went by. Her foremanhole was open, and Hunley, standing in it, waved to us and shouted: 'Do you want to come aboard for a dive?' Hunley himself was not often in charge of her. Soon he shut the hatch and slowly she dived. He was then abreast of the receiving ship Indian Chief, and his plan was to dive under her. We didn't see him come up and finally walked away from the wharf. The fish boat had no air storage and could stay down only an hour or so.

"That afternoon word spread through the city that Hunley had not come up. Some days later they raised her, all her men in a knot under her hatch—like worms under a log—dead."

Her maker and twenty-three men lost, and still Charleston supplied a fifth crew. New volunteers for a man-eater, a "peripatetic coffin," whose desperate venture was a dubious private enterprise accepted with reluctance by the nation's Navy Department! Scharf, the Confederate naval historian, says that she suffocated this fifth crew at practice, but does not specify where.

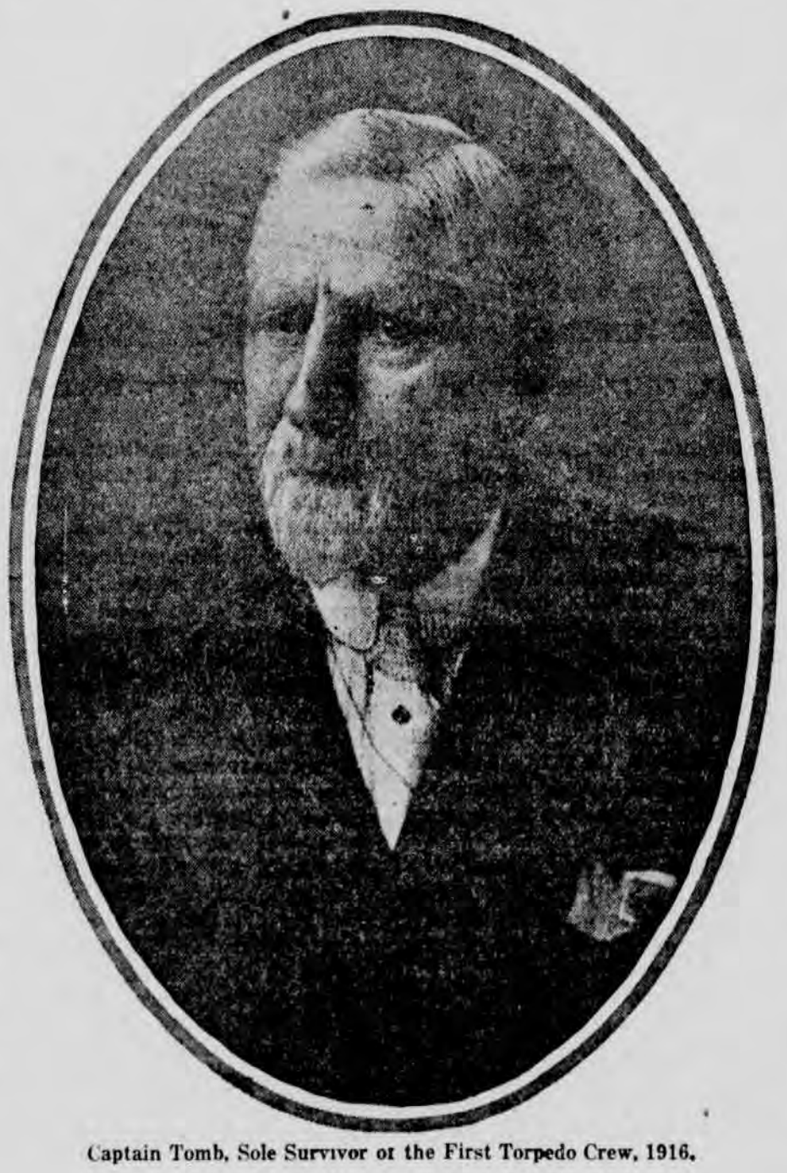
Undaunted, Tomb's friend Dixon (an infantryman, at that) took charge of the horrible fish. General Beauregard, then in command of the defence of Charleston, on Tomb's report that her "lack of buoyancy made her a likely coffin," would allow her to be used only as a surface boat, like the David.

CAPTAIN TOMB TELLS OF THE FINAL TRIP OF "THE HORRIBLE FISH."

"After many consultations," says Captain Tomb, "Dixon and I agreed it would be best for the Hunley to strike when on the surface. I used to tow him down the harbor at night, using my steam power of the David to save his men until he could get near the enemy. Then one night his torpedo, for which he had adopted by new raise-and-lower device, came loose and floated around, within an ace of blowing up both of us. I asked that the David be relieved of such duty. Dixon often told me that the Hunley now worked beautifully and that he had been down as much as twenty feet in her."

The Hunley struck at last, February

Continued on Page Eight.



Captain Tomb, Sole Survivor of the First Torpedo Crew, 1916.

Loyal Employes

By Courtesy of The New Republic.

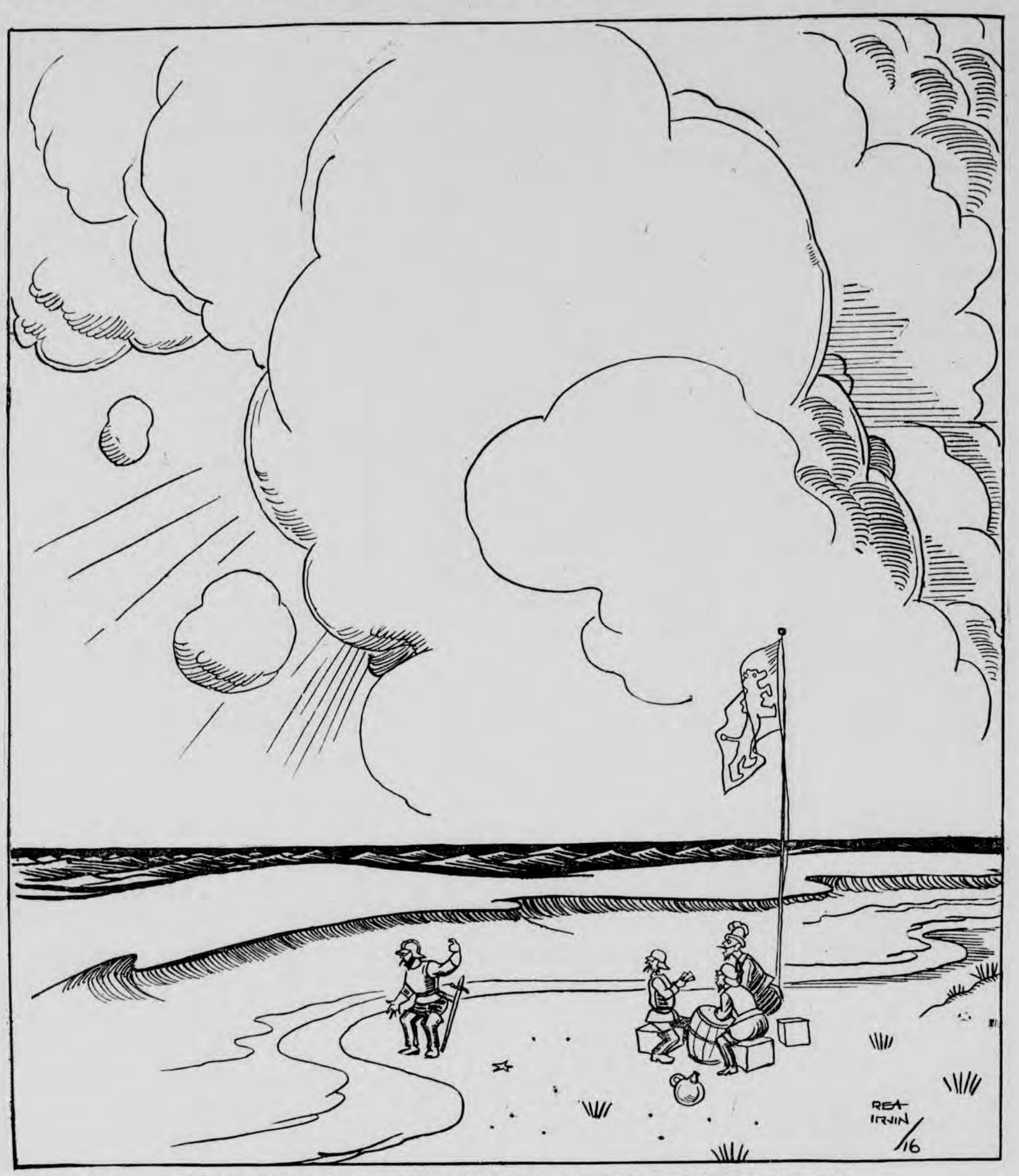
ON the very day before the employes of the New York City Railways Company went out on strike a delegation waited on the President, Mr. Theodore P. Shonts, and informed him that of the 2,568 motormen and conductors employed by the company 2,423, or over 94 per cent, had signified their loyalty. This delegation of "loyal employes" later assured the Mayor that they "wanted to stick," that they had been treated fairly and were satisfied with conditions. "All we want," said their leader, a picturesque conductor named "Rusty" Livingston, "is to help the public and be assured of protection. We don't believe in violence or crime, or you would not see gold bands on the sleeves of the men before you." Yet on the next day not a single car was running, although there was ample police protection and no violence.

It is probable that Mr. Shonts and other officers of the company were not entirely surprised at the overwhelming protestation of loyalty. The loyal petition had been sent to the car barns by the company, and each motorman and conductor on leaving his car had been asked by the starter or some one else in authority to affix his signature. If the conductor or motorman refused to sign he would incur the animosity of his immediate superior and might be forced to work seventeen hours a day, or be given bad runs or be fined, disciplined or discharged. One conductor or motorman is no match for the New York City Railways Company. Being weak individually he gave in temporarily. If Paris was well worth a mass, surely the man's job was worth an unmeaning signature to a lying document, obtained under compulsion. Even the unionists, who were collectively agreed on striking, put their names to the loyalty pledge. A moral hero would have stood out alone against the great railway company, but moral heroes are not in demand as conductors and motormen.

Whether Mr. Shonts really believed, or merely wished the public to believe, that 94 per cent of his employes were overflowing with loyalty is a psychological problem of no universal consequence. The mental attitude that would even casually entertain such a hypothesis is of importance only because the men who think in this way have so extraordinary and abnormal an influence over our whole industrial life. When such men speak of loyalty they think of humble subordination. The conception fuses with that of feudal allegiance, fealty, homage, the dutiful respect of the inferior for the superior, the unthinking response of the true and faithful and rather stupid servant, who shall not be without his reward, once the officials of the company can satisfy a mob of exigent stockholders and really afford to act benevolently towards these men with the gold bands on their sleeves. In ordinary life Mr. Shonts does not expect loyalty of the seller to the buyer or of the lessor to the lessee. He asks merely for fair dealing and common honesty between any two parties to a contract, and he does not demand that a bargainer sacrifice his interest out of loyalty to the party of the second part. Why, then, does he ask loyalty of the motorman or conductor, who gets more or less from his contract in proportion to his bargaining power, and who usually gets less because he is forced to bargain alone?

At first glance one might believe that Mr. Shonts and his fellow officials were merely hypocritical in assuming that their employes were loyal. They might easily have learned, if they did not already know, that wages on their lines were far below those in other cities and absurdly inadequate to the maintenance of a decent standard of living in New York. They might also have learned that men were kept uselessly and without pay about car barns; were liable at any moment to be forced to work overtime—without excess pay—and were subject to immediate discharge and with no real opportunity for the hearing and redress of their grievances. The men could not possibly be loyal to a President Shonts whom they had never seen, or to the "alien" company directors from Boston, who took efficient charge of the interests of New England stockholders, or to the company itself, over the management of which they had not the slightest control. A man who holds his job on sufferance, who may be dismissed with short notice or none, may be held to a company by interest or fear but never by a more generous emotion.

THIS DAY IN HISTORY—By Rea Irvin



BALBOA DISCOVERS THE PACIFIC OCEAN, AUGUST 20, 1513

ARE WOMEN PEOPLE?

By Alice Duer Miller

On August 8 the United States Senate passed the bill restricting child labor.

Twelve Senators voted against it.

Every one of these who had voted at all on the woman suffrage amendment had voted against that, too.

The following Senators voted against the child labor bill.

Bankhead	Oliver	Smith (Ga.)
Bryan	Overman	Smith (S. C.)
Fletcher	Penrose	Tillman
Hardwick	Simmons	Williams

Of these the following voted against the suffrage amendment:

Bankhead	Overman	Tillman
Bryan	Smith (Ga.)	Williams
Oliver	Smith (S. C.)	

Senators Fletcher, Penrose and Simmons did not vote on the suffrage measure, and Senator Hardwick was not a member of the Senate at the time.

Senator Bryan, of Florida, not only voted but spoke against both measuress.

In speaking against the child labor bill he said that there were now only three states with an age limit of less than fourteen years for the employment of children. These three states, he said, were North Carolina, New Mexico and Wyoming.

What, a suffrage state? How the other "antis" must have pricked up their ears!

But Senator Bryan's subsequent statistics reveal the fact that while North Carolina has 6,359 children between the ages of ten and thirteen years employed in mechanical, manufacturing or mining industries, Wyoming has none.

In speaking against the child labor bill Senator Bryan said: "What are we going to do with the children when you forbid them to enjoy the right to earn a living?"

It would seem as if the Senator had never heard of the well known Home.

And yet he has, for in speaking against the suffrage amendment he referred to the anti-suffragists as those "who still believe that the home and the child are her (woman's) sphere."

Homes for every one but children, is the Senator's motto.

Senator Oliver, another stern opponent of restrictions on child labor, not only voted against the woman suffrage amendment but appeared before the resolutions committee of the Republican convention in an attempt to prevent the party's indorsement of the principle.

Senator Overman, who voted against both measures, when speaking against the child labor bill pointed with pride to the fact that North Carolina has fewer children between the ages of fourteen and sixteen in jails, prisons and workhouses than in most of the other states of the Union.

Some years ago, when opposing with equal vigor the establishment of the Child Welfare Bureau, Senator Overman was not so well up on his statistics.

He could not then tell whether the children of his state were legally allowed to work ten or eleven hours.

Children never are refractory
In a pretty mill or factory.
Every one is quiet, very,
In a well run cemetery.

Senator Williams, of Mississippi, who voted against both measures, said in speaking against woman suffrage:

"Suffrage is not a right and never was a right. It is a privilege granted to the individual by society in the interest of society. Therefore society does not admit idiots to exercise it, nor lunatics, nor paupers, nor men under twenty-one, nor, in Mississippi, those who are so ignorant that they cannot read or write."

And, the Senator should have added, mothers who are so ignorant they cannot see what an advantage factory work is to little children.

Three of the conspicuous anti-suffragists in the Senate did not vote on the child labor bill at all apparently.

These were Senators Lodge, Martine and Wadsworth.

All three often assert probably that they held women's interests dearer than their lives.

Indeed Senator Martine said, in speaking against woman suffrage: "I need not say I love and admire a good woman. There is no man in this body who can outdo and outvie me in efforts to uphold on every occasion the good women of the land."

Yet it does not seem to have dawned on the Senator that the occasion when the good women of the land would most wish to be upheld is when the protection of their children is in question.

Now, does any one think that it is a coincidence that those in favor of child labor are anti-suffragists?

Those who wish to keep children in the mills wish to keep mothers away from the ballot box.

Hay Fever

Continued from Page One.

By this time I was quite reconciled to undergoing the treatment. In fact, I was afraid that my early indifference had made them feel that I didn't want it; so I kept throwing out little hints to the effect that I hadn't any superstitious prejudice against hyperdermic injections, and that I supposed that it didn't take long, and showed them that I wore my sleeves rolled up anyway, which would make it all the easier for them. By means of these delicate little pieces of subterfuge I finally convinced the doctor that he could try the vaccine on me without offending me, and he had an attendant bring a box containing the entire layout.

I rolled up my sleeve and looked out at the window. I had never been hypodermically injected before and was ready for anything. I didn't suppose that it was so bad as having a leg cut off, but certainly there must be some pain in having that needle run its length into one's arm. I fixed my eye on a lightning rod on a nearby barn and said to myself, "Come, come, my man. Think of all your Plattsburg friends who had to go through this same thing." That cheered me up quite a bit, for my Plattsburg friends get on my nerves. The doctor was pinching my arm, Maybe he couldn't find any suitable place to inject it. He might have to cut me open with a knife and put it in with a spoon.

"All right," he said. "Come over to my office day after to-morrow."

It was done, and I was on my way in the Great Experiment. I say "experiment" because I began late. I should have started the treatment in June and so have got a running start on the plague, but when I took my first puncture my appointed doom was only one week off. I have now had five treatments, and as I write I am three days overdue. I dare not think about it. My knuckles are all raw from rapping wood. One year the Gypsy's Curse didn't hit me until the twenty-first. So it still has a day's leeway.

I know that this is no place to leave this story. My brother-convicts will not know whether or not the thing has worked, and will say to themselves, "Oh, some more newspaper talk." And so I have made arrangements with the Traffic Department to let me take up a position on the pedestal of the Worth Monument in Madison Square from the hours of 9 and 11 every morning, and I will there be glad to have all hay-fever sufferers who are interested come and look at me and see for themselves whether or not I am afflicted. I would much rather not have any one speak to me, for I am not used to such public performances. But I shall be the man on the pedestal of the Worth Monument who wears a sprig of goldenrod in his button-hole.

And if I *do* have an attack, I shall be the man who has just killed five innocent bystanders in a most brutal fashion and who is being led away by the police.

FIRST SUBMARINE WARFARE.

Continued from Page Four.

17, 1864. To work down the harbor and through the Federal fleet of gunboats Dixon probably used her as a submarine, but he came up to stab. A hundred yards away from the steam sloop Housatonic the fishboat was detected "like a plank floating along the tide." The ship's master did not recognize her and lost precious seconds in which he might have got away. Suddenly she was suspected, the Housatonic slipped cable, backed engines, desperately called to quarters, fired small arms—Dixon struck forward of the mainmast and exploded his torpedo.

The Housatonic's bottom was blown in and she sank inside of four minutes, her crew scrambling into her yards. Only five men were killed aboard her, but the first warship had been destroyed by a submarine.

No triumph for Dixon. The Hunley went down with her victim and strangled her last crew. After the war divers found her 100 feet off, her bow pointing toward the Housatonic.

Thirty-two men lost.

The crews that Charleston fed to the Hunley were volunteers. The very enterprise in which they died, they knew, was deemed questionable. There was small chance that, if captured, they would be treated as prisoners of war. In this all-but-forgotten chapter of the submarine is further proof that Charleston was "the hotbed of the Confederacy."