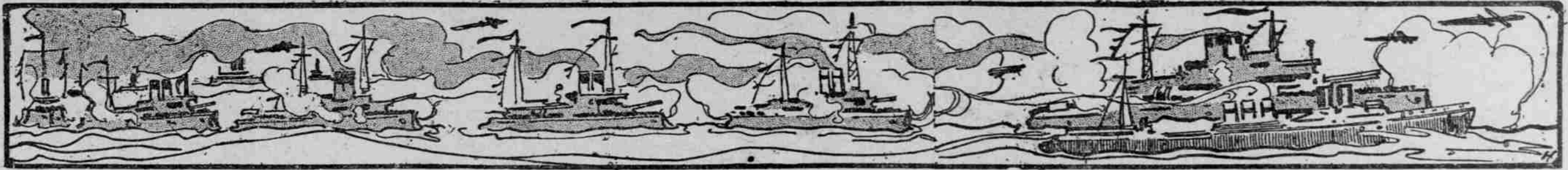


THE VICTORY AT SEA

PROTECTING THE AMERICAN TRANSPORTS

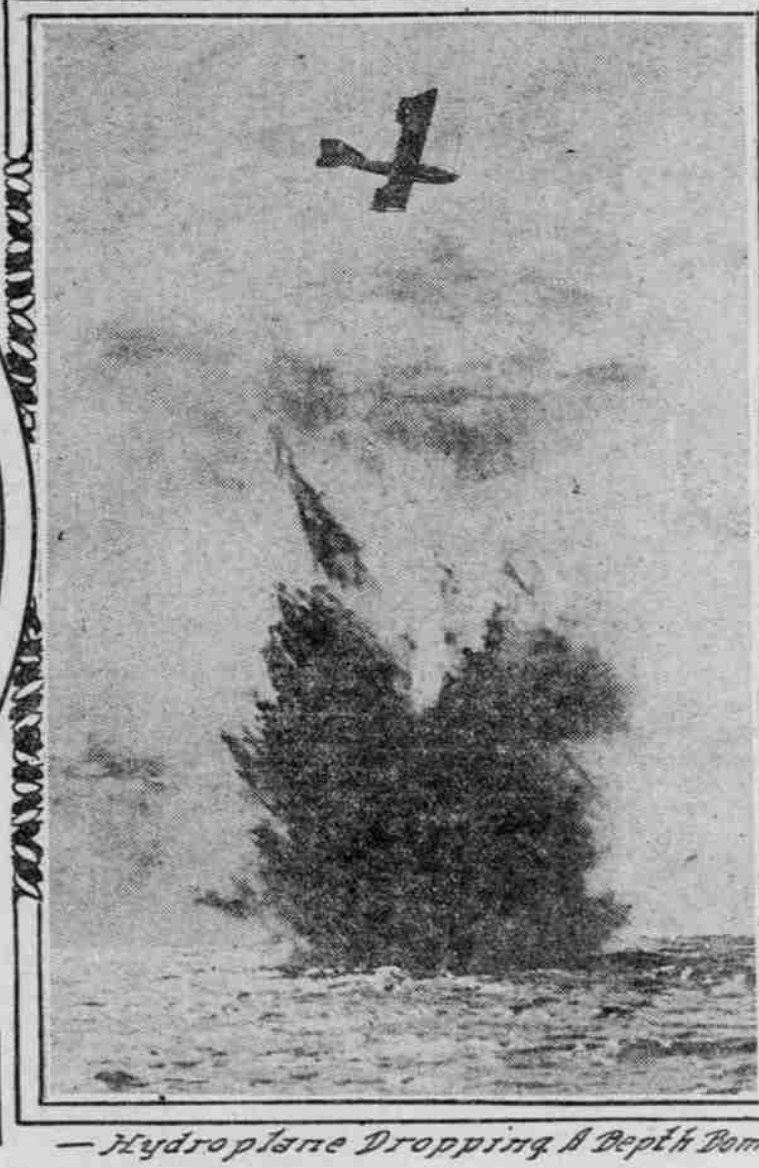
By Admiral William Sowden Sims



Crows Nest On A Subchaser.



On The Deck Of An American Submarine.



Hydroplane Dropping A Depth Bomb.

MEANWHILE, on the other side of the Atlantic, a great organization had been created under the able direction of Rear-Admiral Albert Gleaves. As soon as war was declared the work was begun of converting into transports those German merchant ships which had been interned in American ports. The successful completion of this work was, in itself, a great triumph for the American Navy. Of the vessels which the Germans had left in our hands, seventeen at New York, Boston, Norfolk and Philadelphia, seemed to be adapted for transport purposes, but the Germans had not intended that we should make any such use of them.

Conditions Indescribably Bad.
The condition of these ships, after their German custodians had left, was something indescribable; they reflected great discredit upon German seamanship. For it would have been impossible for any people which really loved ships to permit them to deteriorate as had these vessels and to become such cesspools of filth. For three years the Germans had evidently made no attempt to clean them; the sanitary conditions were so bad that our workmen could not sleep on board, but had to have sleeping quarters near the docks; they spent weeks scrubbing, scraping, and disinfecting, in a finally successful effort to make the ships suitable habitations for human beings. Not only had the Germans permitted such liners as the Vaterland and the Kronprinzessin Cecilie to be neglected, but, on their departure, they had attempted to injure them in all conceivable ways. The cylinders had been broken, engines had been smashed, vital parts of the machinery had been removed and thrown into the sea, ground glass had been placed in the oil cups, gunpowder had been placed in the coal—evidently in the hope of causing explosions when the vessels were at sea—and other damage of a more subtle nature had been done, it evidently being the expectation that the ships would break down when on the ocean and beyond the possibility of repair. Although our navy yards had no copies of the plans of these vessels or their machinery—the Germans having destroyed them all—and although the missing parts were of peculiar German design, they succeeded, in an incredibly short time, in making them even better and speedier vessels than they had ever been before.

Renaming the Boats.
The national sense of humor did not fall the transport service when it came to rechristening these ships; the Prinzess Irene became the Pocahontas; the Rhein, the Susquehanna; and there was also an ironic justice in the fact that the Vaterland, which had been built by the Germans partly for the purpose of transporting troops in war, actually fulfilled this mission, though not quite in the way which the Germans had anticipated. We called in all available vessels from the Atlantic and Pacific coast and the Great Lakes; England stripped her trade routes to South America, Australia and the East, and France and Italy also made their contributions. Of all the American troops sent to France from the beginning of the war, the United States provided Britain for 61.25, the remainder being provided by France and Italy. Of those sent between March, 1918, and the armistice, American vessels carried 42.35 per cent, Britain 55.40 per cent. (These figures are taken from the annual report of the secretary of the navy for 1919, page 207.)

Yet there was one element in the safe transportation of troops which

was even more fundamental than those which I have named. The basis of all our naval operations were the dreadnaughts and the battle cruisers of the grand fleet. It was this aggregation, as I have already indicated, which made possible the operation of all the surface ships that destroyed the effectiveness of the submarines. Had the grand fleet suddenly disappeared beneath the waves, all these offensive craft would have been driven from the seas, the allies' sea lines of communication would have been cut, and the war would have ended in Germany's favor. From the time the transportation of troops began the United States had a squadron of five dreadnaught battleships constantly with the grand fleet. The following vessels performed this important duty: The New York, Captain C. F. Hughes, afterward Captain E. L. Beach; the Wyoming, Captain H. A. Wiley, afterward Captain H. H. Christy; the Florida, Captain Thomas

Washington, afterward Captain M. M. Taylor; the Delaware, Captain A. H. Scates; the Arkansas, Captain W. H. G. Bullard, afterward Captain L. R. de Steiguer, and the Texas, Captain Victor Blue. These vessels gave this great force an unquestioned preponderance, and made it practically certain that Germany would not attempt another general sea battle. Under Rear-Admiral Hugh Rodman, the American squadron performed excellent service and made the most favorable impression upon the chiefs of the allied navies. But these were not the only large battleships which the United States sent to European waters.

Despite all the precautions which I have described, there was still one danger which constantly confronted American troop transports. By June and July, 1918, our troops were crossing the Atlantic in enormous numbers, about 300,000 a month, and were accomplishing most decisive results upon the battlefield. A successful attack upon a convoy, involving the sinking of one or more transports, would have had no important effect upon the war, but it would probably have improved German morale and possibly have injured that of the Americans.

There was practically only one way in which such an attack could be made; one or more German battle-cruisers might slip out to sea and assail one of our troop convoys. In order to prepare for such a possibility, the department sent three of our most powerful dreadnaughts to Berehaven, Ireland—the Nevada, Captain A. T. Long, afterward Captain W. C. Cole; the Oklahoma, Captain M. L. Bristol, afterward Captain C. B. McVay; and the Utah, Captain F. B. Bassett, the whole division under the command of Rear-Admiral Thomas S. Rodgers. Berehaven is located in Bantry bay, on the extreme southwestern coast. For several months

our dreadnaughts lay here, ready to start to sea and give battle, momentarily awaiting the news that a German raider had escaped. But the expected did not happen. The mere fact that this powerful squadron was ready for the emergency is perhaps the reason why the Germans never attempted the adventure.

What the Map Showed.
A reference to the map which accompanies this article will help the reader to understand why our troop transports were able to carry American troops to France so successfully that not a single in-going ship was ever struck by a torpedo. This diagram makes it evident that there were two areas of the Atlantic through which American shipping could reach its European destination. The line of division was about the 49th parallel of latitude, the French city of Brest representing its most familiar landmark. From this point southward extending as far as the 15th parallel,

which corresponds to the location of the city of Bordeaux, is a great stretch of ocean, about 200 miles wide. It includes the larger part of the Bay of Biscay, which forms that huge indentation with which our school geographies have made us Americans so familiar, and which has always enjoyed a particular fame for its storms, the dangers of its coast, and the sturdy and independent character of the people on its shores. The other distinct area to which the reader's attention extends northward from the 49th parallel to the 52nd; it comprises the English channel, and includes both the French channel ports, the British ports, the southern coast of Ireland, and the entrance to the Irish sea. The width of this second section is very nearly the same as that of the one to the south, or about 200 miles.

I have thus far had little to say of the Bay of Biscay section because, until 1918, there was comparatively little activity in that part of the

revolution it rang out on national holidays, in welcoming illustrious visitors, in mourning the deaths of beloved American patriots. It was toiling on the day when the body of Chief Justice Marshall was being carried in a public funeral procession, and after that day it never tolled again.

Shall the Liberty bell ring again? The electric welders would invoke now the magic power that Benjamin Franklin snatched from the clouds with a silken cord and key in the days when the Liberty bell shone resplendent in the full glory of its mission and made that same beloved relic function anew as it did in the days of youth; a renaissance of the good old-fashioned American brand of liberty that was good enough in the anti-bolshevik days, when pure democracy leaped to the front rank of civilization.

It is asserted by the welders that electricity will also cure the famous bell of its chronic disease. The bell, doctor, Alexander E. Outerbridge Jr., who holds the chair of metallurgy at Franklin institute, has held that the bell suffers from a form of distemper. It is to be guarded carefully lest it go all to pieces.

The electric engineers now prescribe baths for the bell—electrical baths. Heat it electrically and then allow it to cool slowly. This will eliminate the "fatigue" of the metal. The heat treatment is recommended regardless of the proposed transfusion. The heat, it is reasoned, would preserve the bell by relieving the stress between the metal particles caused by vibration. Constant vibration wears against the relic, particularly when it is opened to visitors, as in the recent case when the Spanish novelist, Innocente Blasco Ibañez, clasped and kissed it.

Other metal products that have met with accidents.

These welding engineers tell us that the world will soon turn to electric welding for virtually all metal-construction work. In labor saving alone, they point out, the welding process holds the advantage. One operator only is needed in welding. In riveting ship plates together it takes four men to rivet one plate. One man is the riveter, another the holder on the third the passer-up and the fourth the heater boy, who supplies the red-hot bolts. In this way, it is said, there is a net saving of from 18 to 25 per cent in the cost of ship construction.

But, of equal advantage, is the saving in the weight of the ship and its increased cargo-carrying capacity. The hull is electric welded throughout and therefore wholly without rivets in its construction. All plates are abutted without lapping, straps or angles, and then welded with a joint 95 to 100 per cent as strong as the abutting steel members.

Dudley of the Chester shipyard, says that due to the elimination of loose, leaky joints, elimination of air and water pockets in riveted joints, where rust may form, and substituting smooth for irregular surfaces, the maintenance costs may be considerably reduced; the exterior or wadded surfaces of the welded hull is smoother than the riveted hull, so the resistance to propulsion, fuel consumption and the capacity of propelling machinery will be about 2 per cent less; water tightness is easily and completely attained even in most difficult places; owing to the saving of space and lightening the hull with the same tonnage displacement.

Already they are putting automobiles, street cars, railway rolling stock, window sash, horseshoes and steel rails together with the tiny 12-ounce electric welding needle. Now they are proposing to dip down into the ocean with that needle and lift up sunken ships that may be salvaged for their hidden treasure. Pretty soon we may be building the world of tomorrow with an electrified metal pencil that a woman may wield as neatly as the artist sweeps his brush to and fro over the canvas.

Civil War Veteran Now Citizen.
SEATTLE, Wash.—James Doyle, a civil war veteran, recently was granted citizenship papers in the United States district court here. For 54 years he had voted and performed the duties of a citizen although he was born in Ireland. He believed himself a citizen because of his service in the union army and his father's naturalization.

Blissings of Pope Taken by Envoy to Japan.
Consideration for Nipponese Nation Expenses. The Archbishop Petrus Fumasoni, Third to Have Been Sent on Such Mission.

TOKIO, March 24.—Archbishop Pietro Fumasoni, who has just arrived in Tokio, has conveyed the pope's blessing upon all Catholics here and expressed his high consideration for the Japanese nation. He is the third envoy sent to this country from the Vatican.

The first was Cardinal O'Connell, of Boston and the second Archbishop Petrelli who presented to the emperor the pope's congratulations upon his accession to the throne.

Archbishop Fumasoni will stay about three years in Japan and may remain permanently as apostolic delegate if the Japanese government extends to him the recognition extended by civil governments, the Vatican being willing, it is said, to reciprocate by inviting a permanent Japanese representative to the holy see. A few months ago Captain Yamamoto was sent to the pope on an official mission from the Japanese government.

The archbishop comes from India where he held the post of apostolic delegate for the last few years. Referring to the Catholic inhabitants of the Carolines and the Marianas Islands who have been without clergy since the German missionaries were repatriated, Archbishop Fumasoni said that these islands are now under the jurisdiction of the Archbishop of Sydney.

LIBERTY BELL, MOST REVERED OF AMERICAN RELICS, MAY YET RING AS OF YORE

Modern Electrical Engineers Interested in Proposal to Close Great Crack and "Cure" It of Metallurgical Disease, Slow Disintegration.

SILENCED for more than three-quarters of a century since it last tolled at the funeral of an American patriot, the Liberty bell, most revered of American relics, may yet speak again as it did in the days of its youth. Modern science would heal completely the treacherous break that split it wide from rim well up to crown, and make it ring again as loudly as it did at the birth of the young republic when it was made to "proclaim liberty throughout all the land and to all the inhabitants thereof."

Electrical engineers interested in the proposition of welding together the severed ends of the Liberty bell, the magic power of modern industrialism, would be the medium applied not alone to close the breach in the bell, but to cure it of its chronic metallurgical disease—slow disintegration—by applying the latest developments in the therapeutics of mineral matters.

The project was discussed at a recent meeting of the American Welding society. It remains for the guardians of the bell and the American people, to whom it belongs, to say whether the invalid bell with its supposedly fatal wound shall be summoned into the electric clinic—or left to its fate.

It is D. H. Wilson, the New York engineer, who proposes the "surgical operation. You don't recall Wilson? He is the man who fitted up anew the damaged Liberty bell with its supposed fatal wound shall be summoned into the electric clinic—or left to its fate.

They would proceed in this fashion: Take first a grain of metal from the crevice of the bell. Have it analyzed by a board of expert metallurgists. Reproduce in the laboratory of the alchemist the identical metal of which the Liberty Bell is composed. When you have the proper alloy you are ready to bring on the electric needle.

Now for the process of welding. Fashion the new metal to be applied into a wire or needle of the welding apparatus. Measure the resistance of the bell and the resistance of the wire after having estimated the amount of steel sufficient to fill up the crack. Now to fill in the crack. One electric contact is made on the bell and the other on the needle that is composed of the same metal substance as