

left Ireland to reside with his family in France after the Treaty of Limerick.

He was educated at the University of Montpellier and graduated Doctor of Medicine, after a brilliant course in 1700. In 1704, he went with the Duke of Berwick to Spain, and saw much active service as chief medical officer to the combined French and Spanish forces.

In 1712 he married the daughter of Jean Baptiste de Courtiade, the town doctor of Bayonne. Saint-Simon, the famous diarist, tells us that she was "witty, gracious and virtuous," and that the marriage was a happy one.

He worked unsparingly for the relief of the sick soldiers during the siege of Barcelona in 1714; and in 1717 he received the highest possible medical post in Spain, the office of Protomedico de Camera. The following year he was elected President of the Royal Academy of Medicine and Surgery of Seville.

Higgins remained all the while a staunch friend of Ireland and the Irishmen in Spain; and when war was declared on England in 1718 he was instrumental in preventing the confiscation of the goods and property of the Irish merchants.

In 1721, when the Duke of Saint-Simon fell dangerously ill, the King sent Higgins to look after him. After being tended by Higgins for about six months he became well again. They became the best of friends and Saint-Simon has left two charming pen-pictures of the Irish physician.

In 1722 Philip V bestowed on him the title of Councillor of Castille, and in 1724 James III, remembering his good service to France, made him a knight and baronet. He died in Seville in 1729 at the early age of fifty-one, leaving his wife and children well provided for.

JOHN P. HOLLAND

John P. Holland, inventor of the modern submarine, was born at Liscannor, County Clare, on 24th February, 1841. His father's position as coastguard on the Clare coasts roused his early interest in shipping and the great fleet of the British Navy, and he realised that only some secret weapon could overpower it. About this time also, during the American Civil War, the fight between the "Merrimac" and the "Monitor" had shown that armoured battleships had come to stay, and it was obvious to Holland that only under-water attack could make any impression on these ironclad monsters.

Holland was educated at the Christian Brothers' Schools in Limerick, and later he became a school-teacher in his native county. Here he worked on the plans of his proposed under-water boat, but he received no official encouragement, was thought to be mad, and, in exasperation, left Ireland for the

United States of America. For a time there he resumed his vocation as a school-teacher, at Paterson, New Jersey, while he continued to work on and better his submarine plans. The first boat which he built, said to have been financed by a Frenchman, was made of wood and had a very clumsy engine. It was a one-man submarine, and Holland himself carried out all experiments in it on the Passaic River. These led to many changes and improvements, and his next boat, "a newer and a better craft", was built.

Romantic legend sprang up around this boat on account of Holland's efforts to preserve the secret of his invention. The newspapers called it "The Fenian Ram" and said, it was being constructed for the destruction of the British Navy. This, of course, was preposterous; for, as Holland afterwards said, his sole purpose in working on the invention was to prevent the widespread slaughter to which he knew the gigantic National Navies were leading. But, although the stories were exploded, the romantic name stuck and Holland's boat was known as "The Fenian Ram" until its replacement by a still better boat around the turn of the twentieth century.

In 1893 he received State recognition for his work and was commissioned to build submarines for the American Navy. "The Holland," which his company now built, was 53 feet long, 10 feet 3 ins. wide, and had a displacement of 75 tons. It travelled underwater at a speed of $5\frac{1}{2}$ knots and was armed with one large torpedo tube, one pneumatic dynamite gun and three short torpedoes. It proved a complete success, and, as a result, the Holland Submarine Company were given the complete contract for the United States submarines, many of which were still in use during the World War.

In 1887, while he was still teaching at Paterson, New Jersey, Holland married Margaret Foley and had three sons and one daughter. In 1905 he was granted the degree of Bachelor of Arts from Manhattan College, New York, and he died at his home in Newark on August 12th, 1914.

Holland's recognition gained him a fortune but he did not realise his hopes. Like most scientists who invent death-dealing weapons, he was an idealist who hoped his invention would be used for the good of mankind and not for its extinction; to control the building of large navies and the useless slaughter of thousands of human beings. What a hope!

DANIEL HONAN

Daniel O'Honyn, Admiral in the Spanish Navy, was the son of Walter O'Honan, of Tullamore, near Ennistymon, by his wife, Mary Holway, a Scotswoman. In the beginning of the eighteenth century he left Ireland and served for a time in the British Navy under Captain Christopher O'Brien.