Marie Antoinette Coiffure

IN AUTHENTIC costumes and perched precariously on ladders, Max Roeder, wigmaster, and John Mueller, Chicago stylist, reproduce a towering coiffure once worn by Marie Antoinette. The creation was seen at the convention of the National Hairdressers and Cosmetologists' association recently held in Chicago. When the coiffure, braced with tin and augmented with quantities of false hair, reached the height of five feet it was powdered and garlanded with flowers. It was the literal height of eighteenth-century hair elegance—but two pages armed with long forks had to go where Marie went to keep it from toppling!

A One-Man Sub

YACHTSMEN along Chicago's lake front were startled not long ago to observe what appeared to be the dorsal fin of a huge, gleaming silver fish scudding, all but submerged, across the lake surface. What they saw was a one-man submarine, invented and recently completed by a young Chicagoan, Barney Connett. The youthful inventor spent three years in perfecting the plans and constructing his tiny under-water craft. As an accompanying diagram shows, there is just enough room inside his boat for the pilot. The rest of the space is taken up with ballast tanks, batteries, pumps, pipes, electric motors, and an elaborate maze of wires, gauges, and gadgets. The little boat has been submerged for a depth of 17 feet. Its speed is about 6 miles an hour, the power furnished by an 8-volt motor from storage batteries. Connett has remained submerged in the craft for more than one hour.

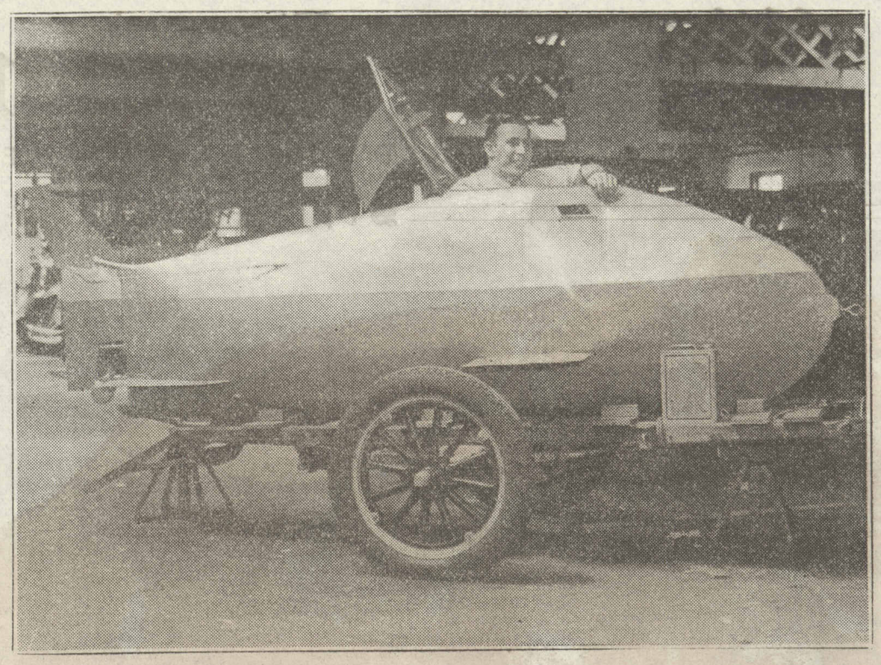
While under water the air which the pilot breathes is constantly circulated by an air-conditioning system which Connett invented. As a precaution against foul air, emergency oxygen tanks are part of the boat's equipment.

The hull is made of specially hardened steel, but the complete submarine weighs less than 1,000 pounds. The odd-shaped craft is 20 inches wide and 34 inches high. As an illustration of the toughness of the hull, Connett said that he recently collided in Jackson park harbor with a speed boat just as the submarine was emerging from a dive. The metal propeller of the speed boat struck the submarine's hull and was broken off. The under-water boat was undamaged

Out of the water the submarine bears a close resemblance to the contours of a small whale. Its movements in and under the water are controled by elevating fins on the sides and a fishlike tail rudder at the stern.

The fins and rudder are operated simply by the pilot, who has a foot lever for the rudder and a hand lever for the fins. The success of Connett's one-man sub is considered significant by boat designers who have seen the craft. Attempts have been made for many years to develop a small submarine which might be adapted to naval work, possibly as auxiliary craft to the small patrol boats used for coast defense purposes in war time. Connett, however, was not especially concerned with such a possibility in building his craft. He wanted to build a small submarine which he could use as a pleasure boat.

In some respects the one-man submarine differs radically in design and operating principle from larger undersea boats. The huge submarines of the navy derive power from batteries and electric motors while they are submerged, but on the surface they are powered by Diesel engines. Large submarines can be submerged to great depths. They are equipped with much the same aids to navigation as large surface vessels.



How Barney Connett's submarine looks out of water. Since this picture was made Connett has placed another window, or "eye," directly back of the one shown. The trailer carriage transports the craft to and from the water. This is the shop in which Connett worked three years to complete his boat.

Barney Connett, youthful inventor and builder of the one-man submarine, which he has successfully tested.

Here is the submarine in the water of Jackson park harbor, Chicago, where Connett made his first test dives. The tiny craft met every test successfully. It has a speed of about 6 miles an hour and submerges 17 feet. It can be operated under water for a period of one hour.

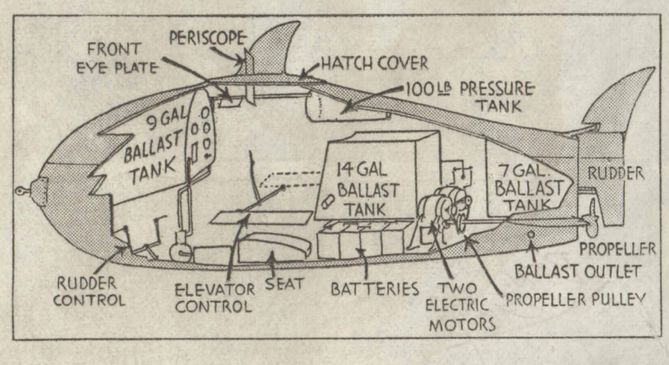
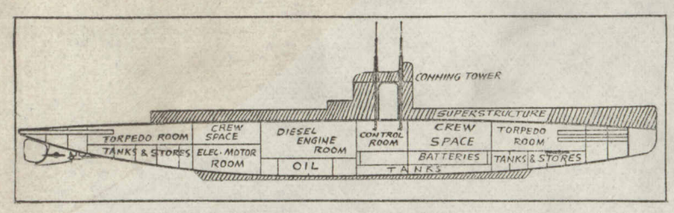
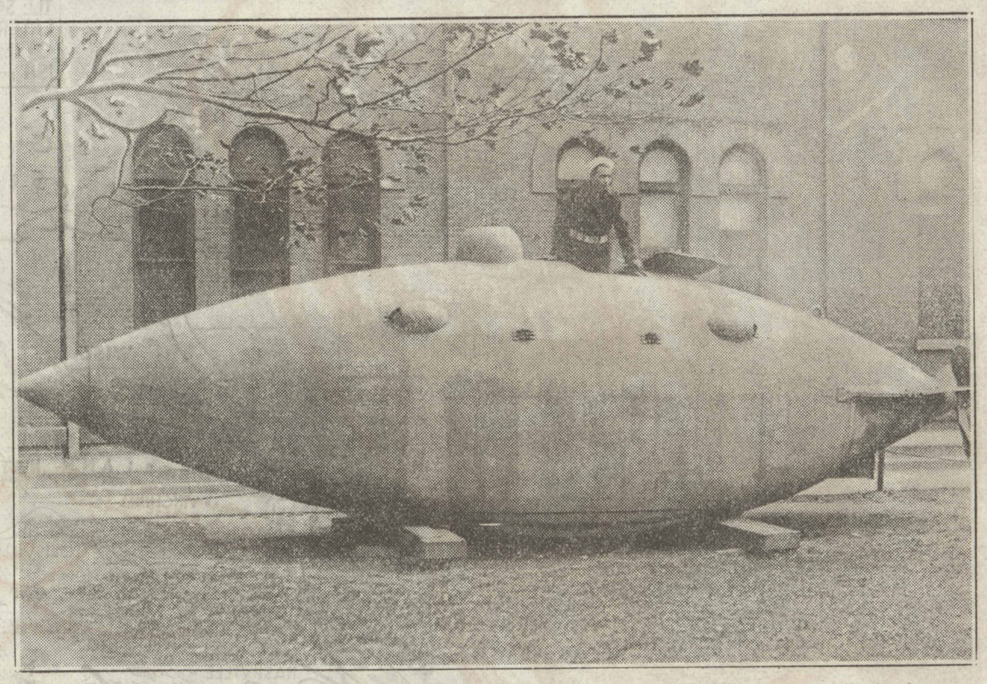


Diagram showing the principal parts in the interior of Connett's one-man submarine. There is just enough space for the pilot. Ballast tanks, batteries, and motors fill the rest of the interior.



This diagram of a modern navy submarine shows how the space of a modern fighting undersea boat is allocated. It is apparent that every inch of room is utilized.

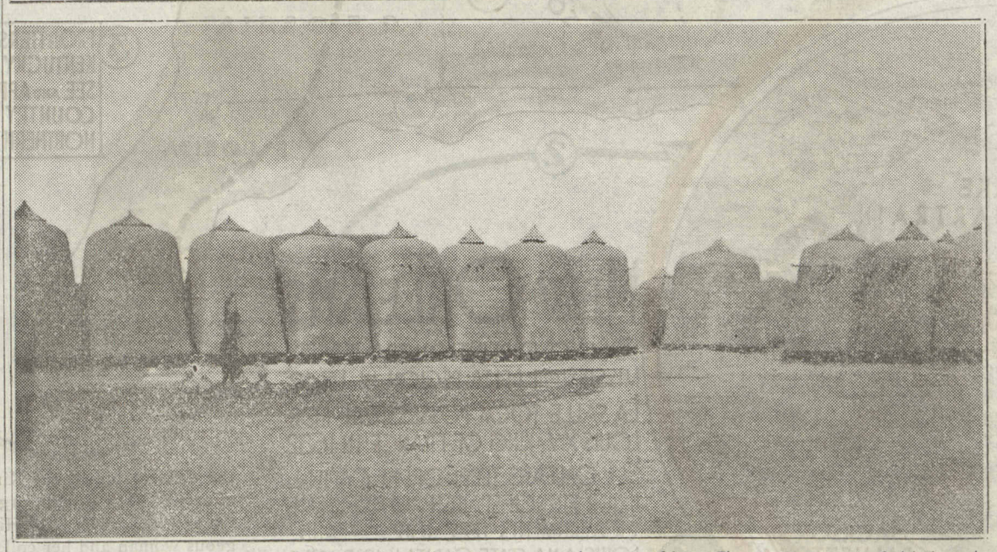


The original Holland submarine of the United States navy. Such undersea craft as this were successfully developed at about the time of the Civil war. Not until the World war, however, were submarines developed as a formidable offensive naval weapon. Since, they have become indispensable as auxiliaries to a fighting fleet.

More Consecutive Twins!

THESE two teams of consecutive twins are the children of Mr. and Mrs. V. B. Baker of Forest Park, Ill. They are Irene and Ilene, born Dec. 25, 1928, and Billy and Bobby, born May 21, 1930. Mrs. Baker noticed a recent news picture of the consecutive twins of Mrs. Vincent Kemp of Bremen, O., and was inspired to send in this photograph of her own children to prove that Illinois has consecutive twins, too. Are there any more consecutive twins?

Crop Reduction Unheard Of in French West Africa



Grain "magazines" in the region lying south of Timbuctoo in French West Africa. The structures are of dried mud, raised on stone foundations to protect stored grain against water and termites. Grain storage depots such as these are common sights in this region of Africa, and their construction is encouraged by the French colonial government.

IN FRENCH WEST AFRICA there is no such thing as a crop reduction program, as these pictures, taken there by Dr. Robert F. Forbes of Tucson, Ariz., reveal. The pictures show two places where thrifty native farmers store surplus grains against the years of drouth and famine which are inevitable from time to time. The left-hand picture shows grain "magazines," built of dried mud and raised on stone foundations for protection against water and termites. Such grain storage is encouraged by the French colonial administration. At right is a central African chieftain in front of his grain storage warehouses. He is chief of Lanfiera village, on the Black Volta river in French West Africa. The French administration has a definite agricultural program, but crop reduction has never been one of its tenets. The years of plenty are considered natural insurance against years of famine.

This native chieftain, head of Lanfiera village on the Black Volta river of French West Africa, is standing in front of his mud grain storage warehouses. He is an exponent of the belief that in years of plenty grain should be stored for use in years of famine. He has never heard of crop reduction programs.