been solved), we see to it that this technology be used not merely in the name of America and the American way of life, but in the name of a human, a psychologically informed way of life.

"Then our aggressions which we shall still have and shall still enjoy will take themselves out not against our fellow men but against disease and starvation and maladjustment.

"We shall fight primarily not against the Nazis and Hitlers abroad but always and simultaneously here at home against the myths which they symbolize."

Science News Letter, September 7, 1940

ORDNANCE

Ideal Light Machine Gun Sought by U. S. Army

WANTED, by the U. S. Army: the ideal light machine gun. Inventors will have one year and one month to produce.

Notice to this effect is carried in the September-October issue of *Army Ordnance,* giving specifications to be met and describing tests that are to be fired during the month of October, 1941.

Specifications boil down as follows: Weight must not exceed 22 pounds, so that one soldier can pick up the gun and walk off with it. Over-all length, 38 inches or less. It must be air-cooled: liquid cooling adds weight and is a messy nuisance anyhow, in a weapon that must be ready to move on a split second's notice. It is to be bored and chambered for the standard .30 caliber Army cartridge.

The new gun must have its barrel capable of being unscrewed from the front, so that a new barrel can be put on in a few seconds. The barrel must be heavy enough so that it can be fired at full speed (300-350 shots a minute) for five minutes without stopping.

It must stick close to the ground, to present as low a target as possible. Mounted on its tripod, the gun should not exceed 18 inches in height.

Ammunition is to be fed in from the left side, in metal-link belts. Cloth-web belts are apt to make cartridges stick in wet weather, and box-magazine and clip feeds are not considered satisfactory.

There are some other specifications, mostly technical in nature. But if a machine gun can meet the requirements as just stated, have the stuff to "take it" under regular knockabout field conditions, and be able to swing around through a wide arc of fire, it should have a good chance of adoption as the standard weapon of its type for the new U. S. Army.

In setting forth the requirements for the new light machine gun, Brig. Gen. Earl McFarland of the Army's ordnance department reviews some of the machine weapons now in the American and foreign services. Weapons like the Lewis and Bren guns, now most used in the British army, are often referred to as light machine guns but are more properly machine rifles, he says. Like the Browning automatic rifle of World War fame, they are capable of bursts of fire only up to the capacity of their loading clips—30 in the case of the Bren, 20 in the Browning. A real machine gun, even a light one, must be able to keep up sustained fire, fed either from a belt of cartridges or a magazine of some sort.

Science News Letter, September 7, 1940

AVIATION

Biggest Flying Boat Being Built for Navy

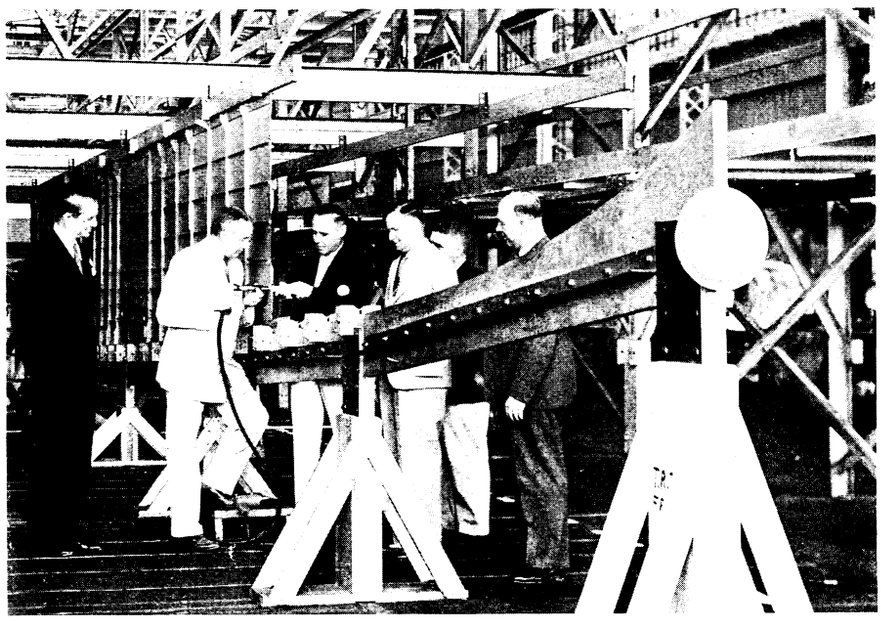
BIGGEST flying boat in the world is now under construction at the plant of the Glenn L. Martin Company, in Baltimore. Destined for the U. S. Navy, the start of the "flying battleship" was marked with a keel-laying ceremony, time-honored custom in the building of surface vessels, but never before applied to aircraft.

No information has yet been released on the new airplane, which will serve as a bomber. However, it is obvious that it will considerably exceed in size the Navy's present largest aircraft. This is the type known as the XPB2Y-1. It weighs 29 tons, has a wing span of 115 feet, length of 79 feet and height of 28 feet. It is powered with four Wright engines, of about 1000 horsepower each.

Science News Letter, September 7, 1940

Over half a million pads of the *moss peat* from bogs of Maine, Oregon and Washington were prepared for surgical dressings in World War days.

An ordinary snap-type *mousetrap* is part of a novel apparatus devised at the U. S. Bureau of Mines for collecting air samples in mines, manholes and other inaccessible places.



FUTURE DREADNAUGHT OF THE AIR

The aeronautical equivalent of a battleship's keel-laying, when Glenn L. Martin, president of the aircraft building company that bears his name, drove the first rivet in the frame of a giant new flying boat for the Navy. Opposite him, holding the bucking-block against the rivet, is Capt. DeWitt C. Ramsey, U.S.N.