

**THIRD A-SUB LAUNCHED**—The USS Skate, third atomic submarine to be built for the United States Navy, slides down the ways at the Groton (Conn.) plant of General Dynamics Corp. Mrs. Lewis Strauss, wife of the atomic energy commissioner, christened the vessel. Still another atomic sub, Skipjack, is under construction at the left.—AP Wirephoto.

## Science Blunts the Nose Of Long-Range Missiles

By the Associated Press

A scientist's discovery that has changed the shape of the Nation's long-range ballistic missiles was disclosed today after five years of secrecy.

The research of H. Julian Allen of Palo Alto, Calif., may provide America's thermonuclear Intermediate and Intermediate Range Ballistic Missiles with the insurance they need against burning up from air friction.

Mr. Allen discovered that if the nose of a missile is blunt the weapon will shed much more of the heat generated from air friction than if the missile has the conventional pointed nose.

He is chief of the high-speed research division of the National Advisory Committee for Aeronautics Laboratory at Moffett Field, Calif.

**Gets Highest Award**

His achievement was announced at NACA headquarters here after a ceremony in which James Doolittle, NACA chairman, arranged to present Mr. Allen the committee's distinguished service medal.

The citation said Mr. Allen's work on the motion and heating of missiles upon re-entering the atmosphere "contributed impor-

tantly to the solution of the re-entry problem of the long-range ballistic missiles."

Among the most fearsome United States weapons of the future are its 5,000-mile range ICBMs—Atlas and Titan—and its 1,500-mile range IRBMs, Thor, Polaris and Jupiter.

These rockets are fired far out of the earth's atmosphere and make their long flights in friction-free space.

**Temperatures Rise**

As they turn earthward, however, they re-enter the earth's air blanket and are heated to extremely high temperatures by air friction.

The committee said that before Mr. Allen started his studies in 1952, the design approach for ICBMs was to select shapes that would have the least amount of aerodynamic drag. Missiles so designed were pencil-like in appearance, with sharply pointed noses.

Mr. Allen said that the blunt shape seemed feasible after it was learned that the maximum deceleration of a missile was independent of its physical characteristics and was determined only by the speed of its entry into the atmosphere and by the angle of its flight path.

## Clash of Experts Hinted In Miller Contempt Trial

By JACK JONAS

A clash of experts on the best way to investigate communism may develop at the contempt-of-congress trial of Playwright Arthur Miller.

Defense Attorney Joseph L. Rauh, Jr., told Federal Court yesterday he may have to call in his own investigative experts to refute testimony by Richard Arens, the Government's sole witness in the case.

His statement came after Mr. Arens was qualified—late in his appearance on the witness stand—as an expert in the investigation of Communist activities. Mr. Arens is staff director for the House Un-American Activities Committee.

Mr. Miller, husband of Actress Marilyn Monroe, is being tried for his refusal to answer two questions put by the committee last June 21. As the third day of the trial neared its end yesterday, it appeared likely to become one of the longest contempt-of-congress trials in recent Federal Court history.

**Day to Cross Examine**

Mr. Rauh said he probably would need a day to cross-examine Mr. Arens. After that, the defense will put on its case.

Although he had been on the stand for two days, Mr. Arens

answered only one question as an "expert."

"How, in your opinion as an expert in the investigation of Communist activities, can Communist discipline be established?" Assistant District Attorney William Hitz asked.

"Communist discipline is established or determined in a variety of ways," Mr. Arens replied. "It is established or determined by the actual contacts which a given individual has with persons who have been identified as functionaries of the Communist Party. This contact is most generally established by cell meetings of the Communist Party."

"A cell meeting is a meeting in which only known members of the Communist Party are admissible. To establish Communist discipline, it is necessary to find out what actually transpired in the meeting."

### Refuses Names

At the time the House called Mr. Miller, the committee was investigating the alleged misuse of passports.

Although Mr. Miller spoke freely of his associations with Communist groups in the past, he would not tell the committee who attended Communist writers' meetings with him in 1947, or whether Arnaud D'Usseau headed those meetings.

Mr. Rauh opened his cross-examination of Mr. Arens late yesterday. After Mr. Arens testified that the committee "had information" from the State Department concerning the passport dealings of Mr. Miller, these questions and answers followed:

Q. Did the State Department inform to the committee of anything else?

A. I did not say that the State Department informed the committee. . . . I can only say that the information came to my attention from an oral conversation from a particular investigator, and I, perhaps, had a staff worksheet on it.

Q. Do you know who in the State Department gave this information?

A. I do not.

Q. Is it customary for the State Department to give out such information?

A. No, sir. . . . We do not have a regular route of exchange with the State Department, as we do not have with any other department.

At the close of yesterday's session, Mr. Rauh was reading from affidavits Mr. Miller had submitted to the State Department, disavowing communism.

The trial was recessed until Monday.

## Another A-Sub Is Launched

GROTON, Conn., May 17 (AP).—The USS Skate, the Nation's third atomic-powered submarine, slid smoothly down the ways yesterday, a \$50 million bundle of nuclear energy.

Undersecretary of Navy William B. Franke, the keynoter, said she was a "symbol of America's power for peace."

The ways were the same as those used three years ago by the pioneer Nautilus, and later by the Seawolf, the 265-foot Skate's older and bigger sister. They were built by the electric boat division of General Dynamics, too.

The Skate, said Mr. Franke, "will soon be considered the conventional attack submarine."

Earlier, Mr. Franke told the 5,000 spectators he came here to launch what he called the first of the "assembly line" atomic submarines.

Flanking the Skate on the launching ways as he spoke were two other nuclear subs, both of revolutionary design, the speed merchant Skipjack and the giant undersea electronic watchdog, Triton.

Mr. Franke noted the atomic submarine construction program includes three sister ships of the Skate; seven more attack subs of another class; one large radar picket sub and one newly designed submarine.

Among those who shared the rostrum with Mr. Franke were Admiral Hyman Rickover and Mrs. Lewis L. Strauss, wife of the Atomic Energy Commission chairman, and the submarine's sponsor.

Mr. Franke lauded Admiral Rickover, an early supporter of nuclear power for subs, saying the admiral was among the "small number of dedicated men who had brought this about."

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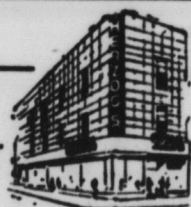
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## Permit Denied To Sell Liquor On 48th Place

Unanimously, the Alcoholic Beverage Control Board yesterday denied a liquor license to Frank McKenzie for 2020 Forty-eighth place N.W.

Mr. McKenzie and his wife were represented at the recent hearing by former Commissioner Samuel Spencer.

Chairman Alan W. Payne said the board made its own investigation of neighborhood sentiment in the case. Mr. McKenzie had presented petitions signed by a number of neighbors in that area in favor of the liquor store.

But the Palisades Citizens Association has been traditionally opposed to the granting of a liquor store in that neighborhood. Citizens who testified at the hearing last month contended it would be a bad influence on the youth, as well as a traffic hazard.

Mr. Spencer had argued it was that denial of the license would be an inconvenience to those desiring to buy liquor, because the nearest liquor stores are in Georgetown and in the 4800 block of Massachusetts avenue N.W. He made a plea that the board had granted a liquor license for the 4800 block of Massachusetts avenue N.W. in the fashionable Spring Valley area, and urged it to do likewise for the MacArthur boulevard area.



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