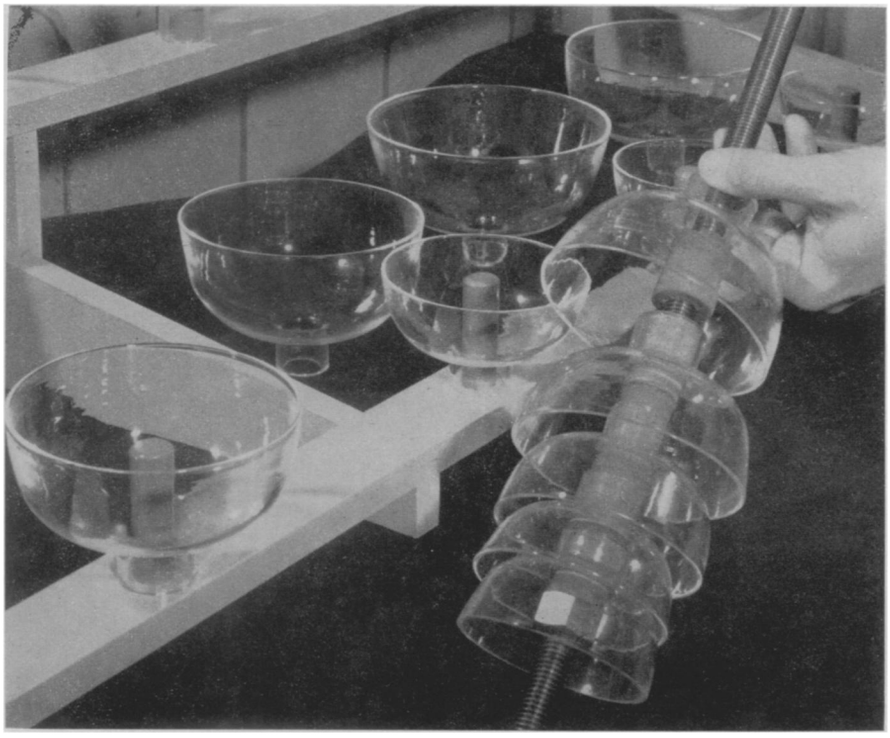

FRANKLIN'S GLASS "ARMONICA"—Crystal bowl components of a unique musical instrument, patterned after an instrument perfected nearly 200 years ago by Benjamin Franklin, are shown here as they were being tuned and assembled at Corning Glass Works, Corning, N. Y. The 37 bowls, mounted on one spindle in chromatic sequence, will be fitted with keyboard and case by Herman Schlicker of Buffalo, N. Y., an organ maker. The replica of Franklin's "armonica" was produced for the American Academy of Arts and Sciences, with financial assistance of the Franklin Savings Bank of the City of Boston.

METEOROLOGY

All-Out Hurricane War

➤ WEATHER BUREAU plans for an all-out war on hurricanes, with the "immediate" aim of more accurate forecasts, were outlined at the American Meteorological Society meeting in New York.

"Long-range" goal is using all possible means to control or modify a hurricane's structure and path, weathermen were told.

Weapons in the war range from an especially equipped, high flying B-47 to electronic computers, from high water gauges to cloud seeding.

Dr. Robert H. Simpson, director of the Weather Bureau's Hurricane Project, said the full-scale offensive would begin May 1, and observations would continue for at least two and a half years.

Aim is to understand the formation, movement and intensification rate of hurricanes, leading to more accurate forecasts of their occurrence and path.

Storm surges accompanying hurricanes cause much more damage than the hurricanes, but no one knows just how much high water a particular tropical storm will bring.

Storm surges are not just huge waves, but a general rise in water levels, inundating coastal regions.

Hurricane waves a hundred feet high have also been reported, but few persons survive the passage of such mountainous crests so no one knows for sure how high they tower or whether they occur as single waves or in series.

Not only will new and very detailed information be gathered, but scientists will search old data, looking for clues to help them predict paths and incidence of future storms.

A network of stations recording upper air data will be set up, with particular emphasis on the Caribbean islands.

Source of a hurricane's energy, many meteorologists now believe, is high above the earth's surface. From data obtained by the B-47 and other planes flying hundreds of miles from the storm's center they hope to learn exactly how the hurricane is nourished.

To test chances of changing a hurricane's path, a "limited" seeding program will be attempted this year or in 1957.

The Weather Bureau plans to conduct such projects far from land to avoid damage suits or other problems that could be blamed on the experiments.

Another cloud seeding project will involve attempts to modify a hurricane before it has formed. Only one of several possible little "buttons," or relatively small whirlpools of air, actually develop into a major storm. The "buttons," only 25 to 50 miles apart, are found south of the crest of an easterly wave.

Since their total energy content is much less than that of a fully developed storm, it should be easier to break them up before one of the "buttons" matures.

Science News Letter, February 4, 1956

● RADIO

Saturday, Feb. 11, 1956, 2:05-2:15 p.m., EST

"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Dr. Irvine Page, president, American Heart Association, and director of research, Cleveland Clinic, Cleveland, Ohio, will discuss "Problems of the Heart."

OCEANOGRAPHY

Find Icebergs' Age From Gas Bubbles

➤ ICEBERGS that menace Atlantic shipping lanes may be as much as 1,000,000 years old.

Three scientists report they discovered the age of six icebergs found near the Labrador coast by testing the gas bubbles trapped in the ice for oxygen content.

Pure ice in thick layers is bluish in color, whereas icebergs are usually white because of tiny, closely spaced gas bubbles. Gases in the bubbles indicate not only the age but also the composition of the atmosphere when the icebergs were formed, the scientists state in *Science* (Jan. 20).

Chunks of ice from the six icebergs were studied by Drs. P. F. Scholander, now at the University of Oslo in Norway, John W. Kanwisher of Woods Hole Oceanographic Institute, Woods Hole, Mass., and D. C. Nutt of Dartmouth College, Hanover, N. H.

The samples were taken on board the research vessel, Blue Dolphin, on a Labrador expedition under the auspices of the Arctic Institute of North America, with funds provided by the Office of Naval Research.

Oxygen content of trapped gas from four of the bergs was found to be almost the same as that of today's atmosphere.

Oxygen content in samples from two icebergs, however, was significantly lower.

This could mean, the scientists speculate, "that when the snow settled on the Greenland icecap ages ago and compacted into these pieces of glacier ice, an atmosphere was trapped that is slightly lower in oxygen content than our present atmosphere."

The ice could have been formed as long as 1,000,000 years ago, they suggest, when cold might have curbed photosynthesis.

Science News Letter, February 4, 1956