

Health officials do not expect to see the end of the epidemic before October. However, this outbreak has not reached the size of the 1916 epidemic and is not now expected to. The fatality rate of the present epidemic is only about one-third that of the 1916 one. States in which infantile paralysis outbreaks occurred last summer, such as California and Kansas, do not appear to be affected at all during the present eastern epidemic. Whether this is due to immunity acquired last year or to the fact that the epidemic has not yet traveled far is not known.

Physicians and health officials in New York are trying to get all cases of the disease reported and to get all reported cases treated with convalescent serum and given adequate after-care so as to prevent or reduce the crippling paralysis which follows the fever in this disease. School openings in the affected area are being delayed in the hope of preventing any further spread.

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METEOROLOGY

Do Glaciers Melt of Their Own Weight?

By DR. W. J. HUMPHREYS,
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AMONG the many statements that familiarity allows to pass unchallenged is that time-honored one to the effect that glaciers automatically limit themselves to a rather moderate thickness because their own weight keeps melting them at their base at a rate that increases with the load. It is true that increase of pressure on the bottom layer of ice does lower its melting point, but this does not enforce rapid melting, and would not even if the initial temperature of the ice were exactly at the melting point, except briefly.

Heat Not Provided

Of course the ice would melt at a furious rate under its own pressure if heat were brought to its under layer rapidly enough to keep the temperature above the melting point appropriate to that pressure. But heat is not so provided by Nature, and melting is a process that consumes much heat. Hence the very act of melting automatically so cools the ice that its further melting is determined entirely by the additional supply of heat. In short, regardless of the pressure, ice is melted only through its consumption of the necessary heat of fusion, a quantity that a pressure of 1,000 atmospheres, or 14,700 pounds per

MEDICINE

Maggot Treatment of Bone Wounds Suggested Long Ago

THE "MAGGOT TREATMENT" of bone injuries, in which larvae of blowflies are placed in the wound to clear up the decayed tissue and hasten healing, seems to be no new thing under the sun. Dr. Hyman I. Goldstein of Camden, N. J., has made a search into medical literature of the past, and has found that the beneficial effect of these larvae was suggested by a French surgeon, Baron D. J. Larrey, shortly after the Napoleonic campaign in Egypt.

The Baron states that in Syria the wounded were annoyed and often terrified by the appearance of "the larvae of the blue fly" in their injuries. "Noth-

ing short of experience could convince them that these insects, so far from being injurious to their wounds, promoted rather their cicatrization, by cutting short the process of nature, and by causing the separation of the cellular eschars which they devoured. These larvae are, indeed, greedy only after putrefying substances, and never touch the parts which are endowed with life."

The modern use of maggots to clear up wounds, especially bone wounds, dates from observations made in the field during the World War. It was the late Dr. W. S. Baer, of the Johns Hopkins University, who made the most extensive clinical tests, developed a technique, and most vigorously advocated the general adoption of the method.

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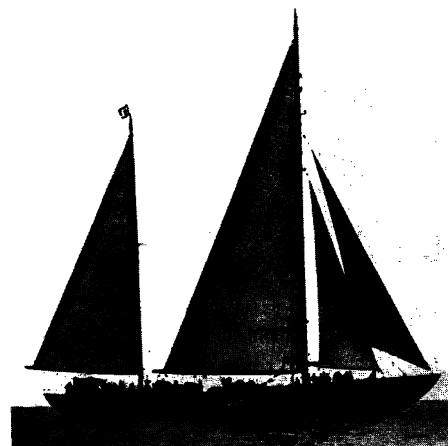
square inch, would not reduce by more than 10 per cent.

Now, from direct experiments, and from theory as well, it appears that the melting point of ordinary ice, the only kind that need here be considered, at the bottom of a sheet 10,000 feet thick, would be approximately 4.12 degrees Fahrenheit below the temperature at which water ordinarily freezes. At the bottom of a sheet 30,000 feet thick (liberal enough as to thickness, perhaps) it would be 13 degrees below the usual freezing point.

But even so, the ice would melt only as heat was supplied and absorbed. In the case of a thick sheet of ice this supply of heat for melting must come mainly from the earth beneath, as practically none could penetrate to the base from above. But this supply from the earth beneath is small, only enough, on the average, to melt a layer of ice a quarter of an inch thick in a year.

The limiting thickness of a glacial sheet, then, is not owing to melting incident to pressure, but to various other causes, especially horizontal flow, surface melting, the brushing off from the top of loose snow by winds, the decrease of precipitation owing to increase of height, effective above the base level of the average snow cloud, evaporation, and the supply of earth heat.

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TO STUDY THE SEA

This is the "Atlantis," whose maiden voyage from Copenhagen, where she was built especially for scientific work, has ended at Boston after 41 days at sea. The "Atlantis" is the new research ship of the Woods Hole, Mass., Oceanographic Institution. Delicate nets and other gear are a part of the special equipment with which scientists will gather material from the floor of the sea; among the chief features of the work is the study of marketable fish and matters of oceanography such as pressure, temperature, currents, as well as meteorological problems of the off-shore fisherman. The "Atlantis," made of steel, is almost 150 feet long. Her displacement is about 410 tons and she will accommodate 30 officers and men including a staff of scientists and students. The "Atlantis" was made possible by a two and a half million dollar gift from the Rockefeller Foundation.