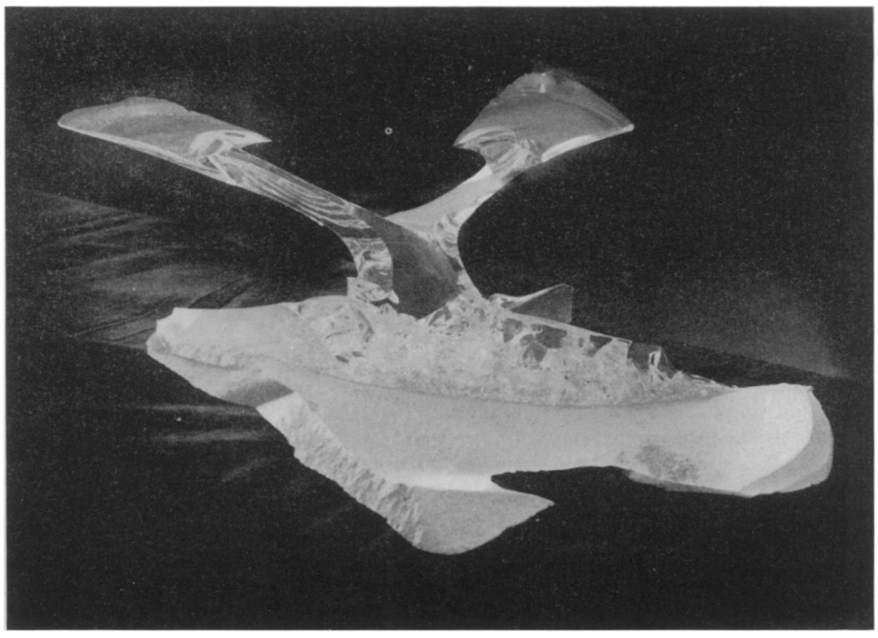
plies to get the disease during epidemics. But they do not. Here is a mystery the scientists hope to clear up.

Another unsolved mystery is where the virus goes in the body of patients. Where do healthy carriers carry their germs? Scientists know the virus travels along nerves, and that when it reaches the nerve cells in the brain and spinal cord it does its chief damage. But for all that is now known, the virus may invade other tissues of the body and hide itself there. Complete information on this point will be sought by examination of all the tissues of the bodies of patients who die of the disease.

If infantile paralysis virus travels from human wastes to contaminate water supplies, will chlorination make the water safe by killing the germs? Scientists believe it will, but when they began thinking about this, they realized that germ-killing chemicals, from carbolic acid, or phenol, down are tested by their power to kill germs that can be seen under the microscope, like the colon bacillus, but not against the invisible virus type of germ. This has led to another line of research, testing the virus-killing power of chemicals, which may help with the problem of infantile paralysis and of other virus-caused diseases.

Science News Letter, January 27, 1940



FREAK OF THE MELTING POT

Out of the melting pots at the National Bureau of Standards in Washington, where scientists produce experimental optical glass, came the queer and unusual glass "airplane" shown above. The glass comes from the melting pots in large pieces which must be broken up into smaller chunks and eventually turned into lenses and prisms. How the glass will break is determined by the internal stresses which develop on cooling. The illustration on the cover of this week's SCIENCE NEWS LETTER shows another such odd shape. Both photographs are by Fremont Davis, Science Service staff photographer.

DENTISTRY

Rub Sex Chemicals on Gums To Prevent Loss of Teeth

Hormones Strengthen Protective Keratin Layer, Keeping Gums Healthy and Giving Resistance to Germs

JUST as women now rub cold cream on their faces, both men and women may soon be rubbing their gums with sex hormone chemicals in order to strengthen them and prevent loss of teeth.

Experiments by Dr. Daniel E. Ziskin of Columbia University's School of Dental and Oral Surgery show that sex hormone preparations treat successfully diseases of the gums by "armor plating" the gums through a strengthening of the outer protective portion or keratin layer.

Men should use male sex hormone for best results, and women should use female sex hormone, but either hormone on either sex is effective.

Keratin is a horny substance which when present in normal deposits serves to protect the mouth against infection. The sex hormone treatment is used to supplement other treatment, but succeeded in some stubborn cases that were not helped by any other method.

"The keratin layer is necessary," Dr. Ziskin explained, "to maintain healthy gums, and may be lost or reduced in thickness in the presence of certain irritating factors. Such loss or reduction lowers resistance to bacteria which ordinarily could not penetrate, and opens the way for more serious involvements.

"Loss of keratin may result from local causes, such as tartar on the teeth, or from causes originating within the body, as for example, pregnancy."

"The new method does not promise to be a cure for tooth decay since gum disorders are not necessarily either the cause or the effect of diseases of the teeth. However, the presence of irritating factors in the teeth, such as tartar or cavities, can bring about inflamed gums. In so far as the gums are concerned, the application of sex hormones will be of assistance in the treatment of dental disorders."

Science News Letter, January 27, 1940

GENETICS

Chimp Has 48 Chromosomes, Same Number As In Man

CHIMPANZEES have the same number of chromosomes per cell as man, 48, it has been provisionally determined in a study reported (*Science,* Jan. 19), by Drs. C. H. Yeager and T. S. Painter of the University of Texas and Dr. R. M. Yerkes of Yale University.

Counting chromosomes in any of the higher vertebrates is an exceedingly difficult task, which probably accounts for the almost total lack of such counts, strongly contrasting with the voluminous records that have been piled up on chromosome studies in plants and lower animals, where counting is easier.

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