Taken with a special pressure-resistant camera and brilliant flash bulbs at three and one-half miles' depth, the picture on the cover of this week's SCIENCE NEWS LETTER shows on the bottom a colony of roughly elliptical objects believed to be sponges.

Another picture, taken at the relatively shallow depth of 6,000 feet (not much more than a mile) shows several brittle-stars and a sea-spider.

Science News Letter, August 14, 1948

Letters To The Editor

Big Sister Unhappy

You said in an article about soap operas (SNL, July 3) that "Big Sister is happily married." I happen to listen to that program and I know that Big Sister is very unhappily married on the program and isn't living with her husband.—Miss S. Richman, New York City.

When the study was made in 1945-1946 Big Sister was happily married. The findings made at that time still hold true for Big Sister inspires her listeners by her unselfishness and wisdom in dealing with others.

Boring Into Wood

I saw leaf-cutter bees this year at my brother-in-law's farm in Devon, Kansas. They look like you say they do (SNL, July 24), but instead of eating on the roses they bore holes in the wood. He is after them all the time as they are destroying the wood in the barn and house.

He told me there was a barn near him that is almost eaten up by these bees and they have cutters in front of them just as you said. They do look like bumble-bees only slimmer.—Mrs. Harry Glick, Dawn, Mo.

Your observation on the habits of the leaf-cutter bee is correct: the insect does dig holes in wood. These are to be its home: it lines them afterwards with the cuttings it makes from the leaves of roses and other plants.

For protection, here are two suggestions: (1) Paint. The leaf-cutter won't go through a covering of paint to get at wood. They always do their work in unpainted wood. (2) If painting is not practicable, apply a strong solution of DDT, residual-type, using either whitewash-brush or spray-gun.

Not Poisonous

In an article headed "Poison Gas in Atmosphere" (SNL, July 3) the text indicates that methane is described as a poison gas. My personal experience with methane, and the available literature regarding toxicity of methane toward human beings, indicates that methane can not be described as a poison gas.—Thomas S. Bacon, Dallas, Texas.

Thanks. In a strict sense methane is not a poisonous gas. Authorities inform us that although suffocation could be caused if sufficient methane were in an occupied space, experiments in which methane and oxygen were mixed in proportion of 80% methane and 20% oxygen demonstrated that animals could live unharmed in such an atmosphere.

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PHYSICS

Ultrasonic Sound Waves Detect Flaws in Metals

➤ HIGH-FREQUENCY sound waves, far too high for the human ear to hear, are being used by General Electric to discover and record small flaws in metals.

A new device, developed to permit the use of these waves called ultrasonic by scientists, shoots 1,000,000 cycle-per-second sound waves through the metals to be tested, and simultaneously plots a graph which shows any flaws in the metal's interior. Testing is carried out by immersing the metal specimen in oil, because these sound waves will not travel through air.

A small sound-wave transmitter, wired to the main body of the instrument and also immersed in the oil, sends the waves through the oil and through the metal sample. Waves are interrupted by a crack or other flaw in the metal, and the flaw is indicated on the graph. The transmitter is a small crystal which is made to vibrate and produce sound waves by an electric current. The receiver has a similar crystal.

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Question Box

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