

ZOOLOGY

"Snowman" to Be Tracked

IF SIR EDMUND HILLARY brings back a specimen of the "abominable snowman" or even a picture of it, it will be the first concrete evidence the world has seen that such a creature exists.

Sir Edmund, the New Zealander who conquered Mt. Everest, will be the leader of a combined British and American expedition that will over-winter in the Himalayas from September, 1960, to June, 1961.

One of the objectives of the expedition will be to get evidence to prove or disprove the existence of the snowman, or "yeti" as the natives call it. Evidence of footprints resembling in some cases those of a huge, broad foot and reports of sightings suggest that further investigation might bring some answer to the puzzle.

Apparently the tracks are made by a being of great weight, walking upright on two feet.

The yeti may turn out to be a huge bear since the prints are also similar to bear tracks. The word yeti in Sherpa language means the "being of rocky places," but the name abominable snowman was probably derived from the word mitch-kangmi. Mite is actually the word for the Himalayan red bear although it has been mistranslated as abominable. Another name for the red

bear is kangmi, which has been translated as snowman.

The yeti hunt will be undertaken with the use of field radios. If any specimens are sighted, attempts will be made to capture one so the world can get a look at this mysterious creature. To facilitate a capture, a special "gun" may be used to shoot a hypodermic syringe with a drug to a distance of 100 yards.

To achieve altitude acclimatization, a team of scientists and climbers will go through a carefully controlled program to discover the maximum height at which men can live for long periods. The greatest test will be a climb of Mt. Makalu, to a height of 27,790 feet without the use of supplementary oxygen.

Physiologists located at lower altitudes, where their mental functions will still be relatively unimpaired by mountain sickness due to lack of oxygen, will receive information on the climbers' pulse rate, breathing rate, etc., by telemetering devices.

The expedition is sponsored by Field Enterprises Educational Corp., publisher of the World Book Encyclopedia. Its members also hope to gather new data on ice strata, temperatures, wind strength and snowfall on the Barun Plateau at 20,000 feet.

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TECHNOLOGY

USSR "Super Material"?

RUSSIA is reported to have a "super material" of "fantastic strength" said to be capable of withstanding forces of 1,800,000 pounds per square inch.

This is nearly four times stronger than steel music string wire now available in the U. S. (Music string wire is even stronger than piano wire, which is noted for its strength.)

First report on the material was carried by the Soviet news agency Tass. A later report said Russian researchers achieved the high strength by condensing the atoms of the material. This created "a chain of atoms with no empty space between them as there is in common metals."

News of the development is carried in the *Scientific Information Report* prepared by the Central Intelligence Agency and distributed by the Department of Commerce in Washington, D. C.

If Russia's "super material" exists in sheet form, it may mean that the Soviets could gain an even greater lead on the U. S. in the space race. It would enable Russian space experts to refabricate their powerful, tried-and-proven rockets with the new material and effect great weight savings. This in turn would enable the modified rockets to perform even more spectacular space missions than they already have.

However, Government metal experts at the National Bureau of Standards doubt that Russia's new wonder metal is ready for the production line. Russian scientists have probably duplicated what American scientists have been doing since the early 1950's—grown extremely pure "whiskers" of metal, they said.

These whiskers are so fine they are invisible to the naked eye. A California Institute of Technology professor, Dr. Donald S. Clark, recently reported that the longest whiskers yet grown in Caltech's labs measured only one-half inch.

He said that if a one-inch-square bar of iron could be produced having the same qualities, its tensile strength would run about 900 tons. This agrees exactly with the figure quoted by Tass as the strength of Russia's "super material."

U. S. scientists have not yet found a way to produce slabs of metal with the desirable purity and strength qualities of a whisker.

It is a characteristic of metals, and certain other substances that can be grown in whisker form, that as the cross-sectional area of the sample increases, the strength drops on a pounds-per-square inch basis. This is believed due to molecular imperfections.

The Bureau of Standards scientists said

they would be "very surprised" if Russia had found a way to produce large slabs of ultrastrong materials.

Such an achievement is highly desirable, however, Dr. T. Keith Glennan, head of the U. S. space agency, has suggested that metals with perfectly formed molecular structures may be the answer to building rocket boosters that could be recovered and reused.

Bureau of Standards metallurgists said they did not believe Russia had found any revolutionary way to squeeze up individual atoms and then bind these compressed atoms together.

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