stack of hardware that was launched from Cape Kennedy—is back in Downey, where it was first assembled by North American-Rockwell Corp.'s space division. Engineers and technicians have been climbing around it for days, checking the capsule from stem to stern, even though it did everything right. Core samples are being taken from various points in the heat shield, half of which are being sent to Houston for study by NASA while the rest will be examined by the company.

The spacecraft's batteries and inverters are being checked to see how much they were taxed by its power needs. The windows are being examined for micrometeoroid damage. Special attention has been given to the hatch seal, the only part yet flown of the new, quick-opening hatch that was added to the design of all manned spacecraft after the astronauts in the January fire died behind a door that required two unavailable minutes to open. Handholds, antennas and every other item that formed any bump or rough spot on the heat shield, where extra heat concentration might burn a hole through the spacecraft, were under study.

Five flights are scheduled next year in the Apollo program. Two will be unmanned earth-orbital tests of the lunar module, which has not yet been in space; two will be Apollo-Saturn 5 flights, virtual duplicates of the Apollo 4 mission; and the last one of the year will be the first manned Apollo flight, complete with Saturn 5 booster, lunar module and docking maneuvers.

Another five flights are set for 1969, and the last of them might—NASA is much less positive than it was before the fire—actually take astronauts to the moon. ◈

AS LEAKEY PREDICTED

Man's Earliest Known Ancestor

Last February, renowned British anthropologist Louis S. B. Leakey declared (SN: 2/25) that someday he hoped to discover in Kenya traces of a "missing link," some 5 million years old. He predicted, however, that an even earlier ancestor of man's might be turned up by Prof. Elwyn L. Simons, curator of vertebrate paleontology at Yale's Peabody Museum, who had been digging for six years in the Fayum desert region of Egypt, about 60 miles southwest of Cairo.

Dr. Leakey's prediction has come true to the letter. Late last week, Prof. Simons announced the discovery of a skull belonging to the oldest known member of man's family tree. "Not only is the skull some 8 million to 10 million years older than any previously uncovered," glows the scientist, "but it is better preserved than any fossils related to man that are older than 300,000 years."

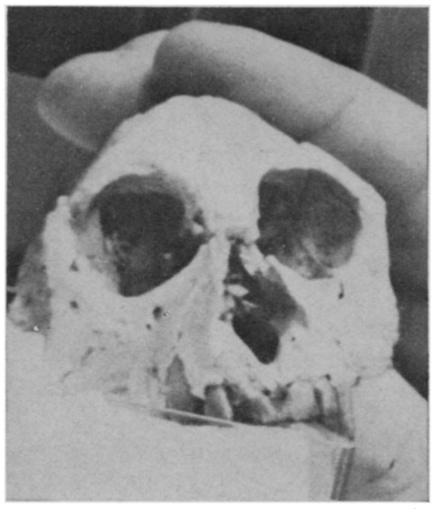
During early excavations in the area, lower jaws had been unearthed which indicated that a previously unknown genus and species had been found. Prof. Simons named it Aegyptopithecus zeuxis, the linking Egyptian ape. Recently, Peabody research associate Grant E. Meyer was exploring the site when he caught sight of a frontal bone, exposed by erosion, some 300 feet below the top of a lava flow. He shipped the skull, still encased in rock, to the museum, where painstaking cleaning revealed that it is in remarkable condition. Portions of the skull's top and bottom are missing, as are four incisor teeth; otherwise, it is relatively complete.

The topmost, and therefore newest, layer of the lava flow in which the skull rested was revealed by potassium-argon dating to be 25 million or 26 million years old. The skull itself, deposited when the flow was 300 feet lower than it is today, is some 2 million years older than that.

The skull belongs to a creature which seems to be a link between a primitive animal called Propliopithecus, which lived in the Eocene epoch 35 to 55 million years ago, and a much more man-like primate from East Africa called Dryopithecus, which occupied the Miocene epoch that lasted from 25 million to 12 million years ago. Aegyptopithecus was about the size of an organ-grinder's monkey, Prof. Simons says.

Though the creature was highly primitive, in many ways reminiscent of early lemurs, it already possessed most of the distinct features of higher primates, according to the scientist. "Development of the eye socket is advanced but not as completely closed as in modern apes and man," he says. The brain case, relative to face size, is smaller than in any subsequent ape or hominid. The auditory canals are not enclosed in any external bony tube.

Prof. Simons announced Aegyptopithecus before the Society of Vertebrate Paleontologists, which was holding its annual meeting at Yale. The skull, he said, is a "major connecting link" in the evolution of primates, and is the only Old World primate skull known from the millions of years separating the Eocene and Miocene epochs.



Yale

Out of Egypt: Aegyptopithecus

MEDICAL RESEARCH

From Lab to Patient

An apparent gap between biomedical research and the people it can benefit will be closed, or at least narrowed, if a newly appointed Board on Medicine does the job expected by the National Academy of Sciences.

The Academy's choice of a chairman signals some of its interest in practicality. Dr. Walsh McDermott, chairman of the department of public health, Cornell University Medical College, is perhaps best known for organizing the successful program to control tuberculosis among the Navajo Indians.

The 21-member board is made up of a "balanced mix of people," Dr. McDermott says. There is a professor of economics, a professor of law, a nursing specialist and administrators of funds as well as specialists in communications, although the board is weighted with medical specialists.

The board's formation was announced in mid-November by the Academy president, Dr. Frederick Seitz, who says it reflects the growing concern of the Academy, the medical profession and a number of Federal agencies.

The problems of urban and rural slums are expected to be included in the board's studies. The ethical and legal implications of human experimentation are almost sure to be probed. The entire matrix of social and political institutions will be involved, and as the board's mission develops, additional members probably will be named.

Setting up the board is the latest in a number of similar steps since President Johnson declared he wanted to see human payoffs for medical research almost two years ago.

Serving as executive secretary of the board will be Joseph S. Murtaugh, director of the Office of Program Planning, National Institutes of Health, whose retirement at the end of November ends 20 years of government service. ◈