

Briefings

edited by CONSTANCE HOLDEN

Extension Service for Industry?

Representative John J. LaFalce (D-NY) is pushing a novel idea to get more industrial mileage out of the billions of dollars a year the federal government pumps into national laboratories: an "extension service" for industrial technology similar to that run by state and federal agricultural agencies.

LaFalce, chairman of the Small Business Committee, has proposed a bill to create a Technological Access Program offering a computerized database of experts, technologies, and research projects in federal laboratories that could be directly accessed by business. The bill would authorize the National Institute of Standards and Technology to spend \$7 million to create such a system. A similar bill is being introduced by Senator Rudy Boschwitz (R-MN).

A LaFalce aide says the office conducted an informal survey of a comparable state-level service in Minnesota, where a private company has developed a database of almost 7000 experts that can be accessed by businesses. The survey showed

that for an average annual cost of \$17,000, companies increased their yearly profits by \$290,000. LaFalce says a nationwide system would cost the government \$90 million to \$100 million a year.

"Turing Test" Prize

How will we know when scientists have created the first truly intelligent machine? The late British mathematician Alan Turing proposed in 1950 that if judges find it impossible to determine whether responses on a computer terminal have been produced by a computer or by a person, the program responsible is intelligent.

Now the Cambridge, Massachusetts, Center for Behavioral Studies has taken this as the criterion for the new Loebner Prize, financed by a fund set up by Hugh G. Loebner, chairman of Crown Industries in New York. Entrants can select their own topic areas, but programs must be able to "hold conversations of a type that might occur between people meeting for the first time." Annual prizes based on interest from the fund will be made to those who come closest to the goal. The contest will self-destruct once a program passes the test "in all its particulars." The ultimate winner will receive the entire fund,

expected to be worth at least \$100,000.

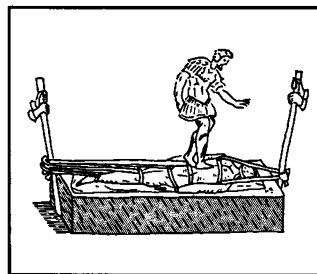
The judging will be by a panel of scientists and philosophers including Harvard professors I. Bernard Cohen, Harry R. Lewis, and W. V. Quine; Joseph Weizenbaum of the Massachusetts Institute of Technology; Daniel C. Dennett of Tufts University; and H. M. Parsons of the Essex Corporation in Alexandria, Virginia.

Finalists for the first go-around will meet in Cambridge in the fall of 1991. The application deadline is 31 May. Information can be obtained from Robert Epstein, director of the center at 11 Waterhouse Street, Cambridge, MA 02138.

British Study Endorses Chiropractic

"The spine," a cynical old professor of anatomy once said, "has three functions: to support the head, to support the ribs, and to support the chiropractor." But while orthodox medicine has long dismissed chiropractic—which features spinal manipulation as a cure for many ills—as an "alternative" treatment and useless at best, chiropractors may have the last laugh. A large study by Britain's Medical Research Council supports chiropractic over conventional treatment for back pain and says the National Health Service should cover it.

In 1981 the British Chiropractic Association, tired of jibes about the speciality, asked the MRC's epidemiology unit to design a trial looking at "low back pain of mechanical origin." The results from a study of 741 cases "leave little doubt that chiropractic is more effective than conventional hospital outpatient treatment," said Tom Meade, director of the epidemiology unit. Manipulated patients improved faster, suffered less pain, and remained in better shape than those given the usual physiotherapy. The study also concludes that chiropractors could save money for



Ancient therapy. Picture from Galen's collected works (circa A.D. 200) shows method for "repositioning of an outward dislocation."

the straitened National Health Service. Chiropractic is more expensive than conventional therapy, but it would more than pay for itself by enabling people to return to work more quickly. Best estimates suggest extra costs of nearly \$7 million but savings of more than \$27 million.

NASA Scrubs Martian Instrument Package

George Bush may be ready to go to Mars, but NASA isn't—at least not with the Omega/VIMS project, a \$50-million American-French venture that would have placed a surface spectrometer aboard the Soviet Mars 1994 mission. Eighteen months ago, NASA officials talked the Soviets into using a combination of French and U.S. hardware, effectively derailing a plan by French scientists to provide the instrument themselves. Now, much to the outrage of the French, NASA has decided to bail out, arguing a shortfall in this year's planetary sciences budget.

Originally intended for NASA's own Mars Observer mission, Omega/VIMS (Visual Infrared Mapping Spectrometer) was designed to measure the mineral content of the Martian surface. NASA has already spent around \$9 million on the program. But, say NASA officials, the program was so small it lacked a budget line, and so got axed. A French embassy spokesman says it is not yet known whether his government will proceed on its own.

Catch some rays. Incorporating timely advances in solar cell technology, *Sun-Seeker*, the world's first solar-powered aircraft, should soon be winging its way from Lake Elsinore, California, to Kitty Hawk, North Carolina. Several Japanese corporations have donated materials and technology to the project, the brainchild of hang-gliding champion Eric Raymond. Lighter than conventional cells using glass or steel substrates, a new solar cell developed by Sanyo is fabricated out of amorphous silicon on a transparent plastic substrate, giving it the flexibility to adhere to a curved wing surface. The *Sun-Seeker*, which is also equipped with a motor, weighs only 90 kilograms and is capable of speeds up to 160 kilometers per hour. Flying during daylight hours, Raymond intends to take 7 to 14 days for the flight. Takeoff is scheduled for 1 July.

