

the Committee on Energy and Natural Resources will hold a hearing to review H.R. 363, a bill to amend section 2118 of the Energy Policy Act of 1992 to extend the Electric and Magnetic Fields Research and Public Information Dissemination Program.

The hearing will take place on Monday, May 19 in room SD-366 of the Dirksen Senate Office Building starting at 11:30 a.m. Those who wish to submit written statements should write to the Committee on Energy and Natural Resources, U.S. Senate, Washington, DC 20510. For further information please contact David Garman or Shawn Taylor at 202-224-8115.

#### ADDITIONAL STATEMENTS

##### EMERGENCY SUPPLEMENTAL APPROPRIATIONS BILL

• Mr. MURKOWSKI. Mr. President, I want to express my support for this emergency supplemental appropriations legislation that will provide much needed relief to citizens in 33 States who have lived through some of the most catastrophic weather emergencies we have ever witnessed in this country. And this legislation also provides much needed funding for our brave service men and women who are keeping the peace in Bosnia.

We have spent the entire week on this legislation and its successful completion is a tribute to the leadership of the new chairman of the Appropriations Committee, my distinguished senior colleague and close friend TED STEVENS and his staff for their hard work on this important piece of legislation.

Mr. President, not only will this legislation provide important financial relief to citizens in hundreds of communities, but it will ensure that we will not see a repeat of the shutdown of the Government that occurred in 1995. And it removes the arbitrary policy of the Interior Department which would terminate the 130-year-old policy that allows States to continue to have access across public lands.

I want to congratulate Senator STEVENS on the passage of this, the first legislation reported by the Appropriations Committee under his chairmanship. I look forward to working with him on many more appropriations bills and am certain that the leadership he has demonstrated on this bill will be repeated several times over in the years to come. •

##### HELPMATE ROBOTICS OF DANBURY, CONNECTICUT

Mr. DODD. Mr. President, I am proud of the many distinguished people, places, and enterprises in my great State of Connecticut. One of them is a company in which innovative spirit, entrepreneurial zest, and good will combine to create products that truly make our lives better. I am speaking of HelpMate Robotics of Danbury, CT.

HelpMate invented and manufactures the first hospital care robot. The robot performs tasks such as delivering food, medicine, and lab samples, so that nurses and orderlies can concentrate on what they do best: caring for patients. Many hospitals are relying on HelpMate's hospital robot to cut costs while improving patient care.

HelpMate's success is due largely to the vision of its founder, Dr. Joseph Engleberger. Dr. Engleberger is widely known as the father of the industrial robot. After building a successful company around the hospital robot, he and HelpMate are now developing an elder-care robot that would help older or infirmed people live at home independently.

Mr. President, I speak about this company and its products today not just to share a home State success story, but to make the larger point that research in one sector often leads to applications in several others. Such cost-effective investments of Federal research dollars ought to be encouraged. The HelpMate hospital robot and anticipated elder-care robot exemplify such a process. The technology they use was initially born out of research for space robotics funded by a NASA Small Business Innovative Research award, and this same technology will ultimately help drive down health care costs.

I urge my colleagues to read more about this company and their remarkable work in the March 3, 1997, Business Week article that I now submit for the RECORD.

The article follows:

[From Business Week, Mar. 3, 1997]

##### INVASION OF THE ROBOTS

(By Otis Port)

At age 71, Joseph F. Engelberger knows time is running out on his lifelong ambition. He is already acclaimed around the world as the father of the industrial robot. But the workaholic chairman of the HelpMate Robotics Inc. in Danbury, Conn., would rather be remembered as the father of the home robot. "Common sense tells you it's got to end up a bigger market than factory robots," he says.

Don't expect the Smiths and Joneses to turn their housekeeping chores over to a robot soon. The first model—which Engelberger has promised to his wife, Margaret, even though she's not crazy about the idea—won't roll off an assembly line until 30 months after Engelberger amasses at least \$5 million to finish development. "The clock starts ticking when I get the money," he says.

People who know Engelberger figure he'll pull it off. "Joe is a very charismatic guy," says Brian R. Carlisle, president of robot maker Adept Technology Inc. in San Jose, Calif. "He's really able to make you believe in his visions." Just ask his kids. Daughter Gay, age 41, is HelpMate's marketing director, and son Jeff, 38, is an engineer at Adept Technology. "When you grow up with someone like him," Gay says, "how could you not want to get into this business?" Investors also are under Engelberger's spell. In January, 1996, HelpMate's initial public offering was a sellout, even though the company had an accumulated deficit of more than \$13 million.

Why are so many people rooting for Engelberger? Because without him, Detroit auto workers might still be welding and painting cars by hand. Today's robot industry stems from a 1956 cocktail party in Westport, Conn., where science-fiction fan Engelberger met inventor George Devol. When Devol mentioned he had applied for a patent on a punch-card-controlled mechanical arm for doing repetitive jobs in factories, Engelberger was hooked.

He persuaded his employer, Consolidated Controls Co., to buy Devol's patent. The first prototype dubbed Unimate, was finished in 1959 and went to work unloading a die-casting machine in a General Motors Corp. factory. But two years later, Consolidated lost interest and told Engleberger to close his shop. "I went to Barnes & Noble and bought six books on finance—and earned my MBA over the weekend," he quips. On Monday, he proposed a spin-off and was given four months to find a backer. He did, and Unimation Inc. was born.

Sputtering. During the 1960s, Engleberger fought an uphill battle to persuade skeptical U.S. manufacturers to employ his programmable arms. He got a warmer reception in Japan—and Japanese robot makers quickly rose to world domination. Among Japanese managers, Engelberger is "a legendary figure," says Shikageaki Yanai, a researcher at the Japan Robot Assn.

Unimation held its own against the Japanese, but in 1983 its cash-strapped owner, Condec Corp., sold the company to Westinghouse Electric Corp. for \$107 million. "They picked a great time to sell," notes Engleberger. America's U.S. robot business soon sputtered, after dozens of companies jumped into the market and sold some systems that didn't live up to promises. Sales peaked in 1984 at \$484 million, then headed south.

Engleberger had hoped Westinghouse would see an opportunity in home robots. When it didn't, he quit and bought a 62-foot, \$800,000 sailboat with part of his \$3 million take from Unimation's sale. He planned to enjoy life as a gentleman of leisure. That lasted for two months. "I got bored pretty quick," he admits. In late 1984, he formed HelpMate, initially called Transitions Research Corp.

To pave the way for home robots, Engelberger decided to use hospitals as a test bed. In 1988, he sold his first medical unit to Danbury Hospital, which now has two. They roam the hallways running errands—delivering medications, meals, X-rays, and patients' records. Handling these chores to machines frees more time for nurses and orderlies to concentrate on caring for patients, says HelpMate President Thomas K. Sweeny.

Word of HelpMate's robots is spreading. Baylor University Medical Center in Dallas has 4 machines, with 11 more on order. All told, 144 have been hired by 85 hospitals in the U.S. Canada, 18 in Japan, and 10 in Europe. Purchased outright, the robots cost \$110,000, so most are rented for \$4 to \$6 an hour.

Outwardly, the 4-foot-6-inch robots resemble the box-on-wheels systems that carry the mail in some offices. But there's a crucial difference: A HelpMate doesn't follow a fixed track, such as a wire in the floor. Instead, its electronic memory contains a floor map of the hospital. When summoned by radio or pointed to a location on a built-in video screen, the robot's microprocessor brain calculates the quickest way to get there. En route, the robot uses infrared and ultraviolet beams to dodge people, food carts, and gurneys in busy corridors, and it summons elevators and opens doors with radio signals.

Sweeny says large hospitals can economically justify one HelpMate for every 100 beds,

so "our total potential market in the U.S. is 10,000 robots." But that number would leap if the robots had arms. Then they could make beds, help patients out of bathtubs, and relieve nurses of other menial tasks. These expanded capabilities would also be needed in home robots, which is why HelpMate with arms are next on Engelberger's list. Once HelpMates have been fitted and arms, they could be programmed for such household chores as cooking, washing dishes, and sweeping. Considering the precision factory jobs that Unimation's arms still perform using yesterday's technology, Engelberger foresees no major hurdles in creating household robots. And his chances of attracting a backer are looking up.

In 1992, the U.S. robot business finally turned around. Lately, sales of industrial robots have been posting successive all-time highs (chart). In 1995, American industry found jobs for 10,198 steel-collar workers worth \$898 million, according to the Robotic Industries Assn.

Now that industrial robots have recovered their sparkle and HelpMate has moved into bigger quarters—Unimation's former home—Engelberger is eager to launch an elder-care robots. Most old folks who enter nursing homes are mentally alert and healthy, Engelberger notes. "They just aren't nimble enough to care for themselves." All the technology developed for patient care would be useful for elder-care robots. Adding certain repetitive household jobs, such as loading the dishwasher or microwave oven, would be fairly easy. Others, including meal preparation, might involve special-purpose attachments. And for finding packaged foods, the robot could have a built-in bar-code reader.

Even a \$100,000 home robot would soon pay for itself by enabling people to stay out of nursing homes. With the population quickly aging, demand could surge, bringing down costs to "something more in line with the cost of a car," says Sweeney.

Guess who Engelberger thinks should market them? "If the auto makers want to diversify, they need a product that sells at roughly the same price point and in the same volume," he says. Next, the father of the industrial robot hopes to become the proud papa of Chevybots, Hondabots, and Volvobots.●

#### FORTY YEARS OF NOVAK

Mr. MOYNIHAN. Mr. President, I rise to record and to celebrate Robert D. Novak's 40 years of Washington journalism, as he himself records this morning in a Washington Post column "What a Change 40 Years Makes." Forty years in journalism, as he writes, "an association with Congress that continues today." An association of rare civility and, too often alas, of deadly accuracy. His access, energy, good spirits, and rage for the truth are equaled only by his lifelong friend and partner Rowland Evans. Top Drawer and Front Page, there has never been the like of them, and I choose to think never will be, for there are some national treasures that truly are unique.

Senators will note Mr. Novak's observation that "The capital city of 1957 was at once shabbier and far better governed than today's glittering but pothole-scarred Washington." A concise way to make the point that as American Government has reached for beyond its grasp on so many social issues, it has accepted an appalling de-

cline in the fundamentals of good government, such as street paving. He notes that in 1957 Congress itself "was vastly less imperial. Admission to the Capitol and office buildings was open, without the need for photo ID cards and security checks." One might add our buildings were not surrounded by concrete barriers and guardposts. One could even go so far as to note that one could even drive down Pennsylvania Avenue in front of the White House. That thoroughfare having now been blocked off. Albeit, ever alert to the need for austerity it has, in its eastern reaches at 15th Street, been turned into a parking lot complete with parking meters.

I came to Washington in 1961 with the Kennedy administration. Bob Novak was a force for government openness even then. Irresistible as a friend and devastating as an analyst. Why only last week he revealed to an unwary world that the proposal for a more accurate cost of living adjustment in Federal finances was the "culmination of Senator DANIEL PATRICK MOYNIHAN's masterful campaign to perpetuate big government \* \* \*"

No matter, just so long as his concern over big Government serves to perpetuate Bob Novak. Let us agree for at least a half century. Let hope, as indeed we may, that his beloved Geraldine will see to this.

He fought for his nation as a lieutenant during the Korean war and has been fighting for it ever since.

Mr. President, I ask that Mr. Novak's column from today's Washington Post be printed in the RECORD.

The column follows:

[From the Washington Post, May 12, 1997]

WHAT A CHANGE 40 YEARS MAKES

(By Robert D. Novak)

On May 13, 1957, I reported to the Associated Press bureau in Washington as a reporter transferred from Indianapolis. I was immediately dispatched to Capitol Hill for Midwestern regional coverage. Within a week, I was detailed to help report the uproarious hearings of the Senate Rackets Committee, which was engaged in a bipartisan assault on Jimmy Hoffa.

That put me in personal contact with John F. Kennedy, Bobby Kennedy, Barry Goldwater, Edward Bennett Williams and Pierre Salinger—headly stuff for a 26-year-old. So began my 40 years in Washington and association with Congress that continues today. The transformation of the city and the institution over four decades has been breathtaking.

The capital city of 1957 was at once shabbier and far better governed than today's glittering but pothole-scarred Washington. Neither chic restaurants nor huge lawyer-lobbyist firms had yet appeared (Bob Strauss's arrival was years in the future). The city was a little more Southern and far less New Yorkish than today. The smell of money was not yet redolent. Nobody came to Washington then seeking the equivalent of a 1997 seven-figure income, but they sure do today.

Congress was not yet consumed with fund raising and was vastly less imperial. Admission to the Capitol and office buildings was open, without the need for photo ID cards and security checks. Members of Congress had not yet adopted Japanese-style bouton-

nieres, and few employed a press secretary. Nearly all readily responded to telephone calls from a low-level AP reporter without an aide asking what he wanted.

Accessibility stemmed in part from many fewer staffers on Capitol Hill—4,500 then, compared with 16,000 now (filling three additional big office buildings). In 1957, \$117 million was appropriated to run Congress, but only \$67 million (\$386 million adjusted for inflation) was spent. That compares with \$2.2 billion in 1997.

With fewer staffers, lawmakers did much of their own work. At night on his portable typewriter, Sen. Everett McKinley Dirksen wrote summaries of every bill reported by every Senate committee. Unlike today, floor leaders—including the imperious Sen. Lyndon B. Johnson—actually spent hours on the floor.

Floor debate was spirited—sometimes mean-spirited. It was the summer of 1957 when Democratic Sen. Robert S. Kerr called Republican Sen. Homer Capehart, to his face, "a rancid tub of ignorance." But issues were not polarized along party lines, with a bipartisan conservative coalition often in control. Both congressional parties shared the conviction that the less government the better—an attitude assailed as "extreme" today.

"Ike Fights to Save Budget," said an eight-column front-page Post headline my first week in Washington, referring to a nationally televised plea by President Dwight D. Eisenhower for public support against congressional budget-cutting. Eisenhower the previous November had become the first Republican president reelected since 1900 and promptly faced the Democratic-controlled Congress seeking to reduce his \$71.8 billion budget substantially—about \$449.9 billion in 1997 money (less than one-third of President Clinton's \$1.7 trillion budget).

The government then was taxing 17.8 percent and spending 17 percent of gross domestic product; the comparable figures for 1997 are 19.2 percent and 20.8 percent. In 1957, it ran a budget surplus at 0.8 percent of GDP, compared with today's hoped-for deficit of 1.8 percent.

The government had not grown since New Deal days and would not until Lyndon Johnson's Great Society eight years in the future. In 1957, regulation was but a glimmer of what it would become.

There was no Education Department, no Energy Department, no Environmental Protection Agency, no Legal Services Corp., no National Endowment for the Arts, no Corporation for Public Broadcasting, no Women, Infants and Children food program. Nor, except for factions on the left in both parties, was there demand for all this.

Libertarians such as Charles Murray would like to peel back to 1957, but it is hard to find any member of Congress who agrees. Rather, Republicans now acquiesce in Clinton's insistence on still greater expansion of government. Americans unquestionably are less free than they were in 1957. Whether, on balance, they in return have been blessed with a better life is doubtful.●

#### ORDERS FOR TUESDAY, MAY 13, 1997

Mr. CRAIG. Mr. President, I ask unanimous consent that when the Senate completes its business today it stand in adjournment until the hour of 10 a.m. on Tuesday, May 13. I further ask unanimous consent that on Tuesday, immediately following the prayer, the routine requests through the morning hour be granted, and the Senate then begin consideration of S. 4, the Family Friendly Workplace Act.