

Sciences and the Undersecretary of Commerce for Technology on security and encryption issues. Studies, training, and adoption of standards and products will be developed.

This bill will also authorize appropriations for fellowships to students in computer security. There is a need for specialists in the United States and this bill will hopefully be part of a solution to the growing shortage of security professionals within government and this industry.

According to government reports, 24 Federal agencies, have not adopted effective security to protect their computers and networks from attacks. Many agencies still do not use passwords properly and cannot detect intruders. Federal agencies who support this bill: the Defense Department, the Departments of Labor and Health and Human Services, the CIA, the Department of Transportation, Departments of Justice, State and the Treasury, Nuclear Regulatory Commission, U.S. Army Corps of Engineers, the Environmental Protection Agency, the Commerce Department as well as the Federal Aviation Administration.

On a particular occasion last year, a computer virus breached the Defense Department's security system, damaging some computers and infecting several classified systems. Computer attacks could disable sensitive operations such as the FAA flight control system or Pentagon war efforts. This disruption could have chaotic consequences.

This bill is a step forward in combating our current vulnerability of a lack of proper protection on Federal computer systems. With the passing of this bill will come Federal standards that will implement much needed assistance and programs. It is an imperative part of a solution to better respond to current attacks as well as potential ones.

Mr. SMITH of Michigan. Madam Speaker, I rise in strong support of this legislation, offered by the gentlewoman from Maryland, to strengthen the security of sensitive Federal computer systems.

Information security has taken on new significance. Today, the economy and our national security rely on computers as never before. Protecting these systems by reducing their vulnerability to cyber-attack must therefore be a high priority. The same techniques that agencies are employing to cut costs and improve public services—interconnected systems, readily accessible information, and paperless processing—are also factors that increase the vulnerability of these systems to hackers.

Key strengths of this bill are its emphasis on cost-effective solutions and government adoption of commercially available products. Equally important are provisions to address privacy issues and ensure public participation in the development of guidelines. I would emphasize the bill does not mandate Federal guidelines or standards for the private sector.

In a series of hearings held by the Science Committee, we learned a great deal about the existing and emerging threats to computer systems. Despite these threats, there is relatively little university-based research.

The computer security fellowship program in this bill is a start. I plan to move an information technology research bill that will increase cyber-security research even further.

As a senior member of the Science Committee, the gentlewoman from Maryland has

produced an important piece of legislation that is very much needed. I urge my colleagues to support it.

Mrs. MORELLA. Madam Speaker, I yield back the balance of my time.

The SPEAKER pro tempore (Mrs. BIGGERT). The question is on the motion offered by the gentlewoman from Maryland (Mrs. MORELLA) that the House suspend the rules and pass the bill, H.R. 1259, as amended.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds of those present have voted in the affirmative.

Mrs. MORELLA. Madam Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX and the Chair's prior announcement, further proceedings on this motion will be postponed.

RECOGNIZING JOSEPH HENRY FOR HIS ROLE IN DEVELOPMENT OF SCIENCE AND ELECTRICITY

Mrs. MORELLA. Madam Speaker, I move to suspend the rules and agree to the concurrent resolution (H. Con. Res. 157) recognizing and honoring Joseph Henry for his significant and distinguished role in the development and advancement of science and electricity.

The Clerk read as follows:

H. CON. RES. 157

Whereas Joseph Henry was born December 17, 1797, in Albany, New York, the son of William and Ann Henry;

Whereas Joseph Henry served as an apprentice to John Doty, a watchmaker and jeweler, in preparation for attendance at the Albany Academy;

Whereas from 1819 to 1822, Joseph Henry attended advanced classes at the Albany Academy and, in the spring of 1826, was elected to the professorship of Mathematics and Natural Philosophy in the Albany Academy;

Whereas Joseph Henry revolutionized scientific education by using experiment-based teaching methods at the Albany Academy, and in 1829 was awarded an honorary Masters degree by Union College, despite having no formal college education;

Whereas Joseph Henry conducted many experiments with electromagnets, which led to his successful design and construction of an electromagnet capable of lifting 750 pounds;

Whereas Joseph Henry continued to improve upon the development of the electromagnet, building an electromagnet for Yale University in 1831 that was capable of lifting 2,300 pounds, and another electromagnet, known as "Big Ben", that was capable of lifting 3,500 pounds, which was, at the time that it was built in 1833, the most powerful electromagnet ever built;

Whereas in January 1831, Joseph Henry helped lay the groundwork for the development of the electromagnetic telegraph by distinguishing between quantity and intensity magnets and by publishing those findings in the American Journal of Science;

Whereas the modern practical unit of induction is commonly referred to as the "Henry" in honor of Joseph Henry's research and discoveries regarding self-induction;

Whereas Joseph Henry, while conducting research at the Albany Academy, invented

an electromagnetic motor made of a horizontally poised bar electromagnet that would rock back and forth as the current through it was automatically reversed;

Whereas Joseph Henry, while serving as Professor of Natural Philosophy in the College of New Jersey at Princeton (currently known as "Princeton University"), conducted experiments from 1838 to 1842 which laid the theoretical groundwork for modern step-up and step-down transformers;

Whereas, on December 14, 1846, Joseph Henry was selected as the first Secretary and Director of the Smithsonian Institution;

Whereas, in his first report to the Board of Regents of the Smithsonian Institution, Joseph Henry proclaimed that the purpose of the Smithsonian Institution, the increase and diffusion of knowledge among men, would be best achieved by supporting original research and providing for the wide distribution of the most recent findings in the various fields of natural sciences;

Whereas in 1850 Joseph Henry, as Secretary of the Smithsonian Institution, established the system of receiving weather reports by telegraph and utilizing such reports to predict weather conditions and issue storm warnings;

Whereas in 1869 Congress established a national weather bureau upon the recommendation of Joseph Henry;

Whereas Joseph Henry was appointed as a member of the Light House Board in 1852, and served as its president from 1871 until his death in 1878;

Whereas Joseph Henry was an original member of the National Academy of Sciences, its vice-president in 1866, and its president from 1868 until his death in 1878;

Whereas Joseph Henry died in the District of Columbia on May 13, 1878;

Whereas a memorial service was held in honor of Joseph Henry on January 16, 1879, in the Hall of the House of Representatives, and was attended by the President, Vice President, members of the President's Cabinet, Justices of the Supreme Court, Members of Congress, and members of the Board of Regents of the Smithsonian Institution; and

Whereas the memory of Joseph Henry was honored at the opening of the Library of Congress in 1890 by including a statue of Joseph Henry among the 16 bronze portrait statues on display which represent human development and civilization: Now, therefore, be it

Resolved by the House of Representatives (the Senate concurring), That Congress recognizes and honors Joseph Henry for his significant and distinguished role in the development and advancement of science and electricity.

The SPEAKER pro tempore. Pursuant to the rule, the gentlewoman from Maryland (Mrs. MORELLA) and the gentleman from Texas (Mr. HALL) each will control 20 minutes.

The Chair recognizes the gentlewoman from Maryland (Mrs. MORELLA).

GENERAL LEAVE

Mrs. MORELLA. Madam Speaker, I ask unanimous consent that all Members may have 5 legislative days within which to revise and extend their remarks and include extraneous material on the concurrent resolution now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentlewoman from Maryland?

There was no objection.

Mrs. MORELLA. Madam Speaker, I yield myself such time as I may consume. I rise in support of House Concurrent Resolution 157. I commend my

distinguished colleague, the gentleman from New York (Mr. McNULTY), for introducing this resolution and for working so hard to bring it to the floor.

This resolution honors Joseph Henry for his significant and distinguished role in the development and advancement of science and electricity. Joseph Henry, considered by many the foremost American scientist of the 19th century, was born on December 17, 1797. Although he was largely self-educated, Henry studied at the Albany, New York, academy from 1819 to 1822. Henry began teaching at the academy in Albany in 1826 where he remained until 1832 when he accepted a position at the College of New Jersey, now Princeton University.

His experimental work in chemistry, electricity, and magnetism reflected only a small portion of his broad scientific interest. Henry is known primarily for his discovery of electromagnetic induction and self-induction. He is also credited with the invention of the electric motor.

In 1846, Henry became the first secretary of the newly organized Smithsonian Institution where he established a continuing tradition of research. Under his leadership, weather reporting stations were connected by telegraph in the United States. These weather reporting stations were organized and maintained by the U.S. Army Signal Corps. This organization would become, in 1891, the U.S. Weather Bureau, which is now the U.S. Weather Service. Henry also directed the resources of the Smithsonian Institution to encourage research in the areas of astronomy, botany, and Native American anthropology.

In the spring of 1863, Mr. Henry became one of the founding members of the National Academy of Science. He served as academy president beginning in 1867 and served both as the National Academy of Science president and secretary of the Smithsonian Institution until his death in 1878. In 1893 his name was given to the standard electrical unit of inductive resistance, the henry. When the statue of Joseph Henry was placed in front of the Smithsonian Castle in 1883, it was hailed as a symbol of rising American science, a rise that continues to this day and will continue well into the future.

Madam Speaker, again I commend the gentleman from New York (Mr. McNULTY) for introducing this resolution. I urge my colleagues to support it.

Madam Speaker, I reserve the balance of my time.

Mr. HALL of Texas. Madam Speaker, I yield myself such time as I may consume. I rise, of course, in strong support of this resolution that recognizes and honors Joseph Henry for his significant and distinguished role in the development and advancement of science and electricity in another century and in another day and time. I think it is great that my friend, the gentleman from New York (Mr.

McNULTY), has pursued this and to bring up again today the efforts of those of the past. He has been a dogged advocate for it. He is the reason we are here today. I surely do appreciate that. The gentlewoman from Maryland has given us some of the background on Joseph Henry. I am sure the gentleman from New York (Mr. McNULTY) and the gentleman from New Jersey (Mr. HOLT) will go a little bit further for us a little later.

I just wanted to emphasize that Joseph Henry was known for being a great educator and an advocate of basic research. Those are words we hear a lot still today. As the first secretary of the Smithsonian, he did an excellent job of ensuring that the Smithsonian supported both of these areas and both of these thrusts.

Joseph Henry was a very special man. It is rare for the Federal Government to shut down for the funeral of a citizen. I have read that not only did the government close in the case of Henry's death but also shut down 5 years later for the unveiling of his statue which currently sits on the mall.

According to Marc Rothenberg, editor of the Joseph Henry Papers Project, such was the reputation of Mr. Henry that one Secretary of the Interior had assured Henry that if a request was backed by him, that was sufficient. I guess most Members of Congress would kill for that kind of deal and that kind of recognition.

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But it is my understanding that a group of school children in New York are very interested in this legislation, and I look forward to hearing more about it and about their involvement in it from the gentleman from New York.

Madam Speaker, I yield such time as he may consume to the gentleman from New York (Mr. McNULTY), who represents the district that Mr. Henry came from and is the author of this bill.

Mr. McNULTY. Madam Speaker, I thank my good friend from Texas for yielding me this time.

Madam Speaker, this afternoon we honor the "Father of American Science," Joseph Henry, a true pioneer in the field of electricity and electromagnetics, the man responsible for laying the foundation for government-sponsored scientific research in this country, and a native, I am proud to say, of the capital region of the State of New York.

Joseph Henry was born in Albany, New York, in 1797. He attended local schools and quickly distinguished himself as a superior student with a curious mind. Despite having no formal college education, Mr. Henry earned an honorary master's degree from Union College in Schenectady, New York, and, in 1826, a professorship in mathematics and natural philosophy at the Albany Academy.

It was in this position that Mr. Henry found his interest and his gift and promptly revolutionized the field of electromagnetics. The most powerful electromagnet at the time sustained a weight of just a few pounds. After just 7 years of research and experimentation, Henry devised Big Ben, at that time the most powerful electromagnet ever built, sustaining 3,500 pounds.

Henry invented the first electromagnetic motor. His research is credited for laying the foundation for the development of the electromagnetic telegraph and the modern day transformer; and, in fact, the practical unit of inductance, the generation of force within a circuit, is called, quite simply, the Henry.

He distinguished himself not just as a preeminent scientific investigator but also as a man possessing good judgment, leadership ability and superior character. He reluctantly surrendered his pursuits in pure science to answer what he believed to be a call of duty.

In December of 1846, Mr. Henry was selected as the first Secretary and Director of the Smithsonian Institution. He proclaimed that the purpose of the Smithsonian Institution, the increase and diffusion of knowledge among men, was best achieved by supporting original research and providing for the wide distribution of the most recent findings in the various natural sciences. We all know that this is precisely the mission and the accomplishment of the Smithsonian Institution as we know it today.

In his later years, Mr. Henry continued to achieve and lead. At his recommendation, Congress established the National Weather Bureau in 1869. He served as a member of the Light House Board for 26 years, the final seven as its chairman; and he was named an original member of the National Academy of Sciences and served as its president for the last 10 years of his life.

Joseph Henry died here in Washington in May of 1878. On January 16, 1879, a memorial service was held in his honor in the Hall of the House of Representatives. It was attended by the President, the Vice President, members of the Cabinet, Justices of the Supreme Court and Members of Congress, a rare and very well-deserved honor.

At the opening of the Library of Congress in 1890, Mr. Henry was featured among the 16 bronze portrait statues chosen to represent the whole of human development and civilization.

It is my hope that in recognizing Joseph Henry's numerous accomplishments and his distinguished role in the history of our Nation, we will encourage today's young people to pursue careers in science and technology.

Madam Speaker, I ask all Members to join with me in supporting the passage of House Concurrent Resolution 157 honoring the Father of American Science, Joseph Henry, a native, I am proud to say, of my Congressional District.

Mr. HALL of Texas. Madam Speaker, I yield such time as he may consume to

the gentleman from New Jersey (Mr. HOLT), a professor at Princeton where Joseph Henry taught. As a physicist I would have trouble getting in Princeton, much less getting out, or all the more of teaching there, but the gentleman has the distinction of probably being one of the few Members in Congress that fully understands the work of Mr. Henry and his scientific research.

Mr. HOLT. Madam Speaker, I thank my friend, the ranking member of the Committee on Science, for yielding me time, and I also thank my friend from New York for carrying this forward.

As a representative of Central New Jersey, including Princeton University, and as a physicist, I could not let this opportunity go by to speak of one of the great Americans. New York likes to claim Joseph Henry. Washington, D.C., likes to claim Joseph Henry. In New Jersey, we really have a soft spot for someone who did much of his scientific research at what was then called the College of New Jersey, Princeton University.

Outside of the Princeton Physics Building there are really two statues now; on one side, Joseph Henry; on the other side, Benjamin Franklin.

Joseph Henry is a remarkable American story, a self-made scientist, a country boy who made good. He was self-taught. When he was appointed to a professorship at Princeton, he asked whether they knew that he had had no formal education. But they were happy to have him because of his careful mind, and, most important, his careful experimental work. That is what I want to say a word about.

He is known for his work with induction. On one side of the Atlantic, Michael Faraday was doing work; on this side of the Atlantic, it was Joseph Henry. Now, induction may sound like an academic fine point of narrow interest, but, in fact, every motor, every transformer, every telephone, every TV broadcast, in fact, all of modern electronics is built on this work on induction.

Joseph Henry was the leading American proponent of experimental science. He not only developed the principle on which Morse developed the telegraph; he actually had a wire strung from the basement of Nassau Hall to his home where he could signal by telegraphy to his wife and family, I suppose, when he would be coming home for dinner.

He also in inventing electromagnets improvised and at one point realized he needed to insulate the wires so he could have multiple windings around the electromagnet, and he unraveled one of his wife's silk garments so he could braid silk around the wire to provide insulation and make stronger, far stronger, electromagnets than anyone in the world had ever done.

But always he was looking at the use of science for the national service, for the national good. He came to national attention and to the attention of Con-

gress when in 1844 he was appointed to a commission to investigate an explosion on the Potomac River. This was, I guess, the Challenger accident of the day, because a gun exploded and the Secretaries of State and Navy and several Members of Congress were killed.

Henry's careful investigation of the cause of that and his efforts to prevent anything like that explosion from ever occurring again brought him to the attention of Congress. So when the word went out to find a director for this new, well-endowed institution where Joseph Smithson had sent a shipload of money to form an institution for the increase and diffusion of knowledge, they looked for the best person in America to head it, and Congress hit on Joseph Henry.

Madam Speaker, the reason that we want to recognize Joseph Henry is because of what he did not just in his laboratory but to apply science to the public good in this investigation of the explosion, but then in the creation of the National Academy of Sciences, which went on and has continued to this day to use science in the national interest, and for what he did in empirical science.

With all the talk that we have nowadays of the need for science education in the schools, it is not so much that students can do calculations with Henrys and Farads and units of force and voltage and so forth but, rather, so that they learn the idea of empirical science, a way of thinking that is built on evidence, where evidence rules.

Joseph Henry was the leading American in developing this kind of empirical thinking that serves us so well today. That is why I commend the students in the district of the gentleman from New York (Mr. McNULTY) for bringing Joseph Henry to the attention of Americans today, and I am delighted to join my friend in elevating the name of Joseph Henry through this legislation.

Mr. HALL of Texas. Madam Speaker, I have no further requests for time, and I yield back the balance of my time.

Mrs. MORELLA. Madam Speaker, I yield myself such time as I may consume.

Madam Speaker, I ask for support of this resolution. I think that it is important that young people look to the work that has been done by this pioneer in electromagnetism in the mid-19th century.

Again, I commend the gentleman from New York (Mr. McNULTY) for recognizing Joseph Henry, and I ask the body to agree to House Concurrent Resolution 157.

Madam Speaker, I yield back the balance of my time.

The SPEAKER pro tempore (Mrs. BIGGERT). The question is on the motion offered by the gentlewoman from Maryland (Mrs. MORELLA) that the House suspend the rules and agree to the concurrent resolution, H. Con. Res. 157.

The question was taken; and (two-thirds having voted in favor thereof) the rules were suspended and the concurrent resolution was agreed to.

A motion to reconsider was laid on the table.

PRICE-ANDERSON REAUTHORIZATION ACT OF 2001

Mr. BARTON of Texas. Madam Speaker, I move to suspend the rules and pass the bill (H.R. 2983) to extend indemnification authority under section 170 of the Atomic Energy Act of 1954, and for other purposes, as amended.

The Clerk read as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Price-Anderson Reauthorization Act of 2001".

SEC. 2. EXTENSION OF INDEMNIFICATION AUTHORITY.

(a) INDEMNIFICATION OF NUCLEAR REGULATORY COMMISSION LICENSEES.—Section 170 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is amended—

(1) in the subsection heading, by striking "LICENSEES" and inserting "LICENSEES"; and

(2) by striking "August 1, 2002" each place it appears and inserting "August 1, 2017".

(b) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170 d.(1)(A) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking "August 1, 2002" and inserting "August 1, 2017".

(c) INDEMNIFICATION OF NONPROFIT EDUCATIONAL INSTITUTIONS.—Section 170 k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended by striking "August 1, 2002" each place it appears and inserting "August 1, 2017".

SEC. 3. MAXIMUM ASSESSMENT.

Section 170 b.(1) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)(1)) is amended—

(1) in the second proviso of the third sentence—

(A) by striking "\$63,000,000" and inserting "\$94,000,000"; and

(B) by striking "\$10,000,000 in any 1 year" and inserting "\$15,000,000 in any 1 year (subject to adjustment for inflation under subsection t.);" and

(2) in subsection t.—

(A) by inserting "total and annual" after "amount of the maximum";

(B) by striking "the date of the enactment of the Price-Anderson Amendments Act of 1988" and inserting "July 1, 2001"; and

(C) by striking "such date of enactment" and inserting "July 1, 2001".

SEC. 4. DEPARTMENT OF ENERGY LIABILITY LIMIT.

(a) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (2) and inserting the following:

"(2) INDEMNIFICATION AGREEMENTS.—In an agreement of indemnification entered into under paragraph (1), the Secretary—

"(A) may require the contractor to provide and maintain the financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity; and

"(B) shall indemnify the persons indemnified against such liability above the amount of the financial protection required,