This 10th anniversary is an appropriate time for the Western world, and particularly for the United States, through its congress and administration, to demonstrate strong support for Ukraine and its people (despite legitimate concerns on such as freedom of the press, rule of law, piracy and copyright, continuation of political and economic reforms, etc.), particularly now that Ukraine appears to be drawn more and more toward Russia.

The 10th anniversary is not the time to turn Ukraine and its people away from the West. Rather, this is time for the United States to do as is suggested in the House Resolution 222: ''continue to assist in building a truly independent Ukraine through encouraging and supporting democratic and market-economy transformation in Ukraine, keeping the doors of Europe and trans-Atlantic institution open to this nation.''

SPEECH BY PROF. BASILLIO CATANIA

HON. ELIOT L. ENGEL

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Wednesday, September 5, 2001

Mr. ENGEL. Mr. Speaker, recently, I took to the floor to tell our colleagues about Antonio Meucci, who is one of history's forgotten inventors. I would like to take this opportunity now to insert into the CONGRESSIONAL RECORD excerpts of a lecture of Prof. Basillio Catania that he gave in October 2000 at New York University. I believe you will find it very informative and illuminating. I commend it to all our colleagues.

ANTONIO MEUCCI, INVENTOR OF THE TELEPHONE: UNEARTHING THE LEGAL AND SCIENTIFIC PROOFS

For 12 years I have researched the life and inventions of Antonio Meucci. My research was largely based on original documents, found in archives located in Italy, Cuba and the United States. Here I will briefly touch on topics connected with Meucci's priority in the invention of the telephone, namely, the Bell v. Globe trial, the United States v. Bell trial, and the scientific proofs of Meucci's priority.

Regarding the Bell v. Globe trial, it is known that Judge Wallace's decision, issued in New York on 19 July 1887, ruled in favor of the Bell Company against the Globe Telephone Company and Meucci. The report of this trial is at 31 F. 729 (Cir. Ct., S.D.N.Y., 1887). In particular, the Deposition of Antonio Meucci is also available in many public libraries, such as the New York Public Library and the Library of Congress.

However, it must be remarked that, while the Bell Company had sued the Globe Company and Meucci for patent infringement, it is largely unknown that the U.S. Government sued the Bell Company and Graham Bell for fraud, collusion and deception in obtaining the telephone patent(s). See 32 F. 591 (Cir. Ct., D. Mass., 1887). The U.S. Government set out to prove that Meucci—not Bell—had discovered the electromagnetic telephone and that the German Philipp Reiss had discovered the variable resistance transmitter, later called the ''microphone.'' In other words, whereas in New York the Bell Company claimed that Bell, not Meucci, was the inventor of the telephone, in Washington the Government claimed the opposite. Here is a brief chronology of what had happened in Washington, before the commencement of the Bell action against Meucci.

As early as 31 August 1885, the U.S. Solicitor General consented to petitions from several parties and authorized the U.S. Attorney for Western Tennessee to institute a suit in the name of the Government to annul the Bell patents.

On 9 September, a bill of complaint against the Bell Company and Graham Bell was filed.

On 29 September, the Globe Company filed a petition with the Department of Justice. supporting the action of the Government and upholding Meucci's priority.

On 9 October, the U.S. Solicitor General suspended the proceedings, in order to allow the Secretary of the Interior, Lucius Lamar, who had jurisdiction over the Patent Office, to launch an investigation of its activity in this connection and report recommendations to the Department of Justice.

On 9 November, the Secretary commenced public hearings, with the aim of determining if there was ground for further proceedings against Bell and the Bell Company.

In January, 1886, the Interior Secretary recommended the institution of a suit against Graham Bell and the Bell Company, in the name and on behalf of the Government of the United States. He accompanied his letter with all reports, arguments and exhibits put ahead at the hearings.

Now, while the Secretary was holding said hearings, the Bell Company filed a bill of complaint against the Globe Company and Meucci in the Circuit Court for the Southern District of New York. Judge Wallace, who had already ruled four times in favor of Bell for patent infringement in other cases, presided over this court. It was, therefore, evident that the Bell move was more a maneuver to counteract the attack of the Government, than to sue the Globe Company for an (otherwise non-existent) infringement. The Bell Company was confident to win quickly in New York, also to create a situation of res adjudicata in an eventual trial with the Government and to hamper the action in favor of Meucci in Washington. The Secretary of the

The trial in New York against Globe and Meucci went on swiftly, as expected by the Bell Company, and it came to a decision in about one and a half years. On the contrary, the action of the Government, hampered by the obstructionism of the Bell lawyers, dragged for twelve years, up to the end of 1897, when it was discontinued after the patent(s) had expired—without settling the underlying issue of who had priority to invention of the telephone. Moreover, the record of this trial was never printed and is now only available, with some difficulty, from the National Archives, mostly in typescript or manuscript, being spread among different groups and cities.

We must point out that, in the Bell v. Globe trial, the counsel for Globe and Meucci, David Humphreys, filed only nine out of the about fifty affidavits in favor of Meucci that were formerly exhibited and elucidated in Washington before the Interior Secretary. Counsel's main concern was to prove that Globe did not infringe the Bell patents, not having sold nor operated any telephones.

Notwithstanding, Judge Wallace could not ignore the many witnesses that had testified to have successfully spoken through various Meucci's telephones. But he disposed of all such witnesses by ruling that the spoken words that they had heard were from a string telephone, not an electric telephone. As known, the ''string telephone'' is a toy used by children to talk with the aid of two cans and a rope or wire pulled stout between the cans. By ruling that way, Judge Wallace discredited Meucci, as having fooled himself, adding insult to injury.

The thesis of Meucci's telephone being a string telephone was advanced in affidavit sworn by one Prof. Charles R. Cross from MIT—incidentally, a good friend of Bell, Prof. Cross stated that he had carefully studied Meucci's deposition, in order to faithfully reproduce Meucci's telephone layouts in his Physics Laboratory. However, Prof. Cross had omitted to mention in his affidavit a reel of wire that Meucci always inserted in circuit to simulate a long distance. There are three drawings and five different answers in Meucci's deposition where this reel of wire is clearly shown or quoted. Prof. Cross may have purposely omitted it. If he had inserted a reel of wire in his test, the sound could by no means mechanically traverse distance and reach the receiver. It could only be electrically transmitted. if any expert had raised that objection, Prof. Cross and Judge Wallace's thesis of the string telephone could not but fail.

Another obstacle to be surmounted by the Bell lawyers—and next by Judge Wallace—was Meucci's caveat ''sound Telegraph.'' This caveat was filed in the Patent Office on 28 December 1871, many years before the first Bell patent. Though having expired on December 1874, Meucci not being able any more to pay the $10 annual fee, yet it was a proof of Meucci's priority of invention. Prof. Cross testified that the caveat ''plainly and well describes what is known as a lover's telegraph or string telephone.'' The Globe Company called as their rebuttal witness Thomas Stetson, the patent lawyer who had prepared Meucci's caveat. Surprisingly, Mr. Stetson's testimony was largely in line with Prof. Cross's, poles apart from an affidavit, five years before, which is nothing less than a paean for Meucci as the true inventor of the telephone.

I took the trouble of comparing Mr. Stetson's affidavit of July 1880 with his trial testimony; the latter was in sharp contrast with his affidavit. Thus, Mr. Stetson's volteface turned out to be a hard blow on Meucci's defense.

Mr. Stetson's false statements could easily have been disproved by the written description that Meucci had provided him in order to prepare the caveat. But Mr. Stetson testified that he had lost it, together with some important letters on the same subject that Meucci had written. He also testified that he did not remember an important drawing, illustrating Meucci's telephone system, drafted for him in 1858 by a painter, Nestore Corradi, and accompanying Meucci's description. Conversely, he exhibited a mysterious letter—that he said he had dictated but not sent to the Globe Company—containing his (quite recent) detraction of Meucci's caveat. He thus enabled Judge Wallace to rule that Meucci's pretensions ''are overthrown by his own description of the invention at a time when he deemed it in a condition to patent, and by the evidence of Mr. Stetson.''

Among others, the Bell Company called as their witness two Italians, Frederico Garlanda and John Citarotto, who testified that they owned a quite complete collection of L'Eco d'Italia (an Italian newspaper of New York), running from 1857 down to 1881. They stated, however, that their collection lacked just the issues from 1 December 1860 to the whole year 1863. We must recall that Meucci's invention was testified as having been published in L'Eco d'Italia between the end of 1860 and the beginning of 1861. If retrieved, it would have rendered null the Bell

patents. Those precious issues of L'Eco d'Italia that lacked from said collection now lack from all main libraries in the United States.

Judge Wallace added some negative statements of his own against Meucci. In fact, he stated in the closing paragraph of his decision that ''his [Meucci's] speaking telegraph would never have been offered to the public as an invention if he had not been led by his necessities to trade on the credulity of his friends; that he intended to induce the three persons of small means and little business experience, who became his associates under the agreement of December 12, 1871, to invest in an invention which he would not offer to [knowledgeable]; men [. . .]; and that this was done in the hope of obtaining such loans and assistance from them as he would temporarily require.'' Evidently, Judge Wallace chose to neglect the following trial evidence:

First, Meucci's invention was offered, in 1861, to the Telegraphs of Naples, who refused

Second, Meucci offered his invention in 1872 to the American District Telegraph Company.

Third, the partners of the agreement signed on December 12, 1871, shortly before the filing of Meucci's caveat, were: S. Breguglia, lessee of the Cigar Stand of the Hoffman Cafe in Wall Street, A.Z. Grandi, Secretary of the Italian Consulate in New York and A.A. Tremeschin, a contractor for civil constructions. This would appear much like agreement that Graham Bell stipulated on February 27, 1875, with T. Sanders, a leather merchant, and G.G. Hubbard, an ex patent lawyer and ex railway businessman. In addition, we must remark that Meucci's agreement, instituting the Telettrofono Company, was an event of great historical importance. It recited that the company aimed ''to secure patent for [Meucci's invention] in any State of Europe, or other part of the world, to form copartnerships, to raise companies, to sell or assign, in part, the rights of such invention.'' It proved that Meucci's invention, unlike Bell's, was ripe to the point that, in 1871, he had envisaged a worldwide development of the telephone.

Fourth, no proof whatsoever is found in the record about Meucci having traded on the credulity of his friends.

From all of the above, we can conclude the analysis of the Bell vs. Globe trial by recalling historiographer Giovanni Schiavo's definition of the decision as ''unquestionably one of the most glaring miscarriages in the annals of American justice.''

In fact, a few weeks after the New York trial was begun, the Interior Secretary was writing to the Solicitor General, recommending the institution of a suit against Graham Bell and the Bell Company. He attached to his letter three reports on the hearings, drafted by his two Assistant Secretaries and the Commissioner of Patents, as well as all arguments and exhibits presented during the hearings. All three reports recommended the institution of a suit against the Bell Company and Graham Bell, charging fraud and misrepresentation. The Interior Secretary stigmatized in his letter the inadequacy of patent infringement suits instituted by the Bell Company: ''In none of these cases has there been or can there be, as I think, such thorough investigation and full adjudication as to the alleged frauds or mistakes occurring in the Patent Office in the issuance of the patent, as could be had in a proceeding instituted and carried on by the Government itself.''

Assistant Secretary George A. Jenks stated in his report:

''[. . .] There is also evidence that as early as 1849, Antonio Meucci began experiments with electricity, with reference to the invention of a speaking telephone [. . .]. Up to 1871, [. . .] although much of the time very poor, he constructed several different instruments with which in his own house, he conversed with his wife, and others [. . .]. His testimony is corroborated by his wife, and by affidavits of a very large number of witnesses. He claims that in 1872, he went to Mr. Grant, Vice President of the New York District Telegraph Company, explained his invention, and tried repeatedly to have it tried on the wires of the Company. This, it is claimed, was used by the telegraph company, and was the basis of the contract between the Western Union Telegraph Company and the Bell Telephone Company, dated November 10, 1879. [. . .]''

Assistant Secretary Henry Muldrow remarked, in his report, that ''so many witnesses having sworn that the inventions of Meucci, Reis, and others antedated those of Bell in the speaking telephone,'' he recommended ''the institution of a suit to cancel the [Bell's] patent of March 7, 1876.'' It must be pointed out that Mr. Muldrow explicitly quoted Meucci and Reis, out of the scores of inventors that had claimed to precede Bell.

In addition, the Chief Examiner of the Patient Office, Mr. Zenas Wilber, in his affidavit of 10 October 1885, stated ''had Mr. Meucci's caveat been renewed in 1875, no patent could have been issued to Bell.'' In his other affidavit of 7 November 1885, he stated that Philipp Reis and Antonio Meucci were the originators of ''the prototypes of all speaking telephones.'' If we take into account that the Reis transmitter was difficult to operate, as it was originally conceived as a make-and-break device, we may gather from what precedes that the point of force of the Government's action was the invention of Antonio Meucci. Obviously, all of these proofs were available, but regrettably not presented at the Bell v. Globe trial.

As already pointed out, the U.S. vs. Bell trial dragged for twelve years, after which it was discontinued by consent, in 1897, after the death of Meucci and expiration of Bell's patent(s). Here is a brief summary.

On March 23, 1886, following the Secretary of the Interior's recommendations, the Government refiled its bill of complaint against Bell and the Bell Company in the District Court of South Ohio. On December 7, 1886, the case in Ohio was closed on jurisdictional grounds. On January 13, 1887, the Government filed a new bill of complaint in Boston, Massachusetts, where the Bell Company had its headquarters. On November 26, 1887, the court sustained a demurrer by the Bell lawyers; the Government immediately appealed to the Supreme Court of the United States. On November 12, 1888, the Supreme Court reversed the dismissal, finding a meritorious claim and viable issue, rejecting the Bell Company's objections to the fraud and misrepresentation charges, and remanded the case for trial. See 128 U.S. 315 (1888). On December 6, 1889, the depositions began. Meucci, however, was deceased on 18 October of the same year. When Bell's second patent expired, on January 30, 1893, the Government at first refused to close the

It must be stressed that, as the case was not decided,, the Bell Company could not claim, from the outcome of that trial, that Antonio Meucci was not the inventor of the telephone, or that it was Bell. It could only exult by the astuteness of its lawyers, who were able to defer so long the decision of the case, until the question of the patent(s) became moot when they expired.

We come now to the scientific proofs regarding Meucci's priority in the invention of the telephone. Among the exhibits at the hearings before the Secretary of the Interior, is an affidavit, sworn on 28 September 1885 by Michael Lemmi, a friend and lawyer of Meucci. It is an accurate translation into English of Meucci's laboratory notebook, known as Meucci's Memorandum Book, concerning his telephonic experiments, including all of Meucci's original drawings. From an accurate examination of this affidavit, as well as of Meucci's aforesaid caveat ''Sound Telegraph,'' and two drawings accompanying the caveat—the remaining original drawings were omitted by Meucci's patent lawyer, nor were they presented at the first trial—it can be demonstrated beyond any doubt that Meucci antedated Bell and/or the Bell Company in many fundamental telephone techniques, including, inductive loading, wire structure, anti-side tone circuit, call signaling, quietness of surrounding environment.

Meucci's priority in the said techniques range anywhere from six to forty-two years before Bell company development. My paper ''Four Firsts in Telephony,'' published by the European Transactions on Telecommunications (Nov.—Dec. 1999) is more expansive on these techniques.

From this we can gather that when, in 1871, had founded the Telettrofono Company and was awarded his caveat, he had already invented everything that was needed to start a high-quality public service. This is why, in 1872, he asked the American District Telegraph Company—which later ''misplaced'' all his models and notes—to test his system on their lines; this is why he renewed his caveat up to December 1874; this is why, after Bell obtained his first patent because Meucci's caveat had expired for inability to pay the $10 fee, Meucci repeatedly claimed that the telephone was his invention, not Bell's.

The recognition of Antonio Meucci's merits in the invention of the telephone and basic telephone techniques is attainable today, thanks to sound proofs, largely of the U.S. Government and embedded in the proceedings of the United States V. Bell trial. This recognition is mandatory, not only for the honor of the United States, of which Meucci was a worthy member of its society, but also for the worldwide scientific community, regarding a person who has so greatly fostered the communication among peoples, yet unjustly remains buried in the pages of American history.

COMMENDING NOTRE DAME HIGH SCHOOL ON 50 YEARS OF EXCELLENCE

HON. THOMAS M. REYNOLDS

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Wednesday, September 5, 2001

Mr. REYNOLDS. Mr. Speaker, I rise today to honor the Golden Anniversary of Notre Dame High School in Batavia, New York.

For 50 years, the teachers and faculty of Notre Dame have been faithful to their mission of instilling ''in young men and women faith, knowledge and confidence preparing to serve in an ever-changing world.'' Indeed, drawing students from six neighboring counties, Notre