

NEWS BULLETIN

AN ASSOCIATION OF MEN



OF THE MOLES

ENGAGED IN HEAVY CONSTRUCTION

HOLING

THROUGH

APRIL, 1976

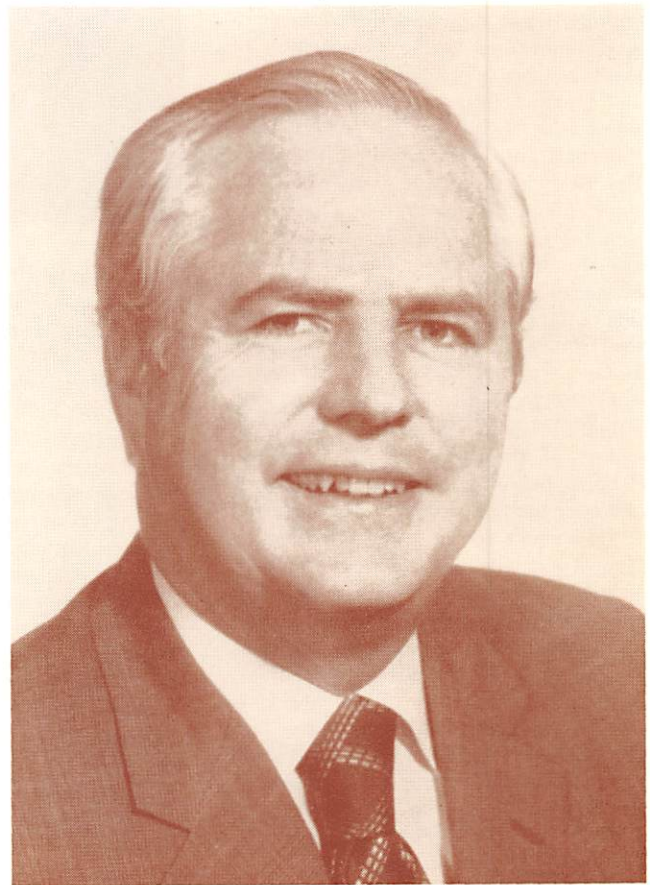
HENRY F. LeMIEUX elected PRESIDENT

HENRY F. LeMIEUX, Chairman, President and Chief Executive Officer of Raymond International Inc., has been elected to serve as The Moles' President for the 1976/77 year.

Others who have served as The Moles' President from Raymond include: the late beloved George Ferris (1954), Henry C. Boschen (1966), and most recently Admiral Peter Corradi (1972).

Mr. LeMieux will receive the gavel from retiring President, Francis A. Vitolo at the Annual Business Meeting and Dinner to be held at The New York Hilton on Wednesday evening May 5, 1976.

Other Officers elected are: First Vice President, Daniel M. Lazar, President and Founder of Cayuga Construction Corp.; Second Vice President, Milton A. Hendrickson, President of Hendrickson Bros., Inc.; Treasurer, Norman Nadel, President, MacLean-Grove & Co., Inc.; Secretary, Philip S. Miller, President, Mohawk Constructors, Inc.; and Sergeant-at-Arms, John P. Barnes, Project Manager, Spearin, Preston & Burrows, Inc.



Trustees elected to serve three year terms are: Gerard J. Carty, Assistant District Manager, Walsh Construction Company; Frederick J. Clarke, Consultant, Tippetts-Abbett-McCarthy-Stratton; Tony Crimmins, Vice President & Treasurer, Thomas Crimmins Contracting Company; Seymour S. Greenfield, Partner, Parsons, Brinckerhoff, Quade & Douglas; Robert G. Lenz, President, Moretrench American Corp.; and Charles E. Mergentime, President, The Mergentime Corporation.

Mr. LeMieux joined Raymond International as a field engineer shortly after graduating from Tulane University with degrees in civil and electrical engineering in 1949. Eighteen years later the Board of Directors elected him President; in 1970 he was elected Chief Executive Officer; and in 1976 was elected to the additional post of Chairman of the Board.

His career was launched in 1951, less than two years after joining Raymond, when he was appointed New Orleans District Representative. In 1954 following his appointment as District Manager, he pioneered the use of long, highly loaded Step-Taper foundation piles in southern United States. One of the more important projects in which he was involved was the development of the Raymond-patented prestressed concrete hollow cylinder pile, a breakthrough which facilitated the "assembly line" construction of such structures as highway bridges. The precast concrete cylinder pile was used on the first Lake Pontchartrain Causeway contract

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HENRY F. LeMIEUX

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awarded in 1954 and has since played a key role in the construction of more than 100 miles of highway bridges in the Gulf area.

On that first Lake Pontchartrain project, the 4,836 54-inch diameter prestressed concrete cylinder piles, averaging 88 feet in length, plus the concrete caps and concrete roadway slabs, were manufactured in Mandeville, Louisiana, near the causeway's northern terminus, and installed in 19 months (4 months ahead of schedule).

Since then, these piles have been a vital innovation in the construction of many bridges, piers, offshore structures, and breakwater installations throughout the world, including the second Lake Pontchartrain Causeway; the Chesapeake Bay Bridge-Tunnel; foundations for offshore oil structures in the Caribbean, Venezuela and the Mediterranean. They are also being used in the construction of marine facilities for the largest liquefied natural gas receiving terminal in the United States which is being built at Cove Point, Maryland.

In 1957, Henry was appointed Assistant Vice President and placed in charge of the Houston, New Orleans, Atlanta and Miami District Office Managers for the firm. In 1959 he transferred to Raymond's corporate headquarters in New York City as Assistant Domestic Sales Manager. Part of his responsibilities included research and development and, he helped to develop new methods of designing and installing foundations. He was responsible for introducing Raymond's standard family of piles into the British construction industry. Placed in charge of the International Region of the Raymond Concrete Pile Division in 1959, he was responsible for moving the headquarters of their international operations from New York City to London in 1961. Overseas operations were expanded into Asia and the Middle East during his tenure. In 1965 he was elected Vice President and General Manager of the Raymond Concrete Pile Division and returned to New York City. This was the firm's largest and most complex division and one which had suffered lowered sales and profit levels during the first nine months of that year. He was instrumental in reversing this pattern and returned the Division's operations to a profitable basis during the fourth quarter. In 1966 he was elected to the Board of Directors and in 1967 promoted to Senior Vice President.

Under his direction the firm moved the corporate headquarters from New

Charter Member Dies . . .



York City to Houston in 1972 and expanded the scope of its foundation services by acquiring Spencer, White & Prentiss of New York City; and the engineering capabilities of Raymond Technical Facilities a wholly owned subsidiary.

Today, the company's diverse foundation and offshore construction operations are carried out within five broad market areas: construction for energy; construction for transportation; environmental construction; construction for buildings and manufacturing; and industrial construction; and the marine construction group's work scope increased to include all types of offshore structures.

Mr. LeMieux has been twice honored by Tulane; in 1949 he received the Charles Thompkins Award as the outstanding graduate of the civil engineering school and in 1959 he was presented with the Harold A. Levey Award to commemorate his achievements since graduation.

Mr. LeMieux serves as Chairman of the International Business Committee of the Houston Chamber of Commerce; is Vice President and Treasurer of the Executive Committee of the Houston Grand Opera Association; serves on the Board of Advisors of Tulane University School of Engineering, Business School Council, Tulane University Graduate School of Business Administration; and the Advisory Committee of the University of Houston College of Business Administration. He is a licensed Professional Engineer in Louisiana, Florida and New York. From 1943-46 he served in the United States Navy Reserve.

He and his wife, Marjorie have four children and reside in Houston, Texas.

ARTHUR J. SACKETT died on October 30, 1975 at his home in St. Augustine, Florida, after a long illness. He was 91.

Mr. Sackett, long time Chairman of the Board of Mason & Hanger-Silas Mason Co., Inc., was a Charter Member of The Moles.

He joined Mason & Hanger Company in 1911 as an Engineer and during his long term of service to the Company was involved in many of their major construction projects.

During WW I he was Chief Engineer for the firm on such contracts as Camp Zachary Taylor at Louisville, Kentucky; Newark Port Terminal at Newark, New Jersey; Charleston Embarkation Port at Charleston, S.C.; and Old Hickory Powder Plant in Tennessee. Later he directed, for the firm, construction of Eighth Avenue Subway Sections in New York City including the Fulton Street Subway Tunnel under the East River from Manhattan to Brooklyn; Rutgers Street Subway Tunnels under the East River from Manhattan to Brooklyn; 107th Street Subway Cut & Cover Section; and 192nd Street Subway Rock Tunnels. Among other projects performed while Mr. Sackett was in a managerial capacity with the firm were: George Washington Bridge Foundations on the New Jersey side; the Grand Coulee Dam in the State of Washington; and the First and Second Lincoln Vehicular Tunnels under the Hudson River.

He succeeded Silas B. Mason as President and Chairman of the Board after Mr. Mason's death in 1936.

Mr. Sackett served as President of the General Contractors Association for three years during 1938 through 1941.

He is survived by a daughter, two grandchildren and a brother.

● RALPH B. PECK and ABEL WOLMAN were among thirteen recipients who were recently awarded the National Medal of Science, the federal government's highest honor for distinguished achievements in American science and engineering. The medals were presented at a White House ceremony by President Ford.



ARVE S. WIKSTROM was killed in a plane crash on January 12, 1976. Mr. Wikstrom was piloting the plane in a solo flight destined for Wilmington, North Carolina where his company, A.S. Wikstrom, Inc. had recently begun a construction project. He was 68.

Mr. Wikstrom, a major contractor, founded his own construction firm in Newark, New Jersey, in 1935. At that time he dealt primarily with railroad contracts on the East Coast. About a year later he went into bridge, foundation and marine construction which are still the company's main concerns. He moved the company to its present location in Skaneateles, New York nine years later.

The firm has done extensive work on the St. Lawrence Seaway Development and Power Authority facilities in the Massena, New York area along with the concrete supporting towers for the Ionospheric Project in Arecibo, Puerto Rico; Navy dry docks in Portsmouth, New Hampshire and Portsmouth, Virginia. Recently the company had participated in constructing phases of nuclear power plants in Oswego, New York.

Mr. Wikstrom's other business affiliations have included: Wikstrom, Ltd., Port Credit, Ontario, Canada; Caribbean Wikstrom, Inc., San Juan, Puerto Rico; Empire Aero Services, Inc., Skaneateles, New York; Aggregate Materials Corporation, Cortland, New York; and the Somerset Construction Co., Inc., Wilmington, North Carolina. He was also a partner in the Empire Hardware & Machinery Co., Auburn, New York;



VLADIMIR N. NICHOLS died on October 7, 1975. He was 67.

Mr. Nichols began his career as a structural engineer with Madigan-Hyland shortly after obtaining his civil engineering degree. He worked on United States Navy contracts at Guantanamo Bay, Cuba for Frederick Snare Corp.; and received the Meritorious Civilian Service Award from the Navy for this work. Later he joined the Geo W. Rogers Construction Co., where he became Vice President and General Manager. During 1956 he left Rogers to work on the Baltimore Tunnel and subsequently returned to the New York area where he supervised marine construction for Stock Construction; and Spearin, Preston & Burrows.

In 1964 he joined the New York City Department of Highways and was later named Assistant Administrator for Public Transportation Services, retiring in May 1972. He held Professional Engineer licenses from the States of New York, New Jersey, Delaware and Maryland.

In November 1972 he received his 25 Year Certificate from The Moles.

He is survived by his widow, Eleanor.

WIKSTROM (Continued)

and owned and operated a 1300 acre farm in Skaneateles.

Mr. Wikstrom was a leader in community activities and well respected by his constituents. He served as President of the New York State Chapter of the Associated General Contractors of America during the 50's.

He is survived by his widow, Sieglund; three sons; a daughter and sister.

Moles Elect 30 New Members

At the Executive Committee meeting held on April 6th, thirty new members were elected effective May 1st.

In alphabetical order they are: Tony Berman, Berman, Paley, Goldstein & Berman; William R. Best, Horn Construction Co., Inc.; A. James Clark, The George Hyman Construction Company; Royal E. Cleveland, Cleveland Brothers Equipment Co., Inc.; Sim H. Crews, Perini Corporation; James J. Dacey, Moretrench American Corporation; John J. Dorsey, Cayuga Construction Corporation; Thomas J. Doyle, Louis Berger International, Inc.; Gustave Fleischer, MacLean-Grove & Company, Inc.; Arthur L. Gould, Horn Construction Co., Inc.; Robert J. Jenny, Jenny Engineering Corp.; Frank Kelly, Slattery Associates, Inc.; Jack K. Lemley, Walsh Construction Company; William W. Moss, Moss-Thornton Company, Inc.; John Nelson, Commercial Shearing, Inc.; Hugh G. Niven, J. Rich Steers Inc.; Gilbert H. Nolte, C. J. Langenfelder & Son, Inc.; Robert S. O'Neil, DeLeuw, Cather & Co.; Carl E. Petrillo, Yonkers Contracting Co., Inc.; Kirvan H. Pierson, Jr., The Arundel Corporation; Louis W. Pinata, U. S. Army Corps of Engineers; Robert E. Quinn, Geo W. Rogers Construction Corp.; Elmer A. Richards, Mueser, Rutledge, Wentworth & Johnston; Henry C. Scott, S & M Traylor Bros.; George J. Tamaro, Jr., ICOS Corporation of America; Thomas J. Tantillo, Horn Construction Co., Inc.; Charles J. Trainor, Conesco Industries, Ltd.; Salvatore Valenza, New York City Transit Authority; Frank M. Warren, Jr., Raymond International Inc.; Jerome B. White, Slattery Associates, Inc.

• At the November Members' Dinner, a card with "get-well-wishes" was signed by many of the members present to be sent to fellow Mole member, Tom Murphy through his Dad, Jack. Tom was quite ill at the time in the hospital. At Christmas time a card was received at The Moles' office with a message from Tom to his fellow-moles. "Your card with sentiments attached and the nearly one hundred signatures, all wishing my speedy recovery was just what the doctor ordered. Be assured that this type of 'caring' is very important when you're not well. I'm better now and look forward to a healthy 1976. Hope yours will be too!"

Twenty Create Vacancies

The following members were elected to emeritus status this past year by the Executive Committee and therefore created vacancies for new members.

ANTHONY DE BIASE, prior to his retirement, was engineer in charge of the Port Authority's marine tunnel construction.

ALBERT DI GIACINTO, retired from Spencer, White & Prentis on December 31st after serving that firm for forty years. He received his 25 Year Certificate from The Moles in November 1974.

JOHN J. DUFFY was in charge of Walsh Construction Company's underground construction prior to his early retirement from the firm.

ROBERT R. ELLIS spent most of his construction career with Frederick Snare Corporation. He retired as President of Snare in 1967; then spent a bit in South America for Gilbane Construction.

EDMUND FITZGERALD spent his career with the construction industry in the fields of cement and steel erection primarily. He has recently retired because of poor health.

JOSEPH F. FOLEY, JR., President of Callen Construction Corporation headquartered in Massachusetts was elected emeritus because of poor health. He has been a member since 1961.

WALTER H. GAHAGAN's name is well known in the field of marine construction. He received his 25 Year certificate from The Moles in November 1970.

JACOB GOODSTEIN's law practice has been devoted for many years to the Engineering and Heavy Construction Industry.

THOMAS GUERIN, a member of The Moles since 1956 was engaged in construction around the Metropolitan area since 1928.

EDWARD A. HAHN retired the first of this year as Senior Vice President of Construction with The Arundel Corporation after serving the firm since 1939.

N. BLAKE KING, a member of The Moles since 1961 is President of the firm which bears his name formed in 1939.

GERALD T. McCARTHY retired as Senior Partner in the firm of Tippetts-Abbett-McCarthy-Stratton in 1974. He has been a member of The Moles since 1969.

A. DOUGLAS McKEE was President and Chief Executive Officer of Perini Ltd. when he became a member of The Moles in 1960. He has been doing consulting work for the past several years out of Toronto, Canada.

CLAYTON G. O'CONNELL retired in April 1974 after forty-four years with J. Rich Steers Inc. He has been a member of The Moles since 1953.

JAMES D. PARSONS retired from Mueser, Rutledge, Wentworth & Johnston after more than thirty-five years of service with the firm. Mr. Parsons now resides in Asheville, North Carolina where he plans to do private consulting work. He received his 25 year certificate from The Moles this past year.

RALPH SIEGRIST has retired from Commercial Shearing after having served that firm since 1945. A member of The Moles since 1943 Ralph was with the Contractors Division of Hercules Powder Company before he joined Commercial Shearing.

JOHN H. TIERNAN a member of The Moles since 1942 has recently liquidated his construction firm and plans to move out of this area. Mr. Tiernan was with P. T. Cox and The Foundation Company prior to forming his own company in the early 1960's.

JOSEPH TRANK had been with Allen N. Spooner & Son for 27 years prior to the firm's liquidation in 1970.

ARTHUR VILLATOR retired about a year ago from Ingram & Greene. Prior to his becoming a member of The Moles in 1963 he had been engaged in the heavy and sub-surface field for over 25 years.

GEORGE P. WALKER joined The Moles in 1948. He was associated with the industry through Johns-Manville Corporation until his recent retirement. Mr. Walker served The Moles as Secretary during the period from 1949 through 1951.

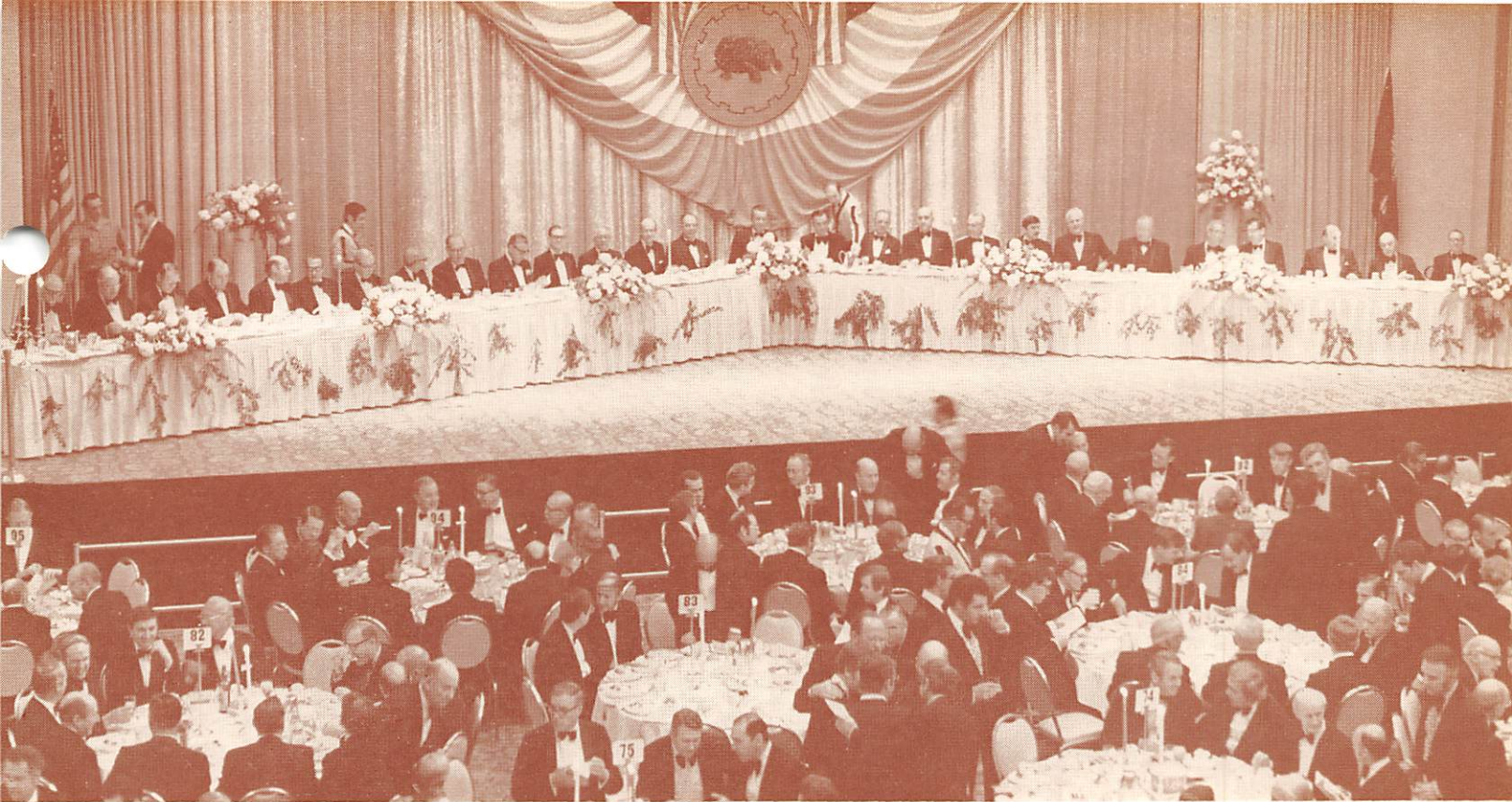
Deep Foundations Institute Organized

Four Moles are on the Board of 15 Trustees of a newly formed Deep Foundations Institute just incorporated in New Jersey as a non-profit, educational organization. Moles are: G. ROBERT COMPTON, JR., CHARLES L. GUILD, HAL W. HUNT and RUDI J. VAN LEEUWEN.

The new organization provides a much needed meeting place for all concerned with the design, installation and permanent stability of structures and excavation protection where bearing strata is at some depth. Contractors, engineers, equipment and materials people are working together to develop less costly design and more uniform testing and installation specifications. Committees have been established to work on environmental problems, equipment application, inspection and testing, codes, geotechnical research and subsurface investigation. — Cooperation with other organizations is sought to minimize duplication of effort.

Initial work on the DFI organization leading to incorporation in New Jersey, was done by a group of experienced designers, contractors, equipment and materials people. These were the nucleus for the 15 on the first Board of Trustees, five of whom are to change each year. An equitable balance of Trustees will be sought among all interests in the foundation field. By-laws and Code of Procedure of The Moles have been studied and drawn upon heavily in preparing similar documents for the DFI.

Bob Compton and Hal Hunt have been especially active in this formative period. Hal Hunt, a Mole member since 1938, is acting as Executive Secretary. Either Bob or Hal can be contacted for further information.



AWARD DINNER

"The best ever" that was once again the remark heard over and over on the evening of January 28th, the occasion of The Moles' thirty-sixth annual Award Dinner. Someone recently remarked to this writer, "it seems every year they tell me this was the best ever. How could this be?" — Well, it could be that each year The Moles' Award Dinner *does* get better, but we think it is just *the tremendous enthusiasm* for the activities leading to and culminating with a fine dinner and program of worthwhile talks given by popular people in the industry that makes that an *all important day* for The Moles and their guests and to say each year, "this was the best ever!"

For the benefit of those not so fortunate as to be present that evening and *too* for those who have asked for copies of the talks, we give you the entire program in this issue of *Holing Through*.

FRANK VITOLO:

Mr. Chairman, Mr. Speaker, Recipients, Honored Guests, Fellow Moles and guests of the Moles: Welcome to the 36th Annual Moles Award Dinner. It is a privilege for me to preside at this ceremony in honor of our two distinguished recipients of the 1976 Moles Award: Dr. Casagrande and Admiral Corradi.

It may sound a little strange for The Moles to have selected a Doctor and an Admiral for awards for accomplishments

in the field of endeavor which The Moles are engaged in. However, as you know, Dr. Casagrande is a doctor in engineering, specializing in soils mechanics which is such a vital factor in all the activities that we Moles are engaged. As for the Admiral, well, Pete is what I call a "dry land" admiral. He came from the Civil Engineering Corps, having served in the famous Seabees in World War II and later as the Chief of the Bureau of Yards & Docks.

To illustrate the dry land admiral aspect that I referred to, I have to use a story that Hank Boschen, our former president, told me about Pete and his experience with Pete as a sailor. Hank Boschen is an avid sailor himself and he invited Pete one day to go out on his modest-sized sailboat as his crew. Well, the day they went out the weather was bad, seas were rough, but Hank figured, what the hell, I got an admiral for my crew — what have I got to worry about. So off they went. As they got out the water got rougher and rougher and the weather got worse, so Hank finally said to Pete, "You'd better get down below, get on the ship-to-shore, call the Coast Guard, get some help." So Pete went down, got on the ship-to-shore, tells the Coast Guard of his predicament and asks for immediate help. The Coast Guard says we're on our way, but first state your position — repeat — state your position. So Pete says, "My position? I'm Chairman of the Board of Raymond International." I don't think Hank ever asked him out on that boat again.

It is now my pleasure to introduce our principal speaker of the evening. And since the dinner program includes Jim McClary's biographical data, there is no need for me to review his long list of achievements. As you can see, he spent his entire career with Morrison-Knudsen, starting in 1932. And in 1972 he was elected Chairman of the Board of the company. Jim has, throughout his career, been active in association work, and his activities in this field culminated in his being elected to the presidency of the Associated General Contractors of America in 1972. During his term of office as National AGC president he did a remarkable job in promoting the interests of the construction industry. He was especially active in matters involving contractor-labor relationship and in matters that involved the strengthening of the position of management in bringing many factions together and in some way reducing some of the fragmentation that has so longed plagued our industry. Jim played a major role as president of AGC and as Chairman of the Legislative Committee of the AGC in staving off passage of the Situs Picketing Bill which was recently vetoed by President Ford. Without his driving force in combating this legislation I think that would be our law today.

It is a pleasure to have Jim McClary here tonight. And I am sure he will fill us in on some of the many things that are developing which will have a tremendous effect and impact on the

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AWARD DINNER

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future of our industry. I am pleased to present to you our speaker of the evening, James McClary.

JAMES D. McCLARY:

Mr. President, officers and trustees of the Moles, Awardees, Honored Guests, Members of the Moles and their guests, gentlemen all:

Coming up here after that dinner to speak is somewhat appropos of a story I heard of a senator who was given to running around the country giving all kinds of speeches. He was in quite great demand. And he had a speech-writer who put all of his material together for him and they had been together for a number of years. The speech-writer though, of late, had been concerned about the fact that his own salary hadn't been going up very much. In fact, not at all. And he had spoken to the senator about it and the senator always said well, there's appropriations, we have to get more money for the Senate staff and all that, but I'll work on it, don't worry about it, I'll take care of it. There came a day when the Senator came in the office first thing in the morning and he had to be on the hill all that day and he had to go some place for lunch and he had to give a speech that evening after a banquet. And he told his speech-writer, I'll be in about 5 o'clock, pick up the speech, you know what I want to say." And that's the way the day went. Five o'clock the Senator came in, changed into his tuxedo, grabbed up the speech and went to the do-gooder dinner, whatever it was he was going to do. And came the time where he is just like I am, he just got up from the dinner table, standing up at the podium, looks down at his speech, page one. He said, "Ladies and gentlemen, I'm very, very happy to be here this evening. I know there are a lot of problems that are plaguing our country. I want to talk about a few of those this evening." He said, "You're worried about our national defense — I'm going to tell you tonight what we should do about that. You're worried about the cost of welfare — I'm going to tell you tonight how we should take care of that and how we can live with it. You're worried about unemployment in the country — ladies and gentlemen, I have the answer to that tonight." Page Two — "And now, you s-o-b, you're on your own."

Well, here I am, on my own. I trust all of you know that this year the United States of America is observing the bicentennial of its founding. It has been in all the papers. Preparations are in

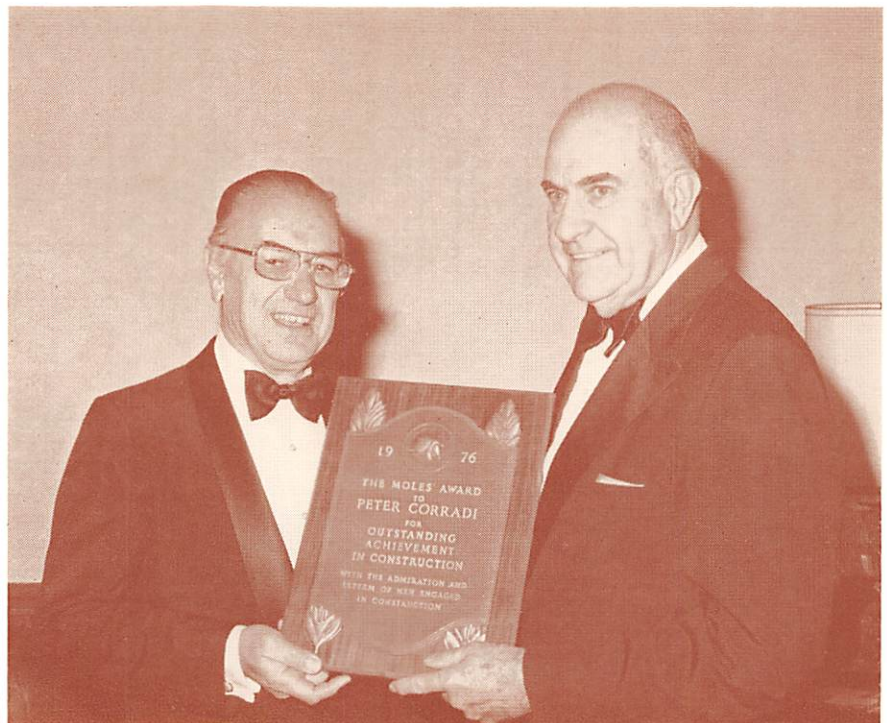
progress at all levels of society to make certain that this milestone in our history doesn't slip by unheralded unnoticed, and uncelebrated. Any notable occasion, from a garage sale to the forthcoming political conventions, will be suitably festooned with red, white and blue bunting, enlivened with a plethora of patriotic rhetoric, and emblazoned with the significant dates — 1776-1976. Just in case our ability in higher mathematics should fail to provide us with that number. And in case, also, that any of you are not familiar with the word bicentennial. We are being subjected, and we will continue to be subjected, for the rest of this year at least, to vignettes from our past, reminders of our earlier glories, and intimate glimpses into the lives of the founders of this great nation. Every politician, minister, entertainer, do-gooder, demagogue, editor, columnist, car salesman and random speaker will find some parallel from our embryonic days to bolster whatever cause he may be espousing. Now, if you are not beginning to get a bit weary of it by now I feel confident you will before it's over. And we still have five months to go before that all-important anniversary of the signing of the Declaration of Independence.

To my notion, there is a distressing note in most of the outpourings in this carnival atmosphere. One topic with which we should be concerned probably will not be explored in much depth. That topic is this: Okay, so we've come this far, we've weathered a lot of storms,

But are we prepared to go on? Will we celebrate a tricentennial?

The first 200 years of the existence of this nation was truly a miracle. But what about our role during the next 100 years? Or the next 1,000 years? Oh sure, July 4, 2076 will dawn and so will July 4, in succeeding centuries. But will the world of those distant anniversaries know and be brightened by the continuing growth of the belief in the dignity and freedom of man? The concepts of man's dignity, man's humanity to man, and the freedom of the individual are as old as man himself. But two incidents in history — the writing of the Declaration of Independence, followed by the adoption of our Constitution, gave man, for the first time, the guidelines and the machinery to make those concepts a reality.

The signers of the Declaration of Independence and the drafters of the Constitution believed in some rather basic precepts, precepts which in some quarters today are held up to ridicule. They believed the government should be the servant of the people, that government which governs least governs best. They believed in equality of opportunity. They believed that diligence and work should be rewarded. They had respect for law, and believed that transgressors should be punished. They held in high esteem the concepts of honor, loyalty, decency and morality. They put their trust in their belief in the existence of a supreme being. Their word was as good as their bond. They knew compas-



Peter Corradi receives 1976 Member Award from Eugene Peltier



Arthur Casagrande receives 1976 Non-Member Award from S. Peter Volpe

sion, practiced courtesy, valued tradition, and revered time-honored customs.

The Declaration of Independence was a one-time statement about conditions then existing and not subject to later modification. The Constitution surprising has been amended only 26 times since its adoption in 1787. And one of those deleted an earlier hysterical mistake dreamed up by the do-gooders of the time, leaving a net of 24 additions.

The first ten amendments constitute the Bill of Rights, and were passed by the First Congress to remedy what was considered a defect in the constitution because it contained no code of fundamental civil rights. It is interesting to note that one new amendment, the 11th, was adopted before 1800, four were added in the 1800's, the 11 remaining have been added in this century. It has proven to be an enduring document indeed. One that William Gladstone called the most wonderful work ever struck off at a given time by the brain and purpose of man.

After the adjournment of the Constitutional Convention, Benjamin Franklin was asked by a lady as he was leaving the Pennsylvania State House, "And what have you designed for us, Mr. Franklin?" Franklin reportedly replied, "A Republic, Madam. If you can keep it." It is important to remember that this nation of ours was founded as a republic and not as a democracy. I have grave doubts that we are keeping Franklin's republic, and that is why I pose my question, will there be a tri-

centennial? Remember, the founders of our nation saw fit to amend the constitution once, in the 18th century. It was amended only four times in the next 115 years, yet it has been amended *eleven* times in this 20th century and within the lifetime of many in this room. Two of these later amendments probably did more to endanger the survival of the republic than all of the others. They are the 16th, which legalized the income tax, and the 17th, which provides for the direct election of U.S. Senators. This trend itself should be a matter of concern. How many attempts to further change the Constitution will be made in the remaining years of this century or by the time of the tricentennial?

We have created, through legislative action, executive fiat, and judicial interpretation of the Constitution, a massive, horrendous, unmanageable governmental structure that goes far afield from the intent of the founders as expressed in the Constitution. And well beyond the wishes of a substantial majority of our people. We have a government that not only threatens our individual freedoms, it is taking those freedoms away from us at a frightening pace. What is even more alarming, most of those individuals who are involved in government are not elected. Most of government today is composed of a faceless, appointed bureaucracy that is responsible only to itself. Congress passes legislation outlining a general intent to do something, something that sounds good, has the perfume of motherhood, and looks like

apple pie. The legislation contains language which provides for the establishment of a Commission, an authority, and administration or a department, and goes on to charge that ill-begotten agency with the task of developing its own rules, regulations, the manner of enforcement, and the penalties for non-compliance. These become the law of the land by the simple device of publishing them in the Federal Register for all to see and obey. Interpretation of them is left to the various levels of the judiciary, another appointed class of lawmakers who are not elected either, and who, unfortunately, have taken on the self-determined task of expanding and innovating new and far-reaching law by their own decisions. Here are just a few examples:

Who can argue with the principle that employers should be required to provide a safe and healthful place for employees to work? Good intent. But is OSHA the solution?

Who can argue that providing for the health, education and general well-being of our people is not a proper concern of our government? Good intent indeed. And proscribed in general terms in the constitution. But are our massive welfare rolls, social security, unemployment insurance, food stamps, child care, aid to unwed mothers, aid to unemployed strikers, aid to indigents, a college education for all, regardless of academic ability, called for in that constitutional phrase, "promote the general welfare"?

How about provide for the common defense? Does that mean expanding social programs at the expense of the defense budget year after year, to the point where we already may be a second-rate power? Does that mean detente? Which means, at least to me, keep talking while they build up their strength and we decrease ours, to the point where all we can do is talk. And all of this, in the face of poll after poll after poll that reports the public is desirous of being number one regardless of cost.

Do we provide for the common defense when we publicly parade our intelligence agencies across the world stage and systematically castigate them and castrate them? How idealistic and unrealistic have we become when the Chairman of a Senate Subcommittee publicly declaims it is his intention to have his committee so restructure and regulate our intelligence agencies that they will never again be able to do anything that we all wouldn't be proud of, if it were exposed to public view? Can't you imagine how effective our intelli-

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AWARD DINNER

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gence gathering effort would be if all of the activities had to have the prior approval of a Congressional committee? And the results be fully reported to that Committee as has been proposed? The members of that committee would trample each other to death trying to be first out of the Committee Room to meet the press.

Who can argue that we don't want clean air and clear water and a healthy environment in respect for the world's ecology? Good intent. Motherhood and apple pie. But does that mean "stop the world I want to get off?" Does that mean no further advance in our standard of living, that we've gone about as far as we can go? Does that mean don't utilize the resources and technology we have to increase our electrical generating capacity by the use of our own fossil fuels and by fusion? Does that mean no more industrial development, no new products? Does that mean pure air everywhere and pasteurized water in our lakes and streams? If you can believe EPA, it does.

Years ago a banker asked Harry Morrison, the 1947 recipient of your non-member award and the co-founder of our company, how on earth can a contractor go broke? Harry's reply was short and sweet: He simply runs out of money. Gentlemen, a nation goes broke the same way. No one, individual, company, state or nation, can long support a champagne appetite on a beer income, and that is what we are trying to do today in these United States. Our Congress and our Executive branch have pandered far too long to the demands of the noisy few just to stay in office. Let some vocal minority demand something and our elected officials fall all over themselves like a litter of puppies trying to be the first to meet the demand. They are selling our birthright for their mess of potage. I am just as compassionate as most, and possibly more so than a lot of people. I believe I can see the ills of our nation, and of the world, through sympathetic eyes. I know that social injustice and economic oppression prevail in many places. And I also know that they have existed in varying degrees since the dawn of time. I also know that we in the United States have done more in our short span to alleviate them than has any other people in history, not only at home but all over the world. And all of it done with no thought of repayment and hardly any respect for having done it. But I also know that no magic wand exists which by a simple wave will allow the

correction of all of the unpleasantness at once. And I am very sure we won't help the situation by spending ourselves into insolvency and bankruptcy, leaving not only ourselves but the rest of the world to the tender mercy of our "brothers in detente." Without the achievement of fiscal responsibility in government, and soon, it won't be necessary to make preparations for a tricentennial.

Now, what has all this been leading toward? What is the import of these remarks? To put it simply, I want to encourage you to think about where we are, where it appears we may be going, and what we — you and I — can do about it. You and I have been letting someone else attend to the business of our government. We have been content to contribute a few bucks to this political contender or that one, maybe shell out a little for the party of our choice, buy tickets to a dinner, and maybe go, or maybe we're too busy to go. Then we sit back and say thank God, I don't have to worry about that again for two years, or maybe four years, as the case may be. In short, we have been content to let *George* do it. And *George* has been doing a lousy job.

We have allowed the politicians and bureaucrats to scare us away from fulfilling our obligations and exercising our right as citizens to become involved in the business of governing ourselves, which was one of the principal reasons for the revolution in 1776. We have been too busy doing the business of

business to realize that the American dream is being eroded systematically. I don't know if what is happening to our country has come about through accident, stupidity, or design. I suspect it is some of all three. But I do know it has been allowed to happen through inattention on our part — yours and mine. In recent years laws have been passed which make it difficult but not impossible, nor illegal, for us to financially support candidates for federal office. The laws governing contributions for state and local candidates vary from state to state. Now maybe in one way this restriction of contributions in a federal election is a good thing, because if anyone feels he has bought a senator or a representative recently, he's gotten precious little for his money based on the recent performances of Congress. And let's be honest, even if our representatives aren't. Labor has a stronger position under existing law than does business. So what can we contractors do, what can any American do?

Let's start by each of us getting to know our elected representative at all levels. Find out what makes him tick, find out where his support comes from, determine how he stands on the basic issues affecting what each of us believe, go listen to him talk, check his voting record. Determine who he follows or leads, among his peers. If he stacks up in your judgement, on all points, then do your utmost to get him re-elected. If he doesn't, then do your best to defeat him. Go find a better candidate.



James D. McClary receives Honorary Membership from President Frank Vitolo

See him at home during recesses or visit him at his office. Let him know how you feel on the issues of the day. Do this on a continuing basis, not just when you want something. If you can't see him, write him. Get to know the members of his staff. They are very important in passing on ideas or providing access to him. Contribute to his campaign to the extent of the legal limits or the limit of your own resources. Work for him in his campaign. Encourage your friends and employees to do the same for the candidates of their choice. Get to know and understand the issues, so you can discuss them intelligently with him, and with those you are trying to influence. Join political action groups of your persuasion. Get the members of your family working as hard among their friends as you should be among yours. Discuss the issues of the day with your family so your children and grandchildren will learn. If you feel so inclined, take a run at it yourself. You don't know if you could win unless you try. Try it, you might like it. And you might bring a new outlook to the political arena. And last, but certainly not least, vote—early and often.

Gentlemen, I am talking about involvement, total, personal involvement in the political process. You are acknowledged leaders in our industry and presumably in your communities. A leader's task is to lead, and to lead intelligently one must be involved and informed. Someone once said, I'm only one, but I am one. I can't do everything but I can do something. What I can do I ought to do, and what I ought to do, by the grace of God I will do. If, in the years to come, we adopt that philosophy, all of us, maybe — just maybe — we can keep Mr. Franklin's Republic, and there indeed will be something to celebrate during the Tricentennial year. Thank you.

FRANK VITOLO:

Thank you Jim, for a very interesting and informative talk. I am sure it is going to leave us all with something to think about, something to remember. And now Jim, I would like to present to you an Honorary Membership in the Moles, and I would like to assure you that it is an honor and a privilege to have you join the Moles organization.

JAMES McCLARY:

Thank you very much, Frank. I appreciate it.

FRANK VITOLO:

Thank you again, Jim. And good luck.

JAMES McCLARY:

Thank you Mr. President, and thank

you members of The Moles.

FRANK VITOLO:

At this point I will turn over the meeting to our Chairman of the Award Committee who will preside at the presentation of the awards to our recipients. Our Chairman, Mr. Milton Hendrickson.

MILTON HENDRICKSON:

Thank you Frank. I would like to take just a few seconds to say thank you to Bud Gray, the Vice Chairman of the Committee, and the sixty-odd other members of this committee who have spent of their own time, some of them traveling half-way across the country to attend the three meetings that starts with the nomination of candidates and ends up on the final meeting, even after mail ballots, of the selection of the two that are left so that we name our recipients. It is not a thing that is done by a small group in a smoke-filled room.

We have with us tonight a gentleman who will introduce our member awardee. He is a fellow Mole, he is a past Chief of the Navy Bureau of Yards & Docks, he has been Chairman and Chief Executive Officer and is presently consultant to the noted engineering firm of Sverdrup & Parcel. Admiral Gene Peltier.

ADMIRAL EUGENE J. PELTIER:

Thank you, Milt. Mr. President, Honored Guests, Fellow Moles and your guests: It is indeed a pleasure for me to introduce Peter Corradi, this year's Member Award recipient.

Admiral Corradi was born in Brooklyn and received his Civil Engineering degree from New York University in 1936. He worked for three prominent New York City and State agencies, the Port Authority, the Board of Water Supply and the Triborough Bridge Authority. He married Helena Corley in 1937 and they have three children, a boy Peter and two daughters, Patricia and Carol. He was commissioned a Lieutenant, J.G., in the Civil Engineer Corps Reserve of the Navy in 1940.

Our relationship began in the summer of 1942 when Pete was working at the shipyard at Portsmouth, New Hampshire. He was on active duty and was Resident Officer-in-Charge of rebuilding a dry dock. This certainly was an early indication of his interest and ability in heavy construction. He spent about two years in Portsmouth and was transferred then to a Seabee regiment in the Pacific. From the Seabee regiment he went to Commanding Officer of the 33rd Seabees. This outfit participated in the assault on Green Island, Peleliu and Okinawa. It was in 1945 and on Okinawa when our paths crossed again. He was

Commanding Officer of the 39th Naval Construction Regiment with the rank of Captain. In a period of three and a half years he went from a junior grade lieutenant to captain. And as Old Man Mose would say, "Man, that's traveling."

He returned to the United States after the war and like many of us decided to make a career in the Civil Engineer Corps of the Navy. He transferred to the regular Navy in 1946 and served as staff Civil Engineer and as public works officer in several naval installations throughout the United States. Our paths crossed again in 1953. I reported to the Bureau of Yards & Docks in Washington where Pete was Assistant to the Deputy for Construction. The following year he was assigned to the District Public Works office in Charleston, South Carolina. This billet is usually assigned to a very Senior Captain of the Corps. Since usually it has a very heavy construction workload. As with most of his assignments, his rank was generally one or two notches below the billet requirement. At this time Pete had reverted to the peacetime rank of Commander. It was my fortune in the Fall of 1957 to be named Chief of the Bureau of Yards & Docks. I immediately began looking for a deputy, and it didn't take long to find him. It was Peter Corradi. But there were a few drawbacks. He was 80 numbers down the list and in the small organization of the Civil Engineer Corps it meant passing over half the captains in addition to six or seven admirals. But it was without a doubt one of the best decisions I ever made. I really had an opportunity to appreciate Admiral Corradi's ability as an engineer, a construction man, and administrator during his next four-and-a-half years. His firmness, integrity, and fairness earned the respect of the engineers and contractors who worked for the Bureau. His judgement, imagination, along with suggested solutions to the many varied and really difficult problems we had were invaluable. Because of this ability you soon develop a confidence in his judgement that makes it a pleasure to work with him. Those were years of hard work, but it was really fun doing it.

Pete succeeded me as Chief in 1962 and his selection was announced on the day of the Annual Moles Award Dinner of that year. His administration of BuDocks during his tour as Chief was outstanding. When he retired from the Navy in November of 1965 the Bureau's reputation, within the Navy and in the construction industry, was perhaps at its highest. He was awarded the Distinguished Service Medal by the

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President of the United States for his service as Chief of BuDocks. Pete joined the fine firm of Gibbs & Hill here in New York as Vice President and General Manager following his retirement from the Navy. Within a short time he became President of the firm. He joined the highly-regarded firm of Raymond International as a Senior Vice President in 1969, was elected a Director, and advanced to Executive Vice President. He was elected Chairman of the Board in 1972. He retired on the 1st of January this year and is now Chairman of the Executive Committee. Moving into the production side of the construction industry after a 25 year career in engineering and contract administration is a bold step that few of us are willing or capable of making. But Pete did it, and very successful, as witness the fine performance of Raymond International these past several years. With Henry LeMieux, Frank Warren, Nelson Crews and Jim Bartlett and others of his associates at Raymond, I am sure that it will continue and probably exceed the present achievements. Listing all of Pete's honors and positions in the many professional organizations he has worked with would take more time than I am allowed. So I will only mention one. As most of you know, he was President of the Moles in 1972. It was a great day for the engineering and construction industry when Peter Corradi made his decision to study civil engineering, and make his contribution to this great industry. Without him I am sure much that has been done would not have been done. Pete, it is a great privilege for me to present to you on behalf of all the Moles this plaque which reads: *"The Moles Award for outstanding achievement in construction, presented this 28th day of January, 1976, to Peter Corradi, a former President of the Moles, in recognition of his leadership and ability to organize, and of his brilliant and distinguished careers in both military and civilian engineering and construction."* Pete, congratulations.

PETER CORRADI:

Thank you very much, Gene. President Vitolo, Members of the Moles, Distinguished Guests, Guests of the Moles: When I learned about my selection I was, I have to say, impressed, but at the same time I felt comfortable in knowing that I had a chore to acknowledge this presentation, that I would be among friends and that I had been on this platform so many times and I knew you all so well. But I must say that I

have been somewhat touched, overwhelmed if you will, by Gene's remarks and I am glad that Andy Ammisano is out there to give me a heckle every once in awhile. There is no greater reducer of Chairmen than Andy.

I can only say thank you to all of you. You know, I have always been a great admirer of the things which the members of this great organization stand for. Things like the free enterprise system, competition, innovation in construction, a determination to finish a job no matter how difficult, whether it's a winner or a loser. And I have been present at some of these award dinners when some truly great men have been singled out for our award. And I have listened to them reminisce about their long experiences in construction with some of the best construction companies in the world. Now, you know that I am not going to be able to comment in a similar vein. You have already heard about my various careers, and you and I know that that is just a polite way of saying I've been a job-hopper all my life. In the past 35 years I have been fortunate to have been connected with three large engineering and construction organizations, The Navy's Civil Engineer Corps, Gibbs & Hill in New York, and Raymond International, many years in New York and currently of Houston, Texas. I can sincerely say that I have thoroughly enjoyed being a part of each and making what contribution I might make to each, since they each have many characteristics in common, despite what might appear to be a disparity on the surface.

Each has been in existence for a long time and has its own history and tradition. Each was not only willing but eager to encourage an examination into what they were doing, how they were doing it and why they were doing it. Each was dedicated to excellence in its level of service, and dissatisfaction with any semblance of mediocrity. And each was receptive to change and to the encouragement of new ideas and new people. Such environment fosters individual success. Accomplishments which have been attributed to me here this evening are actually those of the many fine construction men in these organizations who made those accomplishments possible. But as we all know, past accomplishments are but stepping stones to the future. In my book there is a great deal of unfinished business that must be attended to. One of the major items that I feel must be attended to was addressed by Jim McClary here this evening to you all. I would also like to use this forum to enlist your help.

Men in the construction business are

the embodiment of the free enterprise system. The system as we Moles understand it in my opinion is in jeopardy. There is a greater and greater tendency to look for that great big central government that Jim was telling us about, for pat solutions to problems with a resulting erosion of our individual ability to act as free business entrepreneurs. And as you were also reminded of this evening, the Congress is eager and willing to pass legislation to that end. No better example can be set forth than the passage by overwhelming majorities in both the House and the Senate of the onerous common situs picketing bill. Although vetoed by the president the cost in political terms was high. I believe that we, you and I, could have stopped that Bill from being passed and sent to the White House. I believe, as Jim McClary does, that we must dedicate ourselves to more aggressively participate in governmental affairs to the end that our representatives in Congress are made aware of our feelings, desires and thoughts long before a bill of this nature ever gets to the point of being voted on. In addition to our individual efforts with members of the Congress and with our other representatives in government, we should encourage our organizations, our contractor organizations, our engineering organizations, both with financial help, and more importantly with our own efforts to acquaint our representatives with the things we don't want as well as the things we do want.

I mentioned also that we as construction men live in a competitive environment. And I believe that if we analyze ourselves we all enjoy it. However, I think there is another area where there is much to be done, and that is in the area of improvement of construction contracts. There is too much rigidity in most of our construction contracts whether they be federal, state, city or local. I, for one, propose to work to the end of achieving some measure of flexibility in such contracts so that unfair, one-sidedness may be eliminated. Somehow we must bring together the owner, the engineer, and the contractor as a team, and not throw them in the ring to fight it out until someone is knocked out.

Another subject which is dear to my heart is that of innovative construction techniques and the use of new materials. I believe we must continually examine with as much objectivity as we can muster new ideas and improvements to existing ideas that permit greater use of new materials and greater exploitation of the old, pre-fabricated components in heavy construction, pre-stressed reinforced concrete, special equipment

for marine construction, jack-up rigs, use of lasers, hydraulic, high velocity mining techniques — you can go on and on. But let's receive them with an open mind and let's encourage particularly the younger men who are trying to develop these ideas into practical tools for us to use.

This unfinished business to which I referred I described in personal terms as my own objectives. But, as a matter of fact, they are the goals of the organization which I represent here tonight, Raymond International, and of my associates at Raymond. And I believe they reasonably represent the objectives of all Moles. By singling me out for your honor this evening, you have indicated that perhaps I am on the right track. And I propose to devote my energies in the future to justifying your award to me this evening. Thank you very much.

MILTON HENDRICKSON

The gentleman who will introduce our non-member Awardee is also a fellow Mole. He is presently the Vice President of the Associated General Contractors of America and he is the President and Treasurer of the Volpe Construction Company of Malden, Mass. Mr. S. Peter Volpe.

S. PETER VOLPE:

Mr. Chairman, Distinguished and Honored Guests, Members & Friends: Tonight we honor a man who has influenced the technique of soils evaluation more than anyone I know. He was born in Haidenschaft, Austria, received his Civil Engineering Degree in 1924, his Doctorate in 1933, from the Technical University, Vienna, Austria. His early years were spent on tunnel construction in the Alps and later as Research Assistant for the United States Bureau of Public Roads.

At Massachusetts Institute of Technology he worked under Dr. Karl Terzaghi on soil classification, shear testing and frost action in soils. In World War II he organized and conducted courses at Harvard University for Army Engineer officers on control of soils in military construction. He organized the first International Conference on Soils Mechanics and Foundation Engineering held at Harvard in 1936. His teaching career began at Harvard Engineering School in 1932, starting as a lecturer and progressing to full professorship in 1946. The name of the school changed to Graduate School of Engineering and subsequently his professorship was in the Division of Engineering and Applied Physics in the Graduate School of Arts & Sciences. He is presently Professor Emeritus. His work involves theoretical

NOVEMBER MEMBERS' DINNER '75



25 Year Certificates: Stanley Reich, Robert Johnston, Arnold Thurber, John P. Barnes and Richard Tower



and experimental investigations in soil mechanics, particularly seepage and ground water movement, frost action in soils, stability of dams, and problems in foundation engineering. His consulting work has carried him to Latin America, Canada, Europe, near and far eastern countries, as well as many areas of the United States. Some of the projects on which he has been consultant include the third lock and Panama Sea Level Canal studies, Logan Airport, foundations on some of the major buildings in Boston, and foundations for thermal and nuclear power plants. Presently he is a consultant on the following dam projects — now that's dam. Three large hydroelectric projects in Brazil,

including the Itaipu project on the Paranha River, a joint venture of Brazil and Paraguay with at least 13 million kilowatts power potential, several Corps of Engineer dam projects in California, the Manicouagan 3 dam in Quebec which has a record 430 feet deep double concrete wall cutoff through pervious aluminum, and the Tarbela Dam in Pakistan.

His most important influence on soil mechanics has been through his teaching at Harvard. Many of the leaders in soil mechanics were inspired while they were students of his. His honors and accomplishments are too numerous to mention in detail, but a few of the more

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prominent ones are: Member of the National Academy of Engineering, Fellow of the American Academy of Arts & Sciences, Past President of the International Society of Soils Mechanics and Foundation Engineering, Honorary Lecturer, Karl Terzaghi Lecturer in 1964, entitled "The Role of the Calculated Risk in Earthwork and Foundation Engineering", Rankine Lecturer of the Institute of Civil Engineers, Great Britain, Honorary doctorate degrees from the National University of Mexico, the Vienna Technical University, and the University of Liege in Belgium. The Research prize and the Karl Terzaghi Award from the American Society of Civil Engineers, Award of Merit from the American Institute of Consulting Engineers, Honorary Member of the National Academy of Exact Physical and Natural Sciences of Argentina. Dr. Casagrande, it is with great honor that I present you with this non-member award. It reads as follows: "*The Moles Award for outstanding achievement in construction, presented this 28th day of January, 1976, to Arthur Casagrande, in recognition of his world renowned pioneering as a scientist, teacher, author and consultant in soil mechanics and foundation engineering.*" Congratulations, Sir.

ARTHUR CASAGRANDE:

Thank you Mr. Volpe for your very kind and generous words. Mr. President, Members of the Moles and Honored Guests: I accept this great honor bestowed upon me with deep gratitude. When my wife heard what I would receive she wanted to know what I had done for The Moles to deserve such a great honor. I explained to her what this award was, for achievements in construction. Well, then she pressed further and she wanted to know what achievements in construction. That forced me to do some searching in my past and to defend myself I told her some of the things that she did not know about my past. And perhaps you would be interested in some of the things I told her.

To start with, I said, my first two jobs while I was still a civil engineering student in Vienna were working during two summer vacations in tunnels in the Alps in Austria, both hydroelectric developments with small mountain lakes dammed up and long tunnels leading to Penstocks to which the water would drop some 3,000 feet to the valley bottom. These power plants were to serve for electrification of the railroad over

which the famous Orient Express traveled.

My duties in these tunnels were keeping records of progress, geologic surveys, and at some headings they were still using hand drilling with one man holding and turning the drill rod and another man swinging a heavy hammer. The skill with which such a team worked in a restricted space of a heading, swinging the hammer to hit the drill with holes angled in different directions amazed me.

The dynamite in those days was still of the type that froze at normal underground temperatures, and in frozen state it readily exploded when merely struck with steel. Carbide lamps were our only illumination. The end of its handle, of the lamp, had a sharp steel point which I would drive into a timber whenever I had to write some notes. But at the heading I always hooked it into the end of the ventilation tube, and once my hook hit something lying inside a tube. With the open flame I examined the object I had struck with that steel point. It was frozen dynamite that a miner had placed there to be taken out later. I think that probably my heart must have skipped a few beats at that moment.

A few days later another miner tried to thaw out a bunch of dynamite sticks on the kitchen stove next to the mess hall. Fortunately, after we had finished lunch and departed. This resourceful miner and some kitchen help suddenly found themselves knocking at the pearly gates, and for some time afterwards we had to improvise our meals.

One of my jobs was to take visitors into the tunnels, usually engineers and geologists, but occasionally reporters, and once an artist who had been engaged to paint various construction scenes. He was making sketches of the drilling operations at a tunnel heading and then watched the loading of the holes — I almost said loading of the Moles at that moment — and after the miners departed, except for the man who was lighting the fuses. I could not drag my visitor away because he was so fascinated by the fuses. When the miner had lit his last fuse and beat a hasty retreat, not even bothering to shout at us to get the h... out of there, I still had difficulty in getting this courageous artist to start running. And we did not get far enough when the center holes went off and rocks whistled past us. Fortunately, there was a nice niche in the rock into which I pressed him and myself.

Another time I had a more timid soul on my hands. A well known writer,

and author. At the entrance to the adit I checked whether we had time to inspect the nearest heading before blasting, and there was time. As we walked along the adit I explained to the visitor that small trains operate on these tracks, that we will see their lights and hear them, and that we should then press ourselves against the rock because of the limited space. Just then, the rumbling of an approaching train but no lights. I squeezed him and myself against the wall just in time to let that ghost train go by. But then my visitor had lost his nerve and perhaps he had lost also his confidence in his guide and he asked me to turn back. I tried to persuade him to go on when suddenly I felt through the rock a blast wave coming. Obviously they were blasting at the far heading and the first air blast would reach us in a few moments. I quickly explained what was coming and asked him to keep his mouth wide open. And then the first air blast hit us.

Being shaken in a small diameter tunnel with blast after blast with our lights blown out is obviously an unnerving experience for a novice. There I stood in the darkness holding this man who was shaking with fear. After counting the last blast I told him that it was over, but then sure enough another blast hit us. Either I had miscounted or they did have an extra hole in that heading.

With this, with his shaking legs I barely got him out into the sunshine where he literally uttered a prayer of thanks to God for letting him live. I don't know whether he ever made use in his writing of his escape from Hell, and whether he also referred to me as the biggest liar he ever met.

A few years later, in 1926, it will be 50 years next May, I met Karl Terzaghi quite by accident at M.I.T. where I was being interviewed for an assignment in connection with the development of hydraulic laboratory. In Vienna I had specialized in hydraulics. After spending an evening together Terzaghi had sized me up and had decided that I was just the man he needed. And that was the end of my carefully-planned career as a hydraulic engineer. And the beginning of an entirely different career of which I had never dreamt. Those who molded me into my new career in addition to Terzaghi himself, were a number of men in heavy construction who taught me the practical side of foundation and earthwork engineering. The first one was Henry Moore, or Harry as his colleagues called him who was, for many years, New England manager of the Raymond Concrete Pile Company. Our long and close professional and personal friendship started in January 1932 and I

remember that day very well, and ended with his death five years ago at the age of 85, still active as consultant to his last day.

Next to Terzaghi it was Moore who opened my eyes to the realities and complexities of real foundation problems. In exchange I showed him how soil mechanics can help in his efforts. It was mutually a most rewarding relationship.

Merely listing the names of all others in the construction field to whom I owe so much would take too long. But I see one man who is looking at me and I would like to mention his name. Lyman Wilbur, with whom I was associated on a very difficult project, the design and construction of the railroad fill across Great Salt Lake. And now we are serving together on the huge Itaipu Hydroelectric Project that was mentioned.

There is one aspect of heavy construction which I have followed with the greatest of interest, first as a kind of hobby. — The development of heavy construction equipment. But keeping up with this remarkable developments became more than just a hobby. The interaction of soils and construction equipment taught me a great deal about soils which I could not learn in the laboratory. And in exchange it enabled me at times to make very good use of this knowledge in my consulting practice and in teaching.

Last but not least I would like to mention that I succeeded in one of my courses at Harvard entitled "Earthwork and Foundation Engineering" two lectures by my professional friends in the construction field whom I invited regularly, supplemented by my lectures, to teach my students about the realities of applied soil mechanics which they could not learn in conventional academic courses. Well, after my wife listened to me she said, it seems to me that you owe these men an award, not they, you — Thank you very much.

S. PETER VOLPE:

Thank you very much for your remarks, Dr. Casagrande. It is an honor to add you to the roll of Moles as an honorary member, and I am proud to be able to present to you this certificate acknowledging that fact.

ARTHUR CASAGRANDE:

And I am proud to be a Mole. Thank you.

FRANK VITOLO:

That about concludes our ceremonies for the evening, except for one very important function, which is the recep-



CHESTER S. CRAWFORD died on December 15, 1975 at Lankenau Hospital in Pennsylvania. He was 72.

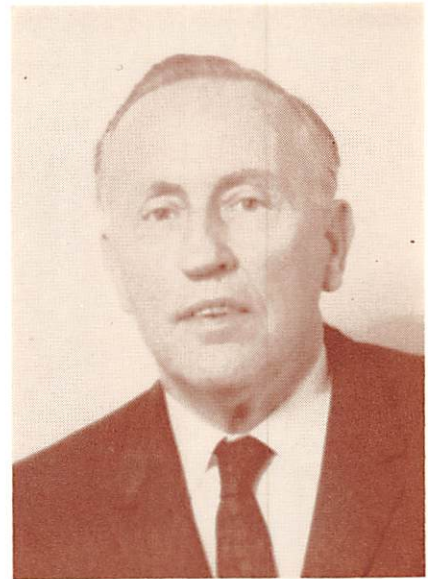
Mr. Crawford, a 1926 graduate of Pennsylvania State University spent his entire business career in the cement industry starting with Lehigh Portland Cement Company where he was elevated to Vice President.

Later he went with Whitehall Cement Manufacturing Co., Cementon, Pa., and became its President in 1955. He retired as an Officer of Whitehall in 1970. Other Board Memberships included: the Westmoreland and General Coal Cos., Philadelphia; Interstate Railroad Co. and American Meter Co.

He was a member of The Moles since 1955; and upon retirement became a member emeritus.

He is survived by his widow, Jeanne; a daughter, Mrs. Natalie Dillingham; a son, Peter D.; and three grandchildren.

tion which will be held out in the Foyer here where you can meet and greet the recipients personally. I hope you will all take advantage of this opportunity to mingle with our guests and fellow Moles in paying personal tribute to Admiral Corradi and Dr. Casagrande. I want to thank Milt Hendrickson and the entire Award Committee for an excellent job. I also would like to thank our Executive Secretary, Arline Gallagher, who has done such an excellent job in making this evening a success. I also would like to extend the personal greetings from Ralph Atwater, our Founder Member, who could not be with us this evening. Now we will conclude the evening by standing and singing together Auld Lang Syne. See you all out in the Foyer.



MYLES C. McGOUGH succumbed to a heart attack on November 23, 1975 at Ennis Hospital, County Clare, Ireland. He was 70.

Most of his business life had been spent with Merritt-Chapman & Scott Corporation.

He directed projects for that firm in virtually every type of industrial, heavy and marine construction. Too numerous to list all his accomplishments, some of the more prominent with which he was involved were: pioneer pulp and paper mills in the south and northeast regions of the United States; United States Navy and NATO bases in Crete; the Gorge High Dam on the Skagit River in the State of Washington; Priest Rapids Dam on the Columbia River in Washington; Glen Canyon Dam on the Colorado River in Arizona and Utah; the Robert Moses Power Plant at Niagara Falls, N.Y.; the Cougar Dam on the McKenzie River in Oregon and the Chesapeake Bay Bridge Tunnel at Norfolk.

Mr. McCough retired as Executive Vice President of Merritt-Chapman & Scott Corp. in 1970 and was elected a Member Emeritus of The Moles in 1971. He had received his 25 Year Certificate from The Moles in November 1973.

Mr. McCough is survived by his widow, Kay; two daughters and a son.

• ALBERT A. MATHEWS received the Golden Beaver Award for Engineering at the Twenty-First Annual Beaver Award Dinner held January 15th.



WALLACE YOUNG died February 8, 1976 at his home in Sedona, Arizona. He was 73.

He began his career in construction with the J. F. Shea Co., in California; and worked on the Baltimore Water Tunnel along with numerous other projects including a Naval Base in Puerto Rico.

During 1944 he became Manufacturers Representative for certain American manufacturing concerns, furnishing tunnel and mining equipment in South and Central America, the West Indies and Mexico. Master of the "low sell" he was successful in opening the doors for many firms in Latin America including Kennametal, ESCO, Mayo Tunnel, Commercial Shearing and Edwards Wire Rope.

Mr. Young became a member of The Moles in 1954 and upon retirement in 1972 he became a member emeritus.

He was a member of Sherwood Lodge #164 A.F. & A.M.

He is survived by his widow, Sunny; two daughters, Patricia Moffat and Jean Schalk; and six grandchildren.

• FRED J. DRISCOLL received Honorary membership in the Building Trades Employers' Association of the City of New York. Mr. Driscoll served as BTEA President from 1951 to 1953 and has been a member of the association since 1905.

Twenty Five Years Ago . . .

The April 1951 Holing Through published the highlights of the Award Dinner held in January of that year.

The member Award had gone to RAY N. SPOONER for his many accomplishments over the years. The late, Edmund A. Prentis presented the Award to him saying "*Ray Spooner — is that rare person, the distinguished son of a distinguished father. He has followed in his footsteps, too, for his father, Allen Spooner was a Columbia man graduating in 1886 and it was he who organized Allen Spooner and Sons of which Ray Spooner is now one of the leaders after he too had attended the same University.*" — "*However, Ray is not being honored because of his inheritance but because he himself has had an important career in this community. This great harbor — the greatest in the world — is studded with his accomplishments.*"

Now, let us go back a little further in the history of this "Charter Member" of The Moles. A successful New York contractor, Ray was the third President of The Moles and presided at the first Award Dinner held in 1941 when he presented the Award to the first member awardee, John S. Macdonald. During Ray's year as President, he induced many of his friends and business associates to become members of The Moles. Many of those men later served as Presidents of The Moles and/or became member recipients of The Moles' Awards. Among them were Arthur Johnson, Al Warwick, Charles Spencer, Ted Prentis, J. Rich Steers, Carl Proctor, and Tom Crimmins.

A natural leader, during the eight years that he served as a member of the Board of Trustees, he was the helmsman that guided the fledgling organization through the rough waters and over the shoals that were encountered. When The Moles' History was published on the organization's twenty-fifth anniversary, Ray Spooner's name was mentioned prominently, along with certain other dedicated early members, for the important role he played in helping The Moles attain the prominence and recognition it now holds in the Industry.

Despite his eighty-three years "young" Ray is still a valued member of the Award Committee; and when he came out to the Members' Dinner on November 5th last, he received a standing ovation from his fellow-moles. Ray became a member emeritus when his firm liquidated their assets back in 1970. He lives in Cresco, Pennsylvania and on the rare occasions when he comes out to The Moles' gatherings everyone is pleased to have him in their midst.

JAMES A. MacALARNEY died on September 11, 1975. He was 71.

Mr. MacAlarney became a member of The Moles in 1958. At that time he was Director of Plant Engineering with the Ford Motor Company. His background dating from 1925 indicates construction of railroads, refining plants, rock fill dams, and flood control work. During 1942 he joined the Corps of Engineers, U.S.A., and was in charge of various military construction projects until 1946. He was Construction Manager for the F. H. McGraw Company in Hartford, Connecticut for several years until joining the Ford Motor Company where he supervised the Engineering and Construction of that company's plants and facilities. Mr. MacAlarney was elected a member emeritus of The Moles in 1967.

• We are pleased to report that two of the programs which are sponsored by The Moles through their Education Committee activities are working out well for Student Engineers and Mole members both. Through the Employment and Student Awards programs, several students have located permanently in the construction industry. Ken Lebeck and Tom Saczynski both from Polytechnic Institute of New York received the Awards in 1973 and 1975 respectively. Ken is working on a permanent basis for Slattery Associates and Tom is working for Walsh Construction Company. David Beckhardt a 1976 recipient from Union College worked summers for Walsh and has accepted permanent employment with them when he graduates this June.

STUDENTS' DAY

The annual Students' Day sponsored by The Moles was held on Friday, April 9th.

Co-ordinator of the tour, of New York City Transit Authority subway projects under construction, for The Moles' Education Committee, was Mole member Eugene F. Casey, Administrative Project Coordinator for the T.A.'s Engineering Department.

The adventure began as Student Engineers from nineteen eastern engineering colleges convened at 58th Street off Sixth Avenue in Manhattan; stepped into the emergency opening there and descended to the underground power sub-station. Waivers were signed; hard hats, students kits containing itinerary, fact sheets, a description of the tour, and coffee and donuts were distributed.

Gene Casey gave a brief slide presentation pointing out the different construction methods they would encounter on the work they would see during the day.

Leaving the sub-station they journeyed through sections of subway construction in the area of 58th to 63rd Streets between 5th and 7th Avenues. Coming topside, they boarded busses and were taken to Boulevard Manor where a hot lunch was served and student engineers were able to discuss the various projects and construction techniques with their tour guides.

A highlight of the luncheon was the brief address given by Mole member, John T. O'Neill, Executive Officer and Chief Engineer of the Transit Authority.

Back on the busses after lunch the tour continued to the two cut and cover subway projects under construction in Queens; one using the slurry wall type of construction and the other using the soldier beam and lagging system of ground support.

The collage on page 16 will do more to describe this exciting, informative day than anything this writer could say.

Chairman of The Moles' Education Committee, Herbert Wasserman extends his thanks to all who did so much to make this one of the most memorable tours ever. Contractors and their key personnel, Transit Authority personnel,

EDUCATION ACTIVITIES

One of the services The Moles' Education Committee provides to the engineering colleges affiliated with The Moles Education program is to provide speakers on a construction topic for their meetings as requested. Over this past year we have been busy filling these requests.

MEL FEBESH gave a talk on "underpinning, tie-backs, sheeting and bracing" to about 60 students at an ASCE Student Chapter Meeting at New Jersey Institute of Technology in Newark, N. J. in October. On February 3rd, ED PLOTKIN spoke on tunneling construction for another group there. STAN MERJAN gave a talk on construction of pile foundations at Lehigh University on March 18th; and photographer, MARTY OSTERGAARD was asked by a delegation from Rutgers University to show slides on some of the various construction work he has photographed. Marty was able to share with them some of his experiences on construction projects along with explaining the work in progress in his photos for an enjoyable and instructive evening. Early this year, GENE CASEY spoke to a group at Columbia on tunneling construction.

As we go to press, we have just finished arranging the details for BILL FINNERAN to speak to Lehigh University Chapter of Chi Epsilon fraternity at their initiation banquet on April 29th and SAL DESIMONE is going to Union College in Schenectady on May 6th.

On behalf of all Moles we want to thank these people for taking time out of their busy schedules to give young engineers a better insight on construction and the type of people in the industry.

Mole members and others. Too numerous to list by name all who participated but a special thanks to Mel Febesh, John Chow, Gerry Carty, Bob Winters and Bill Goodman for the extra effort they put forth; and to other Mole members who served as tour guides, Bob Brungaber, Rube Samuels, John Donargo, Lou Coakley, Bill Collins and Bob White; and especially to Eugene F. Casey who coordinated the entire day.

The contractors who are responsible for the construction of the jobs visited on Students' Day are: Central Park Constructors (a joint venture of Horn Construction Co., Inc., MacLean-Grove & Co., Inc., Grove Shepherd Wilson & Kruge, Inc., and Skanska U.S.A. Inc.); GMG Constructors (a joint venture of MacLean-Grove & Co., Inc., Grove Shepherd Wilson & Kruge and Grow Tunneling Corp.); Edward B. Fitzpatrick, Jr., Associates and Schiavone Construction Co. (a joint venture); and Horn Construction Co., Inc., and Peter Kiewit Sons' Inc. (a joint venture).

Above all — our thanks to those contractors who contributed the hard hats which were such an important part of the day.

Dates to Remember

May 5, 1976 — Annual Business Meeting and Dinner — The New York Hilton Hotel.

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August 12, 1976 — Annual Clambake — Colonie Hills, Hauppauge, Long Island.

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November 3, 1976 — Fall Members' Dinner — The New York Hilton Hotel.

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January 26, 1977 — Annual Award Dinner — The New York Hilton Hotel.

