

SUMMARY OF THE PROCEEDINGS OF THE SEVENTH
ANNUAL CONVENTION.

MONDAY, DECEMBER 12, 1910, 3.00 P. M.

Meeting of Section on Roadways, Sidewalks and Floors.

President Humphrey in the Chair.

This meeting was devoted to a general discussion covering the preparation of materials, laying, finishing, prevention of dusting and costs.

FIRST SESSION—MONDAY, DECEMBER 12, 1910, 8.00 P. M.

The Convention was called to order by President Richard L. Humphrey.

The President announced that the Oesterreichischer Beton Verein had sent two delegates to present the felicitations of that Society and presented a cablegram received from the Deutscher Beton Verein extending cordial greetings and best wishes for the success of the Convention; also a cable from the Swiss Association for Testing Materials and a letter from the Concrete Institute of England transmitting greetings.

Mr. George McAneny, President of the Borough of Manhattan, delivered an address of welcome to the City of New York on behalf of the Mayor, the Honorable William J. Gaynor, as follows:

Mr. George McAneny:

Mr. President and Gentlemen: I am very fortunate in being permitted, in the absence of the Mayor, to receive you on behalf of the City of New York. You are, I imagine, an advance guard of many hundreds who are coming here to discuss your own plans, your own work and the wonderful developments that are gradually taking form in our age of concrete.

To the City of New York itself, to its people and to its own fraternities of engineers, contractors and others of your craft, your coming is a matter of signal importance. It means that your products

are to be brought right to our doors; that opportunity is to be given to listen to what you have to say; and that we are also to have the opportunity to witness in physical demonstration the actual development of the age of concrete, and the wonderful and multifarious uses to which your arts have been applied with wonderful results.

To those of us who are in the city service and who have certain problems within our care, certain responsibilities connected with the solution of these problems, this appeals particularly. I feel my own opportunity to come here to this opening session the more, because it so happens that in the peculiar form of government of this town, while the Mayor is Mayor of all the people and has the great centralized departments under his control, the wise or unwise dispensation of the Charter, making providence some time ago, gave over to the Borough Presidents, the Presidents of the five boroughs into which the city is divided, the care of all the public works, that is, the streets, the highways, the sewers and everything that lies either upon or under them; the control of private building operations, the custody of the public buildings, responsibility for their design, to a large degree, and for their construction and maintenance. Roughly speaking, everything that one sees out of doors in New York, is in the care of the Borough Presidents. Under their supervision comes a corps of engineers, architects and others who have to do directly with these things. Your problems are brought very closely home to this branch of the administration of the City of New York.

I rejoice to see that the Superintendent of Buildings in my own Borough, my own appointee, for whose discovery and selection I take a great amount, I think a pardonable amount of pride, Rudolph P. Miller, is a Sectional Vice-President and Chairman of one of your Committees. In our Highway Department, George W. Tillson, who I think it will be conceded is among the first of those who have given their lives to engineering and highway problems, will be my delegate to your conference, and the city at large will send Nelson P. Lewis, Chief Engineer of the Board of Estimate and Apportionment.

Gentlemen, I doubt whether a large proportion of the people of this or any other town realize to what a great degree their future, that is, the future of the cities in which they live, is dependent upon the things that are entrusted to your care, the things that you have taken over. I doubt whether very many have followed the wonderful progress which has been made in this branch of engineering, or at least the branches of engineering, that teach the magic uses of cement. I confidently look towards that time when you will deftly turn out in two or three days, not merely modern houses built for our occupancy, but most of the ordinary things that we find within those houses. I trust that you will stop at our daily food. I presume that may be a reasonable limit to place upon the progress I see before me.

In the upbuilding of the cities your part is going to be a greater

and greater one. Is there any line of public work in which you do not enter and in which you do not hold a controlling part? If there is, I have not yet found or observed it. You are brought inevitably into the lives of the cities themselves. You are the builders. Yours is your own responsibility; yours will be the greater satisfaction of the future.

When I think, for instance, of the wonderful thing that New York has grown to be, of this aggregation of nigh on towards six millions of people within our own geographical limits and within the limits of the two New Jersey counties that belong to the great metropolitan district—when I think of the work that still lies ahead in making this city what it must be in the future, I realize that we have been too careless in permitting it to grow up with so little regard for engineering plan. I hope to see, in the near future, the time when the City of New York will have the service of the greatest minds that it can bring to the task of the working out of a city plan that looks far, far ahead, that takes those territories that now lie undeveloped or practically so, but where the statisticians and seers tell us in due time the center of the city will lie, and turns them into the city of the future, that will embrace our subways, our boulevards and parks, our public buildings and every item of our commercial development, with a long look towards the future.

Over in Paris, when a new avenue is opened up to-day, though some old, and so far as a greater part of the city is concerned, very possibly some forgotten slum, when something new of any sort goes on the map of Paris, in all likelihood it was conceived years ago. The plan of Baron Haussman, unchanged to-day, is still working out as it were. In our own Washington they are even to-day working out the plan of streets and boulevards and grouping of public buildings as conceived in the mind of Major L'Enfant more than a hundred years ago. And still New York has no plan; still New York grows very largely by chance. I dare say it is true of almost every city of the country. When we do take up the upbuilding of a greater and finer city, the imperial New York of the future, as we proceed through all that work, in whatever direction we turn, you will find us depending upon you, upon the arts and the crafts of the profession you represent. Upon your brains and your vigor and that of men like yourselves must depend in great measure, in short, the physical future of the cities of America.

And, Gentlemen, let me again congratulate our town upon your presence here, because you are bound to do us good. Let me wish you in the name of the City a thoroughly successful conference. May you find us as agreeable as you have ever hoped to find us. The City is yours; do with it as you like. You haven't time now to rebuild it, but in the course of the next week or ten days at least take from it all the enjoyment it can give you and believe that you are more than doubly welcome.

President Humphrey responded to this welcome:

I am sure of voicing the will of the Association in thanking Mr. McAney for the cordial welcome he has extended to the City of New York and for the inspiring picture he has painted of our future work. We hope that our conference here will prove beneficial and that we may profit by the many fine examples of concrete work being executed and that we may in turn give to those who help to make this convention a success, information that will repay them for their efforts. In coming to this City the Association is actually the gainer as it will enable it to grow. In New York City there have been so many big things done in concrete and reinforced concrete, the inspection of which has been arranged by our Committee on Excursion and it is hoped that as many members as possible will find time to make the inspection of the work to which we have been so cordially invited.

The Association is very fortunate in having as one of its speakers a man who stands as a type of the eminent engineers of this country, a man who has done big things and of whom still bigger things are expected. It is with great pleasure that I introduce to you Mr. John A. Bensel, President of the American Society of Civil Engineers and New York State Engineer Elect, who will address you on behalf of the engineering interests of the City.

Mr. John A. Bensel:

Mr. President and Gentlemen: A convention like yours brings to one forcibly the great strides that are made in engineering lines, particularly in your case in the adaptation of concrete and cement to the uses and the purposes of mankind. When I first began to take an interest in things engineering all of the important harbor work, in which I was engaged at that time in this City, was fabricated, so far as the structure was concerned, from imported cement; and it was only in a comparatively—in one sense—recent time, about twenty years ago, that we found people calculating on the importation of volcanic rock and even a further adulteration by grinding with a good brand of cement a certain proportion of sand to bring the cement to a reasonable price so it could be used.

All of this is not a thing of the very remote past, but within a period of between twenty and twenty-five years ago. It may be on account of the great advance you have made, irrespective of the years, that you may have a certain amount of satisfaction in what has been accomplished, and think that you may have a certain venerable distinction. Here, however, it might be well for you to remember the saying that to consider well the proportion of things and resolve that, "It is better to be a young June bug than an old bird of paradise." I used to be able to best realize the strides of recent years in engineering

affairs, by meeting my old friend Charles Haswell, and thinking of the things he had seen in his practice. Now that he is gone there would seem to be nothing better to show the advancement made than to consider cement in its adaptation to the world's uses, as showing how fast the world is moving.

The President:

Mr. Bensel has offered new views on a subject which is of greatest interest to us all and I feel sure that we will carefully consider the suggestions made. On behalf of the members I wish to express their appreciation and thanks to Mr. Bensel.

The Address of Welcome on behalf of the Building Trades of New York will be made by Mr. Ross F. Tucker in the absence, through illness, of Mr. Benjamin D. Traitel, President of the Building Trades Employers' Association, and I take great pleasure in introducing to you Mr. Ross F. Tucker.

Mr. Ross F. Tucker:

Mr. President and Gentlemen: It is my very pleasant mission to extend to you the greetings of the Building Trade Employers' Association; and while I deeply regret that Mr. Traitel is unable to be present and while he undoubtedly would speak to you much more gracefully, I am sure he could not do so more sincerely.

My identification with the cement industry has extended over a long period. I have seen the growth, during my active career, of the production of American Portland cement from 800,000 to more than 70,000,000 barrels a year. I have seen cement adapted to almost every engineering and architectural problem. But a new application arises in my mind to-night and that is, to cement the friendship between the National Association of Cement Users and the Building Trades Employers' Association.

A few words as to what the Association is may not be amiss. It consists of some eleven hundred firms or corporations in the City of New York, representing an invested capital perhaps of \$20,000,000, banded together in thirty-three trade associations, of which The Masters' League of Cement Workers is one, with the purpose primarily of regulating labor conditions. It has nothing whatever to do with prices or restrictions of trade or the commercial side of buildings, but it has a great deal to do with maintaining industrial peace, and which problem has been very largely worked out by the Building Trades Employers' Association through a plan of arbitration that went into existence in 1903 and is to-day in use. Through that plan of arbitration I presume 90 per cent. of all the controversies arising between employers and employed are settled, so that the Association stands

before the community with a practical guarantee that you can pull down a building say on the corner of Broadway and Twenty-sixth Street on the first day of May and have a 20-story skyscraper there on the first day of the next May without interference from trade unions. It takes the stand that the men have all the rights of organization that the employers have, but it denies the proposition that "might makes right." It maintains that where a proper or a just controversy arises between employer and employed there is no issue that reasonable, sensible, quiet-minded men cannot settle across a table without resort to strikes, intimidation or force.

That is the general purpose of the Building Trades Employers' Association, and it has done a great work for the building industry in this city and for the public at large. We have quarters on Thirty-second Street, known as the Builders' Exchange. On the second floor is an exhibition room of building materials of various kinds and their many applications. Some time ago the Association offered to architects prizes for the design of a \$2,500 and a \$4,500 house in competition, and a large number of drawings were sent in; they are now on exhibition and are presently to be judged by a committee of well-known architects in this city.

On the top floor, the twelfth, are the Association rooms, and it is my pleasant privilege on behalf of the Association to extend to you the courtesies of the Building Trades Employers' Association and to ask you to please go there and make yourselves at home. The club is open at all times and the members will be very glad to see the members of the National Association of Cement Users at any time they please to come.

The President then responded:

I am quite sure the members will accept the hospitality that has been extended by Mr. Tucker and the invitation to become better acquainted with the organization he represents. I hope as many of you as possible will avail yourselves of the facilities offered. On behalf of the Association, therefore, I desire to thank Mr. Tucker in appearing here to-night to extend greetings on behalf of the building interests of the City.

The Official Delegates and foreign guests were formally presented to the officers and members of the Association.

The President announced the appointment of the following committees by the Executive Board:

Committee on Nomination of Officers:

Thomas M. Vinton, *Chairman*, New York, N. Y.
Robert Anderson, Cincinnati, Ohio.

A. T. Bradley, Rochester, N. Y.
Robert A. Cummings, Pittsburgh, Pa.
Emile G. Perrot, Philadelphia, Pa.

Committee on Resolutions:

B. F. Affleck, *Chairman*, Chicago, Ill.
Peter Gillespie, Toronto, Canada.
A. L. Johnson, St. Louis, Mo.
Angus B. MacMillan, Boston, Mass.
Milton Dana Morrill, Washington, D. C.

The following papers were read and discussed:

"Dustless Concrete Floors," L. C. Wason.

"Some New Methods in Sidewalk and Curb and Gutter
Construction," Jerome B. Landfield.

The report of the Committee on Roadways, Sidewalks and
Floors, C. W. Boynton, Chairman, was then presented.

The meeting adjourned until Tuesday at 10.30 A. M.

TUESDAY, DECEMBER 13, 1910, 9.00 A. M.

Meeting of the Section on Concrete and Reinforced Concrete.

President Humphrey opened the meeting and turned the
Chair over to A. E. Lindau, Chairman of the Committee on Re-
inforced Concrete and Building Laws.

The meeting took the form of a general discussion on Design,
Methods of Construction, Selection of Materials, Costs, etc.

SECOND SESSION—TUESDAY, DECEMBER 13, 1910, 10.30 A. M.

President Humphrey in the Chair.

The following papers were presented and discussed:

"A Test of a Flat Slab Floor in a Reinforced Concrete
Building," Arthur R. Lord.

"A Discussion of the Basis of Design for Reinforced
Concrete Floor Slabs," Arthur R. Lord.

The meeting adjourned until 3.00 P. M.

THIRD SESSION—TUESDAY, DECEMBER 13, 1910, 3.00 P. M.

President Humphrey in the Chair.

A paper by Emile G. Perrot on "Analysis of Results of Load Tests on Panels of Reinforced Concrete Buildings" was, in the absence of the author, read by W. A. Ballinger. This was followed by a discussion.

In the absence of the author, the paper on "The Calculation of Reinforced Concrete Plates Supported by Four Columns," by L. J. Mensch, was read by title.

Robert A. Cummings presented a paper on "Some Methods of Measurement of Concrete Construction."

The report of the Committee on Reinforced Concrete and Building Laws was presented by the Chairman, Alfred E. Lindau.

The following papers presented by the Hungarian Society of Architects and Engineers were read by title as their translation had not been completed:

"Regulations Relative to Design and Construction in Reinforced Concrete."

"Resolutions Relative to the Uniform Designation of the Binding Materials used in the Preparation of Concrete and other Resolutions Governing the Uniform Transportation and Examination of Cements."

A paper on "The Human Element in Concrete Construction," by Harry F. Porter, was, in the absence of the author, read by title.

The meeting adjourned until 8.00 P. M.

FOURTH SESSION—TUESDAY, DECEMBER 13, 1910, 8.00 P. M.

President Richard L. Humphrey in the Chair.

Richard L. Humphrey presented the Annual Address of the President on "Some Fallacies in Methods of Fireproofing."

An address on "The National Fire Protection Association and Its Work" was then presented by Wm. H. Merrill.

The following papers were read and discussed:

"Some Thermal Properties of Concrete," Charles L. Norton.

"Some Special Uses of Concrete in Mining," George S. Rice.

The meeting adjourned until Wednesday at 10.30 A. M.

WEDNESDAY, DECEMBER 14, 1910, 9.00 A. M.

Meeting of the Sections on Fireproofing and on Insurance.

President Richard L. Humphrey opened the meeting and called William H. Ham, Sectional Vice-President, to the Chair.

The meeting took the form of a general discussion on the construction of reinforced concrete buildings from an insurance point of view and the effect on insurance rates.

FIFTH SESSION—WEDNESDAY, DECEMBER 14, 1910, 10.30 A. M.

President Richard L. Humphrey in the Chair.

In the absence of the author, James MacDonald, the paper on "Moving Forms for Reinforced Concrete Storage Bins" was read by title.

The following papers were read and discussed:

"Construction Problems in Concrete Bridges," W. N. Denman.

"The Effect of Electrolysis on Metal Imbedded in Concrete," Cloyd M. Chapman.

In the absence of the chairman, R. P. Miller, the report of the Committee on Fireproofing was read by title.

The report of the Committee on Insurance was then presented by the Chairman, William H. Ham. The Committee offered the following resolution, which was unanimously approved:

WHEREAS, The Standards of this Association include specifications for forms of concrete construction which if followed will improve the state of this art, reduce the loss of life and property by fire and generally improve the Standards of Building Construction in America; be it

Resolved, That these facts and these Standard Specifications referred to be called to the attention of the State and Municipal Building Departments and the various organizations of Fire Underwriters in the United States, accompanied with a request that these Standards receive recognition in existing laws and in schedules for estimating insurance rates.

On motion, a vote of thanks was extended to the Committee on Insurance for its services.

Mr. Raymond E. Brooks, Secretary of the Concrete Products Manufacturers' Association of New Jersey, presented a brief statement of the aims and purposes of that organization.

Business Session.—The report of the Executive Board and the minutes of the meetings of the Board were approved as read. A resolution presented by the Board was referred to the Committee on Resolutions.

The Executive Board presented the following amendment to the By-Laws, which was approved and ordered to letter ballot:

Amend Article I, Section 4, so that the second sentence reads as follows:

The Secretary shall submit monthly, or oftener if necessary, to each member of the Executive Board for letter ballot a list of all applicants for membership on hand at that time with a statement of their qualifications, and a two-thirds majority of the members of the Executive Board shall be necessary to an election.

Amend Article I, Section 4, by adding the following paragraph:

Applicants for membership shall be qualified upon notification of election by the Secretary by the payment of the annual dues, and unless these dues are paid within 60 days thereafter the election shall become void. An extract of the By-Laws relating to dues shall accompany the notice of election.

On motion, the appointment of a Committee on Specifications and Methods of Test for Concrete Materials was referred to the Executive Board.

The Committee on Nomination of Officers, Thomas M. Vinton, Chairman, reported as follows:

- President*, Richard L. Humphrey, Philadelphia, Pa.
First Vice-President, Edward D. Boyer, Catasauqua, Pa.
Second Vice-President, Arthur N. Talbot, Urbana, Ill.
Third Vice-President, E. S. Larned, Boston, Mass.
Fourth Vice-President, Ira H. Woolson, New York, N. Y.

On motion, duly seconded, the report of the Committee was accepted and the nominees declared elected.

On motion, the following resolution was unanimously adopted:

Resolved, That the Association extend to M. S. Daniels a vote of thanks as a small token of appreciation and recognition of his able and faithful services as Second Vice-President for the long term of six years.

The meeting adjourned until 8.00 P. M.

SIXTH SESSION—WEDNESDAY, DECEMBER 14, 1910, 8.00 P. M.

President Richard L. Humphrey in the Chair.

A paper on "Problems Encountered in the Construction of the Aziscohos Storage Dam" was presented by Seth A. Moulton.

The following paper was read:

"The Preparation and Handling of Concrete," H. M. Cryder.

"The Spouting of Concrete," by F. E. Engstrum, read by title in the absence of the author.

George L. Prentiss then presented a paper on "The Use of Compressed Air in the Handling of Mortar and Concrete," followed by a demonstration.

The meeting adjourned until Thursday, 10.30 A. M.

THURSDAY, DECEMBER 15, 1910, 9.00 A. M.

Meeting of the Section on Specifications for Cement Products.

President Richard L. Humphrey opened the meeting and called C. K. Arp, member of the Committee on Specifications for Cement Products, to the Chair.

Discussion on the manufacturing, curing, cost and other matters pertaining to Cement Products.

SEVENTH SESSION—THURSDAY, DECEMBER 15, 1910, 10.30 A. M.

President Richard L. Humphrey in the Chair.

Charles D. Watson presented a paper on "General Considerations in the Construction of a Cement Products Plant" which was followed by discussion.

The following papers were presented and discussed:

"An Incident of the Value of Concrete in Reducing the Cost of Insurance," Emile G. Perrot.

"Cement Tile Plant—Layout and Operation," C. M. Powell.

The report of the Committee on Specifications for Cement Products was presented by C. K. Arp, embodying:

(a) Proposed Standard Specifications for Architectural Concrete Blocks.

(b) Proposed Standard Specifications for Plain Concrete Drain Tile.

After discussion the proposed Specifications were referred back to the Committee for revision and presentation at the next Convention.

F. S. Phipps then presented a paper on "Additional Notes on Steam Curing Plants."

The meeting adjourned until Friday at 10.30 A. M.

THURSDAY, DECEMBER 15, 1910, 8.00 P. M.

The first Banquet of the Association was held at the Hotel Astor, about 400 members and guests being in attendance.

The President, Richard L. Humphrey, opened the Banquet with appropriate remarks, introducing the Toastmaster, Robert W. Lesley.

The following toasts were responded to:

"New York City and Concrete," John Purroy Mitchell.

"International Technical Co-Operation," Karl Bittner.

"Concrete and the Better Housing of the Poor," Robert W. DeForrest.

"The Architect and Concrete," John M. Carrere.

"The Building Interests of the City," Benjamin D. Traitel.

"A Concrete Talk," Charles Battell Loomis.

"Address," John R. Morron.

FRIDAY, DECEMBER 16, 1910, 9.00 A. M.

Meeting of the Section on Treatment of Concrete Surfaces. President Richard L. Humphrey opened the meeting and called upon H. H. Quimby, member of the Committee on Treatment of Concrete Surfaces, to preside in the absence of the Chairman.

The meeting took the form of a topical discussion on the artistic treatment of concrete surfaces.

EIGHTH SESSION—FRIDAY, DECEMBER 16, 1910, 10.30 A. M.

President Richard L. Humphrey in the Chair.

In the absence of the author, Peter Gillespie, the paper on "Notes on Web Reinforcement" was read by title.

The paper on "The Web Reinforcement of Concrete Beams," by John Stephen Sewell, was, in the absence of the author, read by the President.

The following papers were read and discussed:

"Comparative Cost and Maintenance of Various Types of Building Construction," J. P. H. Perry.

"Concrete Filled Steel Arches," H. H. Quimby.

In the absence of the author, the paper on "Reinforced Concrete Sewers," by J. A. Hooke, was read by title.

The meeting adjourned until 3.00 P. M.

NINTH SESSION—FRIDAY, DECEMBER 16, 1910, 3.00 P. M.

President Richard L. Humphrey in the Chair.

L. C. Wason, Chairman, presented the report of the Committee on "Treatment of Concrete Surfaces," embodying the following:

- (a) Proposed Specifications for Portland Cement Stucco.
- (b) Proposed Specifications for Scrubbed Concrete Surfaces.

The report on Treatment of Concrete Surfaces was accepted as read.

The Proposed Specifications for Cement Stucco were referred back to the Committee for revision and with instructions to report at the next Convention a specification covering all forms of Stucco.

The proposed Specification for Scrubbed Concrete Surface was ordered to letter ballot.

On motion, the question of the appointment of a committee on Nomenclature was referred to the Executive Board.

The meeting adjourned until 8.00 P. M.

TENTH SESSION—FRIDAY, DECEMBER 16, 1910, 8.00 P. M.

President Richard L. Humphrey in the Chair.

A paper on "The Henry Hudson Memorial Bridge" was presented by William H. Burr.

In the absence of the author, a paper on "Concrete Construction; Testimony of the Roman Forum and Some Modern Examples," by Alfred Hopkins, was read by title.

The following papers were read:

"The Use of Reinforced Concrete for Hospitals and Similar Structures," R. A. McColloch.

"Reinforced Concrete School Buildings," John T. Simpson.

The meeting adjourned until Saturday at 9.00 A. M.

ELEVENTH SESSION—SATURDAY, DECEMBER 17, 1910, 9.00 A. M.

President Richard L. Humphrey in the Chair.

In the absence of the author, the paper on "Tufa Concrete," by Joseph B. Lippincott, was read by the President.

An abstract of the "Specifications for the Delivery and Testing of Trass," presented by the Hungarian Society of Architects and Engineers, was read by the President.

A paper on "The Taylor Concrete Coal Breaker" was read by R. D. Richardson.

The following papers were read and discussed:

"The Use of Reinforced Concrete in Sea Water,"
R. Baffrey.

"The Relation of Lime Content of Cement to the Durability of Concrete," Henry S. Spackman.

"Waterproofing with Water," Cloyd M. Chapman.

In the absence of the author, a paper on "The Insulation of Concrete Structures" by Edward W. DeKnight was read by title.

A. H. Harrison presented a paper on "The Waterproofing of Tunnels."

The Committee on Resolutions, B. F. Affleck, Chairman, then reported as follows:

WHEREAS, The Oesterreichischer Beton Verein, of Austria, has shown its interest in the work and has honored this Association by sending two official delegates to the Seventh Annual Convention in order that there may be closer affiliation and international co-operation, be it

Resolved, That the thanks and appreciation of this Association be recorded and tendered to the Oesterreichischer Beton Verein for its interest in the work, and to the delegates, Mr. Karl Bittner and Mr. Franz Boehm, for the time and attention they have devoted to this convention.

BE IT RESOLVED, That the thanks of the Association be extended to the members of the Oesterreichischer Beton Verein, of the Deutscher Beton Verein (E.V.) and the Hennebique Construction Company for their courtesy in sending photographs illustrative of foreign concrete construction in response to the invitation extended by this Association.

RESOLVED, That the thanks of this Association be tendered hereby to all the officers of the organization, and that this Association acknowledge its debt of gratitude especially to its President, Mr. Richard L. Humphrey, for his untiring efforts and faithful work which have to so great an extent placed this Association to-day on a higher plane of usefulness, and with a larger and better membership than ever before attained.

WHEREAS, The work of this Association and the field of its activities has been greatly enlarged during the past year by dues from contributing members, and by donations from individuals and corporations interested in the work, therefore, be it

Resolved, That the Association hereby express its thanks to those who have thus generously aided in the work, and that the Secretary be directed to send a copy of this resolution with a personal letter to

each contributing member, and to each individual firm or corporation from whom donations have been received.

RESOLVED, That reports and specifications adopted by this body be brought to the attention and formally laid before city councils when considering building codes, school boards and commissioners of public buildings everywhere.

WHEREAS, The Standards of this Association include specifications for forms of concrete construction, which, if followed, will improve the state of this art, reduce loss of life and property by fire, and generally improve the standard of building construction in America, be it

Resolved, That these facts and these standard specifications referred to be called to the attention of State and Municipal Building Departments, and the various organizations of fire underwriters in the United States and Canada, with the request that these standards receive recognition in existing laws and in schedules for estimating insurance rates.

RESOLVED, That the thanks of this Association be hereby extended to the members and others who have aided, by the preparation and presentation of papers, the members and the local sectional committees, and to the technical and trade press for co-operation and assistance in furthering the interests of this Association.

On motion, the resolutions were unanimously adopted.

The President then declared the Convention adjourned *sine die*.

SATURDAY, DECEMBER 17, 1910, 8.00 P. M.

President Richard L. Humphrey in the Chair.

The Honorable Martin B. Madden delivered an illustrated address on "The Construction of the Panama Canal."

OFFICIAL DELEGATES,
SEVENTH ANNUAL CONVENTION.

FOREIGN REPRESENTATIVES

OESTERREICHISCHER BETONVEREIN.

KARL BITTNER, Director, Vienna, Austria.

FRANZ BOEHM, Engineer, Vienna, Austria.

M. BANNETH, Special Representative of the Lord Mayor, Budapest, Hungary.

SOCIÉTÉ DES INGENIEURS CIVILS DE FRANCE

JOSEPH BOERO, Neuilly, Seine, France.

UNITED STATES GOVERNMENT.

DEPARTMENT OF AGRICULTURE.

Office of Public Roads.

LOGAN WALLER PAGE, Director, Washington, D. C.

DEPARTMENT OF THE INTERIOR.

Bureau of Mines.

GEORGE S. RICE, Mining Engineer,
Pittsburgh, Pa.

Reclamation Service,

FREDERICK H. NEWELL, Director,
Washington, D. C.

DEPARTMENT OF THE NAVY.

Bureau of Yards and Docks,

LIEUT. FREDERIC R. HARRIS, Brooklyn, N. Y.

DEPARTMENT OF THE TREASURY.

Office of Supervising Architect,

ALFRED B. FRY, Superintendent of Repairs, New York, N. Y.

DEPARTMENT OF WAR.

<i>Corps of Engineers,</i>	<i>Isthmian Canal.</i>
COL. S. W. ROESSLER, U. S. A., New York, N. Y.	CAPT. F. C. BOGGS, U. S. A., General Purchasing Officer, Washington, D. C.
COL. WILLIAM M. BLACK, U. S. A., New York, N. Y.	

STATES.

SOUTH DAKOTA.

SAMUEL H. LEA, State Engineer, Pierre, South Dakota.

MUNICIPALITIES.

DISTRICT OF COLUMBIA.

MAJOR W. V. JUDSON, U. S. A., Engineer Commissioner.

NEW YORK.

City at Large,

NELSON P. LEWIS, Chief Engineer, Board of Estimates and Apportionment.

<i>Borough of Bronx.</i>	<i>Borough of Brooklyn.</i>
AMOS SCHAEFFER, Consulting Engineer.	R. WALTER CREUZBAUR, Consulting Engineer.
<i>Borough of Manhattan.</i>	<i>Borough of Richmond.</i>
GEORGE W. TILLSON, Chief Engineer, in Charge of Highways.	LOUIS L. TRIBUS, Commissioner Public Works.

PHILADELPHIA.

GEORGE S. WEBSTER, Chief Engineer, Bureau of Surveys.
HENRY H. QUIMBY, Assistant Engineer of Bridges.

BOSTON.

L. K. ROURKE, Superintendent of Streets.

ST. LOUIS.

J. A. HOOKE, Assistant Sewer Commissioner.

BALTIMORE.

EDWARD D. PRESTON, Inspector of Buildings.

PITTSBURGH.

N. S. SPRAGUE, Superintendent, Bureau of Construction.

CAMDEN.

L. F. FARNHAM, City Engineer.
ALFRED SAYERS, Commissioner of Streets and Highways.

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SEVENTH ANNUAL CONVENTION

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J. P. H. PERRY, *Secretary*

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EXHIBIT OF PHOTOGRAPHS ILLUSTRATING FOREIGN CONCRETE CONSTRUCTION.

The Association extended an invitation to foreign concrete organizations to exhibit at the Seventh Annual Convention, photographs and drawings illustrative of representative work of their members. An exceedingly interesting and instructive exhibition of over 1,000 photographs and drawings was effected, the contributors being as follows:

AUSTRIA.

Oesterreichischer Betonverein.

Ast & Company, Ed., Wien.
Faccanoni, Luigi, Wien.
Gaertner, E., Wien.
Marinelli & Faccanoni, Wien.
Pittel, Adolf Baron, Wien.
Pittel & Brausewetter, Wien.
Rella & Neffe, N., Wien.
Wayss & Cie, G. A., Wien.
Wayss, Westerman & Cie, Wien.

FRANCE.

Hennebique Construction Company, Paris.

GERMANY.

Deutscher Betonverein.

Drenkhahn & Sudhop, Braunschweig.
Dücker & Cie, Düsseldorf.
Dyckerhoff & Widman, Dresden.
Hüser & Cie, Oberkassel.
Liebolt & Cie, Holzminden.
Rank, Gebr., München.
Weinrich & Reinken, Kiel.
Windschild & Langehott, Dresden.
Wolle, Rud., Leipzig.