W. H. Ham, Youngstown, Ohio. This, then, are the officers as they were elected.

REPORT ON SIDEWALKS AND FLOORS.

An unusually large attendance of delegates was on hand to hear the report of George L. Stanley, chairman of the committee on streets, sidewalks and floors. Mr. Stanley spoke as follows:

Mr. President and Gentlemen: In preparing specifications for sidewalks for adoption by our association it has been the aim of your committee to bring before you such specifications as when followed will result in good and serviceable walks.

In the United States there is such diversity of materials for the principal aggregates that it would seem almost impossible to specify the amount of cement and have a uniform strength, unless the amount of cement specified varied. If it was only choosing a suitable brand of cement there would be but little difficulty, as most of our cement mills make only high-grade quality of cement.

Both sand and gravel are often of a poor quality, and it is often difficult to get the sizes of gravel suitable for sidewalk concrete. Gravel, of which the average size is one-fourth of an inch requires at least one-fourth more cement than when the sizes are an average of one-half of an inch.

The committee have recognized this as a fact, and given the amount of cement for the minimum size as the safe amount to be used in all sizes.

As to the amount of water to be used, there is a difference of opinion even among civil engineers as well as cement users, but for two-coat work, as is the case of sidewalks, the amount of water used should be such an amount as will insure a solid mass when the walk is finished and hardened.

A perfect union of both top and bottom coats can only be accomplished by tamping the two coats together, and tamping can only be done successfully when just water enough is used to allow the air in bottom and top coats to escape as the walk is tamped. Some may claim that it is too slow work to stop and tamp.

The experience of the chairman of your committee has been that, everything else equal, especially quality and durability, as many square feet can be laid in a day by using the amount of water specified in the specifications as by using more. The delays of waiting for the water to soak or dry out more than offset the advantage of quick spreading and striking off the top coat.

It has been the lot of your chairman to re-lay, take up, and replace many walks. Tamped walks, where good, clean, sharp sand and gravel was used, have been found to re-lay and not show any defects, even after the walk had been in use seventeen years; but, where an excess of water has been used, the walks have been broken by frost, and often the top coats would separate from the bottom coat. The apparent reason seemed to be that the top was not united to the bottom coat and both the bottom and top coats often would not be firmly tamped and worked together and good durable work cannot be the result where work is slighted in such a manner.

Your committee has inserted specifications for the position of shade trees, knowing that in many of our growing villages and cities it would be for the good of sidewalks to pay some attention to the liability of the troublesome root-throwing of sidewalks.

The thickness of walks has been given the minimum amount of concrete to be used, so as to insure good, serviceable walks.

STRONGER ORGANIZATION ADVOCATED.

One of the addresses listened to with keen interest by the association was made by Robert W. Lesley who has been called "the dean of the cement industry in America." Mr. Lesley is president of the American Cement Company, of Philadelphia, N. Y. Mr. Leslie talked on Co-operation; What it is, and What it Can Accomplish. He dwelt upon the need of combining all the users of cement in the United States into one gigantic organization for the promotion of the industry.

Mr. Lesley recommended the national organization admitting into membership all the local and sectional organizations of the country, according to each due representation in the National Association. The speaker said that many objects of the association's work required money and he closed his talk with a suggestion that a new class of members be created, these to be known as "contributing members." This class should be composed of machinery builders and manufacturers of supplies and materials consumed by cement users.

The consensus of opinion was that a committee should be appointed to act on Mr. Lesley's recommendation for providing a class of contributing members. President Humphrey said that to his mind such a provision would relieve the officers of begging for money for every trivial expense of the association. The following committee was named: Robert W. Lesley, E. D. Boyer, John Conzelman, Robert C. Morris and Mentor Wetzstein. The president stated that he would make additions to these later.

MISCELLANEOUS SUBJECTS.

Among the contributors to the convention's program was the professor of civil engineering in Purdue University, Lafayette, Ind., W. K. Hatt. His paper was on "Elementary Mechanics of Reinforced Concrete." The lecture was illustrated and threw considerable light on the principles of concrete construction, together with the structural equasions and tests.

Prof. Hatt was folowed by W. H. Mason, superintendent of the Edison Portland Cement Company, who gave an illustrated talk on "Factory Built Concrete." Mr. Mason showed the advantages of manufacturing columns, beams, girders, and structural members upon a factory basis under rigid inspection, and while he allowed that there were some difficulties to be overcome in handling "factory made concrete" on the job, this is more than offset by the control of the selection of materials, made possible and the improved working conditions.

E. S. Larned, of Boston, Mass., one of the charter members of the National Association, presented a report on "Testing Cement and Cement Products." He handled the subject of specifications for cement mortar blocks and concrete blocks from practical and scientific standpoints.

The report of the committee on "Art and Architecture" has always been entertaining features of these conventions. It was given by the chairman, Charles D. Watson, who talked on the possibilities of concrete for ornamental and classic designing. At Thursday's session, J. W. Pierson, of East Orange, N.J., read an able paper on "Progress in the Manufacture and Use of Cement Building Blocks." Other speakers at the same meeting were Leonard C. Watson, who spoke on "Proportioning and Mixing Cement Mortars and Concretes," and James L. Davis, of New York City, whose topic was "Waterproofing Concrete Structures."

In the evening the visitors were the guests of the local members of the association at a jolly smoker. General arrangements were in the hands of Alfred W. Thorn, of the Thorn Cement Company, of Buffalo. Mr. Thorn is vice-president of the Lehigh Portland Cement Co., Limited, of Belleville, Ont., which is building what is to be the largest cement mill in the Dominion of Canada, at a cost of $1,000,000.

Specifications for Concrete Hollow Blocks

THE Committee on Standard Specifications of the National Association of Cement Users has prepared, through its chairman, Mr. E. S. Larned, a set of Standard Specifications for Concrete Hollow Blocks, which was