

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
33 WEST THIRTY-NINTH STREET
NEW YORK



5489
TELEPHONE PENNSYLVANIA 9220
CABLE. CYANDRIC

NOMINATIONS FOR 1929 LAMME MEDAL

(CONFIDENTIAL - For members of the Lamme Medal Committee only)

R. E. HELLMUND

Nominated by
C. A. M. Weber

(Nomination dated September 14, 1929, and
received September 16.)

(Copies of supporting statements from the gentlemen
named below are attached:

C. A. M. Weber H. D. James
A. M. Dudley

Summary of Mr. R. E. Hellmund's Achievements

Developments in design of new and improved electrical apparatus. 300 patents granted in the U.S. and other countries. Developments which are in practical use are: new ventilating system and stator structure of induction motors, numerous control systems, a new armature winding and a stator structure for single phase railway motors, regenerative systems for direct current railways, control systems and structures for phase converters, and control systems for phase converter locomotives.

Design of Westinghouse MS, MW, CS, CW, and CI induction motors; and the first Westinghouse ventilated railway motors for street cars; single phase railway motors with commutating field, used on the Philadelphia terminal electrification; railway motors with 1200 volts across one motor; phase converter and other apparatus for the phase converter engines of both asynchronous and synchronous types, used on the Norfolk and Western and Pennsylvania Railroads; direct current regenerative locomotive system utilized later on the Chicago, Milwaukee and St. Paul Railroad, and the design of industrial repulsion and shunt motors.

Has frequently represented Westinghouse Company in foreign countries. Author of many papers on engineering subjects.

WESTINGHOUSE ELECTRIC AND MANUFACTURING CO.

Springfield, Mass.

September 14, 1929.

NOMINATION FOR LAMME MEDAL

Dear Mr. Hutchinson:

Please refer the name of Mr. R. E. Hellmund, Chief Electrical Engineer of the Westinghouse Electric and Manufacturing Company, to the Lamme Medal Committee for consideration.

I realize that I am a little late in making this nomination but this is due to the fact that I wished to obtain rather accurate information regarding Mr. Hellmund before writing. I am attaching hereto the Westinghouse Elec. & Mfg. Company's confidential biographical sketch of Mr. Hellmund and in addition would refer you to the Electric Journal for November 1926 for a personal appreciation which Mr. A. M. Dudley wrote covering Mr. Hellmund's work.

Mr. Hellmund has about 275 patents and a very large number of them have proven of practical value and many are in use today.

Very truly yours,

(Signed) C. A. M. WEBER

Manager
Small Motor Engineering Department.

R. E. HELLMUND, CHIEF ELECTRICAL ENGINEER

R. E. Hellmund, Chief Electrical Engineer of the Westinghouse Electric and Manufacturing Company, is known throughout the electrical and allied industries for his inventive genius and his work on the design of new and improved electrical apparatus.

Mr. Hellmund was formerly Engineering Supervisor of Development and chairman of the verification committee of the Westinghouse Company. He is vitally interested in all development work of all engineering departments of the company and, with other officials, is a final authority in that important activity. His prestige as an engineer and inventor has spread not only throughout the United States but in the land of his nativity, Germany, and other countries of Europe, by reason of the almost 300 patents taken out in his name in the United States and other countries.

Mr. Hellmund was born in Gotha, Germany, on February 2, 1879 and received his early education in the grade and high schools of Gotha. He then took a course in the college of Ilmenau from which he was graduated in 1898 with the degree of electrical engineer.

After graduating from Ilmenau, Mr. Hellmund started work as a designer of electrical machinery for Sachsische Electricitetswerke formerly Poeschmann & Company, Dresden, Germany. He later worked in the laboratory and cable works of Land and Seekalewerke, Cologne. He then was in charge of the test floor and laboratory of Maschinenfabrik Esslingen, Stuttgart, Germany. He took a postgraduate course in the University of Charlottenburg in 1903, after which he came to the United States, entering the employ of the Krantz Company of Brooklyn, designing switchboards.

In 1904, Mr. Hellmund had no difficulty in making a connection with William Stanley, of Great Barrington, Mass., with whom he worked on self-compounding alternators. Following this, he designed a line of induction motors then marketed by the Western Electric Company at Hawthorne, Ill.

Mr. Hellmund entered the employ of the Westinghouse Electric and Manufacturing Company in 1907 as a designer of induction motors. Later he was engaged in general engineering

work and, in 1912, was placed in charge of the design of all direct current and alternating current railway motors. In this latter work, he attracted the attention of engineers throughout the electrical profession by his inventive genius.

In 1917, the Westinghouse Company officials, realizing the broad knowledge of Mr. Hellmund in all branches of engineering, gave him miscellaneous consulting work, in which he continued until 1921 when he was appointed engineering supervisor of development. In 1926 he was promoted to Chief Electrical Engineer.

In his engineering experience with the Westinghouse Company, Mr. Hellmund developed a new ventilating system and stator structure of induction motors, numerous control systems, a new armature winding and a stator structure for single phase railway motors, regenerative systems for direct current railways, control systems and structures for phase converters and control systems for phase converter locomotives all of which are in practical use.

Among his achievements also are the design of Westinghouse MS, MW, CS, CW, and CI induction motors, the design of the first Westinghouse ventilated railway motors for street cars, the first Westinghouse single phase railway motors with commutating field, used on the Philadelphia terminal electrification, the first Westinghouse railway motor with 1200 volt across one motor, the first phase converter and other apparatus for the first phase converter engines of both asynchronous and synchronous types, used on the Norfolk and Western and Pennsylvania Railroads, the first direct current regenerative locomotive system, utilized later on the Chicago, Milwaukee and St. Paul Railroad and the design of industrial repulsion and shunt motors.

In his work for the Westinghouse Company, Mr. Hellmund has traveled extensively in the foreign field, representing the Westinghouse Company in engineering and business conferences frequently. His travels have taken him to England, Germany, Scotland, Ireland, France, Spain, Switzerland, Austria, Czecho-Slovakia, Holland, Denmark, Norway, Sweden, Italy, Jamaica and Canada. He has also delivered many addresses before technical societies both in this country and abroad and his papers on engineering subjects have been widely published.

Mr. Hellmund is a member of the American Institute of Electrical Engineers, the Institute of Electrical Engineers of Germany, the Mathematical Society, the Pittsburgh Athletic

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R. E. Hellmund

Association and the Masonic order and is a Knight Templar and Shriner. He is married and has one son. His diversion is, as his work, productive, he devoting much of his leisure to the growing of flowers and bushes. He resides at 7510 Trevanion Avenue, Swissvale.

C O P Y

WESTINGHOUSE ELECTRIC & MFG. COMPANY

E. Pittsburgh, Pa.

September 28, 1929

Dear Mr. Henline:

Your letter of September 18, 1929 was addressed to me at East Pittsburgh and was forwarded to my office at Springfield and arrived while I was out of town and followed me again to East Pittsburgh which accounts for my delay in replying.

While at East Pittsburgh I mentioned Mr. Hellmund to Mr. H. D. Janes, Mr. A. M. Dudley and Mr. R. W. E. Moore, and each of these gentlemen expressed himself as being very pleased to write an endorsement of Mr. Hellmund. You should have these endorsements by the time you receive this letter.

Mr. Hellmund has been identified with the development of rotating electrical machinery for the Westinghouse Elec. & Mfg. Co. for a great many years. The success of our many lines of motors and generators for all classes of work is the direct result of his influence and consulting work. Many of the Westinghouse Elec. & Mfg. Company's leading engineers obtained their inspiration in consultation with Mr. Hellmund on the numerous problems incident to the design of rotating electrical machinery in the progressive age in which we now live. The success of many of the Westinghouse Company's leading engineers is directly attributable to the contact they have had with Mr. Hellmund.

Mr. Hellmund's work on induction motors, phase converters, commutation and railway motor design are particularly noteworthy. His work on magnetic leakage and commutation are particularly noteworthy because they have been very valuable to the Company's design engineers in the development of new lines of rotating electrical machinery.

Very sincerely yours,

(Signed) C. A. M. Weber, Manager
Small Motor Engineering Dept.

C O P Y

WESTINGHOUSE ELECTRIC & MFG. CO.
E. Pittsburgh, Pa.

September 27, 1929

Dear Mr. Henline:

Mr. C. A. M. Weber, Engineering Manager at our East Springfield plant, has informed me that he has nominated Mr. R. E. Hellmund as a candidate for the Lamme Medal in the Institute next year. He informs me that you have the papers regarding Mr. Hellmund, but that you require endorsement from three engineers who are known to the Institute. I believe that the fact that I am a Fellow of the Institute establishes my standing with you and I should like to endorse Mr. Hellmund's candidacy very thoroughly and sincerely. I could mention to you a great many outstanding instances of Mr. Hellmund's work in connection with the design of electrical equipment, but will confine myself to one or two.

One of the first which occurs to me is the Norfolk & Western electrification, where Mr. Hellmund was responsible for the design of both the motors and the phase converters, and it is my recollection that he, personally, did the design work in connection with these pieces of apparatus. Since this system of converting from single phase to three phase by means of a large induction motor running idle and then using three phase wound rotor induction motors for the traction units was new in this country and has been highly successful, I think that this job in itself would entitle him to favorable consideration in connection with the medal. Mr. Hellmund also carried heavy design responsibilities in connection with the Virginian electrification, the Chicago, Milwaukee & St. Paul and other jobs of a similar order.

Prior to his railway experience, Mr. Hellmund was employed on the design of alternating-current industrial motors and was entirely responsible for the Westinghouse Company's Type "MS" and "CS" lines of squirrel-cage motors and "MW" and "CW" lines of wound rotor motors up to approximately 500 horsepower. In the design of these lines Mr. Hellmund employed constructions which were radically new, such as the use of pressed steel parts instead of castings, the casting of the squirrel cage resistance rings directly on the bars, the making of the stator laminations with rectangular sides and rounded corners to conserve material, and various other features.

The fact that Mr. Hellmund today occupies the position of Chief Electrical Engineer of the Westinghouse Elec. & Mfg. Co. speaks most strongly of the high regard in which he is held by his confreres in this organization and of the confidence which our executives have in his ability to handle any and all difficult situations connected with the design of dynamo electric apparatus. I might go further and say that Mr. Lamme himself was most favorably impressed by Mr. Hellmund's ability along this line and by his powers of analysis in general, and I feel that I am not assuming an unwarranted responsibility in saying that it would have given him great personal pleasure to have seen Mr. Hellmund as the recipient of this medal.

Very truly yours,

(Signed) A.M. Dudley
Engineering Supervisor of Development

C O P Y

WESTINGHOUSE ELECTRIC & MFG. Co.

E. Pittsburgh, Pa.

September 30, 1929

Dear Mr. Henline:

It is my understanding that Mr. R. E. Hellmund has been nominated for the Lamme Medal in the Institute next year. I have known Mr. Hellmund ever since he joined the Engineering Department of the Westinghouse Company and my work has brought me in close contact with him on account of my having charge of motor control throughout most of that period. I have always considered next to Mr. Lamme, Mr. Hellmund was the best designer of dynamo electric machinery in our Company and has few equals any where. Mr. Lamme's recognition of Mr. Hellmund's ability is well known and was shown by the various assignments which were given him.

I understand that you have a very complete record of Mr. Hellmund's engineering achievements and that it is unnecessary for me to repeat them. He has one outstanding qualification that we do not often find in a single individual, namely, the ability to put his designs in good manufacturing shape, combined with his inventive ability and his highly developed technique. Mr. Hellmund has a very fine disposition and is liked by everyone who comes in contact with him. You may not be able to give these personal qualities any definite rating in awarding the Lamme Medal, still I feel that they should have some direct influence as they have contributed very largely to the benefit of those who have come in contact with Mr. Hellmund. We have some engineers who have outstanding technical ability but whose dispositions make it very difficult to use their engineering.

Very truly yours,

(Signed) H. D. James

Consulting Control Engineer