

ASHRAE

THE EARLY YEARS

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HEAT & COLD

MASTERING THE GREAT INDOORS



A SELECTIVE HISTORY OF HEATING,
VENTILATION, AIR-CONDITIONING AND REFRIGERATION
FROM THE ANCIENTS TO THE 1930S

BARRY DONALDSON & BERNARD NAGENGAST
WITH AN INTRODUCTORY ESSAY BY GERSHON MECKLER

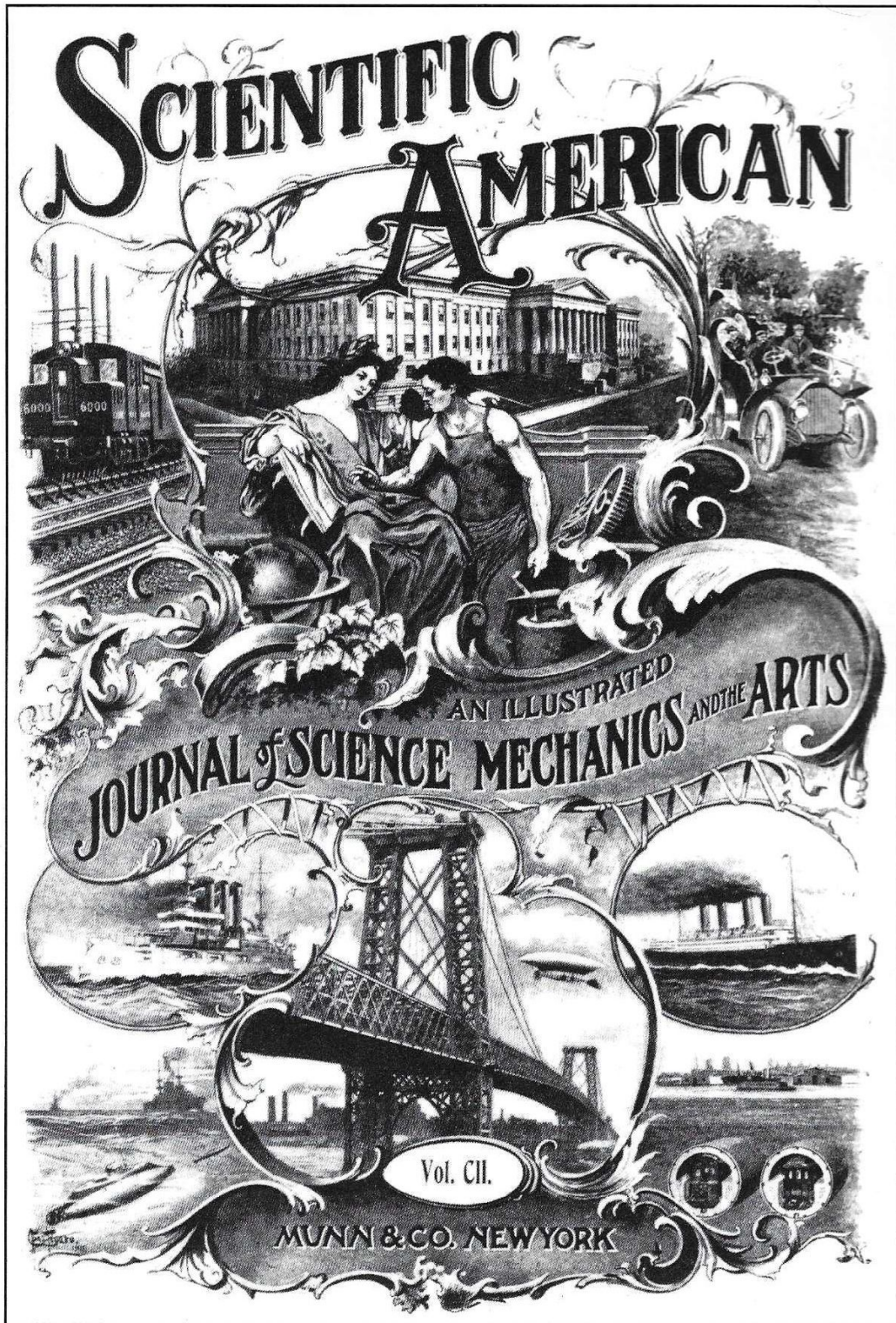


Figure 8-69 Scientific American illustration.



Figure 9-2 *The first convention of the Master Steam and Hot Water Fitters Association of the United States was held in September 1889 in Chicago. Many of the charter members of the American Society of Heating and Ventilating Engineers were members of the Master Fitters (from Engineering Review, July 1905, p. 26).*

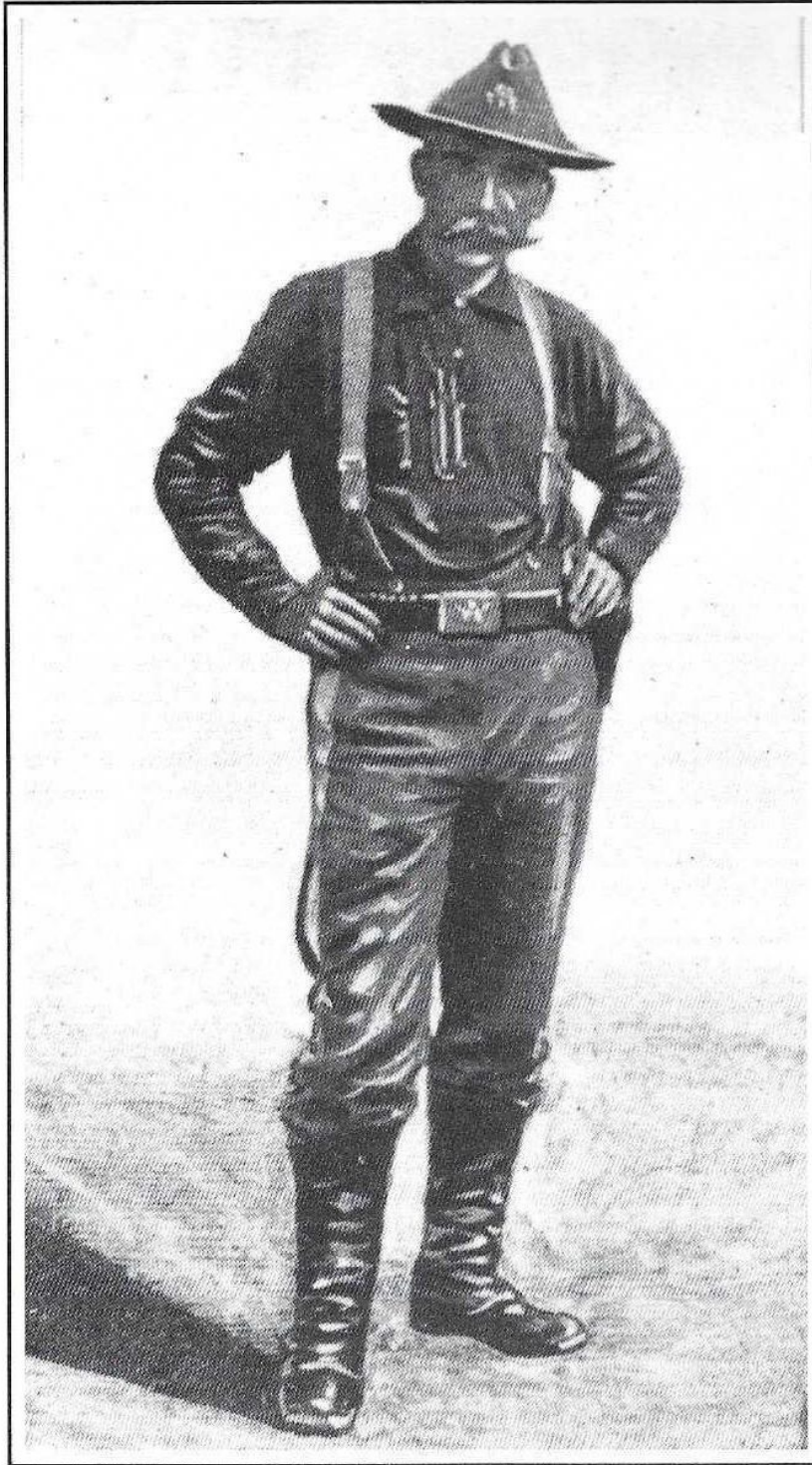


Figure 9-4 *Hugh J. Barron (1856-1918) is considered the founder of the American Society of Heating and Ventilating Engineers. Angry with the Master Steam and Hot Water Fitters Association's limited discussion of papers presented at its meetings, he and L.H. Hart decided to form a new organization (from Heating and Ventilation, July 1898, p. 5).*

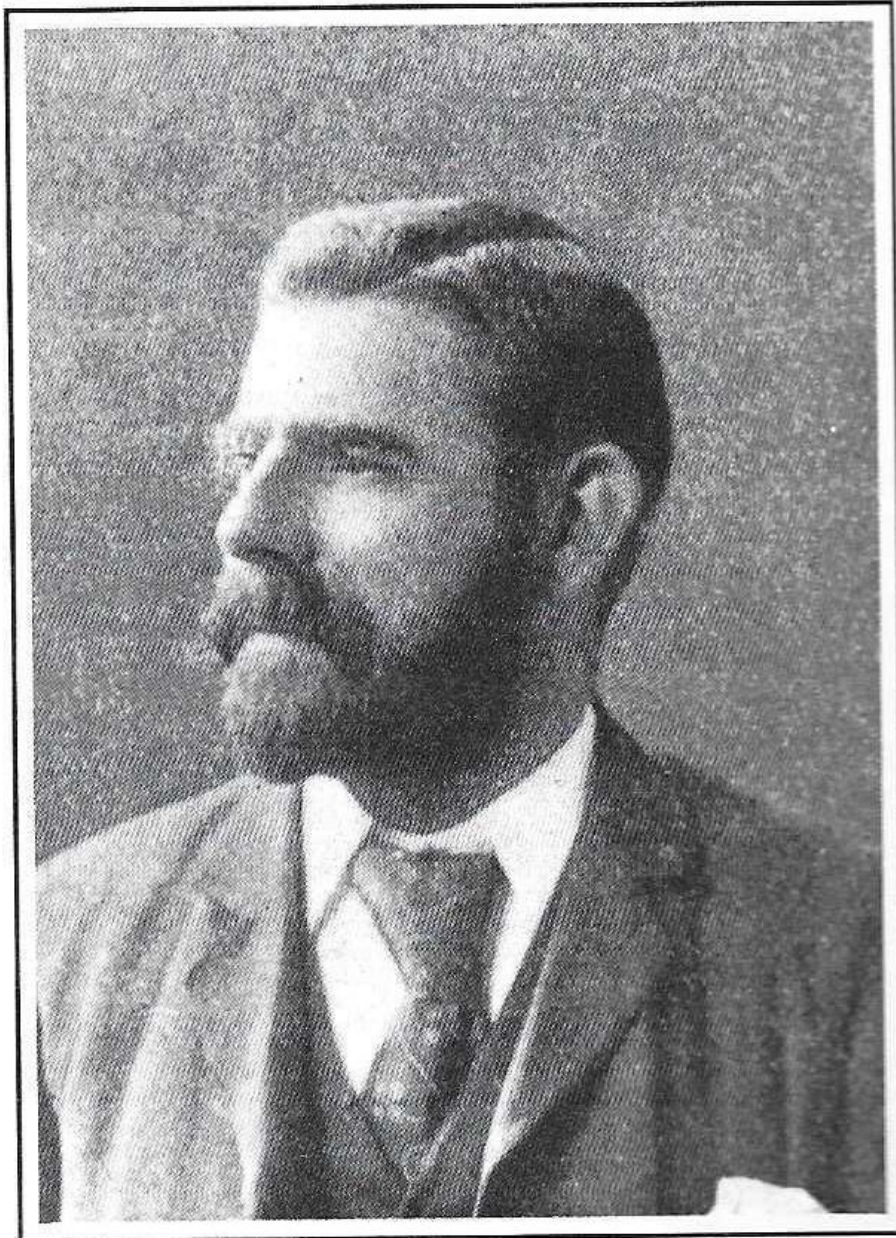


Figure 9-5 English heating engineer David Nesbit was perhaps the first "international member" of the ASHVE. The tepid response of the Master Fitters convention to his paper delivered at its 1894 convention was one of the factors that led to the formation of the ASHVE by several "disgusted" individuals (from *Heating and Ventilation*, January 1899, p. 9).

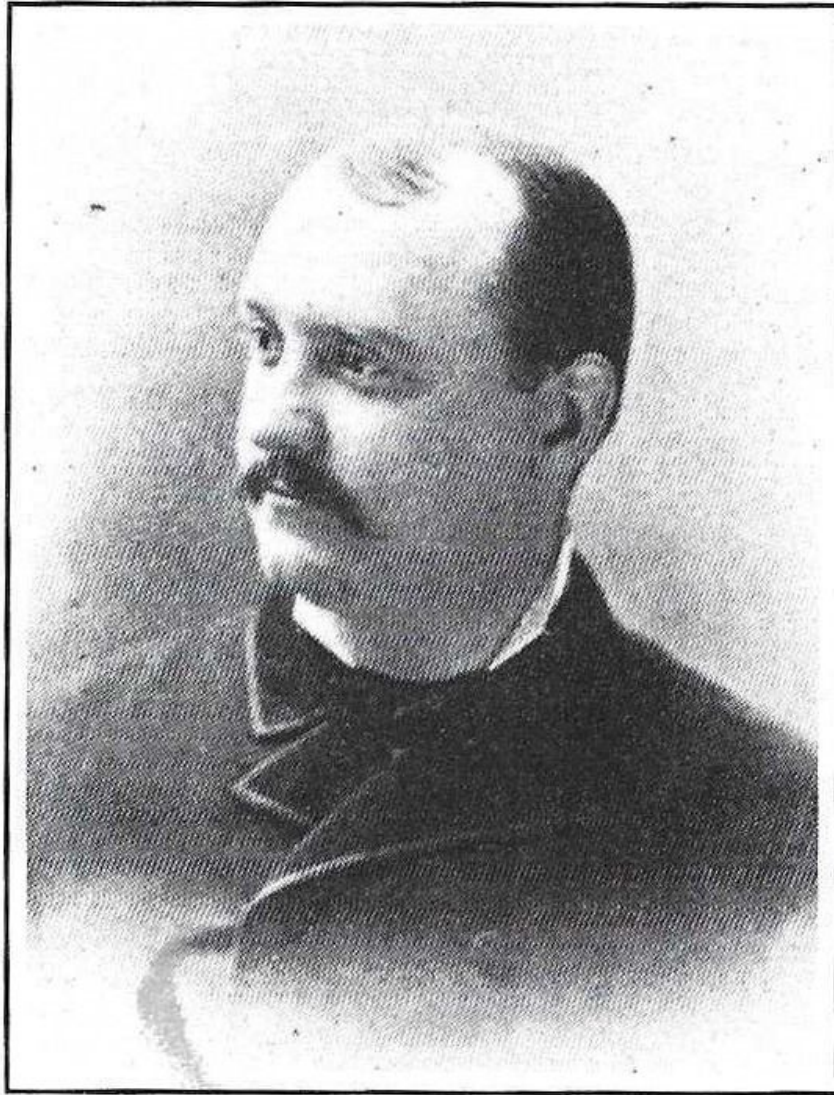


Figure 9-6 *Louis H. Hart (1859-1897) was the business manager for the trade magazine Heating and Ventilation when Hugh Barron came to him to discuss the limitations of the Master Fitters Association. Hart had been a telegraph operator, state legislator, railroad ticket agent, journalist, and advertising manager for the trade magazine Electrical World. Hart, as secretary of the newly formed ASHVE, was apparently responsible for writing the Society's constitution. He died unexpectedly at age 38 in 1897 (from Heating and Ventilation, February 1897, p. 31).*

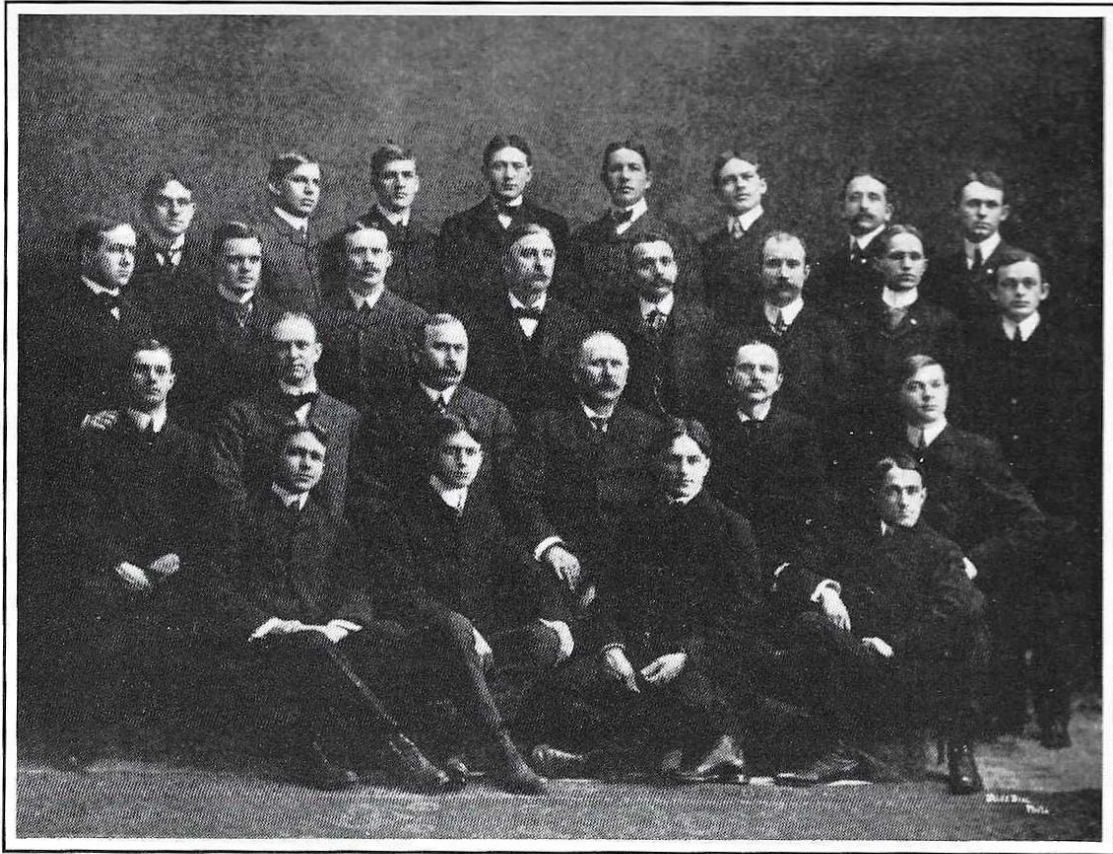


Figure 9-16 *The engineering department of the Buffalo Forge Co. in 1902. At the suggestion of the recently hired Willis Carrier (center of top row), Buffalo Forge established a laboratory to conduct equipment tests (from Engineering Review, February 1902, p. 23).*

Heating AND Ventilation

NEW YORK.

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CHICAGO.

The American Society of Heating and Ventilating Engineers.

Summer Meeting, A. S. H. V. E.

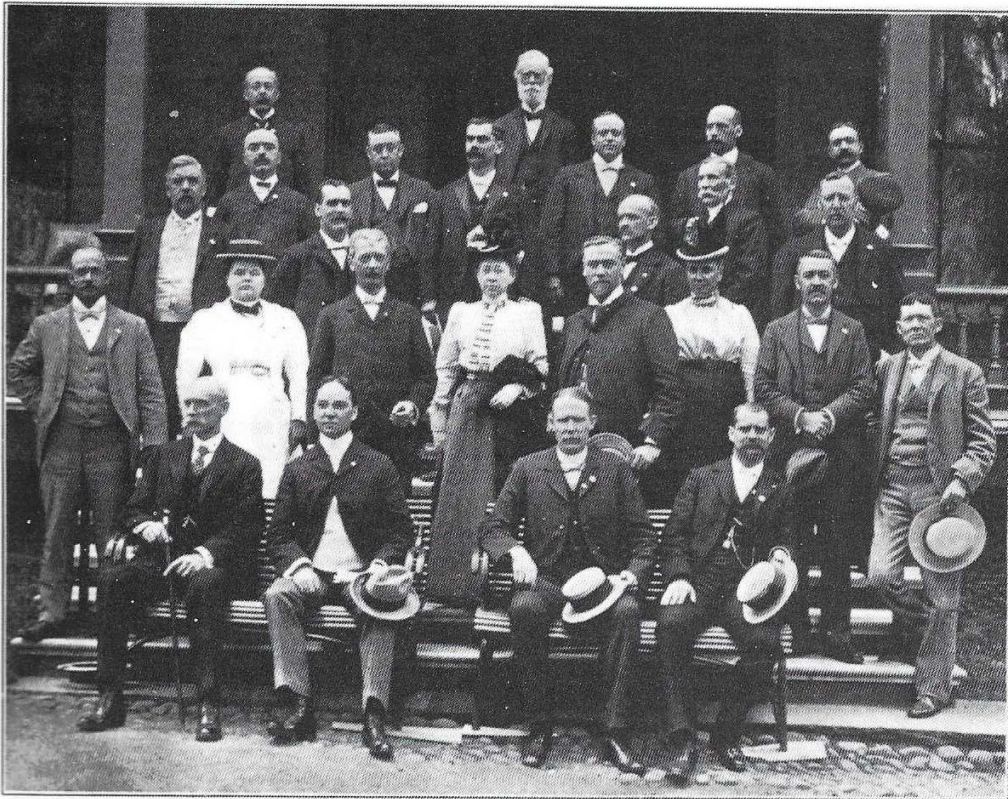
The summer meeting of the American Society of Heating and Ventilating Engineers at Saratoga, July 21 and 22, was duly noticed in our July number, wherein we printed the pa-

this meeting, but at the last moment his calculations were upset.

The secretary announced that at a meeting of the council held June 16, twelve members were elected, whose names were published in HEATING AND VENTILATION for June.

by Mr. McMannis, the reading of the minutes was dispensed with; also the regular order of business customary at the annual meeting.

The first paper read was that by Herman Eisert on "The Calculation of Centrifugal Fans for Ventilating



A GROUP OF MEMBERS AND VISITORS AT THE SUMMER MEETING, A. S. H. V. E.

pers read before the meeting. At the opening the secretary read a letter from President Henry Adams expressing his regret at his inability to be present on account of imperative business engagements; that he had tried for three months to be present at

On motion of Prof. Carpenter, seconded by Mr. James Mackay, it was "resolved that the by-laws be suspended and all business at this meeting be subject to the approval of the society."

On motion of Mr. Wolfe, seconded

Purposes," which was fully reported in HEATING AND VENTILATION last month.

The paper was discussed as follows:

Prof. Carpenter—Mr. Eisert makes a statement which, it seems to me, should be substantiated by considerable data, at-

Figure 9-17 The third summer meeting of ASHVE was held at Saratoga Springs, New York, in July 1899. Saratoga was known for its mineral waters and spas, and was typical of the resort areas preferred for these hot weather meetings (from Heating and Ventilation, August 1899, p. 1).



Figure 9-19 The first "talley-ho" coach carrying members and guests to White Fish Bay during the 1907 summer meeting. At the previous summer meeting, President John Kinealy had delivered a toast to the ladies present at the banquet, saying, "Unfortunately for me, the ladies have always gotten me in trouble. Some time ago I responded to a toast similar to this one to-night. It was my intention to say 'our wives and sweethearts, may the one always be the other,' but, alas, I made a horrible mistake and said, 'may the one never meet the other.'

"The ladies are a great help to us at our meetings. Those that attend the meetings help by keeping their husbands from staying out at night. Those that stay at home help by allowing their husbands to attend. The Chicago ladies have helped us a great deal at this meeting, and especially in attending this function (the banquet), which is the first occasion of its kind at which the ladies have ever honored us" (Engineering Review, August 1906, p. 28) (from Engineering Review, August 1907, p. 12).

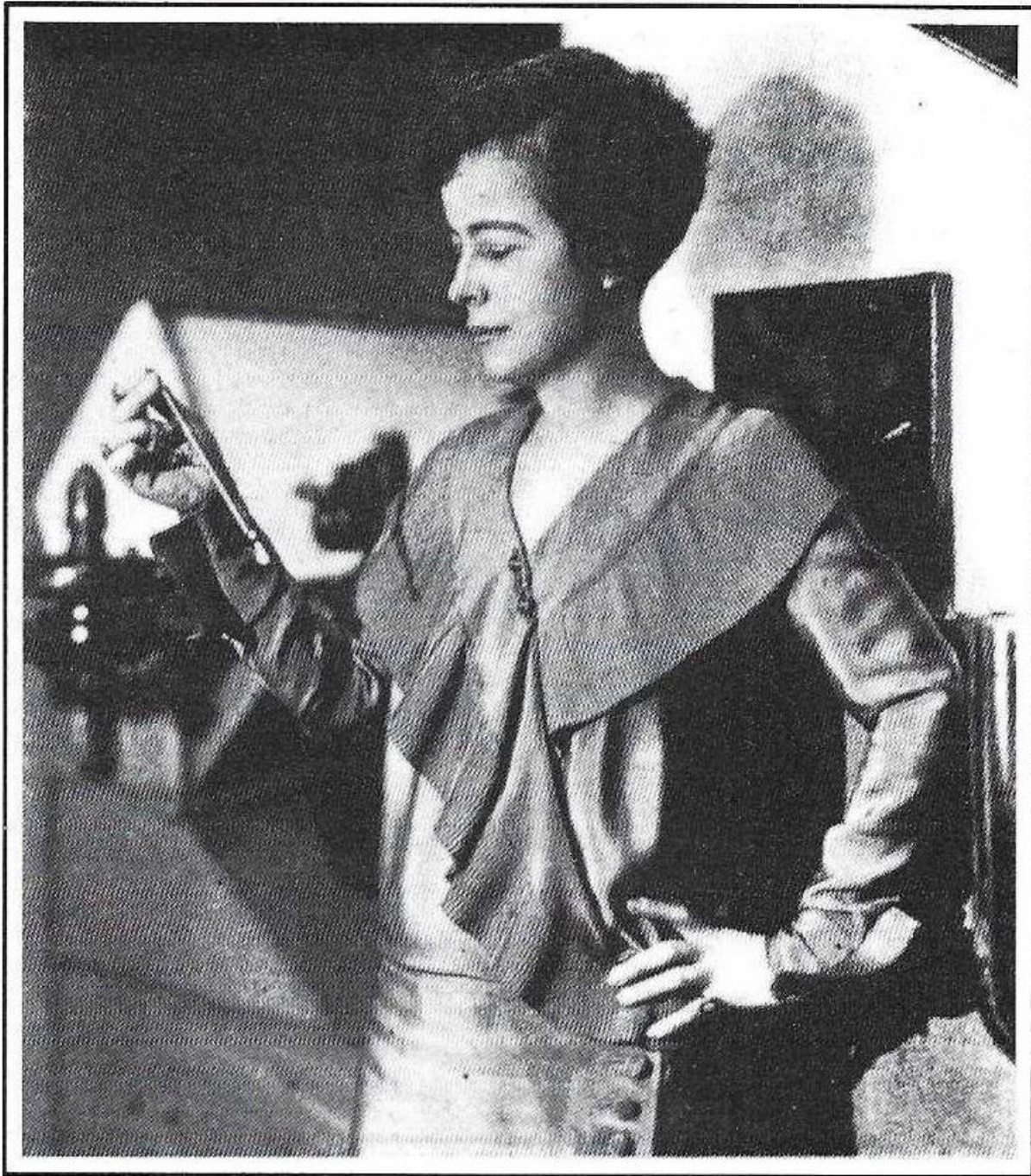


Figure 9-22 *Margaret Ingels was a staff engineer at the ASHVE Research Bureau from 1921 to 1927. Ingels was apparently the first woman engineer to join the ASHVE, and rose to prominence in the industry with her later work in air conditioning as an associate of Willis Carrier (from Sheet Metal Worker, April 4, 1930, p. 193).*

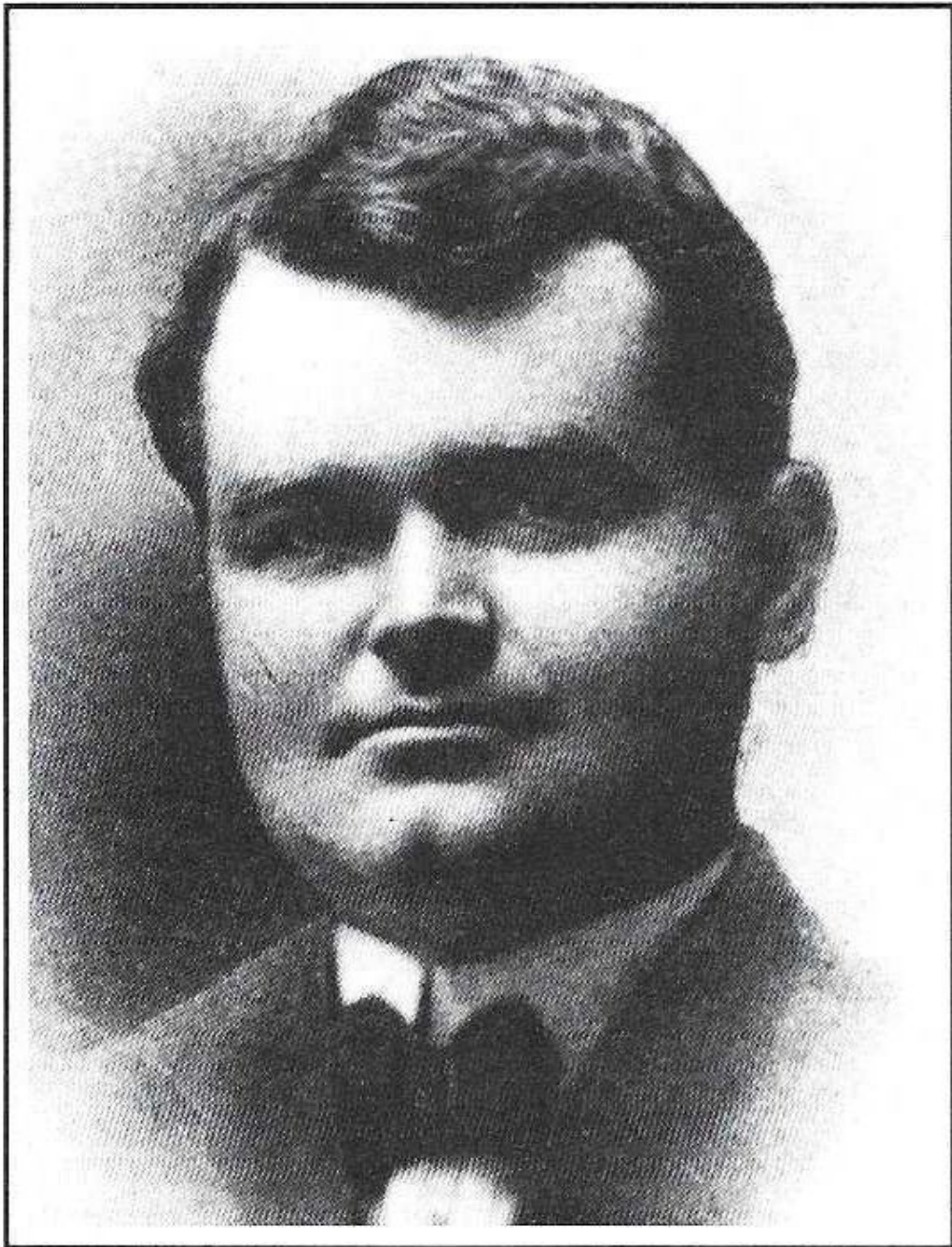


Figure 9-26 *The founder of the American Society of Refrigerating Engineers, William H. Ross. Ross was secretary of the organization from 1905 to 1927 (from Cold Storage and Ice Trade Journal, December 1905, p. 32).*



Figure 9-27 *John E. Starr (1861-1931), a New York consulting engineer, was elected the first president of the American Society of Refrigerating Engineers in 1904 (from Ice and Refrigeration, January 1905, p. 39).*