

Willis Haviland Carrier

Father of Air Conditioning

VOLUME-1
Willis H Carrier: The Man and His Message



*1.5 Carrier, The Chief -His Influence
with His Colleagues*

CARRIER THE MAN AND HIS MESSAGE

CHAPTER FIVE

Carrier, the Chief

How does a man acquire a title ? From affection and respect. These were the qualities that made everyone who worked with him refer to Carrier as the Chief. He was the head man of the tribe - the undisputed leader. Others in the team could command on some points - financial - sales - but in a category on his own was the Chief.

In those early days, air condition^{ing} had many descriptive names as part of the Carrier story - "Manufactured Weather" - "Every day a good day" - and a small company journal was published which was called "The Weather Vein". In the No. 1 issue of 1926, Esten Bolling (who had previously been a member of the Carrier Organisation for five years) wrote an appreciation, "by one who was but is not, within its fold" - Chicago, December 26th, 1925.

"The most fascinating thing about any great business organisation is the fact that it began as a lone creative thought in the isolated mind of a single individual. In the mind of Willis H. Carrier was created the thought of Scientific Air Conditioning, as a valuable contribution to the health and wealth of his fellowman."

"Those of us who have been privileged to know the man, know the mind. We know that the mind is keenly analytic, eminently practical but essentially idealistic - in that fine sense of idealism which connotes the pursuit of perfection, the holding of pure achievement above ~~material~~ material gain."

"Willis Carrier dreamt of the science we now call Air Conditioning. And, by the steadfast devotion of his life to his ideals, he has wrought his dream into achievement, achievement that means health and comfort to human beings and efficient production to more than two hundred of our principal industries."

"In short, Willis Carrier has vision, but he is not a visionary. He knew - a knowledge too rarely associated with genius - that his dream could not be realized by his work alone."

"He knew, too, that, being mortal, he could perpetuate his achievements only by means of organization."

"Ergo, Willis Carrier began to gather about him a staff of men attuned to his ideals, whose abilities are adapted to the practical business of making Air Conditioning a useful art, its equipment available to every requirement. Willis Carrier has sought and found men of truly scientific bent. Men who regard problems as mental feasts, who relish complexities as sauces therefore."

"Willis Carrier is the active technical head of the Carrier Engineering Corporation. Although he is but 49 years of age, he is internationally recognized as an Engineer."

It was this recognition by all of his engineering skill, his profound searching mind and his penetrating dedication that singled Carrier out as the Chief. His background of inventive success had led to such major innovations as:

1902 - a Plant to control humidity in a printing factory using the first surface cooler

- 1906 - spray type air washer with effective eliminators.
- 1907 - dewpoint control
- 1911 - his paper - "Rational Psychrometric Formulae"
- 1914 - the ejector principle.
- 1920 - the centrifugal refrigerating machine.

He was writing extensively for the technical press, more than thirty articles were published in the early years. By the time the training classes started in 1929, his reputation was such that any new comer soon recognised this man as the Chief knowing that this title was special - intended to convey devotion, respect, carried to the point of reverence - he was the revered Chief.

Yet he seemed ~~to~~ unaware of such high emotions - he was so objective a character - so isolated within his problems - that he could be capable of making anyone feel that at that moment the person did not exist for him, only the problem. It was this characteristic that gave rise to the stories of absent mindedness. One is that the Chief and Mrs. Carrier set off by car to the Station to take a train to Philadelphia. When passing Macy's the Chief told the driver to stop while he popped in for a toothbrush or something. Buying his requirement he left the store by a different entrance, walked to the station, boarded his train and only became aware in Philadelphia of the distressing absence of Mrs. Carrier.

This "absentmindedness" cannot be reconciled with the deliberate way in which he pursued a verbal argument or interpolated a mathematical equation. If explanation of a technical matter was required, he would continue until you had accepted his statements and his manner of doing so left no doubts on the correctness of his arguments or assumptions. At one time, the Chief Engineer of the

International Division was approached by a Professor of Physics, who wished to argue against some of the psychrometric theories. The Professor came to the Carrier Corporation office and explained that he had spent a lifetime of work on his ideas and was convinced he was right in his final analysis. He wanted an opportunity of refuting some of the statements made by the Chief.

It so happened that Willis Carrier was passing the Chief Engineer's office, responded to beckoning and was introduced to the Professor. They were very quickly into a deeply technical discussion which lasted for two hours, when the Chief smilingly shook hands and departed, the Professor turned to the Chief Engineer and said "I have spent a lifetime on this subject, yet in two hours Willis Carrier has demolished all my arguments and convinced me of the rightness of his own conclusions."

Because he was convinced of the rightness of his own conclusions, the Chief could be extremely forthright both in his statements and in his actions. A student told the Chief that his Professor had disagreed with an equation or formula used by Carrier in coil design and the Chief discussed the comment with the words "he must be an imbecile." On another occasion when he was examining one of the first Conduit Weathermaster Systems, his investigation of the primary air plant made him feel that it was completely inadequate. The only way he could express his feeling sufficiently was to kick it hard, so hard indeed that it was absolutely imperative that it had to be replaced.

The Chief's preference for the simple answer to problems is illustrated by the story that when some friends were moving into their new house at Essex they wished to convert what was a country Summer house so that it would be suitable for Winter residence.

The Chief said in his opinion the best way was to put a furnace in the basement, have a hole in the floor and that would heat the whole house. This was at a time when the Corporation that Carrier had built up were marketing a very advanced and sophisticated home heating unit.

Examination of facsimile of some of the original pages of the Chief's calculations reveals so much of the man that it seems worthwhile to include a few of these pages for reference.