

Our Own Little Antiques Roadshow

BY CHARLES J. CARTER, S.E., P.E., PH.D.

The discovery and appreciation of steel salvaged from the first skyscraper.

IT WAS A DAY like any other, and nothing memorable had happened—until Bob Lorenz came into my office. Bob was soon to retire as AISC director of education, and this meant something had to be done with his career’s worth of accumulated information and memorabilia, much of which he was turning over to colleagues who might have use for it later. This trip was different though as he had weighty “matters” to discuss.

Bob was carrying two small pieces of S-shape that had been purposefully mangled to make simple bookends. The top flange of each one was bent over sideways with the web making a gradual 90° turn from vertical to horizontal in the course of most of its depth.

Where old is concerned, these looked the part. Their surfaces were darkened by whatever clear finish had been applied long ago. Neither shiny nor dull, the patina and rolled faces gave the hard metal a softer darkness that looked a bit like volcanic sand. It was obvious that its dark, rich color and texture had been earned through decades of progress. The cut ends were only a bit shinier, having been dulled by age and the grain of the sawing marks that remained evident.

I had seen them many times before atop Bob’s bookshelf, keeping folders of lecture notes and reference books erect. Now, he was bequeathing them to me. “These are historic pieces and they belong with AISC,” he said. “I’ll trust you to take care of them.”

Having admired these artifacts before, I was happy to be his chosen one. I thought they would go great with the collection of rivet halves I had accumulated from the L during walks to and from the train in downtown Chicago. I appreciated them fully but must admit I had no idea then how meaningful these pieces would turn out to be.

Each bookend had a paper label that had been glued onto the curve of the web. Yellowed with age and darkened, the typewritten text that appeared on them was barely discernable.

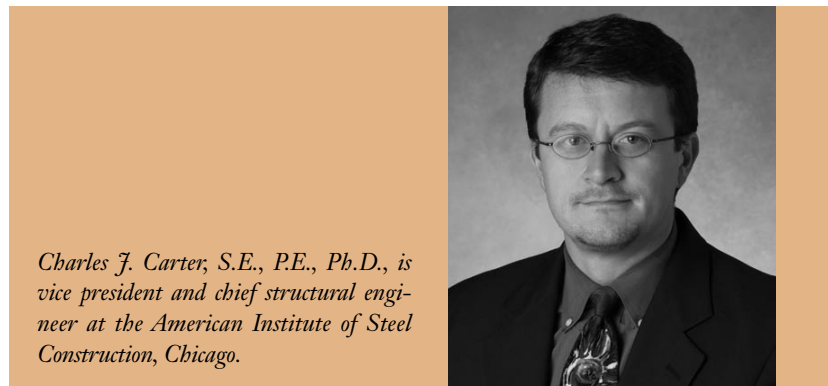
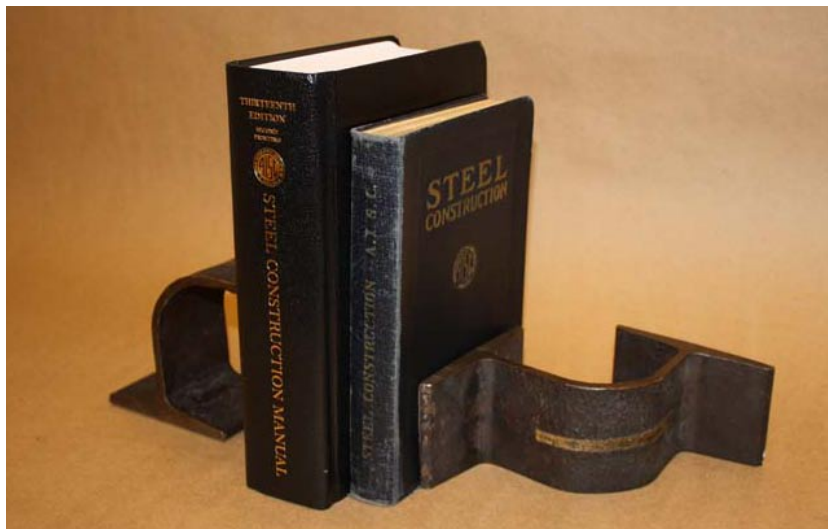
“Home Insurance Bldg. 1884-1931 Steel”

Bob said they were an artifact that he came to possess many years before. They had been a silent fixture in the field office that AISC maintained in Chicago in the days when AISC was headquartered in New York City. He didn’t know who had brought them there, as their presence predated his. Nonetheless, he appreciated their charm and

brought them along and became their caretaker when AISC relocated its headquarters to Chicago and absorbed the field office.

Both of us knew the history of William LeBaron Jenney’s Home Insurance Building and its place as the first example of a full skeleton-framed structure. The first skyscraper, it was made possible by elevators and the use of metal framing instead of bearing-wall masonry. I assumed this metal was wrought iron, as that is what I heard had been used in its construction, and that the word “steel” on the label was just a generic usage of the word. Accordingly, I told all visitors who inquired about “my” unique bookends that they were wrought iron from the first skyscraper.

Continued on p. 66.



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Continued from p. 65.

Earlier this year, I received a revelation about these pieces of history. Conrad Paulson of Wiss, Janney, Elstner in Chicago was visiting to show the AISC staff some of the work he had been doing on Louis Sullivan's Pilgrim Baptist Church, a landmark in Chicago that had been ravaged and all but destroyed by fire in 2006. It had many cast iron columns and wrought iron beams, and part of his investigation involved testing to determine what elements of the damaged steel were cast, wrought, and rolled.

Casually, I mentioned the bookends I had and told a bit of their story. Conrad asked if we knew whether they were wrought iron or steel. I was silent, as nobody had ever asked me that before. As I was pausing to check my personal assumption that they were wrought iron, Conrad offered to test them and tell me for sure. We parted with a handshake, the loan of a bookend for testing, and the promise of knowing for sure.

All of a day later, Conrad delivered the news: "It looks like your Home Insurance

bookends are indeed steel! And so their providence would make them samples of some of the earliest structural steel ever commercially installed in Chicago." He further suggested I should read the "Field Report," which is so named because it was commissioned by one of the Marshall Fields, as it tells the story of the demolition of the Home Insurance Building. The actual title of this reference published in 1939 is *The Origin of the Skyscraper*, and I was able to locate a copy and buy it from a rare book shop in New Hampshire.

It is a fascinating booklet just a bit more than 30 pages long, detailing the work of a committee of engineers, architects and others who undertook to determine if the Home Insurance Building was in fact the first true skyscraper. They decided it was. Of more relevance to this tale, however, is the statement added as an addendum to the original report on page 18:

"Since this report was submitted it has been ascertained by the American Institute of Steel Construction that between the sixth story and roof certain Bessemer Steel

seven inch and nine inch floor beams were used... This bears out the written statement of Major LeBaron Jenney, the architect, when in 1896, he wrote that "in this building the first Bessemer Steel beams were used, manufactured by the Carnegie Phipps Company, who stated at the time that the Home Insurance Building was the first in the United States to use steel beams in its construction."

After a decade of having these bookends, I came to learn that they were steel, then some of the earliest steel, and then that they are in fact pieces of *the* earliest steel ever used in a building in the United States. And at that moment, I got a taste of what those people who talk with Leslie and Leigh Keno feel on Antiques Roadshow. MSC

As part of SteelDay 2010, AISC is hosting an open house and lecture at its Chicago headquarters on Thursday evening, September 23. For more information, go to www.steelday.org. While visiting AISC, be sure to see the historic Home Insurance Building bookends.

