





Marlon H. Winslow

## EMERY WINSLOW SCALE COMPANY: 1868 to 2009 and BEYOND

The Emery Winslow Scale Company established its roots in 1868 when Mr. Albert Hamilton Emery, scientist, physicist and engineer, founded the A.H. Emery Company in Stamford, Connecticut.

The Winslow portion of Emery Winslow was founded in 1896 by Marlon H. Winslow in Terre Haute, Indiana and selected the substantial name of Winslow Government Standard Scale Works, Inc. ... later changed to Winslow Scale Company. Mr. Winslow was an experienced scale technician, employed by the E.T. Fairbanks Company.

In the early days, Emery manufactured HYDROSTATIC™ and pneumatic force measurement systems developed primarily for use in strength of materials testing machines. The original testing machine, hailed by the newspapers of the day as the "Trailblazer of the Machine Age", was installed at the Watertown Arsenal, Watertown, Massachusetts in 1879.

The question that caused this machine to be built hinged on a difference of opinion regarding the relative merits of iron and steel. The War between the States was fought with bronze and cast iron cannons. One group of engineers believed that guns made of steel would be cheaper than bronze and more dependable than iron. This point of view was upheld by the Army, but opposed by the manufacturers of iron. During the early 1870's, this controversy was a lively Congressional debate.

Finally, in 1873, the Congress of the United States appropriated money for the design and manufacture of a machine to test iron and steel. A.H. Emery was engaged to design and build such a machine capable of testing loads of up to 1,000,000 lbs.

The testing machine was delivered to Watertown Arsenal in 1879 where it was installed in a special building and immediately began to make engineering history. The first problem was to test the machine itself. A steel bar, 5 inches in diameter, was inserted, the HYDROSTATIC™ pressure turned on and the eyes of the experts watched the mounting pressure on the gauge. Finally, the needle indicated a load of 722,800 lbs. and the steel bar collapsed and broke under that load ... more than 361 tons.

The fractured steel specimen was taken out and a horsehair inserted and adjusted for a tensile test. The hair became taut under the pull of the mighty machine, and suddenly snapped at a load of 16 ounces. A section of the same hair was then tested with a delicate spring balance, and again its breaking strength was affirmed to be 16 ounces.

Since then, engineering textbooks have referred to the Emery apparatus as "the most perfect weighing machine ever devised"; and it has become the model for innumerable similar devices. It settled the controversy between iron and steel with an overwhelming verdict in favor of steel.

Since these early days, Emery participated in the manufacture of thousands of Universal Testing Machines. There are still thousands in use today throughout the entire world.

During the above era, the Emery HYDROSTATIC<sup>TM</sup> load cell and the associated indicating devices took on increasing prominence, recognized to be unique for their unusually excellent durability, capable of performing under seemingly impossible conditions.

As a result of the excellent performance of the HYDROSTATIC<sup>TM</sup> load cell in the testing machine field, a gradual transition was made into the world of weighing and force measurement. The HYDROSTATIC<sup>TM</sup> load cell, due to its high accuracy, ruggedness and low maintenance, found acceptance in this field, and is now recognized as one of the most dependable force sensing units available.

Winslow, on the other hand, began by manufacturing railroad track scales and horse drawn wagon scales, and later added truck scales, floor scales and aggregate cement bins and batchers.

State-of-the-art electronic technology has been combined with Emery Winslow capabilities to meet today's stringent requirements for sophisticated instrumentation systems.

Today, a wide variety of products are manufactured, including a line of HYDROSTATIC™ load cells ranging from 100 lbs. to 1,000,000 lbs. in capacity. The largest cell ever built - 12,000,000 lb. capacity - was designed and built by Emery for the National Bureau of Standards, Gaithersburg, Maryland. HYDROSTATIC™ and electronic load cells are utilized in engineered systems for use in tank and hopper scales, floor scales, vehicle weighing scales, tension measurement systems, process control weighing systems. Installations have been made in all classifications of today's industry in the U.S.A. and exported around the world.

In June 1963, The A.H. Emery Company was acquired by and became an operating subsidiary of the Aero-Chatillon Corporation and, in 1969, an operating division of the Macrodyne-Chatillon Corporation. In January 1973, present management acquired full ownership from Macrodyne-Chatillon and Emery reorganized as an active Connecticut corporation.

In February 1974, The A.H. Emery Company acquired the Winslow Scale Company located in Terre Haute, Indiana, manufacturers of industrial scales, track and truck scales, cement silos and aggregate bins since 1896. The Winslow plant consists of four buildings and 80,000 square feet of up-to-date manufacturing space, situated on 15 acres of prime industrial land.

In 2003, The A.H. Emery Company acquired Pennsylvania Scale Company located in Lancaster, Pennsylvania. Pennsylvania Scale has been manufacturing electronic counting, bench and floor scales since 1899.

The Emery Winslow Scale Company continues to engineer, manufacture and market a superior line of industrial weighing products and strives to retain the reputation of being, "A Good Company To Do Business With", working with a strict sense of integrity and understanding for the benefit of its customers and markets.