

ASHRAE HISTORY SUBMITTAL

for

CRC 2001

April 26-28 Minneapolis, MN

The Three Amigos

**Submitted by Sherman Sweeney
Mississippi Valley Chapter 123**

The year was 1917, and the river community of Davenport, Iowa was in need of new schools to house its growing population. The city fathers hired Temple & Burrows Architects of 208 Main Street, Davenport to design three identical schools---West Intermediate (now Smart), East Intermediate (now Sudlow), and John B. Young Intermediate. The community of Davenport was “politically correct” decades before the term became popular. The three new schools would provide identical learning environments for each of the area’s students.

As early as 1917, educators and designers were aware of the need for good ventilation in educational facilities. In addition to operable windows, the buildings were furnished with central ventilation systems featuring an “Engine Room” that consisted of a large centrifugal fan, identified as a #9 Sirocco Double Width fan, rated for 50,000 cfm. The ventilation air was tempered with Vento Coils, large finned cast iron heating coils. The heating coils were fed with twin coal-fired boilers. The boilers’ brick fire boxes have since been filled-in and converted to gas, and are still in operation today.

At the heart of the ventilation system was an early pneumatic control system. The photo illustration attached depicts the heart of the pneumatic control system---a field-erected air compressor. Unlike today’s self-contained compressor packages, this compressor used a single piston and cylinder, driven by a pulley and crankshaft. The pulley was turned with a wide flat belt, possibly made of leather in the original installation.

The air compressor has long-since been replaced with a packaged reciprocating unit, and the entire ventilation system is scheduled for replacement during 2001-2002 renovations to the schools. The new control system will consist of electric actuators and DDC technology monitored by computer instead of the old work-horse pneumatics. If the installing contractor, Jeremiah J. Ryan of Ryan Plumbing and Heating (whose signature graces the blueprints) were alive today, he would be amazed at the progress that has occurred. What will the new Century bring?

Adios