

German American History

ENGINEERS OF DISTINCTION PART I

The United States are admittedly a country of great engineers. This fact is not surprising, as the topographical conditions of no other country offer to engineers so many and extraordinary opportunities to display their abilities and genius. The country abounds with broad rivers and deep canons; vast prairies and deserts are to be transversed; steep mountain ranges must be overcome. To conquer all these obstacles, where they interfere with commerce and communication, are fascinating problems that call for the exercise of highest mental powers, for rare ability and genius.

Among the masterminds who grew with the solution of such problems, we find so many Germans and German Americans, that it is indeed not said too much, that the history of engineering in the United States is almost identical with the history of the German-American engineers.

When in 1813 LUDWIG WERNWEG built a wooden bridge across the Delaware River at Trenton; when ALBERT VON STEIN constructed the waterworks of Cincinnati, Richmond, Lynchburg, New Orleans, Nashville and Mobile; when the Swabian GINDELE dug a canal connecting Michigan Lake with the Mississippi, and also the great tunnel, through which Chicago is provided with fresh water from the Michigan Lake, all these works were admired as such, doing great honor to the skill of their makers.

But far greater works were still to come. HERMANN HAUPT, born 1817 in Philadelphia, a graduate of West Point, constructed in 1856-1861 the famous Hoosac-tunnel in Massachusetts, having a length of 4 3/4 miles and costing 16 million dollars. He, too, demonstrated the possibility of carrying coal oil long distances by pipes, effecting thereby to the refineries a saving of enormous sums.

Gifted with equal genius was ADOLF SUTRO, born 1830 in Rhenish Prussia. Having received his training in a German polytechnic school, Sutro came to New York in 1850. Ten years later he transferred his activity to Nevada. Here the Comstock silver mines, discovered in 1859, yielded enormous profits, but the work could be carried on only under enormous difficulties, as the shafts had been sunk to a depth of 2000 feet. In these great depths the miners suffered not only by almost unbearable heat and poisonous gases, but also from large quantities of water, collecting in the shafts. Several of the mines had been flooded and were abandoned.

Sutro conceived the idea of connecting the widely separated mines by wide tunnels, which was to serve not only as a ventilator and a drain, but would also be an important factor in cheapening the cost of hauling ore. Sutro started on October 19, 1869, with the gigantic undertaking. In 1878 the tunnels were completed and ventilated by several vertical air shafts.

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