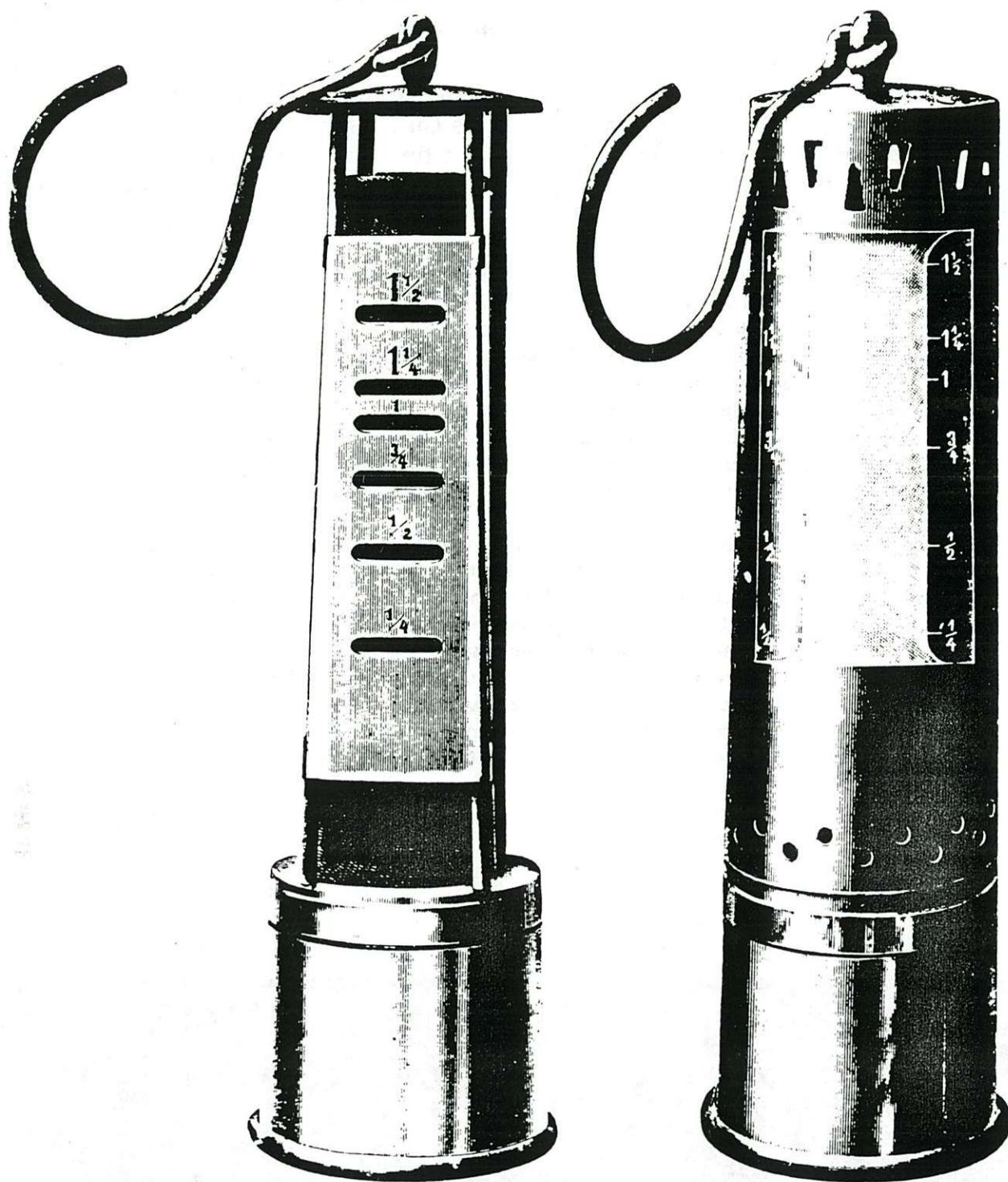


The Pieler Lamp by Jim Steinberg

A special lamp that collectors are likely to see only rarely is the Pieler lamp. The Pieler lamp was exclusively for mine gas testing. Burning alcohol, the Pieler lamp looks very much like a large "tin-can Davy." It has no glass globe and a very tall gauze to allow the viewing of the high gas cap that forms above an alcohol flame.

Initially, the Pieler lamp was adjusted in open air so that the very top of the flame just barely reached the bottom of the viewing scale. Standard lamps such as the two to the right could read gas percentages from $1/4\%$ to $1\ 1/2\%$. Lamps with substantially taller gauzes could read up to 2% or even 3% (see lamp at left). The sensitivity of the lamp to mine gas was so great that at $1/4\%$, the gas cap was nearly one inch tall and at 3% , the gas cap was 7 inches high. Look for mica (also known as isinglass) windows on Pieler lamps equipped with bonnets.



The Pieler lamp was an extremely poor choice for any other use other than mine gas testing. In the presence of gas, the lamp would heat up quickly and when the concentration was high, the flame would fill the lamp. Intended to detect gases when the concentration was too small for measurement with a standard Wolf type safety lamp, the Pieler would almost inevitably cause an explosion if brought into the presence of a substantial body of gas.

The lamps shown here are as depicted in the 1915 catalog of the Draeger Oxygen Apparatus Co. which was a representative of the Wolf Safety Lamp Co.