

PRESS RELEASE

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SCIENCE CONTEST ANNOUNCED

SARANAC LAKE, New York; February 25, 2008. Historic Saranac Lake extends an invitation to the community to participate in a science contest. Individuals will compete to successfully recreate Dr. Trudeau's home-made device: "A ridiculous little thermostat, made in the village." The winning model or drawing will be displayed with the new Saranac Laboratory Museum Exhibit this summer.

In 1885, Dr. E. L. Trudeau began running experiments to study the tuberculosis germ from his home in Saranac Lake. He worked in a small laboratory he set up first in his home office. Later he moved the lab to a small addition he built off of his office. The extraordinary cold mountain environment demanded that he improvise special equipment to maintain the constant high temperature needed for germs to grow.

In his Autobiography, Dr. Trudeau describes a device that he made, "a little home-made thermostat, heated by a minute kerosene lamp, without any regulating apparatus . . ." (p. 187) This mysterious device worked quite well for several winters. It was eventually replaced with a store-bought mechanism which malfunctioned, burning down Dr. Trudeau's house and attached lab, leading him to build the Saranac Laboratory.

The following information from Dr. Trudeau's Autobiography is all that we know about the ingenious device:

"... a thermostat in which the high temperature needed for the growth of the germs could be constantly maintained. I had seen only one thermostat for growing bacteria, and that was in Dr. Prudden's new laboratory. This was an imported instrument and had a self-regulating apparatus – a column of mercury turning the gas on or cutting it off, as the heat fell or rose beyond the required temperature. In Saranac Lake in those days, not only had we no gas to heat the thermostat, but we had no coal to keep up the temperature of the room. At night the fire in the wood stove would go out, and on very cold nights everything in the room would freeze hard. I had the tinsmith at the hardware store send for some sheets of copper and make a thermostat, which consisted merely of a small copper box about eight inches square inside of a larger copper box, the space between the two being filled with water heated from beneath by a minute kerosene lamp. A tube allowed a large thermometer to be placed in the inner box, and its readings to be taken outside as it emerged through a perforated cork at the top of the apparatus.

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"... I put the thermostat in three or four wooden boxes, each a little larger than the other, and packed the space between these with wool and sawdust. These boxes all had doors, and by opening and shutting these, according to the temperature outside of the house, I could maintain a fairly regular heat in the inner thermostat." p. 189-190

Historic Saranac Lake will choose the best recreation of the device for display in the Saranac Laboratory Museum, summer of 2009.