

## "An Illustrated Guide to American Milking Machines"

A survey of U.S. Patents

1849-1910

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### Introduction

During the last half of the 19<sup>th</sup> century, over 100 milking devices were patented in the United States. The earliest such devices were simple milking tubes, which, when inserted in the teat, held the sphincter muscle open. In the 1860's, development of both pressure and vacuum type milking machines drew considerable interest in both America and England.

The pressure machines were an attempt to emulate the action of the human hand in manipulating the teat. Such early machines had many drawbacks, including inability to adapt to different size teats and a tendency to force some of the milk backward. The early vacuum machines used a hand pump and applied a constant vacuum to the teat cups, or even the entire udder, causing obvious problems of blood congestion and unsatisfactory milking. The claims made by most of the milker patents involved methods of solving the multitude of problems inherent in either of the two methods of mechanical milking. True progress was slow, despite the parade of "Rube Goldberg" type devices that passed through the patent office. Many of these milkers were actually marketed, and some successfully. L.O. Colvin (patented 1860 and henceforth) worked hard both in this country and in England to establish the reputation of his milking machines. And, he won a great deal of press coverage and resulting sale of his machines. Roth (patented 1886 and henceforth) also attained some degree of fame with one of his several early milkers illustrated and described favorably in an 1886 issue of the Scientific American. William Mehring's famous foot treadle milker (patented 1892 and henceforth) was marketed well into the 20<sup>th</sup> century and can still be occasionally found at a country auction.

The scope of this book was to be limited to 19<sup>th</sup> century milkers, but, so many hand milkers and other pressure and vacuum milkers of the pre-pulsator type were patented in the first decade of this century that we relented and moved the cut off date up to 1910. While pipeline milking was flourishing on large farms in the early 20th century, there was still a market for a device to milk just one or two cows. One unique device, patented in 1910, was a vacuum milker wired to a battery, to cause the cow to let down her milk by means of an electric shock.