

# **Contingent Mechanization: The Case of American Dairying**

by

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An Abstract of a Thesis Submitted to the Graduate

Faculty of Rensselaer Polytechnic Institute

in Partial Fulfillment of the

Requirements for the degree of

DOCTOR OF PHILOSOPHY

Major Subject: Science and Technology Studies

The original of the complete thesis is on file  
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June, 2008

(For Graduation August 2008)

## **ABSTRACT**

As technology became entrenched in agricultural production in the industrialized world, the justification for its adoption has been generally rooted in the degree to which it improved production efficiency. This rationale for technological adoption in food production is explored using the case history of the transition from hand to machine milking in the United States dairy industry. The milking machine was chosen because it is a ubiquitous and unchallenged technology whose adoption was well-documented in contemporary sources. This documentary evidence was examined to determine the degree to which participants in the shift from hand to machine milking perceived efficiency as a causal force. Efficiency theory was teleological in the dairying case and its use obscures the complex set of motives for adoption of the milking machine. The adoption of this technology was in fact contingent on a wide variety of social, biological, and economic factors that had to be negotiated before the milking machine could achieve its current ubiquity. From this case study, current and future examples of efficient production were examined for what might affect the adoption or rejection of these technologies.