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Olof Hallstrom: A dairy farmer with a fertile brain. See page 16.

He's the Thomas Edison of dairy farming

by Rick Kellogg

He's a thinker.

Whether he's plodding through the mud after a holstein or wearing out his favorite living room chair, Olof Hallstrom's mind just won't stop churning.

The result: this Tillamook dairy farmer has patented half a score of intriguing inventions, varying from the revolutionary to the deceptively simple.

"The money is secondary," said Hallstrom. "What makes me invent is what I'd have to describe as an inward driving force. It's the same thing that makes people addicted to mountain climbing or religion."

His particular addiction has led to some interesting advances in the technology of dairy farming, including new milk pumps, automatic doors, boot driers, self-unloading trucks and even an improvement on mother nature's version of a milk cow's teats.

"I've learned in my traveling that people have a tendency to be satisfied with whatever is presented at the time. They don't think about innovating," Hallstrom said. "Except for the farmer. He's basically an individualist to start with,

and in order to be self-sufficient he has to go out and develop things for his own use."

For Hallstrom, that process began about 15 years ago.

He grew up on the farm, but as a young man he journeyed off to college to pursue his true interest in mechanics. After less than two semesters studying general engineering, events back home caused him to drop school and return home to run the farm.

Since that time he has operated a dairy farm with 60 head of holsteins on the family property southwest of Tillamook. He and his wife, Mary, have five children and two grandchildren.

But his bent for mechanics and engineering didn't disappear. He kept reading, thinking and observing, and soon began putting his ideas down on paper.

The first was a power door opener for letting cows move into the milking parlor. The device, which in other designs has since become standard in automated parlors, allowed the milker to move cows along at the flip of a switch rather than having to run back and forth to the gate.



The invention set the tone for Hallstrom's future efforts; a common sense approach to everyday problems which nobody else had taken the time to think of.

His next brainstorm came in the form of a small pneumatic pump which saved the milker the effort of hauling the milk cans to the top of the cooling tank to be dumped.

"We put out hundreds of those," Hallstrom said. "We built it ourselves down in the shop and marketed it."

Those early inventions were only the beginning for Hallstrom.

"Once you've seen your ideas take shape and be put to use, it whets your appetite for more," he said.

When his appetite is being whetted, his wife, Mary, can generally tell.

"He just sits and thinks," she said, describing her husband's thought processes in action. "We may have to get a new chair, because he keeps wearing that one out with his new inventions."

His thinking has come up with some creative new ideas for the farm.

One of the latest is a massive, complicated piece of machinery which is a self-unloading truck bed. This invention, which Hallstrom said he thought of after many a fight with a load of silage, operates on a simple mechanical principle. He compares the device to a sack of potatoes sitting atop three parallel boards.

"Move one of the boards, and the sack won't move," he said. "Move the next,



Hallstrom's implanted milking valve is tiny but ingenious.

Left: Says Hallstrom, "What makes me invent is what I'd have to describe as an inward driving force. It's the same thing that makes people addicted to mountain climbing or religion."

Right: Hallstrom and his wife, Mary, look over the drawings to be submitted to the patent office.



and then the next, and it still stays stationary. But if you bring the three boards back all at the same time, the sack moves with them."

His self-unloading truck bed works roughly the same way. Aluminum slats run the length of the trailer bed. Each is attached to a drive mechanism which moves every third slat. When all three have been moved about six inches forward, the whole bed moves back.

Thus, in six inch movements, the load is slowly but surely moved to the rear of the trailer.

Hallstrom said the truck trailer has applications in moving wood chips, silage, refuse and many other kinds of loose load. The truck beds are being manufactured in conjunction with a partner, Bob Snellman, and in cooperation with a company based in California and Denver. Already, more than 30 of the big rigs are in operation.

Not content to stop with self-unloading truck beds, Hallstrom has recently received a patent on his latest brain-

This time instead of something massive, such as a truck bed, he has gone for something tiny. It's called an implanted milking valve.

Simply put, it is a plastic tube with a check valve at the end which is inserted in the teats of a milk cow. It's left there permanently, and when the cow is milked a coupling valve is attached to drain out the milk.

"In effect, it's an artificial sphincter

muscle," Hallstrom said. "The cow never knows it's there."

This invention he is testing and producing in cooperation with local veterinarian Dr. Dale Sayles. He said its applications include helping cows with mastitis or other diseases to continue to produce milk, and also to eventually speed up the operation of everyday milking.

"With this unit, you need only two or three inches of vacuum to draw out the milk, as opposed to the 13 or 14 in conventional milkers," Hallstrom said. "With the reduced pressure, the milker

doesn't have to watch so carefully over the cows. Instead of 40 or 50 cows per hour, one man could milk several hundred."

Hallstrom's inventions are impressive, and apparently just beginning to pour out of his fertile brain. He's got a couple more already in the works, but won't divulge them until the patents have cleared.

But one thing's certain: as long as he's a dairy man and as long as that brain keeps churning, the patent offices will have a busy time keeping track of Tillamook's Olof Hallstrom.



Hallstrom and his son Steve stroll together through the family dairy farm.