



The operator opens the squeeze chute like a gate and closes it on the neck of the animal he selects.

FOR ANIMALS OF ALL SIZES

Squeeze Chute Doubles As A Sorting Gate

One person can catch and handle even the most stubborn animals with the patented new Rugby squeeze chute made in Sheffield, England. The chute is unique in that it can be used as a sorting gate between two pens to treat selected animals.

"It's designed to open all the way as a gate. Animals naturally head for the open exit. As they do, the operator pivots the gate shut with the chute side panel, locking the animal's head in position," explains John G. Cook, of Wincobank Engineering Ltd.

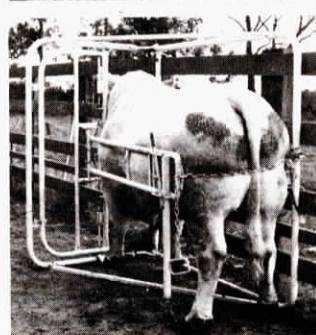
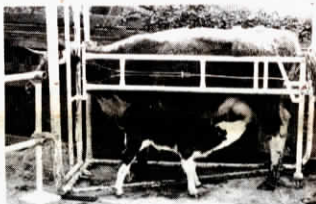
Because the side panels can be snugged up as tight as needed with a rear chain, the chute will handle any size animal, whether for hoof trimming, vaccinating, or other chores. When finished, a release lever on the swinging side panel lets the gate, now holding the animal's head, swing forward. The animal walks into the second pen.

"You don't have to excite the animal by cashing him up to a conventional chute. Consequently, it's safer and less stressful for the animal," says Cook. "Sides of the chute are designed for easy access to the animal. Or, you can swing the side panels open and expose the entire side of the animal."

Most operators place the chute flat against a building or fence. The unit is reversible and can face either direction. It features a 3-pt. hitch attachment for easy transport with a tractor.

The company sells the chute in the United Kingdom for around \$1,000. It's patented in the U.S. as well as in the United Kingdom.

For more information, contact: FARM SHOW Followup, Equipment Ltd., Wincobank Engineering Ltd., Tyler Street, Sheffield, England S9 1GL (ph 0742 386931).



The new squeeze chute handles animals of most any size and is handy for hoof trimming, vaccinating, suckling calves on reluctant mothers, etc.

HEDSTROM-POWELL INTRODUCES NEW REVAMPED MODEL

Iowa Firm Buys Rights To Friction Furnace

By Lonnie Stauffer
Associate Editor

Patent rights to the controversial Frenette "friction furnace" which we've been telling you about in previous issues have been purchased from inventor Eugene Frenette, of Derry, N.H., by Hedstrom-Powell, Inc., of Des Moines, Iowa.

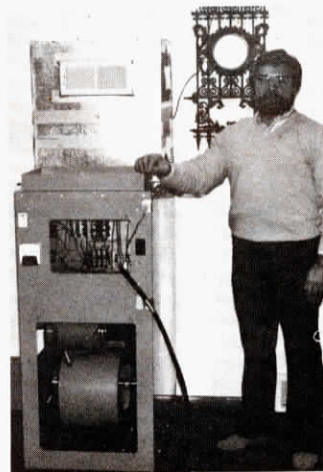
Frenette's design utilized two spinning drums, one inside the other and turning in opposite directions, with a 1/8 in. oil-filled gap between to create friction. Hedstrom-Powell has altered the design in that a single cup-shaped rotor spins inside a stationary outer container. A 1/8 in. gap between is filled with light oil to create friction.

The company says its new design is simpler and presents more surface area with which to create friction, and thus heat. The new design has been incorporated into the just-introduced Model 300 Friction Heater from Hedstrom-Powell. Since no flames or gasses are involved, it requires no chimney or flue, according to Lou Powell, co-owner. It's driven by a 3 hp. electric motor (220V) on the heat-producing rotor and a 1/4 hp electric motor (110V) on the fan. "It's designed to heat a properly insulated 1,200 sq. ft. home," says Powell. Suggested retail is \$1,852. Current models are being manufactured for Hedstrom-Powell by Nebraska Engineering, of Omaha.

Hedstrom-Powell had an independent test performed on the company's new model 300 Friction Heater by Dr. Timothy Maxwell, professor of mechanical engineering at Auburn University, Auburn, Ala. He concluded that it produces 11,700 btu's of heat per hour. "The heater is essentially 100% efficient when used as a space heater located within the area to be heated. That is, 100% of the electrical power consumed by the unit is converted to heat.

"Approximately 81% of the energy consumed by the unit as electrical power is delivered in the heated air stream coming from the unit. The other 19% of the energy is merely dissipated from the unit itself," Dr. Maxwell points out.

In testing the heater, he measured its electrical input and the heat output. He determined that the unit's two electric motors consumed 3.4 kilowatts of electricity per hour and put out 11,700 btu's of heat per hour. "Mathematically, that reveals a heat conversion rate of 97 to 100% efficiency. This includes the 'waste' heat the motors produce which is dissipated from



New model 300 Friction Heater needs no chimney or flue. It tested out at 11,700 btu's per hour.

the unit into the room," Dr. Maxwell explains.

"One reason the Friction Heater may be able to heat as well as its makers claim ("A properly insulated 1,200 sq. ft. home") is that it performs like a space heater, not as a central heating furnace. It always takes less energy to heat with space heaters than with central heat furnaces. Essentially, space heaters heat less area. With space heaters, seldom-used rooms or corners of houses are often unheated, whereas a central furnace is ducted to heat the entire house," Dr. Maxwell explains.

FARM SHOW asked Dr. Maxwell if, after evaluating its performance, he'd be interested in buying a new \$1,852 Friction Heater for his home?

"I personally wouldn't buy one," he answered. "If I was going with electric heat, I'd just buy a similar size 11,000 btu conventional electric resistance-type heater from Sears or some other home-furnishings store."

Dr. Maxwell adds that his first choice would be a non-electric type heater: "I'd select a natural gas-fired heater since natural gas is currently about the cheapest fuel around, and also one of the most efficient," he told FARM SHOW.

For more information on the new Friction Heater, contact: FARM SHOW Followup, Hedstrom-Powell, Inc., 8230 Hickman Rd., Suite 200, Des Moines, Iowa 50322 (ph 515 276-4538).