

Good things come in University Bakery packages

By DONNA HIGGINS
Collegian Feature Writer

In one corner, a huge mixer beats 700 pounds of bread dough. A few feet away, a man spins little balls of dough onto trays faster than anyone can count. And on one side of an oven, another machine wraps hamburger rolls in plastic to the tune of 1,000 dozen per hour.

The noise is deafening. But the smell of the freshly-baked bread loaves coming out of the ovens is heavenly.

If you could close your eyes to all the machinery and shut your ears to the roar, you would think you were sitting in a small bakery in your hometown.

But you're not. This is the University Bakery, one of the most efficient and productive bakeries in the country.

The Bakery, located in the Foods Building on North Atherton Street, produces all of the breads, rolls, cakes, pies, cookies, doughnuts, muffins, turnovers, custards, dessert squares, macaroni, peas and cheese salads consumed by University students.

Bakery products go to the dining halls, the cash operations such as the HUB Eateries, the cafeteria in Kern Building and the dining hall snack bars. University bakery products are also sent to seven Commonwealth campuses, said Robert Reese, Foods Building manager.

The only products that don't come out of bakery ovens are danishes because of the time-consuming hand-work involved in icing and decorating them, Reese said. He added, however, that production of fancy danishes may begin in the near future for sale in the cash operations.

The bakery is a division of Housing and Food Services and is funded only through revenue from the cash operations and board money paid by students, Reese said.

Bakery products are made to be consumed while they are still relatively fresh, Reese said. What the bakery produces at a given time depends on what the dining halls menu calls for and what the dining halls, Commonwealth campuses and cash operations order, Reese said.

The Bakery uses no preservatives in its products, he explained, so everything must be consumed almost immediately or frozen for shipment to the Commonwealth campuses.

The University uses two trucks to deliver Bakery products to seven of the Commonwealth campuses: Mont Alto, Behrend College, Beaver, McKeesport, Hazleton, Capitol and Altoona, Reese said. Each campus receives one delivery per week except for Hazleton Campus, which receives a delivery once every two weeks.

The reason all Commonwealth campuses are not served, Reese said, is because some are too far away and too small for delivery to be economical. Also, ingredients or supplies University Food Services needs must be available in a delivery area for the trucks to bring back, he added.

For example, trucks going to Behrend College stop in Buffalo, N.Y., to pick up flour, Reese said. A trip to Mont Alto results in canned apples, applesauce and canned goods from Furman's Cannery. Hazleton yields bread bags, plastic wrap and frozen veal steaks.

Two bakeries have been housed in the Foods Building, said Bruce Rathfon, manager of purchases for Food Services, who has worked in the department for 33 years. The first part of the bakery was built in 1949, and in 1958 an addition was added to expand the warehouse, freezer and refrigeration space, Rathfon said.

The bakery was part of a University plan to make Food Services more centralized and self-sufficient, said Thomas Gibson, director of Food Services. Before 1949, most individual

dining halls did their own baking, Gibson said.

Atherton Hall had a bakery in its basement that produced bread and rolls for the students who ate in the third floor dining room, Rathfon explained.

McAllister Building, formerly a women's residence hall, had a dining hall and bakery that fed women from McAllister and Grange Building, which was also a women's residence hall, Rathfon said.

The completion of Simmons, McElwain and West Halls in the late 1940's greatly increased the number of students eating University food, Reese said, adding that this increase created a need for centralization of food services.

The present location was chosen because of its proximity to the railroad tracks. Trains filled with supplies could practically pull up to the door to unload, Gibson explained.

How exactly can one bakery make all those doughnuts, rolls and loaves of bread?

The process begins when the flour, eggs, dried milk and other ingredients are combined in a mixer that can mix up to 700 pounds of dough in 20 minutes, said Norm Weber, bakery production manager.

"We use it for bread and roll dough," Weber said. "Other stuff, like cakes and cookies, get mixed in the upright mixers. They hold about 200 pounds each."

When bread or roll dough has finished mixing, the front of the mixer rotates open and the dough pours into a well-greased "dough trough," a 10-foot long trough on wheels.

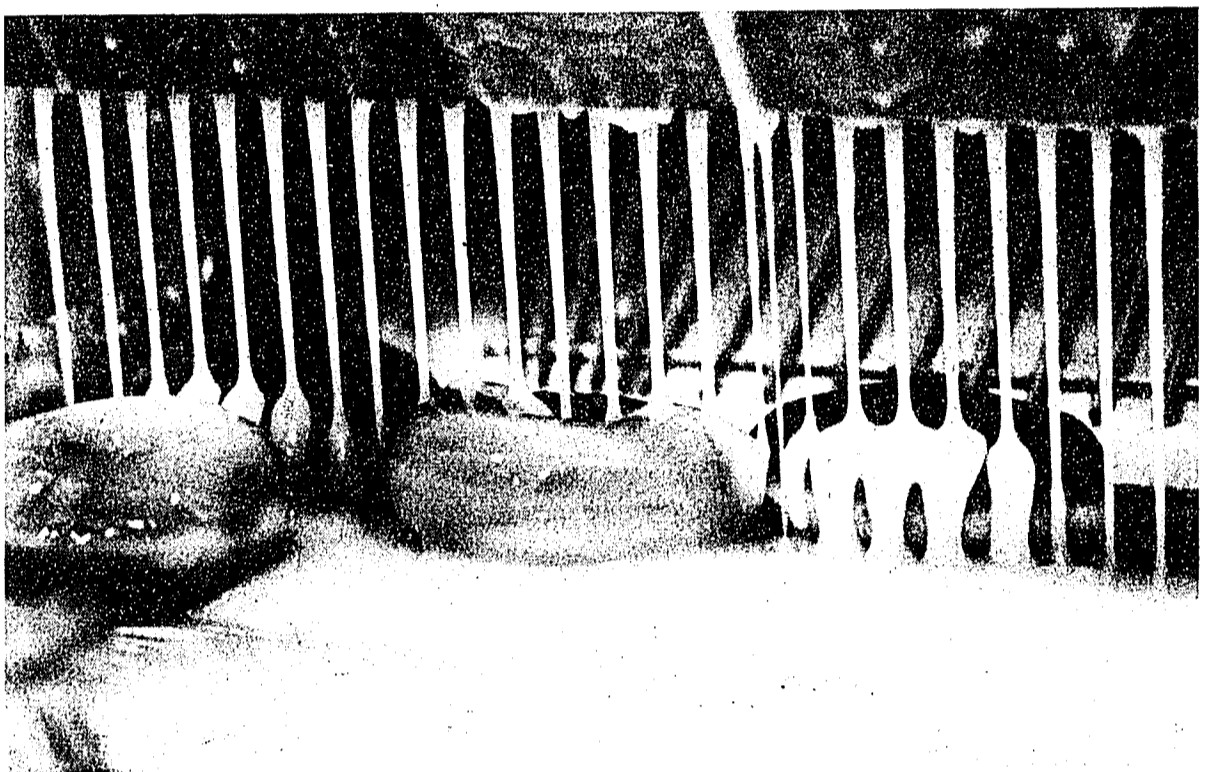
Bread dough is wheeled to the bread divider and is fed into the machine, which scales, cuts and shapes the dough and puts it into pans.

Before the dough is put into pans, it spends about 20 minutes in a part of the machine called a proof box. The "proof" is like a sauna. Moist heat causes the dough to rise and relax, becoming softer and more flexible, Weber explained.

For rolls, the trough goes to the roll pan. A hoist lifts the trough and tilts it forward. The "guillotine" front slides up and the dough pours into a funnel.

The machine cuts and shapes the dough into balls that will become hamburger or hot dog rolls. The balls of dough travel their way through the roll proof for about 20 minutes before the machine spews them onto trays, Weber said.

The bread and roll dough goes into a larger proof box for about 45 minutes before going into the oven, he said.



These bakery doughnuts receive a final touch — vanilla glaze — before they are ready for consumption. The bakery's doughnut machine can make 300 dozen doughnuts an hour. It produces three different kinds: cake doughnuts, which are covered with cinnamon or powdered sugar; jelly or cream-filled bismarks and glazed doughnuts.

on top of the other. As the products reach one end of the racks, they curve down and proceed along the next level.

After cooling, the bread is sliced and bagged by machine. An electric eye sees each loaf coming and activates an air jet that inflates a plastic bag. Metal "ears," which look like two hands, one on top of the other, reach out, grab the bag and yank it over the loaf. The end is automatically sealed and it is ready to go to its destination.

Rolls go to the "pillow pack" machine, which wraps them in plastic. The bunches of rolls, usually three dozen to a pack, are held back and timed by a lever similar to the barrier at a toll booth. The lever lifts at the correct instant and the rolls bump into plastic wrap. They drag the wrap along with them until just the right instant, when a hot metal rod drops down and closes and seals the end. The machine is ready for the next bunch.

The Bakery's doughnut machine, capable of producing 300 dozen each hour, is one of the newest and most efficient made, Weber said.

"The machine cuts and shapes them," said Margaret Woods of Philadelphia, a Bakery employee. "Then they go into the proof box."

The doughnuts are placed four across on small, narrow trays that snake their way up and down through the proof for 30 to 35 minutes.

"When they're finished in the proof, they fry in fat, first on one side, then on the other. They are flipped halfway," she explained, pointing to a mechanism that looked like a paddlewheel.

Three kinds of doughnuts go through this process, Weber said: cake doughnuts, which are usually covered with powdered sugar or cinnamon; bismarks, that are filled with cream or jelly; and raised doughnuts, which are glazed.

"If they're glazed like these," Woods said, pointing out some freshly made glazed doughnuts, "they go through this glaze before we pack them."

Chocolate or vanilla glaze is pumped up from its container into a trough with holes in the bottom. The glaze forms a curtain that the doughnuts pass through.

However, the process hasn't always been this efficient. Ralph Hosterman, retired manager of the Foods Building, remembers the bakery in the basement of Atherton Hall.

"They had one oven," Hosterman, a retired manager of the foods building, recalled. "They used a duchess roll machine to cut dough. They had to put the dough and pull a lever to cut it, then put it in pans by hand. We took some of that equipment, including the roll machine, to the Foods Building."

"At first in the Food Building, for bread, all we had was a molder. We had to cut the loaves by hand, round them up by hand then you dropped them in the molder. That rolled them into a long loaf. Then you had to pan it by hand. It went to the proof box then from there it went to the oven. You had to put each pan in the oven," he said.

"When the Foods Building opened in 1949, we were baking for about 5,000 students," Hosterman said. "A lot of the work was done by hand. The modern machinery wasn't available yet. We started at 5 a.m. and were lucky to get out by 5 p.m. We had 12 employees who worked two shifts then. We worked long hours and worked six days per week."

Now the Bakery operates seven days a week and has 24 full-time employees. They work eight hour shifts, arriving at work between 4 and 8 a.m., Reese said.

New equipment increased production while decreasing labor, Hosterman continued.

"We used to have to slice the bread

by hand. Now that is done automatically. It's all cut, divided, molded, panned, sliced and bagged by machine now. The only time they touch it is to take it off the bread divider and put it into the proof."

Another machine that has greatly increased efficiency is the Artoflex machine, said Hosterman. The machine was intended to mix pie crust, but employees discovered that it also did a good job mixing the salads that the Bakery now makes.

Hosterman said that another important advancement was instant yeast.

"You put it in and then there's a pill you put with it that creates a gas that makes the bread rise," he said. "You don't have to worry about refrigerating the yeast. You eliminate the floor time. We used to have to put the dough into a trough for two hours and let it rise."

Instant yeast allows bakery employees to mix the bread and let it stand for 10 minutes before putting it in the machine. The dough is then more relaxed and easier for the machine to handle, Hosterman said.

The University Bakery has gone through many changes since its days in the basement of Atherton and McAllister halls, Hosterman said. From small bakeries that fed only a few thousand students, new machinery and an efficient baking process has made it one of the most productive bakeries in the country.

"Now they can do 400 to 600 loaves of bread in about 15 minutes. It used to take us almost all day to do that many, with all the hand work," Hosterman said. "Students are amazed that we can do all this here."

Products are sent to the University dining halls, cash operations such as the HUB Eateries and seven of the Commonwealth campuses. Bakery items, like these hamburger buns, (bottom right) are inspected on their way to packaging.

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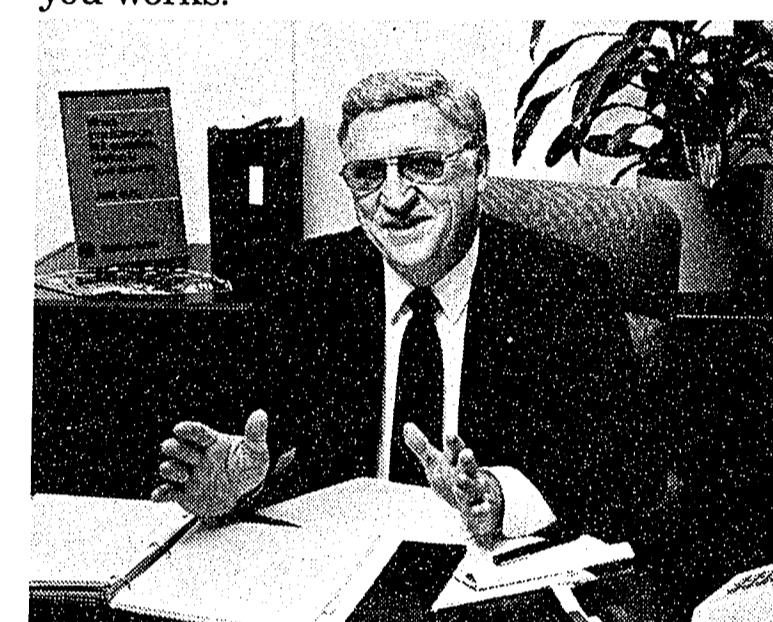
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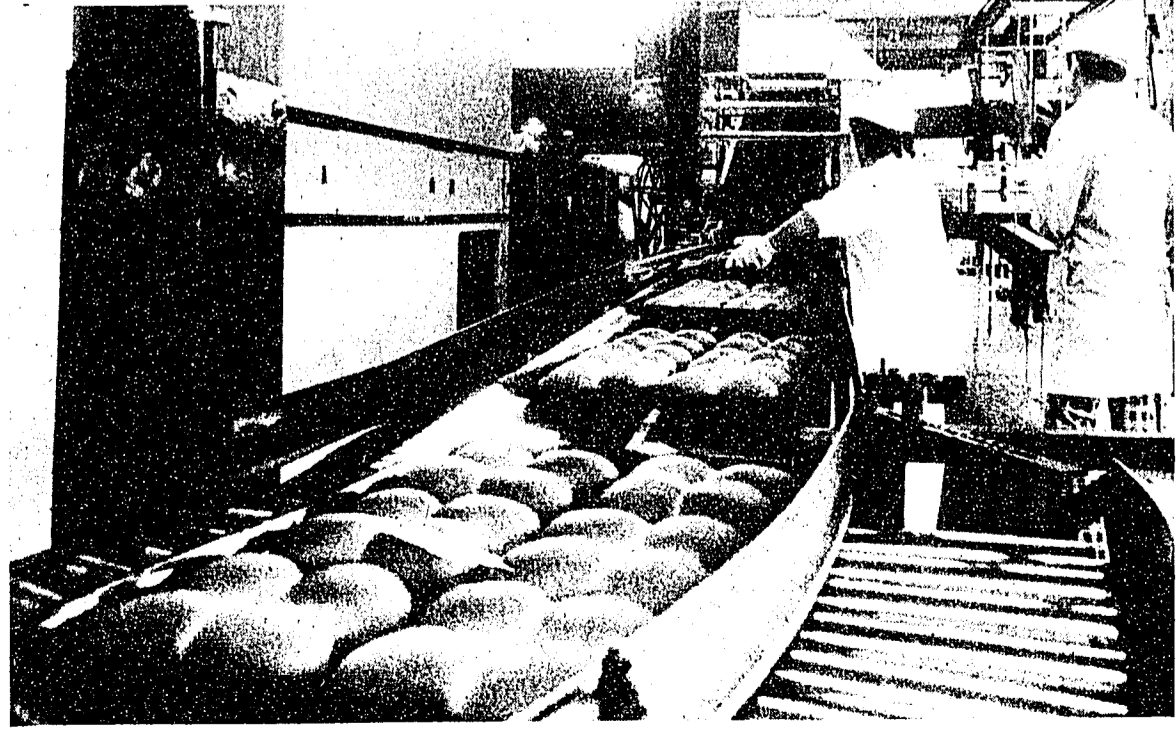
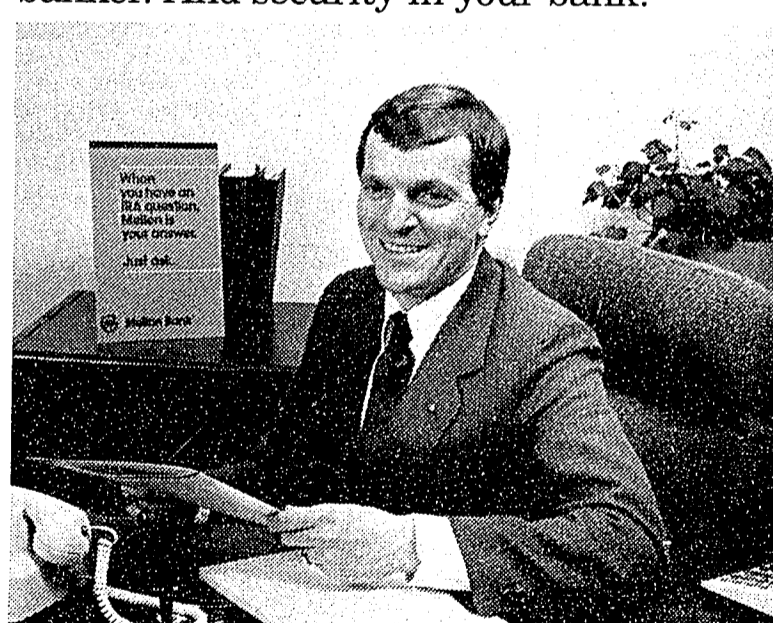
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