

More Cheese for Breakfast

By Frank J. Taylor

PHOTOGRAPH BY VALENTINO SARRA

America makes and eats more cheese than any other land. Our cheese makers have duplicated almost every great variety, improving on some, and even invented a few of their own

MOST cheese men spend their lives making one kind of cheese—Cheddar, Swiss, Limburger, brick, Camembert, Brie, jack or—name your cheese. But Mr. Pulkrabek, whom Kraft's, the big dealers in cheeses these days, installed as boss in their ultra-ultra cheese factories at Stockton, Illinois, has taken the guesswork out of cheese making. He combines the scientific with the cheese maker's instinctive touch and turns out all kinds of cheese, and from the same batch of milk, because Americans have whetted their cheese appetites and are eating six pounds per capita in this year of our Lord. A couple of decades ago it was only half that, and one of these days, the cheese men say, we'll be knocking the holes out of eighteen to twenty pounds a year per capita, like the Swiss.

Before we'd been in Mr. Pulkrabek's laboratory many minutes he led us to an electric refrigerator, opened the door and lifted out one of a dozen triangular-shaped bottles, holding it up to the light to examine the creamy-white substance inside, resembling junket. This was, he explained, a dormant colony of college-bred milk bacteria. There are a lot of kinds of bacteria in fresh milk, and some are lazy and others are good workers. Each bottle contained a different race of the latter. Use one tribe for a "starter" to speed up fermentation and your milk's headed for Cheddar. Use another and you're shooting for Swiss or Limburger or brick, as the case may be. Let nature take her course and you'll wind up with cottage cheese like Grandmother used to make.

But there are other factors involved too, in the cheese game. Temperature of the milk, for instance. For Swiss, you ferment the milk in huge copper kettles at around 122 degrees. For American and brick, you hold it in huge tanks at around a hundred. Limburger does best at around 92 degrees. For cream and cottage cheese, you ferment your milk in the seventies. And so on. Every cheese maker has his favorite degree of temperature for making his favorite cheese and usually he doesn't tell what it is, either. It's like a secret recipe handed down from father to son.

It's the same with rennet, an enzyme developed from the gastric juices of an unweaned calf. Toss a culture of rennet in the cheese vat at just the right time and the curds, or solids, divorce themselves forthwith from the whey, or liquid. Of course, there are cheeses that get along without rennet—cream and cottage types, for example, and others.

Then there's the little matter of "curing" your cheeses. Most of them are about as tasty as a mouthful of rubber bands when first made. Some, like Cheddar, just sit quietly and mellow. Others, like Limburger, have to be "smeared," and then must "sweat." Swiss, for example, has to blow bubbles inside itself, and develop "eyes." Camembert has to semiliquefy itself, and Roquefort has to grow moss. Cream cheese must be kept in cold storage.

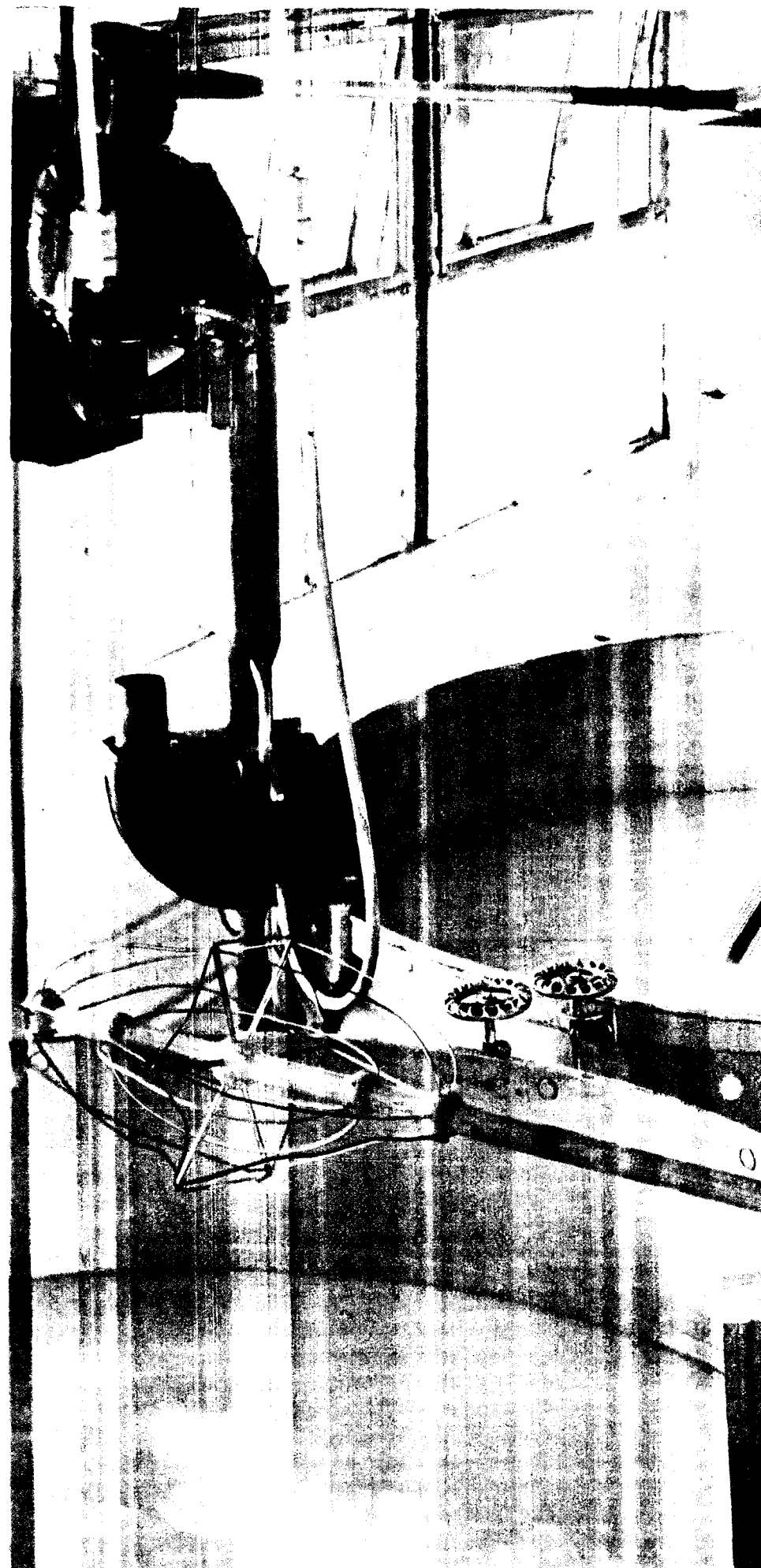
There are just about as many tricks to the cheese game as there are nationalities in the American melting pot. Immigrants brought their cheese secrets from the old countries, and in most cases they couldn't tell you to save their lives why, if you handled your curds and whey just so, you got a cheese like that. Cheese making was largely homework until the Americans tackled it. They switched it from an art to an industry, making cheeses in factories, of which there are about six thousand scattered around the country. Most of them are farmer-owned, particularly in the old-established cheese states, like Wisconsin, which makes almost half the cheese eaten in this country; or New York State, which used to be first but is now second; or Illinois, trailing close behind.

Science Takes a Hand

Various agricultural schools tried to turn out scientifically trained cheese makers, but the cheese men didn't go for the college stuff very much until a few outstanding collegians, such as Mr. George Pulkrabek, began to show them a thing or two about making better cheeses. And anything he learned was available to other cheese makers, because the Krafts, who owned the Stockton plant, were more interested in buying cheese than making it, and all they wanted was better cheese from everybody.

Up in the laboratory, we had a chance to see how Mr. Pulkrabek and his cohorts go about it. On a counter stood a dozen or more spic-and-span five-gallon stainless steel kettles. Filling each with identical milk, the cheese maker tried a different "starter" colony of bacteria from the bottles in the refrigerator. That alone accounted for a dozen variations. Fermenting the milk at different degrees of temperature, all the way from 70 to 120, multiplied the variations by fifty. Timing the injection of the rennet multiplied them again, as did the different curing treatments.

Once, fooling with his kettles, Mr.



Pulkrabek evolved a brand-new cheese, a sort of cross between Brie, Camembert and Port du Salut. It caught cheese eaters' fancy right away, and is now marketed under the name of Chantelle. In soft, mild and mellow five-pound, red-wrapped cakes. Chantelle, like Liederkrantz and Philadelphia cream, is one of the few cheeses that actually originated in this country, and Mr. Pulkrabek is a rare character in the sense that there practically aren't any other living inventors of a cheese.

Right across the hall from the laboratory was one of the outstanding Limburger operations of the world. We went over there prepared to hold our nose, too, but soon changed our mind, because the place was as sweet-odored as a milk room, and, believe it or not, when

the Limburger comes out of the separating tank, to be cut into one-pound bricks, it is as mild to taste and smell as cream cheese.

Where the Limburger gets its authority is down in the cellar. We followed a batch of it down to the cool underground room where thousands of bricks sat on clean wooden shelves, slowly acquiring the yellow mold that crusts each cake. It's a lot of work to cure limburger, because about every other day each cake has to be "smeared," which involves lifting it off the shelf and rubbing the whiskers off by hand. After three weeks of this, the cakes are taken upstairs and triple-packed in parchment, manila paper and foil. In this jacket, each individual Limburger stays for three weeks in another cellar. Limburger makers



American Swiss cheese cooking in the world's largest Swiss cheese factory, in Milledgeville, Ill. Each kettle produces a 200-lb. wheel of cheese, the traditional form for this variety. Cheese from Switzerland is now called Switzerland cheese to distinguish it from the American Swiss cheese

"Try it," he said, and we knew in about a half minute why people come for miles and miles to stock up on this mild, mellow cheese. Mr. Burns likes to keep his cheeses in the cool cellar from four to eight weeks for "short held," as the cheese trade calls Cheddar with the mild flavor. "Sharp" is stored up to two years to perfect its characteristic nip.

Swiss and Switzerland Cheese

There is still a bit of popular confusion about the difference between Swiss and Switzerland cheese. That's one of the headaches of the business, and the low-down is this: About two or three generations ago, a lot of Swiss cheese makers were smitten with the urge to migrate to the United States. The first Swiss to migrate landed up in Wisconsin and others followed. Wisconsin became known as "The Switzerland of America," because of the Swiss cheese made up there.

The Swiss from Wisconsin made cheeses so much like the originals that the customers couldn't tell the difference. In time, this annoyed the cheese makers back in the homeland and eventually they decided to abandon the time-honored market name for their product, and launch a new one, "Switzerland cheese." The Wisconsin cousins still call theirs "Swiss cheese." It has the same rich, nutty flavor, and even a cheese buyer can't tell the difference without seeing the name stamped on the rind.

Today the world's largest Swiss cheese factory isn't in either Switzerland or Wisconsin, but at Milledgeville, Illinois. Mr. Gardie Wolber and staff run it, and they turn a hundred thousand pounds of milk daily into about forty big 200-pound wheels.

Swiss, unlike other cheeses, is not made in vats but in shining copper kettles, each holding two thousand pounds of milk, enough to yield three hundreds pounds of curds which shrink eventually into two hundred pounds of cheese. Mr. Wolber keeps sixteen of these kettles bubbling, and if you want to see a sight, watch his crews of husky young Swiss in rubber boots and yellow rubber aprons slowly stir the curds with a strange contraption well named as a "cheese harp." Suddenly, one of the kettles of curds gets ripe and, before your unbelieving eyes, the cheese man folds a cloth over a spring-steel blade and with a lightninglike movement

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have followed this procedure for years, but nobody knows who originated it, except that it was practiced for generations in the town of Limburg, Belgium.

It's the same with most of our other cheeses. American, which is the big cheese in this country, is nothing more or less than Cheddar, and that originated in the quaint English village of Cheddar.

Since most Cheddar cheese is made in small, farmer-owned plants, Mr. Pulkrabek and his colleague, Mr. Martin Dorst, who runs the largest cheese-processing plant in the world over at Freeport, thought we ought to see a typical country cheese factory. So we hopped in Mr. Dorst's car and skidded down a muddy side road to an abrupt stop in front of a whitewashed structure, half cellar and half house, clinging to a low

hill. Inside, a foot or so off the concrete floor, were two long, narrow metal tanks. Around the farther tank, Mr. Russell Burns, the cheese maker, and his assistant, hovered attentively, stirring the yellowish milk with wooden rakes.

Every few minutes, Mr. Burns dipped into the tank and squeezed a handful of the yellow curds appraisingly. Once he passed a wad of the stuff to us, for our opinion. It felt like a fistful of rubber bands. "Taste it," he said. It tasted like rubber bands, too; but Mr. Burns thought it was just right, and he ought to know, because, with his old-fashioned layout, he turns out a cheese so consistently superior that discriminating cheese consumers from three states beat a path to his lonely little factory to get his choice Cheddar.

While Mr. Burns drained the whey from his second tank, we examined the curds in the first. The liquid drawn off, the embryo cheeses lay in folded slabs, resembling butter, but more rubbery in consistency. At the end of the tank, the cheese maker adjusted a chopper, and fed the slabs through it, to cut them into particles, before packing the stuff into cloth-lined tin molds, which he stacked end on end in a long press.

That done, Mr. Burns let us into the holy of holies, the curing cellar. Examining the scores of golden-yellow cheeses on the shelves with a critical nose, he selected one, plunged his round-bladed knife into it with an adroit twist, drew forth a plug, broke off the interior end, and carefully reinserted the outer end to seal the cheese.

TO THE surprise of everyone in the Powder Desert region, Clay Morgan, a young ranchman, marries pretty Lila Durrie, generally regarded as the fiancée of powerful Ben Herendeen. From that moment on, Morgan and Herendeen are enemies; nor is that enmity tempered by Lila, who, dying (after the birth of a baby girl), confesses to her husband that she had always loved Herendeen.

For several years no serious trouble breaks out. Then, when Clay's daughter, Janet, is nine, Herendeen's men kill Ollie Jacks, a rustler whom Clay had tried to protect; and a feud is in the making. So that he can gain possession of their land, Herendeen orders a number of homesteaders, on free government land, to leave the country. He also begins to hound all unattached punchers—whom he happens to dislike.

One evening, Clay is talking with Catherine Grant, sister of Gurd Grant, one of his good friends. Catherine has ridden over to his house, at Long Seven, to warn him to keep a close eye on Herendeen. As they talk, Hack Breathitt, an itinerant cowboy, rides up and dismounts. Instantly, Catherine slips into the house. Then Herendeen, Gurd Grant and Lige White come tearing up and demand to know why Breathitt has been camping with Pete Borders, a well-known cattle rustler.

Clay believes that Breathitt is an honest man. He orders Herendeen to leave his land and never come back. The three men ride away. And Clay Morgan has another enemy—for Gurd Grant has seen his sister's horse, tied near the house, and he suspects the worst.

Herendeen then burns the house of Jack Gale, a poor homesteader. He orders the man and his little family to get out, leave the country. A short time later, Clay learns that the government land is to be sold at auction (without the notice of a month provided by law) the following afternoon, at Sage City, 190 miles away. He leaps on his horse and starts for Sage City.

Shortly after he leaves, Hack Breathitt is forced to fight a street duel in War Pass, the largest town near by. Bones McGeen and Liard Connor (hired by Herendeen) try to kill him. He shoots Connor, and makes his getaway. . . . Clay, on a horse he has roped on the way, rides up to a cattle crew. He borrows a fresh mount. "See you day after tomorrow," he says, as he hits the saddle.

IV

MORGAN left camp at a steady run. This horse was small and wiry and he had a choppy pace but he seemed tough. Five miles across the unbroken flats he reached the trail and followed it, eastward over a land that had no definite horizon. The smoky atmosphere pressed down on emptiness. At one o'clock he fell into a ravine well below the desert line; the road followed it a mile and swung into a wide sink that held a series of corrals and a natural spring. Watering the horse, he rose to the desert level again. At two he was lost in this lonesome sweep of black rock and yellow earth and curling land smoke, pursuing a trail that led constantly eastward without apparent destination; running the strawberry, and walking it, and letting it fancy-foot along, and running it.

At three-thirty, with eighteen hours of steady riding behind him, he came upon a main break in the road. One fork led into the southeast, the other swung toward the north. It was now within a half-hour of the land-office dead line; paused at this junction, scanning the forward haze with an anxious eye, he made out no kind of a blur on the horizon. This land ran straight into the cloudy mists, flat as a board. A few fresh prints showed either road; they were alike, those roads, as to wear and tear of usage, and nothing gave him a hunch except that the northern fork seemed to head more nearly toward the spot he thought Sage City ought to be.

And so he took it, but two miles later this road brought up before the burnt ruin of a ranch house and a few scraps of metal on the ground. Beyond was only an unused trail.

He wheeled around, backtracked to the junction and followed the other route. Wagon tracks came from the desert and dropped into the road, a wavering wheel-and-hoof pattern coming out of nowhere and leading appar-

ently nowhere. It was then four o'clock and he thought he had lost his race. Twenty minutes later the desert marched to a rim that fell downward three hundred feet into a valley. The road descended a sharp grade. At the bottom of the grade, straddling the silver streak of a shallow river, lay Sage City, its gray housetops and dusty streets making a toy town's pattern from this elevation. He set the tiring pony into its last run, came down the grade and crossed a wooden bridge. He saw the half-empty street, the false-fronted buildings and the once-white spire of a courthouse sitting athwart the far end of the street. When he reached the courthouse and stepped down, a pair of men came out of the doorway.

Morgan said: "Land office in there?"

They nodded. He passed into a shadowed hall, heard voices through a half-closed doorway, and pushed that door before him. There was a man standing by a desk; this man was saying: "Seventy-eight hundred. That's the bid. Another bid, gentlemen? Another bid?"

THERE were only four other men in the room. One of them, standing by the room's side wall with his face turned from Morgan at the moment, was Charley Hillhouse.

Charley Hillhouse said, "Eight thousand," and came about and discovered Morgan.

What Morgan saw on the face of this man who had so long been his friend was the swift, thin break of unpleasant surprise. Hillhouse stared, moving gently away from the wall. This was the way he stood during that small interval, with his feet braced apart and his round face very shadowed by his thoughts; and then Hillhouse seemed to close his mind as if something dreaded had at last come to pass with all its unhappy consequences, pulled the surprise from his face, and turned from Morgan. He said again, in a steady, stubborn voice: "Eight thousand."

The other three men were speculators. It was a smell on them. It was written on their good clothes, their white faces and their soft hands. One of these said reluctantly, "Eighty-two."

"Eighty-three," said Hillhouse.

Morgan said: "Ninety-three."

Now the speculators looked around and moved together and one of them whispered something and shook his head. The land-office agent looked hopeful. He said: "Ninety-three's the bid."

"Ninety-four," said Charley Hillhouse.

Morgan said: "I didn't ride a hundred and ninety miles to play around with a piker, Charley. Eleven thousand."

"Eleven is the bid," said the land-office agent. "Another bid, gentlemen?"

The speculators said nothing. One of them shook his head. The land-office agent turned to Hillhouse. He said: "Another bid?" Hillhouse put his hands in his pockets, and slowly brought them out. "No," he answered, "that's all. I've got to stick to a limit, and we're past it now."

"Sold at eleven thousand."

Morgan stepped toward the table. "My check all right?"

The land-office agent showed an instant discouragement. "Of course not."

One of the speculators laughed and Hillhouse made a half turn. "The my bid of ninety-four is good."

Morgan reached into his pocket. "No," he said dryly, "I just wanted to know. I've got the cash."

Hillhouse turned from the room without further talk; the speculators slowly followed. Morgan counted out the money, in bills. He stood over the desk, propping both hands on its edge to hold himself up while the land

