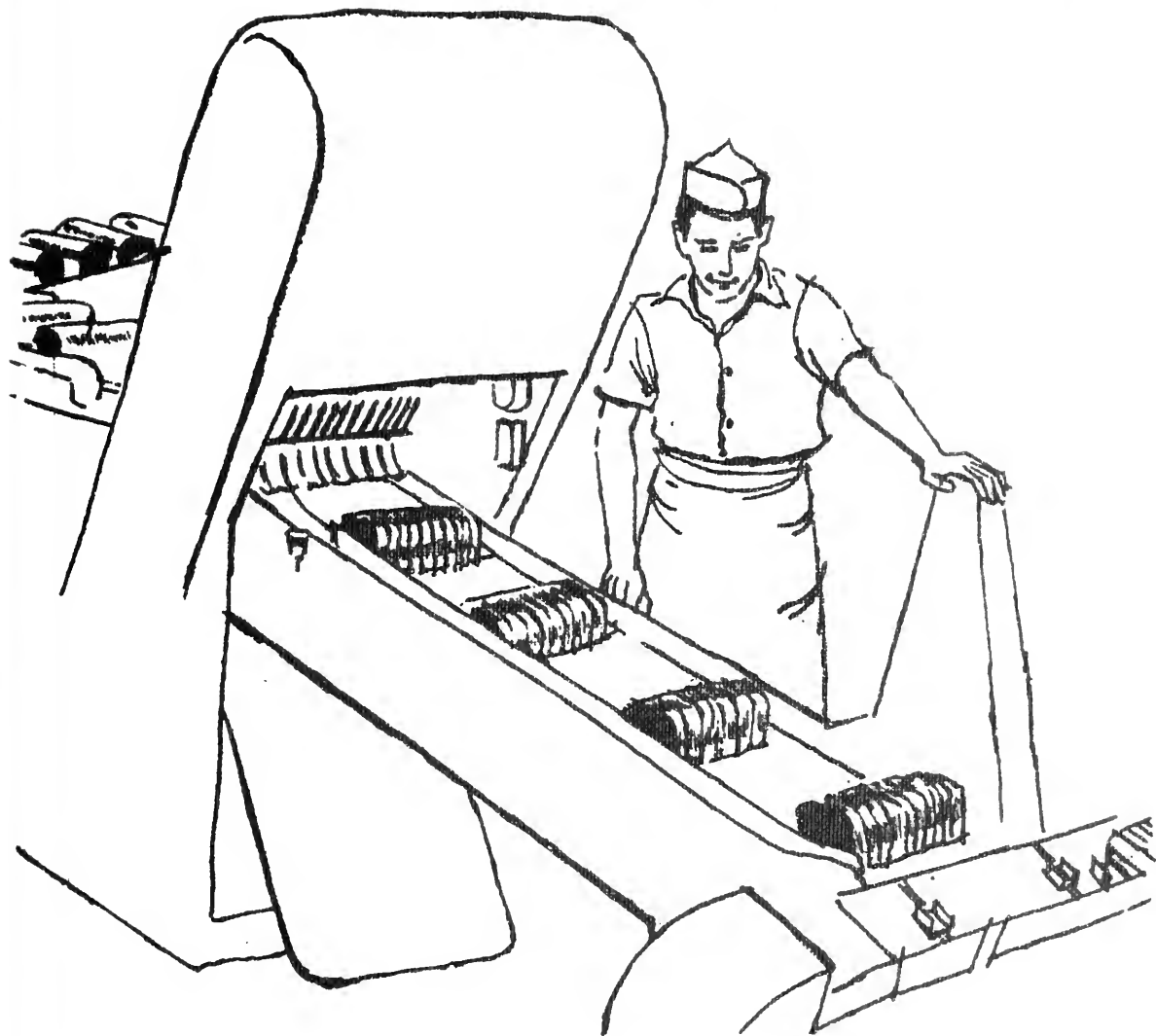


*Let's Go* TO A  
**BAKERY**





From the collection of the

Prelinger  
Library

San Francisco, California  
2008



*Let's Go*  
TO A  
**BAKERY**





*Let's Go*  
TO A  
**BAKERY**

WRITTEN BY  
**NAOMI BUCHHEIMER**

ILLUSTRATED BY  
**NANCY SELIGSOHN**

G. P. Putnam's Sons  
New York



TEXT © 1956 BY NAOMI BUCHHEIMER

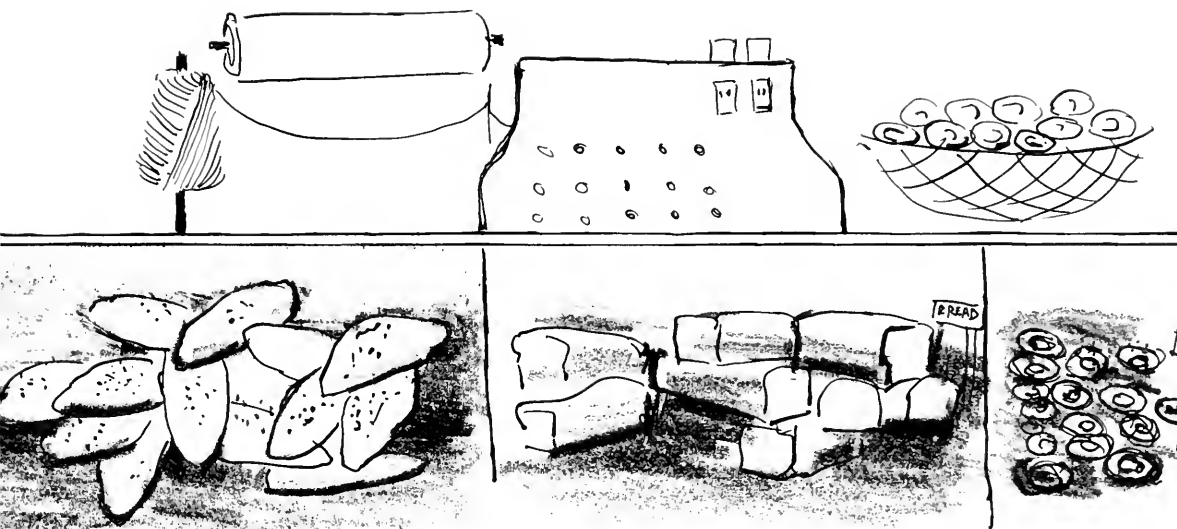
ILLUSTRATIONS © 1956 BY NANCY SELIGSOHN

Library of Congress Catalog Card Number: 56-10265

Fourth Printing

MANUFACTURED IN THE UNITED STATES OF AMERICA





You know how good the whole house smells when your mother bakes cakes or cookies. A bakery smells the same way. Sometimes you can get a whiff of the yeasty, fresh-bread smell several blocks before you even get to the bakery. If you have ever watched your mother make bread at home, then you already know what to expect when you go to a bakery.



When your grandfather was very young, his mother probably baked her bread at home. Now we buy almost all of our bread. Many bakeries are small neighborhood stores where bread is made in just about the same way as you can make it in your own kitchen. When you visit a bakery in your neighborhood, you see the baker doing most of the things that are done by machine in a large bakery. But a small bakery does not have the room, the money,



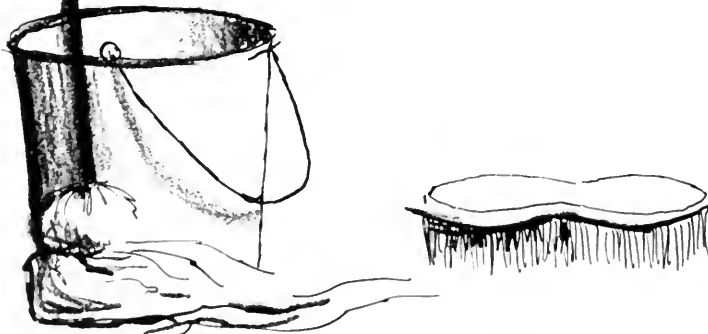
or the need for the equipment of its big brother.

It is not necessary to have complicated machinery and many workers in order to bake bread. Those things just make it possible to produce more bread faster and more easily. With the proper ingredients, some pans, and an oven, one person can make enough bread for a small bakery.

When you visit a large bakery, you go into a big building with several floors. The

first thing you notice is how clean the whole place looks. This is important because you want the bread you eat to be clean. In a big bakery there is one man who is in charge of making sure that the entire building is sanitary and clean at all times. He sees to it that the machinery and the floors are scrubbed every evening. And once a week he and the other men who work in the bakery turn the building upside down and give it a thorough cleaning, just like your mother does her spring housecleaning.

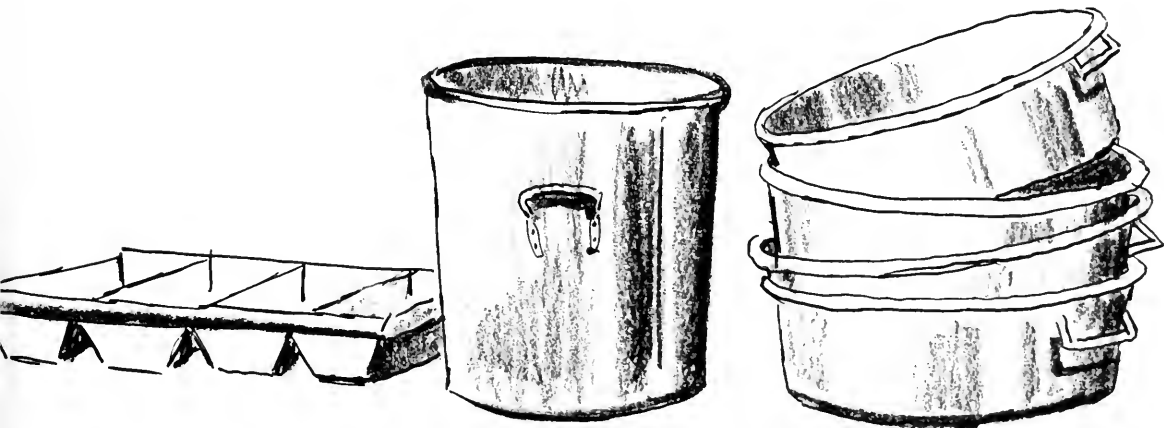
The pans in which the bread is baked are



well taken care of, too. They are washed and dried before each use.

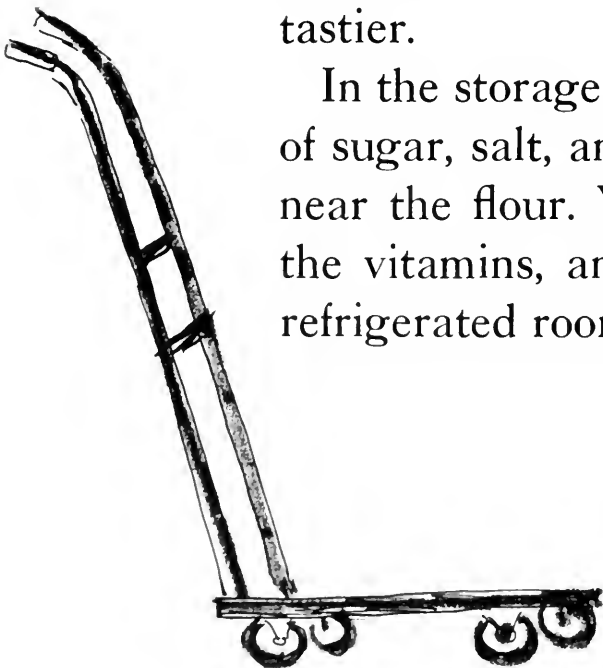
As you go through the bakery you may see many men working to keep the pans, the machines, and the whole building spotlessly clean. The baker wants to be positive that the bread delivered to you is sanitary.

The storage rooms are especially clean because here the bakery keeps a supply of those things which are put together to make bread. These are the ingredients and they are all ready to be used.

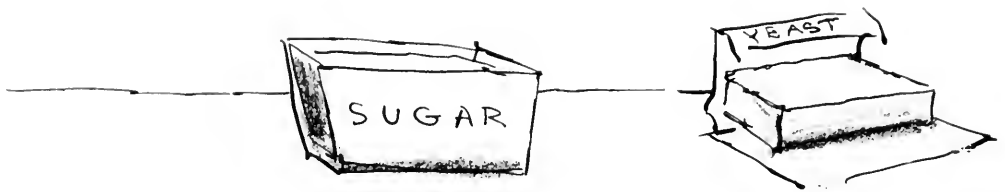


There are bags of flour stacked high on skids (wooden platforms with wheels). Because each bag of flour weighs 100 pounds, the bakery uses skids to make it possible to move the flour on wheels instead of lifting and carrying it. Since most bread is made from a combination of two or more kinds of flour, the baker makes separate piles. He marks each pile so that he will know what kind of flour he is using. The different kinds of flour make bread tastier.

In the storage rooms you also see bags of sugar, salt, and powdered milk stored near the flour. You find the shortening, the vitamins, and the yeast stored in a refrigerated room.





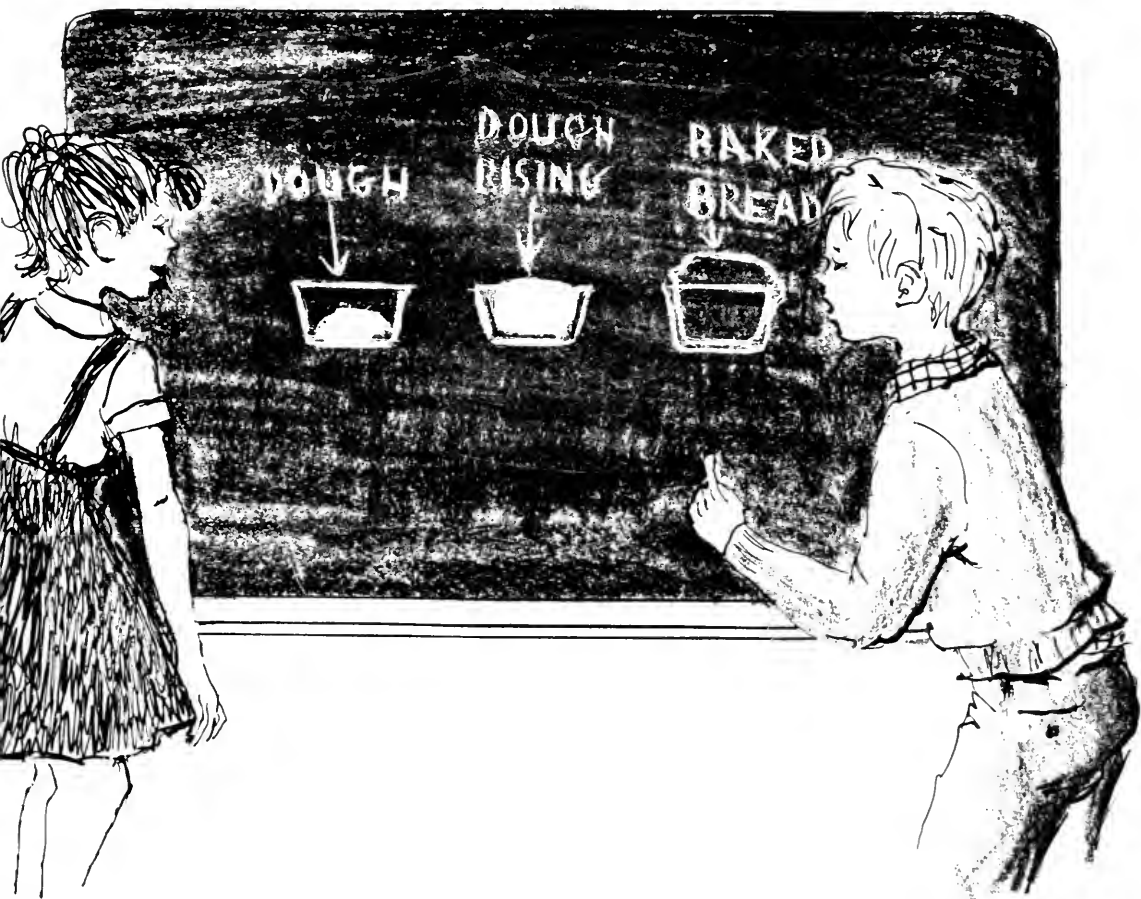


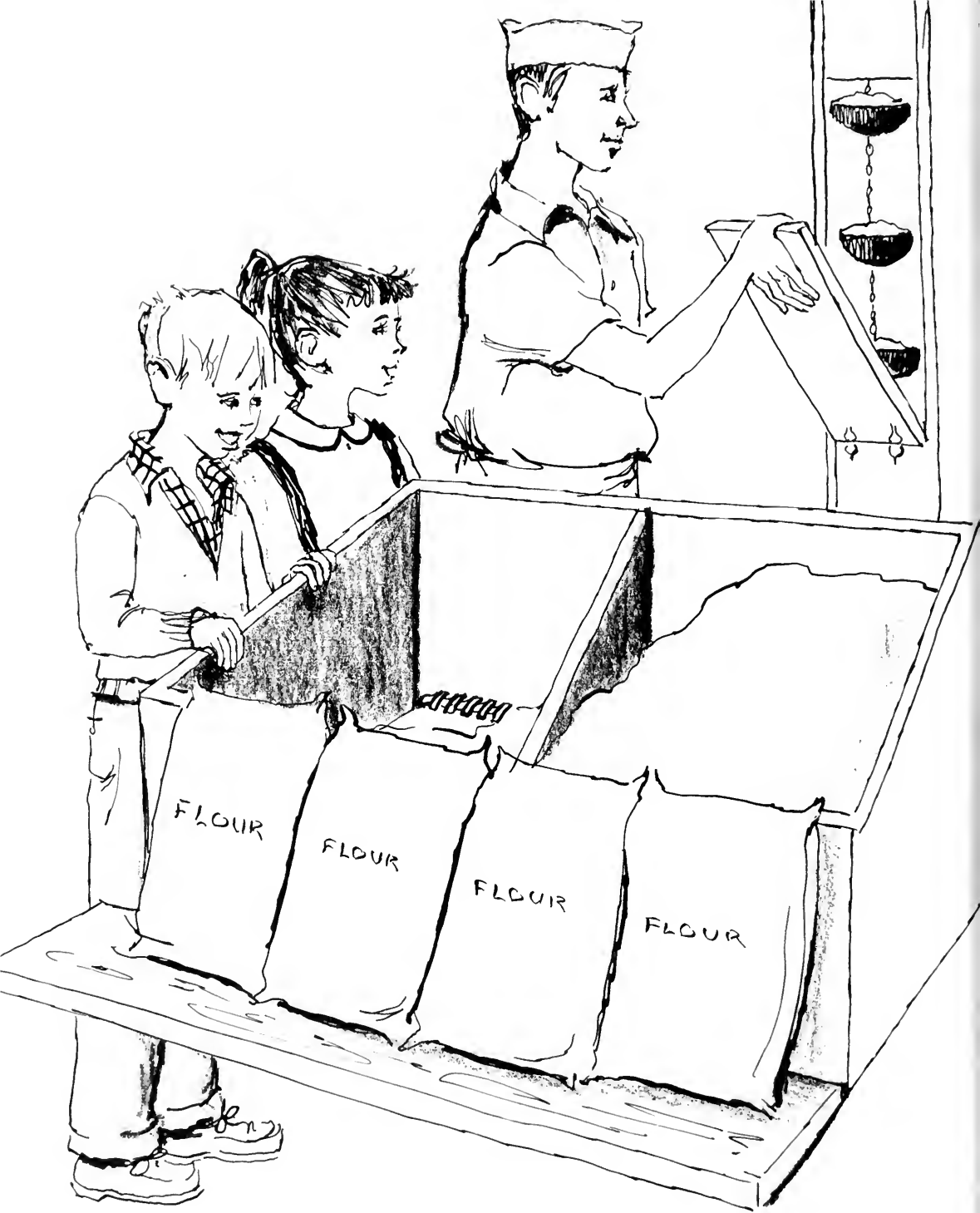
Yeast is an ingredient which comes to the bakery in one-pound pieces wrapped in wax paper. When it is unwrapped, it looks very much like a big hunk of butter, except that the yeast is much harder. Yeast is actually a group of tiny plants unlike most plants that you know, because they are not green. The yeast plants grow when they mix with the sugar. They grow especially fast in a warm room. In bread-making, the yeast mixes with the natural sugars found in all flour. As it mixes it forms bubbles of gas which cause the



dough to rise. This bubbling action is called fermentation.

Now that you have seen the ingredients, one at a time, you want to see them put together.





FLOUR

FLOUR

FLOUR

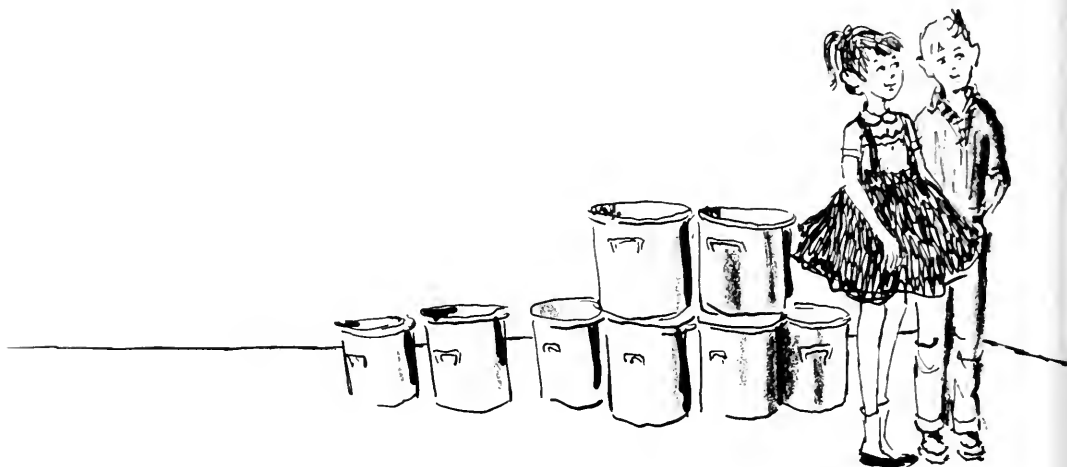
FLOUR

The first machine that the baker uses is called a blender. Two or more different kinds of flour are thrown together into this blender where they are mixed or blended together. The man who works at this machine has a name for the corkscrews which keep turning and turning to mix the flour. He calls them “worms.”

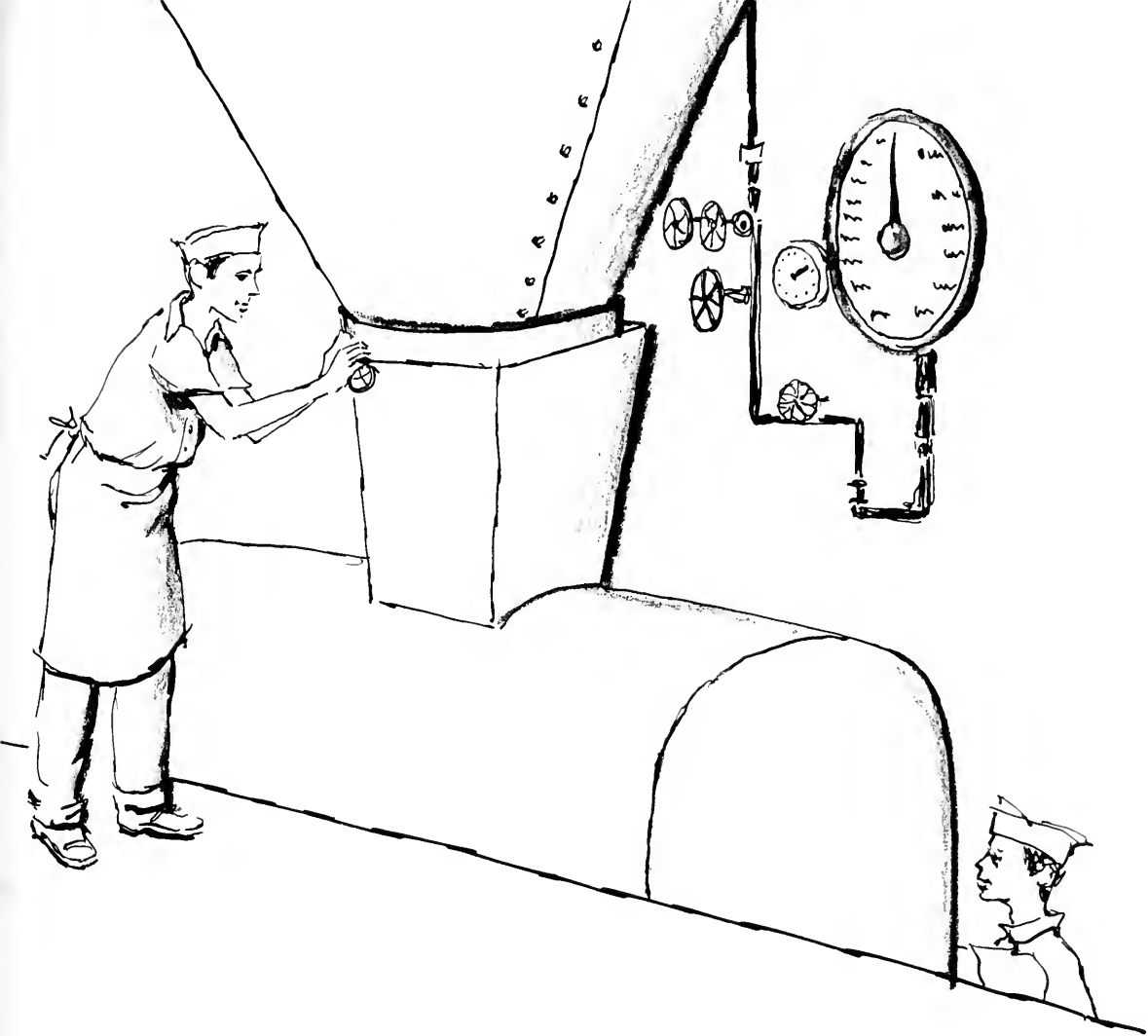
From the blender, the mixed flour is sucked into a giant sifter which works like the sifter your mother uses in the kitchen. But this sifter operates by electricity. It is a long, thin box which is covered in order to keep the flour from flipping out of it. The whole sifter vibrates or shakes as the flour is worked through a very fine screen.



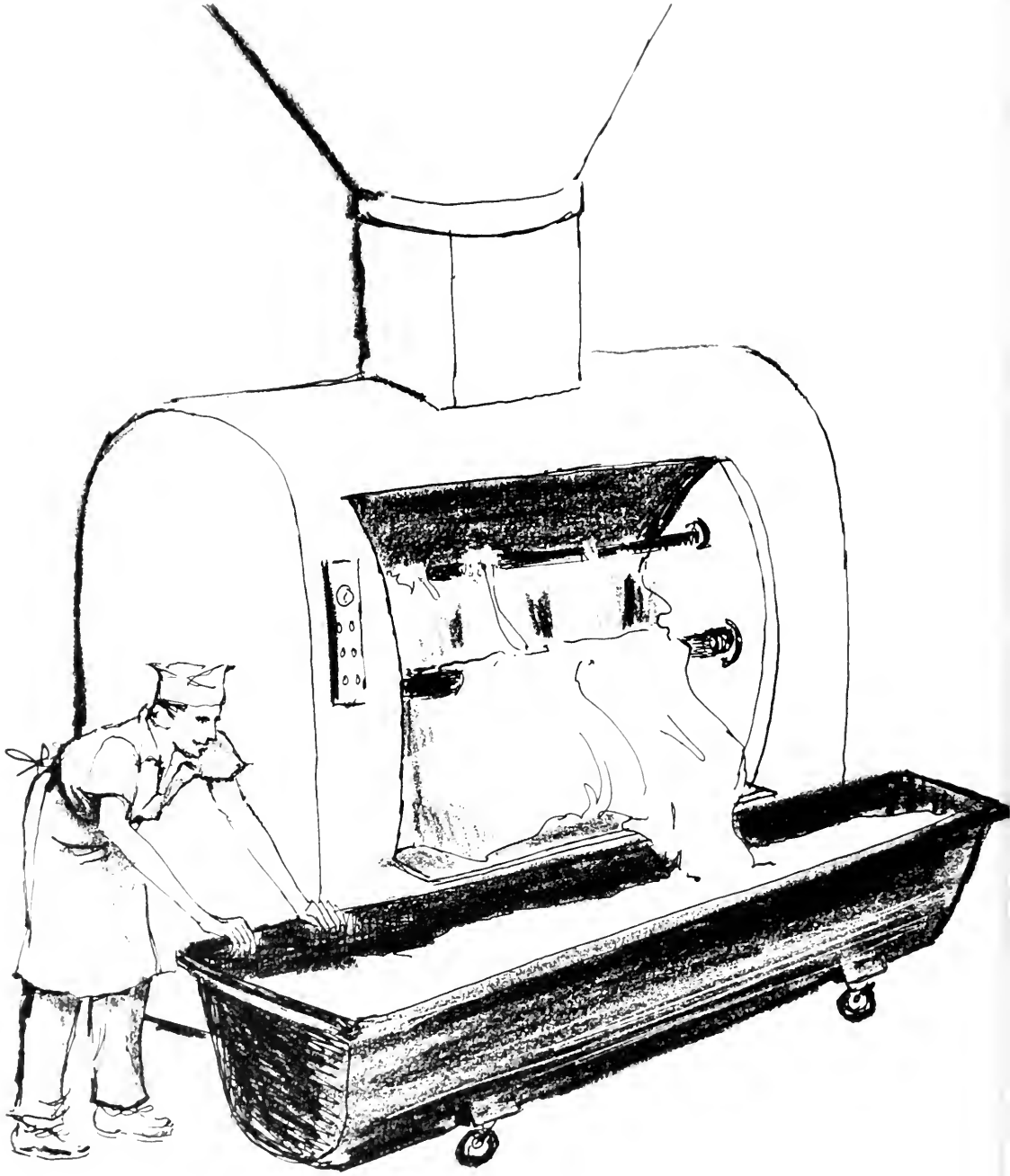
As it leaves the sifter, the light, fluffy flour is scooped up by a special machine and dumped into a gigantic flour bin. Here it is stored until it is ready to be used.



When the flour is needed, a man lets it run out of the bin through a funnel-shaped opening, called a hopper, into the mixing machine. A scale is attached to the mixer to weigh out exactly the right amount of flour. When your mother bakes, she measures her flour in a cup. But because so

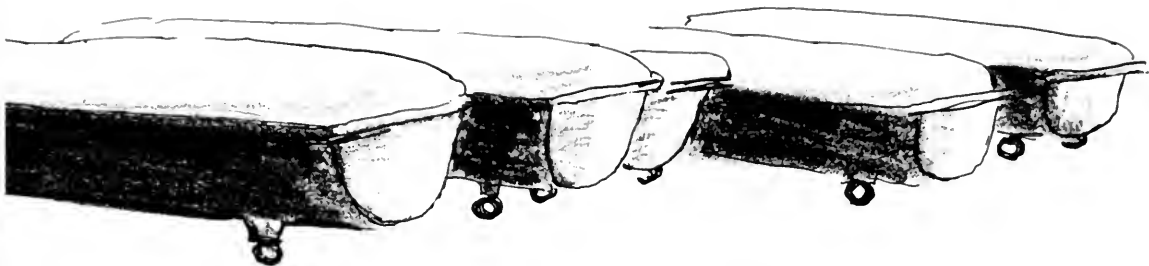


much flour is used and because weighing is more exact, the baker uses a scale for this purpose.



After the flour is poured into the mixer, a man allows some water to flow in. He measures the water by means of a water meter, like the water meter in your basement. He also puts in some yeast. Then he pushes a button and large steel arms stir or knead the dough for about fifteen minutes. When that time is up, the dough that has been mixed is called a "sponge." That is because it is smooth and dry and feels like the sponges you have at home. The sponge contains only part of the ingredients needed to make bread.

The sponge is placed in a trough (which rhymes with dough), a long open box which looks like a tremendous window box for plants. The trough is wheeled into a special room. As you walk into the room you will feel warm all over, just like you



do on a summer day. For the temperature in this room is kept at about  $80^{\circ}$ . If the temperature were  $80^{\circ}$  on a day in July, it would be warm enough for you to go swimming.

The dough stays in this warm room for at least four hours. During this time it rises, because the little yeast plants grow in the heat. This room is called the fermentation room. There is steam in it to keep the sponge from rising too quickly.

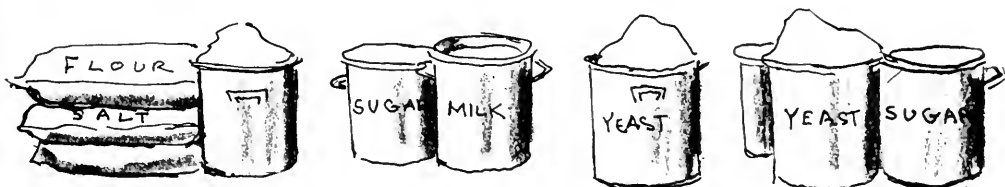
When the yeast has grown the correct length of time, the dough rises to the top of the trough. Then the baker wheels the trough back to the mixing room. Here a trough hoist lifts up the heavy box of sponge dough and throws it back into the



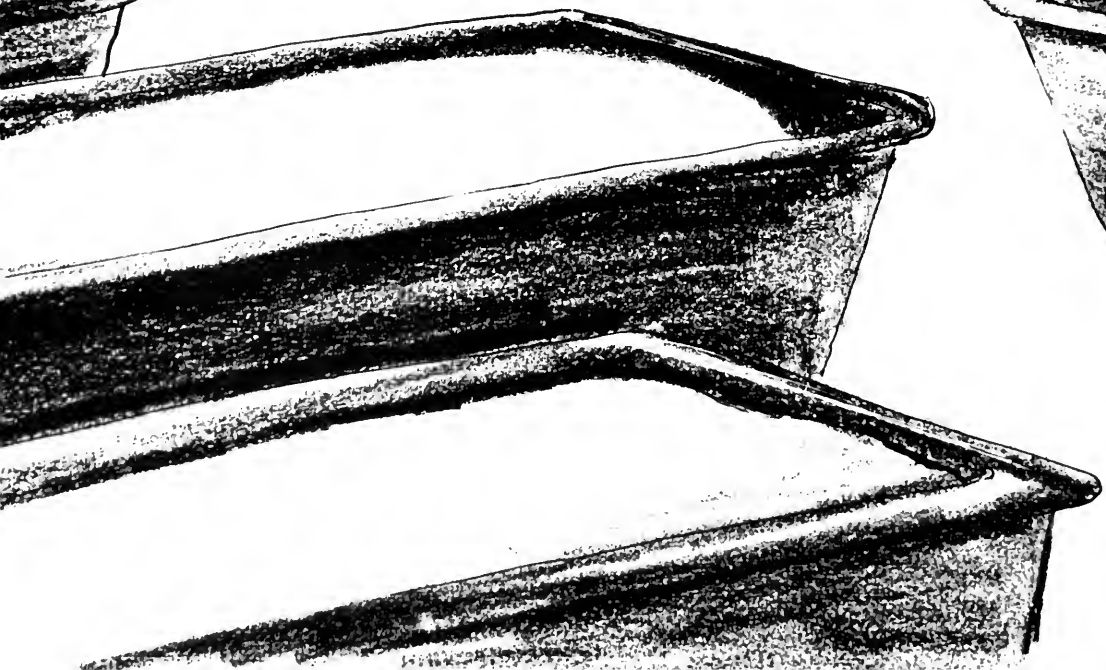
mixer. This hoist saves the time and work of men cutting up the half-ton sponge and throwing it back into the mixer, piece by piece.

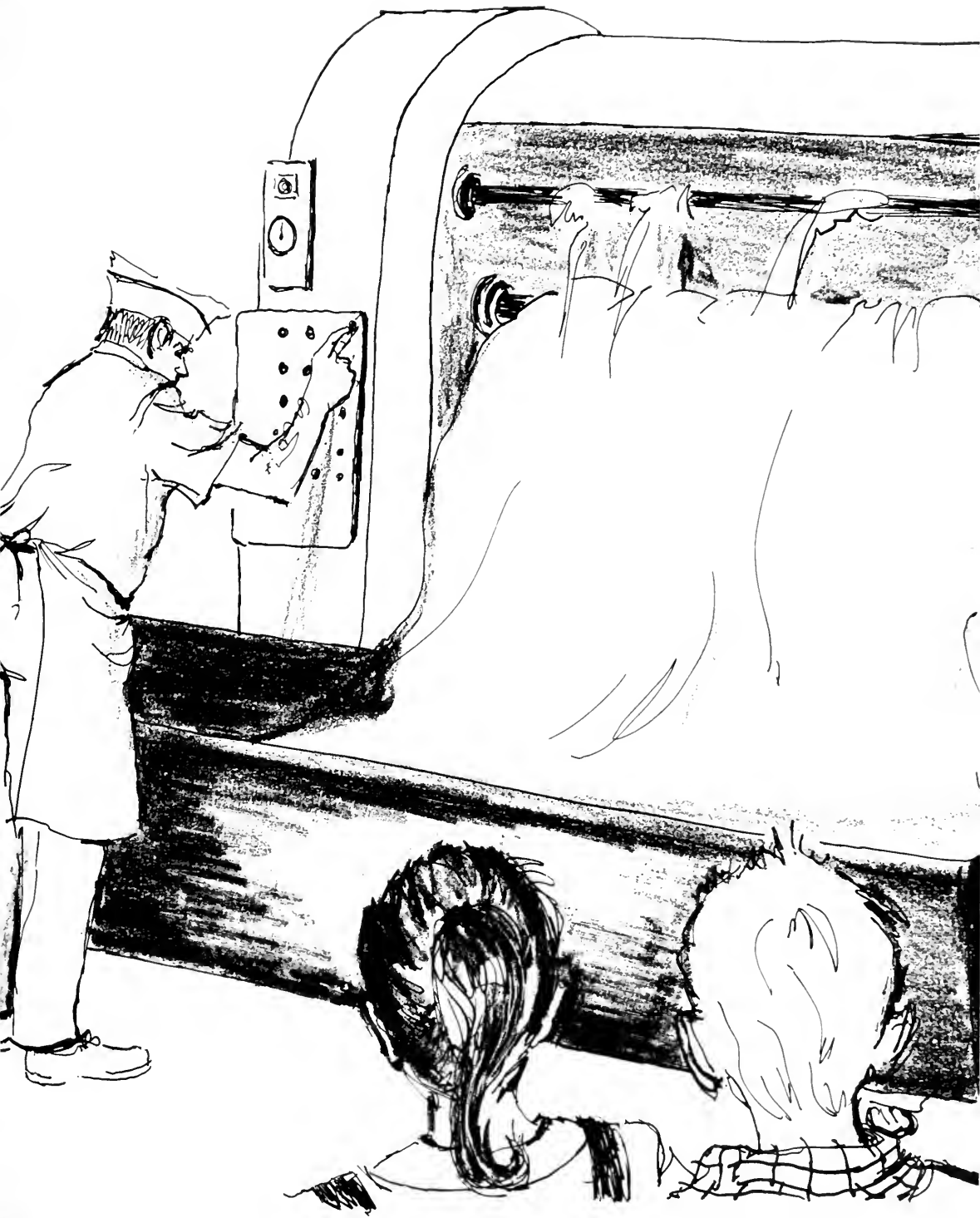
Near the mixing machine you may notice many metal pails. Each of these pails contains one of the ingredients that is going into the bread. They have been measured by weighing, or “scaled off,” as the baker says, and are ready to be used.

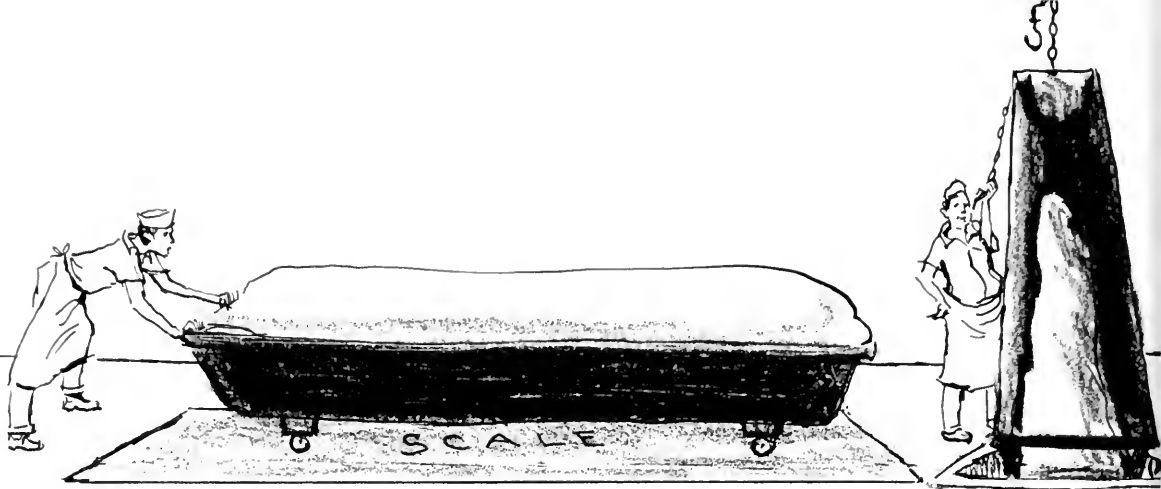
Once the sponge is back in the mixer these other ingredients—the salt, the sugar, the milk powder, the shortening, and the vitamins—are put in, along with some more flour, water, and yeast. Some bakeries have an ingrediator which looks like a giant washing machine. This mixes up the rest of the ingredients before they are put together with the sponge.



These other ingredients are mixed together with the sponge for an exact length of time, usually about ten minutes. Then the door of the mixer is opened and the wet dough spins around until it drops into an empty trough which is waiting under the open door. This “spinning out,” as the baker calls it, works very much like a clothes drier. The dough “spins out,” just as clothes begin to fall out of the drying machine if you open the door while the drier is still going.







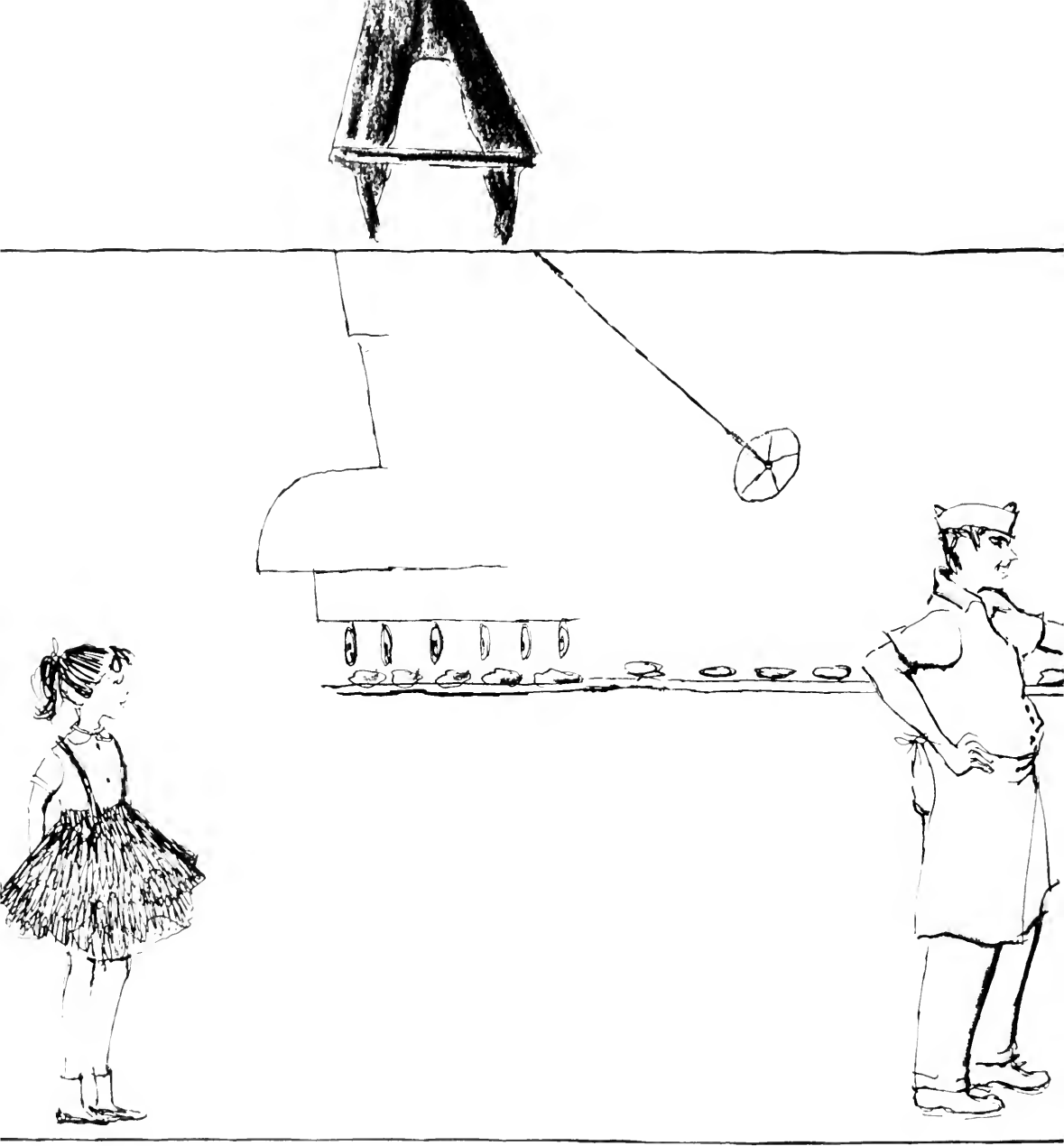
After a trough has been filled with the wet dough, the baker wheels it onto a scale which is set into the floor. He has to make sure that it is just the right weight before he pushes it into the fermentation room for another short stay. Here once again the heat makes the yeast in the dough rise.

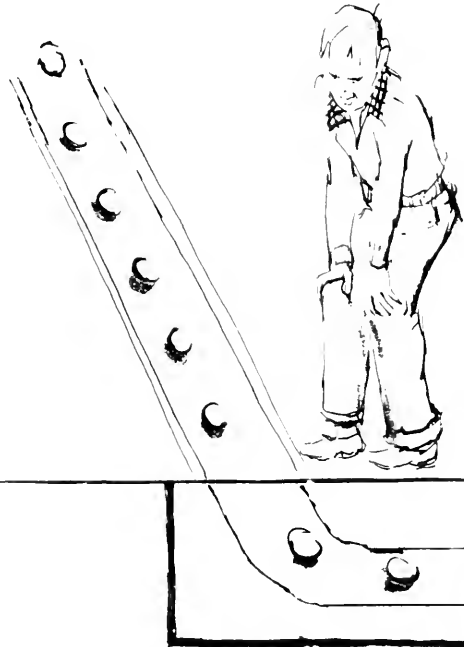
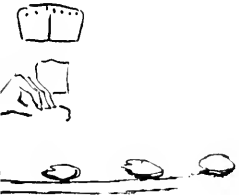
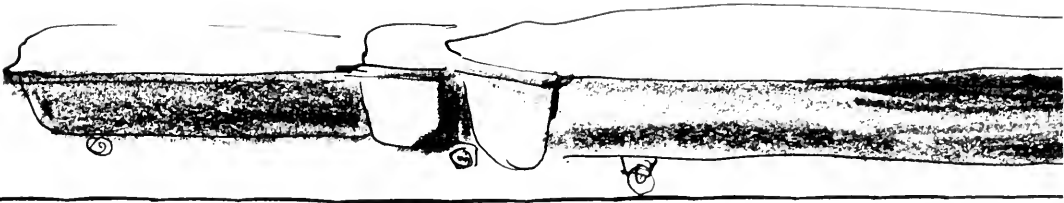
At the end of this rising time, the baker dumps the dough down a chute into a divider. This machine divides the huge piece of dough into smaller pieces that are loaf size and weight. Every so often a man checks a sample piece, to make sure


that he has the divider set the right way. He is checking so that when you buy a pound loaf of bread, it will weigh no less than a pound.

From the divider, the loaf-sized pieces of dough are taken to the rounding machine. They move on a conveyer belt, which is like a flat moving stairway. From now on you will see a lot of conveyer belts as you follow the process of making bread. Conveyer belts save time for the baker and are interesting to watch as they move slowly from one part of the bakery to another.

At the rounding machine the dough is pressed into smooth, round balls. This pressing also gets rid of about half the air in the dough. On the way out of the rounder, each ball of dough is dusted with flour to prevent it from sticking to the conveyer belt which takes it to the overhead proofer.



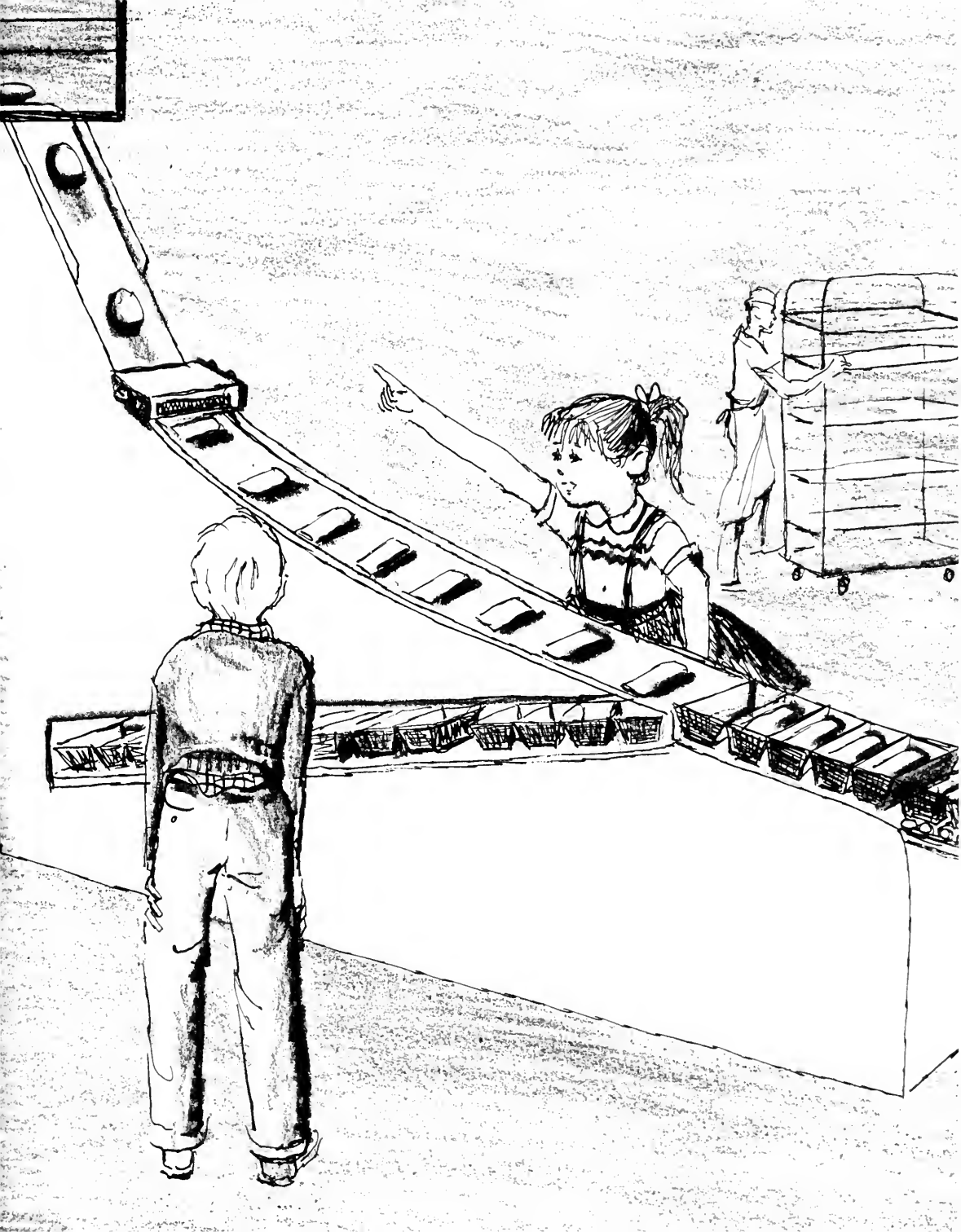




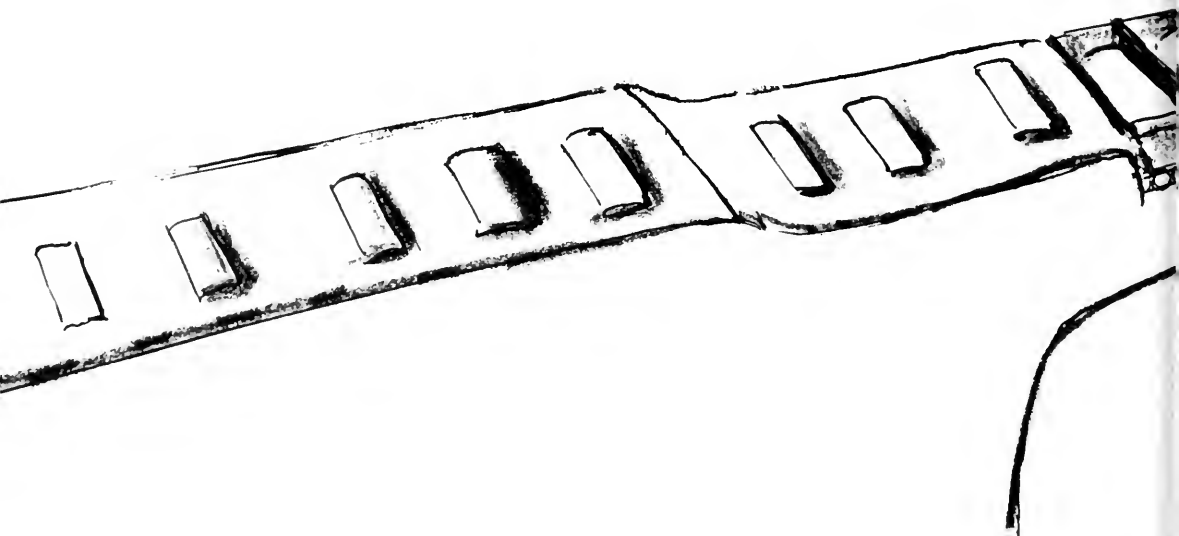
You have to look up toward the ceiling to see the overhead proofer. It is a very long cupboard with windows which can be opened or closed to regulate the temperature. The dough passes through the steam-filled overhead proofer to give it another chance to rise while there is still some air in it. The steam in the proofer keeps the dough very soft.

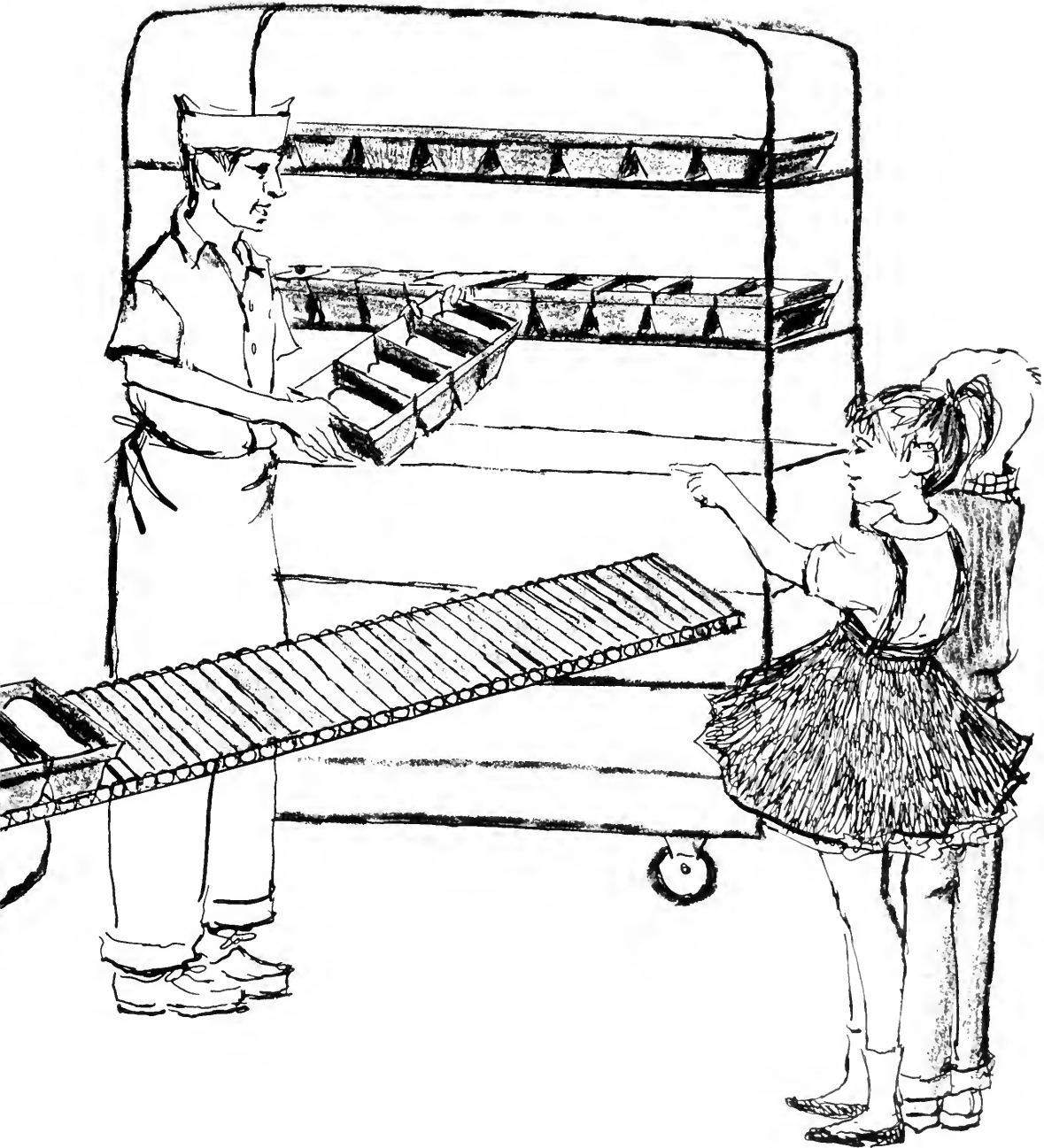
When the dough comes out of the overhead proofer onto the conveyer belt, it goes to a molder, a machine which does two very important jobs. First, it shapes the dough into loaf shapes by flattening it out like a pancake, then rolling and pressing it into the shape of a sausage. Second, the molder gets rid of all the air in the dough. You do not want large holes in the slice of bread which you butter.





After the dough is rolled into sausage-like shapes, it falls into pans which are divided into three parts. In this way, three loaves of bread are baked in each pan. The pans have been greased by an automatic greaser, and they are carried underneath the molder on another conveyer belt. Both belts move at the proper speed so that the empty pan is right under the piece of dough just as it falls from the molder.

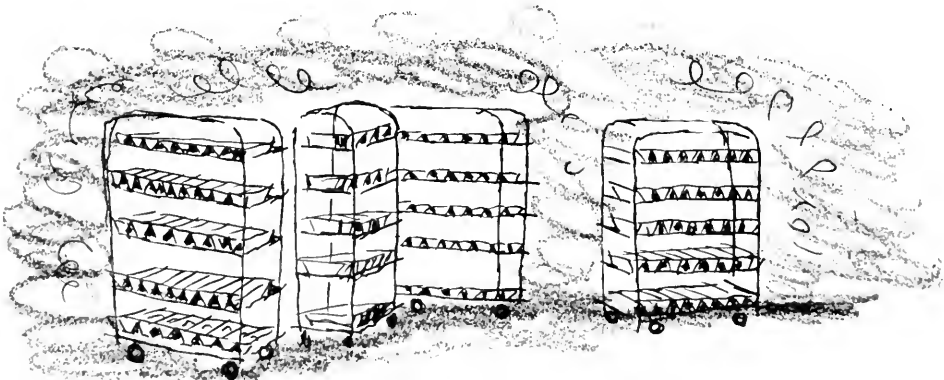




Sometimes the pans are covered and sometimes they are not, depending on whether the baker is making loaves that are flattened on top or loaves that are rounded.

After the dough is panned, it is given one more chance to rise. The pans of dough are put on racks and wheeled into a proof box, which is a large, steam-filled room. Here the dough rises until it just fills the pans.

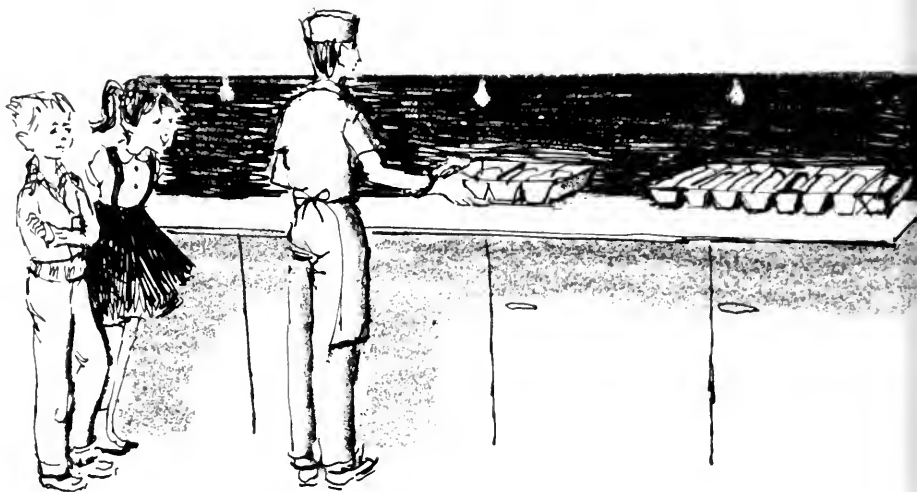
When this time is up, the bread is wheeled from the proof box to the traveling oven. This is a peculiar name be-





cause it sounds as if the whole oven were moving. Actually, though, the bread travels through the hundred-foot-long oven, from one end to the other. If you can imagine six cars parked one behind the other, that is about the length of the oven. Both ends of the oven are open. There is no door, as there is on your own oven.

The bread bakes as it moves along on the flat steel conveyer belt through the heated oven. The temperature in this gas oven is about  $500^{\circ}$  by a thermostat. This heat control works in the same way as the temperature regulator on your own stove.



While the bread is being baked, steam is blown into the oven so that the crust does not form too quickly. The steam makes the air inside the oven very humid.

The temperature, the humidity, and the timing all have to be perfect. Too short a time, too much humidity, or too low a temperature would ruin several thousand loaves of bread. Bread which could not be sold would mean a waste of ingredients,

a waste of time and energy, and a waste of money. So the baker has to be extremely careful and accurate, just as careful as a druggist or as a builder.

It takes about half an hour for the bread to travel through the oven. By this time it is baked just right—brown enough on the outside, cooked through on the inside. Then you can watch it coming out the other end of the traveling oven.

In a very modern bakery, the bread moves out of the oven onto another conveyer belt. This belt moves the bread away from the oven for a short distance. Then all of a sudden, when it reaches a certain place on the belt, the pan turns upside down. Of course the bread falls out. Just below there are cooling racks in the shape of fingers to catch the bread. If the bakery you visit does not have this particular “de-panning” machine, then men wearing gloves to keep from burning their hands dump the hot bread out of the pans and put it on the cooling racks.





It takes about an hour and a half before the hot, soft bread is cool enough for cutting. The bread must be cooled slowly or it will lose its flavor. When your mother bakes cakes, she lets them cool on the



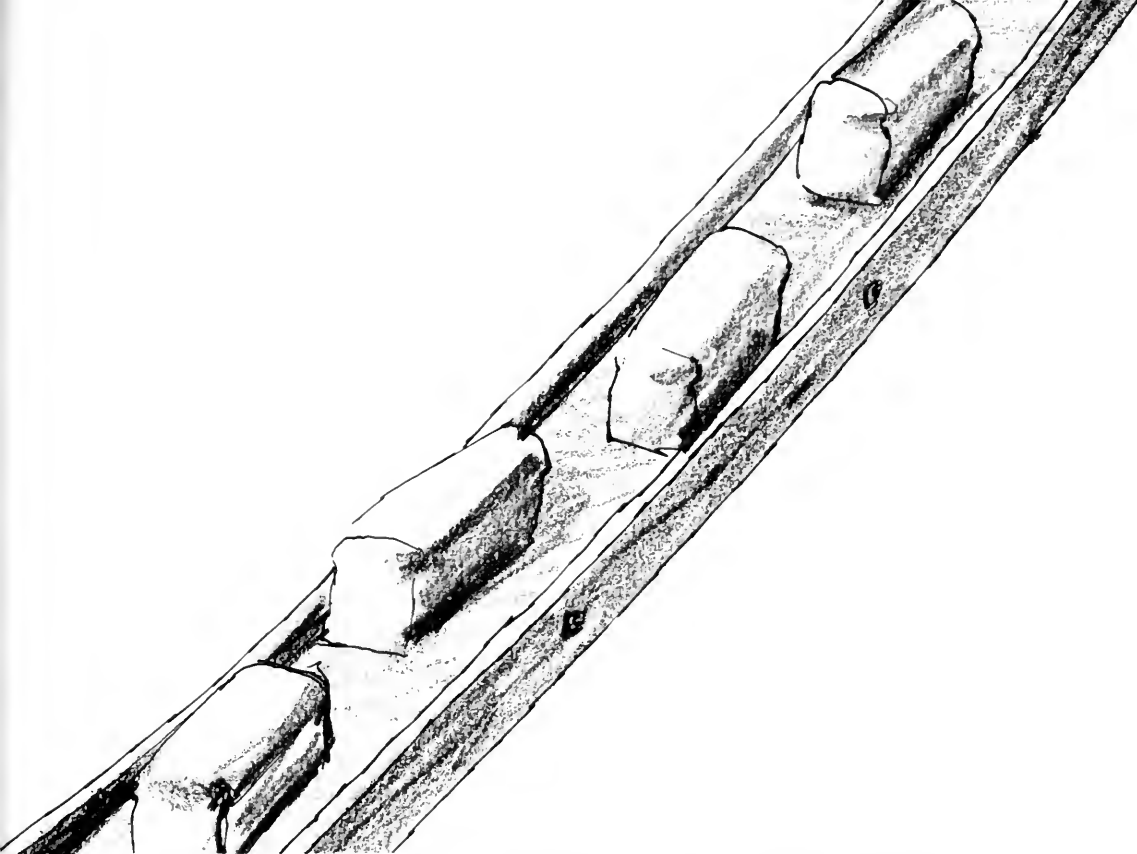


table or on the window sill so that they will taste good and cut easily.

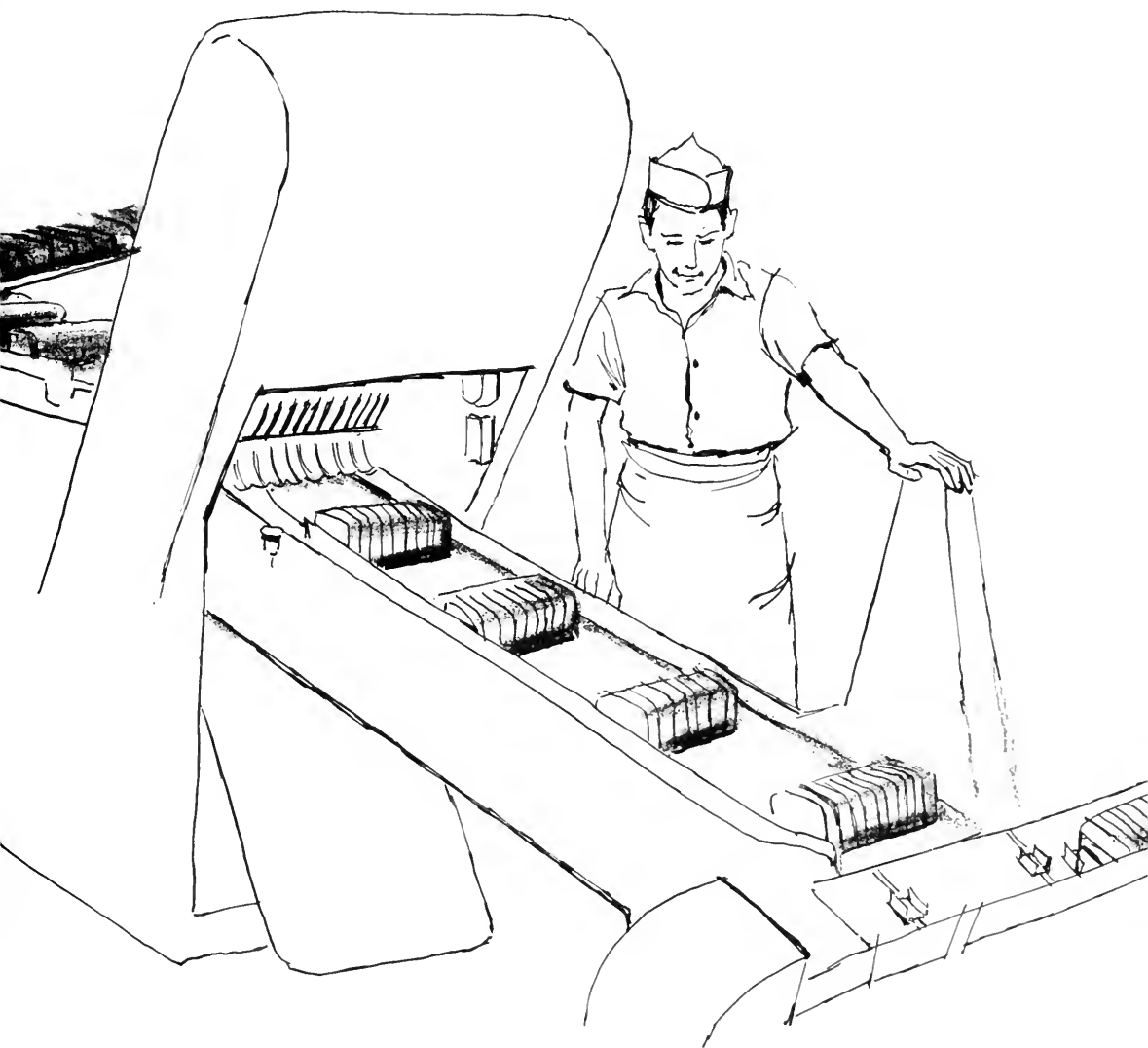
The loaf must be thoroughly cool or the whole loaf will be torn apart when it goes through the slicing machine. If the bread is wrapped when it is too warm, moisture will form inside the package and make the loaf soggy or moldy.

As the bread cools, it keeps moving slowly toward the slicing machine. A man stands near the slicer to see if any of the loaves is dented or imperfect in any way. Before these loaves get to the slicer, he throws them aside. These rejected white breads are used by some bakeries to make bread crumbs. Otherwise, they are sold to farmers as feed for cows and pigs.

The conveyer belt takes each loaf of bread into place on the slicer. There it is pushed through band slicers—very sharp knives which are kept moving up and down by electricity. In this way, the whole loaf is sliced at one time, neatly and evenly.

If a man had to slice each piece with a knife, it would take him much longer, he

would have to handle each loaf with his hands, and he could not make each piece the same thickness.



After it is sliced, the bread is held together by brackets which look like small book ends, to keep the slices from falling apart. The conveyer belt moves it to the wrapping machine where each loaf is pushed into a roll of moisture-proof paper. The paper is cut off, folded around the bread, and sealed with heat. This machine seems almost human.

Sealing the package with a hot stamp and then freezing it for a moment makes doubly sure that the package will not come apart, and that the bread will stay clean and fresh until you eat it.

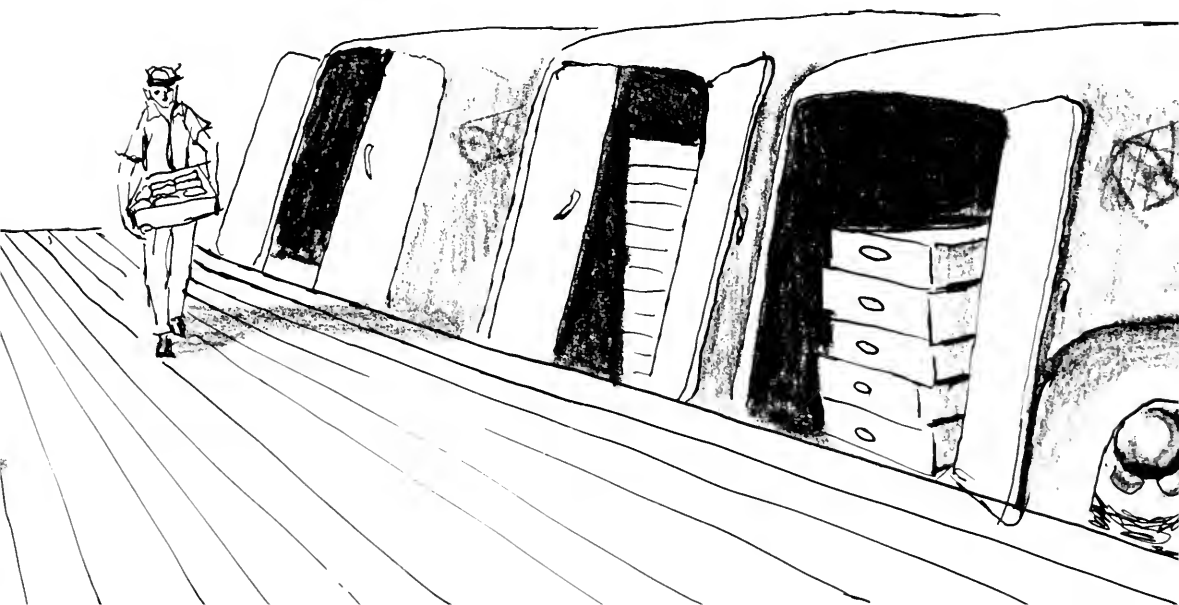


Men stack the packaged, labeled loaves on trays and wheel them to a loading platform where they are put on delivery trucks. As you leave the bakery you see trucks which are delivering bread to stores, restaurants, hotels, and hospitals. Some bakeries even sell directly to homes. Many bakeries make cookies, pies,





cakes, doughnuts, rolls, and bread crumbs as well as a great variety of breads. In fact, very large bakeries sometimes have different buildings to make each type of baked goods. The small neighborhood baker often bakes all of his own cakes, pies, and cookies, but buys the bread he sells from the large bakery.



Most of the bread you eat comes from bakeries like the one which you have just visited.



## WORDS YOU WILL HEAR AT THE BAKERY

**Band knife**—sharp blade through which the bread is pushed to be sliced

**Blender**—machine to mix different kinds of flour

**Conveyer belt**—moving strip of canvas or steel on which the dough travels from one machine to the next

**De-panning**—taking the bread out of the pans after it has been baked

**Divider**—machine to divide dough into loaf weights and sizes

**Fermentation**—bubbling action of yeast on sugars in the flour

**Hopper**—the funnel through which flour is measured into the mixer

**Humidity**—dampness or moisture in the air

**Ingredients**—all the things which are put together to make bread

**Mixer**—machine which automatically mixes the ingredients

**Molder**—machine which shapes the loaves and presses out the air

- Overhead proofer** – huge steam-filled cupboard where dough rises
- Panning**—putting bread into greased pans before baking
- Proof box**—warm room where dough rises just before being baked
- Rounder**—machine which rolls the dough into balls
- Skids**—wooden platforms with wheels, on which bags of flour are stored
- Slicer**—machine to slice bread
- Spinning out**—the way the dough drops out of the mixer
- Sponge**—the mixture of part of the flour, water, and yeast
- Traveling oven**—the oven that bakes the bread as it passes through
- Trough**—long, low boxes to put dough in. (Trough rhymes with *dough*)
- Wrapper**—machine which puts moisture-proof paper around the baked bread
- Yeast**—plant which ferments and makes the bread rise

The author wishes to thank the following people for their help and co-operation:

General Baking Company

Continental Baking Company









WASHABLE

COLOR-FAST

THIS



IS A

**PUTNAM**

**GUARANTEED  
LIBRARY  
BINDING**

LIFE OF THE SHEETS

GUARANTEED FOR THE