Bakery

By Ron Ucovich, Docent USS Hornet

Everyone loves to visit our bakery. Even though this room hasn't baked anything for about 50 years, it still has a slight scent of freshly baked bread and freshly risen dough. Visitors can't help but smile when they enter the room.

The first thing you notice is the 11-foot-long workbench in the center of the room. Be sure to point out the photo of that huge sheet cake hopefully anticipating the day when WWII would be over and the Hornet would sail under the Golden Gate Bridge, and pull into her home port here in Alameda. The cake was baked in December 1944, about nine months before we actually claimed that victory.

On the port side of the room, the large machine on your left is a paddle mixer, used for making bread dough. First, you put in your flour, sugar, and salt. You turn on your mixer, and slowly add warm water, yeast, and oil. After a few minutes of mixing, the baker may add a little more water or flour until the consistency is perfect. This large lump of dough now weighs about 200 pounds. It is then dumped into the large tub under the workbench. There, it will rest for a couple of hours while the yeast begins to activate.

The next step is the kneading. The kneading mixer is on the port side of the room. The dough is dumped into the mixing bowl, and the mixer will use the dough hook attachment. The mixer will start at its slowest setting, and as it turns, the dough will form into a ball. The hook will go round and round the bowl, each time stretching the outer layer of dough and folding it toward the center of the ball. This process of stretching and folding is called *kneading.* Flour, (especially baking flour), contains tiny balls of gluten, (the stuff that makes the dough sticky). The kneading procedure stretches the gluten into thin sheets of air-tight glue.

The next step is rising. Yeast is a living organism, and it loves to eat sugar. As it digests the sugar, it emits carbon dioxide gas. The air-tight layers of gluten trap the bubbles of gas, and this is what makes the bread rise. This process is known as *fermentation.* The dough is broken into softball-size pieces, and each one is placed into a loaf pan, and is placed in the rising oven, (located on the port side). The oven has a temperature of about 110^{o}F, and the dough will rest here for about half an hour.

Next, the loaf pans go into a 450^{o} oven. Before entering the bread oven, the top of the loaf is scored with a knife. This allows the top to split open to allow steam to escape, and it lets the bread expand and rise with ease. Your finished loaf should be light and fluffy with a crisp, golden crust. The utensil used to handle the hot loaf is called a *bread peel,* (not related to banana peel). The word comes from *pala,* the Spanish word for *shovel.*

The next step is the cooling rack. The bread should cool for about 15 minutes before removing it from the pan. The bread will shrink a little bit and become firmer so it doesn't crumble when it comes out of the pan. After the bread has cooled sufficiently, the last step is the slicer, (located on starboard side).

The bakery is a very busy place.

Besides bread, the bakery made many types of delicious desserts. For the officers, they made wonderful desserts fit for a French patisserie. For the enlisted men, they made large steam trays full of pastries fit for the chow line at boot camp. Let's go back to the fermentation mixer and look at the attachments.

We have seen the large dough hook that was used to pull and fold the bread dough before putting it into the rising oven. The spiral-shaped hook was to mix dough that was not supposed to rise, like cookie dough, pasta dough, or pizza dough. The small whisk could be used to beat liquids that you didn't want foamy, like scrambled eggs, fruit topping, or gravy. The balloon whisk was to beat liquids that you want to be light and fluffy, like whipped cream, egg meringue, or angel food cake. The irregular-shaped flat beater was to fold ingredients to make light desserts, like soufflés, mousse, or chiffon cakes. The simple flat beater was for mixing heavy foods that are not fluffy, like cake frosting, pie filling, or bread pudding.

The dough punch was used to punch out wads of dough to make biscuits. The muffin tins were for baking muffins or cupcakes. Next to that, there is a large steam kettle for making fruit jam, sauces, fillings, and sugar glaze for the pies and donuts. And next to the kettle is a stainless-steel box which is the deep fryer, used to cook the donuts.

The donut, by the way, was invented in 1847 by a sailor named Hanson Gregory. Young Mr. Gregory was sailing with the Merchant Marines, and he wasn't happy with the doughy consistency of the fried cakes served on the ship. The cakes were fried in hot oil, and the outside of the cake was crisp and delicious, but the center was always greasy and doughy. Mr. Gregory suggested punching a hole in the center of the cake so that the inside would cook as evenly as the outside. The idea worked like a charm, and donuts were cooked that way ever since.

Bagels, on the other hand, have a more pragmatic reason for having a hole in the center. They were a delicacy in Jewish Poland in the late 1800s. Street venders would sell bagels stacked on long sticks to advertise their wares in the streets of Poland. The idea came to America in the early 1900s in the Jewish
community of New York City. It is mere coincidence that the donut and bagel have a similar appearance.

There is one more story associated with our bakery. From time to time, loud and spooky sounds can be heard emanating from the walls of our bakery. This phenomenon can occur at any time that the tide is rising. The bakery is on the starboard side of the ship on third deck, which is just above the waterline. The ship is secured very tightly to the pier with mooring lines. *Spring lines* keep the ship from moving forward and backward, and *breast lines* hold it firmly against the pier. A **camel** serves as a buffer between the ship and the pier. The **camel** (or fender raft) is located just outside the starboard wall of the bakery, and when the tide is rising, sometimes the camel scrapes against the pylons for the pier, and causes an audible screeching sound. Just inboard from the camel there are empty void tanks, which act like a megaphone and amplify the scraping sound. The result is a loud cry which sounds like a coyote baying at the moon, and its source is nowhere to be seen.