

Biscuits, Crackers, and Hard Tack in Early America

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In early American, biscuits, crackers, and hard tack were closely related, all being simple fare made from wheat flour without yeast. Today crackers are available in dozens of varieties, biscuits are made from dozens of recipes and even from frozen batter in tubes, and hard tack is little known and almost never eaten. Sometimes and some places in early America these three baked goods were the nearly same thing. Yet today you can still buy, in some states, biscuits and crackers that differ little from biscuits or crackers of 200 years ago, and you can still bake your own the old ways.

Hard tack of course was a ration for sailors, soldiers, and explorers, and it is still issued in some parts of the world for the same purposes. It was also called ships biscuit, ships bread, pilot bread, pilot biscuit, and pilot crackers, as well as unflattering names such as reserve ammo, cannon wads, and worm castles. Over time kinds of hard tack, biscuits or crackers evolved into more edible versions of the old forms, and which are still sold today, such as the Saloon Pilot Bread baked in Hawaii, Sailor Boy Pilot Bread whose U.S. production goes almost entirely to Alaska, Vermont Common Crackers, and the lamented Crown Pilot Crackers, a classic part of New England chowders, made by Nabisco until 2007.

True hard tack is the simplest of all these, having only whole wheat flour, water, and salt. It will last nearly forever when kept dry. Hard tack never has any shortening or sugar, much less eggs or milk, any one of which will cause it to spoil with time. There is a story that the U.S. Army in the 1890s issued hard tack baked for the Civil War thirty years before; or perhaps it is that hard tack made for the Mexican War in 1846 was later issued in the Civil War.

Here is a recipe for hard tack from the British Royal Naval Museum Library (2000). If anyone knows hard tack today, it is the British navy. One pound of whole wheat flour is close to 3 3/4 cups. 1/4 oz of salt is about 1 1/2 teaspoon.

NAVAL HARD TACK

To produce a plain ships biscuit, a medium coarse stone-ground whole meal flour should be used. Most flour used today is milled from North American wheat or similar hard grain cereals. It would be difficult to produce an historically authentic biscuit from modern refined flour.

Add water to 1lb wholemeal flour and 1/4oz salt to make a stiff dough. Leave for 1/2 hour and then roll out very thickly. Separate in to 5 or 7 biscuits. Bake in a hot oven approx. 420 degrees F for 30 minutes. The biscuits should then be left undisturbed in a warm dry atmosphere to harden and dry out.

Here is a modern U.S. recipe for hard tack, using half refined white flour which will make the hard tack a little less dense.

Combine 2 cups of whole wheat flour, 2 cups all-purpose flour, and one half to one teaspoon salt in a bowl. Slowly stir in one and half cups of water [more or less water may be needed depending on your flour]. Knead the dough for about five minutes or until smooth. Let the dough rest for about ten minutes. Roll dough into a rectangle about one half inch thick on a greased baking sheet. Score at 3 inch intervals. Prick with the tines of a fork. Bake at 325 for about 50 minutes, or until lightly browned. Makes 15 biscuits.

Right after baking, these are easy to chew. They taste like whole wheat bread and are appealing to eat. As weeks go by they dry and become harder and harder, eventually reaching the classic tooth-breaking degree of hardness, and then can be carved, sawn, or drilled like wood. If forced to eat hard tack in this state, carve off shavings into hot coffee, or grind it into soup.

Old time bakers sometimes baked hard tack twice, or dried it in a warm oven, I suppose to hasten the final hard and dry stage so it could be packed and shipped. Incidentally "biscuit" is an old French word, meaning "twice-cooked." Another link between hard tack and biscuit.

The term 'hard tack' appears to have appeared surprisingly late in the age of sail. The first published use listed by the Oxford English Dictionary is in the novel *Charles O'Malley The Irish Dragoon* by the Irish novelist Charles Lever in 1841.

The novel's narrator goes ashore after some time at sea:

... in ten minutes I found myself standing at that pleasant little inn at Cove which, opposite Spike Island, rejoices in the name of the 'Goat and Garters.' 'Breakfast, waiter,' said I; 'a beefsteak, --fresh beef, mark ye, -- fresh eggs, bread, milk, and butter, all fresh.' 'No more hard tack,' thought I; 'no salt butter, but a genuine land breakfast.'

The second use listed by the OED is from *The United States Grinnell Expedition in Search of Sir John Franklin* by the American naval surgeon Elisha Kane, fifteen years later. Sometimes words are in use for years before appearing in print, and 'hard tack' may have been widespread before 1841, but its late publication strongly suggests that 'hard tack' probably was unknown in the colonial period and during the War for Independence, it may have been unknown in the War of 1812, and possibly it was unknown to the mountain men. George Washington, Ben Franklin, Thomas Jefferson, Meriwether Lewis, and even Captain James Cook and Horatio Nelson, may have never heard "hard tack. Unless an earlier use is found, such as a publication, letter, or diary entry, there is no sign of 'hard tack' in the historical record before 1841.

Biscuits

Early American biscuits were something like hard tack in composition, and similar to the crackers of the time, tending to be flat and crunchy or at least chewy. All three items were similar forms of flat, hard, bread, made without leavening. Today American biscuits are soft and light due to leavening provided by baking powder or baking soda, and often include eggs and sugar and sometimes fruit or cheese. Some modern biscuits would have been regarded as tea cakes a century or more ago.

In early America the key ingredients for biscuits were shortening, milk, and flour. These ingredients, higher in quality than the ingredients composing hard tack, made a more appealing fare than hard tack, but the result is unlike our modern biscuits. Here is a recipe published in 1817 in *The Female Instructor: or Young Woman's Guide to Domestic Happiness*:

"Hard Biscuits. Warm two ounces of butter in as much skimmed milk as will make a pound of flour into a very stiff paste, beat it with a rolling pin, and work it very smooth. Roll it thin, and cut it into round biscuits; prick them full of holes with a fork. About six minutes will bake them."

Six minutes is *very* fast; indicating that the biscuits were rolled thin. Even if the biscuits are rolled to half an inch thick and the oven at 450, twelve minutes might be too little.

Sometimes, but not always, salt or eggs were included in early biscuits, such as the biscuits with eggs (but no salt) in Amelia Simmon's *American Cookery* of 1796. Biscuits usually had no sugar, and before 1830 never had baking soda or baking powder which had yet to be invented.

Here is a recipe from later in the 19th century, with both salt and eggs.

"Cowtown Biscuits"

2 quarts sifted flour

1 teaspoon salt

1 Tablespoon butter

1 egg

1 pint milk (or if good milk is not to be had, plain water will answer)

Mix and beat well until the dough blisters and cracks; pull off 2-inch squares of the dough. Roll into a ball with the hands; flatten and stick them with the times of a fork. Place in a well greased pan and bake in a hot oven. It is not the beating hard that makes the biscuit nice, but the regularity of the motion. Beating hard, the old cooks say, kills the dough.

Biscuits like these certainly were part of the old West, but only where eggs and milk were available, in settlements or on farms.

Crackers in Early America

One source claims that the word cracker was in use in America by 1739. Apparently these crackers were much like the biscuits of the time as far as ingredients went, but were rolled thinner before baking, and baked until dry and hard, but not too brown. Air drying after baking would make them even harder, hence the crack in cracker. Like hard tack, they must have been pretty hard and fairly imperishable. True hard tack was made with whole wheat and water and no shortening; while crackers could have shortening and milk, and usually were made with bolted (white) flour. Neither, at that time, had any leavening.

Here is an early style cracker recipe from a modern collection of old recipes. The sugar may be a modern addition, and certainly may be omitted and still make an historic cracker.

4 cups all-purpose flour	1 / 4 cup butter
2 Tablespoons sugar	1 cup milk
1 teaspoon salt	

Sift together flour, sugar and salt. Cut in butter with two knives until mixture looks mealy. Stir in enough milk to make a stiff dough. Roll about 1 / 4 inch thick on a lightly floured board and cut with a large round cookie cutter. Prick surface in many places with fork tines and brush lightly with milk. Place on an ungreased baking sheet and bake in a 425 degree oven for 15 to 18 minutes or until light gold in color. Makes two dozen or more.

The result is a large chewy wafer, nothing at all like the small and fragile crackers sold today. As they dry thoroughly, they become almost crunchy. I find these are a valuable extra kind of baked good, not like modern crackers, or biscuits, or bread. To keep them somewhat chewy, store them in an air-tight container. The old time cracker barrel, open in the general store, insured that old time crackers had every chance to dry.

In the recipe above, the main ingredients are those of early biscuits - flour, shortening, milk, and salt. The close similarity of biscuits and crackers lasted a long time. A 1901 recipe for Soda Crackers (*The Picayune's Creole Cook Book*, New Orleans) describes what most biscuit makers would call southern beaten biscuits, based on ingredients and handling – the handling being beating the dough for *half an hour*. However unlike biscuits they are rolled to 1 / 8 inch thickness before baking. They are baked “in a moderate oven till they are hard and crisp, but not brown. Then hang in a muslin bag for about two days until thoroughly dry.”

The Beginnings of Modern Biscuits and Crackers – Baking Soda and Baking Powder

The biscuits and crackers we know today descend from American inventions in leavening agents made in the 19th century. In the 1830s bakers began using baking soda, then also called saleratus, to leaven dough. Reacting with an acidic ingredient in dough, such as vinegar (acetic acid) or sour milk (lactic acid), baking soda releases bubbles of carbon dioxide, the gas that makes soda pop fizz. This was all to the good: rather than taking the trouble and time to make a yeast starter, or do without leavening at all as had been the case until then for biscuits and crackers, bakers had a source of instant leavening, right in the dough. Biscuits could be light and more appealing, and they became a common part of American cooking. The new crackers made with baking soda were called soda crackers, and crackers began their evolution into what we know today.

Here is an early soda cracker recipe. The acidic reactant for the baking powder is provided by sour milk, something like our buttermilk:

Soda Crackers #1

Sour milk	1 teaspoon butter, softened
1 /2 teaspoon baking soda	1 teaspoon lard
3 cups flour	salt

Mix enough sour milk, in which the soda has been dissolved, into the flour to make a very stiff dough. Knead well working in butter and lard, and roll out very thin. Cut, shaping the crackers as you wish, sprinkle with coarse salt, and prick them in patterns with a fork. Bake the soda crackers in a moderate oven (350 degrees) until they are crisp. (20 – 30 minutes)

This recipe makes nice thick soda crackers, especially after drying a few days. However, there are two problems with baking soda. One is that sources of acid are not always of uniform strength, yielding different amounts of leavening most every time you try. The other is that the leavening gas appears in the dough immediately; how much remains in the dough when baked depended on how the dough is handled before baking, another irregular factor. Still, soda was a new and valuable addition to baking, and it continues in use today. For some recipes, such as buttermilk pancakes, the rapid generation of bubbles in the dough is just what you want, so long as you do not stir the dough much, after the bubbles appear.

The first step to improve use of baking soda was to use a reactant for the soda of consistent strength, cream of tartar, which was, in the 1830-s, a by-product of wine production in France and Italy. Here is a soda cracker recipe with cream of tartar

Soda Crackers #2

7 oz. flour	1 cup shortening
1 teaspoon salt	1 teaspoon baking soda
2 teaspoons cream of tartar	1 1/2 cup cold water

Mix flour, salt, and cream of tartar, then rub in shortening. Dissolve soda in cold water. Mix all ingredients. Roll out and bake in a quick oven (about 400 degrees).

This is like a recipe for pie crust or puff pastry, plus leavening and salt. For best results chill the shortening before use, and use really cold water. Lard makes more tender crackers; butter has more and better flavor.

Mixing in the soda with the water at the last step delays the generation of the leavening gas as long as possible. This recipe uses water in place of milk. "Water crackers" are made with water rather than milk, so this is both a soda cracker and a water cracker.

Americans persisted in seeking a solution to the problems of baking soda, and by 1859 "baking powder" was developed. Baking powder includes baking soda plus other materials to provide the needed reactant when mixed in dough, plus chemicals that produce leavening when heated not when the dough is mixed, and a drying agent such as corn starch to prevent reactions in the package. No longer did a recipe need an acidic component, and some or all of the leavening action occurred when baked, not when the dough was being handled.

Here is a Shaker recipe for "crackers" using baking powder.

1 cup all-purpose flour	1/4 cup butter
1 teaspoon baking powder	1/4 cup milk
1/4 teaspoon salt	

Stir together thoroughly the flour, baking powder, and salt. Cut in butter until the mixture resembles coarse crumbs. Add milk; stir until the mixture forms a ball. Turn out dough onto a lightly floured surface. Knead dough gently eight to ten strokes. Roll the dough to 1/4 inch thickness. Dip 2 1/2 inch biscuit cutter in flour; cut dough with it. Place dough rounds on greased baking sheet. Bake at 400 degrees for 10 minutes. Split the crackers with a knife. Return to oven and bake until golden brown, 4 to 6 minutes longer. Makes 24 crackers.

To the modern person, these are basically biscuits split in half and toasted. Continuing the similarity of early biscuits and crackers, compare that recipe for Shaker crackers to the Baking Powder Biscuits in the *Boston Cooking School Cook Book* (1941 edition). Both recipes list the same ingredients, in the same order, with slightly different proportions. The essential difference between cracker and biscuit is that the crackers are rolled thin, while the biscuits are rolled to 3/4 inch, and of course the biscuits are not split while baking.

“Quick breads” using baking soda or baking powder became a standard of American cooking, and something of a novelty for European visitors to America. You could make biscuits when ordered by restaurant guests already seated at the table, and of course biscuits became commonplace for ranchers, miners, and frontiersmen, in fact, everyone in America.

Biscuits as well as crackers benefited from baking soda and baking powder. You can find biscuits using baking powder or baking soda in most American cookbooks for the past century and a half. Here is an early soda biscuit from *An Army Wife's Cookbook With Household Hints and Home Remedies* by Alice Kirk Grierson (10th Cavalry, Ft. Davis Texas):

1 quart flour, 2 heaping tablespoonfuls lard, 2 cups sweet milk, or you can take can milk, 1 teaspoonful soda, 2 teaspoonfuls cream of tartar, 1 teaspoonful salt. Rub soda and cream of tartar into flour dry. Next the lard. Lastly the milk. Work with as little handling as possible. The dough should be very soft. Cut more than half inch thick and bake in a quick oven.

The American Baking Powder Biscuit

“Certainly no bread in America has been more popular over a longer time than baking powder biscuits. In fact, in many homes they were baked three times a day in great quantities, and were eaten hot, with butter and honey or preserves, along with every meal.”

James Beard

With the baking powder biscuit we reach the most common American biscuit, the biscuit known since the Civil War, the biscuit of the “old west,” of farms, of fishing towns, and everywhere in the U.S. This recipe includes the customary ingredients, and the range of proportions found in many biscuit recipes.

The Genuine, All-American, Ranch, Camp, and Trail Baking Powder Biscuit

3 cups all purpose flour or bread flour
3 to 4 ½ teaspoons double acting baking powder; usually 3 teaspoons
½ to 1 ½ teaspoons salt; usually 1 teaspoon
3 to 8 tablespoons butter or other shortening; most commonly 6 tablespoons
1 cup milk, or half milk and half water. May need more in a dry climate.

Sift dry ingredients into bowl. Cut in shortening with a fork or two knives until fine meal. Mix well. Make a well in the center of the mixture and gently add all the milk. Stir quickly with fork until dough pulls away from bowl sides and follows fork. Dough should be very soft. Do not add so much milk it makes a sticky ball. Turn dough onto a lightly floured surface. Knead gently 10 or 12 strokes; you can knead as much as a minute if you use the full amount of baking powder. Roll out or pat to ¼ to ¾ inch thickness; as little as ¼ inch for thin crisp biscuits or ½ to ¾ inch for high soft biscuits. Cut as rounds or squares.

For oven, place biscuits on ungreased sheet well separated for crunchy sides; have biscuits nearly touching on the sheet for soft sides. Bake at 450 degrees for 12 to 15 minutes.

For camp cooking, use a 12 to 14 inch dutch oven. Preheat lid and bottom. Use 7-8 coals on bottom and 16-18 coals on lid. Bake 10 to 15 minutes. Rotate lid and bottom about a quarter circle, in opposite directions, every 4 or 5 minutes, for even heating.

Split and eat with butter or honey as soon as done. Makes 12 to 30 biscuits, depending on thickness and size.

Milk *was* available to cowboys on the trail since Americans had also invented canned milk in the mid-nineteenth century, but that is another story! If you find an old original recipe for baking powder biscuits, it may use an old-fashioned tartrate or phosphate type baking powder, which requires twice as much as modern baking powder, such as 6 teaspoons for 3 cups flour. That much is way too much baking powder today.

These are pretty plain biscuits: good if eaten as soon as done; rather bland later. Still, these are the classic American biscuit.

Buttermilk adds some flavor. Here is my favorite biscuit recipe, using both baking powder and baking soda which works with the buttermilk. This recipe was the winner in the "Powder Milk Biscuit" contest held in 1985 by Public Radio in Colorado.

Powder Milk Biscuits

2 cups plus 2 Tablespoons unbleached flour
2 ½ teaspoons double acting baking powder
½ teaspoon baking soda
½ teaspoon salt
1/3 cup butter (works in best if frozen)
3/4 cup buttermilk. May need more in a dry climate.

Sift together dry ingredients in bowl. Cut butter into mixture. Blend in buttermilk until dough sticks together (but is not a heavy sticky lump). Knead on board a few times until smooth. Roll out to ½ inch thickness. Cut with jelly glass and dip tops in melted butter. Cook on a greased cookie sheet 15 minutes at 450.

The melted butter also improves these biscuits.

In all recipes the amount of liquid needed depends on your flour and on how dry your climate is.

Historical Research Disclosure. This was purely a recreational investigation. No primary documents were examined with white gloves in major libraries. Conclusions are preliminary but expected to be generally correct. Corrections, suggestions, and elaborations are welcome.

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