

this way, the fine particles of flour are separated from one another. The tougher and more elastic the gluten, the better the dough will rise, and the lighter the bread will be. This is where good gluten is valuable.

Take a slice of bread and examine it carefully. Notice the little openings or holes in it. These little holes were formed by the gas being held in by the gluten as just described. If too much yeast is added to the flour, too much gas will form, and the openings will be very large, or the gas may even spread out the gluten so far that the walls of the bubbles will break. If the gluten is all or partly removed from the flour, the dough will not rise, because there is nothing to keep the gas in, and we shall have a loaf like that shown in Fig. 28 and 29.

After the yeast has worked enough, the dough is put into a hot oven. Here the heat kills the yeast and causes the gas to expand and stretch out the walls of the little bubbles, or pockets, which it formed between the particles of dough, and changes some of the water into steam, thus raising the loaf still more. The heat on the outside of the loaf converts some of the starch into *dextrin*, a gummy substance with a sweetish taste. This is why the crust is sweeter and tougher than the centre of the loaf. The harder the loaf is baked, the darker the color, through the changing of some of this dextrin into caramel, which is a form of sugar. Some bakers moisten the top of the loaf with water, or water containing a little sugar, to develop caramel, and to give the loaf a darker and richer color. Both dextrin and caramel are soluble in water; and, therefore, they are easily digested. This explains why the crust of bread and toast are sweeter than the soft interior of the loaf, and also why they are more easily digested.