

wheat ground into flour ; but it is hard to grind the bran so fine that it will not have a bad effect on man's digestive system. To overcome this, there has been invented a machine which peels off the outer coat of the wheat grain. The remainder is ground, and is known as "entire wheat flour." Such flour is always dark in color, because the germ is ground with it ; but it contains more bone and fat producing material than flour made in any other way.

It is very difficult to determine the exact quality of a flour ; but there are certain general rules by which a good bread flour may be judged quickly. It should be white with a faint yellow tinge, and it should fall loosely apart in the hand after being pressed. When put between the teeth, it should "crunch" a little ; or when rubbed between the fingers, it should be slightly gritty. As flour is prepared, possibly there is no one point which determines its quality so much as the amount of gluten it contains. Some one asks : "What is gluten?" Have you ever made



Fig. 27.—Loaves of bread made from equal weights of flour : 1. From Manitoba wheat ; 2. From Wild Goose wheat ; 3. From Michigan Amber wheat.

gum by chewing wheat? Nearly all children in the country have. The gummy part is gluten. If you have ever tried to make gum from oats, barley, or corn, you have failed ; because these grains do not contain gluten. It is because wheat contains this substance that it is so much used for bread-making. If you take a little flour and add enough water to make it into a stiff dough, and allow it to stand for an hour, and then take it between your fingers and knead it in water, you will see the water get white with the starch that is separating from the dough. Continue the washing until the starch is all removed. What remains is gluten. Notice how tough and elastic it is.

Some varieties of wheat contain more gluten than others. There is also a great difference in the quality of glutens ; some are tough and