

BREAD-MAKING IN SPAIN

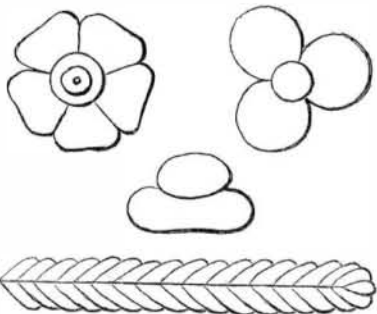
Finding myself about two leagues from Seville, in the picturesque village of Alcalá de Guadaíra, but commonly called Alcalá de los Panaderos (or bakers), as almost all the bread consumed in Seville is made there, I determined to learn how it was made. No traveler who ever visits the south of Spain ever fails to remark, "How delicious the bread is!" It is white as snow, close as cake, and yet very light: the flavor is most delicious, for the wheat is good and pure, and the bread well kneaded.

As practical demonstration is better than hearsay or theory, I would not content myself with the description of the process of bread-making, but went to the house of a baker, whose pretty wife and daughter I had often stopped to look at, as they were sorting the wheat, seated on very low stools in the porch of their house. It was a pretty picture: their dark sparkling eyes, rosy cheeks, and snowy teeth; their hair always beautifully dressed, and always ornamented with natural flowers from their little garden in the back ground; their bright-colored neckerchiefs rolled in at the top, showing the neck; their cotton gowns with short sleeves; their hands scrupulously clean, and so small that many an aristocratic dame might have envied them; surrounded by panniers filled with wheat, which they took out a handful at a time, sorting it most expeditiously, and throwing every defective grain in another basket.

When this is done the wheat is ground between two large circular stones, in the way it was ground in Egypt 2,000 years ago, the rotary motion being given by a blindfolded mule, which paces round and round with untiring patience, a bell being attached to his neck, which as long as he is in movement tinkles on; and when it stops he is urged to his duty by the shout of "*arre, mula,*" from some one within hearing. When ground, the wheat is sifted through three sieves, the last being so fine that only the pure flour can pass through it; it is of a pale apricot color.

The bread is made of an evening; and after sunset I returned to the baker's and watched his pretty wife first weigh the flour, and then mix it with only just sufficient water, mixed with a little salt, to make it into dough. A very small quantity of leaven is added. The Scripture says, "A little leaven leaveneth the whole lump;" but in England, to avoid the trouble of kneading, they put as much leaven, or yeast, in one batch of household bread, as in Spain would last them a week for the six or eight donkey-loads of bread they send every night from their oven.

When the dough was made it was put in sacks, and carried on the donkey's backs to the oven in the center of the village, so as to bake it immediately it is kneaded. On arriving there, the dough was divided into portions weighing three pounds each. Two long narrow wooden tables on trussels were then placed down the room, and, to my surprise, about twenty men came in and ranged themselves on one side of the tables. A lump of dough was handed to the nearest, which he commenced kneading and knocking about with all his might for about three or four minutes, and then passed it to his neighbor, who did the same, and so on successively until all had kneaded it, when it was as soft as new putty, and ready for the oven. Of course, as soon as the first baker hands the loaf to his neighbor, another is given to him, and so on till the whole quantity of dough is successively kneaded by them all. The baker's wife and daughters shape them for the oven. Some of the loaves are divided into many smaller ones, chiefly of these shapes, and



immediately baked. The ovens are very large, and not heated by fires under them; but a quantity of twigs of the herbs of the sweet marjoram and thyme, which cover the hills in great profusion, are put in the oven

and ignited. They heat the oven to any extent required; and as the bread gets baked the oven gets gradually colder, so the bread is never burned.

Oh, if our English bakers would but use less yeast and knead their bread, and not adulterate their flour, how may a heartburn and fit of indigestion they might prevent! Bread would then be the staff of life, as Providence intended it to be!

They knead the bread in Spain with such force that the palm of the hand and the second joints of the baker's fingers are covered with corns; and it so effects the chest that they cannot work for more than two hours at a time. They can be heard from some distance as they give a kind of a guttural sound (ha, ha) as they work, which they say eases the chest. Our sailors have the same fancy when hoisting a sail.

I have kept a small loaf of Spanish bread for several months in a dry place, and then immersed it in boiling water and re-baked it, and I can assure my readers that it was neither musty nor sour.—*London Paper.*

INDIA-RUBBER SOLVENT.

A correspondent—S. W. Ells, of Mansfield, Ohio—has become somewhat exercised in his mind, in reference to an answer which was given sometime since in our columns to correspondents, where it is stated that turpentine would dissolve india-rubber, and he accuses us of "going it blind into science" when we assert such things. He knows better from his own experience, and cites the fact that he has tried "to dissolve india-rubber in turpentine and it only swells up into a sort of dough." In proof of the soundness of our position, we quoted to him no less authority than Sheridan Muspratt, and yet our friend Ells is inexorable, and replies, "you cannot dissolve it (india-rubber) with turpentine, with all the authority you have got." We do not intend to do it by our authority, we prefer to use turpentine or some other solvent, and we insist upon it, that our position is sound and correct. Since the receipt of Mr. Ells' letter, we have dissolved some india-rubber in cold turpentine, and the solution is as perfect as that of any other dissolved gum. It is nearly as white as milk, and about the consistency of cream, and is offered to the inspection of all doubters. India-rubber vulcanized, or mixed up with clay, lead or other substances, becomes a different article, and it is not the fault of our science, if parties do not get the same results, when anything but the prime article is attempted to be dissolved by turpentine. Much depends upon the care and intelligence of the parties who make the experiments. We are unwilling to rest under such imputations as are put forth by Mr. Ells, when we know we are right; hence our reasons for giving publicity to this matter. Our own experience fully confirms, in this case, the soundness of our advice.

India-rubber is soluble in ether, in naphtha, and other liquids. A rubber cement made with turpentine dries with great difficulty, and like most turpentine varnishes, is very "tacky;" but that made with naphtha dries quickly. India-rubber naphtha cement was first used, we believe, by Charles Mackintosh, of Glasgow, for making waterproof coats, which were called "Mackintoshes," after the inventor. The folds of cloth were cemented double, leaving the natural surface on the outside, and the cement was confined between the duplicate pieces. Such clothes had an unpleasant odor, and were but little used. The discovery of rendering the rubber plastic by kneading it with heated rollers, so as to avoid the use of solvents entirely, was a grand improvement in making india-rubber goods. This discovery, together with the use of sulphur, and the treatment of the goods by high heat, are American inventions which have been the means of greatly benefiting and extending the useful arts throughout the whole world.

PASTEBOARD SHOES.—These shoes are coarse brogans, such as sell at retail for \$1 and \$1.25. What is usually the sole, is, in this case, only very thin, poor leather—it may be sheepskin. The welt is very thick, coarse leather, to which both upper leather and sole are sewed or pegged; the deficiency inside is supplied by thick yellow pasteboard. The shoes thus appear to have very good stout soles. A very little wear carries away the thin skin of a sole, and the yellow pasteboard presents itself, and the cheatery is thus exposed, too late for the purchaser. We have seen all this.—*Shoe and Leather Reporter.*

SUBSTITUTE FOR HAY AND TURNIPS.

It is a subject of much importance to our farmers, especially those engaged in the dairy business, to obtain the best food for their cattle, as a substitute for hay and turnips. A correspondent Edward Carrol, furnishes the *Irish Agriculturist* with his experience in this department, which we condense as follows:—

"First, what shall we do for hay? Let us economize everything; and turn to account many things, hitherto either neglected, or thought to be comparatively worthless. Every particle of chaff, whether of wheat, oats, or even of barley, should be scrupulously economized and converted into food for horses and cattle. To some this advice may appear a novelty, to many others it is no such thing. During my several agricultural tours throughout the various parts of England, some years ago, I saw it a common practice to have large barns filled with the awns of barley, reserved to be cooked for horse-feeding or to be cut with the chaff-cutter, mixed with hay for the feeding of store-cattle. Some of the best conditioned store-cattle I saw were fed on the awns of barley. Such small farmers as had not stock of their own to use these awns sold them to the larger farmers. In the year 1848 I had charge of the large farming-establishment at Clongowe's Wood College, county of Kildare. We had a fine crop of mangold wurtzel to supply food for some 40 or 50 milch cows during winter and spring. By an omission, or oversight, on the part of the old steward, he let (contrary to my warnings) a hard night's frost overtake the crop in the ground, and more than three-fourths of it was rendered utterly useless for cattle-feeding in the ordinary way. What was I to do having such a large establishment to supply with milk, then selling at 10d. and 1s. a gallon? I husbanded all the chaff of every kind in the place, I bought all the mill-chaff I could find in the neighborhood, built temporary cisterns in connection with an old steaming-apparatus I got repaired in the place, cooked everything I could find available, and had not only milk at from 4d. to 5d. per gallon, but a good supply of food for some 80 or 100 pigs in the liquid spared from the cow-feeding, and never before did the milch cows turn out in better condition in the same establishment in the month of May. I have on other occasions used half-ground or crushed barley and oats for feeding milch cows. The material was prepared as brewers and distillers prepare their malt, by what is called 'mashing' and fermenting; and increased milk was obtained from cows so fed, and they were nearly fat when turned out to the summer's grass. I lay no claim to this discovery, the merit is due to a gentleman I once met in Cork Cattle Market, who had long practiced the same himself, and, who, in giving me his opinion, observed: 'If you can malt the grain before being used, so much the better.'"

IRON VS. COPPER BOILER-TUBES.—The use of copper and brass flues in the boilers of the steam fire-engines, has been found, by practical experience, to be unsuitable, in consequence of those metals not possessing the same expansive power as iron when heated, which tends to loosen the fastenings of the flues to the iron portions of the boiler after cooling, causing leakages and difficulty in getting up steam. The "Hibernia" steam fire-engine is now at Reany, Neafie & Co's, having her old boiler-flues taken out, and iron ones substituted, which are found to work better, the expansion and contraction, when all is constructed of iron, being properly equalized. The "Northern Liberty Hose" steam fire-engine, and the "West Philadelphia," have been altered in the same manner, with advantage.—*Philadelphia Ledger.*

NATIONAL ASSOCIATION OF RAILROAD ENGINEERS.—This association held its fourth annual meeting at Pittsburg on the 13th and 14th ult. Its principal object at present is to obtain legislative enactments in the different States to ensure a higher standard of qualifications in applicants for the position of railroad engineers. At this meeting the association had under consideration and approved of a draft of a proposed law, looking to the accomplishment of this object in Ohio. This bill was presented to the Ohio Legislature, at their last session, and passed the House before adjournment. A similar bill will be offered to the legislatures of Pennsylvania, Illinois and Massachusetts, at their next sessions, and subsequently to the legislatures of other States in which the association have branches.