

while giving prolonged security to the avari of a few.

USUAL ADULTERATIONS OF FOOD AND DRINK.

DANGEROUS ADULTERATIONS.—Lead in canned vegetables and meat; corrosive sublimate in the rind of cheese (used to destroy "skippers"); poisonous colors (such as arsenite of copper and chromate of lead) in candy and confectionery; caustic lime in lard; aniline colors in fruit jellies, preserves, sauges; and wine; salts of tin in sugar; *cocculus indicus* and tobacco in beer and ale; salts of copper in pickles; and sulphuric acid in vinegar, are adulterations of food and drink found in this country, which are even dangerous to life. Their use should be prohibited under severe penalties.

DELETERIOUS ADULTERATIONS.—All of the adulterations mentioned above, even when in too small quantities to be dangerous, are also deleterious or injurious to health. Alum in bread and in baking powder; copper in butter; artificial essences in candy and confectionery; oxide of iron in cocoa and chocolate; alum in flour; red lead in cayenne pepper; spirits of turpentine in gin; chromate of lead in mustard; water in milk (by depriving infants of nutrition); crude brandy and "platrage" in wine; red ferruginous earths in annatto; red lead in currie powder; sulphuric acid in glucose syrups; lead in cider; Prussian blue, black lead, and salts of copper in tea; sulphuric acid, alum, aloes, and picric acid in beer; and some other deleterious adulterations of the food and drink of man, are met with in this country more or less frequently. It is an impossibility to measure the amount of injury thereby caused to the public health. Doubtless some of them turn the scales of life and death against delicate infants and

invalids, which fact might be a sufficient reason for transferring them to the list of dangerous.

FRAUDULENT ADULTERATIONS.—The object of dangerous and deleterious adulterations is gain, and they may therefore be reckoned also among the fraudulent. Sago, tapioca, potato and other fecula in arrowroot; soap, sulphate of lime, and all sorts of starch in annato; mustard husks in allspice; water, burnt sugar, etc., in brandy; potatoes, inferior flour, etc., in bread; lard, tallow, water, starch and oleomargarine in butter; vermilion, venetian red, ground rice, and turmeric in cayenne; excess of water in canned vegetables and meat; annatto, other coloring matters, oleomargarine, and "vacuity of cream," in cheese; glucose in candy and confectionery; corn starch, sago, tapioca, animal matter, and cheaper kinds of arrowroot in cocoa and chocolate; chicory, burnt sugar, and roasted peas in coffee; ground rice in currie powder; salt and sugar in gelatine; turmeric, cayenne and mustard in ground ginger; flour, glucose and cane sugar in honey; gelatine in isinglass; starch, stearine, salt, and potato in lard; flour, turmeric, cayenne, and yellow lakes in mustard; turnip in horse-raddish; apples, pumpkins and molasses in preserves; linseed meal, different flours, ship bread, and mustard husks in pepper; potato starch in sago; water, cayenne, burnt sugar, etc., in rum; rice flour, sand, and glucose in sugar; molasses, cochineal, armenian bole and other coloring matters in various sauces; flour and starch in spices; sand, magnetic oxide of iron, spent leaves and foreign leaves in tea; arrowroot and clove stalks in cloves; ship bread in pimento; spent bark in cinnamon; water and burnt sugar in vinegar; molasses, water and salt in porter and stout; glycerine in beer; and