

confined rooms and shops; and with the scarcity of milk in the cold season it is more liable to be adulterated. Let us briefly notice the various ways in which milk may be rendered noxious or injurious.

1st. One would hardly suppose that a diseased cow could give good or wholesome milk, and it seems unnecessary to write of, or to produce evidence, that disease in the cow will affect the milk; yet evidence will make the fact more impressive. It must be remembered that if a severe disease will affect the milk in a marked manner, a less severe disease will doubtless effect it, though in a less marked degree.

The tuberculous disease in cows will undoubtedly effect the milk, and there have been repeatedly in this JOURNAL, reports of cases in which infants had plainly suffered from the use of such milk. Dr. Billings, in a book entitled "Relation of Animal Diseases to the Public Health," tells us that Dr. Hertwig, (Vet. Inst., Berlin,) drank daily, for four consecutive days, a quart of milk taken from cows having the foot and mouth disease. On the second day he observed a mild fever, pains in the limbs, headache, a dry and hot throat, and a peculiar sensation in the hands and fingers. These mild phenomena continued about five days; then the lining of the mouth became swollen, especially the covering of the tongue. In a short time small vesicles began to develop. At the same time that these symptoms appeared in the mouth and on the lips there appeared an eruption of a similar character upon the hands and fingers. Two medical practitioners also subjected themselves to the same experiment, and at the same time similar results followed. There is much evidence

that scarlet fever and other diseases may be communicated to the human organization from the cow through the milk. Inflammatory diseases of the udder, even in a mild form, are well known to produce perceptible changes in the milk, one of which is a condition resembling the milk shortly after calving.

It must be remembered, too, that milk may be much altered in character from disease in the cow and the altered condition not be perceptible to the senses,—neither to the sense of sight, taste nor smell.

2nd. The effects of the food of the cow upon the milk are well known; as are also, and which are of the same character, the effects of articles of diet and of certain drugs, taken by a mother, upon her nursing child. The natural food of the cow is grass, green or dried and cured, and when a healthy cow is fed exclusively on this, her fresh milk is good, and generally slightly alkaline; on the contrary, when fed chiefly or largely on other food the milk is almost always acid. Infants are intolerant of acid milk. Nursing mothers usually object to take acid foods. Dr. Lewis Smith, of New York, in his work on the "Diseases of Infancy and Childhood," says, "Milk used for infants should always be alkaline. If it is acid, as shown by the proper test, it should be rejected." Dr. Mayer, a good authority, says, "The very worst milk is that supplied by cows fed on potato refuse from brandy distilleries; the best among the stall-fed being that obtained from the cows of cow fatteners which feed on hay and grass in stalls. By substituting the milk of the latter for the former, he was often enabled to arrest at once the intestinal derangements previously referred to."

A striking illustration of the evil