

## MISCELLANEOUS NOTES AND EXTRACTS.

### ON THE USE OF WATER AT MEALS.

Opinions differ, says the British Medical Journal, as to the effect of the free ingestion of water at meal-times, but the view most generally received is probably that it dilutes the gastric juice and so retards digestion. Apart from the fact that a moderate delay in the process is by no means a disadvantage, as Sir William Roberts has shown in his explanation of the popularity of tea and coffee, it is more than doubtful whether any such effect is in reality produced. When ingested during meals water may do good by washing out the digested food and by exposing the undigested part more thoroughly to the action of the digestive ferments. Pepsin is a catalytic body, and a given quantity will work almost indefinitely, provided that the peptones are removed as they are formed. The good effects of water, drunk freely before meals, has, however, another beneficial result: it washes away the mucus which is secreted by the mucus membrane during the intervals of repose, and favors peristalsis of the whole alimentary tract. The membrane thus cleansed is in a much better condition to receive food, and convert it into soluble compounds. The accumulation of mucus is especially well marked in the morning, when the gastric walls are covered with a thick, tenacious layer. Food entering the stomach at this time will become covered with this tenacious coating, which for a time protects it from the action of the gastric ferments, and so retards digestion. The tubular contracted stomach, with its puckered mucus lining and viscid contents, a normal condition in the morning before breakfast, is not suitable to receive food. Exercise before partaking of a meal stimulates the circulation of the blood and facilitates the flow of blood through the vessels. A glass of water washes out the mucus, partially distends the stomach, wakes up peristalsis, and prepares the alimentary canal for the morning meal. Observation has shown that non-irritating liquids pass through the "tubular" stomach, and even if food be present, they only mix with it to a slight extent. According to Dr. Leuf, who has made this subject a special study, cold water should be given to persons who have sufficient vitality to react; and hot water to the others.

### PHYSICAL CULTURE IN CHILDREN.

Dr. A. H. P. Leuf (*Jour. Amer. Med. Assoc.*) says: 1. The object of physical

culture is to develop the material body, and with it, of necessity, the mind and morals. 2. Like most potent agencies, it is much abused and far too little understood. 3. It absolutely forbids smoking. 4. It absolutely forbids the drinking of alcoholic or malt beverages. 5. It insists upon the necessity of regularity in living, especially as regards time of sleeping, eating, exercise and recreation. 6. It enforces a good substantial dietary that will never be forgotten. 7. It discountenances all kinds of vice. 8. It is rigid in discipline without seeming so to those disciplined, and develops implicit and willing obedience to advisors. 9. It has a marked effect upon the growth of the body and mind. 10. It develops to a high degree the valuable qualities of hope, confidence, courage, deference, obedience—where proper,—independence, perseverance, ambition, temperance and determination. 11. It is, in short, the most valuable preparation of the young for the cares and trials of adult life, and aids young and old alike to ward off disease and mitigate its effects."

SUN LIGHT AND HEALTH.—Most people are afraid of sunlight. The direct rays of the sun, when not excessively hot are no doubt very beneficial, and a few thoughtful persons always try to get on the sunny side of the street. Most persons would suppose that the outside light is two or three times as strong as that within our houses. But the difference is vastly greater. Carefully prepared tables show that (in the words of "Health") for a view at the seashore, comprising sea and sky mainly (with a lens and plate of a certain speed), an exposure of one-tenth of a second is sufficient. An open landscape, away from the sea would, with the same lens, the same aperture, and the same plate, require one-third of a second. A fairly lighted interior would require two and a half minutes, while a badly lighted interior, such as rooms which most ladies prefer to occupy, would require half an hour to obtain an equally good picture. In other words, patients strolling on the seashore in sunny weather, are in a light not two or three times, but eighteen thousand times stronger, than that in the ordinary shaded and curtained rooms of a city house; and the same patients walking along the sunny side of a street are receiving more than five thousand times as much of the health-giving influence of light as they would receive indoors in the usually heavy curtained rooms.