consequently one, at least, of the new members elected at the June meeting of the Executive Committee, became anxious to secure her balloting paper. It was not sent to her, and when she applied for it at the Office she was informed that it was contrary to precedent to issue any voting papers after the May number of the *Nurses' Journal* had been issued—a statement which is entirely without foundation, and which is in distinct contradiction to the wording of the Bye-law which directs that voting papers shall be "sent to all the members of the Corporation." The Nurse in question (Miss Barlow) was therefore compelled to leave the Offices without her voting paper. It is now, however, pretended that her request was only "postponed," because the Honorary Officers directed the Secretary to forward the voting paper to the Nurse, and this was accordingly done on the following day. Meanwhile, however, the Nurse, indignant at being refused what she knew to be her legal right, and knowing how other and older members had been equally deprived of a privilege they desired to exercise, had made a formal complaint to this Journal in the shape of a letter which was published and issued in the NURSING RECORD before she received her voting paper from the Offices. To the important consequences which followed we shall have to refer, at considerable length, next week.

Lectures on Elementary Physiology in relation to Medical Nursing.

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LECTURE III.—DIGESTION AND INDIGESTION.

(*Continued from page 27.*)

THE saliva is a watery fluid formed from the blood by the salivary glands and discharged through the narrow tubes or *ducts* of those glands into the floor and sides of the mouth. The salivary glands are large, and composed of branched tubes, and are situated under the lower, and at the sides of the upper, jaw. When food is placed in the mouth—or in some animals, even at the sight or smell of food—a flow of saliva takes place into the mouth. For example, it is by no means unusual to see a dog's mouth visibly water when it is offered some delicacy to which it is specially devoted. The action of saliva is very well shown by the following experiment. A little starch is boiled with water into a very thin paste and then it is allowed to cool; if a few drops of iodine are added to this, a blue colour will be developed, and this is known as the test for starch. If, however, some of the paste is first mixed with a little saliva from the mouth, and kept in a warm place, the mixture will, in a short time, become quite thin, watery and clear, and will give no blue colour when the iodine solution is added, thus showing that the starch has been converted into something else. But if to some of this altered fluid a little Fehling's Solution is added, and the mixture boiled in a test tube, an orange-coloured sediment will be formed and fall to the bottom of the tube, thus showing that *sugar* is present, or in other words, that the saliva has converted the starch into sugar. The object of this is that whereas the starch is not capable of easy absorption, sugar is a substance which the blood is able at once to take up and the tissues to assimilate and make useful.

We will now follow the food in its course from the mouth, from which, as we saw last week, it is seized by the successive muscular rings of the œsophagus or gullet and pressed onwards into the stomach, the opening into which is guarded by a contracted orifice, which, during the process of digestion, remains almost closed, and thus prevents, in healthy persons, the movements of the stomach from forcing back the food into the mouth. When vomiting occurs, the muscular action of the œsophagus is simply reversed; the stomach rejects into the œsophagus the food which it considers unsuitable or irritating, and the œsophagus, acting in sympathy with the stomach, contracts its rings from below upwards instead of from above downwards, and so expels the contents violently into and from the mouth.

On reaching the stomach, the food mixed with the saliva is having the starch which it contains converted into sugar; the walls of the stomach contracting upon the food move the mass round and round the organ in a circular manner, thus bringing every particle of food into contact with the secretions of the stomach. The chief of these is that which is known as the GASTRIC JUICE, a colourless fluid consisting of water which contains, dissolved in it, some salts, a little free hydrochloric acid, and two special ferments which are known as *Pepsin* and *Rennin*.

(*To be continued.*)

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