

hydrochloric acid, and if you pour it into the stomach, digestion is interfered with. Alkalies ought not to be given immediately after eating; they will neutralize the normal acids after eating. Bicarbonate of sodium has different properties. When it is to be given it must be done before the administration of food. In an abnormal stomach there is an amount of abnormal fatty acids, and we give an alkali for the purpose of neutralizing these acids, and then it will do good. Give alkalies before food is taken, then the stomach is free from the fat acids. It is quite possible and physiological to give an alkali before meals, and still given pepsin afterward.

Dr. MEIGS said he was somewhat surprised to learn that diarrhoea was rare in hand-fed children in winter. In a foundling institution with which he is connected, one of the worst troubles is diarrhoea. Diarrhoea is not at all uncommon in winter, especially in improperly hand-fed children. Past clinical experience seems to be tending in this direction, that cows' milk should be diluted, and, also in favor of the addition of fat, say cream, which adds to the good effects. When he found that analysis of human milk would seem to show that dilution of cream to cows' milk was necessary, it seemed a strong argument, backed up by chemistry and clinical experience.

Dr. BARUCH said his statement as to the non-occurrence of diarrhoea in winter referred to the serious form; that occurring in winter is not often fatal.

Dr. MEIGS: A good many cases of death were from diarrhoea. They were children of the poorest classes of society, generally in bad health when first seen; they have diarrhoea when first admitted, and die.

Dr. BARUCH: As to condensed milk, I would like to ask the doctor how much water he adds.

Dr. HARWOOD: My method is, three teaspoonfuls of the condensed milk from the cans to a half pint of water; one-third of that water is lime water.

Dr. BARUCH: Condensed milk, even Borden's and the Swiss brand, would have to be diluted one-sixth if you dilute it as stated. Where would the nourishment come in? And you give a large amount of sugar likewise. I think condensed milk is the most pernicious food.

Dr. FOWLER: In regard to the value of these experiments. Those pepsins were bought out of the shops, and if they cannot digest any more albumen than appears here, they must be very weak. Saccharated pepsins would be still weaker. As to Parke, Davis & Co.'s pepsin, it was ascertained that it had been prepared by a new process, and had been only recently put on the market. The practical application of the results I leave to yourselves. It is well not to give these remedies during digestion. The curd that forms may set up conditions which may give you trouble.—*Dietetic Gazette.*

Progress of Science.

THE DIAGNOSTIC SIGNIFICANCE OF HEMATURIA.

Robert Saundby, M. D., Edinburgh, F. R. C. P. (Lond.), in the *British Medical Journal* writes: Hematuria is a symptom common to a number of pathological conditions which differ essentially in their seat, nature, and relationships. In many of these it is a prominent, in not a few of them the sole prominent symptom, while its differential diagnosis is beset with difficulties, not only from the multiplicity of causes, but from the fact that there are a certain number of cases which can only be attributed to causes still unknown, or at best very obscure.

Blood may appear in the urine in a corpuscular or non-corpuscular form. The latter is called hemoglobinuria to distinguish it from corpuscular hematuria.

Detection of blood in the Urine.—The diagnosis of the presence of blood coloring matter in the urine may be made by (1) the eye, (2) the microscope, (3) the guaiacum test, (4) the spectroscope; but the microscope alone is capable of differentiating hematuria from hemoglobinuria.

It has been maintained by Dr. Wickham Legg, an author who has written ably on several of the obscurer problems of clinical medicine, that the blood corpuscles get broken up after the urine is secreted. He maintains that if the urine is examined immediately after leaving the body, corpuscles can always be found. My own observations, which I have had the opportunity of making under the most favorable conditions, do not support this view. Hayem has found free hemoglobin in excess in the blood serum, while in the well known icteroid coloring of the skin and conjunctivæ, which sometimes appears, supports the view that the hemoglobin is set free in the blood before it appears in the urine. I shall have to refer to this matter again, and I believe I shall show that Dr. Wickham Legg is so far right that hemoglobinuria, as distinguished from hematuria, is not always present in the group of cases where chilling of the surface appears to be the essential factor in the production of attacks of bloody urine.

Having premised the necessity of microscopic examination for the differentiation of corpuscular from non-corpuscular hematuria, it may be broadly stated that blood in the urine, when in any quantity and chemically unchanged, presents a very characteristic appearance not likely to be overlooked or mistaken for anything else. But when the urine has remained some time in the bladder, the bright red color becomes changed to a dirty brown, giving to the urine a porter color if present in quantity or smoky tinge when in less amount. This change is due to a chemical alteration of the hemoglobin, which becomes