CHAP. XVII.

OF ANTACIDS.

These are remedies which obviate acidity in the stomach, by combining with the acid and neutralizing it. The substances most powerful in exerting this kind of action, and which can be employed, are the alkalis, and among the earths magnesia and lime. They can be regarded only as palliatives, the production of the acid being to be prevented by the administration of remedies capable of restoring the tone of the stomach. They are employed in dyspepsia, and in diarrhœa arising from acidity.

ANTACIDS.

Potassa.
Soda.
Ammonia.
Calx.
Magnesia.

Potassa. Potash.

This alkali is obtained from the incineration of the woody parts of vegetables. The ashes are lixiviated, and by evaporation the saline matter, consisting chiefly of sub-carbonate of potash, is procured. This forms the potash of commerce; it is purified by a second solution in water and evaporation; and to procure the alkali, lime is added to the solution of this sub-carbonate; the whole is put upon a filtre, so that the alkaline solution may pass slowly through the mass of lime; the carbonic acid is thus more effectually abstracted by the lime, and the potash passes through in solution, sufficiently pure for any medicinal application. This solution (Aq. Potassæ) is sometimes employed to relieve the symptoms from acidity, where the generation of acid is constant and abundant, being given in a dose of 15 drops diluted in water. Its acrimony renders it, however, an unpleasant remedy. The sub-carbonate, or the neutral carbonate, is likewise occasionally employed in solution. But the most common form under which the alkali is used as an antacid, is the super-carbonate. For the preparation of this, a formula is introduced into the Edinburgh Pharmacopœia, an ounce of sub-carbonate of potash being dissolved in ten pounds of water, and this being combined by a moderate degree of pressure, with an excess of carbonic acid. By this impregnation, the acrid alkaline taste is concealed, and

an agreeable pungency communicated. The liquor is taken as an antacid, in the dose of half-a-pound occasionally.

SODA. Soda.

THIS alkali is obtained in the state of carbonate, from the saline matter, formed in the combustion of marine vegetables, the barilla of commerce. In its pure state it is not employed in medicine; the carbonate or sub-carbonate is used as a lithontriptic, rarely as an antacid; but the super-carbonate is frequently taken. It is prepared in the same manner as the super-carbonate of potash, the proportions being so adjusted that the strength of each solution is nearly the same. It is therefore taken in the same dose, and is usually preferred, as being supposed to be more mild, to the super-carbonate of potash water.

AMMONIA. Ammonia.

THE solution of ammonia in water (Aq. Ammoniæ) is sometimes used as an antacid, and it has been recommended by Dr Sims as superior even to the other alkalis in relieving cardialgia, and other symptoms from acidity: so much so, that he has been led to suppose that these symptoms frequently arise, not merely from the liquid contents of the stomach being acid, but from the elastic fluid with which it is more or less distended having a degree of acidity, on which the ammonia from its volatility more readily acts. From 20 to 30 drops of the solution are given in a cupful of water. The solution of

the carbonate of ammonia is also used in a dose of half-a-drachm; and the aromatic ammoniated alkohol forms a still more grateful antacid and stimulant.

Calx. Lime. (Page 236.)

Lime, under the form of lime water, is occasionally used as an antacid, in a dose of four or six ounces. It operates, not only chemically, neutralizing the acid, but by its astringent and tonic power contributes to restore the tone of the stomach. It is also employed under the form of carbonate of lime, of which there are two varieties in use, Creta Alba, and Lapilli Cancrorum: the former named by the Edinburgh College Carbonas Calcis Mollior, and the latter, Carbonas Calcis Durior.

Carbonas calcis mollior. Creta Alba. White Chalk.

This is a carbonate of lime, found abundantly in nature, nearly pure, or containing only minute quantities of other earths. From the grosser impurities with which it is mixed, it is freed by levigation and washing. It is then named Prepared Chalk, (Creta Præparata.) This is an antacid in very common use. As the compound it forms with the acid in the stomach has no purgative quality, but appears to be quite inert, it is the antacid commonly employed to check diarrhœa proceeding from acidity. It is given in a dose of 1 or 2 drachms, with the addition of a small quantity of any aromatic. The chalk mixture of the Edinburgh Pharmacopœia affords a very good form for administering it.

Offic. Prep.—Pulv. Carb. Calc. Comp. Mist. Carb. Calc. *Ph. Ed. Lond.*—Pulv. Cret. C. et Opio. *Ph. Lond.*—Troch. Carb. Calc. *Ed.*

CARBONAS CALCIS DURIOR. Cancrorum Lapilli et Chelæ. Crabs' Stones, Crabs' Claws. Cancer Astacus. Cancer Pagurus.

IN the head and stomach of the river craw-fish, are found certain concretions, consisting principally of carbonate of lime, with a little phosphate of lime and animal gelatin. They are prepared by levigation, and washing with water, and are named Lapilli Cancrorum præparati, formerly Oculi Cancrorum præparati. The tips of the claws of the common sea-crab are similar in composition, and are prepared in the same manner. They are named Chelæ Cancrorum præparatæ. Both are employed as carbonates of lime, and being prepared with more care are in general smoother, and more easily diffused in water than the common prepared chalk, though there is reason to believe, that as met with in the shops, they are merely chalk with a little gelatin.

MAGNESIA. Magnesia. (Page 350.)

MAGNESIA is a primary earth, usually obtained in the state of carbonate by decomposing its sulphate or its muriate by an alkaline carbonate, and in its pure state, by expelling from this the carbonic acid by the application of heat. In either state it is used as an antacid: the carbonate has the inconvenience, where large quantities of it require to be taken, of occasioning flatu-

lence from the disengagement of its carbonic acid, and this leads to the preference of the pure magnesia. It is given in a dose of a scruple or half-a-drachm. The salt which magnesia forms with the acid in the stomach proves slightly purgative; and this is the only reason for distinction in practice between this earth and the carbonate of lime, the one being used where diarrhœa accompanies acidity; the other where a laxative effect is wished to be obtained.