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## PRACTICAL HYGIENE.

SECOND PAPER.

CHAPTER II.

AIR IN ITS RELATIONS TO HEALTH.

SECTION I.

GENERAL AND INTRODUCTORY REMARKS.

In the previous chapter we studied hereditary diseases and predispositions to disease, and also moral and social causes of disease, and we now come to the study of the material causes of disease—causes connected with the essentials of life—air, water, food, exercise, rest, etc. Air being regarded as the first essential of life, we will consider it first.

PURE ATMOSPHERIC AIR consists of nearly 21 parts, by volume, of oxygen, about 79 parts of nitrogen, .035 parts of carbonic acid gas, with minute traces of ammonia and sodium salts, and, usually, traces of ozone, together with watery vapor—which varies much in quantity—and, usually more or less organic matter in the form, probably, of both dead and living structures.

The amount of oxygen varies from 20.98 per cent. in pure mountain air, to 20.90 per cent., or even less, in the air of cities. The amount of carbonic acid ranges from .02 per cent. in certain localities, to .05 per cent. in the denser parts of cities.

The watery vapor varies greatly in quantity in different countries and at different periods, from complete saturation, to about 40 per cent. of saturation; or from 1 to 11 grains in a cubic foot of air, according to temperature. The amount most favorable to health is believed to be that of from 65 to 75 per cent. of saturation.