

to .04 per cent. The maximum amount of oxygen is to be found in the air on the sea shore and mountain sides.

OTHER CONSTITUENTS OF AIR.

We have said that air consists chiefly of oxygen and nitrogen, but *normal* air always contains small and variable quantities of vapor of water, carbonic acid, organic matter, and ammonia and ozone. Air vitiated by breathing, as we shall see, contains some of these constituents in excess, while others of its constituents are diminished. In addition to the above it should be mentioned that in the vicinity of large smelting and chemical works, certain gases, e.g. Sulphuretted hydrogen, Hydrochloric acid, etc., may be present, and pollute and poison the air. Owing to the law of the diffusion of gases, and the prevalence of air currents, there is always present the *tendency* to preserve a constant composition of the atmosphere, and thus it is that noxious gases cannot accumulate to a dangerous degree, save under extremely artificial circumstances.

THE MOISTURE OF THE AIR.

Moisture or vapor of water, always present in the atmosphere, is the result of the evaporation of water from the ocean, lakes and rivers, as well as from the soil and vegetation. Its amount is directly dependent on the temperature. Hot air can hold or absorb more moisture than cold air. When saturated air is cooled, moisture is deposited, of which the well known condensation on the outside of a glass of cold water in summer, is an illustration. Our breath is loaded with moisture, and hence the determination of the amount of moisture in the air of a room may sometimes serve as a guide to a correct diagnosis of its condition. Over the hygrometric state of the atmosphere, of course, we have no control, though to a certain extent, and especially in winter, we can regulate the amount of moisture in the air of our houses.

EFFECT OF EXCESS OR DEFICIENCY OF MOISTURE.

It might be well here to note that an excess or deficiency (above or below the normal amount) exerts a decided action upon the health. An excess of moisture is more prejudicial than a deficiency, since, in the first place, it tends to preserve the organic matter, which is one of the