

of application. Undoubtedly it should, to a great degree; but the object is to settle a special case, in the first place, and then dispose of others by a similar test.

Of late, the idea that manure should be left entirely on the surface of the ground, has been a prominent topic in agricultural journals. It appears in striking contrast to the deep-burial notion, which has been urged under the plea that the virtue of manure was sure to rise, whatever the depth of earth which covered it. There is a point of much consequence in connection with surface manuring for cultivated crops, although it is not involved in the question as to what mode of application confers the greatest fertility. It is this: manure left on the surface, unless thoroughly decomposed and made fine, is an obstruction to cultivation by clogging the implements used for that purpose. If the manure is coarse and strawy, it constitutes no trifling obstacle with crops for which the harrow, horse-hoe or cultivator is used. It would therefore be desirable, in making an experiment to test the advantage of the different modes of applying manure, that it should be so fine that what is left on the surface will not occasion the difficulty alluded to.

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### How Animals and Vegetables Live.

In the grand laboratory of nature, each opposing phenomena counterbalance the other; what is *poison* to the animal is *nutriment* to the vegetable. The atmosphere is composed of two distinct gases, called oxygen and nitrogen gas; they stand in the ratio of twenty-one parts of the former, to seventy-nine of the latter. Both these gases are deleterious of themselves. An atmosphere composed of such proportions of these gases, is well adapted to the lungs of man. No man could live in an atmosphere composed of oxygen alone; and no man could breathe nitrogen without being poisoned. There are numerous disturbing forces at work in the world, leading to a disorganization of these well balanced principles, displayed on the surface of our planet, by a wise Creator, that would lead the mind, at first thought, to suppose that the atmosphere will soon become unfit for man to respire.— We know that every creature that breathes, absorbs the oxygen, and throws out at every respiration nitrogen and carbonic acid gas; every one of the millions of fires that burn, and every one of the millions of living creatures that breathe, consumes the oxygen and pours into the air carbonic acid gas. Still the air is equally pure, as if no such operation had gone on. Why, because, whilst animals absorb oxygen and give out carbonic acid gas, all vegetable substances absorb carbonic acid gas, and throw out oxygen. And thus the vegetable world, and animal world, counterbalance each other's effect upon these two great departments of nature.

How little do we think that these phenomena are continually at work