

garden, for space in Antwerp is restricted, and a small "cour," paved with tiles, serves both for light and ventilation. It seems strange that the interiors of the hotels are as inodorous as they are, since the "cabinets" are usually without any window, and there is no flushing apparatus. Apparently, the system is like that in use in Paris; the solids are separated from the liquids, and the odorless excavators of the municipality remove the former at frequent intervals.

In the matter of shops, Antwerp is considerably behind Brussels. I say shops, because the American store is a misnomer when applied to establishments of moderate size, devoted entirely to one class of goods. Trades seem to be more separated than in the United States. Antwerp has no fine continuous line of shops, but they are dotted about everywhere, many of the best in the narrowest streets.—*W. N. Lockington, in Building.*

REDEEMING TRAITS OF ALKALI SOIL.

Dr. E. W. Hilgard, professor of agriculture and botany in the University of California, presented a valuable paper on "Some Redeeming Traits of Alkali Soils," at a recent meeting of the Society for the Promotion of Agricultural Science, from which we gather the following facts:

It is the general impression that an alkaline soil, that is, one manifesting saline efflorescence, is of very little agricultural value. Such soils are, however, often very rich in the three ingredients most needed by impoverished soil, viz.: the salts of potash, phosphoric acid and nitrogen. The alkali lands are the result of an arid climate, in which the rainfall is not sufficient to leach the surface soil of its alkaline salts. The salts found in the alkaline soils of California are of these classes, viz.: the neutral salts of alkali, such as common salt, Glauber salt, and sulphates and chloride of potash, etc. These are injurious only when present in considerable quantities. Secondly, the earth salts, such as Epsom salts, copperas, etc. The cheap and effective remedy for these is lime. Thirdly, the alkaline carbonates. These are injurious in small quantities, rendering the soil-water corrosive to plants. The antidote is gypsum, or land plaster, which changes the corrosive carbonates into bland sulphates. This antidote has been employed and should be more generally known and used. Prof. Hilgard is sanguine that gypsum, in conjunction with judicious culture will reclaim all but the worst alkali soils. The gypsum fixes both the phosphoric acid and potash, and prevents their escape when the land is afterward irrigated.

These alkali soils have a high moisture-absorbing power, which exerts a most important influence upon vegetation. When the moisture supply is scant, this high absorption power may turn the scale between a good and a poor crop. Passengers on a railroad train are struck by the occasional appearance of bright green oases among the general drab summer garb of the plains. These spots are where there is a greater amount of al-

kali, but they are not the preferred feeding places for cattle. The soluble salts of the alkali soils accumulate at or near the surface, by capillary ascent and evaporation of water, so that toward the end of summer they may be removed by a scraper. A soil that before would grow only alkali grass, will, after this removal, produce a crop of grain the next season. Under a hot midday sun the surface soil often becomes so dry that a gust of wind raises a cloud of dust most irritating to the eyes of man and beast. As the sun declines a moist surface takes the place of the dry dust. A dressing of land plaster, Prof. Hilgard believes, will change these desolate areas into profitable farm land.

There is no reason for questioning the power of cultivated plants to avail themselves of a part of the moisture accumulated by delequescient salts. When these corrosive salts are less abundant, crops, and large ones, may be grown. We must not forget the fact that these soils are exceedingly rich. The author of the paper writes from a very wide experience on the plains. He believes that many of the mooted questions in agricultural chemistry and physics are more advantageously studied in the field than in experiment plots or the laboratory. He is also of the opinion that the vast unproductive areas in the West should form a subject for careful study for the United States geological survey, or be placed in the hands of the department of agriculture for investigation. If these rich lands can become profitable it is now time they be made so.

MISTAKES OF LIFE

Somebody has condensed the mistakes of life, and arrived at the conclusion that there are fourteen of them. Most people would say, if they told the truth, that there was no limit to the mistakes of life; that they were like the drops of the ocean or the sands of the shore in number, but it is well to be accurate. Here, then, are fourteen great mistakes: It is a great mistake to set up our own standard of right and wrong and judge other people accordingly; to measure the enjoyment of others by our own; to expect uniformity of opinion in this world; to look for judgment and experience in youth; to endeavor to mould all opinions alike; to yield to immaterial trifles; to look for perfection in our own actions; to worry ourselves and others with what can not be remedied; not to alleviate all that needs alleviation as far as lies in our power; not to make allowance for the infirmities of others; to consider everything impossible that we cannot perform; to believe only what our finite minds can grasp; to expect to be able to understand everything.

THE best things are nearest; breath in our nostrils, light in our eyes, flowers at our feet, duties at our hands, the path of God before us. Then do not grasp at the stars, but do life's plain common work as it comes, conscious that daily duties and daily bread are the sweet things of life.