CHEMISTRY MADE EASY FOR THEUSE OF THE AGRICULTURIST.

By the Rev. J. Topham, London, England.

In a late number of the Farmer's Herald, the editor acknowledges the receipt of a little work entitled as above, from which he gives a few extracts. If the following be a fair specimen of this practical work, we would like well to have the pleasure of its perusal, so that we might be able to condense the most important parts in the columns of the Cultivator.

The first quotation is of itself worth pounds to the practical farmer, as it will enable him to ascertain the amount of lime in the subsoil, which lies directly underneath the surface or active soil he oultivates. If his soil be deficient in this essential substance, and that portion of the subsoil which may be reached with as if it had been charred by a fire. the plough contains it in abundance, it is obvious that deep ploughing would be the cheapest and best mode of improving such land.

surface or subsoil, the skilful farmer will! at once see the propriety of applying a dressing of lime or marl, the latter, if rich in carbonate of lime, would be the most economical, if it could be procured farm for the mere expense of carriage.

Numerous beds of marl may be met with in various portions of the Province, being rich in carbonate and phosphate of line and decayed animal substance, which are at present considered of no available value; by testing specimens of these marls as described, their richness in lime may be known, and a few experiments in a small way upon the various crops cultivated, would soon establish their value in the estimation of the experimenter.

" Dissolve any given quantity of marl, in diluted muriatic acid, your off the fluid from the undissolved matter, and to it add a small portion of common potash, dissolved in water ; lime, which makes it valuable, will be thrown down or precipitated, and the proportion present can be thus proportioned. The muriatic acid having a greater affinity for potash than for lime, deserts the latter, and combines with the former.

" In stables, wherein a powerful smell of hartshorn, (ammonia,) is perceptible; if an ounce of muriatic acid, (on a plate,) be placed therein, dense white fumes will be seen in its neighbourhood, which are devoid of all smell. This is muriate of ammonia. The acid having a strong affinity for this alkali, has attracted and retained it. And I here venture to suggest, that if in stables, the floors were occasionally sprinkled with water, containing muriatic acid, to the proportion of two ounces of the latter to a gallon of the former, the smell would pe considerably destroyed, and the injurious influence of the ammonia, upon the horses, be greatly weakened.

" If an ounce of oil of vitriol, be poured into three separate wine glasses, and in the first there is inserted a piece of straw; in the second is placed a small portion of cork ; and into the third, is dropped a lump of loaf-sugar; the three substances will become black ; the straw appearing

"The oil of vitriol, (sulph. acid) has, in these three instances, united with the constituents of these several substances, except their carbon, which imparts the well-known black colour of charcoal to the parts remaining. In the instance of the sugar, which is composed of carbon and of Where this soil abounds in neither the water, it has merely abstracted the elements of the water, (hydrogen and oxygen,) and left the carbon untouched.

" If a small quantity of oak sawdust, well pressed into the bowl of a large tobaco-pipe, (the mouth of which is closely coated over with pipe-clay,) be submitted to the action of a clear fire, a species of vinegar, (pyroligneous acid,) will be distilled from the end of the tube, ard charcoal be found within a convenient distance from the remaining after the operation is concluded: which charcoal, when burnt in the open air, will leave a small residue of white ashes, containing potash and a very minute quantity of insoluble matter, consisting principally of lime.

"These latter mineral substances not being destructible by fire, are styled inorganic constituents of plants, whilst those which are resolvable into elementary bodies, and fly off to form new combinations, (as carbonic acid, &c.,) are termed organic substances. Thus by ascertaining what are the elementary principles of which vegetable substances are constituted, we are enabled to form a tolerably correct opinion of the species of manure, that will best promote their health and vigorous growth."

Did you ever see a man prosper in business, who was in the habit of borrowing money at more than six per cent?