

A writer in the *Farmer's Magazine* recommends a classification based on analysis. We are not prepared to say that this mode is at present practicable, but it is at least worthy of attention. His plan is as follows:—

1. *Silicious soils*, containing from 90 to 95 per cent. of sand. These would be divided, on the same principle, into blowing sand, coarse sand, good agricultural sand, and calcareous sand.

2. *Loamy soils*; 70 to 90 per cent. of sand separable by washing, subdivided in coarse sandy loam, fine sandy loam, rich loam, and calcareous loam.

3. *Clayey soils*, with 40 to 70 per cent. of sand; divided into clay loam, clay, and calcareous clay. Each of these soils, termed calcareous sand, calcareous loam, &c., contains 5 per cent. of lime.

Marly soils constitute a fourth group, in which the proportion of lime ranges between five and twenty per cent., and are divided into sandy marls, loamy marls, and clayey marls.

Calcareous soils contain more than 20 per cent. of lime. They are divided into sandy calcareous, loamy calcareous, and clayey calcareous. While in calcareous sands, clays, and loams, the proportion of loam does not exceed 5 per cent. The difference of composition denoted by difference of name, is similar to the sulphates and sulphites of chemical nomenclature, which contain different proportions of sulphuric acid.

According to the quantity of pebbly fragments yielded by a square yard, or by a cubic foot of the soil, they may be denominated *gravels* or *gravelly sands*, loams, and clays:

Vegetable soils vary from the common garden mould, which contains from 5 to 10 per cent. of vegetable matter, to the peaty soil, in which the organic matter is about 60 to 70 per cent. They will be vegetable sands, loams, clays, marls, &c.

Considered geologically, soils may be classed in three groups:

1. *Local soils*, or those derived exclusively from the debris of the rock on which they rest, unmixed with materials of other rocks.

2. *Erratic soils*, containing the unmixed materials of several, and, in many cases, distinct formations, transported by currents of water which, at the close of what is called the testary period of geology, acted irrespectively of the present lines of drainage and sea levels.

3. *Alluvial soils*, composed of finely divided matter, transported and deposited by rivers and tidal currents, in subordination to the existing levels and lines of drainage.—*New England Farmer*.

☞ The love of admiration is the canker upon the heart of many a lovely woman. It is vanity in its worst form. It insinuates itself into the moral nature and either makes the woman an object of vulgar stare, or public notoriety. When her beauty is gone, the absence of the stimulant to her weakened nature leaves her irritable and disappointed. Beauty is a dangerous inheritance, and requires a special duty from the owner of it. The destiny of a beautiful woman is nobler than to be stared at by a vulgar crowd, or flattered by heartless society.

GIBBS'S ROTARY DIGGING MACHINE.

At a late meeting of the American Institute, Professor Mapes illustrated this new agricultural implement by a working model. The inventor has improved the original, and is now about to add one of the Mapes subsoil ploughs to loosen the ground forward of the teeth, and keep them steady without so much weight. Professor Mapes thinks this machine, judging from experiments with the first rough machine, will do more than three times as much work as a plough, and more than three times as well, with the same team.

The plough requires just as much propelling power to overcome the friction of the land side as it does to turn over the furrow slice, and all that friction is worse than thrown away—it compacts the land and injures it.

There is no power lost in this implement; it is like forking over the soil, and will work three feet wide and fifteen inches deep with one pair of oxen, rendering the land more pulverulent than a dozen ploughings.

Mr. Meehi said the plough is doomed, in speaking of Samuelson's machine; yet this is much more perfect. In his machine much is lost by friction of gearing—in this there is none—the weight of the machine trips the teeth and throws them out. His machine requires six horses, this two oxen. English farmers pay 40s. an acre for spading and 20s. for ploughing, and find their account in the extra cost of the work. The Harsimus gardeners, who raise vegetables for this market, pay \$75 an acre rent. They could not pay half of that if they depended upon the plough alone. By the spade they get three or four crops in a season. True, they manure high, but that is not all. Unless you render your land pulverulent, you might as well put your manure in the garret to raise potatoes in the cellar. Land that is well forked up will produce more without manure than poorly ploughed land will with it.

Now, if we find that this machine, as I predict, it will, can do the work of the man with a fork, rapidly and easily, the grand desideratum has been reached, and for much of the work of the farm the plough is doomed, but not, as Mr. Meehi thinks, for all.

BENEFIT OF DITCHING.

About one year ago, I bought 120 acres of land, for \$400. There was at least \$350 worth of improvement on it. The reason I bought it so cheap was, it was so wet that the former owner could not make a living on it. He told the neighbors that it was too wet to raise grass. He said if he would sow clean timothy seed on it, in two years it would turn to wild grass. Well, last spring I went to work and cut a ditch large enough to drain it decently. Some of the time I worked in the water to the top of my boots, and that not a little of the time, for I cut the ditch in the lowest of the ground. The consequence was the water had a chance to run off, and my ground