

long. We mow them year after year and get a ton of hay per acre, when the land, under a higher state of culture, is capable of yielding three tons to the acre! Would it not be cheaper to allow some of it to lie idle, or grow up to wood, than to have so much in hand?

In order to have the summer manure in proper condition for re-seeding, it must be collected into heaps and passed through a slight fermentation, such as we have described in an article in this number of the paper, in reply to the queries of a correspondent about destroying the vitality of the seeds of weeds which find their way into the manure heaps.

It is of vital importance to the farmer, never to relax his efforts in making manure. They should be systematic, not spasmodic, crowding in the material this week in undue proportion, and withholding it entirely the next. Where system is observed, and the various materials are judiciously supplied, the heap will grow in magnificent proportions, and if properly reduced from its long and crude, to a short and

aponaceous condition, will amply repay the cost with more than compound interest for all the labor he has expended upon it.

Will the farmer allow us to suggest, once more, the importance to him of attending to the manure heaps in the summer, while materials are more abundant than at other seasons, and while the hot weather will rapidly reduce them to their best condition. Let us suggest, also, that muck is the great basis upon which his operations must mainly rest. It is, in reality, "the mother of the meal chest." Without its aid we scarcely know what course to suggest; but with it in abundance, and judiciously used, there is hardly a limit to the productiveness of our good soils.

FARM ENGINEERING.

An engineer in the military art,—where the word originated, I believe,—is a person skilled in mathematics and mechanics; one who forms plans of work, both of offence and defence, marking out the grounds for fortifications, &c.

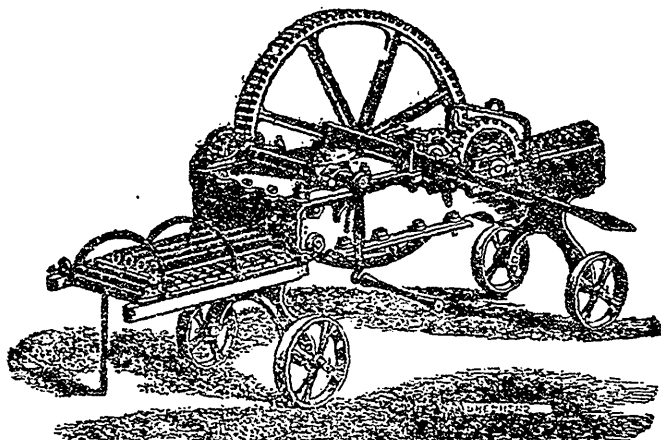


Fig. 1.—Drain-Tile making Machine—Small size—Hand power.

When this skill was afterwards applied to the delineating plans and superintending the construction of our public works, such as canals, railroads, &c., the title title of civil engineer was given to it.

Now that the farmer is becoming alive to his interests, he, too, claims an engineer; he has enemies to battle with; he has works both of offence and defence, to construct. He need not, however, very often, go outside of himself, for this engineering. No true farmer, with a mind alive to his business, but has it within himself, if he choose to apply it. Man's ambition says, Let us erect this wilderness into a fruitful field; let us make upon it a fit habitation; and it is the engineer in the man that is called upon to do it.

Location of Buildings.

A good location of our buildings, and their proper construction, are the first considerations requiring the engineer. In this latitude, we spend a considerable portion of our lives in these buildings. Everything we do is in some way connected with them; they are our outer

bodies; the bodies of our bodies; by them our degree of civilization may be judged. Everything dear to us in life is connected with them; in a word, they are our homes. Youth, manhood, old age, are bound to them by ties as dear as life itself. A house is built for a lifetime. How important that we do not plan it hastily.

No rules can be given for location or construction by which all can be governed. I will give a few hints, however, that may generally apply:

A position as nearly central as possible should be chosen, that the land we work upon may be conveniently near; a healthy location, as far as possible from miasmatic swamps, yet not too high upon a hill; a convenience to water, where a good well can be dug; a running brook is also of great use to both house and barn, especially so in lime localities, where the well water is hard. Then the relative position of our buildings should not be lightly passed over, as it is a matter of great convenience to have the barn near enough to the house to be