

same time at draining. Season of the year, winter, —8 hours a day. In clay soil, with little pick-work required, they dug, laid the pipes, and filled in 6 rods of drains each, per day. This at 6d (12 cts), gave them just the 3s that satisfied them. Such land required 4 feet drains, 40 feet apart, and 1100 inch and a quarter pipes served for the 64 rods of drains wanted—some are sure to be broken. So we have :

64 rods of drains at 6d (12cts) per rod...\$7.68
 1100 pipes at 16s (\$4) per thousand..... 4.40

\$12.08

as the whole expense of draining an acre of land except the carriage of the pipes, which, as the kiln was with 1½ miles of my farm, was a mere trifle. When the land was stony, or rather, gravelly, the price for digging was higher, but the distance between the drains, which was sometimes 60 feet, made up for the extra cost per rod. I have paid as much as 20 cts, where the pick was much used.

Here, taking one soil with another, when the men get accustomed to the work, I think 20 cts. a rod should do it, and 60 rods ought to be enough per acre. Thus, we have :

60 rods of drains at 20 cts.....\$12.00
 950 pipes (13 inches in length here) at
 \$8 per thousand, and breakage..... 7.00

\$19.60

Cartage, of course, additionnal : a heavy charge, as 1000 of these pipes would be a two-horse load—to say nothing of railroad charges. But make the total \$22, and it is not much for an acre of land well drained. If this promising French company really lends money on mortgage at 6%, I cannot conceive any so profitable investment for a farmer as borrowing enough to drain all the land on his farm that wants it. The yearly interest will be only \$1.32 an acre—as to the profit, it may safely be put down as thrice that sum.

If my experience be thought worth anything, I shall always be happy to to give any advice, or to answer any questions, either in the journal or by letter as may be preferred ; gratuitously of course. I saw so many thousand acres of land, during my tour through the Townships this summer, and in the French country at other times, perishing for want of draining, that I could not help thinking that for the neglect of this, the most profitable of all improvements, the educated part

of the community were sorely to blame ; since it is to them that our less enlightened population look to lead them into new ways, and shew them how to unite *theory with practice*.

That drainage does actually raise the temperature of the soil, may be shown by the following experiments made at Clarendon Park, Hampshire, England. The soil is a heavy clay—*impervious* they used to call it, before drainage proved the contrary. Here, the temperature was raised 15° F. by drains 4½ feet deep. The register seems to have been kept very accurately ; and it proves that not only was the summer and autumn heat of the soil greater, but the increased temperature was preserved for a long time—through the winter, in fact. March, 1850, was a peculiar month for the South of England : for seven nights out of the first eighteen, the mercury sank to 26° F. yet the following table shows a greater degree of heat, at one and two feet under the surface, than for several years previously in the same month, by 1.17 degrees at one foot, and 1.44 at two feet :

	1 foot deep.	2 feet deep.
Mean of March, 1838....	41°48	41°46
“ “ 1840....	39°24	41°71
“ “ 1839....	41°46	41°93
“ “ 1844....	41°55	42°14
“ “ 1845....	37°79	38°37
“ “ 1846....	44°47	45°55
“ “ 1847....	40°22	41°03
“ of these years....	41°16	41°75
“ of first 18 days March 1850.....	42°33	43°18

The land was drained in the autumn of 1848.

Draining Apophthegms

Go straight through springs from below the outburst, deepening as you rise the slope.

Depth will more than compensaté for distance.

How many cubic yards can be drained for a dollar, is the point.

All water should enter the drains from below.

Never lay drains near trees ; particularly Ash or Elm, for fear the roots should choke the pipes.

Keep your ditches clear, and the mouth of the main open—your drains will, then, last a lifetime.

The narrower the drain, the less earth to be moved.

Divide the earth thrown out between both sides of the drain—less danger of caving-in from pressure.

Water will enter clay-pipes through the pores,