

in length contiguous, and both heated by Weatherhead & Co.'s No. 5 boiler, and hot water pipes, at a cost of \$1100: the entire buildings costing about \$2,500. They are intended for commercial purposes.

Truly Chicago is growing horticulturally at last.

EDGAR SANDERS.

#### TRENCHING FOR GRAPES NOT NECESSARY.



HERE are a few old fogies who still contend that it is necessary to trench the ground for a vineyard, at a cost of \$250 to \$300 per acre. We exploded this theory years ago, yet some grape growers continue to recommend it, who have had no practical experience in any other method. Read what Mr. George Huseman, the extensive grape grower of Hermann, Mo., says:

"It is a well proved fact that we have varieties adapted to certain localities and soils, which will give in such locations sure crops every year: and some few varieties seem to have a happy facility of adapting themselves to almost any soil. We have also found by experience, which in such, as in all other cases, is the mother of wisdom, that one variety may fail altogether on a certain soil, where another variety will flourish and thrive remarkably well. Thus we found, as an example, that our Southern stony hill-sides, where the Catawba got sun-burnt and scorched every summer, the Norton's Virginia and Herbemont came to greater perfection, and were always fresh and green, whereas the Herbemont did not succeed in our deep clayey loams, where the growth was too rank; and it never fully ripened its wood, yet there the Concord, and in a certain measure the Catawba, succeeded well.

A close observation of these facts, obvious to everybody, and of the different habits of the different varieties, first set me to thinking whether different kinds did not also need different preparation of the soil. I observed that the Concord made its principal roots near the surface, while the Catawba

and Norton's Virginia, to a certain measure, went down with their roots into the subsoil. So far, all our grape growers had concurred that the only thorough preparation of the soil was by trenching two or three feet deep, and reversing the soil; that is, bring the subsoil to the surface, and the surface to where, as they thought, the roots of the vine ought to be deep down. This method, of course, necessitated deep planting. The idea struck me that it was somewhat unnatural to bury the grape vine, perhaps the most sun-loving of all our fruit plants, with its roots deep down in the cold subsoil, beyond the influence of the sun and air. I began to doubt the necessity of deep trenching and planting, and determined to try a different method.

I was then about to plant a new vineyard on a piece of rough forest soil, newly cleared. Instead of trenching with the spade at a cost of, say \$120 per acre, I took a large breaking plow with four yoke of oxen, and made furrows as deep as I could get them, say twelve inches. I had two men to follow the plow with axe and grubbing hoe, to cut away the large roots whenever they obstructed the way; and had a subsoil plow with two yoke of cattle to follow in the same furrow, which loosened the soil say ten inches deeper, making in all a depth of tilled soil of from twenty to twenty-two inches. Six men with six yoke of cattle thus finished about an acre per day, at a cost of about \$25. The reader will perceive that this left the soil almost in its natural position instead of reversing it as is the case in trenching. Now for the planting: I concluded that the plants, if they *must* have their roots deep down, would find their own way there after I had mellowed and stirred the soil; I therefore thought I would not plant deeper than ten inches. This I did, much to the disgust of my wise neighbors, who shook their heads and prophesied total failure. But, lo and behold! my vines did not fail, but grew lustily, produced well, and the vineyard thus easily prepared is now one of the most thriving and productive in the whole neighborhood.

#### DOMESTIC ECONOMY.

##### TANNING FUR SKINS.

One of your correspondents asks for a method of curing skins with the fur on. A valued relative of mine, of much experience, gives me the following: Stretch the skin

on a board until partially dried, say a week or two. Then soak for two days in a solution of half a pound of alum in half a gallon of warm water. On removing the skin from the water, scrape off carefully with a