

From the Albany Cultivator

CEMENT CISTERNS—THE BEST METHOD OF CONSTRUCTING.

Messrs. Editors,—You will doubtless allow me to communicate through your valuable monthly, pro bono publico, but especially for the benefit of those interested a few brief hints in regard to the proper manner of constructing cisterns; household appendages so necessary to the comfort and convenience of those who are not blessed by nature or art with a generous fountain of pure soft water at their doors.

Of the various methods recommended and practiced in different sections of the country, the plan of constructing cisterns of brick and water-cement, is doubtless far superior to any other, particularly in regard to usefulness and durability. Though we have made one answer a tolerably good purpose for a number of years, made of white pine, bound with strong iron hoops, and firmly set in blue clay, yet the liability of the material to decompose and become useless, even when every precaution is used, suggested the propriety of adopting some improved mode in constructing it. The plan chosen was the one above mentioned. We constructed two of different sizes. For the largest, a pit was ordered to be dug ten feet in diameter and nine feet in depth, the bottom being shaped similar to that of a large potash kettle, and the sides perpendicular. The brick selected for the kiln for the purpose, were those burned hard, though but little cracked or warped. The mortar used was made of two parts coarse clean river sand, and one part ground water-cement ready for mixing, obtained at the mill near Schuylerville, N. Y., at 25 cents per bushel, though from the fact that it does not putify or "set" as soon as some kinds, it is believed a superior quality may be obtained. Water is worked in, to render it sufficiently soft for use, like common lime mortar. With materials and pit thus prepared, the mason commences operation exactly in the centre and bottom of the excavation, by covering the surface with a thick coat of his mortar, and laying the bricks with their flat surfaces contiguous, forming, as soon as convenient, a perfect circle of some three or four feet in diameter. Regular courses are then laid around the circle, taking care to increase the inclination of the upper edge towards the centre, so that when the bottom is finished to the edge from where he wishes to carry up the sides, the bricks will be placed in an angle of about fifty degrees with the perpendicular side. Extreme care should be taken with this part of the work, and an extra quantity of cement used, in order to prevent the possibility of a leak, as in turning up the wall, the outer edges of the bricks must necessarily be further apart than the inner, and every cavity should be completely filled with the mortar. The sides were then carried up perpendicularly five feet, from which point they were gradually so small as to admit of being covered with large slabs of white marble, with a circular orifice sufficiently large to admit an ordinary sized person and to place a pump for raising the water. A urd is then carried up sufficiently high to prevent any action of the frost on the work below, and filled in with dirt or gravel that will not heave. At the top of the brick wall, and immediately under the stone covering, is left an opening the size of a brick, from which a drain is laid to conduct off the surplus water, made like the cistern of brick and cement. While the wall is going up, the mason should be particularly careful to lay on a good coating of cement over the outside, before filling in, care being taken to preserve a sufficient space between the bank and wall, for this purpose. To complete the work, a flat stone is placed on the bottom of the cistern in a bed of mortar for the pump to stand upon, the whole inside plastered with cement similar to the walls of a house, and after drying a few hours, whitewashed with a thick mixture of cement and water, and the work is done. Water may be admitted after the work has become partially hardened, but should be conducted to the bottom in such a manner as not to wash the coating of cement. The first quantity of water discharged into it will be hardened and rendered unfit for use, by the sulphate of lime contained in the cement, which may be pumped out, when the next will be soft.

The advantages of having cisterns constructed as above described, must be apparent to the most casual observer. When done in a workmanlike manner, and with proper materials, they will be as durable as though formed of solid rock, and the inside presents a surface as free from leak as any stone vessel used for culinary or household purposes. Different families will of course require different sizes, and the amount of material necessary to construct them vary accordingly: the one described, containing something like 45 hog-heads, the other about 20. The builder, Mr. Richard Swartwout, of Schuylerville, N. Y., has often, to save expense, been ordered to plaster the cement directly on to the earth as shaped with the shovel, and covering with plank or large stone as before. But the mode is evidently objectionable, as, if accidentally exposed to the frost, the sides will crack and become leaky. Brick cisterns laid up with common mortar, are also liable to crumble in time, and prove defective. In either case, however, the top should be sunk below the surface, and covered with gravel sufficiently deep to prevent the action of the frost on any part of the masonry. If any of our readers choose to construct their cisterns according to the above directions, taking care to secure an experienced workman and good materials, they will find doubtless, should they live so long, that the lapse of half a century will not affect their usefulness or impair their durability.

J. CHACE.

Hoosick Falls, June, 1841.

From the Tennessee Agriculturist.

TO FARMERS' DAUGHTERS.

It has been sometime since I talked to the girls. This evening I will give them a few lines, letting them know I think of them yet. As usual, I am dwelling on the common, every day affairs of life, and feeling more and more the importance of young females being well acquainted with all the minutiae thereof. The reason for my writing as I do at present, I will give you.

A few days since, I heard a gentleman, who wished a domestic, industrious, and contented wife, speaking of a pretty, interesting girl, praising her modest deportment and engaging manners, but at last, wound up with, "She does not know how to do anything useful, she could not even make her own dresses, she would be of very little use in this world of hard work." Now, I had nearly the same opinion myself, though I would not tell him you know; but thought I would tell you, and let you profit by it, if you choose. He spoke also of some young ladies who studied mental and moral philosophy, chemistry, and other branches, and wanted to know what use it would finally be. He was certain, from his own observation, they did not have enough of philosophy to govern their temper and general conduct, and as to chemistry, all their study of it had not given them a knowledge of bread making, which he considered a very important item, his mother having been successful in that line of business, and he had been accustomed to the business of bread. He thought, at their studies were not of some practical utility, they might as well be let alone.

I was really amused, to hear views so much in opposition to the prevailing notions of the day; and, to tell the truth, I thought there was some good common sense in them, though I informed him the girls would laugh most heartily at such nonsensical stuff, in these days of improvement, when many considered it polite and sensible to be perfectly ignorant of common affairs. My advice was, that he should go away out in the country, and look for the daughter of some good farmer, who had taught his family that it is honorable to engage in all the useful employments in which the greater part of the duty of woman consists—one who could sit down happily at home, and study household good, without sighing for the excitement of fine dresses, fashionable furniture, fashionable visits, and all those fashionable things that disturb the peace of young housekeepers, and render home a scene of misery and strife, instead of the gathering place of the heart's best affections.

If girls had any idea of what would promote their future happiness and interest, more of their precious time would be spent in the acquisition

of useful and necessary knowledge, rather than flitting it away to gain a few (generally useless) accomplishments. The first is of great importance, in every situation of life: the latter are almost always given up, as soon as their possessor takes her station at the head of a family. I was led to consider what should be the character of a lady who has finished her education, or who at least has left school, and also of the training necessary to form that character. Nothing preventing, I will tell you my cogitations at some future time, although some of you will think I am altogether too old-fashioned to be writing in these days of light and knowledge.

Lucy.

THE FARMERS' FAIR.

Tune—Auld Lang Syne.

Ye husbandmen, both far and near,
Up, up, stir round, prepare
With sons, and wives and daughters too,
To attend the Farmers' Fair.

Bring wheat and corn of various kinds,
Bring all that's new and rare,
And barley, oats, rye, buckwheat, millet,
All to the Farmers' Fair.

Bring pumpkins, squashes, carrots, beets,
Quince, apple, peach, and pear,
Potatoes, turnip, cabbage, peas
And beans to the Farmers' Fair.

Bring "sheep and oxen," large and fine,
And cows and horse and mare,
And pairs of horses, asses, mules—
Bring all to the Farmers' Fair.

Bring heifers, steers, and stately calves,
Let "bulls and goats" be there,
Bring natives, short horns, long horns, no horns,
All to the Farmers' Fair.

Bring porkers spotted, porkers white,
Suit every connoisseur—
Let Berkshire, Briffeld, China, Leicester,
Meet at the Farmers' Fair.

Ye wives and daughters bring your best,
And best with good compare,
Bring something that your hands have wrought,
And come to the Farmers' Fair.

Bring golden butter, melting cheese,
Bring nick-nacks rich and rare;
Let woollens, cottons, linens, silks—
Bring praises on the Farmers' Fair.

Mechanics too and artists come,
Bring samples of your ware;
Display the products of your skill,
And crowd the Farmers' Fair.

Bring cultivators, harrows, Ploughs,
All made for wear and tear;
Corn planters, drills, yokes, shovels, hoes,
And rakes to the Farmers' Fair.

Machines for trashing, lenning mills,
Horse-power and smaller ware,
Saw-cutter, corn-mill, cheese-press, churn—
Bring all to the Farmers' Fair.

One word to him of generous soul,
Who loves thus to prepare—
Oh, let that "Farmers' coat of arms,"
Be here at the Farmers' Fair.

Ye clergy, teachers, students come,
Come taste the bright blue air;
Pa's, sallow, sickly, "feeble folk,"
Trun out to the Farmers' Fair.

Ye Lawyers, Doctors, Merchants too,
Come gather round—for where
Shall non-producers learn their place!
Save at the Farmers' Fair.

Come men and women, old and young—
Let boys and girls be there,
Come rich, come poor, come mute and blind—
Come all to the Farmers' Fair.

Bring smiling faces, cheerful hearts—
At home leave gloom and care—
Let a right good hearty shake of the hand,
Go round at the Farmers' Fair.

The Farmers' Fair—that glorious day—
Nay! U and I be there;
And friendship, joy, and peace unite,
To bless the Farmers' Fair.

The Farmers' Fair—oh glorious day,
Loved here and everywhere:
Now all in chorus join and raise
Three cheers for the FARMERS' FAIR.