

**UNDER-DRAINING.**—B. F. Jewett, near Utica, lays two scantlings in the bottom of his ditches, 5 or 6 inches apart, and covers them with a slab. In quicksand, a slab should also be laid on the bottom. The ditch is then filled with earth.

**TO DESTROY SORREL.**—Manure well early; plow deep early; harrow well; plant corn 3 or 4 feet each way; pass the cultivator through every ten days, till the middle of summer; then sow 12 lbs. of clover seed per acre, and pass the cultivator again. Clover will take the place of the sorrel.

**MULCHING FRUIT TREES.**—A correspondent of the Horticulturist planted 150 trees in an orchard in very good but rather dry soil. All were planted with equal care, but a third of them were mulched, or the surface of the ground when planted covered with 6 inches of litter. Those thus treated all lived; but 15 of those not mulched died in the hot dry weather of midsummer. It is not stated that the soil was kept clean and mellow around them; which will often save the life of trees, when they would die of neglect.

**TWO HINTS FOR FARMERS.**—At the annual meeting of the Ross Agricultural Society last week, T. Batson, Esq., said, "There are two matters of a practical nature which, with your permission, I should like to introduce to your notice. The first is the system of steaming food. I believe that this year it will be impossible to calculate the great advantages that will be gained by the use of the steaming apparatus. I have myself been able to steam hay perfectly white with mould, which afterwards cattle and sheep would eat in preference to the best hay that could be cut from the middle of a rick. At this moment I am using steamed turnips for pigs; and I have pigs on my farm which, for the last month, have been increasing in weight at the rate of 20lbs a week. This, perhaps, is not very extraordinary; but I think you will not find many instances of pigs increasing in weight to such an extent, and it shows what the system of steaming is calculated to effect.

**SUBSOILS IMPREGNATED WITH IRON.**—Professor Johnston says on this point:—"In many parts of the country, and especially in the red sandstone districts, the oxide of iron abounds so much in the soil, or in the springs which ascend into it, as gradually to collect in the subsoil, and from a more or less impervious layer or pan, into which the roots cannot penetrate, and through which the surface water refuses to pass. Such soils are benefitted for a time, by breaking up the pan where the plough can reach it; but the pan gradually forms again at a greater depth, and the evils again recur. In such cases the insertion of drains below the level of the pan is the most certain mode of permanently improving the soil. If the pan be now broken up, the rains sink through into the drains, and gradually wash out of the soil what would otherwise have only sunk to a lower level and have again formed itself into a solid cake. It is not less common, even in rich and fertile districts, to see crops of beans, or oats, or barley, come up strong and healthy, and shoot up even to the time of flowering, and then begin to droop and wither, till at last they more or less completely die away. So it is rare in many places to see a second year's clover come up strong and healthy. These facts indicate, in general, the presence of noxious matters in the subsoil, which are reached by the roots at an advanced stage of their growth, but into which they cannot penetrate without injury to the plant. The drain calls in the aid of the rains of heaven to wash away these noxious substances from the soil, and of the air to change their nature, and this is the most likely, as well as the cheapest, means, by which these evils can be prevented."—*Maidstone Gazette*.

**IMPROVING THE BREED OF ANIMALS.**—"Sir,—If the following suggestions are of any use to your correspondent 'Improver,' he is quite welcome to them. It is now pretty generally agreed upon by breeders that the best mode of improving animals is to 'go out' once, and then return to the pure breed: If a proper selection is made of the animal resorted to, the result of the 'cross' will very generally be productive of greater strength, and a more hardy constitution than that

possessed by the pure breed, particularly where breeding from too near affinities has been practiced. Now, with respect to the particular object of your correspondent. If he is not afraid of some increase in size, let him resort to the pure short-horn. If he is fearful on this point—and in deciding upon it he must bear in mind the far greater value of the animal for the butcher; then perhaps he cannot do better than go to the Ayrshire, of which, in passing, it may be observed that they are strongly suspected of carrying Alderney blood in their veins. The Irish 'Kerrys' are probably quite out of his reach, or these possess the important qualities of small size, hardihood, good milkers, and fattening rapidly when required. I am, Sir, yours respectfully."—*Ib*.

**WHAT OUGHT THE YOUNG FARMERS TO DO?**—"Sir,—It will not now be denied that the production (or manufacture) of food is a most important science; all are agreed on the point. I would wish to raise a voice of warning to farmers, both old and young. There is no doubt that agriculture in this part of the kingdom is in its infancy; the most productive modes of cropping and managing land are scarce heard of. Farmers are complaining that they know not what to do with their sons; they are seeking places in towns, such places! where their health and happiness are at once wrecked, where they have to compete with thousands. And all this, while that noblest of all sciences, agriculture, is but half learned. I say most deliberately, that 'he who would promote the happiness and success of his son, should bring him up to skilled agriculture.' Depend on it, in a year or two, you farmers will have a hard race with free-trade in corn and cattle, and then nothing but good, profitable farming will save you. There is yet time to raise up a body of young farmers worthy the name—men who do something besides shooting, coursing, drinking, and cigar-smoking. For boys, there ought to be good agricultural training schools where useful knowledge to farmers is taught. The young men should at once study their profession, and visit the best managed farms; a hundred miles is nothing now; by proper application they might double the produce of their fathers' farms profitably. But perhaps all this is in vain "they will keep on as their fathers did before them," and by and by the capitalists will start farming companies and then these 'slow coach' farmers will become labourers. I am, Sir, yours, A MAN OF KENT."—*Ib*.

### THE TRAPPERS OF THE ROCKY MOUNTAINS.

Keen observers of nature, they rival the beasts of prey in discovering the haunts and habits of game, and in their skill and cunning in capturing it. Constantly exposed to perils of all kinds, they become callous to any feeling of danger, and destroy human as well as animal life with as little scruple, and as freely, as they expose their own. Of laws human or Divine, they neither know nor care to know. Their wish is their law, and to attain it, they do not scruple as to ways and means.—Firm friends and bitter enemies, with them it is "a word and a blow," and the blow often first. They may have good qualities but they are those of the animal; and people fond of giving hard names call them revengeful, bloodthirsty, drunkards (when the wherewithal is to be had,) gamblers, regardless of the laws of *meum* and *tuum*—in fact, "white Indians." However, there are exceptions, and I have met honest mountain men. Their animal qualities, however, are undeniable. Strong, active, hardy as bears, daring, expert in the use of their weapons, they are just what uncivilized white men might be supposed to be in a brute state, depending on his instinct for the support of life. Not a hole or corner in the vast wilderness of the "far west" but has been ransacked by these hardy men. From the Mississippi to the mouth of the Colorado of the west, from the frozen regions of the north to the Gila in Mexico, the beaver-hunter has set his traps in every creek and stream. All this vast country, but for the daring enterprise of these men, would be even now a *terra incognita* to geographers, as indeed a great portion still is; but there is not an acre that has not been passed and repassed by the trappers in their perilous excursions. The mountains and streams still retain the names assigned to them by the rude hunters;