American breeders have borrowed and bred from one another's stocks." When the Rev. Mr. Goodrich, of Utica, N.Y., commenced his attempts to improve the potato, which had become, on account of disease, a very uncertain crop, he started with the idea that the plant had become enfeebled by this very course of borrowing and breeding from one another's stocks. His first step was to procure from South America the wild *Solanum tuberosum*. In a few years he obtained from this fresh stock a large number of new varieties, some of which, if not marked by excellence of quality, were notably vigorous, healthy, and prolific. These results were obtained twenty-five years ago; but the enterprising Mr. Goodrich died before he saw the full outcome of his labours. By the merest accident another person, planting the seeds of one of Mr. Goodrich's most vigorous varieties, obtained the Early Rose and a number of other valuable potatoes. The production of the Early Rose marked an era in potato culture in this country at least. This and the vast number of new varieties that followed it are but a few generations removed from the wild plant. The *Chronicle truly says that all previous attempts at* improving the potato have been with the same species, *Solanum tuberosum*. We are often told that a new variety of potato is a hybrid between two others. Of course, they are only "crosses." Correctly speaking, a hybrid can only result from fertilizing one distinct species with the pollen of another species equally distinct. When this happens between two varieties of the same species the result is a "cross." It is claimed, and no doubt with truth, that true hybridization has been effected for the first time the past year at Reading. Hybridizing was successful with only one of the three species tried, *Solanum maglia*, which was fertilized with one of the best varieties of *Solanum tuberosum*, three seed balls being obtained. The species *Solanum maglia* is a native of the wooded shores near Valparaiso, having a moist climate. The wild form of the cultivated potato, on the other hand, is found inland, at an altitude of 8,000 or 9,000 feet, and in an arid climate, where there is no rain for more than six months. The original tubers of *Solanum maglia* were the size of English walnuts, and both red and white, though no difference is apparent in the plants from tubers of these colours. When cultivated the tubers were of the usual size, some round and others oblong, and are described as of "fair quality" when cooked. That seeds have been produced by hybridizing two distinct species of *Solanum* is an important step, and all interested in potato culture will watch the results which will come from these hybridized seeds with interest.

EARLY PLOUGHING FOR FALL WHEAT.

The first object gained by early ploughing is the time for the proper preparation of the seed-bed. All possible fertility should be made ready available. To be so, it should be soluble, and division aids solution. The ground becomes hard in July and August, and if ploughing is delayed too long, the soil breaks up in hard lumps. If ploughed early, it will turn up moist and fine. Rain and air are nature's two great disintegrating forces.

Seeds germinate quickly and plants grow rapidly in a firm seed bed. The increase of insect enemies of wheat makes late sowing, coupled with rapid, vigorous growth, desirable. Hence the importance of a firm seed-bed, which also prevents much freezing out of the plants. To make the seed-bed firm, it must be fine. It is not a hard soil, but compact, fine soil that is desired. It may be compacted with the roller and harrow; but if the farmer, by early ploughing, can gain the aid of a heavy rain, it will save him much labour, and it will do the work of preparing the soil far better than he can alone.

Another object gained by early ploughing is the destruction of weeds. They are robbers of the wheat, and the sooner their growth is stopped by ploughing, the less plant-food they will take from the soil. Early ploughing will destroy them before they mature their seeds, and thus prevent perpetuating their kind. Late plowing admits of a large growth, and when this is turned under by the plough, it is impossible to compact the seed-bed, and the green manure affords a harbour for enemies.

Early ploughing admits of a better application of manure. Manure is most needed in autumn, and to be at once available to the roots of the young plant, it must be fine and near the surface; not on top of the ground, but thoroughly incorporated with the upper layer of the soil. If the ground is ploughed early, the manure can be applied to the surface, and the work of preparing the seed-bed will fine it and mix it with the soil. Commercial manures should be sown with the grain.

Early ploughing admits of atmospheric fertilization. Whether it directly adds to the elements of *fertility to the soil or only frees and unlocks* that which it already possesses, is immaterial. Ploughing the land exposes a greater surface and permits of the easy passage of the air into the interior of the soil.

SAGGING GATE POSTS.

A gate that has sagged so that it rakes upon the ground and has to be carried to and fro, is but little, if any, more convenient upon a farm than a pair of bars. Gates may be made so that they will not sag if the posts can be set as not to cant over.

There are usually two important things neglected when posts are set: first, they are not put in deep enough, and secondly, they are too small. White oak is the best material, and if the posts are worked from a tree two feet in diameter all the better, leaving the part that goes into the earth full size—removing the bark, however,—and working the smaller part from the heart of the stick.

On some farms this method of post-making would be a waste of timber too extravagant, and some more economical mode would have to be adopted, but where timber is plenty there is no way more effectual, for the post will last for a great number of years, and always keep an erect position.

A correspondent says that if you cut the post on which to hang the gate, with a large, strong limb, projecting as near as possible at right angles with it, from the bottom or near it, and let the limb be three feet long, and set the post with the limb opposite the side of the gate, to balance it, and pack well under the limb, and then put a good, flat stone or piece of timber on the end of it · fill up the hole—the gate post will never sag.

Posts of this kind may be obtained from the large limbs of oak and other trees, when they are cut for rails or other purposes.—*Tribune and Farmer.*

BASEMENT BARNS.

The *Iowa Husbandman* has these suggestive thoughts regarding basement barns:

We notice, however, that those who have them do not always use them. They are liable to some objections.

1st. They are apt to be poorly ventilated.

2nd. They are apt to be damp and poorly lighted.

3rd. They are apt to keep cattle too warm and when turned out for exercise they take cold.

If a basement were well ventilated and lighted and not damp, and cattle were kept in it all the time we could conceive of nothing bettter.

HOUSEHOLD HINTS.

When the burners of lamps become clogged with char, put them in strong soft-soap suds, and boil a while to clean them.

No kitchen should be without scales to test the integrity of things purchased by weight, and to measure the quantity of various recipes.

Steel knives which are not in daily use may be kept from rusting if they are dipped in a strong solution of soda—one part of water to four of soda; then wipe dry, roll in flannel, and keep in a dry place.

An Appetizing Salad: A most appetizing salad is made of raw oysters mixed with an equal quantity of crisp celery, cut very fine, and served with a mayonnaise dressing. The oysters may be cut in halves or be left whole.

Tooth-brushes cannot be too soft. Hard brushes make the gums recede from the teeth, and produce premature decay by causing the soft bone of the tooth to be exposed to the air, beyond the part of the tooth protected by the enamel.

Sponge cake that has become dry may be cut into thin slices and toasted. It is delicate and really nice with tea. Slices of stale sponge cake have been browned in the oven and been served to unsuspecting people as Italian rusks, and have been eaten with relish.

Redness in the hands may be removed by using a paste made as follows:—Beat together an ounce of clear honey, one ounce of almond oil, the juice of a lemon, and the yolk of a raw egg. Apply at night to the hands, and cover with old gloves slit up the palms.

Many people like the flavour of the peach stone *in their canned fruit. More fruit can be put in a* can or bottle if the peaches are halved and the stones removed. The flavour imparted by the stones, or rather by the kernels, may be secured by cracking the stones and adding a few of the kernels to each can or bottle.

A German test for watered milk consists in dipping a well-polished knitting-needle into a deep vessel of milk, and then immediately withdrawing it in an upright position. If the milk is pure, a drop of the fluid will hang to the needle; but the addition of even a small portion of water will prevent the adherence of the drop.

A good way to roast spare ribs is to crack the bones in the middle, fold over and stuff with regular turkey dressing; sew it up with a stout thread, put into the dripping pan and put in a full cup of water; sprinkle pepper and salt over the meat, and let it cook until tender and brown. Turn it so that each side will be equally brown.

As a medicine the broom excels as a tonic. This is not a jest, but recommended in all earnestness. If the women who sit around from one year's end to another, nursing imaginary ailments, were, once a week, to take a dose of sweeping, mild, of course, at first, they would soon begin to feel the salutary effects from the use of the broom and would save themselves many a dollar for medicine, broken china and battered furniture.

The following from a correspondent to the *Husbandman*, is easily tried, though scarcely seeming likely to insure the promised result: "I will give your readers my remedy for keeping mice and weevil-beetles out of my granary. Hang up a few strips of tarred paper in the granary, and the vermin will not stay. It will also clear mice from the garret of the house. Scatter a few pieces of the paper about the garret, and one need not lie awake nights on account of the racing of mice and rats, for they will not stay where tarred paper perfumes the air. Tack it up, and hang a few strips inside the hen house, and lice will not stay long even then."