

nature is not heard of, but possibly familiarity with weeds has resulted in a species of deadening indifference. Such actions may be more frequent than one would suppose, however, for the reason that brought in the division courts, the cases are not officially reported as in the higher courts.

Septic Tank for a School.

Editor "The Farmer's Advocate":

We expect to do some remodelling to our school closets very soon, and find it somewhat difficult to know just what to build. We are quite interested in your description of the system installed at "Weldwood", and would like to know your opinion as to its being practical to suit our case. Our school is a rural one, with an average attendance of about fifteen. Our well would not be sufficient to supply the "flushing," but we could build a tank for that purpose.

The septic tank would have to be drained to the road-ditch eight or ten rods away; would this cause any trouble? If this system is not practical to our case, can you suggest any other and give dimensions? Any suggestions you can give us through your columns will be very welcome.

A SUBSCRIBER.

Ans.—The septic tank should, for anything we can see, be adaptable to your needs, if you have water under pressure to flush the closets, but we could not recommend allowing the effluent to run into an open ditch along the roadside. Perhaps you could devise some other outlet. Could you not run a tile along the roadside? Perhaps a neighbor would allow you to lay a system of level tiles in an adjoining field and let the liquid from the tank sweep away here, thus enriching his land. With a line or two of draining tile, with suitable outlet, of course, laid a foot or so underneath the discharge system (which should be only about a foot deep) any possible bad effects from over-saturation of the soil should be guarded against. In light soil the lower tile might not be greatly needed.

Let us add one caution. To prevent a septic tank becoming "air-bound" from the pressure of gas generated within the tank, it is important to have a vent from the first chamber, and sometimes from the last one as well. The vent may be a two-inch or smaller pipe run up to whatever height may be necessary, perhaps as high as the eaves. Where the tank is a good distance from dwelling, roadside or driveway, it is not necessary to carry it up any particular height at all. A mere opening in the tank will do. The tank, as referred to by our enquirer, worked perfectly until it was mounded over with earth, then it became air-bound and began to back water up into the foundation drain, causing it to seep through into the cellar. A vent pipe was the remedy plainly indicated. When the tank was uncovered and a match lowered into the tank, a small explosion occurred. It is desirable that the first compartment of the tank have ventilation, but the second chamber it is desirable to leave air-tight, as the disintegration process is continued here by bacteria that flourish in the absence of air. The third chamber may have a vent if required. It is not always.

A Use for English Sparrows.

The English sparrow seems to have found a claim to usefulness. It promises to be of service in checking the alfalfa weevil. The spread of this pest has threatened the destruction of the alfalfa industry in Utah, Wyoming and Southern Idaho, and caused much alarm among growers in Wisconsin and other Middle Western States, who have feared introduction of the weevil upon seed. However, investigators claim there is no danger of distribution through seed supply, but there is every possibility of its being spread through hay from infested districts.

"The alfalfa weevil is a pest of foreign birth. It was first discovered in the fields of Southern Europe, Northern Africa and Western Asia. Later it appeared in certain sections of the United States west of the Rockies. The pest passes the winter in crowns of alfalfa plants, patches of grass, weeds and litter, along fences, roads and ditch-banks. This has caused Western farmers to adopt cultivation and brush-dragging of their fields after removal of the first crop, and it is the most effective remedy known. Further control they seek by clean culture and shorter rotations of crops."

Some Alsike.

Editor "The Farmer's Advocate":

I enclose what I consider a very fine stalk of alsike clover, fifty-two inches long, grown on my farm here. Have you any to beat it? The seed was sown in May last along with oats, and it was cut on September 6th. The whole field, of about four acres, was a fine catch, from two to two and a half feet, most of it higher than the small wheel of the binder.

ALFRED A. FRASER.

Bonaventure Co., Que.

Another Distributing Pipe.

Editor "The Farmer's Advocate":

Having seen the cut in Sept. 4th issue of your valuable paper, of a distributing pipe for silo, it seems to me it would be difficult to suspend in a silo without a roof. As I have followed the silo-filling business for the past five seasons, possibly a description of the pipes I used would be in season.

A platform 3 feet by 3 feet was made by crossing six pieces of 12-inch lumber 3 feet in length, nailed together, into which a hole was cut 2 inches in diameter. This was laid on two planks or poles across the top of silo. A hopper four feet in length and two in diameter



Champion Chester White Sow at Toronto.

Owned by D. DeCourcy, Bornholm, Ont.

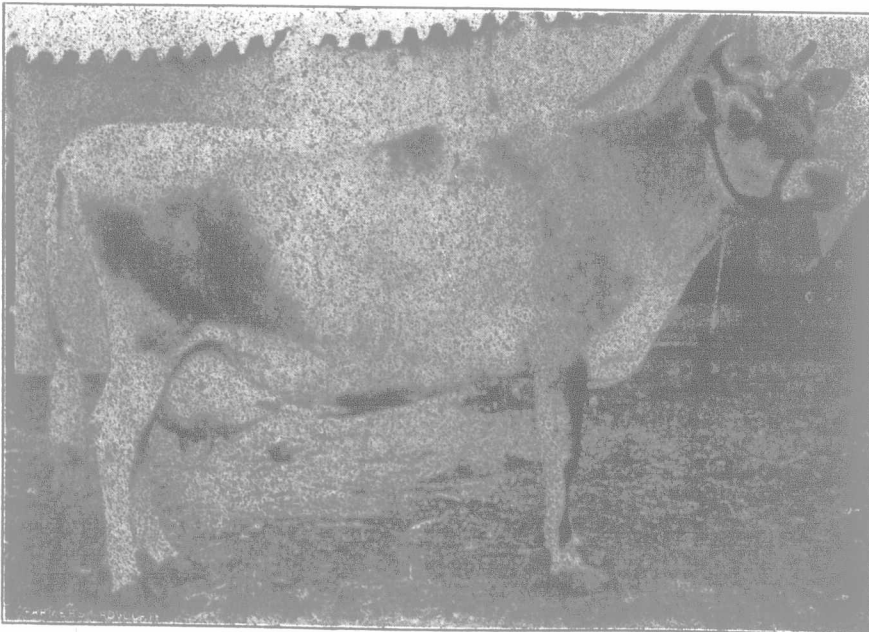
at top, tapering to 14 inches at the bottom, was inserted, to which the pipes (which are 9 inches by 10 inches by 2½ feet with the top one wide enough to fit over bottom of hopper) are hung. To put up, pull the hopper to the top, resting it on the planks, then pass the rope down through the hole in platform to the pipes below, to the top one of which it is tied, then draw them up until the top is above the platform, at the same time letting the other end of the rope to the bottom of the silo where it can be held, while the man at the top snaps on the hopper, which is then allowed to settle down in the platform.

The advantages are obvious. You have something to stand on to put up your pipes. In case of pipes getting plugged, it will not plug the pipes of the ensilage cutter, provided, of course, that the elbow is kept far enough above the hopper, and they could easily be cleaned out without disconnecting.

Oxford Co., Ont.

FRANK SHELTON.

[Note.—The only advantage we see in this pipe over the other is that there might be a little less danger of blocking the blower pipe in case the man in the silo let the end of the distributing pipe rest on a pile of cut corn. When that hap-



Twylsh 11th.

Champion Jersey female at Toronto, 1913. Owned by Sir William MacKenzie, Kirkfield, Ont.

pens the pipe outside is sure to block very soon, causing a stop to clean it out. If the men in the silo watch themselves, this trouble can be avoided, except, of course, when it occurs from the corn being too wet or some other cause outside the silo. As for the erection and support of the pipe, the one illustrated can be erected and held in place over an open silo by laying a couple of planks across the top, having the flat under-side of the hood resting on one and using ropes through the ears to hold the hood up to the mouth of the blower pipe. The ropes may be tied to bolts in top of the wall or to

rings usually built into the wall of a cement silo near the top. In a wooden silo it is, of course, easy to drive a staple or two. The first year we used the distributing pipe, our silo was filled before the roof had been built.—Editor.]

Fall versus Spring Plowing.

In methods of farming there is scarcely any end. Variety is infinite, and probably always will be. Attempts to standardize agricultural practice to a single "best" system, or to a few such systems, have signally failed. While much of the variety exemplified throughout the country is due to a lack of study or system, still it is none the less true that individual conditions require individual adaptations—which is to say, individual methods. Plowing is no exception to the rule.

The relative advantages of Fall versus Spring Plowing are by no means a settled issue. There are many pros and cons, and no set of simple experiments can solve the problem, even for the particular farm on which they may happen to be conducted, much less for others. The question reaches out past the immediate effects upon crop production and relates itself broadly to the fundamental question of maintaining soil fertility. A sort of hazy notion prevails—and was voiced by a recent correspondent—that fall plowing has some sort of fertilizing action upon the soil. It has nothing of the kind. At best it can but help to liberate plant food by exposing the soil to the action of frost and percolation of water, bringing about a physical condition that is favorable to the conservation of moisture, the penetration of plant roots, and the bacterial and chemical processes which shall later on transform vegetable and mineral matter into soluble compounds. To these effects, and to the opportunity it affords for early spring seeding, may be traced the usual good influence of fall plowing upon crop production. Crops like corn and peas, which do not demand April seeding, often do quite as well, or better, upon reasonably early spring plowing, properly rolled and worked down.

A bare soil is usually a wasting soil. Plant food that has been or is being rendered available is washed away with surface run-off or leached downwards. "Use or lose" is nature's principle of fertility. The more constantly we can have crops occupying our land, the less will be our waste of plant food, other things being equal. Keep the fields clothed in green as much of the time as possible. These are points against the practice of fall plowing.

Yet, notwithstanding the force of all contra argument, fall plowing is a practice to be commended in most cases. As stated above, it opens the soil to frost action, thus improving its physical condition and assisting in the liberation of plant food. It opens it up to percolation of autumn rain water, thus securing in the subsoil a supply of moisture for next summer's drouth. It affords an opportunity for moderately deep

plowing, which nearly all fields need, occasionally, at least. It advances farm work, giving men and teams a chance to seed early in spring, and early seeding counts for much indeed. Another point: Fall-plowed land may be worked promptly in spring and the stored-up moisture thus retained. Land not plowed till spring must be allowed to dry out somewhat to the depth of the furrow slice, and this, when turned, dries out further unless rolled and harrowed immediately. So that, altogether, a considerable proportion of the precious soil moisture is lost before seeding is accomplished. As a rule, fall plowing stands a dry season best. On waxy clay its advantage is especially marked. Such land if left till spring, must be plowed at just the right stage

If turned too wet, it will bake and clod; if left a little too long, it will become almost impossible to plow and will turn up hard and dry. There is a very short space of time during which such land may be spring-plowed under favorable conditions—not long enough to allow the plowing of a large field. Sometimes one part will be too dry before the hollows are fit to touch. Such land, if fall-plowed, will be mellowed by winter frosts and may be seeded under reasonably favorable prospects. There is something to be said for the early-autumn or late-summer plowing and working of such land, followed by