

### Farm Section in Public Libraries.

At an institute in London of librarians and others interested in promoting the usefulness of public libraries in the Counties of Middlesex and Elgin, Ont., a request was made for a list of approved books which wholly or in part might be chosen to constitute a section especially for the farm and farm home. Though limited to about half a hundred volumes, the following are suggested from many others which "The Farmer's Advocate" have found useful. In most cases the prices given include postage:

#### LIVE STOCK.

Types and Breeds of Farm Animals—Chas. S. Plumb .....	2.25
Feeds and Feeding—W. A. Henry .....	2.25
Swine—G. E. Day .....	1.35
Live-stock Judging—J. A. Craig .....	2.10
Horse Book—J. H. S. Johnstone .....	2.15
The Farmer's Veterinarian (Practical treatise on the diseases of farm animals), by Chas. W. Burkett, assisted by fourteen eminent veterinarians .....	1.50
Modern Sheep (Breeds and Management)—Shepherd Boy .....	1.50

#### GENERAL AGRICULTURE.

Book of Alfalfa—F. D. Coburn .....	\$2.00
Successful Farming—W. Rennie .....	1.55
Physics of Agriculture—F. H. King .....	1.90
Farm Machinery and Farm Motors—Davidson & Chase .....	2.00
Fertilizers and Manures—A. D. Hall .....	1.65
Ten Acres Enough—Edmund Morris .....	1.50
Meadows and Pastures—Jos. E. Wing .....	1.50
The Cereals in America—T. F. Hunt .....	1.75

#### POULTRY.

American Standard of Perfection .....	\$1.60
Principles and Practice of Poultry Culture—John H. Robinson .....	2.50
Common-sense Poultry Doctor—Robinson .....	.50

#### DAIRYING.

Science and Practice of Cheesemaking—Van Slyke & Publow .....	\$1.75
Canadian Dairying—H. H. Dean .....	1.05
Questions and Answers on Buttermaking—Chas. Publow .....	.50
Farm Dairying—Laura Rose (Mrs. W. F. Stephen) .....	1.35

#### APIARY.

The Honeybee—L. L. Langstroth .....	\$1.10
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#### FRUIT, FLOWERS AND VEGETABLES.

Vegetable Gardening—S. B. Green .....	\$1.10
Agricultural Botany—John Percival .....	2.00
The Pruning Book—L. H. Bailey .....	1.60
The Flower Garden—Ida Bennett .....	2.25
The Canadian Apple-growers' Guide—L. Woolverton .....	2.00
Manual of Gardening—Bailey .....	2.00
The Farm and Garden Rule-book—Bailey .....	2.00
The Fruits of Ontario—Department of Agriculture Report (bound), 1906 .....	5.00
The Cyclopaedia of American Horticulture (four Vols.)—Bailey, each .....	5.00

#### PLANT AND ANIMAL LIFE—NATURE STUDY.

Insects Injurious to Fruits—W. Saunders .....	\$2.15
How to Teach the Nature Study Course—John Dearnness, M. A., London Normal School. Best work issued on this subject. Illustrated .....	.65
Manual for the Study of Insects—J. H. Comstock .....	4.00
Insects Injurious to Staple Crops—E. D. Sanderson .....	1.00
The Outlook to Nature—Bailey .....	1.00
Farm Weeds—Dept. Agriculture, Ottawa .....	1.00

#### MISCELLANEOUS.

Uncle Henry's Letters to a Farm Boy—Hy. Wallace .....	.50
American Tanner—N. R. Briggs .....	.30
Taxidermy—P. N. Hasluck .....	.55
Bacteria, Yeasts and Molds in the Home—Prof. W. H. Conn .....	\$1.05
Traction Engine—J. H. Maggard .....	1.05
Farm Buildings—J. H. Saunders .....	2.15
Young Engineer's Guide—J. H. Rohan .....	1.00
Gas Engine Troubles and Installation—J. Rathbun .....	1.00
Home Waterworks—C. J. Lynde .....	.84
From Kitchen to Garret—Van de Water .....	.84
Ventilation for Dwellings, Schools and Stables—F. H. King .....	.75
Farm Boys and Girls—Wm. A. McKeener .....	1.50

### Feeding Wireworms.

Editor "The Farmer's Advocate":

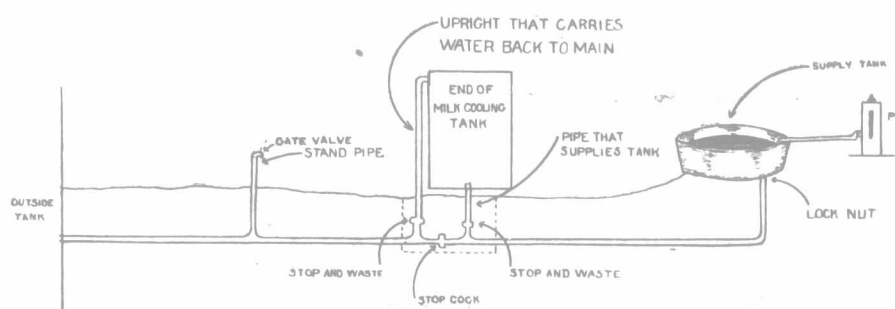
In regard to W. L.'s trouble with wireworm, as in the issue of April 4th, if he will sow one bushel and a half of peas and one-half bushel of oats, he will get a crop of peas, as the wireworm will eat the oats, but, not liking the taste of the pea-vine, they will not touch it when there are oats.

WM. H. McALLISTER.

[Note.—This is an ingenious idea, and where the wireworms are not too thick we surmise that it might work.—Editor.]

### Water Supply at Weldwood.

A convenient system of water supply, working automatically, or nearly so, and safe so far as reasonably possible, from freezing in severe weather, as well as from other mishaps, but nevertheless affording opportunity to get at all valves and other parts where trouble might occur, is one of the prime needs of an up-to-date farm. If one feature should be emphasized more than another, it is perhaps the factor of safety. A system which breaks down at a crucial time, as in the midst of spring seeding, or during a cold snap in winter, when the usual difficulties of keeping stock comfortable and thriving are complicated enough without having to carry water in pails two or three hours after the usual time for watering—such a system falls far short of being ideal. As a rule, the farm waterworks should comprehend provision for supplying house, as well as barn. On a dairy farm it should usually be arranged to cool the milk incidentally with a current of running water. It may or may not carry water to basins or troughs in front of the stock, but it should by all means



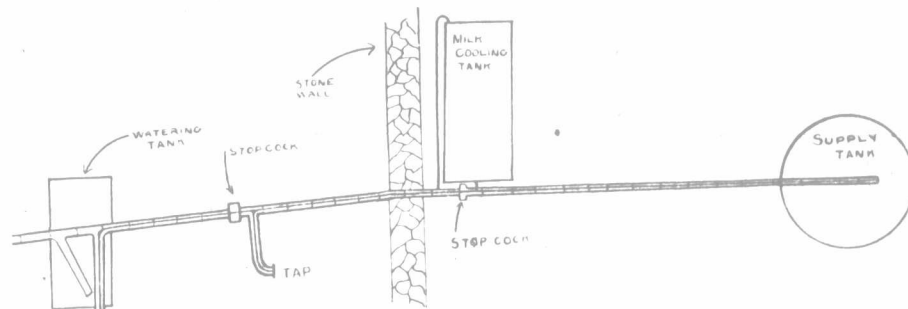
ELEVATION

Elevation of water system at "Weldwood."

provide for a conveniently-placed stand-pipe in the stable, with a large tap or gate valve. It should include a good-sized outside stock-watering tank, and should provide a blind T, from which water may at any time be carried to the pasture fields, if desired.

On taking possession of the property now known as "Weldwood," we found a water system consisting of a first-class well, a windmill and an old tub-tank right at the well and near the wood-shed door. Here the cattle came to drink all the year round, tramping the whole back dooryard into a slough of mud. To stop this, we went the length of carrying water in pails for a while, though it did consume a good deal of valuable time. At the first opportunity we laid a line of inch-and-a-quarter galvanized-iron pipe from tank to barn, just outside of which it entered the bottom of a ten-foot-long, wood-jacketed, galvanized-iron milk-cooling tank. During the early summer, water was dipped from this tank. Afterwards, when the stable was rearranged, the pipe was continued on through the stable to a new cement tank on the south side of the barn.

The layout of the system will be more or less clearly indicated by the accompanying cuts, showing



Plan of water system at "Weldwood."

ing plan and elevation, though it is impossible to represent every angle clearly on either plan or elevation. Commencing at the wooden supply tank (to be replaced this summer with a cement one), the 1½-inch pipe runs down three feet through a box packed with sawdust, then through 3-inch tile, slightly down grade, three feet deep or more all the way, to a cement-lined manhole just outside the basement. Here a T upright lifts the water to the milk-cooling tank, which it enters near bottom through a short horizontal spur, fitted to the galvanized tank by means of a lock-nut. After circulating around the cans, the warmed water leaves the tank near the top at the opposite end, and, by means of three elbows and a T is led around behind the tank and down again to the main pipe, flowing thence underneath the stable floor. On both uprights—i.e., the one carrying the water up to the milk-cooling tank, and the second one carrying it back to the main—are stop-and-waste cocks; while on the short length of pipe between the uprights is a simple stop-cock. A stop-and-waste cock is one which

when closed will allow water in the pipe above it to drain out through a small hole in the side. In summer time, the stop-and-wastes on the two uprights are opened, and the stop-cock on the main is kept closed. This forces the water to circulate through the tank. In winter the stop-cock is opened, while the stop-and-wastes are closed. The water then goes directly through the main, while the upright pipes drain out and stand empty all winter, free from injury by frost. The manhole is stuffed with straw in the fall, to prevent frost getting down to the main.

The pipe, laid in the tile, continues from this manhole to a second one under the feed passage, where a spur juts off to the left to supply an upright from which water may be drawn in pails or through hose. Just beyond this spur is a stop-cock, turned by a long-shanked wrench to force water back to stand-pipe, when desired to draw off here while water is flowing at a tap farther on. From this manhole the pipe continues to the water tank, where it is drawn off through a hydrant packed in a straw-stuffed box. For the rest of the description, see following

article on the water tank. Enough to note here that the tank is provided with overflow and drain. The line of tile being continued south-easterly to a point where it joins the silo drain.

The idea of having the pipe laid in the tile seems to be a good one. At any rate, the pipe did not freeze during last winter's 30-below-zero weather, although at times the ground about it was

almost bare of snow. One certain advantage of the tile is that it drains the yard under which it passes, and also affords free drainage for hydrants and waste-cocks. As a rule, the waste from these is left to seep away into the earth. We have found the large-sized pipe and large-sized taps economical of time. The economy of galvanized, as compared with black pipe, was debated, but experts strongly recommended the former. The difference in cost is not great.

With a view to getting a first-class job, a plumber and steam-fitter was engaged to visit the farm, cut and thread pipe, make joints, and so forth. He worked faithfully, but seemed to have no adequate idea of what was wanted. He made a few general suggestions, but so far as displaying a grasp of the situation and planning the layout was concerned, we had to do it ourselves; and, with a few tools, could also have done the work for considerably less than he charged—and done it better, too. Anyone contemplating the installation of a system we would advise to study the matter out in his own mind, hire, borrow or buy the necessary tools, and do the work himself, assuming, of course, that he has any degree at all of mechanical aptitude.

It will be noted that we have not installed drinking basins. Our preference is to turn stock out daily to drink at a trough or tank in a sheltered barnyard. During the past stormy winter, an exception had to be made, and the cattle were frequently watered with pails. Indeed, in January, the outside hydrant froze up, mainly, we think, because of rain water soaking

the packing in the box around it. Until then it had stood some very cold weather, though it had to be oiled, and was not turned down too tight. It is all right again now. As a handy means of watering inside, when inside watering is necessary, we use a hose and movable wooden trough, slid along in the manger. We are thinking of utilizing the cement mangers themselves, but, in order to prevent sloppiness, a drain-out must be provided for each section of the manger.

By packing the stable stand-pipe with sacking on cold nights, serious trouble with it has been avoided, and the system has in every respect worked out exactly as we planned that it should.

The cost is shown in the separate statement, but to this must be added the cost of the cement watering tank, elsewhere given, and the cost of carrying the pipe through the stable. See article on "Remodelling Stables at Weldwood," issue April 11th. Estimating this portion of the cost of rearranging stables at \$20, and counting the cost of the watering tank, \$16.40, we have a total cost of \$108.02, not counting the elevated