

Soils and Crops

By Agronomist.

This Department is for the use of our farm readers who want the advice of an expert on any question regarding soil, seed, crops, etc. If your question is of sufficient general interest, it will be answered through this column. If stamped and addressed envelope is enclosed with your letter, a complete answer will be mailed to you. Address Agronomist, care of Wilson Publishing Co., Ltd., 73 Adelaide St. W., Toronto.

THE LURE OF A KITCHEN GARDEN.

For four seasons we have had a garden plot only 20 x 25 feet. On this small tract of ground we have grown all the vegetables, except potatoes and sweet corn, needed for our family of three persons. Furthermore, the surplus garden products given away would, if sold, have more than paid for all the roasting ears and potatoes that we bought. The results we have obtained with our small garden can be greatly increased where more garden space is available and there is the spare help to take care of it.

Last year in this little backyard garden we grew lettuce, radishes, onions, peas, beets, bunch and stick beans, tomatoes, cucumbers, red peppers, and celery.

Peas, to be at their best, should be gathered while still small and tender. Furthermore, the chemical changes that take place in this vegetable are more marked and more rapid than in almost any other. There is all the difference in sweetness and in flavor between peas that have been off the vine from twenty-four to forty-eight hours when compared with those gathered in the forenoon and served at the midday meal. So we say that for one who really cares for peas the best way to have them is to grow them.

In growing peas we have not found the strictly dwarf varieties best. Personally we prefer the semi-dwarf kinds, as they require less room and yield more abundantly. If bits of brush are not available for sticks, a few short kindling pieces may be driven into the ground on each side of the rows about 8 or 10 feet apart. Binder twine or cord of any kind may then be strung on these, a round being added from time to time as the vines gain in height.

Our little garden spot was not naturally fertile, but a few loads of manure the first year, followed by from 20 to 30 wheel-barrow loads of stable manure each year thereafter, keep it productive. In spading it we have always gone as deep as the spading-fork tines would allow. In the soft, mellow, humus-filled soil spading to this depth is a comparatively easy task. Beginning with good soil and deep tillage, the conservation of moisture, even in a dry season, is not difficult.

After each rainfall, and as soon as the ground was dry enough to be worked, it was stirred so as to prevent the formation of any crust and to provide instead a thorough dust mulch. A slight sprinkling of the garden every few days induces a shallow root growth, and more harm than good is done. We practice level planting exclusively, making no hills or ridges. With this method and in rich soil, rows may be only half the ordinary distance apart.

In planting the earliest vegetables we always plan to let later growths come in between. For this reason, to one unacquainted with our plan, it would seem that when the early lettuce, radishes, onions, beets, and peas are in the whole garden has been planted and that there is no room for anything else. A little later, though, rows of other vegetables are seeded right in between these, just as if they were not there.

By this time, it must be acknowledged, things are pretty badly crowded. In our little garden we have had 20 rows of vegetables all at once, with double plantings, such as tomatoes, set in the radish rows. Necessarily, this condition made even hoeing difficult, so that most of the work of cultivating, for the time being, was done by using a hand weeder and spading fork. Soon, though, the rows of radishes, early peas, lettuce and onions—ten in all—were removed.

In the meantime we had set 48 pot-grown tomato plants, each plant with a piece of paper wrapped around and extending from just beneath the soil to about two inches above, as a protection against cut-worms. A dozen red-pepper plants—more than we needed—had been started. By the time the first tomatoes were ripe, the garden is made up of beans, tomatoes, cucumbers, peppers, and perhaps some late beets. Again the garden seems full so that a visitor viewing it for the first time would conclude that we had grown no early garden.

By the time the bunch beans are gone, the taller varieties grown around the edge of the garden and allowed to trail on the woven-wire fence are ready for use, and continue throughout practically the entire season. Beans and tomatoes make up the most of the late summer garden, but before cold weather head lettuce and celery are growing between the rows of tomatoes. Celery, as every experienced gardener knows, heads best in cool weather only, the growth here being made principally in September.

While we enjoy growing all vegetables for which we find room, tomatoes afford us our greatest pleasure and largest profits.

For tomatoes the most satisfactory stake that we have ever tried consists of two pieces split from heavy boards, such as are used in shipping boxes. One piece is sharpened and this nailed to another. Two 4-foot pieces will give a 7-foot stake, allowing one foot for lap. The shoulder, formed where the pieces are nailed together, affords an excellent place on which to hammer when the stakes are being set. We keep all suckers picked off the tomato vines, allowing only one or two main central stems. During the growing season the vines should be gone over, suckered, and tied up every few days. Cloth strings—from rags of any kind—should be used so as not to cut or otherwise injure the vines.

In the autumn after having spread 30 wheel-barrow loads of well-rotted stable manure over the surface, the entire garden patch was spaded good and deep.

This fall clean-up and spading of the soil of the entire garden are of much importance for several reasons. The turning over and mixing of the soil and manure allows the rain and melting snow to fill the subsoil with moisture, the plant food in the manure is less likely to be lost by washing and leaching, and the insect pests that have hibernated in the leaves, rubbish, and top soil are in great measure destroyed. Last, but not least, the lower soil stratum turned up better receives the frost action, and in consequence is in condition to be much more easily brought into good tilth in the spring.

When the garden soil is handled as I have described, we find no advantage in respading or preparing the seed bed much in advance of planting unless the spring is so dry as to endanger the moisture supply by evaporation. But should continued drying weather prevail before planting time, spading and a surface mulch check the escape of moisture. In any case, nothing is gained by trying to hurry plants into the ground before conditions are favorable for their growth.

From our little garden we have averaged annually \$50 worth of vegetables. Furthermore, we have had vegetables of a quality such as we could not have bought on the market. Best of all, we have added to our health and happiness while doing our bit in food production and conservation.

Have a Bird Sanctuary.

It is patriotic to save the birds. Birds eat insects. Insects destroy about \$1,300,000,000 worth of grain, fruit, vegetables, and trees every year. Now the birds can save all that money but they can help to save a big portion of it. In the great scheme of nature, birds were created to keep the insects in check. They can do it and do it well.

Much mismanagement, lack of foresight and many other reasons, we have wiped out nearly ninety per cent. of our bird life. Now, it's up to us to use all means possible to bring back the right balance of bird life. When you destroy the balance of anything, something happens. The

balance of bird life has been upset; that's one of the reasons why the farmers of the great potato bearing countries are compelled to pay millions for materials to kill potato-bugs. Quail, rose-breasted grosbeaks and other species consider potato-bugs the greatest delicacy, but we haven't enough of these birds to do the work.

What are the worst enemies of birds? Man, cats, English sparrows, red squirrels, continued rains and late cold weather in spring, floods, ice storms, rats, snakes, Cooper's pigeon, marsh and sharp-shinned hawks; and in some places blue jays, crows, grackles and cowbirds.

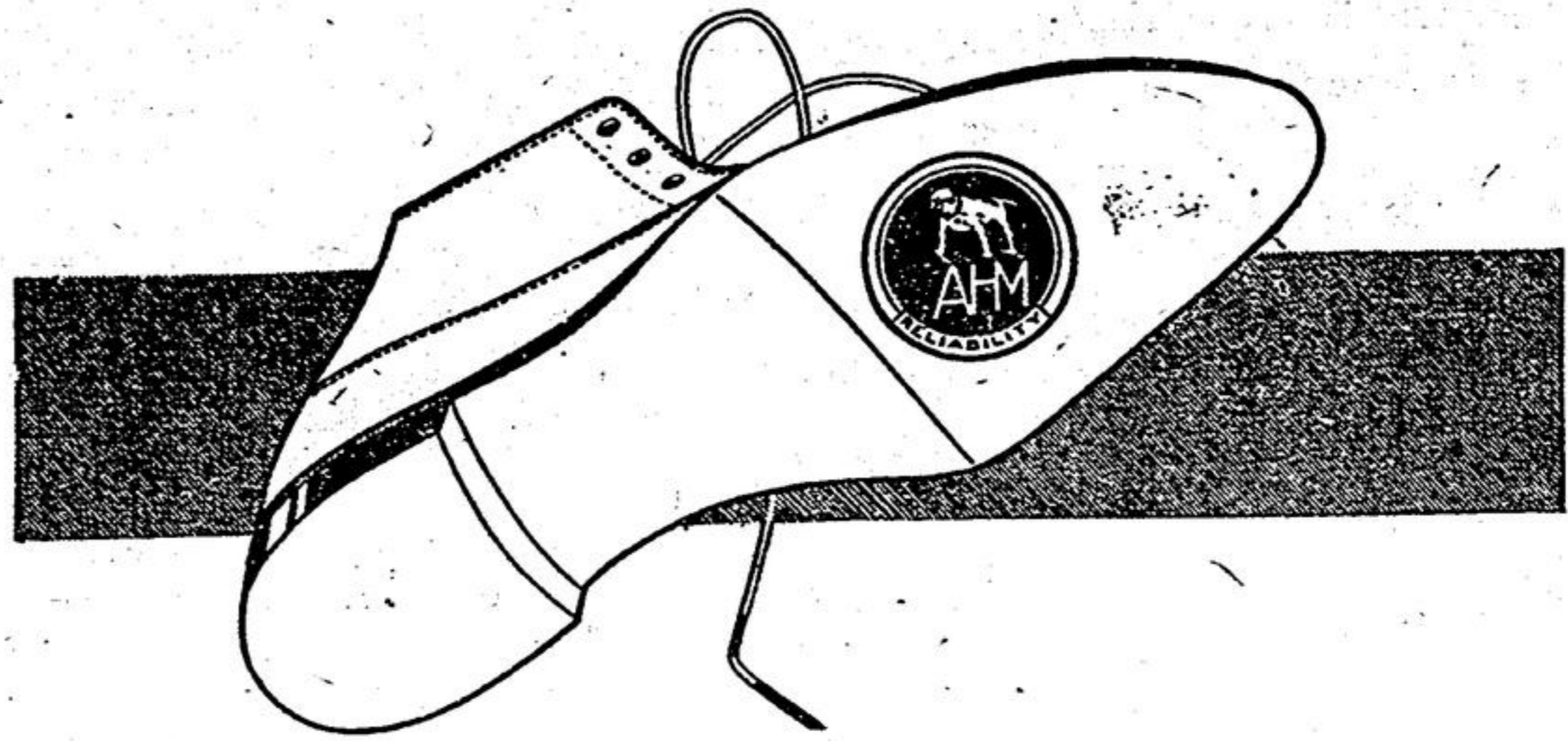
How can cats be prevented from getting birds? Get rid of the cats, or use tin funnel-shaped guards around trees and poles; also by planting a Dorothy Perkins rosebush around trees which contain nests. What birds walk instead of hop? Blackbird, crow, meadow-lark, cowbird and ovenbird.

Should bird-houses be cleaned in the spring? The largest manufacturer of bird-houses and a sincere lover of birds says, "No," and we agree with him. Leave the houses alone.

Why get mad when an idea strikes you? It may be the making of you.

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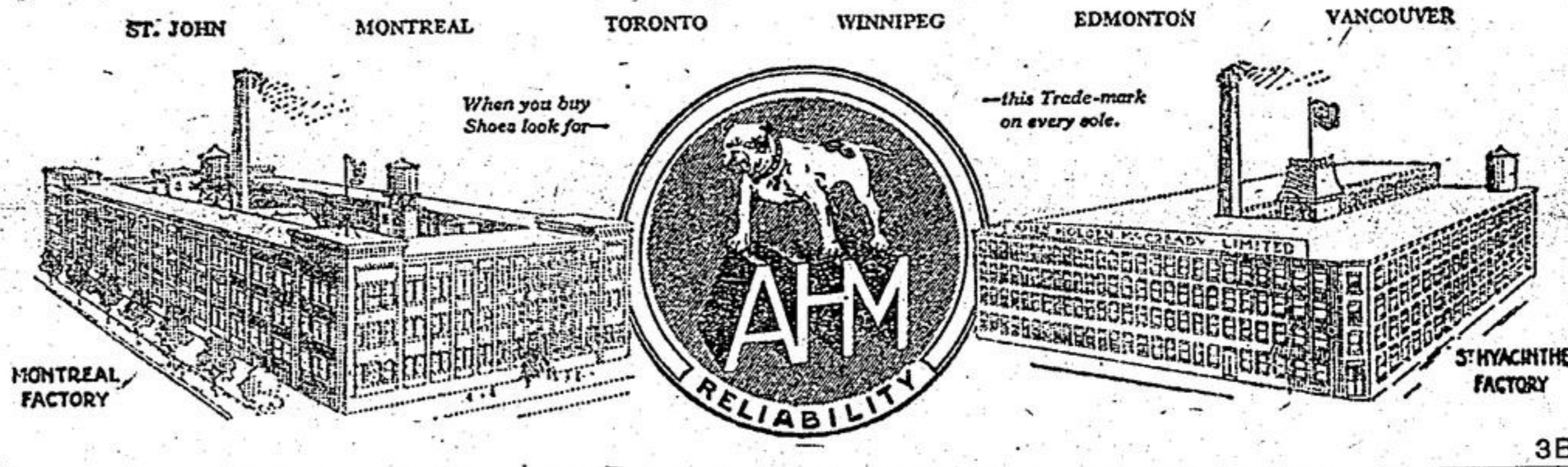
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GOOD HEALTH QUESTION BOX

By Andrew F. Currier, M.D.

Dr. Currier will answer all signed letters pertaining to Health. If your question is of general interest it will be answered through these columns; if not, it will be answered personally if stamped, addressed envelope is enclosed. Dr. Currier will not prescribe for individual cases or make diagnoses. Address Dr. Andrew F. Currier, care of Wilson Publishing Co., 73 Adelaide St. West, Toronto.

Falling Of The Stomach. I have been asked to write an article on gastroptosis, or falling of the stomach—what it means, and what are some of its symptoms.

The stomach is very movable, being in the upper part of the abdominal cavity, extending from right to left and held in place by the food tube or gullet, and by loose bands or ligaments attached to the diaphragm, to the liver on the right, and the spleen on the left.

Though so loosely held, it is in motion most of the time, particularly when food is churned about in it, and undergoing digestion.

The tissues of the stomach and its ligaments stretch easily and, lacking the resiliency of an elastic tissue, they do not return to their normal boundaries after a certain number of stretchings.

The stomach of a full grown adult holds one to three pints, and you can imagine how much it is distended and

overtaxed by those who eat and drink to excess.

It is not unusual for guzzlers of beer, wine, whiskey, gin, etc., to drink several quarts at a sitting, and for those who are intemperate in eating, to eat far more than the proper capacity of the stomach.

The kidneys and intestines do their best to relieve such sinners, but all these organs are sooner or later involved in the penalties of over-eating, and drinking.

Continued abuse of the stomach must ultimately result in persistent dilatation; the organ loses its natural shape, constant fermentation and gas formation balloon it into a great bag, and it encroaches upon neighboring organs and causes unlimited discomfort.

From dilatation to reinvagination of the loose supporting bands of the stomach, is but a step.

When the bands begin to give way, there is nothing to bring them back to their normal state.

The more they are pulled, the more they stretch, and the less able they become to sustain the over-distended and over-weighted stomach.

Then the latter drops, sometimes horizontally and sometimes bow or stern, first the intestines can offer little resistance, and in time the stomach distends and drops until it reaches the pelvis.

Others who suffer with falling of the stomach are the people of lax fibre, who have little muscular strength to begin with, and who have been overpowered by hard work or improper food.

Included in this group, are hard-working women burdened with the care of families among the poor and neglected.

Only recently has this condition been accurately recognized, only recently have the stomach and its disorders formed a group of diseases for careful investigation.

The X-ray, and abdominal surgery, have illuminated the subject, and though we are far from getting ideal results in the treatment of many stomach diseases, we have certainly made great gains and will gain much more.

Some of the symptoms of falling of the stomach are general discomfort, want of ambition for ordinary duties, constipation and poor nutrition.

The treatment may be medical, surgical, or instrumental. If the abdomen is opened, a repara-

tive operation can sometimes be successfully done.

Many cases, however, are much relieved by a properly adjusted belt, and this should be tried in preference to an operation, when possible.

QUESTIONS AND ANSWERS

J. K.—Am weak and not able to do my housework well. Get very short of breath and my heart beats rapidly. I feel better when I can lie down and take a rest. Please tell me what is wrong with me.

Answer—My opinion would be that you are trying to carry a bigger load than you are able to carry. If you could get a rest for a few weeks, having somebody do your work for you, and just play and sleep for a time, I think you will get a new start. I should be glad to hear if you are able to do this.

Destroy The Cutworms.

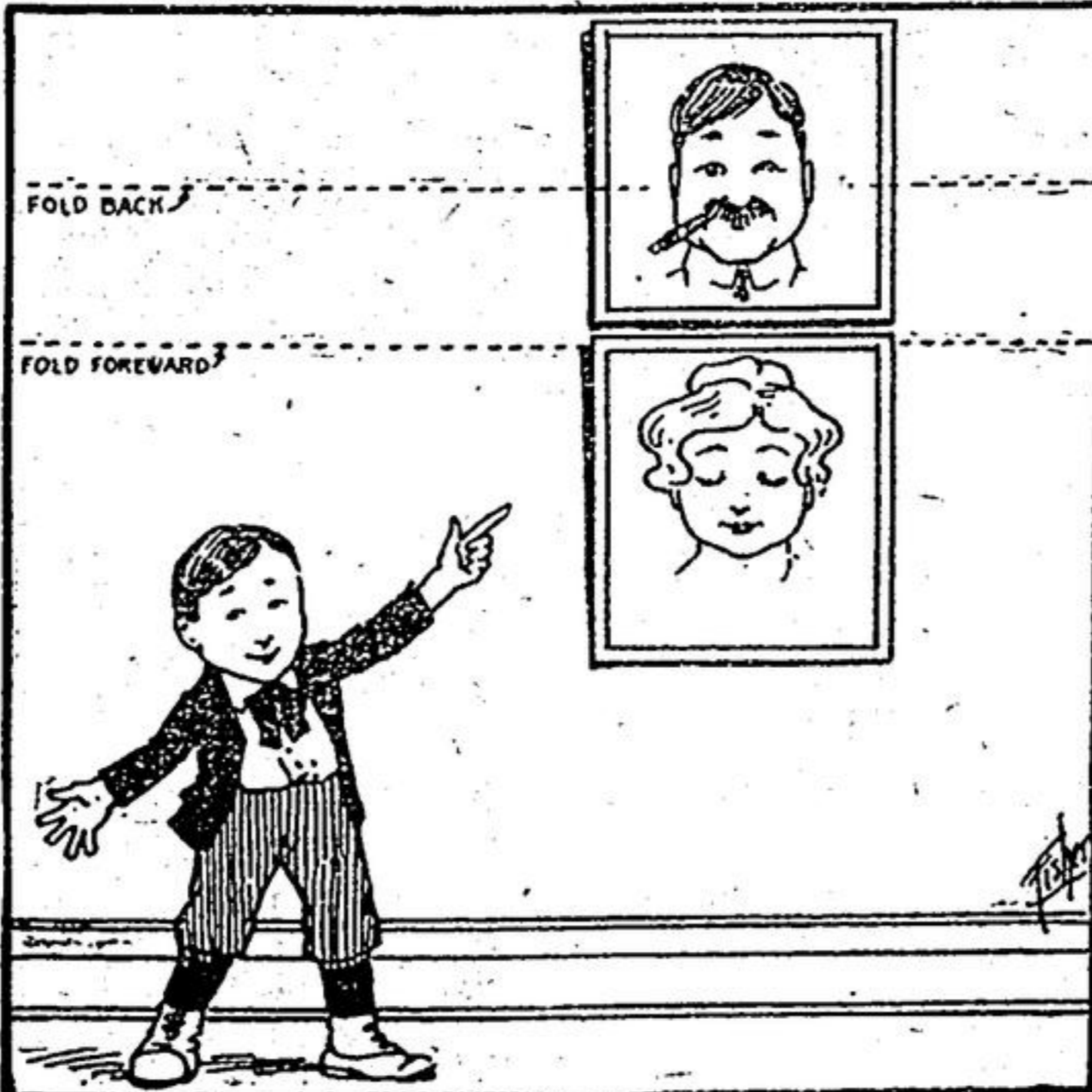
Early though the season is, the insect world is already "on the job." Cutworms destroy thousands of dollars' worth of vegetable crops every year. Gardeners must aid in the campaign to save the crops by destroying these pests. Watch for their appearance as they are already at work. They cut through the stems of the young beans and tomato plants at the ground line during the night and leave the young plant dying on the ground. Investigation in the loose soil will generally discover the miscreant a few inches away, half an inch or so below the surface, when he can be summarily squashed. They can be killed wholesale by scattering along the rows poisoned bait made as follows: Bran, 20 lbs., cheap molasses, 1 quart; Paris green or white arsenic, half a pound; water, from 2 to 2½ gallons. Mix the bran and Paris green (or white arsenic) thoroughly in a wash tub while dry. Dissolve the molasses in the water and wet the bran and poison with the same, stirring well so as to dampen the bran thoroughly.

War Time Cook Book.

An excellent war-time cook book has been issued by the Women's Institutes of Ontario and copies may be secured by writing to the Ontario Department of Agriculture for Circular No. 11. Various ways and means of saving and substituting are suggested.

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I get my chin from my mama. My eyes are pa's, you see; So put them both together, and The product—well, it's ma.