

## ORCHARD AND GARDEN

### HOW TO MAKE HOTBEDS AND COLD FRAMES

These Are Necessities for the Southern Gardener—Suggestions That Will Help in Making and Using

**N**O WINTER garden is complete without some kind of forcing structure. In the South it is comparatively easy to construct and care for such, either hotbeds or cold frames.

The construction of hotbeds and cold frames is simple. They are essentially the same, the latter differing only in that no artificial heat is supplied. In constructing a hotbed, the necessary heat is secured by the addition of unfermented stable manure, the amount depending upon the crop being grown.

Ordinarily, the frames are so con-

about 80 degrees F. before sowing.

In handling frames, especially those with sash, ventilate them every day that the conditions permit. Fresh air is essential to the well-being of the plants. On bright, sunny days the sash may be removed entirely. As an extra precaution, the sash should be covered with corn stover or any straw material when the temperature falls below freezing. Plants that are frozen should be left covered until they have thawed out.

Before transplanting seedlings to the field harden them off by exposing them a short while each day. Increase the time gradually and finally leave exposed for a few nights.

C. J. HAYDEN.

### Renewing the Old Apple Orchard

**N**OW is the time of year to decide what should be done with the old

of old trees can be done in the winter when pressure of other farm work is not so heavy, but in order to know accurately which trees to save and which to cut out the inventory should be made when there are some apples on the trees. Study your trees now and prepare for the work this winter and the coming spring.

J. W. H.

### Injurious Insect Pests of the Orchard and Garden Easily Killed in Fall

**T**AKE advantage of the bugs in their winter quarters, the remnants of old plants, the trash and litter about the garden and orchard. Burn out the fence rows, destroy the trash and litter wherever it has accumulated by burning it or plowing it under. Cut out the dead trees and limbs in the orchard and make them into fire wood.

This cleaning up about the orchard and garden will destroy a dozen or more of our most destructive pests. For example, the plum curculio is now wintering as a full grown beetle in the trash and litter along the fence rows or about the trees; the codling moth will be found in the worm stage within a silken cocoon tucked away under the shelly bark of dead trees and dead limbs; and the fruit tree bark beetles or shot hole borers will also be found wintering mostly as adult beetles in dead or dying trees.

Under the old stalks and rubbish in the garden and about the borders will be found the adult asparagus beetle, bean leaf beetle, harlequin cabbage bug, flea beetles, the striped cucumber beetle, and the chrysalis of the cabbage worm. If you want to kill these pests, pile and burn dead tomato and pea vines and other remains of vegetation in the garden and along the border.

Deep fall or early winter plowing will also destroy many insects. This is especially true of the cut worms, potato beetles, white grubs, and wire worms which are now hibernating in the soil. Late fall or early winter plowing will turn these insects up near the surface and expose them to an attack of birds, poultry, and other animals. At this season of the year the insects are in a dormant or semi-dormant condition and when brought up near the surface of the ground they are unable to go deeper in the soil or to construct new cases or cocoons and they are killed by being subjected to excessive weather conditions and to the alternate freezing and thawing.

Fall plowing and cultivation will also enable you to have vegetables a week or ten days earlier next spring because you will be able to plant ear-

### Orchard and Garden Work This Week and Next

**S**OW lettuce seed in a frame to furnish lettuce during mid-winter. Even after frost, it is well to cultivate such winter vegetables as spinach, kale, onions and cabbage.

Three excellent varieties of fall apples to include in your next order for fruit trees are Delicious, Kinnard, and Magnum Bonum.

For earliest spring cabbage, set the plants during late fall. Cover the entire stems with soil to prevent their being bursted by frost.

Let your home garden contain every kind of fruit that can be produced in your locality, which means that it will contain practically all fruits except those of a tropical nature.

In planting roses, a more pleasing effect will be produced if the plants are set all together in a particular area rather than scattered promiscuously over the front yard.

The first thing to do in starting an orchard is to find out what varieties to plant and then to know a nursery that will furnish you good trees at reasonable cost.

Prune your muscadine grapes and note their increased vigor and fruitfulness. Old arbors will be benefited by cutting out all the dead wood and thinning where the vines have become thick.

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## OUR HEALTH TALK

### Eating to Live Well

**N**O ONE can have health who eats too much.

No one can have health who eats too often.

No one can have health who eats too many kinds of food at the same meal.

No one can have health who eats when tired, hurried, worried, anxious or excited.

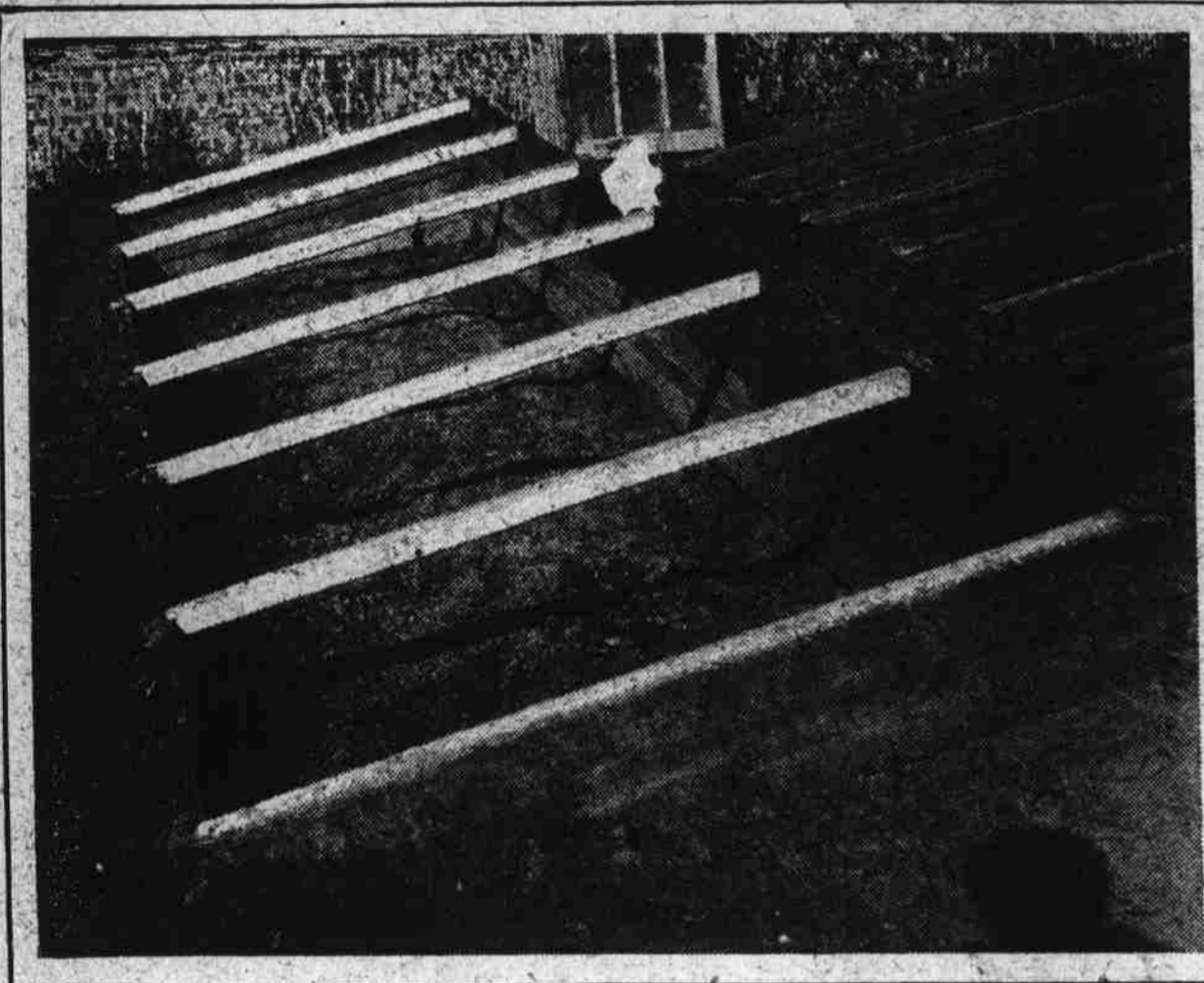
No one can have health who rises late, gulps down a hearty breakfast and then sprints for the car.

When you have eaten do not wonder if it will agree with you. When you begin to wonder, trouble begins. Say good-by to it, not expecting to hear from it again. If you fear it, do not eat it; if you eat it, do not fear it.

Be cheerful at your meals. A sour countenance will give you a sour stomach.

Praise your wife's cooking—if you can conscientiously.

If you go home with a grouch, leave it out of doors where the dog will get



A DESIRABLE TYPE OF HOTBED

structed that standard hotbed sash may be used. This sash is 3x6 feet, and should be made of cypress or some other durable wood. For this latitude, the single-glazed are best. The one great disadvantage of the double-glazed sash is that dirt and trash accumulate between the layers of glass and shut out the sunlight. In the extreme southern part of the Cotton Belt, canvas or muslin may be substituted for the sash for such hardy crops as the lettuce, parsley, etc.

In locating frames, it is best that they be placed near a source of water supply and in such a location that some one will pass each day. This helps to insure that the proper attention will be given. It is well to have some kind of protection to the north, and have the frames facing the south or east. The morning sun is especially desired in the forcing of any vegetable.

Cloth-covered frames may be constructed of boards only, or permanent ones may be covered with such material. The kind of frame and covering will always depend upon the crop being grown. In spring, when it is desirable to sow such vegetable seed as tomato, pepper or eggplant, a real hotbed will be necessary. If a crop of lettuce is grown, a cold frame will be sufficient. Then, too, cantaloupe, watermelon, cucumber, and squash seeds may be planted in the cold frames several weeks before conditions permit outdoor planting, and when all danger of frost is over the frame can be removed and put away for use the following season. If properly spaced, such crops can be cultivated with a horse.

In planting seed in a hotbed, exercise care not to sow the seed until the heating subsides. In a newly prepared bed, the temperature often rises to 90 to 100 degrees F., which will destroy the viability of the seed. Wait until the temperature drops to

neglected apple orchard. By studying each tree in the orchard in the fall many necessary points may be secured for later use. In studying the orchard it is a very good plan to make an inventory or plan on paper. Secure a sheet of paper which has been ruled in both directions and tack it onto a smooth piece of board. Now go along each row of trees in the orchard and mark on the paper the location of every tree and the location where the trees are missing. Also mark on the paper the variety of each tree and the approximate condition as regards decay, height, and shape of head, and any infestation of insects or disease. Certain signs may be used on the plan to designate these different conditions.

Trees which have decayed trunks or large limbs, or which are very badly infested with canker, fire blight, or San Jose scale can seldom be profitably renewed.

After the autumn work has been finished and some leisure moments are available the inventory may be studied over and an accurate estimate made whether the orchard will pay for the labor required for renewal or whether it would be more profitable to take out the trees and use the land for other purposes. If it is decided that the orchard is worth renewal, then plans may be made to do the various parts of the work as they are needed. Pruning and deheading of the trees together with cleaning the brush from the orchard and spraying with lime-sulphur mixture should all be done before growth begins in the spring. If the orchard has been in sod it should be plowed in early spring and the trees fertilized with well-decayed stable manure or with commercial fertilizer.

All the operations of orchard renewal take some time and they should be planned for in advance, not left until the actual time the work is to be done. Much of the work of renewal

ier on-fall plowed ground. Early, thrifty, healthy plants are also less liable to injury from insects.—T. J. Talbert, Missouri Agricultural Experiment Station.

### STILL PROFITABLE

The new drug clerk had just filled a prescription for a woman customer for which he charged her one dollar and ten cents. After her departure the clerk discovered that the dollar was a counterfeit.

He went hurriedly to the proprietor and informed him of the fact.

"How about the ten cents," asked the proprietor—"Is that good?"

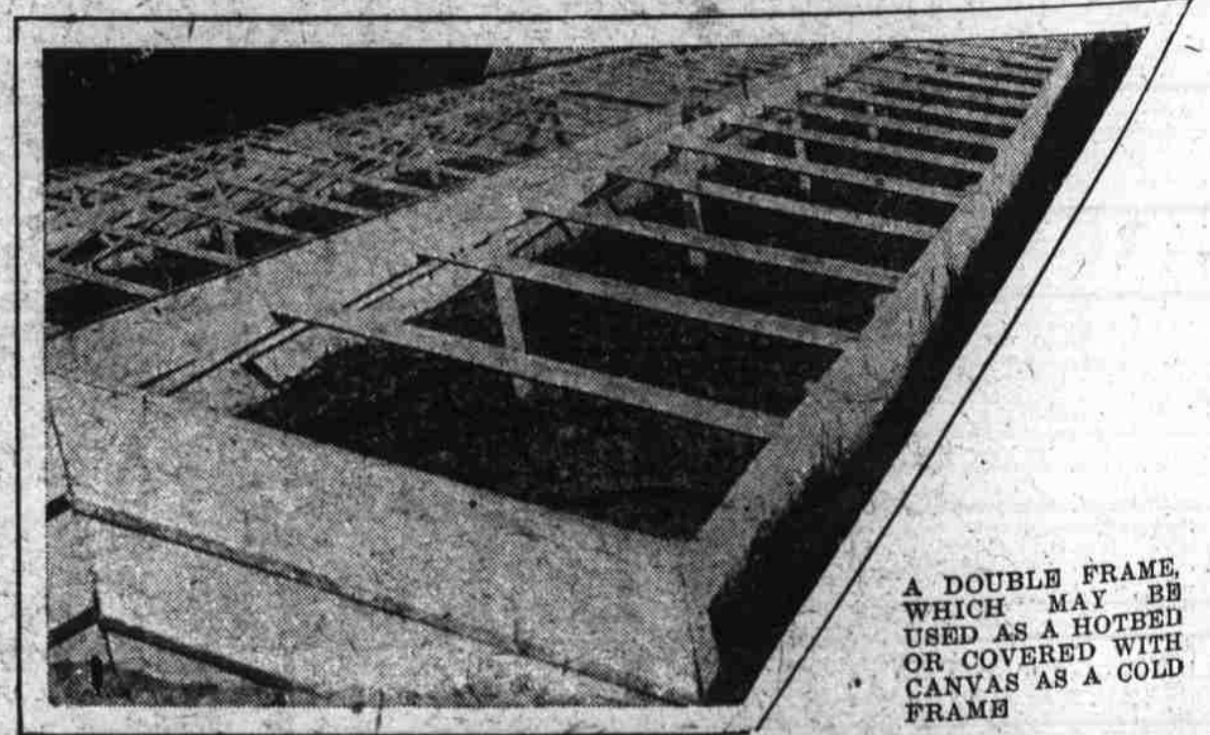
"Yes, sir," answered the clerk, "that seems to be all right."

"Well," said the proprietor, "don't worry about it—we still make a nickel."

it—then shoot the dog. The majority of people do not know how to live until they are ready to die, and then they are not ready to die because they have not rightly lived.—Edward B. Warman, in the Nautilus.

The teacher had offered a prize for the largest number of flies killed by any one of her pupils. One day, after school hours, Max came into the house crying bitterly: "What on earth is the matter?" inquired his mother. "W-why," sobbed the little fellow, "I was swatting flies, and—and one of—of them was a—a hornet!"

\$1.50 pays for your own renewal one year and The Progressive Farmer one year for a new subscriber.



A DOUBLE FRAME, WHICH MAY BE USED AS A HOTBED OR COVERED WITH CANVAS AS A COLD FRAME