

each of the two crops of lettuce grown, a very heavy coat of well-rotted manure is used so that when the time comes for cucumbers, the soil is well supplied with plant food. But this is not enough. Trenches about a foot wide and 18 inches deep, are dug from end to end of the house. Fermenting manure, to the depth of 10 inches, is then firmly packed in the trench, after the manner of hot beds. Soil, to the depth of eight inches, is placed on the manure and the general level restored. Cucumbers from six inch pots are then planted from three to four feet apart in these trenches, and are trained on trellises. The trellises are made by using A-shaped trusses of iron or wood (V-shaped at the row, but A-shaped as to the way the trusses or supports are constructed) reaching from the bed to nearly the glass, with wires eight inches apart running lengthwise of the house. The vines grow with great rapidity and are tied to the wires with string or raffia. When the work is well done, the fruit can be gathered from the underside without difficulty.

Anybody who will put their love in the work, who will take the pains and trouble, study conditions and be as thorough in their work as the easterner, should be able to duplicate their success. For the past five years I have been a convert to the ground bed, but after what I saw east, if I had any doubts, they were expelled, for I feel firmly convinced that for the growing of lettuce to produce a superior article, the raised bench is a thing of the past.

#### A BIG INDUSTRY

In the vicinity of Irondequoit, a suburb of Rochester, I should say there are over 100 different greenhouse plants, ranging from 1,000 to 500,000 feet in each plant, used exclusively for lettuce and cucumbers. It is all Boston Head lettuce which is followed by cucumbers. The majority train their cucumbers to single stems and let no fruit set until they reach a height of six or seven feet. They are planted three by about seven feet apart and trained, on twine, until they reach the desired height, when they are allowed to run overhead. All laterals and tendrils are removed. They use a cross of White Spine and Telegraph. As a result of my trip I was able to gather much valuable information that I believe can be made of value to the vegetable growers of Ontario.

To fight blight successfully potatoes should be planted wider apart than they require to be when there is no danger of this disease.—Jas. Dandridge, Humber Bay.

In growing vegetables under glass it is not sufficient merely to keep the plants from freezing; they must be kept growing or loss will be the result.—H. E. Reid, Toronto.

## Home Made Cement Tile

**O**FTENTIMES when fruit or vegetable soils need underdraining, the work is neglected on account of the cost of tile. Many undrained soils would be drained if tile could be made at home. Ordinary six-inch tile costs about \$45 per 1,000, and even at that high price they can scarcely be had. Brickmakers say they are not convenient to make as they take up too much space when drying.

These tiles can be made at home at odd times in winter and spring. Such work is a good means of profitably employing labor in the slack season, and of retaining skilled help that otherwise might be lost. Mr. C. E. Secord, of St. Catharines, makes his own tiles and makes them of cement, at the low cost of \$15 per 1,000. During a recent interview he showed the writer the apparatus, and explained how the work is done.

#### THE APPARATUS

The bottom of the apparatus is a 3-inch plank about 12 in. wide and any length desired, say 18 ft. A heavy plank is used so that there will be no "spring" or "give" when weighted with the tiles. On this plank is placed a number of circular pieces of sheet iron (the bottom of the moulds), 8 in. in diameter, with a small hole in the centre sitting on a pin, or brad, driven into the plank 12 in. apart, and protruding upwards about 2 in. Around this sheet iron disc are a number of stout wire brads driven into the plank to hold the mould in place.

The mould consists of an outer "shell," made of two pieces of common sheet iron, 12 by 15 in. each, and a central "core" of solid wood, a cylinder 6 in. in diameter and 15 in. long. Such a mould will turn out a 6-inch tile with an outside diameter of 8 in. and 12 in. in length. The outer "shells" are bent in half circles, overlapping, and placed at the bottom, within the circle of brads on the plank. At the top they are held in place by an inch board with holes cut 8 in. in diameter and properly spaced, that is, 12 in. apart from centre to centre. The holes in this board fit over the upper ends of the "shells." Within each shell is placed a "core," the bottom end of which, being bored, sits over the central pin on the plank. The core protrudes 3 in. above the mould for ease in handling, and so that it can be twisted occasionally to make the inside of the tile smooth.

#### THE PROCESS

The mixture is made up of equal parts of fine sand and gravel about the size of wheat kernels, and one-sixth Portland cement. This is mixed in

the ordinary way, but not too wet. When the mixture is prepared it is put in the moulds until they are about half full, then "tamped" or pounded well. Then the remainder is added, "tamped" again, and the top levelled off and smoothed. The moulds are allowed to "set" for about 24 hrs., after which they are removed, dried and stored until ready for use.—A. B. C.

#### The Fertilizers Act

Users of fertilizers are protected against fraud if they care to take advantage of an act passed by the Federal Parliament. Manufacturers are required to guarantee their product and any person that sells, offers or exposes for sale at a higher price than \$10 per ton, a fertilizer containing less than eight per cent. available phosphoric acid, or four per cent. of ammonia or its equivalent in nitrogen or nitric acid, or when both phosphoric acid and ammonia are present, at least five per cent. of available phosphoric acid and two per cent. of ammonia or its equivalent in nitrogen or nitric acid shall be liable in each case to a penalty not exceeding \$50 for the first offence and \$100 for each subsequent offence, and in either case forfeiture of the fertilizer.

A deficiency of one per cent. is not considered as evidence of fraudulent intent. Fertilizers sent to the Inland Revenue Department, Ottawa, will be analyzed on payment of an established fee of \$3.00.

#### Tomato Blight

Prof. W. Lochhead, Guelph, Ont.

The term blight is sometimes popularly applied to a bacterial disease causing the wilting of the stems and the foliage, and for an entirely different disease called the Black Rot of the fruit. The Tomato Black Rot most frequently attacks the fruit and reveals itself as large, black, sunken disease spots. In the real blight, however, it is the foliage that wilts, and at a later stage produces a discoloration of the stems and death results.

With regard to the Rot, it has been prevented by spraying with Bordeaux when the disease first appears, especially if the spraying is repeated at intervals of 10 or 15 days. In the case of the Blight, it is probably transmitted frequently by the potato beetle. If the flea beetles and potato beetles are kept in check there is less liability of the spread of the disease. It is always wise to remove the diseased plants as soon as the wilting shows itself. The crops should be rotated as much as possible.