

been reached. It consists of a thermostat, an electric battery, and an electric bell. The thermostat is provided with a metallic strip clamped at one end. A change of tem-

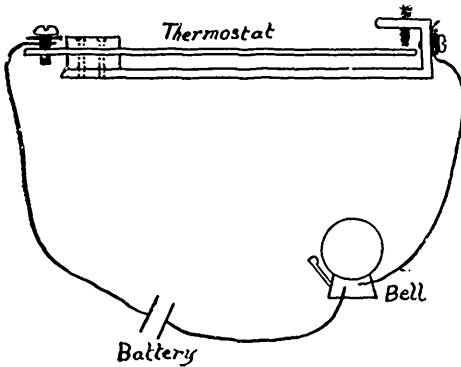


Fig. 2.

perature causes a bending of the strip so that it touches the point of an adjustable screw and makes electric contact. The thermostat should be placed outside, while the battery and the bell may be placed in the bedroom. As soon as the temperature outside falls to 32 degrees the thermostat makes the circuit and rings the bell. The rest depends upon the man who is rung up.

There are several practical methods of preventing frost, or if frost has occurred, of preventing fatal injury to plants. Among these methods a few of the more important may be mentioned:

1. WARMING THE AIR.

A large number of small fires, properly placed, will raise the temperature of an orchard or garden several degrees. Under this head various methods have been tested in California, and the best has been that of suspending wire baskets a few feet from the ground, each holding several pounds of charcoal or other suitable fuel. The bas-

kets may cost 10 cents each, and if 40 baskets were used per acre, the fuel would cost \$2.50 or \$3.00.

2. PREVENTING RADIATION.

A cloudy sky at night is often effective as a prevention of frost. Adopting this idea, the fruit grower may create clouds of smoke in the orchard by setting fire to previously prepared smudge piles, consisting of damp straw or strawy manure. The effect of both of the above methods will depend upon the existence of air currents. For best effect the air should be still.

3. WATERING TREES AND PLANTS.

Injury from frost may often be prevented by sprinkling. This, of course, is practicable only where there are waterworks, and then only on a small scale, but may be used for gardens and flower beds. This should be done in the evening before frost is expected. If, however, no precautions have been taken and plants have been frozen, fatal injury may often be prevented by sprinkling very early in the morning before the temperature begins to rise—before sunrise. It is believed to be the rapid rise of temperature before the injured cells have time to readjust their functions, that causes injury. The blanket of water prevents the rapid heating.

It may be said in conclusion, going back to the question of forecasting, that the daily forecasts published by the weather bureau at Toronto should be followed closely. Besides being published in the daily papers, these forecasts may be secured by telephone from the nearest telegraph office. With the extension of rural telephones the important service rendered by the weather bureau may be brought within reach of every rural district in Ontario.

Power Spraying.—With the advent of the power sprayer in the course of a year or two we will have these power machines working in sections where a few thousand

trees can be found within a square of six to eight miles, just as we have threshing machines working to-day.—(Frank J. Baker, Georgetown, Ont.)