Practical Lessons By E WHITCOMB. in Bee-Keeping. OF FRIEND, NEB.

FARMING

"Practical Lessons in Bee-Keeping," was the title of an excellent paper presented at the twenty-eighth annual meeting of the Kansas Board of Agriculture, by E. Whitcomb, of Friend, Neb., and published by secretary F. D. Coburn in his recent report.

He said in part as follows:

The problem of wintering is one of vital importance. To leave a colony on the summer stand, exposed to the sudden changes and bleak storms of winter, is not conducive to success. in the beginning. The careful, successful bee-keeper would as soon think of wintering his cow in this manner as his bees, which under proper care would yield under the investment equally as much profit. There are two means of successful wintering. First, packed, on the summer stand; second, in a well-ventilated cellar. The first is by far the most laborious, yet it has some ad-Cellar-wintering is the least expensive; it is only necessary to keep them in Egyptian darkness and as quiet as possible, carrying them out on two or three bright days for a fly, during the entire winter. The temperature required is about that which will keep potatoes successfully. They remain in a semi-dormant state and consume but little.

Most every one has his or her favorite location for the apiary. Some choose the most shaded point possible. After experimenting for several years we have determined that, in my locality at least, the most exposed place possible is prolific of the best results. In the country be-

tween the Missouri river and the mountains the nights are usually cool, and we find that the mercury falls two or three degrees lower in the shade than on the open ground; that it requires a much longer time to warm up the hive in the shade in' the morning than those not shaded; and, besides this, the sun comes out so warm in the morning that often before the colonies in the shade are warmed up the sun has evaporated a great portion of the nectar. It is with the bee as with the farm hand: the fellow who gets out early in the morning is the one who usually accomplishes the greatest day's work. In experimenting with this matter of location we find that the colony located the nearest the shade gather the least stores, while those located on the most exposed ground gather most. One case in particular was a colony shaded by a small plum tree. As the tree grew the colony produced less stores, until it barely gathered sufficient to winter itself. We moved this colony out into the sunlight and it went back to its old record in honey-making.

We set our hives facing the east, that the sun may shine on the entrance as soon as it peeps up in the morning, and further, that it may shine on the rear late in the evening in order to facilitate evaporation as long as possible. We use a temporary shade made with a few old staves tacked on a two by two, two feet long, and which protects the top and sides of the hive, allowing a free circulation of air, and the sun to shine on either end as it is reached.

Watering bees is of considerable benefit, and we would as soon think of allowing our other stock to roam the country in quest of water, as the bees in the apiary. During winter the moisture that condenses in the hive furnishes the colony water, but