The flicker may be attracted to the golf course and paid for his services by providing nest boxes. These birds can excavate nests for themselves only in partly rotted wood, and the large dead limbs of trees which are preferred for the purpose are constantly growing scarcer. A box with floor space of about 7 by 7 inches, 16 to 18 inches deep inside, with a 2½-inch entrance 14 to 16 inches above the floor, will accommodate a flicker family. The roof should be sloping to shed rain, and overhanging to protect the entrance. Put in the box enough sawdust or fine shavings to make a good bed over the bottom, or the flicker will proceed to manufacture something similar by pecking the inside of the box. Flickers are fond of certain wild fruits, especially berries of sour gum, sumac, and dogwood, wild cherries, elderberries, blackberries, hackberries, and bayberries. If supplies of these are available about the course, it will be a flicker heaven, and if not already present some of them can easily be planted to the delectation not only of the flicker but also of other useful birds.

A Steam-Box for Killing Weed Seeds in Compost*

By D. M. Boude, Miami Valley Golf Club, Dayton, Ohio

The Miami Valley of Ohio has always been a great tobacco center. After the timber had been cleared and the supply of brush for burning plant beds had disappeared, the farmers originated the idea of steaming their plant beds before seeding.

At a meeting of the Dayton District Golf Association Green Section, in Troy, Ohio, early in 1925, a tobacco farmer, who was a member of the Troy Country Club, advanced the idea of steaming compost and steaming the beds for greens before planting stolons. As a culmination of the discussion, Mr. C. F. Young, of the Miami Valley Golf Club, suggested that we put in a steamer and give it a trial. Our greenkeeper, Mr. A. P. Bilsbrough, designed a box in connection with a mixer that he had previously designed, whereby we are able to steam approximately 18 yards of compost per day, at a cost of $1.35 per yard including mixing.

A photograph of the steam-box and compost mixer is here produced, also a diagram of the construction of the box. The steam is supplied through a ¾-inch pipe extending lengthwise through the middle of the box and drilled stagger-fashion with ½-inch outlet holes. The box is constructed of boards, with the cover and bottom tongued and grooved. The dimensions of the box are 10 inches deep by 4 feet wide by 10 feet long, affording a capacity of slightly more than one cubic yard of compost. The bottom is in two sections hinged along the sides of the box and opening through the middle to permit dumping the contents. By the use of a hoist which runs on a track overhead, the box may be moved at will from one end of the shed to the other. The box is placed near the compost mixer and screen, the cover is removed, and the box is filled with the mixed and screened material directly from the machine. The top is then replaced, and the box may be moved away from the screening and mixing machine, where it will not interfere with the work, while the steam, at 100

---

*A bake-oven for killing weed seeds in compost was described in THE BULLETIN for January, 1926, page 5, and the use of a steam-pan in THE BULLETIN for October, 1925, page 232.—EDITORS.
pounds pressure, is being forced into the box. After the steam has been allowed to penetrate the soil for 20 minutes, the box is lifted by means of the hoist and moved to the storage bin, where it is dumped by removing the pins which hold the bottom. During the steaming the soil is raised to a temperature ranging from 185 to 205 degrees, Fahrenheit.

We steamed several samples of compost and placed them in a greenhouse together with samples of compost not steamed, under ideal conditions for germination. The unsteamed samples developed most of the weeds present on our Ohio greens. The steamed samples were absolutely free from weeds.

The question then arose as to whether when killing the weed seeds in this manner we were also destroying the bacteria and the value of the humus and plant nutriments in the soil. This had been fairly well settled to our satisfaction in the first discussion on steaming, since the farmers are able to get their tobacco plants two weeks earlier in the steamed beds, and get much sturdier plants. However, we again took samples of our steamed and unsteamed compost to the greenhouse, sowing them with redtop. The steamed samples germinated first and developed a deeper, richer color than those in the unsteamed samples.
This past season we feel we have been amply paid for our steaming outfit, as we have not had to weed any of the ten Washington bent greens and have been able to give our members perfect putting surfaces through the entire season. The weeding has in past seasons cost us from $1,000 to $1,500 each year, while our steamer cost us only $650 and will last for many seasons.

Our slogan has always been at Miami Valley to give our members the best possible golf at the least cost, and we feel that our steamer has gone far to help us accomplish the desired results, and produce our weedless greens.

Growing and planting coniferous trees on the farm.—Farmers’ Bulletin 1453 has recently been issued by the United States Department of Agriculture, under the above title, and may be obtained from the department on application. To golf clubs interested in the growing of coniferous trees (pines, spruces, firs, and the like), on their courses, the bulletin offers valuable suggestions as to the best choice of trees for the various sections of the country, collecting of seed, planting the seed and growing the seedlings in the nursery, transplanting the young trees, subsequent care, and underplanting of old stands of trees. Where trees are needed for immediate use it is of course recommended that they be purchased from a nursery, as the growing of such trees from seeds requires two to four years, depending on the kind of tree.