



Findlay's ingenious sterilizer uses steam furnished by the oil field boiler at the left. Some second-hand sheet steel and about 500 feet of pipe complete the outfit.

CLUB HAS WEED-FREE COMPOST

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*Home-made Sterilizer Costs But
6 Cents Per Cu. Yd. to Operate*

ON putting greens it is much less expensive to use weed-free compost than it is to continually weed the greens. Destruction of the weed seeds carried in compost cannot be over-emphasized.

Formerly it was common practice to build fires on top the seed bed to sterilize the soil. This method has been discarded. Another way, used today, is to place the soil on a pan and cook it by building a fire under it. This method requires large amounts of fuel and, unless ample quantities of cheap fuel are available, is too expensive. Chemicals are not used to a very large extent because many seeds are too resistant to this type of treatment.

Dry heat is very convenient and does good work but in practice we have found it to be more expensive and less efficient than the use of live steam. Here at the Findlay CC, we use steam under 100 lbs. pressure and direct it through the compost in such a way that it is all heated uniformly. To have a convenient means of doing this we built our own sterilizer three years ago and have never regretted doing it.

The sterilizer itself consists of a 25 h.p. oilfield boiler, donated by an interested member of the club, which furnishes steam at 100 lbs. pressure through 146 yds. of perforated 2" pipe. Pipes are laid in 8 parallel rows 55' long, as close together as the return ells will permit, and have a total width of 5'. Each pipe is perforated every 18" with a $\frac{1}{8}$ " hole but the holes are so spaced that, by staggering, a hole comes every 9". These pipes are laid on a floor of steel sheet which is underlaid with 10" of sawdust to prevent loss of heat downward. The floor is higher at one end which causes all of the water (condensed steam) to run to the lower end where it is drawn off by means of conveniently placed taps in the return ells. This feature facilitates winter drainage.

Sides are also of steel construction. The back is 4' high while the front is only 2' high. By building a slight grade up to this front, we are able to back our trucks

squarely up to the sterilizer and dump in their loads with a minimum of hand labor.

We rarely load the sterilizer to capacity. Our usual load is to a depth of 18". This takes about 8 truckloads and is equal to approximately 16 cu. yds. It takes us about 3 hours to sterilize this quantity of compost and costs us about 6 cents a cubic yard.

We are never troubled with soggy compost. Ordinarily we leave it in the sterilizer to cool or to remain there in storage until we need it. Upon removal, after cooling, the compost is in the same physical condition, as far as texture is concerned, as when we put it in there.

During the process of sterilization we cover the top of the sterilizer with a heavy canvas. This acts as an insulator in preventing the loss of heat and is beneficial in preventing the steam from blowing holes through the compost. Steam under 100 lbs. pressure attains a temperature of 377° Fahrenheit. As yet we have never attained a temperature approaching that in the sterilizer. Such high temperature is not necessary. For our purposes it is only necessary to bring the soil to a temperature of 160° F. Temperatures higher than 180° are injurious to the compost.

Clarence Radke Elected President of Heart of America Greenkeepers

ANNUAL meeting of the Heart of America Greenkeepers' assn., held in mid-November, resulted in the election of Clarence Radke, supt. of St. Joseph (Mo.) CC, as president of the body for 1937. Other officers elected were: Harold Henry, Hillcrest CC, Kansas City, vice-pres.; P. L. Pepper, Oakwood G&CC, Dodson, Mo., secy-treas.; and Chester Mendenhall, Mission Hills CC, Kansas City, chairman of the board of directors.

Highlight of the meeting, according to Secretary Pepper, was the acceptance speech of President Radke, in which he outlined the purposes of the HAGA and asked the whole-hearted aid of the members in furthering the work of the association.

Following are excerpts from the speech: "A greenkeeper loves his work. He likes to watch things grow, likes to see nature unfold in all her splendor. It must be this; it can't be the salary, because I know of many jobs that pay more than the greenkeeper makes. In no other profession are

there more reasons to become discouraged than in greenkeeping."

"If you called your doctor and told him you had a terrible pain in your stomach, he wouldn't say, 'Oh, I know what's the matter with you. You've got appendicitis. I'll just cut out your appendix and you'll be all right.' No, he'd give you a thorough examination to find the cause of your pain and then treat it accordingly, because there are probably a dozen different causes for that pain.

"So it is with greenkeeping. Just because a green has brown spots on it, is no sign that it has brown patch. There are several reasons why greens turn brown. So we must be able to diagnose the case, find the cause of the trouble, and apply the remedy."

"Almost everything we do on a golf course is contrary to the laws of Nature. We force growth by using all kinds of chemicals to keep a green beautiful; and Nature, in her determination not to be conquered, springs some new trick that makes us scratch our heads and try some new experiments.

"No man was ever intended to know the secrets of Nature. And that is why greenkeeping is so fascinating, so interesting. It is because of our desire to find out why we can't conquer nature that we have this association to discuss the different problems confronting us."

"The average golfer knows nothing about the greenkeeper's problems. When he does begin to hear a little about it, he is so old he is ready to die and go to heaven (if golfers ever go to heaven!)

"When the greenkeeper dies and goes to heaven, (he deserves to go there), he won't even find peace there, because some 110-shooting angel will probably wing his way to the greenkeeper and say, very dignified: 'Jake, this is a hell of a place. I played a perfect shot to the eighth green, just at the left of the Throne, and it slid over and cost me a nine playing out of a cloud-bank. Don't you ever water around here?'"

"This organization must sell itself to the golfing public not by demands or force, but by demonstrating its determination to improve playing conditions and make the game of golf produce the pleasure-giving, health-retaining qualities that it was intended for."