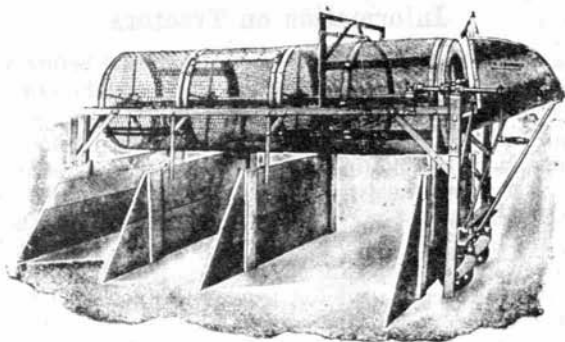


A Mechanical Sifter for Humus and Top Soil

FRANK B. BARRETT

That the top-dressing of greens and fairways is productive of highly satisfactory results cannot be denied, and without doubt the practice would be much more general except for the cost.

Top-dressing, either of compost or of rich soil, is usually prepared for distribution in a primitive, old-fashioned way. A standing wire-mesh screen, about six feet by three feet, is supported by adjustable uprights. The screen is placed near the compost heap and the laborer assigned to the work shovels the soil so as to play up and down the screen, usually spend-



ing about fifty per cent of his energy in playing a tattoo on the wooden sides of the frame.

Because the work is commonly done in a secluded spot, and possibly on a day when the thermometer is a bit high, the master of the screen ends his day with about a yard and a half of sifted soil. The pay sheets show labor at four dollars per day, so the top-dressing costs about \$2.66 per cubic yard; rather costly, but still worth the price.

A green committee is to be judged partly by its expense and partly by its results. Anything that will reduce the cost of top-dressing is important so that more can be done for the same money. It is a calamity when economy necessitates less top-dressing.

Considerable time was spent by the writer looking over the market for machinery for sifting compost. The apparatus must be reasonable in cost, simple in construction, resistant to wear and tear, portable, and adaptable for different sorts of power, including hand power if necessary.

A manufacturer was found who said he could build such a machine and which when produced was found to be satisfactory in all ways. The cost was about \$140. It is shown in the accompanying illustration.

The machine is connected by belt to a portable gas engine, both being mounted on wheels, so they can be drawn anywhere about the course. The cylinder screen, about six feet long, is made of quarter-inch mesh and revolves at medium speed. With the use of six men it will deliver about forty-five cubic yards of sifted material a day.

Now, as to the cost of the top-dressing: six men at four dollars per day is twenty-four dollars, and with an allowance of another four dollars for

gasoline, oil, and wear of engine, the total is twenty-eight dollars, which makes an approximate cost of sixty cents a yard for sifting. At this price one can afford to use top-dressing frequently, a practice which will never be regretted.

The writer desires to mention at this time that he has always been a strong believer in the use of compost, good humus, and top soil for dressing both greens and fairways. It has been his pleasure to top-dress the course of the Hollywood Golf Club in the past five years, upwards of seven hundred cubic yards per season, and it is well worth the price as measured by the superb turf secured, as well as the feeling of satisfaction it brings.

Information on Tractors

Under a Nebraska law a State permit is required before a tractor may be offered for sale within that State. The object of the law is to prevent the sale of over-rated tractors and to provide a reasonable assurance of prompt repair service to tractor users. The permit is issued by the State Railway Commission, but not until after the tractor has been tested by the Department of Agricultural Engineering, University of Nebraska, Lincoln, Nebr.; the performance of the tractor in the tests is compared with the claims made for it by the manufacturer, and provision must be made for the maintenance within the State of a service station with full supply of replacement parts for each model of tractor to be offered for sale.

In 1920 there were tests made at the University of 69 models of tractors, and 14 additional models were tested in 1921. At the conclusion of each test the results were tabulated and embodied in an official report consisting of a statement of the performance of the tractor in each part of the test as to belt horsepower developed, engine speed, kind and amount of fuel used, amount of water used, temperature of cooling fluid, drawbar horsepower, drawbar pull in pounds, speed in miles per hour, slippage of drive wheels, and amount and kind of lubricating oil used. All advertising literature submitted by the manufacturer with the application for permit, was gone through and any claims that seemed unreasonable or excessive on points not comparable with the results of the test, were quoted on the official report. In the comments on each tractor is mentioned the repairs and adjustments made during the test.

A summary of the reports on the tests of the 69 models conducted in 1920 is published in Bulletin 177, Agricultural Experiment Station, University of Nebraska, Lincoln, Nebr. The summary of the reports on the 14 additional models tested in 1921 is contained in a supplement to the Bulletin. A copy of the complete report on any of the models tested in 1920 may be purchased from the Agricultural Engineering Department, University of Nebraska, for 15 cents for each report. The report consists of three letter-size blue-print sheets. The reports for 1921 were mimeographed and can be obtained for 5 cents per copy. The *Farm Implement News*, Masonic Temple, Chicago, Ill., has published a 76-page pamphlet containing the complete reports made by the University on 65 tractor models tested in 1920, together with an analysis of the reports; this pamphlet may be obtained by remitting 25 cents in postage to the publishers.