



Topsoil on No. 9 green at Portland (Me.) municipal course before spreading. No. 1 fairway at left being disced

# How Portland (Me.) Built Its Municipal Course

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(Concluded from April GOLFDOM)

We have constructed an especially adequate water system for the course, every tee and green being well provided for by handy outlets well housed. The course is served by a deep 12-in. main in the highway close by. Copper steel pipe was used throughout and it is represented that this type has advantages over others for golf course water systems. In all 4,170 lin. ft. of water service pipe of varying sizes was laid and 20 outlets put in for greens and tee service.

The 9 holes completed are considered to be fairly well trapped for a municipal course. Although in some instances the traps appear severe these are well designed with good sloping sides. Since all traps are turf "lipped" it will be impossible to putt out and the golfer will have to play the proper iron or resort to a "hand mashie" when the opponent is not looking. All tees are turfed and of ample area,—in most cases 30 ft. by 60 ft.; and sloping back from the front about 6 inches to the rear of the tee.

An interesting bit of investigation and research by the writer is the following list of weeds found in and around the greens after the first germination of seed in the late fall—fall mustard, white goosefoot, common plantain, pale persicaria, hemp nettle, wild buckwheat, hare's ear mustard, lady's thumb, Canada thistle, field horsetail, meadow pine, foxtail, tall ragweed, orange hawkseed, field sorrel, butter weed, curled dock and corn spurrey. Space does not permit giving correctives for some of these bothersome weeds but it can be easily discerned that the greenkeeper for the first season at least has his work cut out for him in this one respect of overcoming weed pestilence.

## Cost Near Estimate

Compared to an original estimate of \$20,200 the links construction proper has cost \$21,078.19—an over-run of \$878.19. A large over-run in expenditure against estimate has been a popular and annoying characteristic of golf projects throughout

### Tabulation of Expenditures—9-Hole Golf Construction—Portland, Maine

Classification.	NORMAL EXPENDITURES.	Amount	Per cent of Cost
Labor Payrolls—Including superintendent, foreman and truck hire.....		\$9,415.54	44.6
Rental of Construction Equipment—Tractor, gasoline, shovel, loader, trailers, etc. ....		2,595.09	12.3
Construction Materials—Water pipe, gravel, crushed stone, drainage pipe, lumber, explosives, oil and grease, etc.....		3,206.12	15.3
Purchase of Construction Equipment—Plows, harrows, fertilizer spreader, gasoline pump, grass seeder, watering hose, hand tools, etc.....		385.06	1.8
Grass seed, fertilizer, lime, arsenate of lead.....		2,801.13	13.3
General Administration Charges — Water, telephone, construction photographs, agronomist's fee, blueprinting and drafting, stationery, first aid, freight and express charges.....		233.01	1.1
Architect's Fees—Including travel expenses.....		2,000.00	9.5
Special Services—Portland Water District and Kerr & Huston, on 4-inch water main installation to property.....		442.24	2.1
Cost of links construction proper.....		\$21,078.19	100.0
	SPECIAL EXPENDITURES.		
Labor Payrolls—			
Building repairs .....	\$124.76		
Fall maintenance on course.....	355.28		
Landscape planting .....	198.51		
Caretaker for property .....	24.00		
		702.55	
Building Repairs to Farm House — Contracts for heating, plumbing and roofing .....		647.92	
Purchase of Fall Maintenance Equipment—Toro tractor mowers, sprinklers, mats .....		1,268.54	
Landscape Material—Pines, \$110; loam, \$49.50.....		159.50	
Miscellaneous—Coal for house and sundry items.....		49.72	
Amount of Special Expenditures.....		\$2,828.23	
Total Expenditure .....			\$23,906.42

the country. We feel quite satisfied with our comparison on this special project. Total expenditure in connection with the municipal golf project has amounted to \$23,906.42. Certain items, such as building repairs to the farmhouse standing on the site, landscape treatment, limited fall maintenance, special clearing on the grounds and miscellaneous work, was not anticipated in the estimate for 1931 but was undertaken in part as an unemployment measure in the late fall.

We have a good start on landscaping the site as a result of moving large white birches (with frozen earth root balls) from our Municipal nursery to the rear of several greens. Also, several hundred white pines and red pines have been placed to advantage and many American elms, Norway maples and sugar maples have been planted. It will be necessary, due to the "bald" appearance of the site, to keep on and on with the æsthetic treatment of the area, as no golf course can be called truly attractive without the restful effect of generous landscape treatment.

A tabulation of the major divisions of the costs of the golf course construction proper and a listing of the special expenditures incidental to the general development of the site is shown herewith.

The course was designed by Stiles and Van Kleek, Boston, Mass., golf architect,

and this firm furnished a superintendent of construction, Donald O. Fish. All engineering work, furnishing labor, equipment, and transportation and general administrative work, was a function of the Park commission office. Soil tests were made by Professor L. H. Dickinson, agronomist at the Massachusetts Agricultural college, and this expert later furnished a complete report of turf conditions in the late fall, with recommendations for greens maintenance, a report which should be of great advantage to the future greenkeeper.

In conclusion, we have what many qualified golf links critics in this area have approved as being a well designed 9-hole layout for municipal play and while the impression may carry in reading the foregoing matter that we have been guilty of minor shortcomings of construction, our fundamental design and drainage is right and that is what counts mostly. Anything short of the last word in minor construction items is pretty much a reflection of tight purse strings on this job.

The city of Portland, Maine, is governed by the council-manager form of government. The present city manager, James E. Barlow, since coming to Portland in 1928 has been solidly behind municipal golf and it is greatly through his urgency on the council that the project was undertaken in 1931 after such a long delay.