



Here is one of Arcadia's sand greens, the construction of which is described in President Fugina's article below.

How Arcadia Builds Sand Greens That Satisfy Member Demands

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ARCADIA GOLF CLUB, located at Arcadia, Wisconsin, has just completed the seventh year of a rather successful experiment, namely, the maintenance of a golf course in a community of some fifteen hundred inhabitants on a basis which makes the game available to the person of small income and still shows an annual profit for the creation of a reserve fund for the future. An ever increasing list of members, and an ardent golfing spirit among the people of the community, are testimony of the fact that the game is firmly established.

In the spring of 1924, a handful of golf pioneers, of whom only two had ever swung a golf club, undertook to turn a cow pasture into a golf course. Armed with the imposing weapon of a couple hundred dollars raised by donations from the people of the community, these pioneers set upon the task of selling the game to a community where perhaps not one out of a hundred had ever seen the game played.

Starting on the basis of annual dues of ten dollars for men and five dollars for women, the course was constructed and developed, and today it is a going concern,

placing the game within the reach of anyone in the community who is interested. Dues are now fifteen dollars a year for men and five dollars for women, with the added privilege of lockers and guest cards at a nominal cost. Today, the nine-hole course is considered one of the sportiest in the section, and the clubhouse, constructed in 1927 from donations from people of the community, together with a comfortable balance in the treasury, show that the financing of a small town course is a feasible project.

Sand Greens Cheap But Good

In developing this project, one of the great obstacles which ordinarily wrecks small town clubs was met and successfully overcome. It is often said that a golfer makes or breaks himself on the greens, and it may also be said that a small town golf course will make or break itself on the greens. The development of a green sufficiently good to satisfy the golfer at a cost that will satisfy the pocketbook is often a problem. Where funds are sufficient and ample to provide for the installation of grass greens, this problem may not arise, but where sand or gravel greens are

necessary this is the ever present and perplexing problem.

In order to prevent the financial shipwreck which would have resulted from the installation at Arcadia of grass greens and a watering system, and in order to retain the interest of the golfing public of the community, it was necessary for us to develop a green that was accurate and which at the same time reached an approximation of the qualities of grass greens.

After seven years of experiment, using the trial and error method almost exclusively, it has been demonstrated that it is impossible to obtain all the qualities of grass greens in the construction of sand greens. However, we have found it possible to maintain a green that is accurate and true to a fine degree, and a green on which approach shots can be played with accuracy. In order to gain these advantages, it was necessary to sacrifice one thing, and that is speed. Our greens while being true and making approach shots with accuracy possible are considerably slower than a grass green. The reason for this will appear in the manner of construction.

Arcadia's Building Method

In constructing a green we have developed the following process: The sod is cut with an ordinary sod cutter and removed from the space to be built into a green. The ground is then rooted up with a shovel or pick to a depth of from three to four inches. The surface is covered with from five to six inches of sandy loam which is rolled with a heavy roller and tamped with a heavy tamper. We have done this rolling by running a wide-wheeled tractor back and forth over the green and have found this to be a saver of time and money.

It is important that the ground which is spread on the green be sandy loam and not clay, for clay will cause trouble in wet weather.

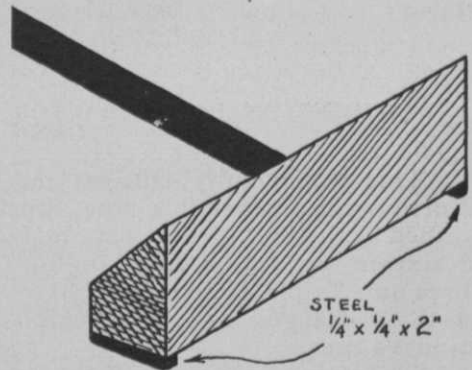
The surface is then scraped level with a steel-edged scraper about eighteen inches wide, and sprayed with a light coat of oil. Waste oil from crank-case drainage may be procured from garages or oil stations at little or no cost. Care must be taken not to saturate the surface with oil or it will become soft and spongy. We have used about $2\frac{1}{2}$ gallons of oil to a green 45 feet in diameter. The proper treatment of the surface in this fashion will prevent the surface from washing in heavy rains, and the soil will not soak

up moisture and become soft and spongy. Properly treated, it is possible to play the green immediately after any rain.

The surface of the green is then ready for surfacing with a topdressing composed of torpedo sand or light gravel which is screened through a screen of nine meshes to an inch. The sand or gravel is screened while wet, allowed to dry thoroughly, and then is mixed with light paraffin oil, purchasable from any oil company at a cost of approximately 16 cents per gallon. Waste oil from crank-case drainage will not work satisfactorily due to the dirt and grit. The sand must be thoroughly dry when the oil is added or it will not mix properly. We have usually used from four to five gallons of oil to a green of 45-foot diameter. The oiled sand is then spread on the green and by use of a gauge is spread to an even and uniform thickness.

Simple Gauge Levels Sand

The sand may be placed from $\frac{1}{4}$ to $\frac{3}{4}$ of an inch deep, depending on how "fast" the green is wanted. The less sand the



Arcadia's sand gauge

after the green, but also the less chance the golfer has of being able to hold an approach shot on a green. The gauge is a simple affair, and is shown in the accompanying picture. After spreading with the gauge, the sand is smoothed by running over with a swab or sweep made of carpet.

The green is now ready for play, and whether or not it will give satisfactory results depends upon its care and maintenance. After every heavy rain it will be found that the sand has been washed and piled up in low places on the green, and it will be necessary to regauge the green and redistribute the sand. We have made a practice of regauging the greens after

every heavy rain and once or twice a week in addition. Using the sweep alone is not sufficient, for the sweep will gradually work the sand into ridges, and leave some parts of the green comparatively bare.

In order to maintain the greens properly it is necessary to enlist the cooperation of the players. We have made a rule that each player of foursome shall swab the green before leaving it. This smooths over and eliminates all footprints and other marks, and if lived up to, each player will come up to a green that is in perfect shape. On our course the failure to swab a green is a cardinal sin, and a player who persists in so doing may be barred from the course. To date we have had no trouble whatever in enforcing the rule. Foursomes usually make a rule when starting that the player who loses the hole or his caddie shall swab the green. This rule, properly enforced, means satisfaction to all players.

When the sand becomes dry so that it does not pack properly, it is sprayed

again with paraffin oil, using from one to two gallons to the green. This will be found to be necessary once or twice a month depending on the amount of rain, for rain tends gradually to wash the oil out of the sand. One difficulty that will be encountered is that the holes will gradually fill up with sand that is brushed in by the swab. We have found no satisfactory method of eliminating this, but with a little cooperation from the players they can be kept reasonably clean.

The cost of building a green of this type is comparatively small. One experienced man should be able to build a green in three days, using a tractor and sod cutter. Each green takes about a half ton of sand. This sand costs us about \$2.75 per ton, but this of course will vary in different areas. Using about 2½ gallons of paraffin oil brings this item to about forty cents per green. These are about the only items of expense, and it will be seen that this is very small and well within the means of even the smallest course.

"Know Your Trade"—Mac Smith to Younger Pros

MACDONALD SMITH, talking recently to Maxwell Stiles, Los Angeles golf writer, cautioned the younger American professionals to know more about the construction of the clubs they sell. Mac believes there is danger in the younger professionals making money without knowing the trade. He considers that the pro, to be of most good to the game and best qualified for a prosperous future, can not be content with scoring ability alone but must have a thorough knowledge of playing equipment. Only in this way, the veteran Scot maintains, is a pro competent to give the service his club expects of him.

Although the Smith remarks in the Stiles interview are confined to bench-made clubs, the Carnoustie master plainly infers that one of the great benefits of this bench experience is in qualifying a profession to properly appraise and sell clubs, regardless of their source.

Mac, in advising the younger professionals to master all details of their trade, gives the old-timer's viewpoint of some of the youngsters by saying:

"They win several big money tournaments and have enough cash in the bank

to be independent while dictating the terms of their contracts. A lot of golf clubs of inferior quality, all factory made, are sent out to all parts of the country bearing their names. Because of their prominence they land a big job at a huge salary at some club. They may know something about giving lessons, but not as much as a veteran of the old school, trained through years on the practice tee.

"A member of their club shows them a brassie and asks them to duplicate it exactly. And he means an exact duplication with regard to weight, balance, length and the seasoning of the wood that's in it. The young pro looks at him blankly and in astonishment. He doesn't know the first thing about duplicating that club. He turns out something that looks like the original and lets it go at that.

"The veteran professional who worked his way up in the old days and who knows and tests every bit of wood in his shop, would be able to duplicate that club exactly. There would be no chance of a slip or the turning out of an inferior club. The veteran would know how because he would have learned how through years of work in the shop. The young pros are reaping the financial rewards of the years of work and knowledge put in and acquired by the veterans, and the result is that while they may make big money quickly, the country is being flooded with golf clubs and other equipment of an inferior grade."