

If You're Planning New Greens

—then read this timely, important article on green building

By **CHESTER MENDENHALL**

Supt., Mission Hills CC, Kansas City, Mo.

I SAY to any club's officials who are expecting to build new greens: first, that it is impossible to build an elaborate green for any \$200 or \$300; second, that it is impossible to construct a green properly overnight; and third, that proper time for seeding in either spring or fall does not exceed 10 days. I don't mean that if you cannot seed in this 10-day period that it is useless to seed. But I have found that a green seeded 10 or 15 days later, especially in the fall, will probably not be in shape to put into play from 40 to 60 days after seeding. When contemplating the construction of a new green, a little early planning usually pays big dividends in the end.

If the new green is to be built in the same location as the old one, it is necessary to keep the old green in play as long as possible. If in the spring you are considering the construction of a new green in the fall, it is well to select a spot at the edge of the fairway for a temporary green that will be well out of the way of play and out of the way of con-

struction work on the new green. This temporary green should be seeded, fertilized, mowed, and watered the same as your regular greens. If this is done, you will have a fair green for play while you are constructing your new green. This can be done at very little expense.

If the temporary green is made at the edge of the fairway, it will not interfere with your regular play up to the time work is started on the new green. At this time the fairway can be mowed out to take in the temporary green, and when the new green is put into play the fairway can be straightened out again.

If the decision is made during the summer to construct a new green, you have no chance to prepare a temporary green. In that case we always strip some sod from the back of the green that is to be torn up and sod a temporary green, leaving the front part of the old green in play a few days while the sodded temporary green is getting into shape. This does not make the most perfect green but I find that the members like it much better than a temporary sand or fairway grass green or omitting the hole until the new green is ready.

Early Fall Best Time to Build

When we are to build a new green, I prefer fall construction if possible. In the first place, you have far less interference from weeds, and second you have the advantage of both fall and spring growing seasons; while if you construct a green in the spring it hurries the young grass to form a good mat before the hot summer weather sets in. We like to start construction not later than August 15. That gives time to finish construction and get the green well wet down before seeding. As we usually have very little rain during this season of the year, I try to wet a new green under construction every night, starting the sprinkler as soon as the men quit at night and having it turned off in the after-part of the night so the ground will be settled by work-time the next morning.

I am going to omit the details of con-



Picturesque No. 5 green at Mission Hills CC.

struction as this has but very little bearing on getting a new green in play. After the green has been constructed, the next step is preparing the seed bed. This is a very important step. Enough sand and well rotted manure or peat should be added to give the texture of the soil desired. The amounts to use depend on the texture of the original soil. These materials must be thoroughly mixed with the soil.

Getting Right Soil Texture Is Vital

I would like to stress that the thorough mixing of the sand and the humus with the soil is very important. It has taken nature hundreds of years to produce a sandy loam soil and the man who thinks he can produce the same soil texture with clay, sand and humus in two or three hours has another think coming. How many times I have cut a plug out of a new green that is supposed to be well mixed, and struck a pocket of sand or peat!


I will have to condemn the disc harrow as being responsible for most of these pockets. The disc harrow has its place in cutting and pulverizing the soil, but it surely is a poor tool for mixing.

After a green has been raked to a fair grade I add my sand and humus. I haul these materials onto the green and spread with shovels as nearly even as possible. Then we go on with disc harrow and cut a number of times. We follow this with a roller to make the ground more firm. Then I use a spring-tooth harrow to mix the soil. I alternate the roller and the spring-tooth harrow until I am sure that the soil is well mixed to a depth of 5 or 6 inches. I like to do this part of the work with a team rather than tractor.

After the mixing process has been finished the green is raked to a finished grade and whatever loam and fertilizer needed is added and raked into the top of the soil. The green is then watered well and let lay until time for seeding. I like to seed in the Kansas City district the last week in August, if possible. After the green is seeded and well rolled it is wet down well, and I don't intend to let the ground dry off on top until after the grass comes up. The success of getting a good stand of grass depends a great deal on the amount of water you give it. After the grass comes up the water is checked some, but the ground must still be kept damp. In about ten days your green is ready for play.

If the grass crowns are kept well rolled

ELIMINATE THE DANGER OF SCALDING IN SHOWER BATHS





STOP unexpected changes in the water temperature


No more slipping on a soapy wet floor while trying to dodge a "shot" of icy cold or scalding water

When you use a shower bath regulated by a Powers safety shower mixer the temperature remains right where you want it. You can really enjoy the thrill of a comfortable shower in absolute safety

Powers mixers cost more—They're worth more. Write for circular 2145. The Powers Regulator Co., 2746 Greenvue Ave., Chicago—231 E. 46th St., New York—Offices in 47 Cities—See your phone directory.





POWERS SAFETY SHOWER MIXERS



say Penfold

WORLD'S PREMIER GOLF BALLS



He played a
PENFOLD

More than ever golfers are saying "Penfold-LL-75". They're getting a good ball and you're selling it to them. When they come back for more, many say they are getting longer drives with Penfolds. And if extra live covers, high tension and perfect balance can improve a man's game, Penfold is doing it hole by hole wherever golf is played. If you've ever hit a Penfold...you're saying "Penfold" too.

LL-Penfold-75 . .75¢ Penfold-5050¢
 LT-Penfold-75 . .75¢ Penfold-35 . .3 for \$1
 Penfold Autograph \$1

SOLD EXCLUSIVELY THROUGH PROFESSIONALS

down, a green can be put in play much sooner than if the roller is left off and the green filled with topdressing.

When the green is about 30 days old, I put on a light topdressing and follow up with another topdressing in about 10 days;

and if everything has gone well the green is ready for play with a fair putting surface. A green seeded in August generally gets fairly well covered before the fall rains set in and this reduces the damage done by washing.

Repairing A Water System Storehouse

By ROBERT J. CRONIN

Greenkeeper, Glens Falls (N. Y.) CC

DURING the season of 1940, we found that the pipes that supply our water to the golf course contained a great amount of corrosion and small particles of rust. We decided that during the winter we would have to renovate our storage tank. Many other greenkeepers are confronted with this same problem.

Our water system has two mains. One, which goes to our clubhouse, is in use continually. It is 500 ft. from the tank. The other one is used only during the golf season. The former is a 2-in. main, the latter, a 3-in. Our clubhouse being open all year 'round, necessitates a hookup that would supply our needs at that station although our storage tank was out of use temporarily.

The obstacle was overcome by removing the check valve from the club line directly ahead of the pump and connecting a line to the safety valve under the tank. This allowed us to pump directly into our lines. In order to do this we also had to set up an overflow line to take away all the surplus not needed at the club. We ran a 1-in. pipe out the wall of the building and placed on a 1-in. elbow and a small piece of 1-in. pipe, which we completely covered with a 2-in. pipe 44 ft. long, that would carry the overflow into the lake. The former 1-in. pipe was tapped to a safety valve at the pump. We throttled our Gould pump (the smaller of two reciprocal pumps used, the other a triplex Kewanee) to push water at 90-lb. pressure. This pump remained running hourly until late in the evening when the

socials at the club were over. Then the pump was at rest for the remaining night hours.

To get down to the actual tank renovation, our first chore was to open the tank and flush out the corrosion that was settled in the floor of it. After a series of flushings, we clarified the situation with the use of scrapers made from mowing machine sections ground down to an edge on not only two sides but also on the third, drilled and screwed to $\frac{1}{2}$ -in. bolts on which we placed 4-in. wooden handles. We also used files that were sharpened on the ends to scrape around the rivets in the tank. Three men worked six hours with these instruments and removed all the hard scales from the walls. The next day two men were employed in the tank, alternating with an electric brush that completely removed all the remaining rust. Work on the tank covered a period of eight working hours. The following morning a coat of Socony tank paint was applied and allowed to dry for six hours. That evening the three men employed in painting returned and applied the second coat of the same material. The fourth day the third and final coat was applied, this being a covering of aluminum tank paint which was allowed to dry overnight. Our final day of work on the project was to recap the tank and repipe our connections as they previously had been.

Perhaps I have neglected to tell our method of getting air into the tank. We had an electric blower into which we connected 4-in. stove pipes. We ran these pipes to the inside edge of the tank with the use of a 4-inch elbow, and 4 braces ran the pipe to the ceiling of the tank along the top of the far end of the 30-ft. container onto which we placed two el-

Superphosphate, dusted on greasy concrete floors of golf barns, is inexpensive, and more absorbent than sand. Also, there is less danger of slipping than when walking on sand grains that roll under foot.—CKB.