Well Built Bunkers Reduce Upkeep

By PETER McEWAN STEWART Greenkeeper, Lakeshore Country Club, Glencoe, Illinois

THE care of bunkers and traps will depend very largely on their construction. Those that are properly built are much easier to maintain than the ones that are badly made. For this reason it is wise in most cases, to first correct the actual faults in the form, or construction, of the bunkers. One of the first things to correct is the drainage, for a trap, or a bunker, that does not drain properly is hard to maintain and a constant source of trouble.

Bunkers and traps should be so well drained that the water disappears almost at once after it stops raining. This being so, it is necessary to use tile that is quite a bit larger than the space to be drained would seem to require.

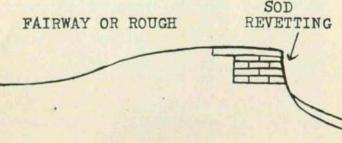
If the slope of the side of the bunker is not proper, or is contrary to the laws of Nature, it had best be changed, for Nature will insist on its rights, and will cause a lot of trouble until its laws are complied with.

The Cop and the Face

Another thing that should be watched very carefully, is the cop of the bunker. This should be so that it can be cut with a machine. One of the things that makes the proper maintenance of bunkers and traps cost so much is the amount of hand labor required. A long easy slope on the cop not only looks a whole lot better than an abrupt one, but makes the cost of keeping the grass cut, very much less.

Maintaining the face of a bunker is very important and depends, as stated above, largely on the slope. The slope should be about the way a rope hangs.

It is undesirable to try to get the sand to lie far up on the face of a bunker in any position where the surface water can come from outside, run down over the face and wash the sand away. Neither is there much object in sanding a bunker face so far up when it cannot be seen from a distance. In cases where the player can see



the bunker only when it is faced high with sand, then sod should be revetted above it in order to compel a player to attempt a proper bunker shot. This is done by placing one sod on top of another to a height of 8 to 12 inches, and about 12 to 15 inches deep as indicated in the accompanying sketch.

How to Lay Revetting

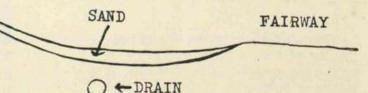
Revetting should never overhang a bunker, but should be about vertical, and should never extend to the bottom of the face or near the bottom, as a ball might lie up against it in a position from which it could not be played toward the hole. For the same reason, that part of the face immediately over the revetting should at once slope downward, never flat or nearly flat.

In laying turf on the revetted portion it is desirable to lay the lowest layer on a solid platform of clay, so that it will not have the same tendency to sink that it would if laid on loose soil. In building up the revetting, the top layer should be laid at right angles to the bunker, instead of parallel with it, in such a way that one end of each sod will take root in the revetting and the other end in the ground behind it. By placing the sod in this way, one can get on top of the revetting without so much fear of breaking it down.

If, because of the nature of the soil, it is impossible to maintain the face in satisfactory shape with sand, then it will have to be turfed. If possible it is best to turf these faces with Bent or Fesque, as they don't have to be cut as often as other grasses, and because of their ability to spread, are able to withstand the wash that such slopes get in case of heavy rain storms. These grass faces should be kept cut reasonably close so that a ball will be sure to roll back into the sand.

General Bunker Maintenance

The bottom of the bunker should be kept covered with at least 4 inches and better 6 inches of sand. This sand should be as sharp as possible. Lake or Sea sand is very much better than bank or river sand. Lake sand does not cake like bank sand, and because it is free from clay will last very much longer before it has to be replaced.



Coarse sand is much better than fine for the reason that it is much easier to maintain in satisfactory condition, and it does not blow away in the wind, or wash away so badly in case of rain.

In order that bunkers be absolutely fair, they should be raked regularly, in order to remove footprints, and so that after a rain the player does not get a perfect lie. One of the best rakes for this purpose is one made with teeth like a saw, and of such a size that they leave grooves in the sand about two inches apart and about an inch deep. This will insure, that wherever two players go into the bunker or trap, they will both get exactly the same lie.

Grass hollows and mounds should be kept cut, if anything, a little closer than the ordinary rough. This is particularly true of the grass hollows, the reason being that they are in most cases used back of greens to catch a shot that has been too strong, and where the penalty should only be one half a stroke instead of a full stroke.

Unity of Purpose for Greater Progress

The United States Golf Association, Green Section has for six years carried out a program of scientific research and experimental work covering the selection, growth and maintenance of golf grasses, as well as the protection of golf turf from destructive insects, grubs, animal pests and turf diseases.

Organization for the betterment of the profession of greenkeeping throughout the United States and Canada is the educational program of The National Association of Greenkeepers of America, and this program will be carried out through the pages of The National Greenkeeper, publishing contributions received from practical greenkeepers of experience.

Having a full appreciation of the value of the experimental work conducted by the U. S. G. A. Green Section, and its direct benefit to the greenkeepers of America, the following letter of congratulation was delivered to Mr. Wm. C. Fownes, Jr., President of the United States Golf Association, at their annual meeting held at the Pittsburgh Athletic Club, Pittsburgh, Pennsylvania, on January 7:

January 5, 1927

Mr. Wm. C. Fownes, Jr., President, The United States Golf Association, 110 East 42nd Street, New York, N. Y.

My dear Mr. Fownes :---

I wish to congratulate you upon your message to the member clubs of the United States Golf Association which appeared in the December 1926 Green Section bulletin.

The establishment of a \$30 yearly membership fee, which includes the Green Section service, is conclusive evidence that the U. S. G. A. wishes to do the greatest amount of good for the greatest number of golf clubs throughout the country.

The new program as a whole is a stroke of genius which will set apart the 1926 Executive Committee in the history of your association. It gives me the greatest amount of pleasure to know that the work of the Green Section, so ably started and carried on by Dr. C. V. Piper, Dr. R. A. Oakley, and their assistants, will go forward with the support and protection it so well deserves.

If at any time the Green Section requires any information or assistance this organization can give, I am sure that the greenkeepers of America will co-operate to the fullest extent.

Sincerely yours,

John Morley, President. National Association of Greenkeepers of America

Mr. Fownes' reply follows:

Mr. John Morley, President, The National Association of Greenkeepers,

407 Caxton Bldg.,

Cleveland, Ohio.

Dear John :---

I duly received your letter of January 5th at the time of the Annual Meeting of the U.S.G.A., and I must apologize for not having made acknowledgment of it earlier. It was a great pleasure to me and to my associates in the Association, to know that you personally, and the National Association of Greenkeepers of America, heartily approved of the action which was taken by the delegates in consolidating the membership of the Association, and bringing the work of the Green Section more directly under the control of the Executive Committee of the U.S.G.A. I think we all believe that the Green Section work is of the greatest importance and should call for the best attention which we are capable of giving it, and I am quite confident that under the present lineup we shall see its sphere of usefulness extend further each year.

Best regards.

Yours very truly,

Wm. C. Fownes, Jr., President, U.S.G.A.