

the proper growth of sheep's fescue. There are, however, some courses on which the soil is much too rich for the production of ideal sheep's fescue rough. On such courses excellent results may be obtained by scalping off the top soil with the sod and sowing sheep's fescue on the under stratum. In addition to providing suitable conditions for the growth of this grass, there is also obtained a very large quantity of good material for the compost pile.

Sheep's fescue may be used for the rough as far south as the Potomac river and even southward at high altitudes. Its range is much the same as that of red fescue, but since the conditions in the rough are not so exacting as those on the fairways or greens it may be used even farther south than the latter.

Objections have been raised to sheep's fescue on the ground that even when used in the rough it spreads by seed to the fairways and even to the greens. This objection does not appear to be valid. On courses where critical observations have been made covering a period of many years no evidence has been found to indicate that this grass encroaches on territory outside of the area where it was grown.

Canada bluegrass is another good grass for the rough in the northern states. It is not bunchy, as is sheep's fescue, but it is a slow-growing species on poor soil and forms an open, wiry, stubbly turf in which a ball can easily be located, and it affords about the proper penalty for the player. Seed of this grass is relatively cheap, and it is quite an easy matter to obtain a stand of it from sowing in the fall under unfavorable cultural conditions.

To summarize.—Most courses are concerned chiefly with improving their greens and fairways, but there are some which have good greens and fairways that could well afford to devote more attention to the rough. The rough could be improved by the use of the grasses heretofore suggested, without interfering with play, and as much time as is necessary could be given to the improvement. It is practicable to treat one side of the fairway at a time, or as much as the labor regularly employed on the course is able to handle. It does not require occult powers to foresee a time not far distant when the rough proper will in some measure be standardized or at least will be given intelligent and special consideration.

Quack-Grass for Fairways on Very Sandy Soil

Some years ago we were very much struck with the excellent quality of fairway turf made by quack-grass in patches on the course of the Pine Valley Golf Club, at Clementon, New Jersey. On this course there are on several of the fairways patches of quack-grass, six to ten feet in diameter. In most cases these are made by single plants. Perhaps similar patches occur on other golf courses, but these are the only ones we have specifically noted.

The following experience of the Escanaba Golf Club, Escanaba, Michigan, is of interest in this connection:

"We planted in the fall of 1920 about 1½ acres of sand dunes with quack-grass rootstocks and now have a very fine solid turf that is mowed with a regular mower and makes a surprisingly good fairway—much better than other fairways of better soil planted to other grasses years ago. We sowed 5 acres more of sand knolls this spring with quack-grass seed and will

report later the results. We are also now planting red fescue in the quack-grass turf and expect from the showing so far good results."

This experience at Escanaba is extremely interesting. It is highly probable that good turf of quack-grass can be secured on soil too sandy even for such sand-loving grasses as red fescue and Rhode Island bent. The weedy character of quack-grass need not be feared at all on a golf course, except that perhaps care should be taken not to plant it too close to the putting-greens, as the grass can easily evade the putting-greens by means of the long creeping underground rootstocks.

Divots—Replacement of Turf

A. J. HOOD, DETROIT GOLF CLUB

An old golfer of quite mediocre caliber as far as his game is concerned, but who claims that he aims to make up for his lack of physical prowess as a player by his manifestation of the proper spirit and interest toward the other end of the game—the golf course—has given himself the privilege of riding a hobby, and said hobby takes the form of divots—replacement of turf. He insists it is one of the vital things connected with the cost of maintenance and upkeep, with which we are all so much concerned these days, and points to the emphasis laid upon the subject of replacement of turf by every green committee actively engaged in the improvement and betterment of its course. He proclaims loudly and long on his hobby whenever and wherever opportunity offers; and not infrequently the air of indifference with which it is received would indicate that he misjudges his moment of opportunity; but, giving the devil his due, it must be said he remains undismayed even though he may stand meekly by and wait for another day.

He reasons that most of the money spent on a golf course is for the purpose of building up the turf. Therefore it is highly important that every precaution should be taken to keep it in good condition after getting it there. And in this direction, one of the first and foremost steps to be taken, is to insure the proper replacement of turf. Suiting his words to action, he goes forth each day with a first-aid equipment of two boxes of fine grass seed—one in each hip pocket. The containers are metal cigar boxes of concave shape that snuggle on the hip like a corset on "a perfect 36." The boxes have a small hole about the size of a lead pencil, in the upper corner, through which the seed may be readily distributed. In one front pocket he carries an assortment of small wooden pegs; and in still another pocket an instrument that might be mistaken for a Dago's stiletto, a colored man's friend, or a tree surgeon's pruning knife.

With the above ammunition he nonchalantly sallies forth to help heal the unsightly scars made by himself and his associates—to give battle to the unbelievers—and incidentally to push his propaganda by active example among the foursome with which he may be traveling. If he or one of his crowd takes a divot or if he finds one en route left by some careless predecessor, he picks up the divot if he can find it, scratches the scar with his big knife, sprinkles some grass seed, replaces the turf, tamps it down with his foot, takes out a couple of the little wooden pegs, drives them in with his iron, and the job is done. Often his reward is some frost-bitten quips, ironical queries, or indulgent smiles. Perhaps this fat man thinks he needs exercise. Here is plenty of chance for it. While the foursome may be