rooted turf resisted drying, but the others didn't. Had it been possible to apply a little water one or two times a day, wind burn damage could have been prevented. Recovery was slow because of the cool weather. Some clubs patched with sod. Others seeded. Best recovery from seed was obtained where greens were spiked enough times to tear out the dead grass and enable seed to make contact with the soil. Even then late seedings did better than early ones.

Wind Burn Injury on Fairways

Wind burn injury was bad on some fairways. Damage was confined to the spots of matted creeping bent. The grass in



It takes a minimum of time to aerify the fairways at Olympia Fields CC, Chicago, with this three-gang unit.

these areas was shallow rooted. On some courses the grass started to turn green, then growth stopped, the grass began to wilt. Then it died and turned brown. Loss could have been prevented by watering in most cases.

Some clubs raked out the dead grass, added soil and seeded with Colonial bent. Germination and growth were poor because of the adverse spring weather. Others spiked or cross-disced enough times to destroy the mat and make a seed bed. Recovery came from the seed and from the old bent also. There were enough live joints on seemingly dead grass stems to produce new plants.

Matted fairways need periodic renovation or aerification with a disc, a rotary hoe, or a West Point aerifier. These implements will thin the turf and make for deeper root growth. There will be less wind burn injury, and localized dry spots will not occur in summer. Aerification should be done in fall and again in spring when turf is badly matted.

when turf is badly matted.

The actual growing season was about average, too wet in some places and too dry in others. Courses in the wet areas complained about crabgrass and clover on

fairways and scald on greens. Those in dry regions had brown fairways and greens developed localized dry spots. Daytime wilting was troublesome in both places.

Too Much Shallow Rooted Turf

There was altogether too much shallow rooted turf on greens. It is hardly reasonable to suppose that acidity and faulty fertilizer practices were the sole causes. Compaction, overly wet soil throughout the spring and early summer, and an excessively matted turf were more likely reasons. They restrict soil aeration. Roots always stay near the top when the soil below lacks oxygen.

Compaction and other bad soil conditions, such as sand and peat-like layers, can be corrected by forking, by drilling, or by aerifying. Hand forking is slow and tedious, drilling takes about a day for a green, and the aerifier will do all 18 greens in about a day. Hand forking and drilling disfigure the surfaces least. Greens that are especially bad should be aerified spring and fall for several years. Most or all of the cost will be recovered in lessened daytime hand watering in hot weather.

Matted turf on greens started to become bad during the war from infrequent mowing. The condition is aggravated by scalping rollers on the front of greens mowers. The situation is getting worse rather than better. There are altogether too many greens with too much grass on them.

Matted turf is the principal cause of localized dry spots on greens. Turf on the dry areas wilts and dies in hot weather unless soil moisture is restored by forking or other means. Sprinklers will not wet the soil below the top inch. Matted greens should be cross-raked and cut close



This rotary hoe is used for turf renovation on Bermuda and bent grass fairways.