

the varying shades of color of a golf course.

Twenty years ago I stated that muddy golf courses were largely due to insufficient drainage and that the cheapest method in clay soil was mole drainage. Since that time I have modified my views and now consider that drainage will not entirely cure mud and that it is essential to worm muddy fairways.

In California there is not much trouble in this respect, but in Britain and eastern America worming is often essential and by modern methods can be done as cheaply as \$10 an acre. Further investigation and experience has on the whole confirmed my views on fertilizers expressed so many years ago.

Injudicious use of sulphate of ammonia or any other fertilizer, not only may cause irreparable damage to a course but in any case will require some other chemical to neutralize its ill effects.

In this respect the treatment of golf courses is similar to that of human beings. The best physicians are those who only prescribe poisonous drugs after the most careful consideration.

Dr. MacKenzie's article will be continued in an early issue.

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## GRASS TRAVELS FAST

### Green Section's Shipment to South Wales Arrives in Good Condition

**I**N ITS efforts to assist American golf courses, the Green Section of the USGA is in close touch with other turf research bodies throughout the world and exchanges seeds and stolons with them.

Work of this kind is seriously handicapped by difficulties in transporting sods so they will arrive in condition to propagate. Particularly in exchanging specimens with Australian golf course authorities has the Green Section met with problems connected with storage facilities, lack of light, time in shipment and heat.

Earlier this year the Green Section dispatched a sample of velvet bent turf with care and speed that established a record. The sample was rushed from the Green Section's Midwest turf garden to the United States Department of Agriculture Bureau of Plant Quarantine at San Francisco.

There the container was opened and

placed on the roof on the north side of the building where the temperature was approximately that of the vegetable cool room of the SS *Monterey* in which the sod later was shipped to Australia.

The sod was kept at San Francisco a week without showing any indication of extensive new growth, and looked in excellent condition when it was shipped to the Director of the Botanical Garden at Sydney. In accordance with instructions from headquarters of the Matson Steamship line, the chief officer of the *Monterey* saw that the sample received proper care during transportation.

At Sydney, the sod plugs were planted as the Green Section suggested and immediately made healthy growth, according to A. M. G. Woodie, asst. agrostologist of the New South Wales Department of Agriculture. Shipments of Metropolitan and Washington bent previously sent by the Green Section to New South Wales developed sufficiently to supply golf clubs with stolons for their own propagation purposes. Further information from R. J. Withycombe, secretary of the New South Wales Golf Council to the Green Section stated that two of the velvet bent samples received (Kernwood's strain and No. 14,276) look particularly promising.

The New South Wales government and golf officials enthusiastically expressed their pleasure with the manner in which the Green Section supplied the samples in condition for healthy growth.

In reciprocating, the New South Wales Department of Agriculture has sent the USGA Green Section samples of grasses which it is hoped will arrive in condition for propagation and test in the United States. One of these grasses, *digitaria didactyla*, is believed to have great possibilities for fairways and perhaps for greens in the southern part of the United States.

If this grass does work out well in the south this solitary incident of Green Section world-wide activity in behalf of American golf will have justified far more than the expense of Green Section's operations during the entire history of that organization.

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**D**ON'T forget the turf nursery needs weeding periodically even more than the greens do, since you want the turf used in patching to be as healthy and dense as possible.