in color, and the leaf blades were very stiff and upright when compared with the succulent dark green growth made by the plants fertilized consistently with nitrogen. The amount of root systems and rhizomes of the light yellow plants exceeded by far those of the plants which were heavily fertilized with nitrogen.

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Dr. Harrison also illustrated, by microphoto lantern slides, the make-up of various parts of the grass plant showing both healthy and diseased tissue. Slides were also shown which illustrated the effects of mowing on normal grass growth.

* * *

The first outdoor meeting was held early in May at Northbrook Country club. Unfortunately rain interfered with the enjoyment of the day. Greenkeeper Mayor Boyd is to be congratulated on his economical maintenance and the good stand of putting green turf.



Fred Burkhardt Says:

By the time the June issue is off the press, printed copies of the By-Laws, as revised at the New York Annual Meeting, January 22, will be distributed to all members.

At present, preparations are being made for a second printing of the "Directory of Membership and Brief History of the Association."

This little vest-pocket booklet is compiled in such a manner, that it is unquestionably of real value. The facts it contains are complete and up to date, and the names of members are listed alphabetically under their respective states, thus making quick reference possible.

No doubt, it is welcome news to hear that a new edition of the Directory is to be printed, as the first one was made up over a year ago and many changes in addresses, etc., have occurred since that time.

CREEPING BENT TURF WITHSTAND-

Countless greens were ruined in the severe heat waves before July 4th. but Illinois Grass Co.'s True Washington Strain Creeping B nt stood this trying period with little or no damage. Used by hundreds of greenkeepers, golf and country clubs, etc., in solid turf form. Furnished in rolls ready to lay down like a carpet. Guaranteed quality. Available in stolons also. We grow Blue Grass sod, too.

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Canadian News

By J. H. EVANS, Golf Editor Toronto Globe



W. J. SANSOM

"I HAVE never seen the courses in Toronto and throughout the Province, particularly those of the better known clubs, in better condition so early in the year."

Such was the comment made by President W. J. Sansom, as the clubs of Toronto and the Province opened their playing season, which commenced with matches and ceremonies of one description and another on May 14, after being com-

pelled to postpone these openings on account of inclement weather on successive week-ends since April 30.

The all-important factor making for the general improvement of courses in Ontario, has been the installation of watering systems over the entire lay-outs. The installation of these systems, which are now common, came after the unpleasant and costly experiences of the spring, perhaps, the midsummer droughts or the not infrequent, cold dry falls of Ontario.

Golfers who commented on the excellent condition of their courses, receiving the explanation from their greenkeepers, were satisfied with the improvement undertaken by their club after considerable persuasion during the past two years. The condition of putting surface on many courses vindicates the opinion of greenkeepers as to the treatment to eliminate worms from the greens.

"The courses in and about the city of Toronto have never been in better shape for this time of the season. Our one hope is that the condition is maintained throughout the season," said Mr. Sansom. "We have had some rain for the past ten days with little sun and experienced difficulty in cutting fairways. Clubs that realized the wisdom of installing watering systems have noticed the vast improvement in fairway.

"Putting surfaces which have been treated with lead arsenate have come through the past fortnight remarkably free of worm casts. Until greenkeepers turned to



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study of course problems in a proper manner, it was not an uncommon thing to find greens smothered with worm casts daily during wet spring weather. It was impossible to provide a putting surface for golfers as they commenced their season. It is now possible."

GREENKEEPERS SHOULD STUDY FIXTURE CARDS

Mr. Sansom tendered a bit of friendly advice to his associates which did not directly pertain to their daily labors. He thought course superintendents might be well advised to study fixture cards, keep in close touch with club captains and by having their minds, on the minor events in their clubs assist the clubs in stimulating interest in the matches by providing perfect courses for the events. Mr. Sansom felt close cooperation would help the clubs greatly this year.

"Every greenkeeper should keep them before him and do his utmost to have his course in shape for the club matches and also for tournaments. If the greenkeeper gives the golfer the course he expects for his club match which is as important to him as a tournament with championship at stake, the greenkeeper is assisting the club.

"The majority of greenkeepers should find that this is not a difficult task this year. On account of prevailing conditions they will have their same working force as in former seasons and are not confronted with the necessity of breaking in new men and inexperienced labor."

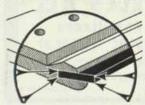
SENDING COALS TO NEWCASTLE

Announcement was made by Course Superintendent Hamm, of the Royal York Golf club, that the United States Government officials in Washington were sending him a supply of velvet bent to place in the Dominion Government's experimental plot on the club's course. Mr. Hamm said that U. S. government officials had expressed the belief that velvet bent might be successfully adapted to Canadian climate. [Editor's Note—Velvet bent is native to Canada and grows there and some of the seed comes from there.]

Velvet bent stolons and seed were sown in the Dominion Government's experimental plot last year. The catch from the stolons was poor which Mr. Hamm is prepared to attribute to the fact that the stolon was chemically treated as it passed through the states as a precaution against the Japanese beetle. The catch from the seed was excellent.

"Experiments conducted in Toronto show us that the

ALL CAN HAVE THEM NOW!



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BUDD . BED . BLADES

Washington and Metropolitan strains of bent are the best for Canadian courses." said Mr. Hamm. "We have planted twelve of the leading strains and come to the conclusion on the results we have obtained. In view of the experience in the United States with velvet bent which seems to last a season and does not stand cutting we will follow the experiment suggested by Washington on velvet bent with considerable interest."

Mr. Hamm stated that the Royal York course possessed sufficient Columbia bent on its own course to cover ten acres. Some use of it would be made, he added. He expects that Dr. Montieth and Kenneth Welton, a former Canadian now on the staff of the United States Department of Agriculture, will visit Toronto early in September to study the results of the experiments being carried on. Mr. Hamm noted that all stolons and seed sown in the Dominion Government's plot had been provided by the United States government.

Minnesota Gossip

By H. E. STODOLA, Secretary



H. E. STODOLA Secretary, Minnesota Association of Golf Course Superintend-

THE May meeting was held at Interlachen club in Minneapolis, where Alex Repin is greenkeeper. Sixteen members were present.

Alex showed us over the course and it certainly is a beautiful layout. It was the scene of the 1930 National Open, one of the most successful ever held. When Repin came to this club two years ago he was assisted by "Charley" Erickson of Minikahda who acted in an advisory capacity. The course had large, fine tees; soft, thick fairways, many trees and several lakes.

However, this club was one of the clubs that was unfortunate enough to get Virginia bent when bent first came out. It is a very hard

grass to control and gets very coarse. In order to keep it as fine as possible the greens were cut closely. There was not enough mat for the ball to bite on so the greens were considered hard. It was a problem for anyone to tackle this grass.

The first thing Alex did was to spike the greens, let them grow longer, and dress with half peat and half sand. This has given him soft greens. I heard a pro say, "you can make a brassie shot stick now."

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Now Poe Annua has come in strong and Virginia is losing out. In time he will have Poa Annua greens. However they are not the most dependable greens so the club has a large nursery of a local bent and in time plan to