cal control measures may not appear to be 100 percent effective in eliminating crabgrass, very often the seeding of the plants was considerably reduced by the treatment. Therefore permanent grasses were favored.

Dr. Musser took the group through research and production of a new grass strain via colored slides. It takes a minimum of 10 to 12 years to develop a new grass variety and begin producing its seed on a commercial scale. Dr. Musser explained the scoring method that is used to rate experimental grasses, and the moisture and temperature records that are kept while the research is going on.

#### **Fertilizers and Chemicals**

Dr. A. H. Bowers of Swift & Co., Chicago, spoke on the present fertilizer outlook. He disclosed that sulfur shortages have cut down on the amounts of superphosphate and triple superphosphate that can be manufactured.

Joe Marzak of Mallinckrodt Chemical Co., said that the chemical outlook is clouded by the supply of basic raw materials. Fungicides containing cadmium, mercury and copper were all restricted during the last war and may be this time. Currently they are available. Marzak remarked that mercury comes mostly from Spain. A 76 pound flask of mercury that formerly cost \$85 now costs \$224, so the price has risen on fungicides containing mercury. Cadmium and copper deposits both are located in the United States and South America. Cadmium is somewhat restricted by the U.S. government, but it still can be used by fungicide manufacturers.

Two films, one on recognizing turf diseases and the other made by the time lapse photography method on the budding of trees, completed the 1951 turf conference held in Purdue University's Memorial Union.

#### Central Pa. Greenkeepers Set Season's Program

Harry Fonder, Northfolk CC, Johnstown, Pa., has been elected pres., Central



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May, 1951

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Pennsylvania Greenkeepers' Assn. George Craig, Ridgeway CC, Petrolia, Pa., is vp and Herbert Heinlein, Old Fort CC, In-diana, Pa., is sec. treas. The association's schedule of meetings and featured subjects: April 23, Blairmont CC, Hollidaysburg, Fertilization; May 28, Sunnehanna CC. Johnstown. Aerification and drainage: June 25. Clearfield CC. Insect Control: July 23, Park Hills GC, Duncansville, New CC, Petrolia, Ladies' Day; Sept. 24, Som-merset CC, Weed control; Oct. 19, Ched-romon CC, Cherry Tree, Pa., Field Day. Specialists to speak on the scheduled subjects are assigned by Pa. State College.

Hope Becomes 'Honorary Dad'



"Ole Poppa Crosby will have a laugh on me when quipped Bob Hope as Joe Robb, tournament director, sold him a Hospitality Bond in support of the National Jaycee Junior Golf Championship to be held in Durham, N. C., August 13-18. Hope, a golf enthusiast as well as a comedian. who purchased the bond prior to an appearance at local merchants' dinner, was high in his praise of the local Jaycee organization for their spon-sorship of the youth's tournament. Currently the Jaycees are selling bonds among Durham citizens at \$25 per share and each purchaser is entitled to become an "out of town Dad" for one of the visiting junior golfers. Jaycees Ray Tilley (left) and Southgate Jones, President, (right), look on approvingly as Robb makes the sale.

#### Says Pros Don't Know Their **Cost Percentages**

One of the most successful pro businessmen in a letter to GOLFDOM says that too many professionals are fooling themselves by not having accurate figures on the costs and percentages of doing business.

This man observes: "A pro overstocks and to finance until he can convert his surplus merchandise into cash borrows money at 6%. Insurance on his stock is 6% except through the PGA deal with Jerry company. Bowes' Merchandise shipped from the factory means another 2% or 3% for the Pacific Coast pros. That adds up to 14%. Then the pro has his help and many other costs of doing business some of which may not pass the income tax reports without arguments, nevertheless are expenses that the pro has to pay just for being in the business, and he has to pay them before he can claim any money for his own.

"Our gross profit isn't 40% which would be a very narrow margin for a specialty shop business with a limited market, and the pro market is sharply limited by the number of players his course will accommodate or the membership of his club. The steady turn-over of balls with a  $33\frac{1}{3}\%$  gross profit is the biggest item in pros' sales volume. If, as some suspect, the players' stock-piling of balls, when there was fear of a shortage, will cut ball sales then there are going to be headaches.

"The pro had better do an accurate and thorough job of figuring his percentages. Otherwise he may find himself trading dollars and being in business for what some people may call fun, but it won't be that for the pro."

#### Watrous Clinic Highlights Michigan PGA Meet

Al Watrous, Oakland Hills CC, (Detroit dist.) professional, Michigan PGA tournament committee chairman and host for the 1951 USGA National Open was the star attraction of the annual spring meeting of the Michigan Section held April 16 and 17. Al, who gave the Seniors a lesson at Dunedin in winning that annual event, was the popular choice for conducting a most successful clinic session.

Hillerich and Bradsby's Bill Kaiser, following sessions with the New England PGA and Indiana PGA groups, made a full report on the business outlook for the professional in 1951 and Al Hyatt of A. G. Spalding addressed the group following the morning business session.

Rex McMorris of the National Golf Foundation at the annual dinner reported on the activities and promotion being done for school golf programs and participated with James D. Standish, USGA pres., in a question and answer session on the merits of Junior golf and the various national junior tournament events.

Reg Higgins gave an interesting commentary on the manufacture of golf balls by the U. S. Rubber Co. using three dimensional slides to give the boys a close-up of





each step in the manufacturing process.

Men of the press also had their innings at the two-day meeting with representatives of the Detroit News, The Detroit Free Press and the United Press addressing a session with full attendance in spite of the competitive attraction of the opening day of the baseball season.

Other features of the meeting included: Discussion of the USGA Handicapping System led by Ray Maguire, Rules discussion by Warren Orlick, a Sales Educational film with introductory remarks by Joe Devanney and reports by PGA secretary Horton Smith and other national delegates.

A specially designed Birthday card was signed by all members present and forwarded to Leo Diegel.

The section voted against permitting Class H members to participate in the Sectional Championship. Non-PGA members are permitted to play in Pro-Am and other events after they are passed on by the tournament committee.

The following candidates were submitted for office in the national PGA for 1952: Horton Smith for president, Harry Moffet, Treasurer and Harold Sargent, Secretary.

#### PLANNING A CAREER

*(Continued from page 41)* The first question he should put to himself is, "How well does my temperament

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flat ... easy to install ... stands up under cleats ... prevents accidents. Ideal for golf clubs, resorts, hotels. Limited stock, so order now under absolute money-back guarantee of satisfaction.

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measure up to the requirements?" If, as a result of study and comparison between his own make-up and those of the individual champions of the present and more recent past, the decision be that he does or can qualify by temperament, then the next question and the one beyond could well be, "Are the mechanics of my golf swing sound enough to stand up under stress of tournament play and, if not, what should be done to make them so?"

In 1921 I saw Bob Jones play golf for the first time. This was at St. Andrews, Scotland. He competed there in the British Open championship and, being the idealist that he surely was, he, under disappointment of something that went a bit wrong with a couple of shots, decided against returning his score card.

His form, together with the serious earnestness of his make-up, impressed me so greatly I there and then decided I would back him in every championship in which he subsequently started. Well, I lost money for a couple of years, but at no time was my confidence shaken in Bob's ability to win and so, as you may well know, my continued backing of him proved to be a good investment.

#### Jones Questioned His Swing

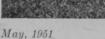
In telling you this, there is something other than the betting angle in mind, which, incidentally, I could have told you pretty



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much the same sort of thing about, in the backing of Walter Hagen and Gene Sarazen, for it was this same year of 1921 when I first saw these great players too. After getting back from Scotland to the States. the occasion developed for me to have what became a serious talk with Bob about his golf game. This was at the Columbus CC where he, Bob Macdonald, Joe Kirkwood and Jock Hutchison (Jock had won the 1921 British Open) were to play an ex-hibition match one Saturday afternoon. About 11 o'clock of that morning Bob, while we were sort of sunning ourselves in a comfortable spot near the clubhouse, proceeded to tell me how he was going to change his swing. Quite apart from the friendship that had normally sprung up between us, which in itself would have brought about an attentive listening, my earlier made intention to bet on him added to my keenness to take in the description he gave me of the proposed change. As he went along, I formed the opinion the change he contemplated would not be productive of as sound a swing as he already had, and I said that, being older and more experienced, I would, if he didn't mind, like to offer my viewpoint on the mechanics of the one and the other procedure, following which he could afterwards decide for himself the soundest method. I do not recall all that he said, after my explanation, but, it remains in my mind he started off by saying, "I guess you are right," and finished up with the statement to the effect he would leave his swing alone.

Now, having seen other young men, in their eagerness to improve, spoil a good swing, and fearing Bob might get off on some other experimentation, it then occurred to me to take up another and highly important aspect of changing one's form. To bring this vividly to his attention, I said, "How old are you, Bob?" He said 21. "How long have you played?", I inquired. He replied, "Oh, I don't know about that except I've been hitting a ball around since I was four years old." "Well," said I, "let's, as a base, just suppose you have averaged 50 strokes a day for 17 years - what would that add up to?" Quick calculation was made, although the total figure of 300,000 then arrived at was not quite right, using it, I said to him, "Now, suppose the mechanics of your contemplated change had been better than your present method, what then? Isn't it reasonable to suppose you would have to repeat the performance of it at least 300,000 times or more for your muscles to acquire the habit so as to dominate the use of the new way over your present method?" He agreed this was a reasonable assumption.





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new low price of only \$8.50 per 10 lb. can. Also in liquid form (1 cup to 8 qts. of water) — \$3 per gal; 4 gals. to a case. For Driving Ranges — liquid Ball White in 55 gal. drums at \$2.50 a gal.

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Not wanting anything to interfere with my chances of making a little money on Bob, I next decided to keep track of whether he was indulging in any new theories and, in this regard, arranged with one of the press service representatives to, at some later time, ask Bob Jones the question of what he particularly had in mind when hitting a ball and was delighted when an AP message later on reached me

in Australia that went substantially like this: "Replying to a question put to him regarding what he had in mind when making a golf shot, Bobby Jones simply said, "Well, I guess I just try to hit the ball"."

In my "Half Century of Golf" material, I, of course, elaborate upon this experience — not merely to show how far one will go in the selfish interest of making a little money, but more particularly to bring out the point that, at one time or another, every young golfer comes to the crossroads of his own game and I try to bring out how important it is that he make the right decisions. Never attempt any change without having some high speed moving pictures taken and, where any doubt develops, to take up the subject with a professional advisor. We all know that technology has contributed greatly to the production of ma-terial goods and, as a result, society is provided with its everyday needs in greater quantity and variety, with an ever decreas-ing number of man-hours required for the production of the goods. Along with this modern method of making more and more in less time, there automatically develops more time for leisure and recreation. In consequence, as I see it, there has been such a golden opportunity for the golf industry and, particularly, the golf profession to capitalize on the shortened work week. Of course, I am thinking more of normal rather than the abnormal times brought on by the war-preparedness program our nation is now engaged in, but, even with things as they are, the chances of expansion in the golf market have never been more advantageous.

One of the several ways in which the efforts of the assistant professionals can be directed to capitalize on the existing situation and at the same time provide themselves with opportunities of gaining valuable experience is within the ever-increasing field of industrial recreation.

As a practical example of what is being done in this field, I would have you know that in Winnipeg, Canada, one of the leading professionals in that locality is giving





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"I have a lot of faith in your product." I. C. Schorr Bluefield Country Club Bluefield, West Va. "I have used Liqua-Vita for the past two summers and find it everything you say it is. "I recommend it very highly, especially for use during hot, humid weather. I have been very pleased with results."

T. A. Wright Westwood Country Club New Castle, Indiana

### Liqua-Vita — Blitz 48 Chlordane — Blitz 10 PMA

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group instruction to office employees—one group is of a large insurance company. He does this during the winter months and, from the instruction angle, as well as from the equipment supplied to the pupils, it nets him a direct and satisfactory monetary return. What it particularly does, from the broader standpoint, however, is that it brings golf to the attention of people who otherwise might never consider taking up the game and there's little need for me to add that once started few ever give it up.

Particular reference was made of what is being done in Canada because there the outdoor golfing season is even shorter than in this vicinity, but what applies there obtains here and brings out in some relief one of the major problems of the assistant golf professional, which is that, being rarely able to make enough income in the regular season to maintain his yearly outgo, he has to seek supplementary employment and such is not always an easy thing to get. This matter of Industrial Golf and the assistant professionals' association with it is but one part of the over-all purpose of the golf profession, and I will tell you about one other aspect of the over-all picture.

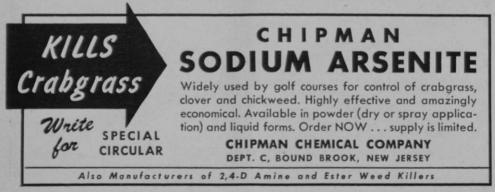
This has to do with what might, at first, appear to be beyond the ordinary line of duty which the professional owes to his club. To describe the point, an actual experience will be related. Before golf got to be a big business and become organized as such with the formation of the more recent golf or country club set-up, the more common practice was for a small group to get together to play the game. They would take themselves off to some place where land was available and, more often than otherwise, they would rent the land on which the links or course would be laid out.

Such a condition prevailed at Bondi, Australia. There litigation developed about the ownership of the piece of land on which the second green and the approach to it were located and the court decision resulted in the land being divided. This, in turn, resulted in a subdivision fence being erected so that it ran right through the green and diagonally cut off the approach.

The club committee and members were much exercised by the inconveniences and sought relief with plans to re-design the course — the taking in of another piece of rented property was part of the project.

The club professional took the view that too much uncertainty applied to the use of rented property and made the recommendation the club purchase a tract of land that, having been condemned for building purposes, would insure perpetuity of use for golf and which could be successfully used for the making of several courses.

This club, I might mention, was the



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Royal Sydney GC, and very soon, from within its membership, there was formed the Rose Bay Land Company. This organization bought the tract of recommended property which, incidentally, consisted of 365 acres. That was in 1903 and today that club, still the Royal Sydney GC, with over 3000 members, is the second largest by membership of all golf or country clubs in the world today. In the knowledge it is located within a 12 minute drive from the center of the City of Sydney, with a population of approximately a million and a half, you will, I feel sure, read out of this related experience how very important it is for the club professional to ever be on the alert to the broader aspects of golf management.

#### MAINTENANCE OF TEES

(Continued from page 34)

should supply 10 pounds actual Chlordane per acre to provide complete protection against Japanese, Asiatic, and the annual June beetle grub. Double this quantity should be used for the two and



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three-year life cycle June beetle grub because they live at deeper levels in the soil. Chlordane is effective for three to five years.

#### **Treatment for Weeds**

Any broad-leaf weeds in the rough should be killed by spraying with 2,4-D during May or early June. When there is chickweed adjacent to the fairway it should be killed earlier in the spring, or late next fall. Sodium arsenite is the best herbicide for it. The rate for chickweed or clover need not exceed 1 to 2 pounds per acre. Three or four sprayings spaced seven to ten days apart may be necessary for complete kill. Crab grass should be killed in July, August, and even in early September. Sodium arsenite is the cheapest herbicide, although potassium cyanate is very effective for fall treatments. Where discoloration is not objectionable, the rate for sodium arsenite can be 5 to 7 pounds per acre, otherwise the amount should not exceed 2 pounds. A wetting agent should be added, especially at the lower rate. The lower quantity produces good results. Three sprayings, spaced two weeks apart are desirable.

Representative soil samples should be tested for reaction. Moderate to strongly acid roughs should receive one to one-anda-half tons per acre of finely ground lime-

stone. Where available phosphorous is low, superphosphate should be applied once at 400 to 500 pounds per acre. The effects will last from three to five years, at least. The use of a little nitrogen is desirable also, say 200 pounds per acre of

TABLES

WRITE FOR CATALOG NO. 225



Sheep fescue along the edge of a trap beside a green at Philadelphia CC.

ammonium nitrate. Where organics are substituted, the rate should be about 750 pounds per acre.

Where there is no grass, reseeding at low rates is justified. On hard compact soils a seed bed should be prepared by

