squad to 12 men. The first six are the varsity and the next six form the junior varsity. Some hot team matches develop between the two teams. All this, of course, under the watchful eyes of Coach Eddie.

Eddie's home club extends playing courtesies and other assistance to the golf teams—plus a heap of moral support. All practice and tune-up games are played right in Eddie's front yard and he is continually checking.

Strong on Basic Training

Eddie, like a good football coach, believes in fundamentals. His advice to fellow-coaches is to drill, drill and drill on fundamentals. The proper grip, swing and follow-through are fundamentals without which no golfer can develop a golf swing that will stand up in stiff competition. Also you can take a good golf swing with you when you leave college!

Eddie spends plenty of time on and around the putting green with his boys. He stresses perfection in the shots from 150 yards on in. Most young golfers can hit them a mile. Their full swings are naturally well developed for they love to pound the ball. Eddie shows them the fine art of scrambling successfully when they need to. He spends lots of time on the putting green. Matches are won and lost around the greens, as Eddie tells his boys, and that is the place to deliver the coup de grace in any golf match.

Team play, as such, isn't the main characteristic of a golf team. You can't throw a good down-field block to ease the way of a teammate in this game of greens and fairways—but team spirit is important, Eddie knows. He teaches his boys to practice and play together. They pull for



San Jose CC officers and members honor the winning college team with appropriate party and celebration. (L to R) Professional Eddie Duino; T. J. McWhorter, pres.; champion Bobby Harris; captain Ross Smith and Roy P. Emerson, master of ceremonies. each other and esprit de corps is a great factor in the success Eddie has enjoyed at San Jose State.

During that final match with Ed Hopkins, of Texas, the San Jose team trailed Bobby Harris all the way. They puffed and huffed during that final 18 holes when



Members of San Jose team proudly display trophies won in the NCAA championship. Standing (L to R) Ross Smith, captain; Eddie Duino, coach; Bobby Harris, champion; Morgan Fottrell, Jr., medalist; and Howard Veruh. Kneeling (L to R) Eli Bariteau, Jr. and Warren McCarthy.

Eddie—six up at lunch and a shoo-in had to stand off a determined rally by Hopkins that saw the Texan square the match on 17. Eddie, with the moral support of his team, had enough golf left to play perfect golf on the 18th and win.

But Eddie isn't only interested in turning out championship teams. As president of his PGA section he has been preaching golf as a major school and college sport for many years. He would like to see the day come when school officials will have to provide golf facilities in the same manner they provide other athletic facilities. That day can't come too soon for Eddie, for he believes golf to be the greatest sport on any college campus. The weak, the strong, the fat and the thin can play golf in school and after they leave school and that isn't true of football, baseball or any of the sports which only attract a few of the physically strong.

Eddie is proud of his team's "grand slam" and doesn't think it will happen very soon again. He says competition is getting too strong in the college ranks for any school to make a run-away event of the NCAA.

Three members of his 1948 team plan to make golf a career job. They are Bobby Harris, Morgan Fottrell and Warren McCurty and with Eddie Duino as an example of a successful American-style golf professional you can't blame them much.

STRAIGHT DOWN THE MIDDLE BY A.G.S.

HERE'S NEWS about the 1949 Spalding Top-Flite* Woods and Irons that's due to make golf-club history.

Essentially, the story is that the new 1949 Spalding clubs you'll be selling are practically "custom-built" for every type of player. YOU—as the pro—will "prescribe" the club best suited to each.



HERE'S how it works: *Now*, when you recommend a suitable weight for a particular player, you can also give him a shaft appropriate to his physical ability. Thus, the club as a whole delivers the most possible power and "swing weight" in relation to its total weight.



Reg. U. S. Pat. Off.

FOR instance, less powerful players (particularly women and older men) will get more distance from the "Swing Shaft" which gives more "feel" more flexibility—more "response" to a swing that is relatively less strong.

For the vast majority of players, you will find the Spalding Clubs with the "Standard Shaft" most suitable. And for the top player, amateur or pro, there is an extra-strong shaft to turn their hitting power into maximum distance.

This new Spalding idea makes you the "doctor" when it comes to selling clubs. Players will want *your* personal service in deciding which club is best for them. Spalding can keep you supplied as needed.



TOP-FLITE Irons will again have the tried-and-proved "Graduated Offset" and short hosel. Top-Flite Woods will feature the Deep-Faced Driver and specially designed fairway clubs. Yes, sir, Spalding Top-Flite is "really the line for FORTY-NINE!"



Clean Course of Leaves to Extend Play and Profits

By REX McMORRIS

"Imagine, driving down the middle of the fairway and losing not one but three balls in one afternoon. It's bad enough to lose one when it goes into the woods, but to have to walk off and leave three when you know they are lying out there on the fairway covered up by those leaves is too much," ranted Jim Williamson as he gave vent to his feelings in the locker room of one of Chicago district's golf clubs following a tournament event and outing of the Chicago Junior Association of Commerce one mid-September afternoon. And he was soon joined by others who had suffered the same experience.

The occasion was one of those annual affairs where a hundred to two-hundred of the boys take the afternoon and evening off to disport themselves as can only be done at a stag affair. Unfortunately the above incident and similar experiences by others had dampened the enthusiasm of some of the group to the extent they were all for moving the following year's outing to another club or holding it earlier in the year. Holding it earlier this particular year had been out of the question since the course was well patronized during the playing season and the financial burden of reserving the entire club and its facilities for the one group at an earlier date had been voted down.

Innumerable prizes were given away for the golf event and some of the boys felt they had been cheated out of possible winnings. Extra strokes added to their scores because of lost balls which they felt was through no fault of their own left several of them disgruntled to put it mildly.

There are those who would say it was too late in the season to stage a golf tournament if the fairways were covered with leaves to such an extent even though it was one of those balmy fall days as can only be experienced in September's bright weather—an ideal day for golf. One had only to travel a few miles to play on one or more courses having little or no leaf maintenance problems that were still able to maintain a semblance of normal play. The point is the headache the boys were



Greenkeepers and park officials watch demonstration of the "Speedy" Power-Vac Rakeland arranged by the Deephouse Equip. Co., Berlin, Conn., on park area in Bristol, Conn. during fall of 1947. Photo shows turf area free of leaves after machine has picked up, pulverized and disposed of particles after passing over area of heavy accumulation as shown at right.



The Power-Bilt sales policy does not stop with simply making fine clubs. That's just the first step. Four important magazines (with more than four million monthly readers) tell your prospects how good Power-Bilts are . . . and each ad includes this important message: "Sold Only By Professional Golfers."

That's the rest of the Power-Bilt policy ... and the complete set-up makes Power-Bilt a mighty popular line. It keeps the PRO always at the front of Power-Bilt PRO motion.



Sold only by Professionals

HILLERICH & BRADSBY CO. LOUISVILLE, KENTUCKY



1947 Field demonstration of the 45" Parker Fairway Sweeper shows bales of leaves which have been swept up by one-man operation at the rate of 500 bushels per hour. The sweeper collects the leaves in bales holding approximately 25 bushels which are easily transferred by truck to compost pile or disposal area.

confronted with presents rather forcefully a problem with which club owners, managers and professionals should give due consideration, namely, adequate course maintenance for proper playing conditions.

Has it been taken for granted by too many club officials especially in the northern half of the country that the golf playing season is over when the leaves begin to fall or does the fault lie in the lack of effort put forth in extending the playing season? Elsewhere in this issue considerable space is devoted to ways and means of lengthening the season of play and maintaining a profitable business operation for both club and pro shop for a longer period. If this is to be, some thought must be given to the effect Jack Frost has on course playing conditions and less taken for granted. Too much expended effort in cultivating members and patrons to the advantages of an extended playing season can well go for naught without open fairways and wellkept greens.

Does play fall off automatically because it is a certain time of year, because there is a certain feel in the air, because other interests interfere? Or, is



The Parker 3-Gang Trailer Sweeper used in this Sacramento, Calif. demonstration sweeps a 100 inch swath and collects a capacity load of 36 bu. about every 12 to 15 minutes or 150 to 200 bushels per hour. it because falling leaves have signalled the approach of the end of another season? Can it be that the leaf hazard creates too great a handicap for the average golfer to overcome? Have too many experienced the difficulty Jim Williamson had or are there other intangible factors that actually cut down the interest and enthusiasm for the game which with the proper incentive and a little education might be overcome. There is evidence that leaves may be a greater controlling factor in cutting off play in the early fall months than many will care to admit. Many more rounds of golf might otherwise have been played if someone hadn't said, "Aw, there are too many leaves on the course."

Ideal weather prevailed until late in the fall of 1947 and courses on which greens were swept regularly and fairways were kept open enough golf was played to offset the late spring when rains kept golfers off courses for as much as sixty days of ordinarily good golf weather. One prime example stands out-a north side club in one of Chicago's suburban cities had a full course of play on a late October weekend day even though a bigtime football game was underway not too far distant and there were several fans on the course that day anxious to keep up with the football scores but more anxious to take advantage of the open fairways.

There are many instances which attest to the fact that golf play can be maintained for a longer period than is presently experienced by the majority of courses and in the main one will find the amount of play on those courses is related directly to the tidy playing condition in which they are kept. Pros, owners and managers genuinely interested in extending the **paying** season will be conscientiously concerned about extending the **playing** season. If leaves are a headache to those who play, then they are just as much a headache to those who want the pay and it is up to those who want the pay to



PENNSYLVANIA FAIRWAY GANG-3, 5, or 7, 30-inch units -with pneumatic tires optional SUPER-ROLLER GREENS MOWER-

US PAT. 0

8 blades-18-inch swath -geared for high speed

For the Finest of FAIRWAYS AND GREENS

Other Pennsylvania Quality Mowers PENNSYLVANIA JR.

GREAT AMERICAN METEOR

Some of the finest courses in the country have been trimmed with PENNSYLVANIA mowers for years. For Pennsylvania has concentrated on making dependable grass cutters since 1877. Typical of Pennsylvania quality mowers are those shown above - the FAIRWAY GANG, with unbreakable malleable iron construction and the aluminum and steel SUPER-ROLLER Greens mower. "PENNSYLVANIA QUALITY" means good grass cutting, easy operation, long life and low maintenance cost.

PENNSYLVANIA LAWNMOWER DIVISION ____

AMERICAN CHAIN & CABLE . Bridgeport, Conn. . Camden, N. J.

September, 1948

CC 0

make it pleasant for those who want to play. This may be a play on words but there is a lot more truth in it than there is poetry.

Course maintenance equipment manufacturers have been experimenting and doing considerable research for a number of years on machinery which will efficiently clean lawns, farways and greens of leaves, twigs and loose particles. As a result of these experiments and the



Leaves disappear at the rate of 10 to 15 acres per day on this Minneapolis turf area as the 48" Ronnco Leafmill picks up leaves, twigs and loose particles. Rotating blades chop and crush collection into fine particles and pass them out through perforated screen to settle with little or no trace on the grass.

research which has gone into the work there are on the market today several different types of equipment which will enable the greenkeeper to do a better, quicker job of keeping greens clean and fairways open. If leaves have been a headache to golfers it is a forgone conclusion they have been a greater one to those men who have been wrestling with the problem of making a piece of equipment that will get the leaves off the ground and dispose of them in such a way there will be little or no trace left.

Leaves long have been a major problem to park officials and cemetery caretakers as well as golf course superintendents and the matter of solving their leaf disposal problems has had considerable bearing on the recent developments which have been made. Not all areas, of course, are maintained alike. It is for that reason, coupled with the ingenuity of the manufacturers, that equipment has been made to dispose of leaves in about any way desired.

There are single unit power sweepers available for small areas and gang trailer sweepers with tractor attachment to cover eight to nine foot swaths for larger areas. This type of sweeper is equipped with a large hopper for collecting leaves and debris and by efficient handling can clean up at the rate of 150 to 200 bushels per hour.

A newer development is a sweeper designed solely for fairway use. The unit is built to sweep up and collect into bales of 25 bushels as much as 500 bushels per hour. This equipment permits easy transfer of bales by truck so leaves may be made into compost or utilized as needed later.

A different type unit has been perfected that makes it possible for one operator to clear from 10 to 15 acres per day. A tractor unit furnishes the power and propels the unit along the course at a speed of two to four miles per hour. Leaves are picked up and passed upward into rotating blades which serve as a crushing mill and passes the fine particles out again through a perforated drum to settle into the grass.

Another unit, trailer mounted with tractor hitch, utilizes the vacuum principle to suck the leaves up into a hammermill after they have been loosened by a rotary rake. Leaves are pulverized and blown out through a protective screen onto the ground where they settle into the grass as a soil conditioner.

This is but a brief review of the equipment available that can be used in fall course maintenance work and make possible an unhindered extended playing season. Operating heads of clubs ever alert to ways of increasing the potential of golf play should not overlook the advantages to be gained by the study and practical application of modern equipment. If the weather doesn't interfere and equipment will do it, make a longer playing season a longer **paying** season.

Acknowledgement of Error

The July issue of Golfdom carried the announcement that the USGA had awarded the 1950 National Open to the Merion Cricket Club, Ardmore, Pa. (Phila. dist.). The editors of Golfdom acknowledge the mistake in identity of the club brought to our attention by Mr. Paul L. Lewis, Golf Chairman, which should have read, Merion Golf Club. The golf courses which were a part of the Merion Cricket Club before 1942 were taken over by a new club — the Merion Golf Club — on March 1, 1942.

The Merion Golf Club maintains both the championship east and west course which will entertain the Women's Amateur Championship in 1949 and the National Open in 1950.



o Swing 'Em Is To Want 'Em

These Handsome, Precision-Made BRISTOL CLUBS Embody Many New And Noteworthy Features Of Perfection

* Watch for impressive advertisements like that on this page which now regularly feature the precisionbuilt superiority of BRISTOL'S fine new golf clubs before the 26,000,000 readers of America's leading pictorial weekly, LIFE. **BRISTOL**... first to produce and popularize the steel golf club shaft . . . again this season steps out ahead with woods and irons that set new standards in the art of fine club-making. Wherever these BRISTOL Beauties are on display they sell fast because of these outstanding virtues:

1. New "feather-fine" balance in each club and in the entire set that puts an extra "feel" of confidence in the swing.

2. New "POWER BLADE" heads on irons, a marked BRISTOL improvement in head design for crisper, better-controlled shots.

3. A new mathematical exactness in club "loft" and "lie" so that each club in the set produces exactly the right type of shot for which it is intended when the ball is hit properly.

4. New "HYDRO-LOCK" process of attaching shafts to heads, eliminating all rivets and locking heads to shafts as securely as train wheels are "locked" to their axles.

Know these and the many other BRISTOL precisionmanufactured advancements for yourself and you'll see quickly why the popularity of these "new-day" clubs is mounting so rapidly everywhere with golfers who demand the best.



Hit Better Shots with the NEW

BALLS, BAGS and Also Makers of BRISTOL FISHING ROD

GOLF CLUBS



Ray Rolf demonstrates his sub-irrigator. Small stream of water flowing through welding tip brazed on end of tube accounts for ease of inserting tube in most compact soil generally found beneath localized dry spots.

ROLF SUB-IRRIGATOR FOR DRY SPOTS

O. J. NOER

Localized dry spots are becoming common on greens throughout the country, especially on some of the creeping bent turf. Nobody seems to know their exact cause. Sometimes it is heavily matted turf, but faulty watering practices, soil compaction, excessive soil acidity, and tree roots in the green are contributing factors.

Heavily matted turf is the most com-

mon cause. Roofs made of grass are common on buildings in the agricultural sections of Europe and elsewhere. They shed water perfectly and keep the building and its contents dry. Matted turf on a putting green does the same thing. Applied water cannot pass freely through the heavy blanket of grass and wet the soil below. Evaporation and transpiration by the grass leaves soon make the soil dry and hard. Heavily contoured greens are difficult to water with rotary sprinklers. Either the high spots are too dry, or the low ones too wet. The necessity for keeping plenty of moisture in banks and slopes around the greens is often over-



Sub-irrigator wets soil completely to desired depth in matter of minutes. Photo at right shows original beer pump tube at right, tube with hose coupling attached in center and sub-irrigator with hose coupling and welding tip brazed on end at left.