

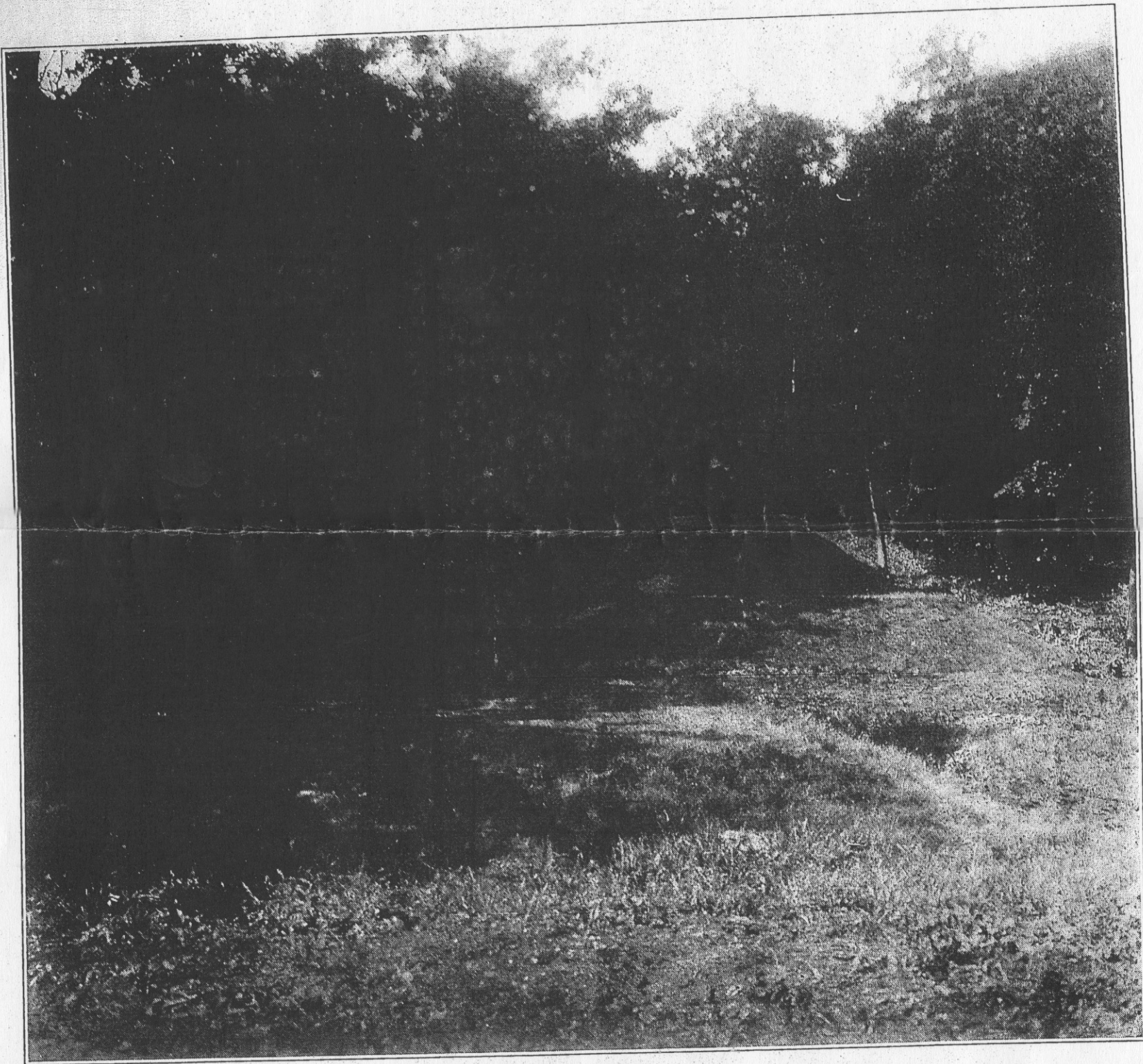
THE
YALE ALUMNI WEEKLY

VOLUME XXXV, No. 1

NEW HAVEN, CONN., AUGUST 28, 1925

\$4.00 A YEAR

Summer Number

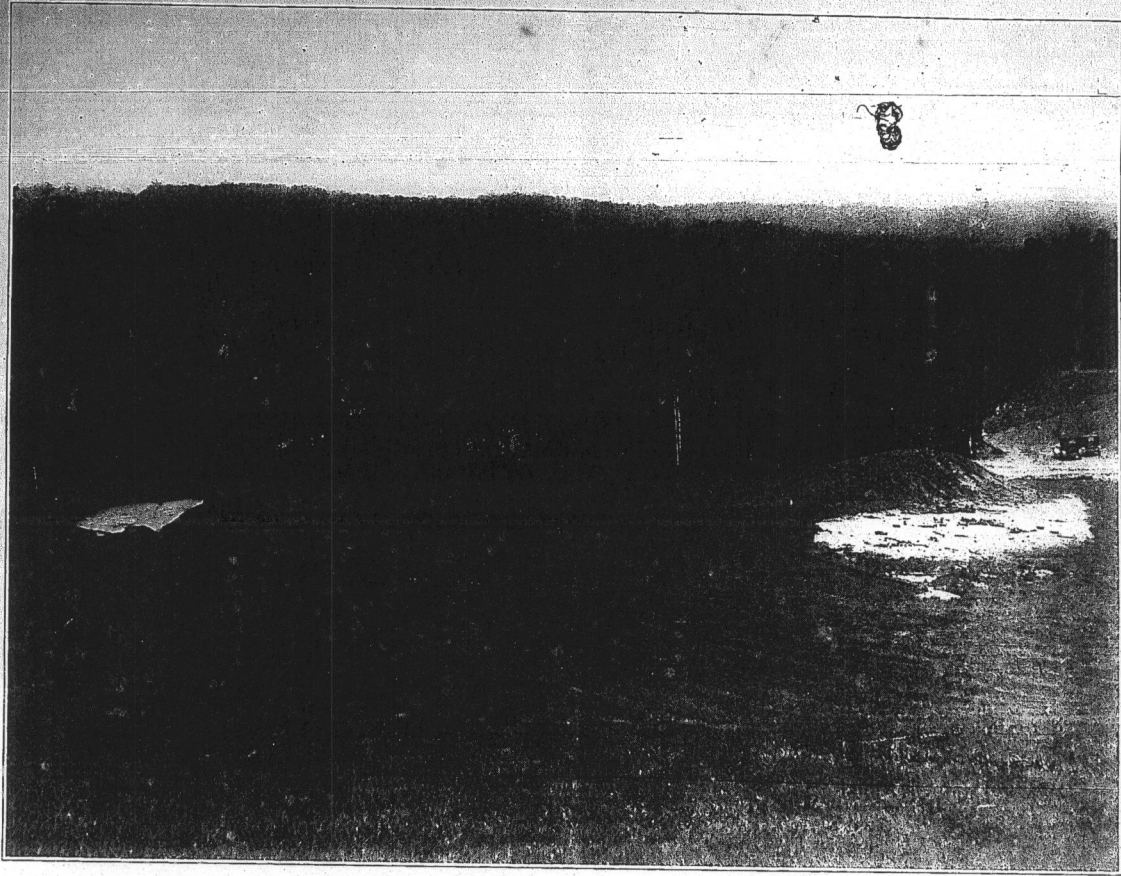


AT THE FIFTEENTH HOLE

This picture shows the three tees at the fifteenth hole, the tee in the background being for the long, or championship, course.

The New Yale Golf Course

AMONG the many benefactions of the University in recent years which have shown not only great generosity but also unusual imagination and vision, is the new Yale Golf Course in the magnificent setting of the Ray Tompkins Memorial. As this project is nearing completion, it is felt that the detailed description of the course which appears in subsequent pages of this issue will be of more than ordinary interest to readers of the ALUMNI WEEKLY.



THE HOME GREEN

A view of the home green from a hill on the fairway. Grist Pond may be seen through the trees, and beyond is number seven fairway.

The New Yale Golf Course

Eighteen-Hole Course in Ideal Surroundings on Ray Tompkins Memorial Now Nearing Completion

ON the magnificent 700-acre tract of hilly woodland west of the Bowl and Yale Armory grounds where, up to a few years ago, one might have seen antlered elk roaming at large, the new Yale Golf Course, occupying in the neighborhood of 120 acres of the most suitable portion of this territory, is being pushed as rapidly as possible to completion. *Carte blanche* was given to Seth J. Raynor, the eminent golf architect who designed the course, to utilize whatever part of the whole tract he saw fit, and as a result, with this unusual degree of latitude permitted, the new course will rank among the best in this country and in the world.

The opportunity for this fine addition to the University's physical equipment was given by Mrs. Tompkins, widow of Ray Tompkins, '84, captain of the football team in 1883. The entire property, formerly known as the Greist estate, was given to the University for use by the Athletic Association, and under the name of The Ray Tompkins Memorial its whole acreage is to be eventually developed into a splendid playground for Yale students and alumni. Present plans include the use of sections of the Memorial other than the golf course for such sports as tobogganing, skiing, skating, and tramping. Visions of further opportunities for the use of this land open up in vivid fashion to the eye of even the casual observer as he walks up hill and down dale, past clear natural ponds and

along ridges of high ground that offer views of exceptional beauty. What a fascinating course, for example, could be laid out for the cross-country runner! And he would not lack rough going, with tests for wind and sinew on steep slopes.

But to the golf course. The building of it has been under the supervision of Charles B. Macdonald, and it has reached an advanced stage, the fairways having been cleared, the greens being all in good, some in perfect, condition, and the tees for all the long, the regular, and the short course holes being ready to play from. We drove in from the Whalley Avenue side of the Memorial, over a winding, stony and sandy, mostly uphill, dirt road, through wooded country. The roads to the course will naturally be among the last features completed, since it would be foolish to build good roads for the carting and trucking of the golf-course builders to tear to pieces. We passed the offices of the golf course and soon arrived at a good parking-space near the beginning of the course. We had no diagram to go by, but knowing which was the first hole, there was no difficulty in figuring out what the path of the players will be. At no point is it possible for any one of ordinary intelligence to play for the wrong green, for each fairway is plainly set off from its fellows, either by strips of woodland or by other natural barriers.

The first thing that is apparent to any one walking the new

Yale course, whether he be a layman, a neophyte, a devotee, or a high priest of golf, is its striking natural beauty. The tract is at a good elevation above the city, and is hilly and wooded in character. The soil runs the gamut of sand, red sandstone, the rich loam where woods have been removed, swamp land, and trap rock. The woods display a variety of deciduous trees, with here and there a long strip, or a sizable clump, of gleaming white birches, most of them saplings. Greist Pond, over a corner of which the first drive must carry, and over the northwestern end of which there is a 163-yard carry for the ninth hole, is set like a dark-blue jewel in a dent in the hills. At one point of vantage Long Island Sound may be seen, and on a clear day, Long Island itself. On another eminence one may discern East Rock and West Rock, at an angle that makes them look deceptively near together. One of the ponds, which is shaped in a rough semblance of an hour glass, has at present a little rustic bridge across the narrow part. Whether this is to be permanent or not is unknown to the writer, but it suggested many other touches in keeping with the character of the scenery which will be possible to the magic wand of the authorities in charge. It might be mentioned here perhaps as well as anywhere else that the committee in charge of the building of the course is made up of the following men: George T. Adee, '95, Chairman; Prof. George H. Nettleton, '96; Mortimer N. Buckner, '95; George Parmly Day, '97; John T. Blossom, '14; Harold F. Woodcock; J. Frederic Byers, '04; Robert A. Gardner, '12; and Jess W. Sweetser, '24 S.

Work on the course was started in January, 1924, and when informed that of the 120 acres occupied by the course practically 100 have been cleared of rock or timber or otherwise altered, it is easy for one to understand that in the early stages of construction a veritable regiment of lumber-jacks and pickmen was needed. Among these workers were a number of Yale students, who were enabled by this means to assist themselves through college. At the present time a comparatively small band of men is employed, the heavy work being for the most part ended and those now working being engaged chiefly in bringing the greens to a state of absolute perfection. The greens and the provisions for their upkeep are among the most remarkable features of the new course. There is not a single green that is less than 100 square feet in area, while many of them are larger. Their total area is about 10,000 square feet, as opposed to the average total area of about 3,600 square feet in most American and foreign courses. Set in the midst of undeveloped woodland on the highest point of the Memorial has been placed a 75,000-gallon water tank, to which water is pumped a distance of 2,400 feet from a huge well sunk in another part of the property. The well has a capacity of approximately 100,000 gallons daily, and it is fed by numerous natural springs. From the water tank, seven miles or more of pipe have been laid which carry close to 50,000 gallons of water daily to the greens by the gravity feed system. There is also, of course, a thoroughly efficient drainage system, and at the northern end of Greist Pond where the ground slopes away into a small ravine, a sluice-way has been provided to prevent the pond from overflowing its proper level. Another noteworthy feature for the golfer is the fact that three separate courses are open to him over the same fairways. These are to be known as the short, the regular, and the long courses. The latter is designed for championship play, and it exceeds the short course in length by 1004 yards. In accomplishing this result, three tees, or their equivalent in teeing-space, have been provided for each hole. In most cases the long course tee is at a greater elevation than the others; in one instance, whereas the green was plainly visible from the regular and the short course tees, it was obscured by woods from the vision of the man playing the long course tee.

Six of the eighteen holes have water-play, in whole or in part. As we have said, the very first hole is played across a corner of Greist Pond. The ninth hole presents a water hazard calculated to daunt any but steady golfing nerves. The play is directly across Greist Pond. To the right the pond stretches away to its full length; unless the ball is a floater, woe betide the sliced drive. To the left is the little ravine already mentioned—a bad place from which to play a hooked drive, even if you keep out of the woods. The water carry is

163 yards, and across it the ground rises from the shore of the pond to a fair elevation on which the green is set. No pity for misplay was exhibited in laying out this hole, unless one except the fact that the approach to the hole is smoother and longer than usual. As a matter of fact, the whole course requires good golf—not unreasonable or unplayable, but good golf. If one slices or hooks or underplays or overplays, he is in trouble. The greens are heavily bunkered except where natural hazards, such as water, woods, and sloping ground, make this unnecessary. And in a number of cases considerable study will be required of the golfer before he will arrive at a decision as to how he can best play the hole. This is all in the game, however, and there are no unfair hazards.

The building of the clubhouse for golfers has not yet commenced, for it has been deemed advisable to center all the efforts of the workers on the completion of the course itself. The clubhouse will be erected on the knoll to the east of the course, and will have there an ideal location overlooking Greist Pond.

An article of this type, which aims to be informative, would be inadequate without a few statistics, so the Athletic Association gives us the following table of the yardage over the long, the regular, and the short courses; this should prove an interesting supplement to the detailed hole-by-hole description of the course that concludes the article. It will be noted that the long course measures 6,552 yards, or 445 yards longer than the regular course and 1,004 yards longer than the short course; the regular course measures 6,107 yards, and the short course 5,548 yards. Par of the two shorter courses is the same, (69), while par of the long course (71) is only two strokes greater.

No.	LONG		REGULAR		SHORT	
	Yds.	Par.	Yds.	Par.	Yds.	Par.
1	410	4	399	4	370	4
2	365	4	340	4	338	4
3	380	4	370	4	310	4
4	440	5	426	4	284	4
5	135	3	131	3	117	3
6	350	4	342	4	318	4
7	368	4	348	4	323	4
8	415	4	400	4	372	4
9	225	3	210	3	190	3
	3,688	35	2,984	34	2,631	34
10	405	4	373	4	342	4
11	425	4	370	4	295	4
12	400	4	340	4	340	4
13	190	3	190	3	190	3
14	372	4	335	4	320	4
15	188	3	170	3	135	3
16	445	5	420	4	410	4
17	425	4	415	4	415	4
18	608	5	510	5	470	5
	3,464	36	3,123	35	2,917	35
Totals	6,552	71	6,107	69	5,548	69

We now pass to a separate description of each of the eighteen holes. The yardage given preceding each description is that of the three courses open to the choice of the golfer, as already several times mentioned.

Number One

410-399-379 yards

Number 1 is a water hole with a carry of 135 yards. The play is across the southwestern corner of the pond. The fairway rises from the water in a gradual slope to a level spot whence the second shot to the green is a brassie. Opportunity to avoid water play is offered by shooting to the left with a corresponding hazard of increased distance. The play of the long and the bold may hug the woods to the right with increased water carry but shorter total distance to the hole and an easier second.

The green is a double green of the Road Hole type on the right and punchbowl on the left. The play to the left half of the green is over a deep bunker about the front and left side of the green, requiring a lofted ball. The play to the right half

of the green is a direct shot to the high shoulder of the approach with a kick in to the green. The right half of the green has a deep bunker all along the right side but a clear approach permitting a run up. It is evident that the play of the second shot is considerably dependent upon the placing of the first shot.

From the first tees holes No. 1, 2, 3, 4, 6, 7, 8, 9, 10, 18 are visible in whole or in part. This vantage point is unusual in view of the rolling and broken nature of the property. One standing on the first tees therefore may distinguish eight of the first nine and two of the second.

Number Two

368-349-338 yards

This is a natural green heavily bunkered on the left with a rather narrow approach on the right. The green is natural on the ground and is close to the cape type in general setting.

The play on this hole varies in the second shot which will in turn depend considerably on the first shot distance. The second shot may safely carry the bunker to the left and go to the pin or in case the first is unfortunate or there is a desire to play safe a longer shot to the right will avoid the bunker hazard.

Number Three

380-370-310 yards

The second water hole on the course has a water carry of 118 yards. This hole forces water play as there is no way around. The water carry, however, may be decreased by playing the short tee where it becomes only forty-eight yards. Across the water, the fairway runs parallel to the water on the right and is flanked on the left by high ledges and knolls. The play of the second shot is directly over the saddle between two knolls into a groove between these knolls and a second line of knolls, or direct to the green over the right knoll. The groove leads directly to the green which is blind all the way. A long sand trap stretches in front of the first line of knolls. The green is a double punchbowl with water along the batter on the right and back of it. The fairway undulations of this hole are all natural and the hole is most attractive to the eye and furnishes interesting play. There is a close and narrow pitch approach to the green on the right but this is very dangerous.

Number Four

440-426-284 yards

The third water hole has a water carry of 132 yards on the line of play. Play to the left of the line of play lengthens the hole and shortens water carry while a shot to the right of the line of play not only does the opposite to left play but also puts the ball in danger from a second arm of the lake, for

play to the right of the line of play is upon a peninsula. The second shot compels distance, height and hold due to the nature of the green which is of the Road Hole of the St. Andrews Course type, wherein a pot bunker is tangent to the line of play in front of the green and the left approach is lifted.

The length of the original Road Hole is 415 yards. The player may, by using different tees and varying the angle of the dog leg, play the hole with the same distance as that of the original hole.

Number Five

135-131-117 yards

This hole is original with Messrs. Macdonald and Raynor and was first put up on the National Golf Links of America as hole number six. This is one of the four short holes of the course, i. e., each short hole is designed for a single shot to the green with particular club. No. 5 is the mashie hole.

The tees are slightly above the green level. The green is completely surrounded by sand, making it an island green elevated 12 feet above the level of the sand in the bunker. The contours of the green mark a horseshoe around the pin which is placed in the center of the green. The green is sometimes called the horseshoe.

The hole is ordinarily a three if the first shot holds the green, and undefinable if it does not. This hole on the Mid-Ocean has been twice made in one.

Number Six

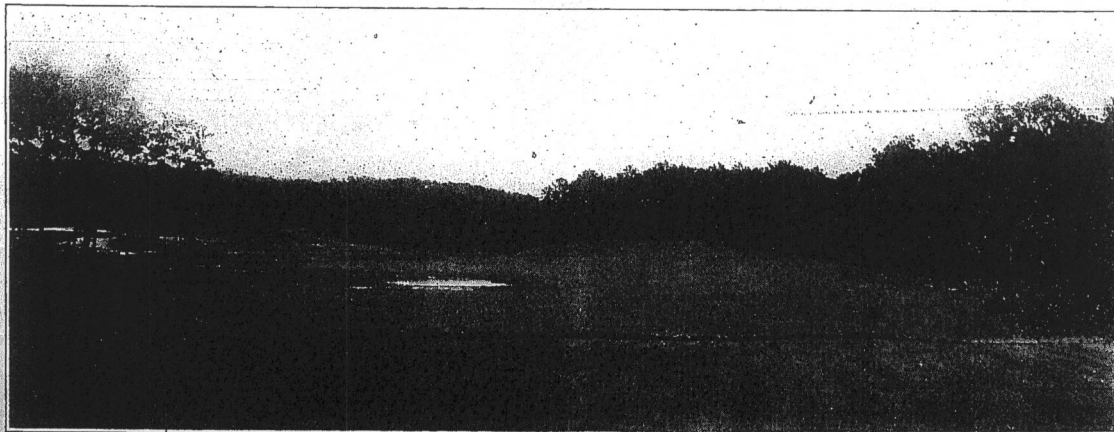
350-342-318 yards

On April 1, 1924, this whole hole was a large swamp impassable except with high top rubber boots. Filling and drainage have brought it to its present pleasant contours. The surface of the present green is six feet above the original land surface. The hole is a dog leg. A sharp angle of the swamp remaining on the left cuts in on the left a little more than half way up the fairway. This angle is guarded by a sand dune. The safest shot is close to this dune and yet clearing it. Safety and distance increase with play to the right. The second shot is a pitch to the green possibly over a broad bunker on the right or avoiding a sand dune on the left. An over-shot is dangerous.

Number Seven

368-348-323 yards

This hole reminds one of Indian Summer. It is pleasant, inviting and a trifle lazy. The fairway is a natural lane between ledges on the right, cleared and bare, and tree covered ledges on the left. The approach to the green is a well rounded knoll and the green winds to the right on the top of the knoll. There is a wide bunker to the right of the green.



AT THE FOURTH HOLE

Part of the fourth green and the 440-yard dog-leg hole, with the lake cutting in on the fairway.

Play on this hole is better if made to the left hugging the trees so as to get a better entry to the green.

In the construction of this hole six feet of solid ledge was taken off the knoll approach and the balance of the fairway was impassable swamp on April first.

Number Eight

415-409-372 yards

The first shot of this hole is 180 yards to a saddle crossing the fairway. A roll up or carry of the knoll gives a roll down the other side of the saddle into a broad level basin making 220 yards not difficult. This basin is the playing area for the second shot. The second shot should be for a kick in from the front right corner of the green. The green combines characteristics of both the Cape and the Redan.

The bold, long driver will play straight for the green for a safe landing at 214 yards.

Number Nine

225-210-190 yards

This hole has its original on the Biarritz Course at the famous watering place in France of the same name.

This is the second of the short holes and is planned for a single shot to the green with the driver. There is a 163 yard water carry from the back tee. The green proper is behind a deep trench in the approach. The approach is about the same size as the green itself and is bunkered heavily on both right and left with water jutting in on the right front. The fairway is the lake. The tees are elevated above the lake. The green is heavily battered at the back and right and the whole psychology of the hole is to let out to the limit. The distance, however, is not as great as it seems, due to the water, and a moderate stroke with care is safer than a slam. Correct play for this green is to carry to the near edge of the groove or trench and come up on the green with a roll. The disappearance and reappearance of the ball in the groove adds to the interest of the play. The carry for this play is 190 yards from the back tee.

This type of hole is well put up on the Creek Course where the tide plays a part in the hazard.

Number Ten

405-373-342 yards

The first shot carries over a broad dip to a level plateau beyond and somewhat elevated above the tee. The carry to the edge of this plateau is 160 yards from the back tee. Beyond the plateau is a sharp rise to a twenty-five foot shallow sand trap in front of the green. The green is elevated twelve feet above the trap. This green resembles number 18 at Shinnecock to some extent. The green is highly undulated so as to furnish a sure landing when the ball reaches it.

The play for this hole is to get as much distance on the first plateau as possible in order to make the second shot reach the green. A first shot making the second dip is a pretty safe second to the green but anything short of the foot of the first plateau on the first shot makes a heavy stretch for the green on the second. Play from the regular tee gives a distance of 28 yards over the long tee and from the short tee an advantage of 67 yards over the long tee. The shots from the regular and short tees should easily make the second dip. The carry from the short tee to the edge of the plateau is only 100 yards. The second shot requires both height and distance.

Number Eleven

425-320-295 yards

As contrasted with number ten which is practically all uphill play, number 11 is practically all down hill. The tee is high above the green and the fairway immediately in front. In fact the tee is a little higher than number seven green (No. 13 tee is at about same level) and these two are the high points of the course. From the tee Long Island and the Sound are readily visible when not covered by fog.

The play of this hole is to reach the second knoll and catch a roll over the far shoulder when there is an easy pitch to the green. The green is a reversed Redan and the whole is a two shot Redan. Play to the right of the line of play direct to the green gives a little better facing to the green for the kick-in play to which the green is best adapted. The green is backed on the left by a long ledge and bunker and has a long bunker on the right. The hole is essentially a drive and pitch hole.

Number Twelve

406-340-340 yards

This is the Alps hole. The hole is intended in its original form to give the player the feeling of playing up on the side of a mountain to a hidden pocket. From the back tee of this hole the ledge at the back of the green is visible in outline above the elevation in front of the green. Men on the green are entirely out of sight. From the position of the second shot only the mound in front of the green is visible.

The second shot is to play high over the mound in front of the green. A roll up and over this mound is punished by a bunker on the left side and is highly undulated. For the first shot a carry of 176 yards from the back tee catches the near side of a knoll for a roll over to the level playing ground for the second shot.

Number Thirteen

190-190-190 yards

The third short hole is the regular Redan or one shot hole for the cleek. The original hole is on the North Berwick course in Scotland. In levels and undulation this green closely resembles the original but has a different setting. The Redan has certain characteristics. The line of play cuts the green diagonally from front left to back right corner. The green slopes down to the back. The pin is set at the back left hand corner for championship play. The approach to the green rises to the green proper whence the green slopes away to the back with the front right hand corner the highest point of the green. From the above it is evident that the play for this green is to catch the approach a little above and beyond its center for a kick in or carom off the front right corner and a curving roll across the green to the pin at the back left hand corner. When properly executed the play of this green is one of the most pleasing and interesting plays in golf. The tee for this hole is 48 feet above the surface of the water, partially crossing the fairway. Directly in front of the approach a broad bunker runs across the fairway necessitating a carry of 150 yards to safety. The fairway is flanked on either side by high knolls so that straight shooting and 150-yards carry the compelling influence of the hole. The green is bunkered along the right and left sides making short cuts dangerous.

Number Fourteen

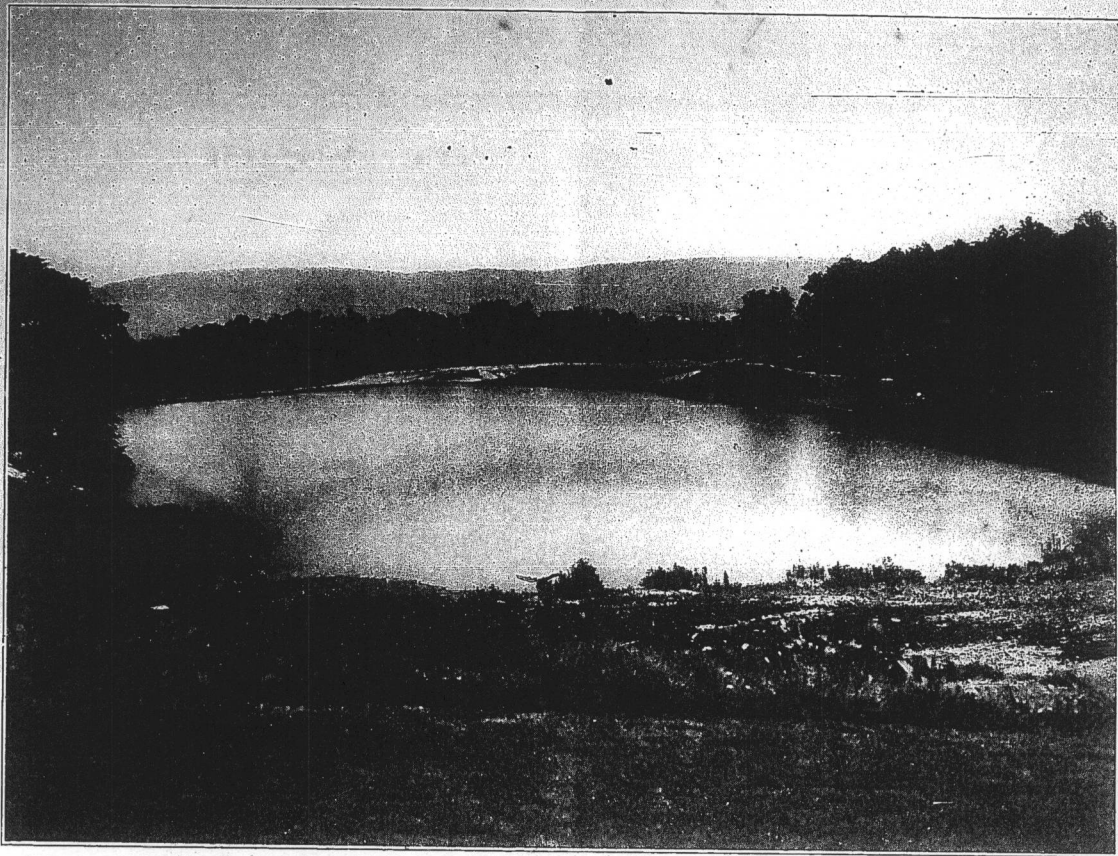
372-335-320 yards

Number 14 offers in its first shot three different attacks on the playing ground for the second shot. The first of these from the back tee plays for a kick in to the right from a knoll on the left side of the fairway at the angle of the dog leg with a consequent roll to low ground in front of the green. The shot from the regular tee offers this same shot with a distance to the target 37 yards less, or if desired a straight shot to the playing ground over the trees. The shot from the shore tee is straightaway down the fairway with the green in sight all the way. All these first shots lead to the same playing ground for the second shot. The second shot is a lift and a hold. The green is elevated on all sides and slopes to the left. There is a large bunker at the back.

Number Fifteen

188-170-135 yards

This is the Eden hole which has its original on the St. Andrews course in Scotland. This is the fourth and last



GREIST POND, IN THE HEART OF THE COURSE

Hole One is played over the near corner, and Hole Nine over the opposite end of this beautiful natural pond.

of the short holes and is a one shot hole with the iron. The regular tee gives the customary distance for the iron (175 yards).

In its original setting this green has the river Eden flowing along the back. From the tee it appears that the river touches the back of the green but in reality the river is beyond the bunker which crosses the back of the green. The bunkers on the right and left of this green are named respectively the Strath Bunker on the right and the Shelly Bunker on the left.

This green is like the original in size and contour but has a different setting. In the case of the short holes the fairway of fairgreen is missing and the intervening space is the rough. For all holes the rough extends some 120 yards from the tee before the smooth fairgreen begins.

Number Sixteen

445-420-410 yards

Number sixteen is a rather long rolling fairway leading to a broad level green. The hole should be found somewhat of a let-down from the preceding and following holes of the second nine. The second shot of this hole is the critical one and should bring the ball up for an easy pitch to the green. The green is hidden from the tees and a shot for a narrow transverse saddle in the fairway should open up the hole for the second and third.

Number Seventeen

425-415-415 yards.

This is essentially a drive and pitch hole. The play from the tee is over the last of the six water fairways at the far side of which is a lift of 20 feet from the water's surface. The carry to the top of the lift is 155 yards. In front of the lift

across the water is about ninety feet of safe landing space on dry ground. The first shot to the top of the lift opens up the hole. The ground from the edge of the lift slopes down to the green at a good angle so that a good roll may be expected. The green is composed of three plateaus with an opening at the back between two of them and upon the low one. The approach to the green on the left is guarded by a mound flanked with bunkers, one at the left, one at the right, both visible from the playing ground for the second shot and a third behind the knoll next to the green which is hidden from the player making his second shot. This hazard is known as the Principal's Nose and originates on the St. Andrews Course. The approach to the green on the right is smooth but not broad and travel that way may present a putting hazard unless the pin is on the low plateau.

Number Eighteen

608-510-470 yards

This last hole is the long fellow. To relieve the tedium of the drag through a long hole where distance is the only commendation, this hole has been broken up into three distinct parts with an option of still another line of play after the first shot.

The first shot should carry over a shoulder at the right and at the angle of the dog leg. By carrying the brow of this shoulder and making a roll over, the ball is brought to a smooth level area of playing ground for the second. The second plays to the top of a hill which has been leveled off and cut down so as to make the green visible from this second play area. The shot is to the green on the third. Should the player desire to avoid the hill he may play around to the right with the penalty of increased distance. The two playing

grounds for the second and third shots are practically two greens to shoot at but of twice or three times the area of the greens.

* * *

Because of the re-seeding of the greens and fairways during the past few weeks, undergraduates will not be permitted to play the course during the coming fall season. Patrons of the Ray Tompkins Memorial, founders of the Yale Golf club and members of the Yale Golf club, will, however, be allowed the privilege of playing some time in October, the date to be announced later.

In summary it may be said that the new Yale Golf Course looms as a distinct achievement, not only in the physical fact of its existence as one of the most beautiful and interesting courses in the world, but in the implication of fine imagination

and unusual vision in its conception and development. In but few cases is a university so fortunate as to be able to offer to its students and alumni the use of its own eighteen-hole golf course. That such a golf course should rank with the few outstanding courses of the world, such as the Mid Ocean at Bermuda and the Gleneagles in Scotland, yet be possessed of a character distinctively its own, is cause for still further congratulation. Its location, moreover, scarcely twenty minutes from the Campus and only about three hours from New York City, helps to make it as truly a part of the University as Yale Field or the Bowl. But although the present writer has endeavored faithfully to convey his impressions and to present a vivid picture of Yale's new acquisition, full appreciation of its significance awaits "seeing with your own eye." May the privilege not be long delayed!

Further Remarks on the June Races

Both Harvard and Yale Crews Beat the Former Up-Stream Record of 1915, Yale by 26 Seconds

BY ALBERT H. BARCLAY, '91

AS the Varsity crews did not have a strong tide with them and as there was a light squally breeze quartering over the sterns of the shells, the time of the races in June was remarkable. (Yale won the Varsity race in 20 minutes 26 seconds, breaking the record by 26 seconds.) In 1886 before the present four-mile course had been laid out, Yale rowed upstream from Winthrop's Point to Gales Ferry in the Harvard race, in 20 minutes 41½ seconds. The former upstream record of the present course was 20 minutes and 52 seconds, made by Yale in 1915. In the long list of Yale time rows made upstream under picked conditions, there is not a single trial that even approximates the time of this year's race. It was so unbelievably fast that the coaches, when they heard it, thought that there had been a mistake of a full minute made in announcing the time.

While the great majority of these races have been rowed downstream, there never before has been any such lowering of the record for the course. The downstream record of the Yale crew of 20.10 made in 1888 stood until Harvard cut this to 20.02 in 1916. These downstream records were made under perfect conditions. The conditions on June 19 of this year were far from ideal. A quartering stern wind is not productive of fast time. There were no heavy tides on the Thames this year and at the hour of the race the tide was not strong. Add to these conditions the fact that the crews were outrageously harassed throughout the entire race by two hydroplanes carrying motion-picture operators, which again and again swooped low with roaring engines until it seemed as though they would crash down upon the fragile shells, the time made indicates that these are undoubtedly as fast, if not the fastest eights that have raced over the Thames course since it was dedicated by Yale and Harvard in 1878.

The fact that Harvard (whose time was 20 minutes 32½ seconds), though beaten, bettered the brilliant record of Captain Morse's crew of 1915 by almost twenty seconds, furnishes irrefutable evidence of the speed of the crew which Yale had to defeat. This Cambridge eight completely out-classed the crew produced by Coach Stevens in 1924. But in spite of this splendid achievement Captain Wilson's eight will not go down in history as the equal of last year's Yale's Olympic crew. For four miles this year's boat was undoubtedly faster than the 1924 shell. But the answer lies in the fact that last year's eight never had a chance to train for four miles. Its races, with the exception of the four mile event against a weak Harvard eight, were all sprint races. Captain Rockefeller's men went into the Harvard race without having rowed four miles under the watch.

Yale's ability to row Harvard down in the last half of the race this year was not due to superior physical strength. Both eights were made up of big, powerful oarsmen, superbly drilled and conditioned. They rowed in the same style and make of shells and used the same type of oars. The difference was in the stroke; in the application of power, by reason

of which Yale, rowing from two to four strokes less per minute than Harvard, was able to get as good speed out of her shell as the Crimson in the first half of the race and husband her strength for the finish. This was due to a harder catch and more body swing and leg drive fore of the outrigger as against Harvard's softer catch and less body swing and leg drive fore of the outrigger which resulted in a ripping of the oars through at the finish. There was, however, no check in the Crimson's shell; it ran beautifully between strokes. But Harvard's style of rowing required more strokes per minute than Yale's, to get the maximum speed out of the boat.

The statistics of the June races, which should go on record because of their extraordinary character, here follow:

The record of the races by strokes and time follows:

VARSITY RACE

	YALE		HARVARD	
	Stroke	Time	Stroke	Time
Start	30		40	
Half mile	32	2' 24"	36	2' 20"
Mile	32	4' 58"	35	4' 54"
Mile and a half	31	7' 35"	33	7' 32"
Two miles	32	10' 11"	34	10' 12"
Two miles and a half	30	12' 49"	34	12' 52"
Three miles	32	15' 18"	32	15' 21"
Three miles and a half	32	17' 48"	34	17' 50"
Finish	36	20' 26"	34	20' 32½"

SECOND VARSITY RACE

	YALE		HARVARD	
	Stroke	Time	Stroke	Time
Start	36		42	
Half mile	32	2' 20"	34	2' 21"
Mile	32	4' 50"	34	4' 53"
Mile and a half	32	7' 19"	34	7' 26"
Finish	3	9' 50"		10' 02"

FRESHMAN RACE

	YALE		HARVARD	
	Stroke	Time	Stroke	Time
Start	38		38	
Half mile	32	2' 19"	33	2' 18"
Mile	32	4' 50"	33	4' 52"
Mile and a half	32	7' 16"	34	7' 21"
Finish	34	9' 51½"	34	10' 01"

COMBINATION RACE

	YALE		HARVARD	
	Stroke	Time	Stroke	Time
Start	36		42	
Half mile	34	2' 21½"	36	2' 24½"
Finish	34	4' 53½"	36	5' 03½"