## Will Six-Hole Units Improve Course Routing?

## By F. L. O. WADSWORTH

A CAREFUL study of many different golf links—and personal experience in the design of a number of courses —has convinced the writer that the great majority of these links occupy much more ground than is necessary for the reception of the number of holes which are laid out on them; and that these links, if properly redesigned, would afford requisite playing facilities for a much larger number of golfers than are now permitted to use them.

One of the results of this study has been the development of the *hexaplex* system of golf course architecture, which is characterized by the arrangement of successive holes in groups or units of six holes each instead of in loops of nine or eighteen holes—with the starting tee and terminal green of each hexaplex unit in relatively close proximity to the main buildings or to the locker-rooms of the club.

The sextuple, or hexaplex arrangement of holes-as exemplified in either the one group (six holes), the two group (twelve holes) or the triple group (eighteen holes) of playing units is an ideal one from several standpoints. Any course which is thus laid out offers diversified opportunities to the several classes of players who may use it, and who may play one hour, or two hours, or three hours, or more, as they may desire or as they may be given the opportunity, without interfering with each other (by "cutting in" on the regular sequence of play), or without having to walk back to the clubhouse from some distant part of the course when they have become tired or have been overtaken by darkness or by storms.

Each six-hole loop will accommodate a maximum number of forty-eight players (twelve foursomes) per hour if the players start at the usual five-minute intervals; and a total number of nearly one hundred players—starting between 5:00 P. M. and 7:00 P. M.—can play a single round over a six-hole course before dinner, while another fifty players—starting between 7:00 P. M. and 8:00 P. M.—can complete a similar round after dinner, during the summer months. A somewhat smaller number of persons can also play one round on a six-hole course in the morning before leaving for their places of employment, when it would be impossible, or impracticable, for them to find the time for playing nine or more holes before beginning the day's work.

In the case of twelve-hole and eighteenhole courses, the sextuple grouping of the units presents another very important advantage in that it permits the links to be completely filled with players in one hour if matches are sent off from the starting tees of each group at the usual five minute intervals, whereas it requires over an hour and a half correspondingly to fill a ninehole links, and not less than three hours for the complete occupation of an eighteenhole links, if only one starting tee is provided.

This reduction in what may be termed the *initial period of occupation* represents a very material increase in the number of players who can be accommodated in a restricted time, and therefore the hexaplex arrangement of playing units will increase the capacity of an ordinary eighteen-hole course from 50 to 100 per cent or more during the periods of greatest congestion, and will permit a corresponding increase in the membership of a club which adopts this simple and logical improvement in the design of its links.

Another attractive feature of the hexaplex arrangement of the holes is that each loop may be made to offer widely varying conditions of play; and the course as a whole may therefore be made to present, in effect, a combination of two or more distinctively different circuits of six, or twelve, or eighteen holes in length.

For example: One loop—which, for convenience, is designated as loop (a)—may consist of six holes having a total length of 2,000 yards (varying from 150 to 500 yards) with a par of 23. Another loop (b) may be made up of six quite different units —varying from 200 to 450 yards and totaling 2,200 yards in length—with a par of 24 or 25; and a third loop (c) may com-

prise another still more difficult combination of holes having a total length of 2,400 yards (ranging from 130 to 600 yards or more) and a par of 25 or 26. A twelvehole course, consisting of loops (a) and (c), offers two different combinations of an eighteen-hole round, viz., the combination of loops (a), (c) and (a), which is 6,400 yards in length with a par of 71 or 72; and the combination of loops (a), (c) and (c), which is 6800 yards long and has a par of from 73 to 75. An eighteen-hole course-comprising loops (a), (b) and (c) -presents not only three different six-hole rounds of varying difficulty, but also offers three distinctive combinations of 12-hole circuits, varying in length from 4,200 yards (par 47 to 48) to 4,800 yards (par 50 to 52); and it further offers a choice between not less than ten varied combinations of eighteen-hole rounds of widely different character. One can, for example, play in succession:

			L	ength, yds.	Par	
Loops	(a),	(a)	(b)	. 6,200	70 to 71	
Loops	(a),	(a),	(c)	. 6,400	71 to 72	
Loops	(a),	(b),	(b)	. 6,400	71 to 73	
Loops	(a),	(b),	(c)	. 6,600	72 to 74	
			(c)		73 to 75	
Loops	(b),	(b),	(e)	, 6,800	73 to 76	
Loops	(b),	(c),	(c)	. 7,000	74 to 78	

These features of advantage become still more pronounced in the case of links which comprise more than three six-hole loops or groups. A twenty-four hole course—consisting of four loops, (a), (b), (c) and (d), having, for example, respective lengths of 1,850, 2,000, 2,200 and 2,450 yards, and respective pars of 22, 23, 24 and 25—presents a combination of four entirely separate and distinct eighteen-hole circuits, none of which include any twice-played loops. These are:

Length, vds. Par

Course	Α,	loops	(a),	(b),	(e)	6,050	69
Course	В,	loops	(a),	(b),	(d)	6,300	70
Course	С,	loops	(a),	(c),	(đ)	6,500	71
Course	D,	loops	(b),	(c),	(d)	6,650	72

It also presents not less than twelve additional circuits of still more diversified characteristics—each of which comprise one doubled loop—which may vary in length from 5,850 yards (par 68) to 7,100 yards (par 74); and four more circuits of thrice played loops, of which the shortest is 5,500 yards (par 66) and the longest is 7,350 yards (par 75).

The hexaplex grouping of twenty-four holes offers the further opportunity of playing six distinctly different twelve-hole rounds, which have the respective length of 3,850 yards (par 45), 4,050 yards (par 46), 4,200 yards (par 47), 4,300 yards (par 47), 4,450 yards (par 48), and 4,650 yards (par 49), and also presents four doubled loop circuits of the respective length of 3,700 yards (par 44), 4,000 yards (par 46), 4,400 yards (par 48), and 4,900 yards (par 50).

If we designate those combinations which do not comprise any repeated or replayed loops as primary circuits, and those which require the double or triple play of one loop as secondary and tertiary circuits, the striking potentialities of such an assemblage of four six-hole loops as we have been considering may be briefly summarized by stating that it affords opportunities for playing four primary six-hole rounds, varying, for example, from 1,850 to 2,450 yards in length; six primary and four secondary twelve-hole rounds, of from 3,850 to 4,900 yards in length; and four primary. twelve secondary and four tertiary rounds of eighteen holes, each one of which is of a different length, ranging from a minimum of 5,550 yards or less (par 66) to 7,350 yards, or more (par 75 or over). Or stated in another way, this guadruplehexaplex assemblage of twenty-four holes may be so designed and used as to present. in effect, the widely diversified characteristics of twenty different eighteen-hole courses, and to also offer the varied attractions of ten independent and distinctive rounds of twelve holes each, and of four separate and very different circuits of six holes each, a range and variety of playing conditions which are far greater than are afforded by a thirty-six hole links even when the latter is subdivided into four nine-hole groups.

A thirty-hole course-if laid out in five six-hole loops-can be completely filled in one hour with a maximum number of 240 players (if they are sent off concurrently from the five starting tees at the usual five-minute intervals), and such a course will, therefore, permit 120 foursome matches (480 players) to each complete a full round of 18 holes in a seven-hour period, or will permit a correspondingly larger number of persons to play shorter rounds of six or twelve holes in that same time. A course of this character (having five balanced loops (a), (b), (c), (d) and (e), of progressively varying length and difficulty) will present a combination of ten primary, twenty secondary, and five tertiary courses of eighteen holes each; of ten primary and five secondary rounds of twelve holes, and of five primary rounds of six holes each; the total lengths and the par figures for these different circuits being variable between any practical figures (e.g., between a minimum length of 1,750 yards, par 21 or 22, for one six-hole loop, and a maximum length of 7,500 yards, par 78, for one eighteen-hole circuit) at the will of the designer.

A sexpartile arrangement of thirty-six playing units-i.e., six loops of six holes each-will permit 288 players to be sent off in one hour (thus completely filling the course with 72 foursomes), and such a course will provide for the playing of 576 individual eighteen-hole rounds in a This thirty-six hole seven-hour period. assemblage will offer a choice of twenty primary, thirty secondary and six tertiary courses of eighteen holes; fifteen primary and six secondary rounds of twelve holes, and of six primary rounds of six holes; and each of these circuits or rounds may be made to present its own individual characteristics and to differ from all of the others either in length or in difficulty, or both.

It is somewhat surprising that the many manifest advantages of the hexaplex grouping of the successive units of a golf course have not seemingly been recognized-since they have not been utilized-by those who have been most active in the planning of our links and who are, to that extent, responsible for the existing status of golf architecture in this country. One of the obstacles to progress in this matter is the attitude of many golf architects who are no doubt able and worthy representatives of professional playing ability but who are fettered by mental inhibitions and are handicapped by archaic practices. "Imitation may be the sincerest form of flattery," but it is no more conducive to progress and success in the golf course designing than it is in any other line of endeavor; and the great multitude of recently constructed links, which are mere inconsequential and unimaginative variants on some ancient example, or some traditional pattern, with which the builders of these courses may be most familiar, is a rather severe commentary on the abilities of those responsible for their construction.

In conclusion I take the liberty of paraphrasing the remarks at the end of Mr. Colt's admirable "Essay on Golf Course Construction" (p. 56)—because it so well expresses my own attitude—and state that this and other articles which I have written on this subject are not intended "to defy the expert or to instruct the novice."

The ideas which I have advanced are merely intended to arouse the average golfer to a realization of his rights, as contrasted with the conflicting interests of the relatively few experts who look upon a golf course only as an arena for the exhibition of skill in match play, and to suggest to this great but usually silent majority of players certain lines of thought and certain questions for debate which may lead them to study more closely the present defects and the inherent possibilties of the course on which they play, and to take a more active interest in improvements in links design.

## Park and Playground Manuals Are Valued Works

New York City—A. S. Barnes and Company, 67 W. 44th st., announce publication of "Parks—A Manual of Municipal and County Parks," in two volumes, price, \$20, and "Play Areas—Their Design and Equipment," price, \$2.

The "Parks" book is compiled as a result of a nation-wide study of municipal and county parks conducted by the Playground and Recreation Association of America in co-operation with the American Institute of Park Executives at the request of the National Conference on Outdoor Recreation. This extensive work was financed by the Laura Spelman Rockefeller Memorial under the direction of L. H. Weir. It is a complete and practical work, priceless to those concerned with the proper promotion of the outdoor public recreation movement and those who are responsible for park operation. Planning, financing, construction, operation and other details are treated fully by text and illustrations.

There is considerable material relative to public golf courses in the two volumes. The work is unquestionably a practical classic.

George D. Butler edited the "Play Area" book for the Playground and Recreation Association. Although the strictly golf aspect of the book is limited to practice putting courses, due to the restricted space available for "Play Areas" as defined by the context of the book, there is considerable of value in the details concerning swimming pools, winter sport and children's playground facilities that is of interest to the operating management of the modern, fully equipped country club.