


THE EVOLUTION OF MAJOR GAMES

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PART I

CHAPTER I

INTRODUCING THE SUBJECT AREA

INTRODUCTION

Due to the excellent means of communication which exist today, the world has become smaller, and news of every kind soon spreads. In this way discoveries and achievements in every field, including sport, become readily known outside the country of their origin. Good performances, for example, at the Olympic Games are soon known everywhere and duly honoured throughout the world. Indeed, to be responsible for such outstanding achievements is not only an honour for the individual but also for the country he represents, so that national pride and patriotism are stimulated and fed. Because sport plays such an important part in the lives of people, no effort is spared to improve records and accomplishments, for it is a fact that man will ever do everything in his power to satisfy his natural urge to self-realization and actualization even to the extent of slavishly submitting all his energies to whatever can assist him to reach ever greater heights. This in turn, acts as a spur and incentive to scientists in several fields to assist sportsmen with their training methods and their way of living no matter how Spartan it may be. It is true that study and experimentation in sport continue unabated and the knowledge thus garnered has enabled sportsmen to reach goals undreamed of even a decade ago. Such subjects as coaching, the study and mechanical analysis of skills and techniques (kinesiology), physiology of sport and exercise, sports medicine, including diet, psychology of sport, all these, are playing a vital part in the search to be of maximum value and assistance to sportsmen.

However, with this marked emphasis on records and achievements, there is the danger that sportsmanship, codes of honour and even the history of sport itself, could be pushed into the background. Fortunately, there was a time when these very important aspects of sport did receive pride of place in books and education, so that today the world of sport has been left a valuable legacy of which it can justly be proud. Unfortunately, it is also true that history, in particular the history of games, has actually suffered for the simple reason that it could not record the evolution of sport in major games. Indeed, it is a fact, that just as history cannot be complete without evolution, so evolution cannot be complete without history. Yet history has been there all the time but it has not been used in the service of evolution. Unless this gap is filled, neither sporting achievements or administrators will reap the full benefit of tradition and history. This is especially true of those who lay down laws for all sports at international level, for if such laws are not made in conformity with the course of evolution, any changes they may try to bring about have little chance of success and will eventually have to be brought about by the process of trial and error. They will, however, be at a disadvantage because until now no successful evolutionary study has ever been made of any game by anyone, with perhaps one exception, but in name only, namely, in a seminar which failed to contribute significantly to the knowledge and understanding of the evolution of games (Renson, et al., 1975).

It may be necessary at this point to clarify the meaning of history on the one hand, and of evolution on the other.

History, whether "formal" or "written", whether as "a narrative tale or story", gives "a record of the past" which is "continuous and methodical" and "professedly true" and covers "a particular country, people or individual" (The Shorter Oxford English Dictionary on Historical Principles, 1944:906).^{*}

Games, fortunately, have been recorded in such a precise manner.

Evolution is based on "development" and to "develop" means "to unfold, grow from a germ; grow into a fuller, higher or maturer condition"; Evolution therefore is "the process of developing from a rudimentary to a complete state", "from earlier forms, and not due to 'special creation' ..." it is "the hypothesis that the embryo or germ is a development of a pre-existing form, which contains the rudiments of all the parts of the future organism (now better called 'the theory of Preformation')"

(The Shorter Oxford English Dictionary on Historical Principles, 1944:495,644). History can, therefore, not be complete without evolution, and evolution cannot be traced without history.

THEORIES ON EVOLUTION

In order to trace the course of evolution, some existing theories which have stood the test of time need to be clarified and evaluated.

The theory of diffusion (Graebner, 1905:28; Anckerman, 1905:90) claims that everything originates once, and is then diffused or spread to other places or countries in concentric waves, and the further a wave is from the centre, the older and less advanced are its constituents. Games which show similarities will, there-

^{*} Source of quotation marks for words and expressions, as used.

fore, have originated in one place from where they diffused. This theory has overcome its initial weakness, namely, that all developments were at first ascribed to the land of origin, thereby ruling out contributions which could have been made by countries which borrowed from it. The history of major games confirms the correctness of this theory.

The question could well be asked, how ancient man came into contact with other countries where games or principles originated. This answer is found in another theory which claims that man himself was originally the carrier of cultural traits and characteristics through migrations, wars and visits (Frobenius, 1923). It is known, for instance, that British Regiments played a major part in bringing rugby and other games to South Africa; that Nero Claudius Drusus introduced the game of "kaatsen" into Holland (Brough, 1901:127) and that British Colonists took "stoolball" with them to North America (Rice, 1952:145).

The diffusionist theory appears to be more acceptable than the so-called theory of convergence, which maintains that since man is the same throughout the world, he will produce like, or similar inventions or characteristics, independently. Feasible as this theory may seem, the inventions of the steam engine, the wireless, the motor car, and the discovery of penicillin have proved the opposite and have lent strength to the diffusionist theory. As far as games are concerned, the convergence theory cannot be accepted. It is for example known, that Wales was the first to introduce the generally used four three-quarter system into rugby and that South Africa introduced the 3-4-1 scrum formation into the game. Baseball, in its present form, is an American game which spread from there to all the countries

which play it. The same applies to cricket, rugby, soccer and tennis as they are known today, for they developed in the British Isles in certain ways and then spread from there. Whether the whole development of these games took place in America or in the British Isles is a debatable point which will, however, again be treated in this study.

Closely allied to the theory of convergence is that of the environmentalists, who attribute the existence of everything to environment, at the same time making provision for evolution and convergence. (Semple, 1911:VII) expresses these views as follows:

If peoples of different ethnic stocks with similar environments manifested similar or related social, economic or historical development, it is reasonable to infer that such similarities were due to environment and not to race.

(Race here refers to theories which at one time held that development in everything was due to the chosen races theory). It is appropriate to mention that environmentalists attributed civilized cultures to optimum climates and cultures which, from time to time, moved in a northerly direction. According to them, the first of these climates embraced Egypt and some of the Mediterranean countries which were afterwards superseded by England and America (Perry, 1927).

Closely allied to the environmentalist theory is the one which claims that the occupational activities of a nation have a direct influence on all their cultural activities, and therefore, also on games. This theory cannot be discarded in toto, for the indications are that the "horse", and afterwards the "box horse" in gymnastics, came into being when horses played such a major part in transport and travel and when knights used them

for war, military tournaments, combats and jousts. The javelin too, and the hammer in athletics, derive from warfare which anthropologists consider part of the occupation of primitive peoples. The same applies to archery and fencing and to a large extent, even swimming and rowing.

Writers like Bett (1929) and Daiken (1949) maintain that all childrens' games are imitations of the occupation of their parents.

Bett (1929:78) writes the following in this connection:

It would be natural to suppose that games which children play were merely invented, either by children themselves, or by adults for the benefit of children; and that, of course, may be true of some games. But it is beyond doubt that most games are not inventions at all, but imitations - imitations on the part of children of the life of their elders. Nothing is more characteristic of the child than this faculty of imitation. The girl with her doll imitates a mother with a baby; the boy with his rocking-horse imitates a man on horseback; a troop of lads with sticks for swords and a battered can for a drum imitate a company of soldiers and so on. But the striking fact is that in many instances the imitation dates back to the life of pre-historic times. So that the real interest for the student of folklore is in those games which still reflect, more or less plainly, some feature of primitive life. It has also to be remembered that the games of various kinds had a place in the life of adults in early times (as they have in savage lands to this day), and indeed possessed a religious significance, as the games of classical antiquity are alone enough to remind us.

Ter Gouw (1871:281) supports Bett in frequent references to this theory when he writes:

Er is altyd een naauw verband geweest tusschen de spelen der jeugd en de bedrijven der volwassenen. Tollen, ballen en hoepels, ratels en kooten, nabootsingen van karren en schepen, wapens en werktuigen ... dit Romeinsche speelgoed nu is ook het eerste speelgoed onzer voorouders geweest, want de kooplui, die de legers volgden, bragten het hier.

U wyd ik, O Hermés! myn lederen bal,
Myn palmhouten en kooten, ratel vol
vreugd,
Myn dryftol en kooten; ontvang hier
het al,
U wyde ik myn speelgoed der jeugd.

"Men behoeft er niet aan te twyfelen",
zegt de Baron Stoet tot Oldhuis, "of
vele kinderspelen zyn nog de meer of
min getrouwe nabootsingen van sommige
bedrijven, plegtigheden en vermaak-
lijkheden onzer voorouders in die
wouden van Germanie".
"Zoo de ouden zongen
Piepen de jongen".

Other examples of such occupational games are the following: Counting out rhymes, for example, are often based on using the flower and other objects believed to have prophetic powers. Using the petals in, "He loves me, he loves me not" attempts to find a partner or mate; so also "Tinker, tailor, soldier, sailor". The date for a wedding ceremony and their house of the future, are said to be found in "This year, next year, sometime, never" and "Big house, little house"

Imitations of weddings are found in "Stepping or walking on the green grass", also in "Three Knights (Dukes or Lords) from Spain", "Sally Walters", "Les Marriages".

Marriage by capture is still reflected in "Any Rose", which in this country became "Elly Rose", "All the Rows" and ultimately "Al die Rooies". Other examples are: "Drop Handkerchief", "Queen Anne", etc.

"Apple Tart",-played with a skipping rope, also falls into this category where children used different ways to imitate their parents, in particular their superstitions or religious beliefs.

Funeral games: "Jenny Jo", "Booman", "Le Roi de Maroc",
"There is a Girl in our School" (Bett, 1929:10-35).

Daiken (1949:1-21), enlarging on Bett, gives tagging games as imitations of the hunt or war, for example "Touch or He", "Touch Wood or Iron", "Fox and Geese", "Hare and Hounds", "Spy for Riders", "Hunt the Fox", Relivio", "Cockalorum", "Hide and Spy or Cook", "Prisoner's Bars", "Tig", etc.

Another theory which is applicable is that of survivals as originally used and brought to our notice by Tylor (1881) and Rivers (1914), which can be summed up as follows: a survival is a concept, name or term which has survived the storms of change and although its meaning has changed it still contains something of its original meaning, and acts as a reminder of it. An example of a survival is the term "dead" as used in some games. The ball originally had to be killed by drowning, hanging or pressing it against the ground. Today the word has retained something of its meaning but the killing part has disappeared. All the childrens' games mentioned before are actually survivals of customs which have died out.

The above theories are all considered necessary to assist in this study which has never been attempted before. They are considered essential because no such study can be complete without them.

PURPOSE OF THE STUDY

The purpose of this study is to analyse, compare and synthesise existing descriptive historical data about major games. This involves establishing where these games were played, as well as finding a description of them as they were played at different times. The data was analysed to find similarities, and to establish the nature of these similarities, and to use them to trace the evolution, and the subsequent course of contemporary major games, back to their beginning, origin or germ.

The study is divided into two parts; Part I deals with the evolution of games and Part II with a description of them, and their variations. A preliminary study of these games has revealed that there are similarities between them and that it is not so much the games which must be studied to determine their evolution, as their principles, that is, their constituent parts or elements representative of a whole game. A study of all the principles involved was, however, found to be unnecessary because there was a difference between fundamental and other subsidiary or dependent principles. To qualify as fundamental principles, the criteria used had to be the basic, control or focal principles, without which the game would not have its identity or character, and moreover that these principles are in turn, served by other principles which are built upon or around them. In addition, when these fundamental principles were abstracted and separated from games, it was determined that all games belong to one of four families. These families and their fundamental principles are the following:

1. The Batting Family

A bat is used by a batsman to hit a ball thrown, or bowled, or pitched at a target he is guarding on the ground, or at an air target above a target on the ground. The batting team tries to score by running, and at the same time making use of places of safety at the target, or at bases, or lines, whilst a team of fielders tries to prevent or stop them. To this family belong baseball, rounders, cricket, longball and their predecessors.

2. The Target Family

Players use a ball, bowl, quoit, stone or disc to hit, roll, slide or throw, in order to strike or get as close as possible to a target, or to get into it if it is a hole, or to strike away other throwing instruments. The player or team doing so in the least number of attempts is the winner. To this family belong golf, pall mall, croquet, bowls, curling, quoits, skittles and their predecessors.

3. The Racket Family

A hollow ball or useful substitute, is propelled to and fro by a player or players of opposite teams, with the hand, glove, racket or racketlike instrument where the propulsion has to conform to requirements regarding height, distance and place. To this family belong tennis, squash, fives, squash rackets, badminton, pelota and their predecessors, also their younger brothers like medicine-ball tennis, tenniquoit and volley ball.

4. The Goal Family

The ball is carried, kicked, hit, or thrown at, or towards a goal by players of two teams who are moving on their feet, or on horseback, or swimming. To this family belong rugby football, association football or soccer, hockey, ice-hockey, polo, water polo, korfbal, basketball, netball, lacrosse, and their younger brothers American football, Canadian football, Gaelic football and Australian Rules Football.

The similarities within families form part of a game, but do not constitute or represent the whole game. Families are, therefore, units which have perhaps more dissimilarities than similarities.

ANALYTIC PROCEDURE

After sorting all the major games from various source materials, their content was studied by the process of analysis-synthesis, that is, each major game was analysed to determine its similar or dissimilar principles, in order to find out to which family it belongs. These principles were also used to see how a game compared with the games of a family to which it belongs.

Principles represent names and terms, the requirements of a game, its aims and objectives, and its rules. By comparing them, the games in a family were grouped together if they had more than half of the principles in common.

In this way groups crystallized within a family, and the group were then used to trace the evolution of their similar principles. These principles were found to have developed through levels or stages found at a point in time or a certain era.

As the study towards the origins continued, some similarities fell away when principles became fewer, while others presented themselves as links between different stages and as such represented the course of evolution. When only one principle remained, it was taken as the germ of the evolutionary process which had the potency for the development it initiated.

Principles change from stage to stage and a previous stage could not only contain fewer principles but also principles less advanced than the stage that succeeded it. To determine the stages two methods were used:

1. Similarities less advanced were traced back to the core. This method was followed in the Batting Family; Chapter II.
2. The historical data was analysed to determine the different stages. In its development a single principle can cause the change of the whole, and this then leads to another stage. Such a principle has to be determined, after which it is used to give its name to a stage. This method was followed in the the Target, Racket and Goal Families; Chapters III, IV and V.

SOURCES

Literature dealing with major games, served as the main source material. The sources consulted can be divided into the following five categories:

1. Old books dealing with the history of games, which are out of print but without which this study could not have been attempted. These books include works in several languages, mainly English, Dutch, German and French.

2. Modern or fairly modern books, including those dealing with the history of physical education that had made use of old books for their data. Unfortunately, some who used these old books now out of print, omitted certain facts that were found necessary for this study. Indeed, today there appears to be a tendency to modernise the games, and should this continue there will soon be very few books available for a study of this nature. However, there was at one time, fortunately, a tendency to include a brief history of the game under discussion, in most technical books.
3. Dictionaries, encyclopaedias, lexicons, and composite works which appeared under a common name like the badminton library, or are issued under the patronage of a distinguished and well-known person. However, it could be true to say that encyclopaedias give more information regarding the history of games, than many other books put together.
4. Books dealing with the cultures, cultural traits, or social organisation of nations.
5. Articles in journals, periodicals and books.

When all these books and articles had been consulted, justice could be done to the subject in question.

It was impossible to cover all the literature in all languages, but this defect in knowledge is counteracted by the fact, that by a stroke of fate, the history and development of games took place in just a few countries, notably England, Germany, Holland, Belgium, Scotland, Ireland, France and to a lesser extent Sweden, the United States of America and Italy.

Here no obstacles regarding language existed. Another limitation in the study of games, is that some authors are greatly influenced by their patriotism rather than an attitude of objectivity. All too often they claim that their own country started a game, thereby discarding evolution and even history in other countries. What has now become legendary regarding William Webb Ellis who is supposed to have started rugby, is but one such example. Americans too, have a similar legend in connection with baseball, and yet there are Dutchmen who claim that their country started this game. Many Englishmen would raise their eye-brows if they but knew that cricket had predecessors elsewhere, and the Scots would not believe that golf and curling had ancestors in European countries. It is, therefore, not strange to find a general tendency amongst writers to refuse to accept that a simple game developed into a major game, for this would then detract from the major game. The result is that names, and terms, in the simple games, which could have supplied the answer to those in major games, were therefore not considered by them.

SEQUENCE OF CHAPTERS

Chapters II and III will deal with the batting and target families, for which a classification of principles was necessary to trace the course of evolution together with its stages.

Chapters IV and V deal with the racket and goal families where history has covered the whole field, and it was only necessary to co-ordinate the data and analyse them to determine evolution and diffusion. In the case of the goal family, the evolution of those games has already been dealt with by the writer in "Die Verhaal van Rugby" (Craven, n.d.). In this book, the evolution of rugby principles was taken back to their origins

and in the process the other goal games were also included. As such, a summary of the findings of that work is considered sufficient, and will only be enlarged upon where games, other than rugby, have not been dealt with fully.

Chapter VI deals with a discussion of the results and conclusions which can be drawn from them.

CHAPTER IITHE BATTING FAMILYINTRODUCTION

Games belonging to the batting family were identified by the fundamental principles that a bat is used to hit a ball thrown, bowled or pitched to a batsman at a target on the ground or in the air. The batting team scores by running and using places of safety at the targets or bases or lines while the fielding team tries to prevent them scoring. Based on this criteria the following games were analysed and evaluated as possible members of the batting family:

English Rounders * (England)	Schlagball (Germany)
Brennbald (Sweden)	Kiepers (Holland)
Brennball (Germany)	Kastie (Holland)
Cricket (England, etc.)	Slagbal (Holland)
Danish Rounders (Denmark)	Original Baseball (U.S.A.)
German Rounders (Germany)	Modern Rounders (England)
Kampball (Belgium)	Swedish Rounders (Sweden)
Swedish Longball (Sweden)	Longball (England)
Danish Longball (Denmark)	

The above-mentioned games, and some of their variations that were found, will be analysed according to a criteria of principles to establish how the games present themselves for grouping. This will be followed by an analysis of the evolutionary development of the groups of games that crystallized from the previous analysis. For reasons that will later become evident, Cricket will be dealt with separately and its course of evolution determined before and after the point or

* In some parts of the U.S.A. this game was called Townball.

stage where it split from the main course of the development of its related games.

ANALYSIS ACCORDING TO PRINCIPLES

The fundamental principles were based upon the assumption that a batting and a fielding team participate in the game simultaneously. After an analytic study of each game of the batting family, the following specific principles, indicating similarities and differences, were deduced:

FACILITIES AND IMPLEMENTS

1. Field (Foul lines and bases)
2. Bat

PLAYERS

1. Pitcher
2. Batter (Chances, Batting again, The Catch)

PLAY

1. Running
2. Putting runner out

SCORING

The first stage of the analysis of the games was focused on establishing the specific principles present in each game. During the second stage the games were compared according to the number of principles they had in common. The findings of this stage of the analysis made it possible to group the games according to the degree of resemblance.

Analysis of games

An analysis of every game according to specific principles revealed a number of similarities and differences. Table 1 (See p. 19) presents these findings. (The total number of principles are 47 and those within a single game ranged between 13 and 26).

Principles in common

From the previous analysis the games were compared with each other regarding the number of specific principles they had in common. The basis for the evaluation of the number of common principles was studying the games in pairs. The cases where two games had over 50% of the principles in common, were grouped together inside the family. The procedure for this calculation was to total the number of principles of the two games. The number of common principles was then established, doubled (representing both games) and divided by the total number of principles. Table 2 (See p. 21) presents the findings of this analysis. The "+" sign indicates that the two games had more than 50% of the principles in common. The actual proportion is given in parenthesis within each block of the table.

TABLE I
ANALYSIS OF GAMES ACCORDING TO SPECIFIC PRINCIPLES

	English Rounders	Brennbaid	Brennball	Danish Rounders	German Rounders	Kampball	Swedish Longball	Danish Longball	Schlagball	Kiepers	Kastie	Slagbal	Baseball (original)	Modern Rounders	Swedish Rounders	Longball
FACILITIES AND IMPLEMENTS																
1. FIELD																
Foul lines																
Base line as foul line	x			x	x										x	
Portions of side lines foul line								x	x	x	x	x				x
Base and side lines as foul lines								x	x	x	x	x				x
Bases																
Proper bases	x	x	x	x	x	x						x	x	x	x	
Lines as bases							x	x	x	x	x	x				x
Field bases									x	x	x					
2. BAT																
Hand as bat	x			x	x	x										
Wooden bat or club	x	x	x		x		x	x	x	x	x	x	x	x	x	x
1. PLAYERS. PITCHER																
Pitcher in front of batsman	x	x		x	x		x						x	x	x	
Pitcher next to batsman				x		x			x	x		x				x
Batsman own Pitcher												x				
No Pitcher	x		x						x	x						
Pitcher throws under-hand	x	x											x	x	x	
Pitcher tosses ball up				x	x	x	x	x	x		x	x				x
2. BATTER																
Chances																
Batsman gets one chance	x		x	x	x	x		x	x		x				x	x
Batsman gets more chances	x	x			x							x	x	x		x
Last Batsman gets three chances	x	x									x				x	
To bat again																
Must score to bat again	x								x	x	x	x			x	x
Must hit home run			x		x											
If out must complete run									x	x	x	x		⊗		
The Catch																
One puts team out	x					x	x	x								x
Certain number puts team out							x		x	x	x					
Puts only batsman out	x		⊗	x						x			x	x	x	

⊗ Indicates that such principles probably existed but are not described.

	English Rounders	Brennbald	Brennball	Danish Rounders	German Rounders	Kampball	Swedish Longball	Danish Longball	Schlagball	Kiepers	Kastie	Slagbal	Baseball (original)	Modern Rounders	Swedish Rounders	Longball
1. PLAY. RUNNING																
Batsman takes refuge at or behind baseline if hit does not put him out			x						x	x						x
Fleeing base gives safety							x	x			x					
Batsman must run on hit	x	x		x	x	x						x	x	x	x	
Circular running from base to base	x	x	x	x	x	x						x	x	x	x	
Running inside field to opposite line and back							x	x	x	x	x					
Only one runner on base, no overtaking	x	x			x	x							x	x	x	
More than one on base, baseline, fleeing base, et cetera			x	x			x	x	x	x	x	x				x
2. PUTTING RUNNER OUT																
Burning	x			x		x	x	x	x	x	x		x			x
No burning		x	x	x								x				
Burning while changing	x					x	x	x	x	x	x					x
No burning while changing	x	x	x	x	x							x	x	x	x	
Ball grounded at or near home	x	x	x									x				
Ball returned to pitcher's box	x			x												
Ball thrown into batting area to force runners to stop									x	x						
Ball returned to batting area if no batsmen left							x		x		x			x	x	
No grounding or returning ball to Home					x	x		x								
3. SCORING																
Only batsman scores	x		x	x	x	x		x					x	x	x	x
Fielders score		x					x		x	x	x	x				
Fielders and batsmen score							x		x	x	x	x				
Only home run scores					x											
Home run scores more	x			x		x						x			x	
All runs score the same	x					x		x	x				x			x
Reaching of every base scores	x													x		
Home run gives life to the players put out	x			x												
TOTAL NUMBER OF PRINCIPLES	26	13	13	18	16	15	14	15	22	19	19	20	13	14	16	16

TABLE 2

COMPARISON OF GAMES REGARDING NUMBER OF PRINCIPLES IN COMMON

GAMES	English Rounders (26)	Brennbald (13)	Brenball (13)	Danish Rounders (18)	German Rounders (16)	Kampball (15)	Swedish Longball (14)	Danish Longball (15)	Schlagball (22)	Kiepers (19)	Kastie (19)	Slagbal (20)	Baseball (original) (13)	Modern Rounders (14)	Swedish Rounders (16)	Longball (16)
English Rounders (26)		22:39 +	18:39	28:44 +	28:42 +	24:41 +	10:40	14:41	14:48	12:45	12:45	18:46	26:39 +	24:40 +	30:42 +	18:42
Brennbald (13)	22:39 +		12:26	12:31	16:39	8:28	6:27	2:28	4:35	6:32	6:32	18:33 +	18:26 +	18:27 +	18:29 +	4:29
Brenball (13)	18:39	12:26		16:31 +	14:29	8:28	4:27	8:28	10:35	10:32	6:32	14:33	12:26	12:27	14:29	10:29
Danish Rounders (18)	28:44 +	12:31	16:31 +		20:34 +	20:33 +	6:32	10:32	10:40	8:37	8:37	18:38	16:31 +	14:32	20:34 +	12:34
German Rounders (16)	24:42 +	16:39	14:29	20:34 +		18:31 +	6:30	10:31	6:38	2:35	6:35	14:36	18:29 +	18:30 +	20:32 +	10:32
Kampball (15)	24:41 +	8:28	8:28	20:33 +	18:31 +		8:29	16:30 +	12:37	6:34	8:34	12:35	14:28	10:29	14:31	16:31 +
Swedish Longball (14)	10:40	6:27	4:27	6:32	6:30	8:29		18:29 +	20:36 +	18:33 +	22:33 +	12:34	4:27	6:28	6:30	14:30
Danish Longball (15)	14:41	2:28	8:28	10:33	10:31	16:30 +	18:29 +		22:37 +	16:34	22:34 +	12:35	8:28	4:29	6:31	24:31 +
Schlagball (22)	14:48	4:35	10:35	10:40	6:38	12:37	20:36 +	22:37 +		36:41 +	34:41 +	22:42 +	6:35	6:36	8:38	26:35 +
Kiepers (19)	12:45	6:32	10:32	8:37	2:35	6:34	18:33 +	16:34	36:41 +		26:38 +	20:39 +	6:34	6:33	6:35	20:35 +
Kastie (19)	12:45	6:32	6:32	8:37	6:35	8:34	22:33 +	22:34 +	34:41 +	26:38 +		20:39 +	4:32	6:33	10:35	20:35 +
Slagbal (20)	18:46	18:33 +	14:33	18:38	14:36	12:35	12:34	12:35	22:42 +	20:39 +	20:39 +		12:33	14:34	14:36	16:36
Baseball (original) (13)	26:39 +	18:26 +	12:26	16:31 +	18:29 +	14:28	4:27	8:28	6:35	6:34	4:32	12:33		22:27 +	20:29 +	10:29
Modern Rounders (14)	24:40 +	18:27 +	12:27	14:32	18:30 +	10:29	6:28	4:29	6:36	6:33	6:33	14:34	22:27 +		22:30 +	6:30
Swedish Rounders (16)	30:42 +	18:29 +	14:29	20:34 +	20:32 +	14:31	6:30	6:31	8:38	6:35	10:35	14:36	20:29 +	22:30 +		6:32
Longball (16)	18:42	4:29	10:29	12:34	10:32	16:31 +	14:30	24:31 +	26:35 +	20:35 +	20:35 +	16:36	10:29	6:30	6:32	

(The number of principles present in a game are indicated in parenthesis next to the name of the game)

Grouping of games

The resultant-grouping of the games after the comparison of principles, is presented schematically in Table 3.

English Rounders groups itself with 7 other games which include four Rounders-games, Baseball, Brennball and Kampball.

Swedish Rounders, Danish Rounders, German Rounders and Baseball, group themselves with 6 other games which in each case include at least 4 Rounders-games. Brennball falls within the group of Rounders and Baseball, but Kampball appears in the group of Danish and German Rounders. Schlagball and Kastie, on the other hand, both group themselves with 6 other games and include the Longball- and "Slagbal"-games as well as Kastie.

Modern Rounders, Brennball and Kampball group themselves with 5 other games. In the case of the latter, 3 Rounders-games and 2 Longball-games appear in the grouping. The two former games include mainly the Rounders-games. Danish Longball, Kiepers and Longball group themselves with 5 other games. The "Slagbal"- and Longball-games are mainly included with the Kampball grouping, with Danish Longball and Longball.

Swedish Longball and Slagbal, in both cases, group themselves with Schlagball, Kiepers and Kastie. Danish Longball appears in the grouping of Swedish Longball and Brennball with Slagbal.

The only game Brennball groups with is Swedish Rounders.

Therefore, two groups, the Rounders group and the Longball group, have emerged in the batting family.

The Rounders group consists of the following games:

English Rounders, Swedish Rounders, Original Baseball, Modern Rounders, Brennball, Danish Rounders, German Rounders and Kampball with Brennball a distant relation.

The Longball group consists of the rest, namely:

Swedish Longball, Danish Longball, Schlagball, Kiepers, Kastie, Slagbal and Longball. Kampball shows some affinity with Danish Longball and Longball, while Slagbal has a few principles in common with the Rounders group.

TABLE 3

RESULTANT GROUPING OF GAMES

	English Rounders	Swedish Rounders	Baseball (original)	Modern Rounders	Brennbald	Danish Rounders	German Rounders	Kampball	Brennball	Swedish Longball	Danish Longball	Schlagball	Kiepers	Kastie	Slagbal	Longball
English Rounders		x	x	x	x	x	x	x								
Swedish Rounders	x		x	x	x	x	x									
Baseball (original)	x	x		x	x	x	x									
Modern Rounders	x	x	x		x		x									
Brennbald	x	x	x	x											x	
Danish Rounders	x	x	x				x	x	x							
German Rounders	x	x	x	x		x		x								
Kampball	x					x	x				x					x
Brennball						x										
Swedish Longball											x	x	x	x		
Danish Longball								x		x		x		x		x
Schlagball										x	x		x	x	x	x
Kiepers										x		x		x	x	x
Kastie										x	x	x	x		x	x
Slagbal					x							x	x	x		
Longball								x			x	x	x	x		
TOTAL NUMBER OF GROUPINGS	7	6	6	5	5	6	6	5	1	4	5	6	5	6	4	5

Comparison between game groups

The Rounders and Longball groups which emerged were compared at this stage to establish their elements.

The findings are presented in Table 4.

TABLE 4TYPICAL ELEMENTS OF ROUNDERS AND LONGBALL GROUPS

SPECIFIC PRINCIPLES	ROUNDERS GROUP	LONGBALL GROUP
Bases	Pitcher in front of batsman; Pitcher throwing underhand.	Pitcher next to batsman; Pitcher tossing ball.
Batter	Batter has more than one chance; Batter has to run on hit; Batter can hit ball in all directions.	Batter takes refuge somewhere; Batter must hit ball in certain areas indicated by field or portions thereof.
Putting runner out	A catch puts batsman out.	A certain number of catches puts side out.
Running	Circular running; One runner on base and no overtaking.	Running inside field; More than one runner on base and overtaking.
Fielding	Grounding of ball.	Ball returned to batting area if no batsman left.
Scoring	Home run scores more; Reaching of each base scores.	Batter to score to bat again; Fielders can score.
General	The catch is important; "Burning" is found	The catch is important; "Burning" is found.

EVOLUTIONARY ANALYSIS

According to the hypothesis used, original Baseball and Rounders must now be studied to see if one of them can be established as the father of the Rounders group, and Schlagball as the father of the Longball group.

ORIGIN OF THE ROUNDERS GROUP

Theories

In an attempt to trace the ancestors of the Rounders group, existing theories were analysed and evaluated.

1. For years, two of the theories have been on opposite sides, and consequently, have clashed vigorously. On the one hand, there is the Henry Chadwick's school which maintains that Baseball developed from the English game of Rounders (Menke, 1947:79-80) with its supporters like Henderson (1947: Chapters 20,21), Collins (1929:63), A.E. Abbot (n.d.:397), C.A. Peverelly (1866:338), Knowles (1911:20) and Crane (1891:1). Against the protagonists of the Rounders school there is the Spalding's theory (Menke, 1947:81,82) which claims that Baseball was purely an American game and in fact originated there. In order to support and propagate his theory, Spalding had a commission appointed. Its chairman, Mills, and his co-members took some time to produce their report, but when it eventually appeared, it was much to his liking for they came out in support of his theory on the origin of Baseball. This report was also supported by Wood and Goddard (1938:605), Montgomery Ward (Hornsby, n.d.:10), Menke (1947:78-91), Jessee (1938:10), Rice (1952:164) and James, et al. (1936:30). As Chadwick was born in England it is only natural that some Americans sided against him

and took the Mills report to be correct and final. According to this report Abner Doubleday, a famous General of the American Civil war, was credited with inventing Baseball in 1839 in Cooperstown. It also meant that Cooperstown became famous and a big and beautiful Baseball field was laid out there with large pavilions. It bears the name of the General, and the Baseball Museum and the Hall of Fame were also built there. However, on the completion of all these, Robert W. Henderson (1947:182-195) explodes what he calls "the myth" on which the foundation of the game was supposed to rest. What is more, after reading his book no one can ever doubt the truth of it and must support Chadwick. At the same time Americans who are disappointed, can find encouragement and consolation in the fact that the actual development of the game, was due to American genius.

2. Patriotism often stands in the way of objectivity when the origins of games have to be decided. As an example of this, Van Schagen (1923:83) can be quoted:

Baseball seems to be of Dutch origin. However, in this country it died out, as did so many of our other national games. The last Baseball game was played in Beyerland not so long ago. In its simple form it was taken to America by our colonists. About a century ago it was revived in Philadelphia, and the Old Knickerbocker Club, in whose name one recognises the Dutch origin, was the first to standardise and popularise it.
(Translated).

3. The Swedes again, in the person of Törngren (1905:367), express the opinion that Baseball developed from their game of Brennald. Bogeng (1926:356) says, "Es (Baseball) würde von französischer Hugenoten nach Amerika gebracht."

Jessee (1938:10) stated that Baseball was evolved from the game of "Cat". Pycroft, quoted by C.W. Alcock, supports Jessee and calls the game "Cat and Dog" (The Popular Recreator, n.d.:34) while Bolland, also quoted by Alcock, says that its ancestor was "Tip Cat" (The Popular Recreator, n.d.:34).

The whole question is settled by Henderson (1947). Briefly, Henderson has shown that the word, Baseball, was also used for Rounders, and that in a publication of 1700 the name "Baseball", was already used in England. It was not until 1762 that the name first appeared in print in America, the book containing it being a counterpart of an English book. Baseball, when it was still Rounders in the United States of America, was described in "The Book of Sports" by Robin Carver (1834), but it was taken virtually seriatim from the English book, "The Boy's Own Book", published in 1829. As the American version of the book was very popular and extensively read, it had a tremendous influence on Baseball as a game in America. This first publication, altered slightly as it was by Carver, brought about a great change, namely, the name Rounders disappeared altogether in America, whereas in the English publication where the heading was "Rounders", Carver changed it to "Base- or Goal Ball". This publication also formed the basis for the rules of 1845, drawn up by the Knickerbocker Club which laid the foundation for Baseball in the United States of America (Henderson, 1947:179).

Henderson, therefore, makes out a strong case for the contention that originally Baseball was nothing other than Rounders and that under the name Baseball the Americans made it what it has become today.

It would however, be wrong to say that Rounders is the father of Baseball, for deep down, they are one and the same thing. It would, therefore, be more correct to say that Rounders could form the basis on which the evolution of the game could be traced.

An interesting theory here is the important part said to have been ascribed to a certain book as opposed to man, as the supposed carrier of cultural traits. Certainly it cannot be wholly excluded if we bear in mind that the game of Rounders was called Town Ball in some parts of America even before this publication actually appeared (Henderson, 1947:146). Being in authentic times, communications and literature already played a bigger part than they did in early history.

The first written document about the game of Rounders was, according to Henderson (1947:140), in French and it was called "La balle empoisonné" or "Poisoned Ball" (1810), also Grande Theque, but it was in actual fact nothing more than a description of the English game of Rounders. In Germany, Ball Stock was played, thought by Henderson (1947: 141) to be a Rounders game, but it was actually a kind of Longball game.

Having determined the possible ancestor of the Rounders group, other arguments substantiating these findings are to be found when one analyses each of the games of that particular group.

The game of German Rounders is by no means of German origin for its description appears in a book by the English author, Herbert (1946:128). No German book makes mention of it, and the writer of this treatise actually visited Germany for an extended period, travelling through the country ex-

tensively, and never came across it. It seems to be a game evolved by a writer whose knowledge of other similar games enabled him to do so. This is by no means an isolated case, for Kastie and Slagbal were made by the Nederlandsche Bond voor de Lichamelijke Opvoeding, no doubt based on knowledge held by professional people on similar games (De Wolff, n.d.:347,578).

Kiepers, on the other hand, developed out of Kastie (De Wolff, n.d.:347,578,XXIV). It is known too that Modern Rounders and Longball were evolved by the Ling Physical Education Association (Games and Sport in the Army, 1941:474,479), while Swedish Rounders was the name given to a game devised by a lecturer in Physical Education at Leeds University (Margaret Laing, n.d.:101-103).

All the principles of these games were either borrowed from other games, or they were altered. The principles themselves, were always found in older games. German Rounders, therefore, can be ruled out as a possible ancestor of Baseball.

In Danish Rounders an identical game to German Rounders is found, and it is noteworthy that this identity where the two directly complemented each other, can be found in only two books, English ones (MacCuaig and Clark, 1951: 120-121; Jarman, n.d.:44,45).

Brennball too, is to be found in only one German book and is never found or mentioned in any other books. In this book it is given as a game for small girls and it leads up to the more important Schlagball. If the game is analysed, principles are found from both the Rounders and Longball groups of games, and it becomes obvious that it

too was evolved (Köhler, 1936:102).

Swedish Rounders is described in an English book used for training in games and according to Table 3 most of its principles must have been borrowed from Rounders by the writer, Margaret Laing (n.d.:101).

Kampball falls into the same category as Brenball. This game is half Longball and half Rounders, and from all accounts it is a comparatively new game devised for Belgian soldiers. It must be pointed out that some of the so-called Longball principles found in Kampball (Reglement van Lichamelijke Opleiding, 1935:344-345) and Brenball, could quite easily have been taken over by Rounders, just as the latter could have given certain principles to Longball. Judging by the age of these two games, however, leads us to the conclusion that they could not have been the ancestor of Baseball, for they were devised comparatively recently by Physical Educationists, who as such, have a sound knowledge of other similar games and this knowledge supplied them with the principles for the games they evolved.

One other game remains which belongs to the Rounders group, namely Brenbald, which has been played in Sweden for a long time. Although Brenbald is found in a Longball country, this is no reason for ruling it out. However, it can be ruled out for the following reason: the name of the game, when translated, means "burn ball" and this is a typical Longball principle which, it is argued, is based on the burn or pain caused when a player is hit by the ball. Strangely enough, Brenbald has no "burning". The principle of burning in this case is, therefore, wrongly applied, mainly because next to the home-plate,

there is a mark on which the catcher places the ball, and at the same time shouts: "Burn", in order to force the runners either to stop or to return to their bases.

This incorrect interpretation of the principle, which was considered so important that the name of the game was actually derived from it, shows that the game or its principle must have been borrowed from elsewhere. From where then? This is easy to determine for Brennald uses a pentagon and the only other game to do so is Rounders. Furthermore, in Brennald, Rounders, Swedish Rounders and Kastie the last batsman gets three extra turns or chances to bat to try to save his team. Because Kastie and Swedish Rounders have been shown to have evolved in modern times, Brennald, a much older game, could only have borrowed this principle from Rounders.

Having established two different groups of games, Rounders and Longball, it was found that Rounders and Baseball were originally the same game and that this game led to the birth of a number of other Rounders games, mostly on the European continent.

Fundamental principles

Rounders games have fundamental principles which must now be studied, namely, running, the measurement of hits, the trap and the catch.

RUNNING

Two types of running patterns were found in the Rounders group, circular and to and fro running.

1. Circular Running

The first principles which must now be followed on their course of evolution are the playing principles, which always require a field.

The field *

The diamond was the last development, but where did it originate?

If Baseball is an advanced form of Rounders, then the latter should supply the answer, otherwise it means that the diamond had a different origin.

By studying the different fields it was found that in English Rounders the following were used: circles; pentagons inside circles and marked out on the ground; pentagons where the bases are connected with the centre of a circle; and finally pentagons by themselves.

(See illustrations in Part II).

This leads us to the conclusion that a circle was originally used in Rounders and that the bases were placed on its circumference. It is also known that the captain had to decide how many bases would be used, and how they were to be arranged, but gradually five bases seem to have become the rule and these five were arranged in the shape of a pentagon, drawn on a circle to start with in order to obtain correct distances. Because players took short cuts from base to base they naturally did not follow the circumference of the circle, so that the circle as a track for runners became unnecessary. Probably, in this way, the circle eventually fell away, but its radius was retained only to fall away as well in the end. The pentagon thus became the fashion and it could quite easily have led to the diamond to facilitate the negotiating of corners, and in doing so merging the second and third

* Diagrams for the games dealt with will be found in Part II of this study.

bases into one.

On the other hand, it is also possible that the pentagon had nothing at all to do with the diamond and that both the pentagon and the diamond developed independently from the circle. If four bases were decided upon they could have been arranged in a diamond shape (Rounders) or a square (Townball), or if five, a pentagon. It seems probable, however, that the diamond shaped field developed from the circle, which theory could then apply to all the fields used. If other batting games which used the circle can be found further down the ladder of evolution, then it can be taken for granted that the circle used in Rounders and also in original Baseball, was older than the diamond and pentagon, and actually led up to them.

The next task will, therefore, be to see if any such old games in which circles were used in the same way as the diamond or pentagon, can be found. Fortunately, such games did exist, five of which are chosen for the purpose of this comparison. They are, namely, Stones (an old Irish game), Stoolball, and Circular Tip Cat (two very old English games), Keits (a Dutch game of obscure origin) and Four Old Cat (which dates back to the pioneer days of the United States of America). Firstly, these are all batting games in which runs are scored in prescribed ways and in which are found some of the principles enumerated earlier in the Rounders games. The circle principle was part of them, and if there is a link between the circle and the Rounders group, then the other principles will substantiate or reject the link between circle games and their subsequent developments, namely, the diamond and the pentagon. Secondly, these games are all old enough, and sufficiently practised,

to have produced principles for the Rounders group, and this in itself, is a big factor in favour of their being ancestors of Rounders and Rounders games. They and the number of principles comprising them were of course less developed if one is to judge by present day criteria. A third factor which strengthens the links is that in the Rounders group, there are survivals of those games. These survivals, which can be classified as games belonging to the period of circular running, are mentioned in the principles and elements below:

In Town Ball, stones were sometimes fixed into the ground to act as bases; in Rounders, round holes were often dug in the ground for the same purpose, and sometimes a stone or the stump of a tree, were fixed in the home area, in front of which the batsman took up his position. Why did the players go to all this trouble when there were other, much easier, ways of fixing bases? The answer to this is found in the period belonging to games of circular running, where these survivals, that is, a stone or stump, were put to their proper use, for then they were used as targets, which formed the crux of the games. If, however, there were two batsmen, there were two targets, and if there were more than two batsmen, more targets were added and placed in a circle. This indicates that Rounders and circular running cannot be separated from one another because they both give an explanation for the circle and its origin.

The bases

During this era, the bases used in Rounders, were virtually the same, in that they were stones, holes or stakes, but there was one big difference. In Rounders the bases are

bases only, but in the circular running games they are bases cum targets. In the latter games the base principle was purely incidental. It was the actual reaching of the next target that was the main objective, whereas in the Rounders group, the idea of safety at a base, was the matter of primary importance. This indicates that the target principle led to the base principle, and when the target was not used, it still served as a base. Something which substantiates this is the fact that other principles, which are also the principles of Rounders, can be explained in the light of the target principle, namely: that runners are not allowed to overtake one another; that one runner only may take up his position at a base; that the batsmen determine how many bases are to be used (and it will be noticed that in Four Old Cat, bases were used and not targets); that by touching down a ball at the base a runner is put out (a survival from Rounders at the time when targets were used and fielders tried to hit them to put runners out); that the touching of the target with the ball eventually became touching the base with the foot while the ball remained in the hands of the player.

Burning

"Burning" a player, could quite easily have had its origin in the target principle, that is, striking it to put a runner out. What would a child do if, in throwing at a target, he hits the runner who has come between him and the target? The child would argue that but for the runner he would have hit the target. Besides, children knew other games, where the hitting of a player "killed" him, as for example in original Schlagball. The plugging or burning principle, therefore, also seems to have derived

from the target principle. It was also known in other minor games, as well as in the original Longball games.

The pitcher

Another principle that can be explained is that the pitcher stands in front of the batsman. Why? Mainly in order to hit a target by "throwing" at it, and as these targets were in a circle, the pitcher had to get out of the way of runners, and to do this the centre of the circle had to be made the "pitcher's base". In the Rounders games the pitcher had to "throw" underhand. In the Longball games he tossed the ball up. This difference existed because the pitcher in the target, or in circular running games, had to throw at a target.

The runners

In Rounders a batsman has to run after he has hit the ball. Why? We find the answer in these games under discussion. Once he has defended his target, a batsman has fulfilled his purpose and must then make way for another batsman of his own team who must take his place.

Principle of Three

At this stage, the reason why the batsman sometimes had three turns to hit, cannot be fully understood and must wait till other principles have been explained. It is known, however, that this "principle of three", as it will be called, is also found in other games of this period, proving the connection between such games and Rounders. This being so, it is also known that if a batsman missed the ball and his target had not been struck, he was not out. He was then free to hit the ball as often as he wished, but this practice eventually lost favour, and Tip Cat then limited hits to three.

This meant that the pitcher now had another way of putting a batsman out, namely, by forcing him to miss. Herein, perhaps, lies one of the reasons why the target began to lose its importance. The feeder then concentrated on getting the batsman to mishit, which he did by throwing harder, in many different ways, and even throwing over the top of the target. Not only that, but he threw in such a way that he forced the batsman to hit a catch. The feeder thus started to exploit the weaknesses of batsmen to get them out.

Scoring

A home-run that counted more than for other hits, or the principle of scoring a point for each base reached, can now also be explained. To reach the next target became the immediate aim of a runner and on reaching it, he scored one point for his team. If they could proceed further, they got a point for every target reached. If they reached all the targets in one run, they naturally scored more points, and called it a home-run.

Bases and Targets

A few questions could rightly be asked at this stage: If these two are so closely related, why was there only one batsman in Rounders, and more than one in the circular running games? The reason for this is that there is proof that the target led to the base and thus it was only natural that one target only be retained, which then acquired greater importance than the others so that only one batsman appeared on the field. The feeder would then try everything in his power to get the batsman out, thereby putting the whole side out. That he would have concentrated on the weakest batsman is highly probable. But the other members of the

batting team would not have taken it lying down. After all, to bat is the greatest fun, and if a boy does not have a turn to bat he will eventually become dissatisfied. Every boy, therefore, had to be given a turn. One of the games tells us how this was done: pitch to every boy in turn. That is what is actually done to this day in Rounders and Baseball. There is another game in which the pitcher pitched to the one nearest him or to each target in turn, but this could create the problem of the pitcher pitching to the same player twice in succession or even oftener. The one-target-principle was, therefore, another way of giving every batsman a chance to hit.

In addition, if the pitcher was confined to one spot and he kept pitching to different targets, the fielders would have had to change their positions. It is possible that fielding problems also served to make one target more popular than several others, especially as the pitcher had to have a catcher and was not allowed to pitch to a target without the catcher knowing which one it was going to be. Add to this the fact, that if a batsman had to wait for a possible chance to bat, he was virtually out of the game - although still on the field - and actually of more use to the fielders than to his own team, for they could put him out and at the same time the whole team. This principle, however, fell from grace and was eventually changed in a game called Stoolball, where only the batsman was put out and not the entire team who could remain at their targets, and another batsman was allowed to take the place of the "out" batsman thus giving him a chance to bat, thereby giving one target greater importance than another. Stoolball, therefore, developed an important principle

which changed later games. The fact that in the early days of Baseball and Rounders, a player was expected to bring his own bat even when one base became the main target, is thus a survival of the time when all bases were used as targets.

Does this not point to a survival of the principle that every player of the batting team batted along with the others? Later, when one target was preferred to others, these targets obviously became unnecessary but for a while they were left on the field and became survivals. Perhaps this also contributed to the one remaining target, or home, eventually losing its identity as a target, but still serving some useful purpose, namely, that of fixing the air target which is found in Baseball and the Rounders group of games. That is why, for example, in one form of Rounders a target inside the circle is found, but it is never used, the air target being the only one used, thereby giving us another survival of a previous stage. The target then became the home-plate and that plate the air target.

The "Cat"

"Cat" is an unusual name which appears in games with which we have already dealt, for example Tip Cat, Four Old Cat, Cat and Dog. It is known that in Egypt the cat was considered sacred, and that in ancient times special temples were built for it. It is also known that during the Middle Ages a cat was put in a bag and kicked around at farmers' festivals in Holland (Schotel, 1905:349-353) and also that a cat is supposed to have many lives. For this reason, in some games the position of the "cattie" in relation to the hole determines whether the batter gets a "life" or not.

All these possibilities, however, do not seem to explain the origin of the word. Neither does its Latin counterpart. Where, then, does the word come from?

On account of the similarity of these games it seems very likely that cat was derived from the Dutch game of Keits, Kets or Kaits, where a batsman could be caught or run out when the "kets" was placed in the "kaitsputte" (a hole) before he reached it with his bat. This word expressed the object of the game, namely, "running to and fro, to exert oneself, to achieve or search for an object" (Tierlinck, 1908-1910:127).

In some games the running had to be to and fro for which the running of "keits" or "kets" applied. This also applied in all games of the circular running period in which there were only two batsmen, which fact again leads this investigation back to the ancestors of circular running games. It must also be pointed out that in "Four Old Cat", the word cat is used for a base, whereas in other games where this word is used, it signifies the object which is struck. Even Ice-hockey and original Bowls used it. This shows that the game of "Four Old Cat" was based on other games, but that the word cat was incorrectly used, and could therefore not, as is sometimes claimed, have led to Baseball. What seems likely is that this game became 'baseballised' in the United States of America.

Summary

To summarize, the following information emerged about the Running Stage: The diamond and pentagon could have originated from a circle. Bases originated from targets. Explanations were found for: the pitcher's plate; over-

taking; one player at a base; touching base with foot to put runner out; "burning"; batsman having to run on a hit; home run counting more than other hits; one batsman at a time and one home base; the term, "cattie".

2. To and fro Running

An attempt will not be made to determine what evolutionary level preceded the circular running period.

The games that were found in the circular running period, are the same as the games found in the era which preceded it, and include other similar games with similar names, for example, Stoolball, Stones, Tip Cat, Two Old Cat, One Old Cat, Keits (Holland), Cat and Dog (England and Scotland), Lobber (Ireland), Tip and Run (Ireland), Club Ball (England). This period will be referred to as the running era, for the games are in actual fact running games in which running between two targets was done after a hit.

What do these games, all less developed than those they produced, teach?

Burning

As we pointed out, burning is absent in the old games and must, therefore, have developed later, but this group of games with its targets were actually responsible for the term. In fact, the same explanation that was given for some of the principles dealt with previously, can also be applied to this group, showing that they belong to the same branch of the same tree, for example, the pitcher still takes up his position in front of the batsman; the targets are the same, except that a circle and kitty-stick are also used as targets; the batsman must still run on a hit;

the grounding of the ball to put a runner out is used by all these games, as well as throwing at a target to put a runner out.

The Catch and Plugging

Further light is also thrown on other points. In Rounders (sometimes), Tip Cat and Stones, a catch puts the whole team out. In Stoolball only the batsman is put out. The games under discussion are individual games, and differ from the team games dealt with in the circular running era. Because the team took the place of the individual, the team must at first have taken over all the "rules" applicable to the individual, and that is why the rule that if one player of a team was put out the whole team was out, was but a survival. This applied to the Catch and Plugging. Stoolball, as a team game, led the way and did away with individual principles but retained another principle, a survival of the individual games, namely, if a fielder puts a batsman or runner out, he takes his place. It may also supply the answer of how the change from the individual to a team occurred. When a batsman hit the ball whilst defending his target, all the players of his team had to run and could be plugged (Pick, 1952:14).

Scoring

The original method of scoring was to run to a mark, or goal and back, but this was changed, the mark becoming a target, and also acting as a place of safety as in the circular running period and in Rounders. In such cases the batsman had to walk back after reaching the place of safety. Perhaps the fielding of the players became so expert, especially with some batsmen having to

run far, that the second target was added to make it easier for the batsman, and to liven up the game. This principle was later reversed in the Rounders group. The target fell away and left a place of safety, or a base.

Targets

The hole seems to have been a very common kind of target. For example, it is found in Stones (sometimes), Cat and Dog, Tip Cat. In one form of Tip Cat there is a circle with a kitty stick. Sometimes the kitty stick is omitted, and then the circle is the target aimed at by the fielders to put a runner out. The stick seems to have been used to indicate where the circle was, and as such found other uses as well.

Until now, it has not been possible to explain the origin of the target. For the rest an explanation for most of the principles has been found.

Summary

This analysis revealed that individual games led to team games; survivals of individual games are a catch, or striking a runner which put a whole team out; original running was to a mark and back; a mark became base and later the target; a target for every batsman led to the circle and circular running; apart from stones and stools as targets, the hole as target remains prominent and the circle has also appeared.

MEASUREMENT

1. Origin of running

What preceded the running period?

The same names for games of the circular running, and running eras present themselves, and also as variations of those games, only they were less advanced. Other games can also be added to this group. The games of the running era were already very simple, but those which preceded them were almost primitive or childish, if we are to judge by present-day standards and modern batting games. This step down the ladder is a big one, for running between targets has disappeared and without it there are not many principles left. The question that arises is, what led to running or, put differently, on what principle is running based? The predecessor to running, as found in many games which preceded the running era, was simply a way or means of measuring the hit, that is, if it was not caught. The length of the hit was measured by means of paces or bat-lengths, either after the hit, or after the fielders had returned the object that was hit, in which case the distance from the target to where it came to rest, was measured. To this day, that is exactly what happens in all batting games including major games where every hit is measured. The only difference is that it is measured in terms of runs, or the progress made by running. The games which belong to this stage are Tip Cat, Stoolball, One Old Cat, that is, in games found practically all over the world. How the one led to the other can quite easily be understood in the light of minor games, for example, in one of the forms of "I Spy", hidiers throw a tin away to give them time to reach their hiding places. Distance

and running are basic principles to reach a place of safety or failing that, to be out of the game. In the minor game of "base", a game has been found in which a player is safe while in touch with the base, either by being at, or indirectly attached to it, by holding hands with other players, but once out of base or not attached to it, he had to run to a place of safety and while running could be plugged. Here the running and plugging principles are used, although slightly differently, and the word "base" was later also used in Rounders.

2. The return throw

The return throw as a new development came into being because as long as the "ball" moved, the fielders could play it, that is, throw or even kick it nearer to the target in order to make a batsman score less. When caught, it went "dead" and could not move. Later, the return throw developed out of the ball being "alive" and the target could be struck by throwing at it. The batsman could also play the "ball" when returned as long as it was "alive", that is, moving in the air or on the ground, and in playing it, prevent the "ball" from becoming "dead" too close to his target, or striking it. The "live" ball, therefore, led to the return throw and the defence of the targets. While the "ball" was alive it could be played but when dead a new phase of the game developed.

Placing of the ball, and distance hitting resulted in the ball becoming dead, that is, it was not caught or was not moving, and this could quite easily have been abused by fielders who took a return shot whether the ball was moving or not. This inevitably gave the batsman the same rights, the only difference being that when the ball did not move

he had to measure, because he was in the focal point of play. The fielder who "killed" the ball with his return throw took the batsman's place for having "killed" the ball. This principle is found in original Castie or Kastie (Holland), Knattleikr (Scandinavia), Windspelen (Holland), original Kiepers (Holland), Kietembal (Holland) and original Stoolball (England).

3. Origin of "stumping", Wicket keeper

It has been pointed out that two targets were preceded by one target and a mark, and that the batsman had to run to the mark and back in order to score. This then was the oldest form of running, of means of measuring the distance of the hit in terms of running. It was a measurement of time, too, for if the ball/cat was returned to the target and there made dead before the batsman could reach it, he was out. This led to "stumping" (Cricket) or touching the target (Baseball). This also led to one player being placed at the target for this purpose and this marked the beginning of the wicket-keeper or catcher.

TRAP

1. Development of the pitcher

How did it come about that a pitcher was used who aimed at a target, and a batsman in turn, defending that target? Actually there are two principles here, one dealing with the pitcher, the other with the batsman.

The pitcher: In many games of this period, to be called the Trap era, the batsman either threw the ball up himself or an object was used to propel it into the air, for example, in Trap Ball (England), Starling Tip Cat (Czechoslo-

vakia), games extending from England and Ireland over Northern Asia and the whole of China and Korea to Southern Japan in the vicinity of Kumamoko, the Indians of North America in Ontario, South Dakota, New Mexico, Samoa: Borschek (Saxony), Titschkerl (Austria), Niggel-Schlagen (Switzerland), Meggern, Triebelspeil, Pind (Scandinavia), Batonnet (France), Zurka (Rumania), Tschuluk (Bulgaria), Tschischek or Ptichki (Poland and Russia), Gulidanda (India), Sfonbola (Italy), Kallekeslager op ne steen (Holland), Anjelus-spelen (Holland), Pikkenootje doen or Pikken houtje (Holland), Kennikie ^x (South Africa), Knurr and Speel or Northern spell (England). The problem in those days, as was the case with all games, such as Tennis, Football, etc., was how to start the game. All kinds of ingenious ways were considered. A trap was used, bricks, holes, and the cattie itself was sharpened, so that it could be hit and propelled into the air for the hit. This practice of using an object to help the batsman, became the ancestor of the pitcher who at first took over from the trap; his duty was to throw the ball up for the batsman to hit. Using the pitcher in this way, simply in the service of the batsman, survived for a very long time and it is even found in some forms of Rounders and original Baseball. Later the pitcher became the batsman's public enemy number one.

x The word Kennikie might have been derived from ken (chin) which plays a part in one of the hits. The view expressed is that it was derived from all the games which used the word cat, that is, similar games, and that the diminutive form, for which South Africans are very fond, led to the word cattietjie which became kennikie.

But the trap, in turn, took the place of another "pitching" principle, that of the batsman throwing the ball up himself. That, then, is the evolution of pitching, which from an ordinary method of starting a game or innings, led to such a highly specialized principle - the batsman throwing the ball up himself prior to hitting it and this in turn leading to a trap, which eventually led to a player being used to do so. In Tennis it is the same, for the highly specialized service had as its origin in the principle of starting a game or rally.

2. Defence of target

The next principle to receive attention is that of the target which was defended or protected by the batsman.

There does not seem to be any doubt that when the trap-like objects were used, the return throw of the fielders gave another meaning to them, that is, they tried to hit such an object. The batsman then tried to prevent the return throw from hitting his target. In other words, the defence of the target seems to have come into being as a result of the return throw. Having achieved this milestone, the next step seemed natural: when the pitcher took over the function of the traplike objects, the target principle was carried over to those objects, and they had to be retained for the return throw.

When the cattie was used and the target was the hole, the hole was not visible and so to indicate where the hole was, the circle or kitty stick was used to do so and became part of the target. It did even more, however, for it supplied a place of safety for the batsman.

When running replaced the measurement principle, this place of safety received further significance. It was retained as the games developed and was eventually used as the batting crease or batsman's box. When running was introduced into the game, the return throw that aimed at the target, received further significance. When the target was defended upon the throw of the pitcher, the batsman was out if the ball was missed, adding yet another means that could be used to put the batsman out and leading ultimately to specialized pitching or bowling. The batsman got three chances if after a hit the "ball" landed on the circumference of the circle and one when it landed outside. It is assumed that the batsman could hit at the ball even after a miss if the "ball" still moved and this is in fact still the case in Cricket today. The difference between one and three hits seems logical, for in the one case the "ball" was not quite out of the circle and in the other it was. Why three was decided upon might never be known but as the number itself was retained in games, it seems more than coincidence that it is still found in Baseball, and that in Rounders the last batsman gets three chances to hit a "home run" to bring the players of his team who were far out, back into the game. Moreover, the players put out also got one chance to his three. In both cases it was a protective measure for both the player and the team which was at bat, that is, was "in".

CATCHING

Hitting the "ball" was preceded by throwing the ball as far as possible, and placing the throw to kill the "ball". The distance placing of the ball was preceded by throwing the ball up,

and the player catching, or killing it got a turn to play. The germ of the batting game, therefore, was to catch, and was found originally in old Kastie or Castie (Holland), Knattleikr (Scandinavia), Windspelen (Holland), old Kiepers and Kietembal (Holland), original Stoolball, Tip Cat and perhaps Club Ball (England), Schlagball (Germany) and Ourania (Greece).

SUMMARY

It seems as if satisfactory explanations have been found for the origin of running; the return throw and its effect on stumping, which led to the necessity of a wicket keeper or catcher; also of giving significance to the traplike objects as targets to be defended by the batsman; the start of a pitcher; origin of hitting and the root of all the batting games, namely, the catch.

ORIGIN OF CRICKET

The Name

The name, "Cricket", has been explained in many ways. Most writers maintain that it is derived from the Saxon word "cric", meaning a club or bat (Altham and Swanton, 1938:19). In a fifteenth century French Manuscript the word "criquet" has been found, "On joit a'la boulle, prése d'une atache on criquet" (Altham and Swanton, 1938:19).

M. Jusserand interpreted this as "un baton plante' enterre, qui servait de but dans une des formes du jeu" (Altham and Swanton, 1938:18,19).

This would indicate that the word was borrowed from French. There is, however, a difference of opinion about this as most writers would like Cricket to be typically English, even going so far as to state that it was derived from the word "creag"

(Altham and Swanton, 1938:18) which, in fact, was a kind of Skittles game. It is difficult to understand why it caused so much trouble when one realizes that the stools used for milking were also called "cricketts" and they were originally used for Stoolball (Hole, 1948:50). Cricket was also spelt Crickett (Gomme, 1894:82). However, it was Stoolball which showed a faster development than any of the other games with which it is grouped. The word Cricket is given in Lawson's Upton-on-Seven Words and Phrases as a low wooden stool. He continues,

The game of 'cricket' was probably a development of the older game of 'stoolball', a dairymaid's stool being used for the wicket. (Gomme, 1894:82).

That the farming community of England contributed a great deal to the development of the early game, nobody can dispute. The name itself seems to lend proof to that; the length of the wicket is according to Bett (1929:6) also a farming device; the names stump, bail and wicket were derived from the gate used mostly on farms. If the name Cricket owes its origin to the stools called "cricketts", it still does not explain where the original word, "cricketts", came from. As an answer has probably been found for the word cat, which was used when running was introduced into a game which had the hole as target and they used such words as "ketsputte" or "kaitsputte" for it, so it seems possible that by the same token "cricketts" could have originated from "cric", the staff or bandy with which so many games were played, and likewise "kets" or "cats", "cric + kets".

It seems, therefore, as though farmers must be credited with the invention of the wicket. If it is correct that they played on the strips between lands, it can be imagined how difficult it

must have been to see the hole. At the best of times it is difficult to see such a hole. Something, therefore, had to be done to indicate where the hole was. What better than the wicket gate? In the games leading to the Rounders group, a special kitty stick was used to indicate the circle, so actually it was nothing new. The wicket gate was excellent, for it showed exactly where the hole was: not on the one side of a stick, in front or behind it, but in the middle of the stumps. Once it was there it soon became part of the target, as was the case with the games using traplike objects.

That the wicket would not have been the only target is quite obvious. The fact that something like this should have been used (letting balls go through time after time) when a solid object would have been better, does not say much for the intelligence of people who were intelligent enough in so many other respects! That it was only a temporary target, is born out by the fact that when Harris started to bowl with a bounce in the seventies of the eighteenth century, the third and middle stump were added for the first time. Before that bowling was a lob, or roll. Why? So that the ball could roll or fall into the hole. The use of the hole was finally abolished in 1775, that is, at the time when the third stump was added.

The mere fact that the ball had to be placed or pressed into the hole to run a batsman out, shows that neither the stumps nor the bail was used for this purpose. In other games of the running era where targets were used, they were aimed at running a batsman out. Only in those games that used holes, was the ball pressed into a hole. This required throwing the ball to a fielder nearest the hole, who first had to catch it and then press it in. In this way the wicket keeper or catcher came into being, but in those days when fielding could not have been as

good as it is today, it was more difficult then to use him, than to throw direct at a target. But the hole made this necessary, the same as it made it necessary in the early days of Cricket, when the wicket was not used as a target. Why? Because the wicket was not the target. It was only in 1838 that a rule was made to the effect that if one bail was down the batsman was out. The practice of using the bail in this way is, therefore, young compared with the game itself. It is a fact that the earliest bail could not fall off unless the stumps fell first, and that was hardly possible with the lollipop bowling then in vogue.

The wicket gate became the gate to the target and the batsman took up his position inside, or in, or outside, or out, while the fielders attacked his place of safety.

Once the hole fell away the wicket took over and developed according to the need of the game and the players, making Cricket a difficult game for those who did not use the wicket gate. It seems as if the hole was a convenient way to kill (or bury) the ball, and that the ball had to be killed while the batsman was out of his place of safety, just as he was only safe inside the circle where the target was.

Theories

Cricket is part of the games of the running stage although it did not have that name then.

There are several theories regarding the origin of Cricket, some writers believing that Club Ball must be credited with being the generic ancestor of the game (Grace, 1891:2; Altham and Swanton, 1938:15,16). The impression is gained that many people cling to this theory because so little is known of Club Ball, and also because they disagreed with the supporters of

Tip Cat, Cat and Dog, and even Stoolball (Grace, 1891:4; Altham and Swanton, 1938:15-17) as being the ancestors of Cricket, for they found it unacceptable to associate it with games of such a primitive nature.

The previous part of this chapter showed that there is some truth in all the theories put forward except the theory which claims that Club Ball was the generic ancestor of the game.

History of the game (Kerr, 1950)

1. Field, implements and equipment

The Bowling Crease

In 1744 there was no limit to the bowling crease, but the popping crease had to be 3 feet 10 inches from the wicket. In 1774 the bowling crease had to be 3 feet on either side of the wicket. Between 1817-1821 the popping crease was increased to 4 feet from the wicket because the height of the wicket had been increased. During the same period the bowling crease became 6 feet 7 inches, with return creases at the end of it and at right angles to it. In 1825-1828 the bowling crease became 6 feet 8 inches to conform with the width of the wicket, and in 1902 it was lengthened to 8 feet 8 inches.

The Wicket

Regarding the wicket, many English writers are very loath to admit that a hole was used between two forked stumps with a long bail over them. But there is not the slightest doubt that this was actually the case. This hole acted as part of the target and also as a popping crease. The batsman had to put the one end of the bat into the hole after the run to score, and a fielder or wicket keeper had to place the ball into the hole to run a batsman out.

As this was the cause of many injuries it had to be changed. According to Grace (1891:7) the placing of the bat in the popping crease instead of the hole, was used in 1746 when All-England played against Kent, but it was only in 1775 that the hole was finally abolished (Grace, 1891:16). Other methods were also used before the popping crease became the rule. Towards the last quarter of the eighteenth century the spectators used to shout, "Go hard, go hard! Tick and turn!" Apparently this referred to the practice of a batsman having to touch the bat of the umpire or "odd man". The umpire stood close to the wicket at silly-leg or thereabouts, and players touched his bat (Grace, 1891:12). It can quite easily be imagined what happened to the poor umpire if a batsman had to run flat out to prevent being run out and at the same time also watch the ball. But a survival of this practice was found many years later when umpires always took their places carrying a bat.

From 1700-1744 two stumps, 22 feet by 6 inches, with a bail 6 inches long were used. In 1775 a third stump was added, but it was not until 1785 that reference was made to it in the laws, and it was only in 1786 that mention was made in the Maidstone edition of the Laws of two bails. But the plural form only came into being in the laws of 1803-1807. In 1775 there was still only one bail although there were three stumps. In 1798 the wicket was 24 feet by 7 inches and the bail 7 inches. In 1816 the wicket was 26 feet by 7 inches and the bail 7 inches. Between 1823-1825 the wicket was 27 feet by 8 inches with stumps of sufficient thickness to prevent the ball from passing through; bail 8 inches. 1838:

Although often referred to in earlier unofficial editions of the laws, it is specifically stated, for the first time officially, that each wicket consists of three stumps, of equal and sufficient thickness to prevent the ball from passing through. (Kerr, 1950:23).

In 1884 the thickness of the bail was laid down for the first time. In 1931 it was laid down that the wicket could not be less than 27 inches nor more than 28 inches high, in the latter case the width to be 9 inches instead of 8 inches.

Distance between wickets

The distance between the two wickets has always been 22 yards (Grace, 1891:7). Bett (1929:6) gives an interesting explanation for this:

The land used to be cultivated in long strips divided by balks of unploughed turf. Where the eight oxen plough was used a long furrow was a necessity, and the width of the strip of ground was proportionately lessened. We derive several measures from the size and shape of this strip. The acre was not in its origin merely a measure of ground; it was a unit of cultivation. The earliest English law that fixed the size of the statute acre (in the reign of Edward I) declared that 'forty perches in length and four in breadth make an acre'. That is to say, the acre, was a strip two hundred and twenty yards long (hence our 'furlong', which means a 'furrow long') and twenty-one yards wide. Now, when the villagers played on the stubbles it was natural to choose an acre strip to throw the ball across from balk to balk, and that is why the cricket-pitch today is twenty-two yards.

Double and Single wickets

The double wicket followed the single wicket, but long after the double wicket was introduced the single wicket was still used.

The Bat

Cricket has always been played with a bat, a ball and a target. The bat used to be curved at one end. This shape disappeared with the introduction of a new style of bowling between the years 1771-1781, for it was during that time that a bowler by the name of Harris started bowling with a bounce instead of the usual full toss, or even rolling the ball along the ground (Altham and Swanton, 1938:23,29). Playing with a straight bat then came into being. There were, however, no regulations regarding the size of the bat, so that a certain player by the name of White of Reigate, appeared at a match with a bat larger than the wicket (Grace, 1891:12). This led to the introduction of a rule to regulate the size of a bat and the Hambledon Club had an iron frame made through which every bat was passed before it could be used. In 1771 the width was limited to $4\frac{1}{2}$ inches and in 1835 its length was laid down as 38 inches.

The Ball

About the evolution of the ball very little is known, except that hard balls seemed to have been used for a long time and that the cat was also used (Grace, 1891:4,29).

Ever since the ball was manufactured and sold, its evolution was in the hands of the manufacturers, for example, as in the case of the Duke of Penshurst, who

was in the Cricket ball trade for 250 years (Grace, 1891:29). This live ball which revolutionised strokes and fielding, was a mistake on the part of the manufacturers as it proved too easy to stop.

In 1706 a leather ball was used. In 1744 umpires had to mark balls so that they could not be changed during a game; in 1774 the weight was laid down at $5\frac{1}{2}$ - $5\frac{3}{4}$ ounces; in 1838 the circumference was laid down for the first time, namely 9 - $9\frac{1}{4}$ inches, in 1927 it was $8\frac{13}{16}$ - 9 inches and in 1929 the ball which had unwittingly been made smaller by the manufacturers, was legalised.

Leg Guards

Leg guards also came into use with the bouncing ball, consisting of two pieces of wood placed anglewise to protect the shins.

2. The Rules

Teams

Usually only two players took part in a game, one against the other. Even with the double wicket, the evolution to eleven players comprising a team, took a long time to develop, for teams were being composed of four, five or any number for that matter.

Substitutes

In 1744 fresh men were allowed as substitutes; in 1774 allowed with permission; 1821-1823 substitutes not to bowl, keep wicket, field at point, middle wicket or longstop (for fast bowler) except by agreement with batting side's Captain; 1747 a batting side's Captain could decide where a substitute was not allowed to field (previously he was required to say where he should field).

Toss

In 1744 the side winning the toss could choose to bat, or field and the number of innings to be played; in 1774 visiting team to choose innings and the pitch to be 30 yards from a point chosen by the home team.

During the same year the bowlers tossed if the match was being played on neutral ground.

Bowling

Full tosses were thrown underhand and this was followed by bowling with a bounce, also underhand. Between 1771-1781 "Tom Walker raised the arm above the level of elbow; but he got no encouragement from the Hambledon Club, who decided it was throwing, and he had to give it up" (Grace, 1891:11). Gradually round-arm bowling succeeded underhand bowling. In 1822 it was not yet recognised. John Wills has been credited with introducing it, for he copied Walker in 1802. In 1816 it was fairly general, but it was only in 1835 that it was recognised. Over-arm bowling was recognised, after as fierce a struggle as in the case of round-arm, in 1954.

Bowlers

Between 1811-1817 a fresh bowler was allowed two trial balls, but had to finish the over after bowling the trial balls; 1825-1828 the bowler was debarred from watering his run-up; fresh bowler had to finish the over even if he only took one of the two trial balls; in 1870 bowler could change sides twice in an innings; in 1900 bowler allowed to change ends as often as he pleased provided he did not bowl two overs in succession in one innings.

Overs

In 1774 an over was 4 balls; in 1889 it became 5; in 1900 six and in 1947 six or eight became optional; now it is 6.

"No Balls", Wides, Boundaries, etc.

In 1744 the ball was considered dead when a no-ball was called, and a batsman could not score; no reference to wides or boundaries. Even as late as 1861 J. Howley scored a 9, 8 and 7, and in 1863 Charles Payne scored 13 runs with one strike.

In 1788 the law of no score on catch, or run-out was introduced; in 1798 a penalty of 5 runs was levied on a fielder who stopped the ball with his hat. As a great many top hats were used this rule became necessary. The "Lost ball" rule came into practice between 1803 and 1809. During the same period the batsman could score off no-ball, and a wide was entered as a run. In about 1822 a lost ball counted 6 runs and not 4. In 1854 a runner was allowed for an injured batsman. In 1884 boundaries were officially mentioned for the first time. In 1921 a batsman could not be stumped off no-ball, but run out; in 1936 batsmen could add to the total of their runs, 5 given for improper fielding of the ball.

Runs

Notches were used instead of runs until 1811, although the word did not altogether disappear from the rules. In 1823, two persons, the notchers, kept the score in a match and used a deeper notch for every tenth run. Individual scoring came into being in 1744 when Kent played All England, but it took a long time before it was generally accepted.

New Ball

In 1798 a new ball could be requested at the start of each innings; 1907 new ball after 200 runs; 1947 providing of new ball at the start of an innings, no longer obligatory in all classes of Cricket.

Hit wicket

In 1773 hit wicket appeared for the first time when Hambledon played England; 1817-1821 also included the dress of batsmen.

Leg-before-wicket (L.b.w.)

Introduced in 1744, because batsmen deliberately protected their wicket in this way; in 1788 the ball had to be in line with the wicket, and only in 1947 was the height taken into account.

If with any part of his person except his hand (holding the bat), which is in a straight line between wicket and wicket, even though the point of impact be above the level of the bails, he intercept a ball which has not first touched his bat or hand, and which, in the opinion of the Umpire, shall have, or would have, pitched on a straight line from the Bowler's wicket to the Striker's wicket, or shall have pitched on the off-side of the Striker's wicket, provided always that the ball would have hit the wicket.
(The Laws of Cricket, 1975:26).

Follow-on and Declaration

In 1835 follow-on rules came into operation when a side was more than 100 runs behind on first innings; 1854: runs reduced to 60 for one-day matches and 80 in a game of longer duration; 1894, in a three-day match 120 runs behind; 1900, enforcement became optional for side in lead; limits altered to: three-day match 150 runs, two-

day 100 and one-day 75 runs; 1900: batting side for the first time allowed to declare its innings closed at any time on the last day of the match. Prior to this batsmen deliberately lost their wickets so that they could get the other side to bat; 1900, declaration in three-day match could be made after the start of luncheon interval on second day; 1906, in a two-day match a declaration on the first day was allowed provided there were 100 minutes of play left; 1910, declaration allowed any time on second day of three-day match; today any time is permissible during a match irrespective of its duration.

Care of Pitch

Only in 1788 did the laws for the first time provide by mutual consent, for rolling, watering, covering, mowing and beating the pitch during a match; in 1849 both sides had to agree and had to ask for the roller at least one minute before the end of an innings; in 1860 the request was to be made by the side to bat next; 1883, pitch could be rolled for 10 minutes before the start of a game. In 1870 a definite attempt was made to improve pitches and this, more than anything else, helped the game to become what it is today. It made round-arm and over-arm bowling possible and this in turn led to more strokes, and subsequently better fielding. In 1938 it was laid down that pitches had to favour bowlers and batsmen equally.

Umpires

1809-1811: Umpires had to select the pitch within 30 yards of a point chosen by opposing teams; in about 1822 selection of pitch left to umpires; in 1845 um-

pires to change ends after each side had had one innings; in 1899 either umpire could call no-ball; in 1947 umpires need not pitch wickets, but had to inspect them.

3. Discussion

According to the above Cricket developed rapidly after the publication of the first records. Picture a field anywhere on rough lands or pastures; two playing the game with a bat which could not have been much more than a stick or a bandy; a bowler rolling the ball along the ground or lobbing it to fall into a hole between two stumps; a batsman standing with his bat over his shoulder and having a crack at the ball, more often than not missing it, but still not out as the ball passed through the stumps.

Such a game, if classified with other games dealt with here, becomes one of the running era and specifically of the to and fro running era. This means that Cricket and Baseball had the same generic ancestor but that they separated during the running era. The main reason for this split centred around the target. The ancestors of Baseball added bases for additional batsmen; Cricket went to two, and no more. Furthermore, Cricket adopted its own particular kind of target keeping the hole, which made a big difference to its development.

Summary

Original Cricket belonged to the games of the running era and like many of them it had a hole as target. To indicate to the fielders where the hole was, the wicket gate was introduced. There is a school of thought which advances the theory that in Cricket one stump was also used with the hole, most probably the kitty stick. When the hole fell away, for example, due to

injuries to hands, a tremendous development took place in the game, because from then onwards the wicket started to develop and with it bowling, and with bowling the pitch itself, also the use of pads, guards and other necessities. As a result of the disappearance of the hole the popping crease also came into being. Original Cricket as a game took its own course belonging to the running era which can be divided into the following stages:

the stage of the wicket, that is, when the hole made way for the wicket as target, a third stump was introduced, and two bails which were part of, and led to -

the stage of bowling which led to better pitches, fields, specialized fielding, grounds, gloves, etc.

The stages prior to the running stage are the same as for Baseball, namely:

the measurement stage,
the target stage and
the catching stage.

ORIGIN OF THE LONGBALL GROUP

A case must now be made out for Schlagball as a possible ancestor of the Longball games, and the origin of the Longball principles must be established.

The following are the Longball games:

Schlagball, Swedish Longball, Danish Longball, Longball, Kastie, Kiepers and Slagbal.

Theory

It is known that Kastie and Slagbal owe their origin to the Nederlandse Bond voor Lichamelijke Opvoeding and that Kiepers developed out of Kastie (De Wolff, n.d.:347,578,XXIV). Longball and Kampbal are comparatively new games, evolved by persons or organisations who had knowledge of similar games (Ter Gouw, 1871:338).^{*} That leaves Swedish Longball, Danish Longball and Schlagball as possibly having the greatest influence on Longball games.

If the principles applied to Rounders as a possible ancestor of the other games in its group, are applied to the Longball games, Schlagball could become the source of all Longball principles. The name, Longball, by which Schlagball was also known during the Middle ages, supports this view, for it is a known fact that the name has been taken over by Danish and Swedish Longball. At the same time, Swedish Longball cannot altogether be discarded as the father of Longball principles, for it is asserted that the Vikings played a similar game

* According to Ter Gouw the boys of Amsterdam used an expression "kiepers" as a warning to players that the ball went into the air and had to be watched for the catch. Catching was expressed by kiepen and the players who had to catch it were kiepers (p. 338).

called Knattleikr, and that game could quite easily have become the foundation stone of the Longball games. It is, however, doubtful whether the Vikings ever played such a game, because they left no written records about themselves, except a few words carved out in their strange Runic which was found only in Venice and probably in the United States of America.

As far as Schlagball is concerned, it is known that the game was played in the Age of Chivalry and also during the Middle Ages. If Bogeng is correct, the Germans got this game from the Greeks (Bogeng, 1926:354).

History

Schlagball as played during the Middle Ages:

Ulrich van Lichtenstein (1200-1275) knew the term Sleipal (E. Mehl, 1948/49:156), the Original Schlagball called "Buten und Binnen", "Langball", or "Balllauf", all played during the Middle Ages (Bogeng, 1926:354). Sometimes a pitcher was used and sometimes the batsman threw the ball up himself. There were two teams. The ball was hit into the air with a stick or club or sometimes just thrown up. The defending side fielded the ball and then tried to hit one of the "in" party with it which, if successful, entitled them to be in. If unsuccessful, the "in" party struck or threw the ball up again until one of them was plugged, burnt or corked (Strohmeyer, 1913:25).

Schlagball as played in the Age of Chivalry:

This game was called Schaggum, Sleipal or Slagebal (Neuendorff, n.d.:47). Two teams of 4-6 players took part. The field consisted of two parallel lines, the "Schlagmal" (batting line) and the "Laufmal" (running line).

One of the fielders tossed the ball up to a batsman who hit it and then ran to the running line and back to score and

bat again. Players put out did not bat again. Teams changed when the ball was caught with one hand, they were plugged or "ausgehungert", that is, the ball returned to the batting line with no batsman there (Strohmeyer, 1913:25; Neuendorff, n.d.:293).

Discussion

Both during the Middle Ages and the Age of Chivalry, Schlagball was a team game; other principles were:

- the ball was merely thrown up or struck;
- the ball was either thrown up by the batsman or a pitcher was used;
- burning took place.

During the Age of Chivalry throwing up the ball had disappeared; two lines were introduced which acted as bases; running between the lines took place; a player had to score to bat again, and if he did not he was out of the game. Teams changed when plugging took place, the ball was caught with one hand, and returned to the batting line without a batsman there.

Schlagball during the Age of Chivalry, had developed into a game belonging to the running era. Before that it was simply a plugging game with constituents that could develop even more.

Actually it was at the transitional stage between the catching and running stages. There was no measurement stage, or, if there was, it was never reported or found. It remained a team game, but individuals batted and ran. When trying to find a solution to the introduction of running, the game of base was quoted as having a possible influence. There too, two "parties" were used as required by the game. In Schlagball the word "party" rather than team could also be used, for in both Schlagball and in the game of base, neither game could be played by individuals.

During the Age of Chivalry the party had developed into a team of 4 or 6.

It, therefore, seems as though Schlagball as played during the Middle Ages, was merely a game which belonged to that time and was influenced by the games then played which were the predecessors of the games of both the Rounders group and Cricket.

Due to this influence, it is possible that the use of plugging filled a need in the circular running games and was then copied. The influence on Schlagball was actually felt before that time, that is, when to and fro running took place, because during that era the running in both kinds of games took place to a mark, or line, or back.

Apart from the influence during the running era, Schlagball developed on its own and in the process influenced other games.

The principle of a batsman having to score in order to bat again, must be a survival of the time when a team batted till all its members were "dead".

Summary

According to the findings Longball is not so far removed from the Rounders group as one might think as it was played during the Middle Ages. In addition it also had the same generic ancestor, namely the catching game.

Schlagball seems to have borrowed quite a number of principles from the Rounders type of game during its running era, but it also retained some of its original principles and developed along its own lines.

SUMMARY OF CONCLUSIONS

Centuries ago the peoples of Europe, Egypt and England found the catching of a ball fascinating. The ball was passed or thrown around. Princess Nausicaa and her maidens did it,

and the Egyptians and Greeks made the catching even more difficult (Bogeng, 1926:336). In Egypt and Greece, Horses and Jockeys (called "Onoi" in Greece) was played, the Egyptians using several balls which were thrown between two riders on asses, the rider changing places with the ass if she (for girls played the game) missed the ball. The Greeks and Egyptians threw the ball as high as possible for other players to catch, and "kill". To make the catch even more difficult the player catching the ball had to jump up so that both his feet were off the ground when he caught it. Soon, however, hitting the ball up into the air took the place of throwing it up, the "batsman" throwing the ball up himself for the hit, or releasing it from the one hand and hitting it with the other. For hitting the hand was probably used, but it was soon found that a stick or club could do it better, that is, hit it higher and further. The stick, or club, or bandy, therefore, helped a batsman to hit so far that fielders could not catch the ball easily. The desire to remain at bat was as strong with the people of those times as it is today and to help them to hit far and effectively they also used any other suitable means to help them toss the "ball" up prior to the hit. This enabled them to use both hands to hit the ball. During this time the "cattie" was born, the batsman tipping the sharpened ends to propel it into the air for the hit. A kind of trap was also invented together with other kinds of improvised traps like holes and stones. By hitting the end which was over the hole, or protruded over a stone, the "ball" was propelled into the air and the batsman then hit it. The other(s) taking part then had to catch the ball, and the one doing so got a turn to bat. Instead of using the "trap" or "cattie", some players got one player to toss the ball up for the batsman, to his liking. In this way a principle came into being which

has more or less been retained down the years in some games right up to the present. Not satisfied with just hitting and catching the ball, players long ago started to compare the distances they could hit the "ball" without being caught. The object then was to see which batsman could hit the ball the furthest without being caught, or the ball becoming dead, the distance being measured in terms of paces or bat-lengths. Either the trap method was used by the batsman or he could still throw the ball up himself. Whatever happened, he was not allowed to miss the ball, as that immediately put him out. The fielders at first tried to catch the ball, or grab the stick when the batsman missed, so that they could get a turn to bat. Not satisfied with this, they started to return the "ball" while still alive to the place from which the batsman hit it. This mark aimed at was the trap, or its counterpart, very often a circle. If fielders succeeded in hitting the target the batsman was out, but if they failed he got one, or three chances to hit the ball, depending on how far the "ball" came to rest from the target.

Soon the batsman was not satisfied with the fielders having free aim at his target, so he started to defend it, but once the "ball" came to rest without being hit, or without hitting the target, the distance had to be measured. The trap principle developed similarly. Another player assisted the batsman by throwing the ball up to his liking. Unfortunately for the batsman, this helped to bring forward the target principle more forcibly, and when this happened the player who tossed the ball up for the batsman tried all sorts of stunts and tricks, to force the batsman to miss so that the target could be struck, or the ball caught, or go dead. The target then, as "traps", became all important and this led to all sorts of targets, name-

ly, the hole, or a stone which served the same purpose as the trap, and a kitty stick inside a circle which indicated to the fielders where the target was.

Distance hitting also became more difficult for it took place with somebody pitching or bowling. The batsman could now be bowled or pitched out, or caught out, and the return throw of the fielders could also put him out. At this stage a very important development took place in the game. The distance a batsman hit the "ball", whilst defending his target, was measured in terms of runs and not in bat-lengths or paces as before. Otherwise the game remained exactly the same. The fielders still returned the ball and still aimed at the target, but now the batsman was also out if his target was struck and he was absent from it. If, on the other hand, he was back at his target after running to a spot and back, the hitting of his target did not put him out. It had always been difficult for the fielders to know exactly where the target was and a stick had previously been stuck into the ground to indicate where it was. Some farm lads then started to use a miniature wicket gate and straddled the hole with that. At the same time the players took a greater interest in these games and more and more joined their ranks. However, they often still had to wait for such a long time before getting a turn to bat, (those who did not succeed in putting a batsman out never qualified for a chance), that teams were now picked, and to give more people a chance to bat another target was introduced, which took the place of the mark or goal. This brought about a great controversy. Some players insisted that two targets were sufficient but others disagreed. They argued that every man in the team should have his own target, and that they were all to be arranged in a circle.

A parting of the ways resulted but the two-target people followed their own course which took them through many stages and developments to Cricket. Although they sometimes used a hole as target, they adopted the word crickets (stool) for the name of their new game, because the stool was often used and when turned upside down provided its own hole. That the stool, used as a target by some players and called a crickets, in some way resembled a wicket without bails when turned upside down, is true, and this might have made the name possible. But as fielders became more expert, and, as one fielder was appointed to run a batsman out by pressing the ball into the hole before he could put his bat into it, the batsman himself had to wake up and run as fast as he could. Often the ball and bat reached the hole simultaneously and players' hands were badly injured, the possibility of which can be gauged from an illustration by Jusserand (1901:190). So, reluctantly the hole had to be abolished. Die-hards protested in vain and more hands were injured. An extra man now had to take a club or bat with him onto the field and he took up his position at "silly leg". He was so often bowled over by players who had to save their wickets, that he objected to this treatment. As it was, he was quite a distance from the wicket, so another, better method - more in keeping with the hole - had to be devised. It was then that the mother of invention solved the problem by introducing the popping crease. The extra man, however, remained on the field and he had to try to control it in even more respects than before. By now the players had also discovered that the new target, namely, the wicket, let too many balls pass through. A third stump was, therefore, introduced. When the hole was gone bowlers started to make it more difficult for the batsman. Instead of rolling or lobbing the ball they started to bounce it.

Soon they discovered that they could develop much more speed by bowling under-armed and then round-armed. When this was started a hue and cry resulted. The ball bounced all over the place and batsmen were injured. But bowlers persisted with this practice and argued that it was the fault of the pitch. So the pitch got more attention. It was levelled, the grass was cut, watered and looked after. The bowlers were delighted and soon started bowling over-arm. So the hue and cry died down, as the pitch was much improved. Batsmen had to struggle for runs but without a doubt they had found the answer. Just as a straight bat supplied the answer to bowling with a bounce, they now used bats equal to the occasion. They also learnt not to hit every ball, but to "block" some and to let others go through. Because they did not have to run on every hit - a brainwave on someone's part - they considered each ball with care and when the right one came along, they hit it hard. So the game developed and waxed strong until a mighty monument arose, still called Cricket, and played all over the world today.

At the same time, the circular runners also had their problems. It was all very well giving every batsman a target, but this presented problems too. Not only did runners get in the way of a ball that had been thrown at the targets but the batsmen found themselves in two minds whether to run or not, and then blamed one another when bad hits put them out. Burning solved one problem but the others temporarily remained unsolved.

Batsmen argued that it was unfair that a weak batsman was chosen to pitch to. Neither did they like it if the "pitchers" tried to hit the targets in quick succession, nor that, if one man was out the whole team was out. So other changes were made: only one target in time became known as "home" and was aimed or pitched at, and also only the batsman put out was out, and not

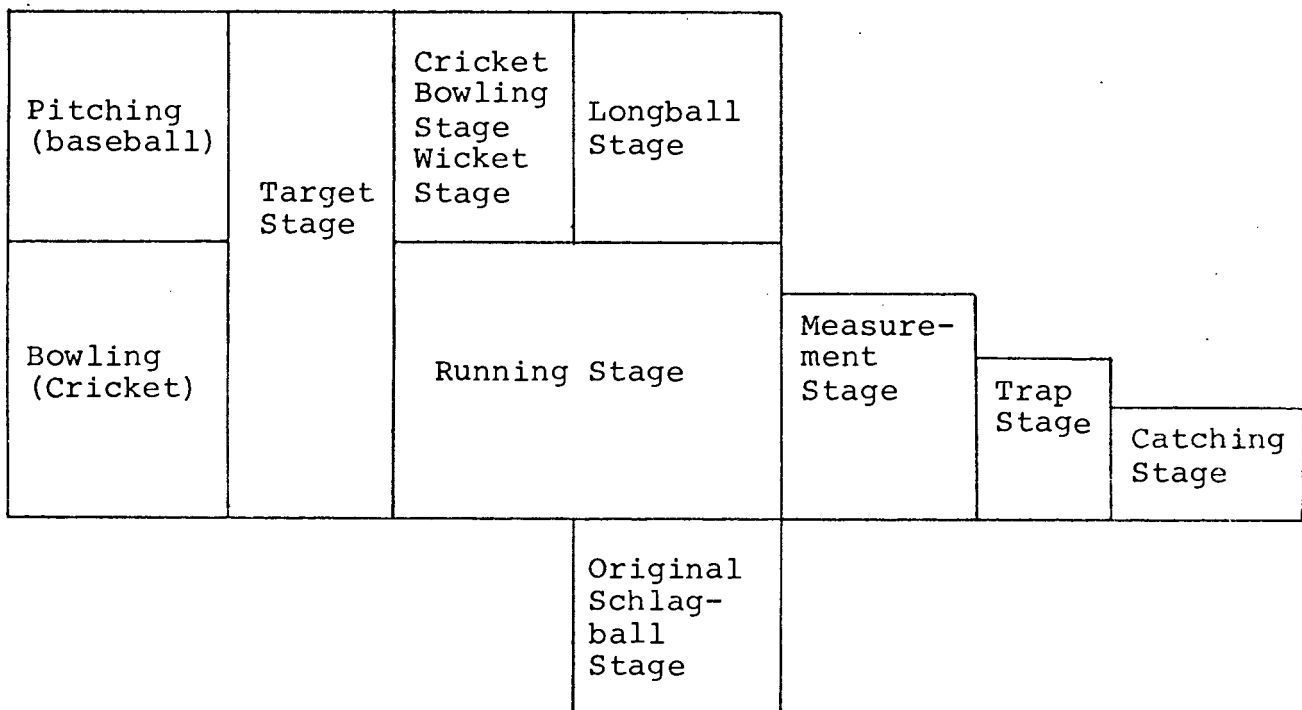
the whole team. In this way a team played until all its members had been put out, but the principle of three was still retained to divide an innings, that is, what at first applied to the individual, was later automatically transferred to the team when the individual games became team games. The fielders' jobs became fairly specialized: one man was singled out to pitch and another to act as catcher. So one target was chosen where each batsman had to defend his target. Soon it was found that because only one player did the batting the others became redundant. So the runners were taken off and sent in to bat, each one having a turn. With their disappearance, and with one target becoming more important than the others, all the targets except one lost their target-value, but they still retained their importance as places of safety on the journey home. Even the "home" target lost some of its significance as a target, and as pitchers played on the weaknesses of batsmen to try to force them to mishit or lift the ball, the target assumed a dual purpose. It became an air and a ground target. The air target got its position from the ground target, but it was limited to the batsman's shoulders. This imposter soon stole all the thunder and the ground target fell into insignificance. All that had to be done was to fix the air target and let it act as home. Once the home base was fixed, the circle which was used for placing the basis also fell into disuse. Runners had long before started to take short cuts from base to base, and had not kept to the circumference of the circle. The circle was then only used to give the pitcher the correct distance from the bases, and to fix the places of the bases themselves. Some players used four, others five bases, depending on the decisions of the Captains. Soon, however, the pentagon and diamond became popular and it did not take long for the diamond to be associated with one stream of thought and the pentagon with the other.

As in Cricket, under-arm pitching was succeeded by round- and ultimately over-arm pitching and the game assumed a different complexion altogether, giving birth to a very popular and scientific game, Baseball and later Softball (James, et al., 1936:32).

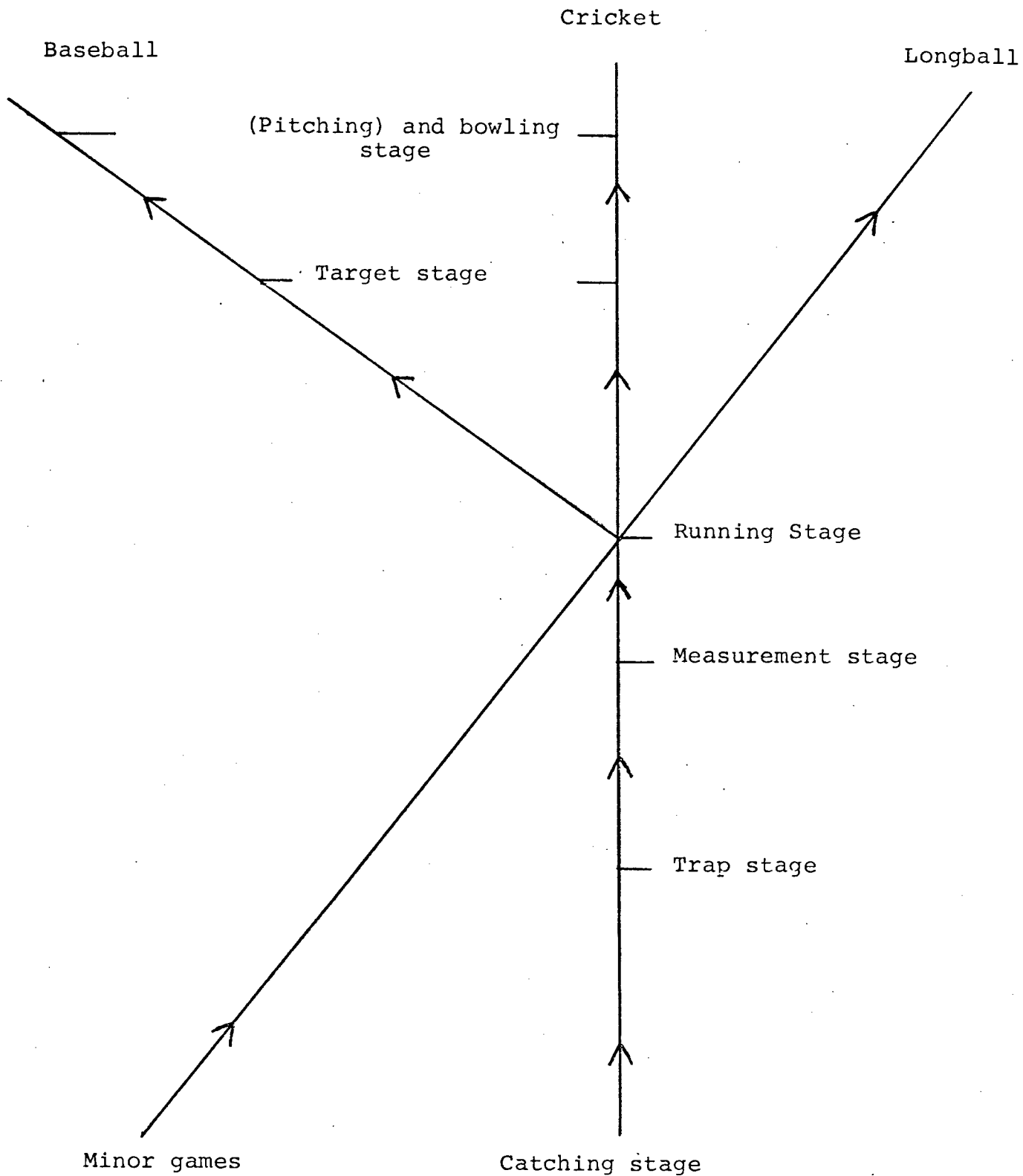
The Longball games developed from a simple minor game which borrowed to and fro running which in turn led to certain principles centred round their particular field where lines were used as bases. The original minor games crossed the evolutionary stream which led to Baseball and Cricket and then proceeded on their own.

What was determined in the preceding pages can be horizontally presented as follows:

Reading from right to left:



It could also be represented as follows:



Modern day Cricket and Baseball have been defined as the target and ball stages respectively. Actually, only the target stage should be given the credit for the development of these games, because when it changed to the wicket or the air target, this led to new life, vitality, and change. Part of the upsurge in the games was also in no small way due to the improvement in balls, and also their subsequent modification.

It is significant that although the two streams had parted, the same principle actually produced the changes which led to their specialization.

The same cannot be said for the Longball stream which is still awaiting such a change to produce a really great game(s). Dates are given but the actual form of the game played then, is not given. It is, for example, stated that Stoolball was played in the twelfth Century, but Stoolball had many variations, and it is not stated which one was played. So games bearing the same name could have been different, for example, all the games played with a cattie are called Tip Cat. It goes without saying that the cattles found in Egypt dating back 4 000 years could not have been called Tip Cat. But even in England the earliest kind of games played with a cattie could have been called by some other name.

Dates are, therefore, very incomplete, but those obtained are given below:

Baseball	Rounders	Cricket	Longball	Circular Running Stage	Running Stage	Pitching Stage	Trap Stage	Catching Stage
1830	1700	Before 1706	Middle Ages Age of Chivalry	Middle 16th C. Circular Tip Cat Strutt describes it in 1801 Stones End of 18th C. Keitsslaan	14th C. Tip and Run ? Lobber ? Tip Cat Middle Ages Stoolball 12th C. Keitsslaan ?	? Stoolball 12th C. Tip Cat Middle Ages or Earlier	Tip Cat 4 000 years ago Trap Ball Beginning 14th C.	Ourania, Greeks Windspelen Germanic times

These dates do not in the least detract from the findings in this work. On the contrary, they substantiate them. It is true that it would have helped if more was known about the age of, for example, Keitsslaan, about which an important deduction was made. Unfortunately, this could not be determined except that it is a very old game.

CHAPTER IIITHE TARGET FAMILY OF GAMESINTRODUCTION

Games where the player or team manipulated an object to strike, or get as close as possible to a target in the least number of attempts, were classified under the target family. Based on this criteria the following games were selected for analysis and evaluation:

Curling (Scotland)	Eisschieszen (Germany)
Quoits (England)	Golf (Scotland, etc.)
Bowls (England)	Kolven (Holland)
Skittles (England)	Pall Mall (France, England)
Kegelen (Germany and Holland)	Croquet (Britain)
Quilles (France)	Chole (France)
Klooten (Holland)	Ringball (England)
Klossen (Holland)	Beugelen (Holland and Germany) *
Kooten (Holland)	

An analysis of these games according to the criteria of principles will be presented comparatively. This will be followed by an evolutionary analysis of the resultant groups of games.

ANALYSIS ACCORDING TO PRINCIPLES

After analysing the various games the specific principles were categorised under the following headings:

FACILITIES (alleys, board, on ice)

TARGETS (number, kind, arrangement)

OBJECTS USED (stones, balls, discs, sticks)

MANIPULATION (throw, roll, slide, hit)

SCORING

* The countries mentioned in brackets refer to the names of the games and not their distribution.

These categories were established after analysing the specific principles present in each game. The details of the different games were compared to seek out similarities and differences. Based on these findings, games could be grouped together according to the degree of resemblance.

Analysis of games

The analysis of every game according to the principles is schematically presented in Table 5. (See p. 83). The total number of principles found among the sixteen games was 32 and those within a single game ranged between 8 and 22.

Principles in common

The basis for the evaluation of the number of principles in common was done by comparing the games in pairs. The procedure of expressing these similarities by means of a ratio of common principles and the total number of principles present, was followed as explained in the previous chapter. The 50% of communality again served as the criteria for grouping the games. Table 6 (See p. 84) presents these findings.

Grouping of games

The resultant grouping of the games after the comparison of principles is presented in Table 7. (See p. 85).

Although the method used to classify the games shows signs of three groups, there is a substantial degree of overlapping between them. The distinctive feature about the "groups" centres around one of three principles, namely, the distance principle (Golf group), the more-than-one-target placed together (Skittlesgroup), or the one-target principle (Bowls group).

Although reference will be made to the three groups it will be borne in mind that they are closely related.

The three groups included the following games:

1. The Golf group - Golf, Kolven, Pall Mall, Croquet, Beugelen, Chole, Ringball, Kegelen, Klossen and Klooten;
2. The Skittlesgroup - all forms of Skittles, Kegelen, Klooten, Klossen and Kooten;
3. The Bowls group - Bowls, Curling, Quoits and Eisschieszen.

The core of the Golf group is formed by Kolven and Pall Mall; that of the Skittles group by Kegelen, and of the Bowls group by Curling and Quoits.

TABLE 5

ANALYSIS OF GAMES ACCORDING TO SPECIFIC PRINCIPLES

(TARGET FAMILY)

	Curling	Quoits	Bowls	Skittles	Kegelen (Quilles)	Klooten	Klossen	Kooten	Eisschies- zen	Golf	Kolven	Chole	Pall Mall	Ring Ball	Croquet	Beugelen
<u>MANIPULATION</u>																
Object thrown at target	x	x		x	x	x		x								
Object rolled at target			x	x	x	x	x	(x)								
Object slid at target	x			x	x			x	x							
Object thrown, rolled and slid	x	x	x	x	x	x	x	x	x							
Object hit at target					x					x	x	x	x	x	x	x
Distance principle					x	x				x	x	x	x	x		
Sequence principle					x	x	x			x	x	x	x	x	x	x
<u>ABILITIES</u>																
Keys		x	x	x	x						x	x				
Boards				x	x		x		x		x		x	x	x	x
Played on ice	x	x			x	x			x	x	(x)					
<u>TARGETS</u>																
One target	x	x	x			x	x		x	x	x	x				
More than one target				x	x			x		x	x		x	x	x	x
Lines as targets		(x)	x	x	x											
Skittles as target(s)	x			x	x											
Table as target										x	(x)					
Arch as target							x				x		x	x	x	x
Targets in row				x	x			x								
Targets arranged				x	x		x			x	x	x	x	x	x	x
<u>OBJECT USED</u>																
Stones	x	x	x		x	x		x	(x)							
Stones with holes in	x															
Wooden balls			x	x	x	x	x			x	x	x	x	x	x	x
Wooden balls with holes in					x	x	x									
Wooden discs			x	x	x	x										
Rolls with bias			x													
Wooden discs with hole in middle and niche for forefinger		x														
Object with handle	x									x						
Knicks				x	x			x								
<u>MOVING</u>																
Attacking target	x	(x)	x	x	x	x	(x)	x	x		x					
Attacking near target	x	x	x						x							
Attacking opponent away or attacking him	x	x	x						x	x	x		x		x	
Attacking opponent		x												x		
Number of hits/rolls to reach target counted				x	x	x	x	x		x	x	x	x	x	x	x
TOTAL NUMBER OF PRINCIPLES	12	12	12	16	22	13	11	10	9	12	15	8	10	10	9	8

COMPARISON OF GAMES REGARDING NUMBER OF PRINCIPLES IN COMMON

(TARGET FAMILY)

	Curling (12)	Quoits (12)	Bowls (12)	Skittles (16)	Kegelen (Quilles) (22)	Klooten (13)	Klossen (11)	Kooten (10)	Eisschies- zen (9)	Golf (12)	Kolven (15)	Chole (8)	Fall Mall (10)	Ring Ball (10)	Croquet (9)	Beugelen (8)
ing (12)		16:24 +	12:24 +	10:28	14:34	12:25	16:23 +	10:22	16:21 +	8:24	8:27	2:20	2:22	0:22	2:21	0:20
ts (12)	16:24 +		16:24	10:28	14:34	12:25	6:23	8:22	14:21 +	6:24	10:27	4:20	2:22	2:22	2:21	2:20
s (12)	12:24 +	16:24 +		14:28	16:34	14:25 +	10:23	8:22	12:21 +	4:24	8:27	4:20	4:22	2:22	4:21	2:20
cles (16)	10:28	10:28	14:28 +		32:38	14:29	14:27 +	18:26 +	8:25	8:28	14:31	8:24	10:26	10:26	10:25	10:24
len (22) lles)	14:34	14:34	16:34	32:38 +		24:35 +	18:33 +	20:32 +	12:31	18:34 +	22:37 +	14:30	16:32 +	16:32 +	14:31	14:30
ken (13)	12:25	12:25	14:25 +	14:29	24:35 +		16:24 +	12:23	10:22	12:25 +	14:28 +	10:21	8:23	8:23	6:22	6:21
sen (11)	16:23 +	6:23	10:23	14:27 +	18:33 +	16:24 +		8:21	8:20	10:23	16:26 +	10:19 +	12:21 +	12:21 +	12:20 +	12:19 +
en (10)	10:22	8:22	8:22	18:26 +	20:32 +	12:23 +	8:21		8:19	4:22	6:25	2:18	4:20	4:20	4:19	4:18
chieszen (9)	16:21 +	14:21 +	12:21 +	8:25	12:31	10:22	8:20	8:19		4:21	10:24	2:17	4:19	2:19	4:18	2:17
(12)	8:24	6:24	4:24	8:28	18:34 +	12:25	10:23	4:22	4:21		22:27 +	14:20 +	16:22 +	14:22 +	14:21 +	12:20 +
en (15)	8:27	10:27	8:27	14:31	22:37 +	14:28 +	16:26 +	6:25	10:24	22:27 +		16:23 +	20:25 +	18:25 +	18:24 +	16:23 +
e (8)	2:20	4:20	4:20	8:24	14:30	10:21	10:19 +	2:18	2:17	14:20 +	16:23 +		12:18 +	12:18 +	10:17 +	10:16 +
Mall (10)	2:22	2:22	4:22	10:26	16:32 +	8:23	12:21 +	4:20	4:19	16:22 +	20:25 +	12:18 +		18:20 +	18:19 +	16:18 +
Ball (10)	0:22	2:22	2:22	10:26	16:32 +	8:23	12:21 +	4:20	2:19	14:22 +	18:25 +	12:18 +	18:20 +		16:19 +	16:18 +
uet (9)	2:21	2:21	4:21	10:25	14:31	6:22	12:20 +	4:19	4:18	14:21 +	18:24 +	10:17 +	18:19 +	16:19 +		16:17 +
elen (8)	0:20	2:20	2:20	10:24	14:30	6:21	12:19 +	4:18	2:17	12:20 +	16:23 +	10:16 +	16:18 +	16:18 +	16:17 +	

number of principles present in a game are indicated in parenthesis next to the name of the game.
 proportion of common principles appears in each block of the matrix.
 "+"-sign indicates that two games have more than 50% of the principles in common).

TABLE 7

RESULTANT GROUPING OF GAMES

(TARGET FAMILY)

GAMES	Golf	Kolven	Pall Mall	Croquet	Beugelen	Chole	Ring Ball	Klossen	Kegelen (Quilles)	Klooten	Skittles	Kooten	Eisschieszen	Bowls	Curling	Quoits
lf	/															
lven	x	/	x	x	x	x	x	x	x	x						
ll Mall	x	x	/	x	x	x	x	x	x							
oquet	x	x	x	/	x	x	x	x								
ugelen	x	x	x	x	/	x	x	x								
ole	x	x	x	x	x	/	x	x								
ng Ball	x	x	x	x	x	x	/	x	x							
ossen		x	x	x	x	x	x	/	x	x	x				x	
gelen (Quilles)	x	x	x				x	x	/	x		x				
ooten	x	x						x	x	/				x		
ittles								x			/	x		x		
ooten									x	x	x	/				
sschieszen													/	x	x	x
wls										x	x		x	/	x	x
rling								x					x	x	/	x
oits													x		x	/
TOTAL NUMBER GROUPINGS	8	8	7	6	6	6	7	10	6	5	3	2	3	4	4	3

EVOLUTIONARY ANALYSIS

Having found the games closely related to one another the next task will be to try and find which game could be determined as the father or ancestor of those in the same "group". In order to do so the theories about their origins and diffusion, history and principles will be examined.

ORIGIN OF THE GOLF GROUP

Theories

The following theories exist about the origin of Golf:

1. Most theories are agreed that Golf originated in Scotland. (Bogeng, 1926:351; Oxford Companion to Sports and Games, 1975:351; Encyclopaedia of Sports, Games and Pastimes, n.d.:304; Hole, 1948:47; Hutchinson, 1893:2; Hutchinson, 1903:1; Menke, 1947:505).
2. It originated in Holland. (Ter Gouw, 1871:334; Brough, 1901:127; Collins, 1929:188).
3. It developed in France from Jeu de mail. (De Vrankrijker, 1937:59).
4. It could have developed in Belgium or France from the game of Chole. (Oxford Companion to Sports and Games, 1975:432; Hutchinson, 1893:4).
5. It developed from the Irish Shinty or Hurly. (Oxford Companion to Sports and Games, 1975:432; Hutchinson, 1893:4).

The theories and the comparison of principles can be dealt with together, for with Kolven and Pall Mall forming the core of the Golf group, and Chole and Golf closely related to them, it becomes a matter of Holland vs. France vs. Scotland. At the outset it can be asserted that France seems to fall out of the race,

for both Jeu de Mail and Chole are considered younger products. Golf was played in the twelfth Century (Collins, 1929:188). The word, golf, was already used in 1457 (Clark, 1875:VI) and Kolven was already played during the Middle Ages (Ter Gouw, 1871:334), whereas Jeu de mail was played in the sixteenth Century (Ter Gouw, 1871:330). Chole was played in France in the twelfth Century and was another variation of a game which was related to the goal family.

Whilst Jeu de mail had the distance and sequence principle in common with Kolven and Golf, the balls and mallets were different and this led to other differences which were not golflike. Chole is played with an egg-shaped wooden ball and, as in some forms of Klooten, there is an attacking and defending team as it were and it is the only game which makes use of hazards which incidentally could be the origin of bunkers. Judged by names, the French name of Chole suggests that it could not have been the means of influencing the names of Kolven and Golf. The names of "Chole" (Cholle) or Chouille (Choule), Soule, Cross or Crosse are also used for a game in which the ball was carried, hit and kicked, a game which became one of the ancestors of, amongst others, Rugby, Soccer, Hockey and Crosse. The hitting element led writers to conclude that it was the origin of Golf, but this seems unlikely. What is possible is that the game's name was wrongly borrowed from a game entirely different from golfing games.

Members of the Golf group

The evolutionary, historical, and developmental facts will be presented according to the games within the Golf Group. In some cases the games will be discussed in pairs or individually.

1. Kolven and Golf

DEVELOPMENTAL ASPECTS

One of the biggest objections usually raised by the supporters of Scotland as the cradle-land of Golf, is that the game could not have been borrowed from Holland as no similar game existed there. This, in turn, is based on the fact that Kolven which was played in a limited area is used to compare it with Golf. It is, however, known that this type of Kolven existed side by side with the outdoor game, that is, the game played over long distances, and that it became so popular that the outdoor game which was played during the Middle Ages, seems to have died out.

This outdoor game was played long before the other game (Strutt, 1898:81) and it was the same as Paganica which was played by the Roman rustics (De Wolff, n.d.:359; Dozy, 1910:71) who also called it by that name. Played over long distances and often on ice, the object was to hit a post or peg in the fewest possible strokes. The ball was stuffed with feathers and struck with the bandy, as was originally also the case in Holland and Scotland. It seems as if the game had its origin in Rome and was carried on to Holland by the Romans, for it was older amongst the Romans than among the Hollanders and the contact between the two countries was regular (Ter Gouw, 1871:281). It means, therefore, that the Romans must be credited with being the originators of the game and what is now left to determine is which country diffused it, Holland or Scotland.

The name

The name of the game favours Holland, for whereas "Golf" is absolutely meaningless in the English language it has

a definite meaning in Dutch. A "kolf" in Dutch means a club and "kolven" could either be the plural of the noun "kolf" or the verb to hit with a club. It is very significant that the first time the word Golf was mentioned in the English language in 1457, it spoke of golfe (Clark, 1875:X), the other forms coming afterwards, that is, golfe (1471), gouf (1491), goif (1538), gowf (1604), gowff (1608), goff (1615) (Hutchinson, 1893:XXIV; Strutt, 1801:99). *

Hole as Target

This target was changed in Kolven for the hole took the place of the peg, which in turn took the place of a tree or any object which could act as a target. Golf has always used the hole as a target, which gives rise to the possibility that it was younger than Kolven.

According to Smith (Encyclopaedia of Sport, Vol. II, 1911:324) "There is a Flemish miniature of earlier date than any of the Dutch pictures, which shows some children playing with crude clubs at a small hole in the ground. This is the only scrap of evidence that exists against the Scottish parentage of golf at holes".

In the Encyclopaedia Britannica, Vol. 8 (1910:242):

One of the most ancient and most interesting of the pictures in which the game is portrayed is the tailpiece to an illuminated Book of Hours, made at the beginning of the 16th Century ... In This Book of Hours they are putting at a hole in the turf, as in our modern golf. It is scarcely to be doubted that the game is of Dutch origin and that it has been in favour since very early days.

* Strutt's original book was printed in 1801 and was then reprinted at various times, for example, 1831, 1850 and 1898. When J.F. Cox enlarged and revised it in 1903 the date of 1801 was retained.

In all probability both these Encyclopaedias refer to the same picture dating back to the sixteenth century. Ter Gouw (1871:338) mentions a game played by children in Holland which they called "Den Beer Hoeden" where the ball is played into a hole instead of against the peg. Unfortunately no date is given, but it raises the possibility that the hole and the game could have been borrowed by the Scots. This supposition is strengthened by the fact that the word "putting" undoubtedly owes its origin to the Dutch word "putje" meaning a hole and "putten" to "hole" it.

Balls

It is known that James I was so concerned about the money spent on Golf balls ordered from Holland that he appointed James Mellvill to make the balls, which activity he monopolised for twenty-one years (Hutchinson, 1893:17).

"Stymie"

"Stymie" apparently is derived from "stuit me", the Dutch for "it stops" or "blocks me" (Darwin, et al., 1952:50).

The Clubs

Some of the Golf clubs also owe their origin to Holland. The Kolven clubs were from the earliest times made more or less like the Golf clubs of today. The hitting plane was not only bent but made of brass and copper and very smooth, the angle of the head and shaft more or less the same as the present putting club (Dozy, 1910:71). The bandy as such was improved upon and from all accounts the bent portion consisted of a piece of wood fixed to the shaft. It was this piece which led to an improvement in so far as copper and brass took the place of wood (Brough, 1901:127; De Vrankrijker, 1937:59).

Stonehenge (1868:574) says:

-the clubs were four feet in length, having a small, tapering, elastic shaft, with a crooked head, into which is run a quantity of lead, to render it heavy, and it is fortified by a piece of horn in front.

Hutchinson (1901:27) says:

The true proportions between iron and wood in golf clubs are one iron-headed club to half a dozen or more wooden clubs ... and so it went, with this ratio between wood and iron, until about the middle of the nineteenth century. The first time that I ever saw a mashie was in 1886.

In another work of his:

For those clubs which Hugh Philip made so well and which Allan Robertson played with so well are so light and delicate that the slogging scratch-player of today regards them - with reverence, it is true - as curious, but as toys for the practical uses of the game. (Hutchinson, 1893:6).

Andrew Lang, quoted by Hutchinson, (1893:27) * says:

In the reliquaire at St. Andrews are weapons of the last century: they are like ours, but heavier. The club heads are bigger, and extremely scooped. A first sketch of the brassy, a wondrous weapon with iron socket, iron foot, and head made of leather in layers may be seen there.

From all accounts golf players in the beginning used only one club and the invention of the other clubs eventually became necessary as various new strokes developed as was, for example, the case with the "baffy spoon". The increase in clubs must be attributed to Scotland, for nothing is heard about them from Holland or any other country.

* He wrote the first chapter in Golf. The Badminton Library by Horace G. Hutchinson.

Kolven in Holland did not need more than one kind of club, for it was afterwards played in a limited, level area. The basic idea of the club as far as the shaft and head are concerned, seemed to have developed with the ball in Holland where the game was already played in the Middle Ages.

The Tee

Yet another point which favours Holland as the ancestor of the game is the origin of the word tee. For the outdoor game and on ice, the Dutchmen used what they called "tuit" for the drive. This was merely a small heap of sand, soil, or fine ice slowly released from the cupped hands, so that the heap formed a V turned upside down. This word "tuit" (also tute, tuyte, toyte) was already used in 1082 and meant "een voorwerp met een spitse punt" which is translated as an object with a sharp point (De Boer and Heltema, 1919:136).

The same principle was used in the days of Stonehenge, and was only later improved by the present tee. The origin of the word tee in English is uncertain.

The Oxford Dictionary (1933 and 1975:907) says:

Apparently a curtailed form of teaz, used in the 17th C., the origin of which is not ascertained. The starting-place, usually a little heap of earth or sand, from which the ball is driven in commencing to play each hole.

It seems certain, therefore, that "tee" could have derived from the Dutch "tuit", verb "tuiten", which word is commonly used in that language, and with a specific meaning. The practice to "tee" a ball, and the word "tee" itself could, therefore, also have come from Holland.

Although Golf was borrowed by the Scots, it was actually they who made the game. They were responsible for the invention that led to better clubs for the various strokes and they improved the links, courses, and putting greens. Had it not been for them, the world would have had to be content with indoor Kolven, or Kolven played in a limited area.

HISTORICAL BACKGROUND *

The Ball

The evolution of Golf centres around the ball and history supplies the stages through which it and the game developed.

The first period, the early days when there were few golf societies, multiple codes and the game was played with a feathery ball, would take us from 1744 to circa 1848, a century in which golf, as we know it today, was in its infancy and legislation largely ad hoc and in the hands of the individual societies. The second period might be regarded as extending from 1848 to 1897. This was the era of the rise of Royal and Ancient authority and the gutty ball. Our third period, and one of the great moments in the history of the rules, covers the years 1897 to the present day, 1950, and is the era of the formation by the Royal and Ancient of the Rules of Golf Committee, a uniform code and, in 1902, the introduction of the rubber-cored ball. (Darwin, et al., 1952:19).

Many of the rules used in the first period centred round the "feathery", as it was called. This ball was not very resilient, or strong and soon became weather-beaten. This led to players changing the ball during a game, something which was later prohibited by legislation. Another rule concerning balls that touched - something that rarely happens

* The information contained in this part of the chapter about the rules has been obtained from this comprehensive history of the game.

today - had to be made. Often thorny problems were solved by the players themselves and later referred to the appropriate body.

About 1848 the "guttie" took the place of the "feathery" and Golf then underwent remarkable changes. The guttie was first made in 1845 by the Rev. Dr. Robert Adams Paterson out of gutta-percha packing, used as a protective to parcels. It had been sent home from India, and arrived around a black marble statue of Vishnu (Darwin, et al., 1952:84).

In about 1902 the rubber-case ball replaced the guttie and this led to a great upsurge in the game.

The three stages of evolution could according to history be termed as follows:

The feathery ball stage,
(paganica stage),

The guttie ball stage, and

The rubber-cased ball stage.

The feathery ball was the same as the paganica, which name was given to a ball and later to the game itself. Therefore it is no more than right that the stages were started with that name.

The Clubs

For a very long time the bandy was the first and only club used. From it all the others developed.

The "brassy" has taken the place of the series of graduated spoons. Darwin has this to say about clubs:

I suggest that in England in the '80's the average golfer's bag contained a driver or a brassy, a cleek, two irons (driving and lofted), a niblich and a putter; also that the putter was far more often of iron than wood, and sometimes, alas, it was of gun-metal; generally of the kind that may today be hired for a penny on a public putting green, very upright in the lie, very straight in the face. Willie Park had not then invented his goose-necked putter, though that came soon afterwards. Neither, by the way, had Mr. Frank Fairlie designed his irons with the heel set in front so as to abolish the dread disease of socketing. (Darwin, et al., 1952:10).

Almost all clubs had thick grips

of horrid slippery leather, with a solid roll of some cloth, or kindred substance, underneath. This was largely due, no doubt, to the palm grip (Darwin, et al., 1952:11)

which was used before the overlapping grip. The result was that pitch had to be put on the grip to make holding possible and players carried supplies of this around with them.

Rules: The 1744 Code

The first known rules were drawn up in 1744 and again in 1754, the latter being virtually the same as those of 1744. These rules were drawn up on certain courses for prize-competitions stages, the prize being a silver club.

"You must tee your ball within a club's length of the hole".

This seems to be an indication of how small the putting greens used to be. The idea was to play from hole to hole. Perhaps this rule was necessary to prevent players from teeing their balls on places which suited them.

In 1744 the ball was teed within one club length of the hole; in 1777 not less than one and not more than four; in 1828 between two and four; in 1859 the minimum was 6 and the maximum 8. The teeing ground was first mentioned in 1875; and in 1893 it was clearly defined (Darwin, et al., 1952:25). The "fair green", "through the green" or fairway was untended and hazardous, and remained so for many years, except in the case of the so-called "hole green" and "fair green". "Bunker" first came into use in 1812. The size of the hole was first laid down in 1893, diameter 4½" and depth not less than 4".

"Your tee must be on the ground".

It is not impossible that players used bushes or long grass and teed their ball on that. The fact remains that certain practices with which some players disagreed must have led to this rule.

"You are not to change the ball you strike off the tee".

For 150 years after 1744 the wording of this rule remained the same. Originally great advantage was derived from the feather ball which easily became deconditioned and must have led to this rule.

From almost the beginning this rule became associated with other provisions - that the ball should not be lifted, and later, not touched or moved. In the Honourable Company's code of 1809, there was an addition - 'If at a loss to know the one ball from the other, neither of them to be uplifted till both parties agree'. It was the same in the Royal and Ancient codes of 1812 and 1828. In 1858 the Royal and Ancient added that 'The ball struck off the tee must not be changed, touched or moved'. Thus the early 'Not changing the ball' rule became a hybrid, but in due course the added components became

rules on their own. This type of change occurred in many rules during their development, showing that, as playing experience was gained, contingencies were separated and elaborated. (Darwin, et al., 1952:30).

"You are not to remove stones, bones or any breakclub for the sake of playing your ball except upon the fair green, and that only within a club's length of your ball".

Darwin, et al. (1952:32) say the latter part of this rule was probably ad hoc, as it seems as if no impediment could originally be lifted anywhere, but the Royal and Ancient also accepted it in 1854 and so it remained for just one hundred years.

Then, in 1858, after a period of no lifting of any impediment whatever except on the putting green, the Royal and Ancient returned to the original 'within a club length' and made this the practice for everywhere through the green, except hazards. On the green, all loose impediments could be lifted at any distance. Sand and bunkers had been originally excluded from this facility in 1812. In 1893, this exception was more definitely defined as no removal of loose impediments when the ball was lying in or touching a hazard. It is the same today, and now loose impediments can be lifted anywhere except when both the ball and the loose impediment lie or touch a hazard.

Breakclubs remained in the rules till 1888. The word "impediment" first appeared in the Royal and Ancient in 1829. Provision was made for movable obstructions in 1842, which referred to washing tubs cum suis. This rule 4 provided for balls lying on the clothes which were often washed and dried on courses. The clothes could be pulled out from under the balls and the tubs removed. In 1858 the ball could be lifted off

the clothes and dropped behind them. Tubs were still classed as movable and in 1893 wheelbarrows, rollers, tools, grass-cutters, used by greenkeepers, fell in the same category. If objects were immovable, balls could be lifted and dropped at the nearest point on the course.

"If your ball comes among water, or any watery filth, you are at liberty to take out your ball and bringing it behind the hazard, and teeing, you may play it with any club and allow your adversary a stroke for so getting out your ball".

Whilst this was permissible it was done with the loss of a penalty stroke. This has remained so to the present day although the rule has now been drawn up in great detail.

Casual water on the fairway was first differentiated from water in a hazard in the Honourable Company's Code of 1839. (Darwin, et al., 1952:35).

"If your balls be found anywhere touching one another, you are to lift the first ball, till you play the last".

The procedure used to be to hit your opponent's ball away when the balls were touching.

"At holing, you are to play your ball honestly for the Hole, and not play on your adversary's ball, not lying in your way to the Hole".

This also refers to the practice found in the previous rule.

This was overcome in 1775 by the Honourable Company amending the interfering distance from 'touching' to 6 inches. Here is the origin of the 6 inches stymie rule and, on the putting green, this 'ball interfering with play' limit has remained ever since. It remained for the whole course until 1889 when elsewhere than on

the putting green the limit was raised to a club length.

(Darwin, et al., 1952:32).

The 6-inch interference limit on the putting green was established then and so it has remained till this day, with the exception of a temporary period of a year from 1833 to 1834 when stymies were abolished.

(Darwin, et al., 1952:35).

"If you loose your ball by its being taken up, or any other way, you are to go back to the spot where you struck last and drop another ball and allow your adversary a stroke for the misfortune".

"No man at holing his ball is to be allowed to mark his way to the Hole with his club or anything else".

This rule remains to the present day only in much more detail. Not to mark your way in 1812 became "not to place any mark to direct you at the hole", and in 1829 this was augmented by "not to draw any line to direct you to the hole". In 1950 rule 39 states that "No mark shall be placed anywhere on the putting green to indicate a line for putting".

"If a ball be stop'd by any person, horse, dog or anything else, the ball so stop'd must be played where it lyes".

In 1775 the Honourable Company altered this rule to:

Whatever happens to a ball by accident must be reckoned a 'Rub of the Green', if however, the player's ball strike his adversary or his Cady, the adversary loses the hole. If it strikes his own Cady; the player loses the hole.

Out of the "rub of the green" rules later came relating to the ball in motion, stopped, or deflected, ball at rest moved, striking ball twice and playing the wrong ball.

"Neither trench, ditch or dyke made for the preservation

of the links, nor the Scholar's holes, or the Soldier's lines, shall be accounted a hazard, but the ball is to be taken out, teed, and played with any iron club".

This is purely an ad hoc law, which did not in toto, apply to all courses.

Playing the ball where it lies was not mentioned in the rules until 1775. In 1809 it is not mentioned in the code, neither in that of 1812. In this code, however, players are told not to lift balls which land in rabbit scrapes.

General

The original target could be a tree or any suitable target (Ter Gouw, 1871:21). Golfers were at one time all dressed in red coats. As far as is known, four ball matches were only mentioned in 1813.

Three ball matches in which one player plays the best ball of the other two were quite general and Hutchinson (1903:11) says "The four ball matches are but an extension of this idea".

Women did not play Golf. The first time, however, that mention is made of women playing is in 1810, for a prize. Their outfits were very unsuitable, sailor hat, a stiff collar, balloon sleeves, tight waist and a long skirt.

Names were given to holes. Numbers followed later.

Club-houses came into being very much later in the history of the game.

The distance principle was applied in different ways, for example, the tree or object was removed quite a distance from the player but could still be struck with one hit; the player could return to the original starting place which also acted as target; the target could only be

reached after several shots; more targets were used and the game was played over long distances. By doing this, more players could play than when they had to return to the target from which the game was started.

2. Pall Mall

It is generally recognised - and the names confirm it - that this game developed into its known form in France (Dozy, 1910:70; Hutchinson, 1893:11; Jusserand, 1901:305) probably, in Southern France (Wood and Goddard, 1938:46). It was introduced into Britain in the seventeenth century (Chambers, 1862:46) and also into Holland (De Vrankrijker, 1937:59). Hutchinson (1893:11) stated that "the game of pell-mell is probably older in Scotland than England, and was borrowed from our 'auld ally' France".

Chambers (1862:464) expresses the opinion that the French name could have been derived from the Italian palamaglio, that is, palla - a ball and maglio - a mallet, but this seems unlikely as the same meaning is found in French.

The game itself is the same as Kolven as far as the distance principle is concerned and there seems to be little doubt that it developed from that game. Three principles, however, don't seem to support this: the mallet, ball and the arch.

That the mallet developed out of the ordinary club, which was preceded by the bandy as used in Britain for Pall Mall, (Welpton, 1922:48-49), seems certain, for malletlike clubs were used in some Kolven games and also in Klossen, which directly or indirectly influenced "kolvan", where a spade-shaped "beytel" was used. When the bandy made way for the club in Golf as well as in Pall

Mall itself, the "head" or hitting part of the club was artificially attached to the shaft but there were no standardized heads. To make use of a mallet was, therefore, a natural thing, especially since hitting big balls in small areas, and on level surfaces requires a different object for hitting than does Kolven. No doubt, the way in which big wooden balls, used extensively at that time, were hit, led to the mallet. These balls seemed to have led to new developments, for apart from the mallet, the arch was preferred as one of the targets.

It may seem superfluous to devote any thought to a simple target like the arch, especially as it was preceded by twigs bent over or tied together to form it (Ter Gouw, 1871:330), but when several kinds of games are found to have used it, it cannot just be a coincidence. The games referred to were also played with big wooden balls, for example, Klossen, Beugelen, Bogelen, Kegelen, even at times in Klooten and several other games. Why an arch and not something else? Of all the names and derivations studied there seems to be only one answer, as supplied by the French word "clos" which in Dutch is a "omheinde terrein" or "hek" (a fenced-off area or gate) (Winkler-Prins, 1936:750). The ball, therefore, either entered an enclosed area or it passed through a gate or "cloopoort", signifying that it had successfully reached home. Add to this the fact, that because the oldest form of the arch games was one called "Klossen" or "Clossen", and that it was this game which died out to make way for "Beugelen", then the above explanation gains ground. In "Klossen" the ball was rolled through the arch

and it was played on well prepared surfaces. "Beugelen" ousted its older brother when it struck the ball after first rolling it (Dozy, 1910:68).

Uit de klotsbaan zijn verscheidene andere banen voortgekomen; ik spreek eerst van malienbaan, als de beroemdste, ook de kegel -, beugel- en kolfbanen zijn afstammelingen van de oude klotsbaan. (Ter Gouw, 1971:330).

These games were so similar that even the authors became confused, for example, Schotel talks of "Klos-" or "Klootbaan" (Ter Gouw, 1871:122). De Vrankrijker (Ter Gouw, 1871:58) calls Beugelen a variation of Klossen. As is to be expected, when one game led to another, or, as in this case became another game, then survivals will be found, for example, Beugelen was called Klossen and the club used in Beugelen was called "klosbeitel" (Winkler-Prins, 1936:686).

"Beitel" is the equivalent of the French mallet, strengthening the relationship between Beugelen and Jeu de mail. Klossen influenced Beugelen, Kolven and Jeu de mail as far as the balls were concerned, also the surface of the playing area, the clubs, the boards around the court and the arch. These games were so alike that it is no wonder there was confusion about their identity.

The original Kolven sequence principle was retained in Kolven when it relinquished its distance principle and played in a limited space. At the same time some of its variations retained that principle in another guise, that is, by playing to and fro. It also kept more than one target, all removed from each other. These same principles are part of the Pall Mall games, which accepted

the distance principle in the same way as in some of the variations of Kolven. All this seems to indicate that it was Kolven which kept part of its identity, but borrowed other principles from the Beugelen group of games which was widely played in Europe and especially in the western countries. What must have been a contributing factor in making these games more popular than the outdoor Kolven, was the fact that public houses were part and parcel of them and so the outdoor game of Kolven naturally followed suit.

Klossen's influence spread further than Kolven and Pall Mall, as will be shown below.

3. Billiards

The surface on which the balls were rolled in Klossen had to be level and smooth, and for this reason boards were used. These boards were afterwards raised to make playing easier. Later they were replaced by tables called "troks" or "truktafels", which in time were covered with sheets. On these tables the use of ivory balls became the vogue and these were hit through the arch which was in the centre of the table, with a long stick. Thus from the games of Billiards, Billards, Billars, Billiards - so named because of the one billard (diminutive bille), that is, a stick or piece of wood or skittles on tables, and Snooker came into being. These games were developed in France during the sixteenth century (Ter Gouw, 1871:337) and introduced into England and Holland in the eighteenth century (Dozy, 1910:69; Ter Gouw, 1871:387). Billiard games later spread to England, became known in South Africa and several other countries.

4. Croquet

DEVELOPMENTAL ASPECTS

Pall Mall also led to another game, Croquet (Colman, 1899:186).

The peasants (of France) of the eighteenth century made themselves arches of cane through which they would knock their boxwood balls by means of homemade mallets. They cared little for the driving element, but considered the latter stages of pall-mall a game in themselves. (Wymer, 1949:226).

In other words, the arches of Jeu de mail, the big balls and the surfaces led to Croquet in the early nineteenth century (Wood and Goddard, 1938:772; Williams, n.d.:368), which, like its ancestors, was first played with a bandy. Gomme (1894:82) stated that "Fifty years ago (circa 1844) it was played with wooden balls, but about twenty-five years ago, or perhaps a little more, mallets were introduced at Kilhee and subsequently the name was changed to "Croquet" (from crooky). The game apparently found its way into Portarlinton, Ireland, as a result of French refugees (Daiken, 1949:30). The name, Croquet, was given to it while it was still being played with the pastoral staff or crook, the croche, crosier, crochet, diminutive (Encyclopaedia Britannica, 1910, Vol. XIII:554; Collins, 1929:236; Wymer, 1949:326).

The game was supposedly brought to Britain from Ireland by Miss MacNaughton who had seen it being played by peasants in the South of France or Italy. It was played in Ireland for quite a time before it was started in England in 1852, thanks to a Mr. John Jacques, who bought it from tradesmen, and was given playing rights. It was taken over by America later (Heath, 1896:7).

What happened in Croquet was simply that a smaller field was used than in Pall Mall, the arches were increased and the poles retained. It is significant that even in later settings of the game, the poles always remained at the ends of the fields, as was so often the case in Pall Mall.

HISTORICAL BACKGROUND

Croquet was originally played on very small lawns, laid out by owners of houses. There was no code of laws, and consequently no uniformity, even in the settings employed. (Williams, 1899:2).

The hoops used were very large, from 8-10 inches wide and high.

This game seems to have emerged from chaos in 1857, when Messrs. Jacques issued a set of rules compiled by Mr. H. Pollock. (Williams, 1899:4).

One of the things introduced was a new sort of lay-out or setting with ten hoops and two pegs.

In 1872 Mr. Hale helped the game further by introducing various new rules, one of which was the introduction of boundaries. Arches were also made smaller, and the mallet was changed (Williams, 1899:4). These were the days of so-called "tight" Croquet. One instance, apart from the fields having no boundaries and big hoops, was the practice followed when a ball was "croqueted".

The two were placed in contact, and the player pressed his left foot on his ball, resting the heel on the ground. He then struck the ball thus fixed, with the result that the opponent's ball was sent away to a distance varying with the strength employed. If the player's own ball altered its position, from the foot slipping or other cause, he lost the remainder of his turn. (Williams, 1899:5).

There was also no limit to the number of players who took part in the game. Actually, the Evesham Tournament held in 1867, and organized by Mr. Walter Jones Whitmore, did a great deal to ring the death-knell to tight Croquet. Due to it, 9 hoops were used and the setting was also different, making provision for what is called a cage or bell. The hoops were also made smaller. The tournament at Moreton-in-the-March in 1868 saw the boundary rule come into force.

In 1870, secretaries of clubs met and drew up laws which were to be binding and which prohibited tight Croquet. The hoops were now to be made of iron; the boundary rule was accepted and augmented, in order to apply the penalty of loss of the turn, if, in taking croquet, either ball was sent over the line. Also, the balls were reduced from eight to four and the blue, red, black and yellow retained; pink, orange, green and brown were discarded.

Before 1870 if a player missed the first hoop he was allowed to remove the ball from the ground until his turn came again. It was now decided that, as soon as the ball was struck it was in play, and if it missed the first hoop it must remain where it was, to be utilized by other players. (Williams, 1899:11).

The rule that only a rover, and not just any ball, could "peg out" a rover also came into force. A rover is a ball that has completed the whole course, but not actually reached the winning peg (the other peg on the opposite end being called the turning peg).

The period 1870-75 saw the adoption of Hale's setting for match play. The grounds became much larger, the hoops smaller, and the mace-, cue- or crushing strokes disappeared. But for a few alterations, the laws of 1870 were accepted by the All England Croquet Association in 1896 and 1898.

With the rise of Tennis, Croquet received a great setback. Not only did Tennis, after a brief co-existence with Croquet, take Wimbledon away from the game, but many of the Croquet lawns were now used for Tennis courts. Notwithstanding this, the game continued to make changes. Steel hoop, socketed in wooden blocks was introduced; the handicap system determined, etc.

5. Klooten and Chole

Klooten, or "Klootschieten", "Clootgespelen", "Clootgen-spelen", "Schietklooten" or "Werpklotten" is a game like Golf, because the distance and target principle comprise the game.

The ball could be a stone, a disc, or ball which was oval, or else a round ball filled with lead. Sailors also used panel-trucks or sea-trucks for the same purpose. These discs had a square hole in the middle.

The object of the game was to cover a set distance in the fewest rolls, or shortest time, or roll the disc the furthest, a mark being made where it fell, or to hit a target in the fewest rolls.

It is certain that this old game was a Golf game, played by rolling and not hitting the ball, stone, or disc.

A few principles, however, link it with other games as well. Firstly, in Klossen it was called a "kloot" if the ball was

rolled through the arch. The big wooden ball was also sometimes called a "kloot", and the court a "klootbaan". In Kolven, "cloten met den colven" is found. Secondly, Klooten had a handicap system, and the only other golfing game which also had it, was Chole. Thirdly, it was played on ice like many other target games. Concerning its relationship with Klossen: this game was also known as Klooten, and it seems that the shape of the Klooten ball did not prevent people from playing Klossen with it, and this, and the fact that there was no clear cut line of demarcation between similar games, could have led to confusion in the use of these two terms.

The relationship with Chole is also a strange one, for in Klooten the ball was rolled and in Chole it was struck. Yet, in Chole the ball was also egg-shaped. In Beugelen the ball was at first also rolled, and then struck. The same applied to Kegelen. The rolling or striking, therefore, presents no problem. It seems that the handicap system, although different, shows that the one game influenced the other, especially since the time factor is found in both, that is, players were given a certain time in which to complete whatever they were playing. Schotel says:

Klootschieten van der oudste
 en een onmiddellijke afstam-
 meling van't Germaansch steen-
 werpen en dikwels
 plagten zij dit nog naar oud
 Germaansch gebruik met steenen
 te doen. (Ter Gouw, 1871:320).

This seems to indicate that Klossen is a similar case, because Klossen itself influenced other games but they developed faster than it did. What Klooten could not do was left to Chole to do, and here striking instead

of throwing was the answer.

As far as playing on ice went, Klooten seems to have introduced the disc to such games, the disc often being cheese-shaped. Klooten was also played with stones in which holes were made for the fingers and the usual target to aim at. In Friesland it was also called Eisbosseln (Bogeng, 1926:543).

Summary

There seems to be no doubt that the game and the name of Golf, were borrowed by Scotland from the Netherlands which, in turn, borrowed it from the Romans who called it Paganica. Originally the game was simple and could be played anywhere, with the same kind of club, the bandy. The ball remained the same for a long time and the game was built around it. Clubs were changed, courses improved and a uniform target accepted. Suitable rules were also made.

Pall Mall developed out of Kolven, retaining the distance principle as it existed originally, but using the arches of the younger Kolven. These arches were borrowed by Kolven and Beugelen from the old game of Klossen, where the ball was rolled through them. Beugelen and Kolven struck the ball, and this development kept them alive, but caused Klossen to lose its popularity. Had Beugelen not introduced hitting in preference to rolling, it could have suffered the same fate as its father. Klossen lived on in Beugelen, left its influence on Kolven, which, in turn, led to Pall Mall. It also lives on in other games, namely, Billiards and other games like it. Pall Mall led to Croquet in France, and from there it spread to the British Isles and finally to other parts of the world. But for

Klossen, these games would probably never have existed. Klossen also lives on in the name used by farmers for the pieces of dung which accumulate on the upper hind legs of sheep.

The disc taken by sailors from the ships gained great prominence and were used in existing games. Hence the use of the name "Kloot", which means a testicle in their terminology, particularly for target games played on ice, and also Chole, another game like Golf.

ORIGIN OF THE SKITTLES GROUP

The games that were classified under the Skittles group were Skittles, Kegelen, Klooten, Klossen and Kooten. The discussion of the origin and developmental trends of the games Kegelen and Kooten will now be discussed.

1. Kegelen

The game of Kegelen was extensively played, originally in various forms, for example, the ball or disc had to be thrown as far as possible (Schotel, 1905:122); the wooden ball had to be rolled through an arch on a small pedestal when the game was played indoors (Schotel, 1905:122); and thirdly, as a game of nine pins when rolling and sliding were used and sometimes the throwing of a stick. Although rolling the ball is associated with the game, the ball was sometimes struck (De Vrankrijker, 1937:57). When rolled balls were sometimes too big, holes were drilled in them for the fingers (Ter Gouw, 1871:333). Stones were also used as balls. Kegelen was also played on ice and called Eisbosseln or Bosschen (Bogeng, 1926:543). The first two variations of the game show Kolven and Klossen or Beugelen influence, whereas the third

variation is associated with the Skittles group.

Kegelen was found to be the same as other games in that it contained the elements of rolling, throwing, sliding and even hitting. After a time, it was found that the most popular of these methods was rolling. It also took time for the target(s) to become established. In the case of Kegelen the more-than-one-target placed close together became widely used and eventually replaced other forms which were then seldom used.

J. Vercoullie in *Beknopt Etymologisch Woordenboek der Nederlandsche Taal* says of Kegelen, "From Netherlands come the French quille and English kayles".

This is generally accepted, but the actual origin of the word Kegelen is not easy to determine. Found in Holland, Germany, Belgium, Sweden and Denmark, the solution lies with one of these. According to many writers it is either Germany or Holland (Bogeng, 1926:353). A satisfactory explanation for the origin of the word could not be found in the word "keg", a barrel, or the Latin "scilla", "squella", because the game is associated with a ball or "schel", nor that it is the word for a club.

What seems probable is that it was derived from the German word "kugel", which is the name used for the stones of Lochkügeln when the game was played on ice as early as the Thirty Years War (Bogeng, 1926:543). It even has a place in the Hungarian "Kuglyatek". Furthermore, the game itself was originally played with stones, which were superseded during the Middle Ages and, as in the case of Klooten, the throwing of the ball is referred to as shooting (Hecker and Heyn, 1924:187).

If the name originated in Germany it seems as though it was the Dutch who gave the name to France, for the French name for the same game which was played with stone is also used in Holland with the others, and an author like Jusserand does not mention that the game was played in France, whereas in Holland it was a very popular game.

According to Strutt (1898:364; Hole, 1948:49) Kegelen derived from the French "quilles", hence the original English name "kayles", "cayles" and "keiles" - and Strutt could have added "kiles", "keelpins", "kylepins" and "kellpin".

The kayle-pins were afterwards called kettle or kittle-pins, and hence, by an easy corruption, skittle-pins, and appellation wellknown to the present day. (Strutt, 1831:272).

If Strutt is correct, an explanation is found for the following names used in England: "Skittoles", "Skettells", "Kittlepins", "Skittle-pins".

Another name used in England for the Skittles group was "Closh", "Closhe", "Cloish", "Clishe", "Clossche", "Cloyth" (Strutt, 1898:365). The similarity between this name and Klossen could prove one of two things: that the name for Klossen was incorrectly borrowed by the English, or, that Klossen was also played like Kegelen or Skittles. As these games were all played on the same courts in Europe and as they were so closely related there, it does seem as though the name was wrongly borrowed by England.

2. Kooten

The last member of the Skittles group is Kooten (Dutch), "Cooten" (Germany) which could help to trace the origin of the games of the Skittles group, which differ from the others, for Skittles was played with bones, hence its name which means ankle, or knuckle bones. It was very rarely played with stones. It shows a link with other similar minor games like "ludus talorum" (Italy), "jeu des osselets" (France), "loggats" (England) and "keelpins" which were sometimes called "coits" (England and France). The game was apparently borrowed from Rome (Dozy, 1910:62; Ter Gouw, 1871:228) and also developed into other similar games like "nootje rollen" (Dozy, 1910:62), "terkuilen" or "negenkuilen", "bagatelle", "dambord", and even from some forms of "marbles" games. Whereas in "nootje rollen" a nut was used to roll at other nuts in a row, in "terkuilen" round stones or other suitable objects were rolled into holes. These games contain two important principles which throw light on the development of the games in question. Firstly, the method used to hit or reach the target could be throwing, sliding, rolling, hitting and slinging. Secondly, the objects used to play the games were natural objects, that is, bones, stones, nuts and sticks. This is what can be expected of original games, for they were played with whatever was at hand and likewise the means or methods used could have been devised by anybody, and they too depended on the objects used and the terrain. Whatever the targets were, they were limited to only nine. This principle already existed in the "kootenlike" games and in some of them, for example, "terkuilen" or "negenkuilen", holes were used as targets. The same applied

in England, and these holes were also limited to nine. Nine holes or openings are also used in "Bagatelle" and "Dambord" and balls or flat discs are struck with a cue, or the hand. This is nothing other than "negenkuilen" and it was played on tables.

There is also a marble game played with nine holes.

Schwendener (1962:14) says:

Long before marbles were invented rolling of small objects like nuts, stones or small pieces of wood were used. These games were probably of moorish origin and appeared along the Mediterranean coast. In fact some authorities believe marble games to constitute variants of the game of bowls.

Schotel (1905:288) also has something to say about these marble games:

Het woord willen sommige van het notenspel deur Romeinen afleiden.

According to the Oxford Dictionary the game of marbles was also called "Bowls", or "Bools", and of course marbles. In some of the games the marbles had to be shot through a ring, like Klossen.

The number nine is more than just coincidence for it is too extensively used for that. Also, as it was used such a long time ago it seems as though something made this necessary. The tali, or osselets, or loggats of the Kooten games could also have numbered nine, because that number could have been obtained from an animal.

The name "taw" for marble has an obscure origin but it is possible that it could have been derived from the German "taube" or "daube": a mark or target aimed at, which was also used in the kegellike game of Eisschieszen.

Marbles seem to have been an imitation of the minor games which preceded the Skittles games.

The "kooten", or knuckle bones used, have a shape which strongly resembles a kind of "kegel" and it seems as if these wooden "kegelen" were copied from the "kooten".

If this is so it is not surprising that Strutt (1898:203) asserts that Skittles were originally played with bones.

The one knuckle bone in particular lends itself to becoming the King and in this respect resembles Skittles closely.

The arrangement or lay-out of the Skittles must have developed later. Different countries arranged them differently and this could account for the many different names for the game, for example, in Greece Roumpala; Italy Guico de' brille; Spain Juego de bolos; Hungary Tekejalek; England Bowls, Four corners, Nine-pins; Dutch rubbers, etc. An interesting name is that of Bowls for the American form of Skittles, which was known years ago in England and which shows how the game was diffused.

Summary

Kooten represents the most primitive games where natural objects were aimed at targets, and included a hole.

When bones were used the game of Kooten came into being, and apparently gained a prominent place among minor target games, because:

- (a) It seems as if the shape of the bones was passed on to their imitations and it was the available number of such bones which led to the use of that number in many target games, and included marbles and so-called table games, and

- (b) the name "Koot" was used in various other games which include major games, as will be pointed out later.

ORIGIN OF THE BOWLS GROUP

Of the games to be studied under this heading are Bowls, Curling, Quoits and Eisschieszen, and to this list can be added games like Varpa (Sweden); Jukskei (South Africa); Horseshoes or barnyard Golf (James, et al., 1936:212) (England, America and elsewhere). Quoits and Curling form the nucleus of this group.

1. Curling

Concerning the origin of this game, it is interesting that Curling was at first called "Kuting" or "Cuting", and the stones "kuting" or "kutty stones", thus linking it with the name of Quoits and Kooten. If the different names used for Quoits are examined, this link between Curling and Quoits on the one hand and Kooten on the other, becomes more obvious.

In going through the literature dealing with the word quoits, one finds that in the fifteenth century it was always spelt with a "c", for example "coyte", "coitis", "coytis", "coight", "choyttes". It was only in the latter part of the sixteenth century that the word was spelt with a "q" and the "a" was preferred to the "o", for example "quaites". In the seventeenth century the "q" is still retained and the "o" took the place of the "a", for example "quoites", "quoits", "quoyte", etc. The mere fact that "Quoits" was originally spelt with a "c" brings it much nearer to Kooten which was also spelt "Coot", "Cote", "Coote", "Cuytt", "Cout", etc. This seems to bear out the view that the word "quoits" owes

its origin to "Cooten", hence the fact that "Quoits" and the English counterpart of "Kooten", namely "Loggats", were considered the same game in Edward III's proclamation of 1363 where all the games are listed, and Quoits and Loggats given as the same game (Darwin, et al., 1952:45). Original Curling was, therefore, Quoits played on ice.

How Kooten or "Cooten" could be used for games like Quoits and Curling is not difficult to explain. To answer this question the games must be analysed. The disc in all probability owes its origin to Klooten, which is the only game that used a disclike object. This disc was very often made of stone. It was cheese-shaped and it was also used on ice. When Klooten was played on ice the disc was aimed at an object. Even when the wooden disc with the hole in the middle was used, a hole was not used, at least not in the ordinary games, for the disc was rolled to see how far it could roll. Played with stones there was no hole.

In other words, only when the hole was used was the game of Quoits played. This required a peg to aim at. In the game of "Veldkei", when a stone was used in the upright position to throw at, it was also called the "koot".

Eisschieszen and Curling also used a "kegel", or pin, as an object to aim at which was similar to the bones used for Kooten. During play on ice, at such an object then the word "quoit" could, therefore, have originated, also the game of Quoits itself and Curling. Both could have originated from Klooten played on ice, which had the same name as the Curling played in Europe. It had various names, for example, Eisschieszen, Bosselen, Krullebol and Kolspel. When Klooten was played on ice it was referred to as Bosselen. The name Curling is supposed to

have its origin in the motion of the stone just like its counterpart Krullebol on the Continent. If this is accepted it would confirm the theory of convergence. It seems more correct that the name was derived from "bugelen" in the same way as Kegelen, for the tee originally was a "kegel", and on the Continent the game was also called Kegelkugel. As the stone was thrown before it slid the likeness to it as it travelled through the air, could not have been correctly portrayed. If "kugel", plural "kügeln", was responsible for the name, the possibility that it was derived from Hurling, a goal game, also falls away (Collins, 1929:25).

The object aimed at became the tee, also "hog", "hob", "hop", "hub", "spuds", "spikes" or "pins". The word "hub" is associated with Deck-quoits, but "hob" or "hop" was also used for "Quoits" and "Curling". It seems as if it was used like a circle, in a sense, when they began to use it around the target. "Hop" was also the word used for harbour, which was also associated with a circle. It seems, therefore, as if the sailors developed more than just the game of Klooten, because for example, they gave it names, including the "hob". They also initiated the custom of clearing the way for what is called a "sleepy stone", that is, a stone with not enough force behind it to reach the target. The loose ice had also to be cleared; branches were used for Klooten, but for Curling special brooms, called "besem" or "besom", the Dutch for broom, were used. When the game was played with wooden discs they were strengthened with iron rings round the discs. This could have led to the use of iron quoits when used on dry land. The holes in the Quoits or Klooten used

for the fingers, led to the handle. Both were used in the Low Countries and in Scotland. This innovation of using the handle must have come with the game to Scotland, because it is unlikely that it could have developed independently as it was used in Bavaria and elsewhere a long time ago when the game itself was taken from the ice to make it a very popular indoor game, Eisschieszen, which was played with wooden implements, the game retaining its original name.

2. Bowls

The name

The name Bowls seems to be of French origin, for not only did the Frenchmen play a similar game but they called it Jeu de boule, and in 1549 the word was still "boules" in the English language. It was also referred to as "Cooty".

The game

Three kinds of games are described under the name of Bowls:

- (a) The rink game where the surface is perfectly level;
- (b) The crown game where the centre of the lawn is raised 6-6½ inches or even higher, above the four corners. The bowls are smaller and lighter, the bias is not so heavy, the jack also has a bias and can be thrown in any direction, but must not come to rest within a radius of 3 feet from the centre of the green, which is marked;
- (c) The booking with bowls game is played on a course whose length varies from 1 150 yards to one mile. The object is to cover the course in the fewest possible throws. For each throw a short run may be taken to the "trig". The balls are mostly of stone or concrete.

In Italy the game is called "boccia" or "boccie". The cue ball is smaller than in Bowls, and the scoring is different. If one player has rolled the ball, one of his opponents follows suit but if this player does not lie closer, then the first player of his own team plays again, until one of his own players lies nearer. Only when a player of one team lies nearer does an opponent play again. It might, therefore, happen that all the players in a team can play without lying closer than an opponent. In such a case the opponents finish their turns. Every ball which lies nearer counts one point and game is twenty-one. Winners of one end start the next end (Forbush and Allen, 1927:761). In France a game similar to Bowls was played called "Carseau" or "Jeu de boulle". Using an alley they placed a square stone in the ground that was level at one end. An upright stone point was placed on this stone at which the players bowled (Strutt, 1898:267).

Jeu de boulle is very popular, especially in the South of France, where it can be played on any piece of level ground, but usually on a hard level strip of sand. There are two teams, each player armed with an iron ball.

The object is to hit a wooden ball and the players are allowed to hit away one another's balls (De Wolff, n.d.: XXIV).

Something more about the "Jack": there is evidence that players bowled at a particular bowl (Stonehenge, 1868:570) and it is on record that:

the earliest delineation extant of the game shows two players with a ball each, but no jack or mark to ball at. It is presumed from this that the first cast his bowl to constitute a mark for the second to play at and knock from its position. (Encyclopaedia Britannica, 1910:345).

If this was the practice it was superseded by using two small cones, which are similar to those used in some Skittles games. This was introduced in the thirteenth century.

Two small cones are placed upright at a distance from each other; and the business of the players is evidently to bowl at them alternately; the successful candidate being he who could lay his bowl the nearest to the mark. (Strutt, 1898:266).

Wymer (1949:38) considers that two players each armed with one bowl put a cone at their feet and then taking turns tried to hit the cone of the other. The fact remains that the jack took the place of the cones. Some jacks are still found with a bias, but earthenware straight-running ones are superseding them (Ayers, 1911:329). Originally every player only used one bowl.

Other historical facts

The following facts should be mentioned.

The game is first mentioned by William Fitzstephens in his "Survey of London". People who still doubt that he referred to Bowls and not anything else are referred to the Encyclopaedia Britannica. Fitzstephens called this game "jactus lapidum", that is, casting of stone.

In early days stone spheres are known to have been used for bowling, and the like thing and name were in vogue for the next two centuries, in fact till Henry IV (1409).
(Encyclopaedia Britannica, Vol. 8, 1910:242).

This game can be traced back to the twelfth century. In 1366 it was mentioned as dishonourable, useless and unprofitable, and in 1388 it was prohibited under the name of "Gettre de peer" or "Casting of the stone". In 1477-8 it, as well as "Half-bowl", were again prohibited and in this proclamation for the first time mention is made of the game being played under cover. Before, and also after this date, it was played in alleys. Henry VIII (1511-12) confirmed the previous laws and for the first time the word "Bowls" is used. Previously the name "Cooty" was also used for it, which shows the close relationship with Quoits and especially Kooten. The bowls were first made of stone. Afterwards they were made of wood, hence the term "wood", which is still used today for the bowls or balls.

They are generally made of the side of the tree, the heart being heavier than the outside, causes one side of the ball to be heavier than the other; the consequence is that each ball has a bias of its own. (Stonehenge, 1868:570).

The bias was artificially brought about by inserting lead on the one side of the bowl, and today the lignum vitae which is used for making the bowls, makes them more or less oval, one half of the oval being turned smaller or leaner than the other half, giving it a natural bias.

It must be pointed out that round bowls were not always used, for

a man shall find great art in choosing out his ground, and preventing the winding, hanging, and many turning advantages of the same, whether it be in open wild places, or in close allies; and for this sport, the chusing of

the bowle is the greatest cunning;
 your flat bowls being best for
 allies; and your round byazed
 bowles for open ground of advan-
 tage, and your round bowles like
 a ball, for green swarthes that
 are plain and level. (Strutt, 1898:270).

The greens were not always level, and Wymer (1949:38)
 says:

Nor was this the easygoing affair
 it might appear, for the ground
 was rough, and it required skill
 in plenty to judge the effect of
 the many pits and hillocks.

He maintains that England was the first country to make
 special greens for the game (Wymer, 1949:69; Strutt,
 1831:268).

In Encyclopaedia of Sports, Games and Pastimes (n.d.:94)
 we read:

It was Scotland who took the game
 away from the hotels, bars, etc.
 and towards the middle of the
 19th century had begun to con-
 struct greens of seaside turn
 on private grounds

Summary

It seems as if the games belonging to the Bowls group owe
 their development to the one target game played on ice,
 and particularly to Klooten. Even so, it is also possible
 it could have been the exception. When Klooten was played
 on ice, it used one target and its disc led to Quoits on
 ice and on dry land. Played on ice it led to Curling which
 was originally called Stones. Eisschieszen and kindred
 games, also played like Curling, were saved from extinction
 by going indoors, whereas Quoits went off the ice on to dry
 ground and could not weather the storms continually gnawing
 at games. Curling stuck to ice. It seems that the main

method used to hit the target was throwing. Quoits also stuck to it as did games descending from it like Varpa (Sweden, a land of Sport, 1949), Jukskei, Deck quoits, Horseshoes, etc., while Curling adopted sliding, and Bowls, rolling.

The name of Kooten or "Cooten" is found in Quoits proper and in "Quoits on ice" or Curling, also in Bowls and must have been a generally used term in target.

As in the other games stones made way for discs, or big wooden balls with holes in them for the fingers and it was sheer chance that the bias found its way into the balls of Bowls, serving a useful purpose and giving it its own identity.

The nature of the games, the names, and balls suggest:

- (a) a close affinity with the Skittles group of games (the name for Bowls, however, and the erstwhile shape of the cones suggest French influence);
- (b) that they were younger than the games of the Skittles group, and developed out of them. There was one target used as against the nine of the Skittles games, the balls or discs or stones or whatever were used acted as targets and made the games distinctive, just as Bowls became distinctive when its other variations were ousted by the biased ball.

CONCLUSIONS

The stages of the evolution of the games of the target family can now be determined:

They are the following:

The stage of natural objects

The stage of striking implements

The differentiation stage

The target stage

The stage of natural objects

In the original stage, whatever nature and the environment provided was used. In this way stones, nuts, and bones were used, also sticks with which the people protected themselves, hunted with, or herded their cattle.

The object of the games was to hit, or reach a target which could be anything provided by nature, and the method of doing so was a natural one too, that is, throwing, hitting, rolling and sliding.

The stage of striking implements

The object used with which to strike, or reach the target was selected for the specific aim of the games. What is more, they lasted. The stones had to be round and if they were too hard on the bandy, wood or softer material was used. The Paganica then came into being and a beginning was made with the utilisation of materials like leather, feathers, or hair. The ball bore in it the germ for development. Big wooden balls and discs followed, but when the method of rolling, or throwing at targets was used, stones served the purpose. Striking required another object and the bandy had to be improved. As the balls were made for the targets, the latter received some atten-

tion too and the hole was made. Players became selective and, for example, used bones which could stand on end, or they planted sticks in the ground or used twigs to make arches.

The course of development with balls or targets having started, was continued while games developed as a result of it.

The stage of differentiation

This stage could also be called the dark ages of games or the age of confusion, for the same games were used under different names. They would be played with the object of: covering distances; striking targets, or striking a target, or the balls or whatever object took their place.

Out of this chaos direction eventually came but the method of hitting or reaching the target differed from game to game. Methods employed were: hitting, throwing, rolling or sliding preferably. Requirements for the games were adjusted accordingly, and included surfaces, balls, hitting objects and targets. Even the manner of hitting was changed for those games where big balls were used. Specialization had assumed a definite form again, names were attached to the games, but the scars of those dark days of turmoil and confusion still remain today.

The target stage

Actually this is part of the differentiation stage, but as games were known by their target or targets, it is given a prominent place. The games with the distance principle stuck to the hole; the rolling, or throwing, or sliding of big wooden balls required the more-than-one-target if used in some ways, but needed only one when used in other ways, for example, when the number of targets was reduced and the principle accepted that the objects used to aim at targets, themselves became targets.

A principle which came to the fore in this study of games, is that once a more advanced game developed out of an older game, the latter was in danger of dying out. In other words, having served its purpose it lived on in the new game which it indirectly produced or helped to produce.

Some of the games, however, are still milestones in the process of evolution which took place, namely, "Paganica" which followed a consistent course; "Kooten" which left its mark on many other games; "Klossen" which produced many other games, and also gave one of its names to "Bowls" in South Africa, namely, "Rolbal"; and finally, "Klooten" which led to the birth of a whole group of games, as did "Kegelen".

The dates when the games were played are given here because they show that whatever the nature of the game played on those dates it was still in fact on the course of evolution as set out above.

Paganica and Kooten:	Played by the Romans.
Big wooden balls:	Eleventh or twelfth century.
Klooten, Klossen, Beugelen:	Played before Middle Ages and prohibited in Holland in 1463, played in Germany in third century.
Kegelen in Germany:	Middle Ages and twelfth century; in 5200 B.C. in Egypt; Holland 1392; France 1370; England 1634.
Kolven:	Played during the Middle Ages; another date given is 1390, while Tuiten was used in 1082.
Golf:	Used in 1457.

Pall Mall in France:	In the thirteenth century; Holland 1687 and England and Germany seventeenth century.
Chole in France:	Twelfth century.
Croquet:	Ireland 1834; England 1852.
Eisschieszen:	1565.
Krullebol:	1600.
Curling:	Seventeenth century.
Quoits:	1363.
Bowls:	Played in twelfth century; name used for first time in 1549.

CHAPTER IV

THE RACKET FAMILY OF GAMES

INTRODUCTION

In this chapter there will be a deviation from the method followed in the previous two chapters in that the principles of the games belonging to this family will not be compared or classified. The reason for this is that there is already a complete history of these games. All that is necessary now is to co-ordinate the history of the kindred games as played in various countries and, having done that, to trace the evolution of their principles and try and find the evolutionary steps of the parent game, today called Tennis, also of its off-shoots: Fives, Rackets, Squash Rackets, Table Tennis, Badminton, Volleyball and Medicine Ball Tennis (McKelvie, 1946:278).

EVOLUTIONARY ANALYSIS

1. Tennis

HISTORICAL BACKGROUND

Tennis is one of the oldest games on record. It is a game that has been described regularly since the first book dealing with it was published in 1555 (Noel and Clark, 1924:Volume II, 283). There is, therefore, no lack of data concerning its history and its development during historical times.

What actually led to the present advanced game of Tennis was Lawn Tennis, the game which was played out-of-doors instead of indoors. Although tennislike games were played out-of-doors for centuries, the most notable was Long Fives or Le jeu de longue paume, but it did not get the publicity which Lawn Tennis got when Major Walter Clopton Wingfield patented it in 1874. There was in fact, strong reaction

from people who had been playing the game for years, on lawns or out-of-doors and who, like the Major, had abolished the "chase" in the game. To trace the evolution of the game the starting point must, therefore, be Lawn Tennis, the out-of-doors game, which almost completely ousted the indoor game of Tennis, or Jeu de paume as it was called in France.

Major Wingfield was born in 1833 in Suffolk. His forebears owned Wingfield Castle in which Charles d'Orleans was held prisoner for many years and wrote the first ever poem on Tennis whilst a prisoner. In 1860 he commanded a cavalry force in China and in 1869 he gave a demonstration to Lord Lansdowne and others, of his so-called invention to which he had given the name of Sphaeristike. At this meeting Arthur Balfour suggested the name of Lawn Tennis, which Wingfield accepted although also retaining the original name. In December 1873 he published his first book of rules and in February 1874 he applied to have them patented under the name "New and Improved Court for playing the Ancient Game of Tennis". This was granted on 24th July, 1874. The rules were given under the name Sphaeristike or Lawn Tennis. In the August of that year he revised some of his rules. He did the same in November 1874 and also gave a brief history of the game as he knew it, the making of the court and also the rules. As the game began to be called "Sticky", he dropped the name of Sphaeristike, which he took to be the germ of the game as played by the Greeks. It must be recorded that the Greeks never used this name for a tennislike game, and instead called the place where ball games were played, Sphaeresterium (Aberdare, 1959:100-101).

Public imagination and interest having been roused, another milestone in the development of the game was bound to come. Indeed, the year, 1875, was to produce such a milestone.

"The Field", which stood at the centre of this development, published a letter by the Secretary of the M.C.C., R.A. Fitzgerald, pointing out that the M.C.C. Tennis and Rackets Sub-Committee had recently revised the rules of Real Tennis and now suggested that it be left to that committee to standardize the rules. In this Mr. Fitzgerald was supported by a colleague, J.M. Heathcote, who had made the India rubber ball, which was originally unsuitable until his wife covered one with flannel as an experiment in 1875. On the 20th February, 1875 a notice appeared in "The Field" under the heading: "To all who are interested in the game. A meeting will be held at the Pavilion, Lord's Ground, on Wednesday, March 3, at 2 p.m. Weather permitting, a portion of the ground will be set apart for a practical exhibition of the game, and for this purpose the ground will be opened at twelve o'clock" (Aberdare, 1959:111).

Mr. Burgoyne, treasurer of the M.C.C., took the chair and amongst those present were Major Wingfield and those persons who claimed that they had played Lawn Tennis before. According to Aberdare (1959:111) "games were played that day, instruments were tested and the laws debated".

This led to the Sub-Committee drafting the rules agreed upon and these were published on 29th May, 1875, as a result of the efforts of the Sub-Committee which consisted of: S. Ponsonby Fane, W.H. Dyke, J.M. Heathcote, C.G. Lyttelton and E. Chandos Leigh. This committee

studied other existing practices and garnered from them whatever they considered useful for the game, the same as Major Wingfield had taken the net from Badminton, the ball from Fives and scoring from Rackets (Potter, 1936:7).

These rules of the M.C.C., although not used very much, paved the way for greater things. The next milestone dates back to the same year. The game was now played on all sorts of lawns and what could have been better than Croquet fields? And so it came about that the All England Croquet Club at Wimbledon, mainly through the efforts of Henry Jones, known as "Cavendish", and also J.H. Walsh, the honorary secretary, and Editor of "The Field", introduced Tennis into that club, which on 16th November 1877 changed its name to the All England Croquet and Lawn Tennis Club and a year or two later to the All England Lawn Tennis Club (Potter, 1936:10).

The All England Croquet and Lawn Tennis Club resolved on 2nd June, 1877 to stage-a-Lawn-Tennis Championship on the 9th July of that year, and it was to become the first of many Wimbledon championships (Potter, 1936:12). The organising committee consisted of Julian Marshall, author of one of the oldest and best Tennis books on the history of the game with the title: "The Annals of Tennis, 1878", Henry Jones and C. Heath. The same committee was appointed to draw up the rules. They abolished the "hour glass" court introduced by Major Wingfield and copied by the M.C.C. Sub-Committee. They decided on a rectangular field of 26 x 9 yards, which has been in vogue to this day. Two other rules they introduced are still in use today, namely, the old Tennis scoring system of 15-30-40 (deuce)-game and also that one fault is permissible in a service.

The second tournament of 1878 brought the Wimbledon and M.C.C. rule-makers together and the height of the net became what it is today. In 1880 the service line was put 21 feet from the net and this too has remained to the present day. For a brief comparison of the main rules one cannot do better than study a work by Lord Aberdare (1959:112-113).

Private clubs influenced the rule-makers. So, for example, the Prince's Club, Hans Place, had already fixed the height of the net at 3 feet in 1875. The scoring was reviewed and borrowed from the indoor game; the India rubber balls were imported from Germany, and rackets from France.

For the sake of convenience this era just dealt with, can be referred to as the Modern Tennis Era, that is, the game which grew and matured after 1875.

The burning question is: Did indoor or outdoor Tennis lead to Lawn Tennis and what position did each one occupy on the ladder of evolution? To answer these two questions, more must be known about the games known as Long Fives for the outdoor game, and as Tennis for the indoor game. In France the former is called *Le jeu de longue paume* and the latter *Le jeu de courte paume* or *Le jeu de paume*. A study of the games considered tennislike, revealed that outdoor Tennis is much older than indoor Tennis. "In the 14th century the game found its way into towns, and for want of more space was confined within walls, and here we get the first origin of the enclosed courts" (Noel and Clark, 1924:Vol. II, 283).

The game is referred to as "the oldest of French games" (Heathcote, 1903:9). Strutt (1898:3) ascribes the start of the indoor game to the use of the racket which had by then developed.

Marshall (1878:4) states:

Handball in the provinces had been known as la longue paume, or had acquired that name in contradistinction to the game more recently invented, which took that of courte paume (that is the indoor game).

Describing Kaatsen, the outdoor game, Schotel (1905:118) says:

In vervolg van tyd stichtte men bijzondere gebouwen, waarin men zich in "le noble jeu de courte paume", wel te onderscheiden van "le jeu de longue paume", oefende.

One book ascribes the development of the closed-in courts to the pubs which were built around these courts (Dozy, 1910:67).

The game was later played in Ballhäusern (Bogeng, 1926:347). The outdoor game was also more popular than the indoor game. Writers mention that it was played in Greece, Italy, France, Belgium, Holland, Germany, Sweden, Russia, Ireland, England and Scotland. It seems certain, however, that it was played throughout Europe and Britain.

EVOLUTION OF PRINCIPLES

A number of theories that have been expounded, will be discussed. This will be followed by the principles of Tennis for which the evolutionary development must be determined and include the following aspects: the name of the game; the requirements of the game concerning the ball, the racket, the net, the court, and

the system of scoring.

Theories

The following theories exist concerning the derivation of the name TENNIS:

"Phennis" and "Teino" (Greek) (Aberdare, 1959:15);

"Taenia"/"Rainia" (Greek for a fillet or land ("skeat")) (Heathcote, 1903:12; Noel and Clark, 1924:12);

"Teniludium" and "Tendendo" (Latin) (Aberdare, 1959:15);

"Tenze" (to receive), "Tente" (covered floor) and "Tente tentorium" (French) (Aberdare, 1959:15);

"Tanz" (German, referring to the "dance" of the ball) and

"Tenne" (German for a threshing floor which could have been used to play on) (Aberdare, 1959:15);

The town, "Tinnis", in the Nile Delta which French archaeologists called "la ville de Tennis". (This town was famous for its fine linen, "les tissus de Tennis" which could have been used for Tennis balls) (Aberdare, 1959:15);

The name of St. Dennis (Aberdare, 1959:15);

"Tenez" (French word used to warn the receiver that play was about to start, just as the Italians shouted "accipe" or "excipe" when serving, while the marker in indoor Tennis called: "play". Aberdare (1959:15) quoted the poem "The Praise of Peace" written in 1400, where tenetz is used, an anglicised form of the French "tenez") (Heathcote, 1903:12; Noel and Clark, 1924:12);

The tennislike game known as, "Jeu de balle au tamis", (French - "tamis" being a sieve which was used to propel the ball into the air in readiness for the service) (Aberdare, 1959:17);

"Tennois" or "Sennois" in the district of Champagne, France where the game was played (Heathcote, 1903:11; Noel and Clark, 1924:12);

Ten, because ten players also played on one side (Marshall, 1878:53);

"Tennes" because five players played on each side (Heathcote, 1903:13);

"Tenes or Tenez bound", an old Norman particle which refers to the cords or tendons with which the hands were protected (Marshall, 1878:53);

Tence, which means combat (Aberdare, 1959:15);

"Tenes" as 'tenes and catch' were synonymous (Marshall, 1878:53).

The Name and theories

The name and theories will now be studied together.

The name "Tennis" is the last and final name decided upon. It was spelt in many ways and towards the beginning of the seventeenth century, Tennis became the one spelling to survive. The following were some of its contenders: "tennys, tenys, tenyse, tynes, tennes, tenes, tennice, tennise, tenice, tennies, teneis, tenoise" (Strutt, 1801:835; Marshall, 1878:58-67-78). Why "Tennis" became the accepted spelling, is difficult to understand, unless the pronunciation dictated it. As far as can be ascertained the word was first used about the beginning of the fifteenth century (Marshall, 1878:55).

In 1382 it was spelt "tennes"; in 1396 "tenesse"; 1408 "tennis"; in 1419 it was spelt "tenys"; in 1447 "tenys"; in 1482 "tenyse and tenys"; in 1495 and 1497 "tenes"; in 1501 "tennys"; in 1508 "tenys, tennes and

tenes" and in 1519 "tennis". This seems to indicate that the pronunciation, when the word was first used, was "tennes and tennys" (Strutt, 1898:62-78).

In England there were mainly two other names:

Balloon ball and Handball.

Balloon ball, also Baloo, Baloome, Baloun, Ballon in France, or Wind-ball, was played in the fourteenth century (1316). Of it Strutt (1898:96) says, "the balloon-ball seems certainly to have originated from the hand-ball".

Handball was one of the games played during the Middle Ages and was prohibited by Edward III in 1365. The game was also called Palm-play in 1368, but this name, although still in existence, is not often used. These names all refer to the outdoor game and it was this game that gave birth to the name Tennis. When Tennis was prohibited, it was considered an offence to play it. The outdoor game was also called field Tennis, Long Tennis or merely Longs, Long Fives, Open Tennis, Outdoor Tennis and Caiche or Caitschspeel which was used mainly in Scotland and closely resembles the old Flemish name for Tennis, namely, "Caetspeel or Kaetspel" (Aberdare, 1959:21).

"Cache-pole" was used for the field on which the game was played.

Arising out of this discussion, two names show the following:

The word "hand- or palm-play" shows a connection with the French "jeu de paume";

The name "Wind-ball" is one which is also used in Holland where it is spelt "Windbal";

The word "caitschspeel, cache-pole, caiche" shows a connection with a word used in Germany, Holland and

part of Belgium, and is a form of "Kaatsen" which is spelt differently.

This led to an interesting principle in both the indoor and outdoor games, namely that of the "chase", which briefly amounts to a mark being made on the ground or floor where the ball struck it on a second bounce, or in some cases where the ball stopped. The game then virtually became one where the object was to win that "chase", sides being changed when each player or team had one chase or both teams had two. The chases were attacked, and each side then tried to score one nearer to the end of the court in order to win the chase, or stroke, or to hit the ball into certain areas of the court (indoor Tennis) to win the chase.

It is the word "chase", which gave the name to the game in Belgium, Holland, Germany, and Scotland and it can also be presumed, to certain parts of England, because Gomme (1898:Vol. I, 55) also mentions it. In Italian it is called "Caccia", in French "Chasse", in English "Chase", in Dutch "Kaats" and in Swedish "Kas", all names connected with "chase".

Other names were the following: In Northern France and Belgium Jeu de balle au tamis. The oldest term in France was Tripot of which Marshall (1878:54) says:

this name has given rise to many conjectures and attempts at explanation. It certainly presents great difficulties, but the most probable solution is that it was invented to express the great activity or dancing about (tripudiation) which the game developed.

It seems certain that "Tripot" ("tripotier" for a Tennis player) and "Tamis" are one and the same thing, namely, the tripot over which a net or skin was spun. The ball was thrown on this tripot in order to propel it into the air in readiness for the stroke.

Tennis had difficulty starting the game, and the tripot was a means of doing so. It is quite true that Kings hired a servant or used the markers to perform this service for them and that this custom could possibly have led to the word "service" (Aberdare, 1959:21). It is unlikely, however, that this method was used in Britain. Although the name tripot was later used for a court and nothing remained of the tripot itself, that name was still being used in the sixteenth century.

The tripot seems to have been used very extensively at one time, and it is, therefore, possible that just as it had given the name to the game in France and Belgium, so it also gave it to England, where "tamis" became "tennes or tenyse", and eventually Tennis. Whether this name came direct from France or from Belgium, is not important, but it would be strange if it did not go from France to England, together with the principles of Jeu de paume. In the game there is a wooden projectory, one of the hazards which formed a characteristic of it, which is called a "tambour". This word has puzzled Tennis writers, but it seems to be a relic of the tripot, because a "tambour" is in actual fact a drum and the tripot was also a drum when it was covered with skin. Actually, it seems that even the word "chasse" was the result of the use of this drum, for "to drive out of the drum" would be "chasser ou son du tambour", that is,

"chasser" to drive out. To shoot is used in conjunction with the "tambour", and they are almost inseparable. The name "zeef" (sift) was also used for the same object if a net was spun over the tripot.

The game was called "Pallone" in Italy, or "Guioca della pilla", or "Pila ludus" and "Pila pilmaria" by the Romans. "Pilmaria" was translated into French and became "paume" and in English it became palm. The ball, pila or pallone, gave the name to the Italian "Pallone", and to the Spanish "Pelota au rebot", or "Inger se ble", all of which were still played indoors.

Another name that should be mentioned is that of "Parkball", which is a name used in Sweden (Törngren, 1905:360). This name is important because it shows where the game was often played. Open places that were level, or even, received preference. It must have been due to the temporary nature of the 'courts' that the outdoor game, in contrast to the indoor game, received so little attention from the writers on these games.

The Requirements of the Game

(a) The Ball

The name of a game often gave its name to the ball as well, for example, the Romans had the "Follis" (balloon) of which there were two kinds, the "follis" and "folliculus". The "follis" was struck by the arm which was protected by a bracer; the "folliculus" was struck with the fist and was called "Follis pugillaris", or "Pugilatorius". These balls were used to play the game of Balloon. The "trigonalis" was a very small ball and three

persons played a game like Tennis with it, using both hands alternately. Of this game Van Schagen (1923:146) wrote:

gedurende de middeleeuwen was het een in heel West-Europa beoefende spel. Heden ten dage wordt het nog in de Baskische provinciën en in de buurt van Barcelone in Spanje beoefend, zoo goed als in een groot deel van Noord-Frankryk en België, zij het onder heel verschillender vorm en onderscheidene regels. Ook in Engeland is het in vroeger eeuwen druk beoefend.

In a picture Strutt (1831:96) shows three players playing this game in England during the fourteenth century. Jusserand (1901:287) shows one of the game Jeu de ballun played in the sixteenth century in France. In Sport et Arte (1960:Plate 50) there is a picture of three men playing the game in Italy, where the game was called "Lancio del pallone coe bracciale". It was mainly the "follis" and "trigonalis" which contributed to the development of Tennis. The "follis", however, also disappeared from the scene, except in Handball, "Pallone" and especially "Balloon ball", which left the games virtually in the hands of a small ball.

The impression is gained that the ball which was originally used in all the games in which a "tamis" or tripot was used, was non-elastic, that is, they could not bounce (Heathcote, 1903:37-39). They were filled with sand or shell powder and were about one inch in diameter. This is also the case in Kaatsen, although in the Swedish park

game, the ball was hit after the first bounce. As the Jeu de balle au tamis was an old game, one gains the impression that the ball was hit on the full, that is, before the principle of hitting it after only one bounce was accepted. The bounce was made possible by the change which the ball underwent, for instead of sand and powder it was now stuffed with hair, even human hair, or wool. Hair or wool, in turn, made way for strips of woollen materials which were bound firmly round a centre piece. It was then rolled in a special mould to make it as round as possible. After this, strings were tied round it and the ball was then covered with cloth. This evolution of balls, was found in the French names for balls, for example, the "esteuf" was a ball filled with wool and covered with sheepskin; the "polote" was bound with string but was not covered, whereas the "balles" were covered with a cloth. In 1591 balls were still imported from France by England and also referred to as "balles" (Heathcote, 1903:37).

Marshall (1878:11) gives an interesting explanation for some of the names given to balls. The Greeks spoke of "spheres"; the Romans of "pillae" (plural for "palla"). The Eolians turned "palla" into "polo" and it then became "pila". The French "pelote" and the Spanish "pelota" were derived from the Italian "pilotta" which is the diminutive of "pila" just as "pallone" is the exaggerative of "palla". Some of these

names were carried over to the game itself. When the game had adopted the name of Tennis, hollow India rubber balls were widely used. These balls were ordered from Germany and were uncovered until Heathcote had them covered (Aberdare, 1959:111).

The evolution of the ball taught us more than was anticipated, for it showed that the ball must have been played on the full, or the volley, before playing it after one bounce; that the chase was brought in when this was not achieved, that is, when the ball was allowed to fall to the ground. This principle was also adopted when the ball was played after one bounce. All this seems logical because Handball and Balloon ball merely consisted of playing the ball to and fro in the air, and the game continued until the ball touched the ground, when such a player or team lost the point and the match. A new match started after each touch of the ground.

(b) The Racket

While some authors strongly contend that the correct spelling is that of the above and nothing else, (Racket) Henderson (1947:92) wants it to be racquet. About its origin there can be no doubt. The open hand, or the palm was used more often than the racket, the kind of ball determining which it was to be. The names given to the game still bear witness to the use of the palm, for example, Pila pilmaris, Giuoca della

palle, Jeu de paume, Palm-play and Handball. It is also certain that the hand or fist was reinforced. There are two possibilities why the fist was reinforced, firstly, to protect the hand, and secondly, to hit the ball further. It seems as if both are correct and whilst there were persons, especially women, who found the balls too hard for their hands, others found that there were other objects which could hit the ball further. While many players used gloves, others used wooden clubs and it was apparently a combination of these two which led to the racket.

Regarding the kind of glove used and its development, the following must be pointed out:

In Pallone a gauntlet, covered with blunt spikes was worn round the hands or wrists. It was called a bracciali (Watson, 1899:53). A patch of cloth was wrapped round the hand to protect it (Henderson, 1947:92). The glove was then lined and afterwards they bound cords and tendons round their hands to make the ball rebound more forcibly, and hence the racket derived its origin (Strutt, 1801:73).

According to Marshall (1878:9) the Italians were the first to cover their hands. A glove was followed by a double one of better and harder material. Either in Italy or France this was followed by elastic bands wrapped round the glove. This led to the introduction of a handle for a glove, which proved too short. When it was lengthened, the battoir came into being. The glove eventually made way

for a frame over which parchment was stretched. As this material was scarce, not elastic enough, and controlled by the priests, catgut was used and the racket at last became a reality. The handle was covered in 1675. According to Schotel (1905:120) the women played with paletten, that is, a frame with strings and a soft handle.

A glove is attached to the palm to which is attached a strong piece of leather, as hard as wood, which presents to the ball a concave surface almost eight inches in length and six inches in breadth (Marshall, 1878:57). This is used in Jeu de balle au tamis.

Regarding the club, the following facts are known. In the beginning of the sixteenth century, the "battoir" or "battledore" was used. A long handle was used for "longue paume" and a shorter one for "courte paume" or "tripot" (Watson, 1899:11).

In "pallone" a wooden club, called "scanno", was used (Watson, 1899:33). In "pelote" a spoon-shaped basket or shield, called a "schistera", was used, that is, an instrument made of wickerwood, more than two feet long and shaped like a curved canoe or basket. The ball was caught in this and thrown to another (Watson, 1899:11). Mercurialis describes a tennislike game in which a wooden ring worn round the underarm of the players is used to catch and throw the ball back (Bogeng, 1926:337). According to Comenius, the small ball filled with hair was struck with a plack, and the palmasie or great handball with a "palmslagh" or "rincket" (Dozy, 1910:672).

The racket was also called a bandy (Marshall, 1878:57).

The above seems to indicate that there is every reason to believe that both the protection round the hand, and the clublike instruments, led to the birth or development of the racket. It also shows that there was no word from which racket was derived.

As to the name of the instruments, there are quite a few theories, for example:

From "retis, reticus, reticulum, reticulata, retiquetta", according to Menage (Marshall, 1878:5);

From Italian, "rete", a net;

From the Arabic "ruquat", a patch of cloth (Marshall, 1878:92);

Derived from a word meaning "to dash against" (Watson, 1899:357);

Diminutive form of "rack" (Watson, 1899:357);

Dutch "racken" and German "rechen", to stretch strings (Marshall, 1878:141);

French "rchette" or "racquette", the palm of hand or sole of foot;

Diminutive of low Latin "racha" - wrist or tarsal bones and derived from Arabic;

Oldest form of the word was "rachete" or "rasquete", probably derived from "racha", old Latin for "karpos" or "rarsos", wrist or ankle. In Italy the word used was "racchetta" and in Spain "raqueta" (Marshall, 1878:5).

It seems nearer the mark to look for the origin of the name to the French "racchetta", the Spanish "raqueta" and the original English word "rachte". Because England imported rackets from France for a long time, she cannot be considered the originator of the term. The same can be said about Spain and Italy, for it is known that France is actually the country which developed the game at a time when other countries were still playing Handball. The fact that both spellings, "racket" and "racquet", could have had their origin in the French words "rchette" and "racquette" seems to strengthen the case for French origin. The word "rincket" could also have been borrowed from it.

(c) The Net

No records exist of a net being used in Handball or Balloon ball. Actually the net had its own evolution which was as follows: "A line in au tãmis, pallone and pelota" (Watson, 1899:12) a double line with a neutral area between the two lines for Kaatsen (Dozy, 1910:64-65), a wall of soil 2 feet high (Wood and Goddard, 1938:636), or of wooden blocks (Menke, 1947:925). Round about 1700 a rope was used (Van Schagen, 1923:147), probably leading to the name of "bord" and "cord" for the game.

In 1701 a fringe was added to the rope (Marshall, 1878:94), after which a net was used, but this net sagged in the middle and most balls were played over that part of the net. In 1592 the height of the net was determined by a person standing against one side wall and from there he had to see the bottom of the opposite wall over the top of the net.

Later half the height of the tallest player was used. In France the height of the person was laid down as 5 feet 3 inches and he had not to stand on his toes (Marshall, 1878:141). The height of the net was fixed at 3 feet in 1878 after going through all kinds of changes. The evolution seems to be the following: no sign of a net; a line and even a double line; a wall; a rope, a rope with a fringe or something else to show whether a ball passed below or over the rope; a net which sagged in the middle; a net of equal height from post to post. It is assumed, that just as some Tennis games to this day use a neutral zone, so Tennis did likewise when the net took the place of such a zone. This is confirmed by a picture (De Luze, 1933:176).

The question arises why something between two opponents or two teams had become necessary and part of the game. It seems as if it was the chase system which was responsible for this development, for either the first stroke (or service) or the return, had to be a specified length and later it was both. And to indicate this length, a line was used. It is significant that in some Kaats games the only chases that were marked, were in the neutral zone between the two lines, indicating that if the ball had reached the desired distance it scored points for the hitter, and the place was marked where the ball dropped or came to a standstill. The players were also placed so that they could help their own back player to get the ball over the net should he fail to do so. Distance, and hitting the ball over the

net, therefore, became the crux and the core of the game. That the line made way for something higher, which later assumed a standard height, seems to have followed naturally and was also the result of experience. The same applies to the length of the court.

(d) The Court

Marshall (1878:115) writes the following about the indoor game:

It must be observed that there are scarcely two courts of the same size in existence, even when one has been copied and built upon the plan of another. Whether the blame is due to architects or builders, it is certain that one Tennis court differs widely from another in external and internal dimensions, proportions, fittings and almost every detail that can be mentioned.

It was only after the Wingfield era that the sizes of the courts and even their shapes became standardized. Because courts differed so much materially, it is difficult to find any common threads that run through the evolution of the court.

Because the outdoor game was originally played everywhere, the introduction of the chase system after a bounce or even a double bounce, required a level or even surface. It was perhaps then that level ground in parts of the parks and streets were selected for the game and this led to the prohibition of Tennis in England, France, Holland and elsewhere. Very little is known of these "roving" games, not only

because of a lack of written records, but also because the places or areas on which they were played were so simple, that trees and shrubs grew in these "courts" and special rules had to be made for when the ball struck them.

Even Major Wingfield made provision for these hazards in his rules. That these hazards may have had something to do with the hazards of the indoor game seems probable. Only the nature of the hazards was different.

As the outdoor game was forced indoors, the latter seems to have had more to do with the development of the size of the court than the outdoor game, because only a limited number of players could take part and this being so, the one-, two-, three- and four-handed games were played. The outdoor game was played by any number on very long fields, for example, "au tamis" was played by 6 players on each side of a field 120 yards long. In Sweden "Parkspiel", 14 to 20 players played on either side. Although this is true, there is strong evidence that 3-a-side was the game played from the earliest times. This game did not require a big court. "Trigonalis" was played with three players in each team and was played in several countries in Europe during the Middle Ages. This also often applied to "Kaatsen" and Handball in England. The three players were invariably arranged in the same order, one at the back and two in front and the one at the back started the game. When the tripot was used the players and teams changed sides so that everybody had a turn to

use it. When the tripot fell into disuse, the service and service line were introduced. Even Major Wingfield created a diamond-shaped area for the server.

There is a theory mentioned by Strutt, and supported by Henderson, that the indoor game owes its origin to priests and that the cloister gave it its distinctive characteristics. Strutt (1801:88) does not believe

that the cloister courtyard led to the court, that is, that the roofs were the pent-houses, the buttresses the origin of the tambour, the grille a development of the opening through which strangers spoke to inmates.

Another explanation is that the grille was the buttery hatch, the pent-house part of the cloister and the galleries cowsheds. Henderson believes that this theory cannot be just coincidence and indeed that it bears mute testimony to the origin of the game (Strutt, 1801:74). But Noel and Clark (1924:3) discredit this:

Our view is that the earliest courts were of varying shapes and sizes and that certain features found satisfactory in certain cases began to be generally accepted.

As the game originally came from France the courts in that country do not support such a view for there were two kinds of courts in France, namely, the "jeu de dedans", that resembled the courts used later, and "jeux quarre" (square), which had no "dedans", pent-house, service side or "tambour". Winning hazards

were two openings in the end walls called "le trou" and "la lune".

It seems incorrect to ascribe the origin of the courts to cloisters, because Noel and Clark give a list of all existing courts in England and France and of those which since 1800 had disappeared (Noel and Clark, 1924:465-469). In addition, all the writers dealing with the indoor game have something of importance to say about the courts. Yet nowhere is mention made of any cloister court. It could be argued that they were used by priests a long time ago but it is known that the indoor game is comparatively young and that the first court in France was built in 1230 (Menke, 1947:915). Since that time all courts were fairly well-known and if it was a monesterial game it would have been no secret.

It appears to be correct that the word court owes its origin to the fact that it was a popular game among Royalty, hence the name Royal Tennis which was played on courts (Collins, 1929:168). Marshall (1878:4), however, ascribes its origin to what he called the newly invented game, "courte paume", from which court is derived.

It is now known how the service line originated, also that Major Wingfield divided the court on the receiving end into two parts which led to the whole court being divided into service courts. In 1902 side lines for the service courts were introduced.

(e) Scoring

One more important principle requires study, namely the scoring in Tennis, something which has puzzled many people and for which no satisfactory solution could be found.

The first question to answer is the following:

Why was the scoring done in 15's, that is, 15, 30, 45 (originally, later 40), deuce, advantage.

Here again several theories exist. La Maison Academique, by J. Gosselin, which reappeared in many publications under the titles of La Maison des Jeux Academiques, Academie Universelle de Jeux, believes that because the count was 15-30-45 and game, which is equivalent to 60, it shows that a definite measure was taken as basis, the basis being borrowed from Astronomy:

A Physical Sign or Sextant, being the sixth part of a circle, and itself consisting of 60 degrees, each of which is divided into sixty minutes and each minute into sixty seconds - it seems likely that scoring at Tennis was imitated from this division of the circle, for the Physical Sign - four times 5 degrees, as four times 15 make a game of Tennis, and four games made a set, according to the practice in France at that date.
(Marshall, 1878:138).

Of this Marshall (1878:138) says:

This solution will not quite meet the difficulty, as the author frankly admits; for neither do four Sextants make up a whole circle, as four games then made a set, nor are tennis players apt to amuse themselves with star gazing or Astronomy, while

enjoying their favourite game,
or marking their strokes, won
or lost.

The same writer looking for the kind of measure
that signified those numbers turned to Geometry
for the answer, namely,

4 fingers	-	1 palm
↑		
4 palms	-	1 foot
↑		
1 clima	-	60 feet in length and in breadth
↑		
1 Actus	-	2 Climates in length and in breadth
↑		
1 Jugerum	-	2 Actus in length by 1 Actus in breadth.

It was the Clima and Jugerum that led to the scoring
in Tennis. He maintains:

Clima signifies a Geometrical
figure, sixty feet square, or
four times fifteen feet in
length and in breadth, and
hence this total value has
been taken for the type of
a game with four strokes,
each of which should be worth
15, that is, the equivalent
of 15 feet, the fourth part
of a Clima. (Marshall, 1878:139).

A.E. Crawley said in 1923: "The clock is divided
into 60 minutes of 4 quarters of 15 minutes each".
(Aberdare, 1959:20).

In 1920 he added another theory based on the sexa-
decimal system of coinage used in France in the
fourteenth century. Both these theories lend
weight to Gisselm's theory of segment. They are
added proof of the significance of the number 60
to denote a whole. From that point its division
into four equal parts is a natural step (Aberdare,
1959:20).

In France the courts were marked. There were fourteen lines, one foot apart, and there were numbers on the wall to make the scoring and calling of chases easier. This was taken as the basis of arriving at 15, but Marshall correctly points out that this came into existence in the sixteenth century, long after the system of 15, which dates back to time immemorial.

Scaino, in his *Trattato della Palla* (1555), quoted by some authors, says that in all the Italian games except Football, it has always been the custom to count scores by 15 (Crawley, 1923:39; Marshall, 1878:139; Clerici, 1974:36). He goes on to say that 15 represents the 5 strokes or shots of the triple or "furious", and is used when a player leads by 3 strokes and then loses 5 consecutive strokes and the game, which is multiplied by 3, "the sign of that variety of game, which brings to the winner three degrees of honour and reward - the most that can be won in any ball-game" (Marshall, 1878:134).

The old scoring system was the following: A game consisting of 4 strokes won, that is, a love game, but 5 were needed if one side got 1, 6 if it got 2, and 8 if it got 3, and one side then won. Strokes were limited to 8. If the score was 3-all, it was put back to 2-all and a side had to win 2 consecutive strokes, that is, a due, to win.

There are three kinds of wins: a simple, that is, a win with scores on both sides; a double, that is, a love game, 1 and 4 points a win; a triple or

furious, (rabbiose) when a team wins 3 strokes and then loses 5 consecutively.

The score in a game was 15-30-45 - or a una - at one, that is, one more point to win the game, or a due if either side needs 2 to win. Set is the score put back, and either side has to score two strokes to win. Somehow a una fell into disuse but a "due" became a "deux" in French and "deuce" in English. "Vantaggio" after a "due" became "advantage" in French and English.

The four game set in 1592 had already been changed in France to 8 and in England to 6, but the advantage game at 5-all was then not yet in use, although it was used if agreed upon. In 1767 it was already established that a set was to consist of 6 or 8 games or the best of 11 or 15. In 1800 in France and England a set consisted of 6 games, although it was still 8 in Paris. In 1767 France still used 45, but England 40.

The answers to most of these questions are to be found in the game itself and not in outside things. Why players should have turned to astronomy is incomprehensible. The answer is probably found in one of two possibilities, namely: In the beginning the game was played originally by the palm of the hand, hence the reference to hands, and that it was during that period that the system of 15 was born. The "palm" game was mostly played by three players on each side. One could expect then that like other games in those days, particularly the tennislike games that used the chase, that every player played

for himself, and that when three played against three, each got a turn for the return strike and that if this was done successfully three hands scored, that is, 15 fingers.

If a mistake was made by a team, that is, if the ball was allowed to drop, who was to blame? Was it not the team, that is, the 3 players, and did not each have five fingers on each palm with which the ball could have been returned? To strengthen this view it must be mentioned that draws were called "even hands", and when 2 played as against 1, it was a three-handed game and if 2 played against 2, it was a four-handed game. An innings was a hand, and even horses and other animals were measured by means of hands and fingers, and this also applied to distances, or length and breadth.

It begins to make sense too that in Fives, for example, if three players played, every one played for himself (Miles, 1902:175), and that in 1608 the players of the ancestral game of Tennis had to have a ball each on the court (De Luze, 1933:176); also that in Handball only balls which fell to the ground were considered faults and led to scoring.

Bogeng (1926:338) too gives a picture of a game played by three players, each with a ball, that is, each scoring for himself. As to four strokes won, to win the game and match: two possibilities present themselves, depending on whether three or four players played on each side. It seems possible that as there were three players, a mistake was allowed for them, plus one, which applied to both teams. If a team was

to win, it therefore had to score an additional stroke. Therefore, 4 points or strokes were necessary to win a game, and if it was 3 each, it was 6 for the six players plus 1 for each side, that is, 2, making a total of 8 strokes won.

The second possibility is that if four players played on a side the above can again be applied. In the book "Sport et Arte", there are two eighteenth century paintings, where 4 played against four and it, therefore seems as if this game, Cioco de Pallone, could supply the answer according to the principles set out above (Sport et Arte, 1960: Plates 53,54). The same kind of pictures were found on tombs in Egypt where three girls played against three and four against four (Newberry, 1893: Plates IV,XIII). "Four" apparently replaced "three" when the "tamis" made way for a server.

As to the term, love, there are two facts augmenting each other: a corruption of the French word "l'oeuf", which means an egg. The figure naught was known as an egg in France, just as a duck's egg in Cricket means a naught (Aberdare, 1959:20).

Malcolm D. Whitman, quoted by Aberdare (1959:20):

love as naught is as old as the English language, for example, 'neither for love nor money' used in 971. Also used in a labour of love, 'to play for love'. Even the Latin word "gratiis", for favours or for love, has been corrupted in English to "gratis", meaning for nothing.

Summary

It seems certain that the origin of Tennis was Handball, an adaptation of which was Balloon ball which was played with a larger ball and the fist not the hand was used, as in Palm play, or Handball, or "jeu de paume" or "pilla pilmaris". The object of the game was to keep the ball moving from one side to the other. For some unknown reason it became customary to play with three players on either side and later four. It is not certain whether this was the result of the introduction of an apparatus, called "au tamis", tripot or sieve, which helped the "server" to get the ball into the air, or whether the three-men team paved the way for the tripot. It seems, however, more likely and logical that the tripot led to the formation which was adopted, namely, one player at the back and two in front. When the tripot was brought into the game, new elements became apparent. The tripot left the "server"; the player operating the sieve, was free to use both hands which could then wield a club better and hit the ball farther. Distance became important and especially how to measure it; the chase-system was introduced if the ball was not hit back on the full, or in the air before touching the ground. If it touched the ground, a mark or chase was made to indicate the length of the hit and it became the object of the opponents, when at bat, to hit the ball further, so that they scored points if they succeeded, and lost points if they failed. Placing must have played a greater part in the next step, when the ball could be played after one bounce or sometimes even after two bounces. Yet another principle developed. As it was customary to play the ball back in the days of Handball, this practice remained, but the return hit or strike was also measured,

and this was done by the introduction of a line which divided the "field" or "court" into two equal halves. And there were no end-lines. It could also be that what applied to the return strike later applied to the service, and that it also had to reach the line before it could be returned, but the opponents of the server were not allowed to cross this line. To make sure that no player of either team crossed the line, a no-man's land was introduced between two lines. As no player was allowed to enter that area it followed that when balls landed there, no effort was made to strike them back. In games which had this area, it led to the distance principle being applied differently, because to score, players had still to play past the chase in the no-man's land or neutral area. The line made way for a wall or rope which made play more interesting and also made the chase in the neutral areas fairer, because that area was divided into two equal parts and balls had to travel further to conform to the requirements. In this form the game came to be played indoors and like the outdoor game, the whole area inside the walls became part of the court, and if the ball bounced off them and landed on the floor, the game went on, just as it did in the outdoor game when it struck trees or shrubs. If the ball landed in certain specified areas it became dead, whereas if it reached certain goals which were holes in the end walls, the successful player scored either for himself or for his team, that is, if there was more than one player on a side. The indoor game brought out the necessity for the length and breadth of the court and with it an increase in the number of players because the outdoor game had increased its number. With the limited area of play, the tripot,

and clubs or battledores or bandies, were not necessary and the glove became very important; more strokes were also thought out and applied, and when the indoor and outdoor games were moulded into one, these strokes were used in a limited space, that is, on the court. Both games contributed to the outdoor game which received a new lease of life when some of its principles emerged from indoors and found fertile soil in the existing outdoor field or open game. Major Wingfield read the signs of the times correctly and used the occasion to make money. So strong was the combined stream of the two games that nothing could stop its course. It was further helped along by such wise men, as belonged to the All English Croquet Club and the M.C.C., whose combined efforts, including existing and workable practices, saw to the development of what became known as Lawn Tennis, and later, when played on all kind of surfaces, as Tennis.

2. Other tennislike games

Menke (1947:924) mentions the following games as belonging to the Tennis group or family of games: Court tennis (or Royal tennis), Lawn tennis, Paddle tennis, Paddle platform tennis, Racquets, Squash racquets, Squash tennis, Table tennis and perhaps Badminton. In this list he omitted the games already dealt with, namely, Kaatsen in all its forms, Jeu au tamis, Pallone and Pelotta. He should also have added Fives to his list, and also other games that are based on Tennis, such as Teniquoit or Deck Tennis, Volley Ball and Medicine Ball Tennis. A few thoughts on these games will now be discussed.

(a) FivesName

The name, Fives, has survived, but the following were also used: "Catch-ball", "Hand fives", "Fives or Hand-tennis". What Strutt (1898:163) described was nothing but Handball. The names seem to indicate that Fives was nothing but Tennis; that it had the same evolution up to a certain stage and that it then embarked upon its own course. In other words, it is merely a branch of the same tree as Tennis, Rackets (Fox, 1899:235), and other Tennis-like games. The name Fives is, according to theory, derived from the five fingers of the hand, the hand being used to play the game (Ainger, 1903:417). Another theory is based on an isolated game where five players played on either side (Ainger, 1903:418) * The theory previously expanded on scoring is supported by the name of Fives.

Principles

Originally the Rugby and Eton Fives got practically all the publicity and it was forgotten that this game was also played under other names. In this game there is a survival of many elements of the indoor game of Tennis. A wall is used which is nothing but the end wall of the indoor game, the balls of the two games were similar, and the hand with or without the glove, was used (Edwardes, 1911:294). In the Fives described by Stonehenge (1868:571) and played in the middle of the last century, or even perhaps before that time,

* Also referred to as Hand-Fives (Cokayne and Gower, 1898:243).

there is a line some distance from the wall and the ball had to reach that line everytime it was played. There was, therefore, a neutral zone which scored points. The distance principle was the same, but in a different guise to the games where the tripot was used and which included the Kaatsen games. The wall virtually took the place of the tripot in this game. Fives was also closely related to "Catch-ball", an old Scottish game, consisting of the striking with the hand of a leather-covered ball against a high wall, and after hitting the ground and rising, striking it back again (Fittis, 1891:207). This form of "Catch-ball" is a variety of the "Catch-ball" as a Handball game and in whose name there is a link with Kaatsen or the chase. In an account dated 1819, there is also mention of hand Fives, a chase, a wall and a "bue", while some courts had a projection which served the same purpose as the "tambour" (Ainger, 1903:420,422). In the Eton Fives, only the server could take up his position in the inner court and the other three players were arranged in such a way that they formed a triangle, reminiscent of "trigonalis". Apparently, like other Fives games, the inner court has ceased to be a neutral zone. The courts originally differed according to the space available, and like the indoor game, characteristics of the space originally used, were adopted when new courts were built. For this reason some courts had only one wall, others also had side walls, and some had a back wall. Some courts were in the open and some were enclosed.

(b) Rackets and Squash Tennis or Rackets

There are three theories worth mentioning. Firstly, the game originated in England in the Debtor's Prison (Menke, 1947:801; Collins, 1929:636). Secondly, it originated in or on Tennis courts but had nothing to do with Tennis (Henderson, 1947:100; Miles, n.d.:70), and thirdly is an offshoot of Tennis (Marshall, 1878:177; James, et al., 1936:290). Henderson (1947:98) proves that the inmates of the Debtor's Prison could not have started the game (Bouverie, 1899:450) and that it was played before that time. He points out too that the racket was used before 1800 but that the plural became the practice after that date. Most of his data is based on the name itself but he does not go into the principles. What he actually succeeds in doing is to strengthen Julian Marshall's conclusions, namely, that it is an offshoot of Tennis.

The words, Racket and Tennis, are used together in the instances quoted by Henderson.

William Dunbar in Devorit, with Dreme in 1500, "So many rakketis, so many ketches-pillaris, Sic balls, sic nachettis, and sic tutivillaris", which Henderson (1947:98) puts into English, "So many racquet-players, such ball-players, such markers, such worthless persons".

Henderson is right in his assertion that Racquets and Tennis are linked but he makes an error in translating "ketches-pillaris" as Tennis players, because they are Handball or Kaatsen players.

In David Lindsay's poem of 1529, Henderson sees the word "rakcat" as the equivalent of racquets which must not be ignored, for the word "cat" was used for the ball in several games and as the "cat" was struck by an instrument (rak) these two could jointly have led to the birth of a name.

In Thomas Middletons Father Hubbard's Tales (1604) Tennis court and Racket court are used synonymously and in John Ogilby's Aesop (1651) he talks of Racket-Bols and Tennis-court; in the New Dictionary of B.E. Gent (1698), Racket play and Tennis play are considered identical. Henderson (1947:98) goes on to quote J.B. Atkins: "both games have so much in common that it is impossible to separate them historically; for practical purposes we must regard them as identical".

To show that the two games were played on the same courts, Henderson quotes more poems and succeeds in proving that these two games are inseparable. Why he wanted "Rachets" or "Racquets" (the American spelling) to have a different origin to Tennis when both names are used together, having been played together on the same court, cannot be understood. His information and the research he did on the names, however, are most useful and a great contribution to the history of these two games, as well as others. But in his data he completely ignores the fact that hazards were used, that only one ball was used in the beginning, a ball similar to the one used in Tennis, and a racket, which could surely not have had an independent origin. Even for "Kaatsen" the word "raketbal" was sometimes used, which shows how the names inter-

changed. It must, therefore, be concluded that Rackets is an offshoot of Tennis but that it retained, like Fives, an element which Tennis lost, namely, that it was sometimes, and perhaps originally, played against one wall, the same as Spanish "pelota" is played to this day. Fives and Rackets have the net-principle in the same garb, and both originally had the inner and outer court. In 1899 Rackets had another area between the inner and outer courts. These two must, therefore, be considered blood-brothers. From these games, but especially from Rackets played with a racket, they developed in due course the game of Squash Rackets, first called Baby Racquets (Collins, 1929:637), played with a rubber ball and usually indoors. Tradition has it that it originated at Harrow School in 1850 (Menke, 1947:897). The word Squash is attributed to the noise of the ball as it strikes the wall (Menke, 1947:898).

Squash Tennis is Squash Rackets or Racquets played with a Tennis ball, a change brought about by the Americans (Menke, 1947:897).

(c) Table Tennis

Table Tennis is Tennis played on a table. Originally the same balls were used as in original Tennis and so that the tables would not be damaged, a knitted web was spun round the balls. Even smaller rackets and battledores were used. The balls were changed to rubber or cork and used until 1880 when celluloid was used which, on account of the sound these balls made against bats and on tables, gave the name Ping-

pong to the game instead of the customary indoor Tennis. In 1902 the bat was covered with rubber to replace the wood, vellum and sand paper surface.

Table tennis is a development of ping-pong. For a short time the two games, each with its own rules and its own governing body, were competing with one another, the result being a good deal of confusion, but in 1922 the Ping-Pong Association was dissolved and the Table Tennis Association came into being. (Encyclopaedia of Sports, Games and Pastimes, n.d.:606). *

In 1926 at the invitation of Dr. Lehman, of Berlin, a meeting in Berlin organised the International Table Tennis Federation, which standardized rules and equipment. (Menke, 1947:919).

Regarding the game of "indoor tennis" and where it was first played, Menke gives the following theories:

- a. It originated in New England in the 1890's.
- b. It was devised in England in the nineteenth century.
- c. A British army officer in India created it.
- d. A British Army officer in South Africa, before the Boer War, started it.

According to the names given to the game and the popularity of Tennis in various forms, it seems as if England could have been the birthplace of the game.

* It is called "oibane" in Korea and Japan; "poona" in India and by the Cococo women "jeu volant".

(d) Badminton

Badminton, sometimes called Indian Badminton or Lawn Racquets, is a Tennis game, for it contains all the elements of those games. The shuttle is the one big item which differentiates it from Tennis, but the net is there, and also it was an outdoor game with a court and service courts. The shuttlecock itself had been used by children in the fourteenth century, and the game must have been played in the same way as Handball, as it was played in Holland during the sixteenth century and even during the Middle Ages (Schotel, 1905:121). Strutt gives an illustration of two boys playing Badminton with bats. This being the case, it is unwise to say that it simply originated in the Simla Gymkana in India (called "poona") or in England (Menke, 1947:74; Lucas, n.d.:240; James, et al., 1936:17). It seems as though it was popularised in India and then got its name at the Duke of Beaufort's Badminton country place in Ireland in 1873 (The Popular Recreator, Vol. II, n.d.:324), the Anglo-Indian having brought it into England and Sir Alfred Lucas into Devonshire (Lucas, n.d.:240; Southey, 1899:91).

It is interesting to note that the first rules were apparently printed in 1877 at Karachi and that the shape of the court was hour-glassed. It would seem as if Major Wingfield copied this shape.

As to the names battledore and shuttlecock, the following is taken from the MSS of the Ancient Languedoc Bords:

At first the battledores were
 things
 With golden sticks and golden
 strings,
 And none could play save kings
 and queens,
 Because it was above their means,
 The bats were called "bat-tels",
 and they
 Were golden, termed in French,
 "dore",
 "Battel-dore, 't was called
 before
 The people name it "battle-dore".
 And yes, my shuttle worked the
 thread,
 And cock's feathers white and red
 Firmly fixed in Corkian block -
 These suggest
 That the best
 Name for this is Shuttle-cock.
 (Burnard, 1873:24).

(e) Volleyball, Medicine Ball Tennis

According to theory, Volleyball was evolved by
 William G. Morgan, director of the gymnasium at
 Holyoke, Massachusetts in 1895 (Wood and Goddard,
 1938:665; James, et al., 1936:358).

If this is so, one has here a similar case to
 that of Lawn Tennis, Kastie, Kiepers and Longball
 games, namely, that existing principles of games
 were moulded in different forms. The same must
 be the case with Medicine Ball Tennis.

CONCLUSIONS

Two facts emerge from the study of this family of games.
 Firstly, the stages present themselves when all the histori-
 cal facts of the games are co-ordinated and all the games are
 analysed and compared. Such stages are the following:

The stage of keeping the ball alive;

The measurement stage;

The target stage, and

The modern stage.

The first stage runs through all the stages and is a basic part of games - often overlooked. The same applies to the measurement stage, for measuring is actually still done in all the games under the name of scoring. Keeping the ball alive and measuring, however successfully done, invariably led to the next stage where the court was restricted, subject to the main target, the net. Although its evolution is divided into stages, it is significant that not only does a stage not die out when followed by another, but it paves the way for the next stage and does so with the whole complex of its parts. There is a holism in the developments which together pave the way for development. When the net was established, and the game played in a restricted area, milestones were reached, but the ball and racket kept on developing from the first stage, through all its stages right up to the last stage, the modern stage, and as the balls and rackets improved, so also did the surface of the courts. Wire fencing was created to stop the balls. Umpires were appointed, and in fact, everything that needed doing was done.

Secondly, this holism leads us on to another thought and that is that all the games played in all the countries at all their stages should be thoroughly studied to find answers for unsolved problems. In this family of games there are more theories than in any other, especially when it comes to the origin of the name of the parent game, the scoring, and the terms. This is due to the fact that such theories did not conform to this principle. It is not claimed that the explanations which presented themselves when the holistic study was conducted are in any way final or absolute, but they are certainly nearer the truth and much more factual.

CHAPTER VTHE GOAL FAMILY OF GAMESINTRODUCTION

The method followed in the Batting and Target Families will not be applied in this chapter. There are two reasons for this deviation:

Firstly, as was the case with the Racket Family, the history of the Goal Games is adequately recorded for the purpose of this study and need only be used to analyse it. Secondly, the evolution of these games has to a large extent been done in "Die Verhaal van Rugby", (Craven, n.d.) where most of the games of this family have been dealt with directly or indirectly. Where such was not the case they will be given the necessary attention.

To say this about the Goal Games need an explanation, for the exact date throughout history when these games were started is not known. In practically every case a date is given for the birth of Rugby, Basketball and others. This in itself presupposes that there was no, or hardly any, history before such dates. Therefore, no evolution. Yet books record games played in similar ways and sometimes with similar names. Such history is usually found in a language other than that of the country which is supposed to have conceived the idea and principles of games. To say, therefore, that history has provided all the facts about the games, is to forget about their birth which is also given by history.

The main games belonging to the goal family are Korfbal, Basketball, Netball, Lacrosse, Ice-hockey, Association Football or Soccer, Rugby Football, Polo and Water Polo. American Football, Canadian Football, Gaelic Football and Australian Rules

can also be included in the list, but as their existence is of recent origin, they will be left out when the evolution of this family is traced (O'Sullivan, 1958; Howell, 1969; "Football" in the Badminton Library, 1903). All these games have a goal, a word derived from the fact that by reaching their goal, the game was won.

THEORIES

Apart from the natural inclination to claim a game, something which is often done by supporters of most of these games, a few theories will also be mentioned.

Theory about Football

It is generally known that William Webb Ellis was supposed to have started the game of Rugby in 1823 when he "picked up the ball and ran with it", ignoring the rule which disallowed this. It all started when a few old-Rugbeians, William Webb Ellis' old school, asserted in a pamphlet, "The Origin of Rugby Football", that William Webb Ellis started the game in 1823 when in the soccerlike game of those days he caught the ball and ran with it.

This theory has been proved wrong by Craven in his book "Die Verhaal van Rugby" (n.d.:78-84) in which he came to the conclusion that what Ellis did was to run with the ball after catching it instead of taking a free-kick, and that this act resulted in the introduction into the game of the fair catch, which entitled a player to take a free-kick only when he indicated it as such, otherwise he could run with the ball. He also pointed out that the game was already played in Britain in the twelfth century, in France before then, and in Italy even before it was played in France.

Theory about Basketball

Basketball was invented in 1891 by Dr. James A. Naismith of the Y.M.C.A. training school at Plainsfield, Massachusetts and is a synthetic cross between Soccer and Lacrosse (Menke, 1947:178). Menke (1947:178), supported by Smith (1936:42), goes further and says, "Basketball is the only game devised in the United States without any prompting from pastimes which originated elsewhere".

Theory about "Korfbal"

"Korfbal is een sport van Nederlandsch makery, ontwikkeld door de Amsterdamse onderwyser Nico Broekhuysen. Na 1920 vond het in België ingang; sedert de Tweede Wêreldoorlog word korfbal ook beoefend in Engeland en sedert 1960 in Duitsland" (Winkler-Prins, 1936:307).

The same name for a game, with many similar principles shows how wrong both views are. It is also known that it is much older than the dates given above.

Theory about Hockey

"Explorers penetrating the St. Lawrence valley in 1740 discovered the Iroquois playing a well-organized game, baggat-away (which is today known as Lacrosse). Each time a brave was walloped he would grunt 'ho-Gee' (equivalent to the Anglo-Saxon 'ouch'). Some say that the pale-face translated this into his own tongue as Hockey" (Vaughan, 1939:3).

A picture, painted on a tomb dating back to 3000 - 1500 B.C., depicts two youths with hooked sticks and it also shows an arch which had something to do with their contest (Newberry, 1893: Plate XVI). The Greeks were supposed to have played the game 1500 years ago (Encyclopaedia Britannica, XIII, 1910:554). On an altar vase in the Copenhagen National Museum, are shown two "hockey" players engaged in a "bully"

(White, 1909:4). The Romans had a similar game to the Greeks, which was also said to have been played long ago. It was also played in Europe, Asia, northern Europe and the Low Countries in as early as the sixteenth and seventeenth centuries (Encyclopaedia Britannica, XIII, 1910:554; Thomson, 1925:12,13). Nowhere, in the above, is mention made of any team or party games. What they portray are individual contests with the bandy and ball in the days when jousts or justs formed part of the games. This is also borne out by a mural picture of the so-called bully in the time of Pericles. These individual contests could have been played in addition to the goal game played centuries ago, and they could also have played a part in the goal game, but they were by no means a game played by Big Sides or big parties.

Theory about Lacrosse

Menke (1947:669) maintains that it is an improvement of the Red Indian game of Baggataway and "called it lacrosse for the stick because it was webbed and reminded of a bishop's crozier or cross".

Although this has support (Sachs, 1899:366; James, et al., 1936:217), it is known that the game was known in France in the fourteenth century (Winkler-Prins, 1936:515), and a somewhat similar game was played in Scotland, called hailes (The Encyclopaedia of Sport, Vol. IV, 1911:108).

Theory about Ice-hockey

Ice-hockey was played by the Scandinavians from the earliest times, but organised Ice-hockey was started in 1879 when W.J. Robertson and R.J. Smith of Montreal gave it impetus and used original Ice-hockey to do so (Menke, 1947:669; Wood and Goddard, 1938:711). That Golf was played on ice with a bandy is true, but that it was Ice-hockey that was played is not true.

Ice-hockey was also called "Bandy" (Collins, 1929:256; Tebbutt, n.d.:237), showing the relationship of the game with Golf played on ice, also called "Bandy" at times (Encyclopaedia Britannica, XIII, 1910:555).

Theory about Polo

The game of Polo is 2 000 years old and was played in the East (Coaten, 1911:353) or in China in 600 B.C. (Encyclopaedia Britannica, XIII, 1910:11). Menke (1947:792) seems to have the right answer when he maintains that the only evidence for such a belief was a tapestry in the British Museum on which a game of Polo had not even been depicted. Also, that the Persians were supposed to have played a game, "2 500 years before the horse was strong enough to more than jog a short distance with a man on his back".

What could be correct is that the game spread "from Persia westward to Constantinople, eastwards through Turkestan to Tibet, China and Japan. From Tibet Polo travelled to Gilgat and Chitral, possibly also to Manipur. It also flourished in India in the 16th C. Then for 200 years its records in India cease, till in 1854 Polo came into Bengal from Manipur by way of Cachar and in 1862 the game was played in the Punjab" (Encyclopaedia Britannica, XIII, 1910:11).

The possibility is also mentioned that Hockey, Hurling and possibly Golf and Cricket are derived from it and in England is called Hockey or Hurling on horseback (Encyclopaedia Britannica, XIII, 1910:11).

Some of the variations of Polo throw more light on the question, because one such variation shows a resemblance to the rough Football of the same period in England in the sixteenth century (Encyclopaedia Britannica, XIII, 1910:12); a second variation

used a racket and a ball the size of an apple (Encyclopaedia Britannica, XIII, 1910:12); the Chinese variation played in 600 B.C. was played with a wooden ball to a goal with a hole in the middle in which there was a net to receive the ball (Encyclopaedia Britannica, XIII, 1910:12); the Japanese variation called Dakui (ball match) where a board is used as a goal, and in which there is a hole with a net behind it in which to place the ball, balls being of paper covered with pebbles or bamboo fibre and driven forth by racket-shaped sticks (Encyclopaedia Britannica, XIII, 1910:12) a variation called Röl (Encyclopaedia Britannica, XIII, 1910:12).

The similarities with other goal games are obvious and, therefore, a common ancestor cannot be discarded. Original "polo" was not a game but simply a contest (Dale, MCMV:5) and Bogeng (1926:347) says: "Umittelbar vor den römischen Harpastum hergeleitet wird das Polospiel, das die Persen und Meder unter den Namen 'Chargan' Kennten".

Discussion

It cannot be denied that many of the above theories are based on some truth, but they show that unless a global picture of a family of games is taken into consideration, the full truth will not be determined, and if the names of certain people are singled out as the inventors of a game they usually had as basis something which was already in vogue; also that they could have given some impetus to the development of such a game.

NAMES AND GAMES

One of the ancestors of the goal games is "Harpastum", a word derived from "harpargo", meaning to snatch, or take by violence, and was played in ancient Rome and before that time in Greece, where it was known as "Episkynos". In this

game the ball had to be carried, or thrown, and most probably hit over a line. It was sometimes played on a small area and sometimes over great distances, over hills, through woods and rivers. When the ball was hit or thrown a club, or bandy, or "hurle batte" was used, "the horlinge of the litill balle with hockie sticks or staves" (Strutt, 1801:92). Younger than the above was the game of "Calcio" and "La soule".

The game, known in Italy as "Calcio", Guico del calcia", Ludos soularium", spread to other parts of Europe and also took root particularly in France where it was known as "la soule", "soule", "choul", "la choule", "choll", "jeu de solles" (Jusserand, 1901:282). "La soule" is a wooden or leather ball, filled with bran which could be carried, hit, thrown or kicked to the goal which could also be a pool of water in, or outside a river or stream, and the object was to "drown" the ball ("verdrinken"). "Hierbij dus geplas en geploeter, gevecht te water" (Hébert, 1925).

When "la soule" reached England the game became known as Campball in the eighteenth century, also as Hurling, Shinty and later Football.

It was spelled in different ways, for example, fotebal (14th Century), foteballe (1581), futeball or futball (1424), footballe (1481), foote balle (Ireland 1527), football (1608), foote-ball (1576), ffooteball (1655), foeth-bal (1622), foot-ba11 (1615) and football (1486). (Craven, n.d.:1, based on the first chapter in Football by Montague Shearman (1901).

This name was used for those members of the goal family which accepted the bouncing ball which could be kicked better than the old hard ball, and it seems that this ball led to the parting of the ways as far as Hockey and Polo were concerned who

stuck to the ball they had always played with. Whether the ball was kicked or carried it was called Football. When these two methods - kicking and carrying - separated further, a compromise was sought and found in the Association which had been formed. Unfortunately, the members of the Association could not compromise on hacking, with the result that the carrying and kicking codes severed relations for all time in 1863, when the kicking code preferred to call themselves the Association Football, and the carriers to be known as Rugby Football. This happened in 1871 when the Rugby Football Union was founded by old-Rugbeians. Also, because of their acceptance of the Rugby School's rules of the game published in 1846 and 1864, the game eventually became known as Rugby Football (spelled with a capital R because of the name of the school). The word rugby took a long time to be generally accepted and in South Africa it only became universal in 1903.

About the names "rugger" and "soccer" the following is found: "One morning Charles Wreford Brown, the famous Corinthian and England player, was having breakfast in his college hall as an undergraduate at Oxford. He was approached by a friend: "Wreford, come and have a game of 'Rugger' after 'brekker'". "No, thank you, John. I'm going to play 'Soccer'". (Green, 1953:19). The Association game was also referred to as Assoc and it was from this term that Soccer originated. (Craven, n.d.:1).

It is wrong to credit the Roman ball, *follis*, for the name of Football, for that ball was used in the air and was a kind of balloon. The ball had its own evolution and the name football contains the word ball which seems to be derived from:

"palla" (Greece); "pilla" (Rome);
 "palla" or "balla" (Italy); "ballo"
 (Lapland); "ballu" (Germanic Races);
 "palls" (Finland); "balle" (France);
 "balla" (Spain and Portugal); "pulu"
 (Tibet); "bal" (Holland, Germany and
 South Africa) and "ball" (England).
 (Craven, n.d.:29-30).

The game of Polo is called Pulu in Tibet which name derives from the Greek palla which the Eolians made Polo (Marshall, 1878;10).

Hockey was played with a ball originally called cat or kit (Vaughan, 1939:4). The name Hockey, according to Menke (1947: 565), was borrowed from the French hoquet which they spelled hockey, as the French pronounced it. It is generally accepted that the word is derived from the shepherds' crook or hooked stick also called "hookey" (Encyclopaedia Britannica, XIII, 1910:554; Jusserand, 1901:249; Clapham and Marsden, 1911:415), hence the fact that the game was also sometimes called Bandy (Hole, 1948:48). It seems certain that the name was borrowed from the French. This could have been part of the game of "la Soule", and probably happened at a time when hitting was ready to split from the kicking, carrying and throwing in the game, especially as a different ball was used. For this reason too "Shinty" (Shinny) in Scotland and "Hurling" (Hurley) in Ireland and "Bandy" in Wales, assumed independence as Hockey or hitting games. According to Collins (1929:236), "Shinty" was first played in Scotland from where Ireland took it over as "Hurley".

The name Ice-hockey speaks for itself. The Americans prefer to use the word hockey, while Hockey (not on ice) is called field hockey.

"Korfbal" and "Basketball" are the same, the latter being the translation for "korf" which is a basket. According to Beets and Knuttel (1912:5646) "het ring werden vervangen door een

korf". This brings the game closer to the original game of the goal family where a ring was often used as a goal, and it seems that due to the influence of the goal games the time was not ripe for "Korfbal" to go on its own. Netball is so named because the net was attached to the ring to indicate better that a goal had been scored.

What applied to "Korfbal" also applies to Water Polo, at one time called "football in the water" (Encyclopaedia Britannica, XXVIII, 1910:385; James, et al., 1936:371), which went its own way after the provision made in the original goal games where play continued in water and the goal was often actually in the water.

It is possible that both games were made by experts, as is claimed by some writers, but such a view cannot be shared for the following reasons: a game was played in France in the fourteenth century by Big Sides or counties, which has the same principles as the game concerned (Bogeng, 1926:339-340), the same principles of throwing the ball as a means of passing it after it had been started by a neutral person, usually the Mayor. The goal itself and what it involved, are common principles. The name Football, when played in the water seems to indicate that "Korfbal" and Water Polo took their leave of the ancestral game when the ball had reached a new height in its development, that is, when it had become the follis, but before the kicking and carrying codes had parted company, that is, when the ball was still thrown forward in the goal lines, and possibly too, after passing became part of them. In terms of time it must have been before the Mayflower arrived in America, and the Colonists pooled what they remembered of Football in their places of origin where throwing forward was still permissible. This practice was only abolished after the kicking

and carrying code severed their connections in 1863, but was disallowed by Rugby after the split of the two codes. In both games elements of the ancestral game were retained, namely, the ball was thrown up between the two teams to start, and re-start the game.

The name, Water Polo, indicates that it was given to the game as a result of Polo itself. "Polo" comes from "pulu" which shows that the game came to England from the East. This is possible, for the game became a military game played by English soldiers. They played it in the East and especially in the Punjab. They must have brought it to England where the water footballers got to know it and changed the name of their game to Water Polo.

A survival of the goal games is found in the term "bully". This word was used in the goal games and is similar to the scrummage, scrimmage, and melée from the same concept. Indeed, the scrummage is still called by that name in the "Eton wall game". Although the origin is uncertain, the Encyclopædia Britannica expresses the possibility that it was possibly a Teutonic word like the Low Germanic "bullejan", meaning noisy. Such a possibility cannot be ruled out, because in the scrummage, whether sticks, feet, or hands were used, it became very noisy once the bullies had started. It would, perhaps, be more appropriate to say that because in "fighting" for the ball, players fell down in "piles", the word could have derived from the Greek "Palla". Several other words also derived from this word.

Goal

This word is derived from the phrase "the reaching or achieving of the goal", which was to kill the ball at a certain place by pressing it under the water, or against the ground, or a pole, or any other object decided upon. If this was done, the ball

was dead * and the game was over because the goal, to kill, had been achieved. When the ball was successfully put through an arch of branches or twigs, it still had to be killed. Thus the wicket gate in front of a house was used for an arch and led to your present goal posts. Rugby was the only game which kept to the killing of the ball after it had gone through the goal. The arch was similar to the one found in the target family games of "Klossen" and "Beugelen", where it signified that the defended haven had been reached or penetrated. The same must have been the case when the place of safety had been reached in some of the goal games, and the ball could be killed there, the winners sharing in the spoils, that is, the bladder was cut into small ribbons, which became the trophies to be played for afterwards. Other goal games kept the arch in the shape of a ring which was also used in the ancestral game of the goal games. As playing behind the goal also took place, the goal line was introduced to restrict or eliminate this, and for this reason became very important. Side lines followed as a result of this line and were originally intended to show spectators how close to the game they could approach.

EVOLUTION

According to the foregoing developments which the games of the goal family underwent, the following evolutionary stages can be determined:

The distance (principle) stage

During this stage, counties or large groups of people played against each other. The game was started halfway between two towns or villages, and the ball was thrown up by a neutral person, riding on a horse so that he could escape the melée which followed. Every player's aim was to gain possession of the hard

* The term "dead" is still used in most goal games, for instance Rugby, Soccer, Basketball, the two Polo games, Lacrosse, etc.

ball in order to carry, kick, hit or throw it forward as far as possible in order to reach or achieve his goal, that is, to make the ball dead, or kill it by pressing it on the ground, drowning it in a lake, pool or river, or by passing it through a gate, the wicket gate, or letting the ball pass through a ring by throwing it. In their efforts to reach their home which could be miles away, the game went on over hills, mountains, through forests, valleys, lakes and rivers - even when in spate - and irrespective of whether players got drowned!

Some players found it useful to achieve their object by riding horses, but this produced an unfair advantage and was abolished. A survival of such a game is, however, still found in "Knappen" which used to be played on special occasions in Wales. The only form of defence was to take the ball off a player who had it in his possession, or to get to a loose ball first in order to use the best method in the situation to take the ball homewards as far as possible.

The attack-defence stage

When a county or group advanced too close to their home, players were detailed to take up position between them and their home, and this led to a definite pattern of defence, resulting in the players of a party or group being divided into attackers and defenders, often called forwards and backs, that is, those whose task it was to take the ball forward and those who had to remain at the back to stop any forward of the opposing side. This method helped to reduce the number of players and although Big Sides were still used the sense of smaller sides had prevailed. It also led to a reversal of the goal in that it was not in home territory but in the opposition's. Often houses falling into the area of the two sides, were used as goals and the sides had to go through the wicket gate which was the en-

trance to the ground. Lakes were still used in which the ball had to be drowned, and also rings through which the ball had to be thrown. There were no boundaries on the sides and ends, and the games continued round the goal.

The Big Sides became smaller and the attack and defence more effective.

The stage of passing

When sides became smaller, it was still found, as in the other two stages, that pile-ups, scrummages or scrimmages, melées or bullys could not be avoided, and they occupied too much time for what was supposed to be a game. All kinds of ways were tried out, but the one which had a lasting influence on the game was passing, whether as a hit or a throw. Even the players on horseback or in the water took over this method of speeding up the game. Melées were avoided in all the games, except in Rugby where they were allowable.

The team stage

As a result of the differentiation of methods to reach the goal, each game reduced the number of players and gave each one a position, and special duties attached to that position. Defence and attack were still the basis of the game, together with the players used in them, in their respective positions.

A survival of the Big Sides is still found in Scarborough, England, when a Big Sides Hockey match is played on Shrove Tuesday (Hole, 1948:56), and also the Scottish Ba-game (Craven, n.d.:2).

SUMMARY OF CONCLUSIONS

The differentiation process found in the Target Family was repeated in the Goal Family of Games. Whereas hitting, throwing, sliding and rolling became separated in the Target Family, the

differentiation in the Goal Family still involved hitting, kicking, throwing and carrying. Although both families originally aimed at a target the latter differed materially. That was, however, not all, for it was the kind of defence - defence nevertheless - which died out in the Target Family, but became specialised in the Goal Family. Another factor which played an important role in the difference between the two families, was the team element which carried in its wake other elements like tactics, combination, passing and internal specialisation of positions. Yet another element came to the fore, namely the dynamic part of the Goal Family, that is, running, and indirect attack on the goal, that is, away from it and yet at it, backward in order to go forward. It could be argued that notwithstanding what has been said, the process in the Goal Family was not that of differentiation but of initiative on the part of individuals, for example, in the Netball group or the two Polo games. This approach, however, has been discarded for three reasons:

Firstly, all the basic methods of those games were part and parcel of the ancestral goal game.

Secondly, although the games in question were much younger than that game, and although when it was played in a restricted area it did not need water in which to play, or arches through which the ball had to be thrown to score, yet those elements were known and understood and could be differentiated. In addition they were familiar because the ancestral game was regularly played on occasions as a relic or survival of the past. Indeed, Ba-game, Knappen, Hurling, are all proof of the ancestral game's place in the minds and lives of modern man.

Thirdly, although every goal game went on its own and as such became specialised, and is still doing so, it did so as a result of common patterns which it inherited, for example, grounds or fields were marked off and consequently have a centre or half-way; goal and side lines with the goals in the centre of the goal lines; the goal's object, or method of scoring, remained the same for the ball had to go through it, even in Rugby where the term goal still means that the ball goes through it, that is, the uprights; the ball was in play, or alive, or dead and the object really was to keep it alive; there were forwards and backs, if not in all cases in name but in concept; defence and attack; passing; penalties; the importance of the goal line, etc. All this made it very necessary for these games to continue to borrow from each other, just as they did before they left the main stream.

The differentiation process is in some way a purifying process, for its specialisation makes certain principles redundant and superfluous. The term goal itself has remained intact, however, even though its meaning originally meant achieving or reaching the goal or object, and that object took over the concept.

In the target family such goals were also used where arches on the ground became established, for they too were bent twigs just as was the case in, for example, Hockey. Even indoor Tennis had a "goal", a hole in a wall into which the ball was struck. This again is reminiscent of the prominent part played by the hole in Golf and the ancestors of the Batting Family. The concept, but not the name, was the same as that of the Goal Family, that is, the goal had been achieved. Apropos of Tennis, the resemblance between the implement to reach the "goal", whether as a concept or an object, is still found in Pelota and the goal game of Lacrosse.

CHAPTER VIDISCUSSION OF FINDINGSINTRODUCTION

The analysis-synthesis method of the study of games and principles of games, in their historical setting and context, made it possible to piece together their evolution to their origins. In most cases it could with certainty be laid down, and in many of the others with a fair amount of certainty, where the main component principles of games and most of the games themselves came from, or how they originated. As a result of these findings the veil was lifted from the many cases which were shrouded or wrapped in antiquity, including the uncertain origins often mentioned in literature. This included the names of games and their terminology. Without adequate historical data this would not have been possible. Difficulties that hampered the study were the obscure historical byways employed by writers who drew conclusions by only taking an isolated case as basis, or who had preconceived ideas they wanted to prove, or they could not see beyond their own countries or the present advanced state of a particular game they favoured. At the same time, wrong conclusions could have been used to find the right ones by taking the whole picture and setting of games into account when the problem could virtually have solved itself. In this study evolution could clarify history of many imponderables and it came to the conclusion that if history was to be blameless, it had to make a study of evolution, the same as evolution had to make a study of history, if it in turn, was to be blameless. The two, therefore, should be one. History supplies the facts, the dates, and the countries. Evolution supplies the development or growth, and its course.

THE COURSE OF EVOLUTION

The course of evolution is closely allied to the road of diffusion. In this connection names are of the utmost importance. Two outstanding examples are the cases of "Kooten" or "Cooten", and "Kegelen".

"Cooten" was a minor game which assumed the name of the objects played with, namely, bones. It was known in Rome as "the game of bones", "ludus talorum"; in France as "jeu de osselets" and in England "loggats". Not only was this game widespread but it also had a profound influence on some of the target games, particularly on the Bowls group, where the influence can be perceived in names. Games like Quoits and Bowls, and through Quoits, Curling, were a far cry from "Cooten", but their names and implements bear witness to their influence.

"Kegelen" too represents the objects played with, namely, stones. "Kugeln" led to "Kegelen" itself which became established in the Low Countries and Scandinavia. It then spread to France as "Quilles" and from there to England as "Kayles" in its many forms, and ultimately as Skittles in its many forms.

Names also helped to trace the course of diffusion and indirectly evolution when they were incorrectly borrowed. Brennald is an example of this, and also the use of the word cat in the game, One, two, three or four old cat, where it refers to the number of targets needed for players and not the ball as found in games like Cat and dog, Tipcat and other major games like Hockey and Ice-hockey. The same applies to forms of Closs for Skittles games in England. Whether games or cultural traits, the role of names cannot be ignored when diffusion is to be determined (Craven, 1935:139-151).

The effect of accepted theories

Without accepting the main principles of the diffusionist theory it would have been difficult to trace the course of evolution.

The same applies to the other theories used.

1. Survivals

It is difficult to understand why players went to all the trouble of digging holes and planting stones in the ground when other easier means could have been adopted. So ingrained on their minds must habits and customs have been that it took a long time to eradicate them. In this way survivals were found which helped to point the way. Even at this stage of the study, the full significance of the "hole" is not altogether understood, although it is realised that it was adopted by several games, namely, in some of the circular running games, Cricket, Golf, and Polo as played in the East, and also many other minor games not mentioned in this study.

Other examples of survivals are: In Cricket "wicket" reminds of the wicket gate. The term "wood" is still used for the bowl or ball for Bowls, reminiscent of the time when balls were made of wood. In Eisschieszen the words "ice sticks" and "stones" were used for the discs made of wood. New objects have now replaced these stones in our modern target games but they still emulate and resemble the stones of old. Very popular in olden times, too, were special days set aside for these games.

In Croquet the pegs were called sticks or posts even when it became a modern game (Heath, 1896:21). The same is the case with Knappen, the Ba-game and Hockey as played on Shrove Tuesday. These festival games, usually played on a public holiday, revealed many historical facts but

actually they were still clinging to survivals. Unfortunately, they too, but for a few exceptions, have fallen away.

2. Role of occupation on games

The name "Bandy" which derived since the origin of games, was until recently used for Golf, Hockey and Ice-hockey, showing the important part it played in the evolution of games. It does more, however, for it proves that the occupation of people cannot be overlooked in tracing evolution. Man worked and lived with the bandy and it was only natural that it should find a place in his games.

Stoolball is another example of the influence occupation had on the games, for not only did it use everyday utensils, but it also gave Cricket its name which would certainly not have developed as it did, had the farmers not used their wicket gates, or the unploughed area between lands. The bones of animals killed by hunters or herding peoples, and the quells in quarrying ... all show the influence of occupation.

3. Environment

Allied to occupation was the role played by environment which produced round, smooth stones after earthquakes, which in turn led to the target family. In addition, nuts found in certain areas and a certain kind of wood, helped originate and develop ball games. Games played on ice had a profound influence on games and their development. Golf, "Klooten", "Kegelen", Ice-hockey, Quoits, Curling, Eisschieszen would in all probability never have developed as they did, had the environment not produced ice, frozen lakes and rivers.

Dates and countries of evolution

It was not possible to establish the dates when games or their principles originated, were altered, or superseded. Only when it came to modern times were dates and changes recorded. Most changes were not recorded before the rules or laws of the games were made uniform, that is, when controlling bodies took over. They were also not recorded because, for the most part, they were unknown. Before controlling bodies came into being, there were practically as many sets of rules as places where the game was played. There is, therefore, a distinct line of demarcation between the times before and after controlling bodies were formed. The task of making the rules uniform, belongs to modern times or the age of specialisation. The time before is often referred to as pre-historic times, which is quite wrong, for these games were definitely recorded and if there is such a thing as pre-historic times, it follows that it should be before such a time. In this work no pre-historic time was found. There were, therefore, only modern and pre-modern times. The latter includes the times of civilisations at their height, like the Roman Empire, and the Greek and Egyptian civilisations. When dates were given within such periods they may have referred to the implements used but not to the nature of the games. Skittles, discovered in the third century, or Tip Cat found in Egyptian graves, by no means represent the games described by, for example, Strutt in 1801. Having traced the evolution it can only be assumed that their games were at that time in their original forms.

More certainty exists concerning the countries responsible for the development of the games, than the actual dates in pre-modern times. The ancient cultures of Greece and Rome which left such wealthy legacies to the world, also left much when it came to games. Indeed, the germs for all four families

were found there. Actually their influence in terms of diffusion, lay more in a westerly than an easternly direction. When the germs of these games could still be located in minor games, their diffusion from Greece and Rome was not widespread even though their neighbours were known to have played them. When they started to germinate and grow into minor games, it all happened far away from the countries of their birth. In other words, contrary to the claims of the diffusionists, the borrowing countries actually developed them and not the Greeks and the Romans. Briefly then, the countries that made games what they are today, and which include the four families, are the following:

1. The batting family

Although the European countries made a contribution and played more advanced games than those played in the land of their origin, yet games found in all the stages on the Continent were also played in England. The most notable contribution came from Holland and their game of "Ketsen". The most advanced game in the one group in the family was "Rounders", which developed in England, and eventually developed even further as Baseball in America. Cricket, which severed relations with the "Rounders" stream, also developed in England together with all the stages before the running stage.

The Schlagball group of games did not get a firm footing on English soil, although "Longball" was played there and several off-shoots of it evolved in that country.

The road from Greece - Rome to England was, therefore, via a few European countries in between.

2. The target family

Paganica went from Rome to Scotland via Holland and finally developed in Scotland. As far as the other members of the target family are concerned the following was determined: They appear to have started in Greece and Rome as "ludus talorum", and were then carried to Holland, Germany, France and England. In this way "Nootje rollen", "Terkuilen" and "Kooten" were played in Holland, "jeu de osselets" in France and "loggats" in England, eventually leading to "Kegelen" in Germany and Holland, and spreading from there to their neighbours in Belgium, and then northwards to Scandinavia. It also spread southwards to France as "jeu de quelles", and then westward to the British Islands as "Kayles" in all its forms, and later "Skittles" in all its forms. One form spread to America under one of its names "Bowls", while another, "Closch", in all its forms, was incorrectly borrowed by certain Englishmen. Bowls itself came from France to England and from there spread to a limited number of countries. "Quoits" was played in a few countries but seems to be dying out, whereas "Curling" was only played periodically in a few countries, notably in Scotland, Canada and Switzerland (Cleaver, 1911:33), while its older brother, Eisschieszen, is still played in Bavaria.

3. The racket family

The racket games spread to most West European countries and as far north as Scandinavia and south as far as France and Spain. It was in France that growth led to a major game which reached England, and there developed to its present form and with it its off-shoots Rackets, Squash, Badminton, etc.

4. The goal family

Regarding the goal games, they followed almost the same lines as the other families, except that their distribution was more restricted. "Le soulle" became popular in France which borrowed it from the Romans. In France it then developed to a much higher standard, but their neighbours did not follow suite, excepting the British Islands in particular England, where further developments took place which led to differentiation of the various games. Few countries, except some of her former Colonies, at first borrowed them from England. Others appeared uninterested. Soccer spread the fastest, whereas Rugby, Hockey and Polo are played in some countries only and are still spreading. Netball became a game for women and girls, and in America for men too. From there Basketball spread to several countries.

A few questions are relevant: why did countries which had the opportunity to borrow not do so if man was the carrier of cultural traits, including games and their principles, and, did such traits spread in concentric circles as the diffusionists claim? The findings give the lie to the latter, for the developments that took place in games took place far from the place of their origin. The two questions are, therefore, inseparable. The answer is to be found in diffusion itself of which the following examples can be analysed.

The first ever game of Football played in South Africa took place on a beach in Cape Town where the sailors played it. Armies stationed on the borders also played their part (Difford, 1933:1,93). From Rome soldiers carried games into Holland, France, Germany and England (Pick, 1952:21).

Baseball became popular with soldiers during the American Civil War, who carried the game all over the country on their return from service. Emigrant Scots carried bowls in their minds, if not their luggage, to Australia, New Zealand, South Africa, India, Japan and elsewhere. (Pick, 1952:29).

Curling was carried into Canada by Scots and British troops, and Scots did the same with Golf. Racquets, on the other hand, was brought to Canada from France by French Colonists (Howell, 1969:140,145,153).

At first sight it seems as if Baseball, having been studied from a book, is the exception. Fact is that other batting games, like Townball, were carried into America by the Colonists before the book referred to was published. The time, therefore, was ripe, and the soil was fertile for the improvements of other and older games carried into America by Colonists. It was mainly the Colonists too who laid the foundation for American Football, while it was the Missionaries who tried to carry Lacrosse into America for the Red Indians.

Teachers and ministers of religion, realising the importance of games in the lives of people, contributed to this process.

The diffusion of the games in question holds the answer. The games spread mostly west and not so much south, east or north. One of the reasons for this seems to be that contact with the west was more frequent and regular.

In other words, contact alone is not enough. The diffusionists must have time in a country and must, if possible, settle in it. Seafaring nations have time and contact, and such was the case between Greece and Rome on

the one hand and France, Belgium, Holland, Germany, the Scandinavian countries and the British Isles on the other. Trade drew the ships to these countries, and trade meant money. Wealth sought wealth and the countries mentioned certainly had it, which cannot be said of most of the countries which did not borrow. Wealthy countries also have more leisure time and the feudal systems in vogue added weight to this. Yet wealth attracts wealth and in the case of games, all roads led to England who accepted them all and developed them. It became a question of prestige to invent, no matter what it was, and what could not be invented was imported. Such was the case with balls and clubs.

Apart from the influence of sailors, the soldiers cannot be overlooked for Rome occupied several of the countries in question, and had enough time to take part in the games known to them, while the suppressed always borrowed from the suppressors.

Good neighbourliness also led to diffusion and in this connection immigrants and experts among them, played an important role in all the countries which acted as intermediaries between Greece and Rome and England.

The core and basic principles of games

The fundamental principles were traced to their origins. In the case of the batting games that origin was throwing, which became hitting; in the target games it was throwing, rolling, hitting and sliding; in the racket family it was hitting with the hand, and in the goal family it was throwing, kicking, hitting and carrying. In other words, the way the "ball" was used helped to create the original games. The germ, therefore, of all the major games was the ball and its potency,

and of the various ways that it could be made and used in the service of man's make-up or urges. If the right potency was extricated from it, games were produced which kept on developing beyond the stage of specialisation as it is known today.

Originally stones, nuts or round objects were used as balls for minor games and they laid the foundation of all major games. These minor games were simple and their principles natural, namely, in the batting family the original principle and urge was the distance principle which was extended to include the placing principle. Between the two they produced another principle, namely, the measurement principle which manifested in various ways.

In individual games the measurement principle was strengthened by man's natural urge to assert himself and as such to compare himself with others. When he matured he transferred the expression of the urge to the team. The original principle in the target games was the accuracy principle. Man measures himself with himself and with others, and he asserts himself by seeing what he achieves. To hit one target is good but not the same as hitting nine, and to see and hear the result of effort shows success for one of the parties, for example, where the ball in Cricket hits the stumps, or a batsman gets an edge of the bat to the ball, or the ball caught by the catcher in Baseball and the shout of the umpire portraying success or failure, or where the ball hits the board in the goal in Hockey. They all do the same. To be able to use various ways to reach a target as in Golf, is more flattering to the ego than the same kind of stroke for all targets. When the various ways of hitting, or reaching a target were all permissible, target games flourished, but when each method went its own way those which did not satisfy human nature struggled and died out, or are in

the process of doing so.

When, what can be called defence was taken out of a game, it bled to death, as it were. "Chole" and "Klooten" got the death blow when they took away handicaps and hazards. Golf partially did the same by controlling the stymie, but did not need it to the same extent as Croquet and Pall Mall, for it developed a variety of strokes and terrain. The interference with somebody else's effort, if successful, therefore, also helps players to assert themselves, but not to the same extent as striking or reaching the target, for the latter is the primary object of a game. For this reason attack is always more pleasant than defence, all things being equal.

Schizophrenics prefer attack to defence. They shun defence for it interferes with other people, something they dislike. As long as they can attack they may participate in games. When they accept defence as part of games it is a good sign, and when they start to enjoy it they are on the road to recovery (Craven, 1973:44-46).

Closely allied to the seeing and hearing of targets falling, or being struck, is the indoor principle with the accompanying atmosphere, conveniences and comforts. When Kolven suffered as a result of other games like "Klossen" and "Beugelen", which were played on a small ground with boards around it and refreshment houses next to them, it had to forfeit its identity to hold its own. Even this did not help for long for the indoor game was better and today it is played that way. Badminton and Squash are mainly played indoors and this helps to keep them alive. Indoor Tennis on television is much more interesting to viewers, and players like it better too, nor does the weather interfere with it. Indoor Hockey, Ice-hockey, even Athletics are becoming popular too. Few will play Billiards or Snooker

if played out of doors. It satisfies man's urge of sociability, inspired by a cosy atmosphere. This is also attained in goal games where the spectators provide the necessary atmosphere if they are near enough to the players. Schizophrenics in a mental hospital, still retain the same urge and prefer indoor activities to outdoor activities, and, when they play, prefer an enclosed area rather than an open one (Craven, 1973:33,34).

The role of spectators is also necessary for man to find recognition. Recognition of spectators, friends, and new media all help him in his battle against self-consciousness, pride and ego, relationships, tension and whether or not to withdraw, even in some degree, or other (Craven, 1964:38,39).

The distance principle in the racket games took a back seat to the placing and accuracy principle but retained the effort behind the distance principle, indicating that unless effort is at its maximum, even if only at times, self-assertion is not fed sufficiently.

The goal family kept its distance principle in running and kicking or hitting or throwing; it also kept the placing as passing, and accuracy principles, while effort is at a maximum in the bully, the scrummage, the tackle, in the water, on horseback or on ice. Fluctuation, a form of variety, is created by the situations which often vary in team games, and also by attack leading to defence, and vice versa.

The development of the ball to produce the principles of distance, placing, accuracy, variety and effort which can be measured for the player, or are perceivable in sounds either for himself or for others, is to use its potency. The atmosphere in which it is expressed also helps man's urge to follow the road of least resistance.

There is another principle which must satisfy man's nature, the nature of the target. The target must, as the object to be reached, be in conformity with the object of the game. In other words, the two objects must be moulded into one. The original target had to be killed by getting the ball into a hole, or by throwing, rolling, hitting, or carrying it through something like an arch, ring or goal, which to this day still has an attraction for man, although the killing part of it is lost. Whence the fascination? In Pall Mall and Croquet, going through the target did not produce the result and this shows that there must be an additional factor. The origin of the games apparently provide the answer, for the attackers penetrated the defence and had reached their own home or that of the enemy's, indicating superiority and self-assertion for many.

To find the answer why some games survived and became popular while others died out, it seems that what originally prompted man to invent games, still decides whether he will play or not, and only when games provide him with an outlet for his urges will he really find enjoyment and satisfaction and can games be kept alive. The right use of the ball has that ability.

The ball itself and its development

For distance hitting the ball had to be small and carry in it resiliency. This was already discovered by the Romans, resulting in the continued life of "Paganica", "Kolven" and Golf. The improvement of the feathery complied with distance hitting and consequently also accurate hitting. Other golflike games died out because the balls or discs were not suitable for their purpose. The hybrid game of Pall Mall also faced odds because, apart from the target, the big ball could not be struck far enough with the mallet.

Other target games also fell by the way, and a contributing factor was the ball which had become too heavy and cumbersome. The indoor Skittles game overcame this by introducing a surface which suited the heavy ball and which was indoors.

Bowls survived because of the exceptional quality of the balls used. It was chance which introduced the bias into the game, when the core of wood used supplied it. It was, however, successfully imitated and its development was assisted by several targets in the form of the balls of opponents and team mates. It seems as if those games which used other striking implements than balls have little chance of survival, notwithstanding the nationalism attached to them.

As a recreation, or during holidays, or on beaches they fill a useful purpose, or, as is the case with deck quoits, they find favour on board ships.

The ball of the batting games developed from a piece of stick which became round, no doubt as a result of other round balls used in those days by players who played all the minor games from which the major games developed. Had the manufacturers not made a mistake which produced the live ball for Cricket and Baseball, those two games may never have developed as they did, and may have gone the same way as some of the target games with their dead balls.

The so-called air balls used in the racket and goal games could have been influenced by the Roman follis, but were suited to the purpose, which was bouncing and softness. The football developed from the bladder of animals and was inflated in contrast to the original ball used for racket games. With the invention of rubber the balls of those two families developed according to the rules of the games.

Chance played its part when flannel was sewn round the tennis ball and helped the game to develop. Fives stuck to the original hard ball which complied with the requirements of the game and so did Hockey, Polo, Lacrosse and to a certain extent Ice-hockey. If Soccer, Rugby, Water Polo, Netball and Basketball had done the same those games could have died out.

Balls have the potency to be developed or adapted in many ways, but if they have no resiliency or something like the bias, their chance of being used by games and as such to keep the games alive is small. So also if they do not satisfy man's urges.

THE STAGES IN THE EVOLUTION OF GAMES

The following stages that were established can be summarised as follows:

Batting Family	Target Family	Racket Family	Goal Family
Catching stage	Natural objects and method stage	Keeping ball alive stage	Advancing stage
Trap stage	Stage of the ball or propulsion objects	Tripot stage	Attack-defence stage
Measurement) stage)	Differentiation stage	Measurement stage	Passing stage
Running) stage)	Target stage	Target stage	Differentiation stage
(Pitching)-(bowling) stage	Modern stage	Modern stage	Team stage

An analysis of the stages of the four families show that there is a correspondence among them, which indicates that the course of evolution is based on principles or laws.

The "Catching" (batting family) and "keeping ball alive" (racket family) could be the same, for the throwing up of the ball and catching it could have started in the same way as keeping it alive. Even the "advancing stage" of the goal family had as object to keep the ball alive until the required place was reached where it could be killed. It is also possible that the "ball" was dead in the target games when the target was struck or reached, and that it was alive when it missed and the games had to be continued until the ball was dead or the object achieved.

The interesting part of the "catching", "natural objects and methods stage" and "the keeping ball alive stage", is that whenever the ball was caught or struck or the target struck, virtually a new game was started. In the goal family the same was the case, for when a goal was scored the game originally ended, and later when more than one goal could be scored in Big Sides, the game was restarted at the halfway mark for it was virtually a new game. For this reason in Rugby, the kick at goal after a try which failed, that is, a goal was not scored, led to the drop-out being taken on the 22m line instead of at the halfway line. Before that, if the so-called conversion failed, the game simply continued, for the goal had not been obtained or reached and the ball was alive.

The starting or restarting of a game was all important to our ancestors, for something or somebody had to do it. The different devices found in the trap era are examples of this,

so also the "tripot", "tambour" or "seef" in the racket family, and in the goal family a neutral person had to throw the ball up between the two parties. The trap was superseded by another method, the ball being thrown up by the player himself, or one of his team mates. The practice of the player doing so has persisted to this day in the tennis games, whereas in the goal family the kick fulfils the same function. Tennis sometimes did what the target games did, namely, to get somebody to serve the hitter. This was the case among the Royalty, but apparently not among the ordinary people. The batting family did a wise thing when they got an opponent to toss the ball up for the hitter, little realising the important role he was to play in the development and structure of the game, and the menace he was to become to the one he was supposed to serve on. The Schlagball games lagged in this respect and kept such a person in the service of the batsman and not of his team. Tennis stuck to the principle that a player himself was entitled to start or restart the game and when they replace the "tamis", "tambour" or "seef" by the throwing up of the ball by the player, it led to the service where the player concerned helped himself or his team.

The "measurement stage" in the batting and racket games shows a similarity although the method used to measure differed. In the one it was done through pace or stick lengths; in the other by the use of chases. These methods were still adopted when the return throw was introduced in all these games. The return throw was found in the batting and racket games, was part of the handicap in "Klooten" and "Chole", and in the goal games it had a place where carrying, hitting

or throwing was originally done in the opposite direction and only later changed to what it is today.

In the target games the number of times or efforts are counted to reach a target, or to dispose of it, or to strike it. It is also a way of measurement and "the stage of the ball or propulsion objects" is so called because the better the position of the ball the better the results according to the measurement principle. In the goal family the scores are ways of measuring achievements and became more pronounced in the "defence-attack stage". It seems as if it is coincidence that running is the way of scoring in the batting and goal games, for in the former it is a form of scoring and in the latter a means to do so.

The "differentiation stages" are based on the same principles in the target and goal families, for it was methods which differentiated from one another. They broke away to grow. Dissension among the players also led to a form of differentiation when the forebears of Cricket and Baseball parted ways, and in the racket family it could have been the reason for the different course taken by the off-shoots of Tennis when some players preferred a different kind of ball than those used in Tennis and also different ways of striking them.

Differentiation seems to be one of evolution's principles for new games and as part of individual games, for unless all the facets of a game are fully differentiated and recognised and given names and rules to govern them, the progress of games is impeded. As an example of this the "ruck" and "maul" in Rugby can be quoted. They were until recently not differentiated and formed part of the scrummage in the laws of the game. Now that they have been given their place they

cause teething trouble, which, when overcome, will lead to development.

The "target stage" in the target and racket families shows that without finding the right target for the balls and the methods used, evolution will suffer. Put differently, the target must be adapted to the ball and method and they to it. The inter-action between the three is necessary for progress. The same is the case in the batting games, for the changes of the target produced the desired results in conjunction with the other two. The target must be attractive to play its role well, so also the net, the wicket and the goal posts which had the same origin and were the same as the arch in some target games. The "target" and "differentiation" led to the improvement of the bandy which was man's best friend in herding and even hunting and warfare. Although the name lasted to modern times in Golf, Hockey, and Ice-hockey and its French counterpart in Hockey, namely, Lacrosse, it had to be adapted to the ball, the method used and the target.

When the straight bat was used in Cricket the bandy had to make way for a bat, although old bats still resemble it. When Baseball went over to hitting from the shoulder the bat was adapted to it.

The members of the target family which used hitting to reach the target had to do the same, but whereas the ball originally had to change to suit the bandy, the bandy later had to be changed to suit the ball and the methods used, clubs and mallets were born, the one living forth, the other dying or dead. The racket was born for the distance principle and its successor, hard hitting, and adapted to the ball itself and it took the place of the hand and glove still used by Fives.

In the goal family Polo adapted its club and made it longer and suitable to strike the ball while on horseback; Hockey to this day has more or less kept the original shape and form of the bandy for it is suitable for striking the ball.

The use of the bat, club, racket or stick as one of the two is an adaptation dictated by the object of the game which includes the playing of a ball in a certain manner to reach a goal.

While the ball, method and target developed the right way the attention could be focussed on "specialisation" or "the modern stage". The "team stage" in the goal family could also be called the "modern age". Conversely, "the modern age" could be called "the team stage" with fixed positions, combinations, tactics and rules or laws, refereeing and other things. The "passing stage" in the goal family was introduced for the sake of the team and brought out the important principle, namely, that to serve the team it is necessary to co-operate, in contrast to the individuality principles of the games when it was everybody for himself. Strange that this principle in team games, which can almost be called a survival of individual games, is often stifled by coaches who unconsciously work against evolution. Passing and tactical kicking in the goal family are placing principles found in the batting and racket games.

PRINCIPLES OF EVOLUTION

The results of growth are observed, but the laws of growth are not. To lay them down can, therefore, only be in general terms.

The question as to the dying out of games could also be found in the nature of evolution. In this study evolution can be divided into two kinds, or, put differently, it seeks expression in two ways. These two ways can be called specialisation and differentiation. The latter does not exclude specialisation and should be explained. In the target family methods to strike or reach a target or targets differentiated from the main stream and produced separate games; in the goal family the same law led to different major games. In both families specialisation actually set in only after the breaking away from the main stream. It was a weeding or pruning process necessary to produce results. In the batting and racket games specialisation set in, internally from the beginning. The games themselves grew and were converted from stage to stage. When the split occurred between Cricket and the Rounders games they retained most of their previous principles. The same happened to the off-shoots of Tennis. In the one case growth was from small beginnings and in the other from composite beginnings.

Differentiation produced good results in the goal family, which did not lose games, and, if it did, it was not serious. In the case of the target family the opposite was the case, for so-called off-shoots died, leaving no influence on the diversion. In the case of the batting and racket families games died to live on in their successors, showing that games have lives too and that nobody can say that what is popular today will be the same in future.

In the case of the batting and racket families there was growth coming from within; in the goal and target families

growth from within could only take place when elements, some of which clashed or caused friction, were removed.

Evolution cannot take place if it disobeys human nature, for it too is in the service of human beings and humanity, but controlled - in the case of games - by man himself.

If a game dies to live in a more advanced one it has served its purpose and cannot be kept alive long. In the struggle for the survival of the fittest some games are bound to fall by the way and cannot, therefore, serve man or human nature.

To satisfy man the distance principle must be taken into account and that includes "utmost effort" in some of the facets of the game. The accuracy principle must be kept alive for man must conform to thoroughness to achieve.

The placing principle to outwit, out-think and outplay must get priority above many others. Lastly, man must be provided with variety and an atmosphere advantageous for achievement and he must attack, must be allowed to use initiative and wit and he must destroy in a way commensurate with the demands of life and education.

THEORIES BASED ON THE STUDY

There could be another reason why the ball's potency could have developed, namely, it was a useful tool in the hands of children to imitate the occupation of their elders.

Under occupation can be included not only work but religion and warfare (Eiselen, 1929; Craven, 1935). It seems probable that the minor games found as the origins of major games were imitations of the occupation of peoples, and that they were hunting and war games.

In the original batting games the player who caught the ball when thrown or hit up got the opportunity to throw or hit it up. Why? Because it belonged to him; he had killed it. When the ball touched the ground after being struck it was dead and the player who caused its death had privileges. This motive of killing the ball by letting it drop on the ground must have led the players to the placing principle, which in turn, led to further developments, one being the distance principle and that if the ball lay still after the strike it was dead and the distance the "animal" travelled before being killed could be measured. While alive the fielders could play it in various kinds of ways like kicking and throwing it or scooping-throwing it until it lay still inside the circle or struck the target, therefore killed in its hole or hiding place. It is strange that a hole was used as a target and to kill the ball to achieve the object of the game. "Dan beer hoeden", as a game, represents the thoughts of the children playing the hunting games, and the den or base in several minor games represent a place of safety for the animal staying at or leaving it. This principle is found in all the batting games when running was introduced as a method of measuring. It means that the animal and ball became one, that the batsman assume the role of the hunted animal too and that he could also be plugged or "hungered out" (Schlagball) when leaving a place of safety and that he was really only safe when he returned "home" - a word still used. This would explain why the terms "in" and "out" for the individual player and a team were used, as also the terms "Buiten en Binnen" in Schlagball. "Innings" also makes sense.

The original racket and target games were also hunting games. The racket games had the distance and placing principles to make the ball dead so that it could be measured, and the term shooting was used when the ball was struck with the help of the "tamis", "tambour" or "seef". They also had the return hit while the ball was alive and which was dead when it fell in a certain area. In Indoor Tennis a hole was also used and when the ball was hit into it the striker scored.

In the target games the hunter was the thrower, roller or hitter and, therefore, did not represent the animal. His aim was to kill the animal and if he failed he started anew. When the animal was far he approached it as he does to this day in Golf and killed it in its hole. In modern Bowls the word firing is still used and in all games the expression "shot" or "good shot" or "bad shot" or "shot out". The term "kegelen" was most probably derived from "kugel" or "kügeln" which means a bullet. The arch as target also confirms this theory, for "clos" for arch means to penetrate, that is, to penetrate a place of safety and it could also mean that having been away from such a place the animal was home again.

The games belonging to the goal family probably belonged to a war game. This is confirmed by the history of the parent game where people were killed when two neighbouring countries played against each other. The game could have been a means to settle differences, disputes or grievances. When the people on the Scottish borders wanted to get rid of their hatred of the English people they organised a match against the neighbours and used the occasion to kill them. The Red Indians used Lacrosse or "baggataway" to do the same against the White Americans.

Participants were so engrossed in the game that they did not stop for rivers in spate or lakes, resulting that in one such an encounter thirteen people were drowned. The term "kill" was often used and one of the first victims was killed when he threatened to throw an adversary over a fence. It may be coincidence that a minister of religion did not remove his knife from his side which killed an adversary. A Frenchman, watching the bloody affair for the first time, rightly remarked: "If this is a game who wants war?" Sticks were used freely to hit opponents, when boots were used the game was called "kicking campball". The name "campball" speaks for itself, for it means a struggle or fight. The original games had no defence and it was attack by both parties as if it was war.

The terms in the games also remind of the probable origin of the parent game, for shooting is used to this day in several of them. "Attack" and "defence" could have had their origin in the original game. The word "dead" has the same significance as in the hunting games, but here the ball was killed in an appropriate way by drowning or hanging it or pressing it against the ground or a pole or tree. When it was "killed" it was torn or cut in small parts and the winners shared in the spoils of the war, which could have been live animals or in all probability a king. So important was the spoils that it was taken off to their own home and in the struggle the battle raged to and fro. The live ball having to be killed before it belonged to a party or team lived on even after rugby and soccer severed their connections, for in both the ball had to be killed in the same way as mentioned before when it left the side or touch lines or the goal line.

In this battle which ensued outside the field of play the player who killed the ball had to restart the game, and not the losing team whether they were the defending or attacking team.

In the laws of rugby of 1871 the following definition was inserted: "The ball is dead when it rests absolutely motionless on the ground" (Owen, 1935:67).

Another fact which confirms that the original game was based on the wars which people fought as part of their occupation is to be found in the gate through which the participants had to go to be home in their town, area or castle. This place was in their own country and not in that of the adversaries. Even when two "local" teams played the ball had to be killed after taken through the wicket gate of their own house. This custom was changed much later in the history of the game to what it is today.

LESSONS

1. To take games back to their origins also exposes man for what he is. The convergence theory is rejected but is right in that man is the same wherever he may be. Man originally wanted to show off or to prove himself. Unless long distances were achieved he did not assert himself in the eyes of others and his own. To this day long distance running, hitting, kicking, throwing and even jumping, swimming and diving carry in them achievement, fascination, admiration and pride. Man aimed at accuracy as revealed in the use of targets. If that element is taken out of games

and even out of man little is left of either.

Placing to outdo all adversaries is at the root of his efforts. It satisfies his ego, it is part of his self-actualisation urge with its assertive part to be better, to take another's place even through envy or jealousy, to compare himself with others, to measure. This is still part of man and games.

Man revealed this too in his desire to be at bat as long as possible, to outhit, out-throw, outroll, out-everything as many others as possible. If championships are taken out of sport, and if records are not kept and blown up man would not strive to the same extent and many would not participate. Yet man does so, at the expense of others. "Everybody for himself" spoke in his efforts to put that player out who with a stick was protecting a small hole, so that he could take his place. This is all still in man. He wants to destroy, give rein to his urges and will do so. He even sulks if he fails, unless he is educated to control himself, and taught to build up a right sense of values and a conscience in which he cooperates with his neighbours, his team mates, and supporters.

Originally every player played for himself even in team games. A player ran with the ball as far as he could, he hit it in order to hit it again, he threw it so that he could reach it to throw it again. He had to learn that by being unselfish

and letting others play too, he serves a game, a team and himself all the better. Today it is called playing, and it means to break, to beat an opponent; and to let play, means to create opportunities for others to do what the player wants to do but cannot. When man became unselfish and realised the importance of team-work, combination and better tactics, the passing stage was reached in the goal games without which they would have died out. Games of attack and defence satisfy man's natural urges, which prompt him to excel and to want to destroy by stopping opponents, tackling them and using other defensive methods; not to give them their way, and to destroy in the same way as he destroyed game in hunting, and men in battle.

The batting games of Cricket and Baseball are in danger if they fail to distinguish between these two elements. The thrower-up of the ball, so that the "batsman", as the attacker, could hit the ball with both arms, has now become the attacker and the batsman, or the batter the defender. Unless batsmen realise that they too are attackers, as the origin of the games wants them to be, they will not do justice to the games and themselves. Man originally played to play, in the sense as explained above, that is, to be at bat, to carry, dribble or hit the ball, and he still wants to do the same. If this urge gets lost in the complexities of ambitions and ideals and even in coaching, and if the urge to regain lost ground is not stirred up

by teaching or coaching, man who originally wanted to go back to his kitty stick to play again, would have lived in vain.

In summing up it could be said that man originally revealed more about himself than he did in specialised games, for -

he played to participate,
to be in on it, to be part of;

he played to play and through
play to excel, to outdo, out-
wit, out-think;

he wanted to play for as long
as possible, that is, to be
at bat, to have possession;

he preferred to attack to
defence although the lat-
ter unknowingly also gave
him satisfaction, for he
liked to interfere, to
ruin others' chances;

he learnt to serve him-
self best by serving
others.

2. World or national games are those which comply with or satisfy the human urges. Golf with its distance, variety and accurate principles; Cricket and Baseball with their adopted attack and defence, placing and measurement; Tennis with its effort, placing and accurate principles; the goal games with their effort, fluctuation, distance and placing principles and, above all, the outlet they supply for man's urge to destroy, to do battle with. In all the families similar urges predominate and it is a pity that the specialisation of games and positions is debarring players from taking part in more than one game.

A family of games does not contain all the principles enumerated above, and by specialising the outlet-tap for man's urges cannot be opened fully, and he may go back to the stage where everybody played for himself, that is, when all games were of an individualistic nature.

The same applies to the placing principle which is found in the passing in the goal games. Unless, in a game like Rugby, the backs are used they will not get the satisfaction emanating from their urges.

3. With man's natural urges suppressed or stifled in major games and their being made subsidiary to winning, often at all costs, the emphasis is shifting in the wrong direction and it could mean the end of many games. On the other hand minor games can still fulfil the role of providing an outlet for the urges of children and as such help in the moulding of their characters. Time for playing has become so limited in a full school curriculum that many minor games have already died out and the rest face a similar fate.
4. The origins of games had to be established for in them the germs are located which supplied and still supply the driving force for growth or development. The germ must germinate and grow, for its potency must not be destroyed. It may, however, lie dormant if not given the chance to develop according to its potency.

In everything that exists in the universe laws are inscribed which man must discover. Every discovery leads to progress and development. As an example the science of medicine, as

one of many, can be used. People used to die of many diseases from which people today seldom die. And they do not die because medical science has discovered laws which at one time were unknown, and they will keep on discovering more and more laws. What is true of medicine, is true of all sciences, but also of everything which exists, even games. Just as in living organisms there are laws for growth and this growth must be discovered by man, so also there are laws in material things which must be found out. If he fails to discover the laws behind everything, or if he reads them wrongly, growth will be impeded. Conversely, if he discovers the laws and obeys them, there will be development. Herein lies the wonder of creation and the Creator.

PART II

DESCRIPTION OF THE GAMES

Part I of this study showed that a description of the modern major games does not comply with the requirements of determining evolution, for something more is needed, namely, a stage or stages before the games became specialized and in the hands of international controlling bodies. At the same time it is a common occurrence that modern games are seldom described except through their rules or laws. Useful as they may be rules without their changes are not much good for a study of this nature, for the present rules are artificially made and may be wrong according to the laws of evolution unless tested by time. The old rules are needed, that is, as recorded by historians, often travellers. Players did not record them but got to know the games by word of mouth or tradition and those are the games needed for this study, whereas the modern rules will mark the present stage of evolution.

The description of games should wherever possible be of those recorded by historians and not by games experts of modern games. A knowledge is necessary of the games when they were lesser known entities, whether internationally, nationally or locally, or, in some cases, of modern games which are still not well known except in a few countries or one country or part of a country.

When reference is made to, for example, Original Baseball, it is assumed that the game was played like that sometime during its history when it became known as Baseball. It is, therefore, a term used to indicate that it is an old form of the game.

As the games which were compared in this study belong to the batting and target families only those which have a bearing on them in this study and which were not dealt with adequately, will be described.

GAMES BELONGING TO THE BATTING FAMILY

A. THE ROUNDERS GROUP OF GAMES

"ORIGINAL" BASEBALL

Only after the formation of the Knickerbocker Club in 1845 the game took the course which brought it to where it is today. From that date onwards uniformity was aimed at, culminating in the formation of the National Association of Baseball in 1857 which saw to the rest.

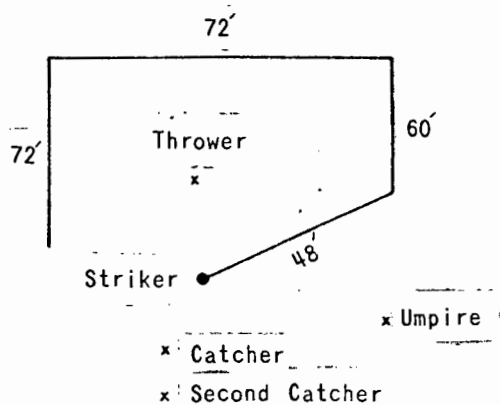
Name *

The game was known as Baseball, also Baste Ball, Game of Ball, Town Ball, Round Ball and Goal Ball.

The Field

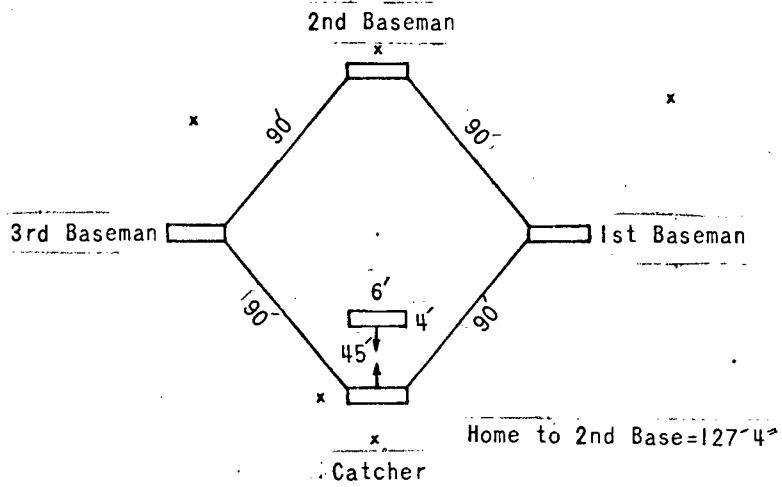
There are several kind of fields -

1. What Menke claims to be the first field (1842) was as follows:

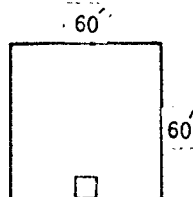


* Except where indicated, what follows is taken from Frank G. Menke's book: The New Encyclopaedia of Sports, 1947, pp. 28-175.

2. (a) A Diamond with four bases of stones or stakes 12-30 yards apart already propagated in 1834 by Robin Carver.
- (b) Home and second base and first and third base equidistant, the distance being 42 yards. This field was used by the Knickerbocker Club in 1845. In 1846 the bases became 90 feet apart and the pitcher was 45 feet from the batsman.
- (c) This field is depicted in the diagram below as given by Chadwick according to The Popular Recreator (n.d.:4).



3. Apart from the above there were Townball fields of which there must have been many, but which were seldom described. One form known was as shown in the diagram below:



Townball was already an organized game in 1833 and continued long afterwards. The above field can be taken as dating back to the thirties of the 19th Century.

Equipment

1. Balls

There is no doubt that any kind of ball was used in the early days. The balls were stuffed with all kinds of material, for example, melted rubber round which yarn was wound, sometimes encased in leather. Balls used were at times bigger than the present-day balls; some hard, some soft, some with plenty of bounce, others with none. The Spalding ball was made in the eighty-seventies and later became the official ball. In 1846 balls weighed 3 ounces in many parts of America; in 1854 they weighed $5\frac{1}{2}$ - $6\frac{1}{2}$ ounces and were $2\frac{3}{4}$ - $3\frac{1}{2}$ inches in diameter; in 1909 a cork centre was used and in 1920 the "live" ball came into use as a result of a mistake by the manufacturers.

2. Bats

It is known that the bat originally was not considered important in the game. The flat hand was used if a stick or club was not available. Even old cricket bats were used. Later clubs were used with a flat hitting side, Indian cane being used in the handles to break the shock. Again it was left to Spalding to devise a proper bat, which was later standardised (1875).

3. Bases

Bases could be anything which could be used as a mark. Although stones were often used the ideal seemed to have been to drive stakes into the ground, hence the expression "run to your stake". The first real bases were filled with sand and were tied to stakes, in about 1841. In 1877 the home plate, which had been inside the field, a little in front of one of the corners of it, was moved back to where it is now. This plate used to be of wood, stone or marble and was round or square. Originally it was laid down that the home plate had to be 46 feet from the pitcher's plate, but when the first diamond was laid out, it was erroneously made 45 feet, a practice which remained in force till 1881 when it became 50 feet, and later 60 feet 6 inches. The bases were equidistant. That was always understood. Their number and the distance they were apart were originally agreed upon by the two captains before the commencement of a game. First and third, and home and second were afterwards 42 paces apart, or the bases 12-20 yards apart, and from 1845 the distance between bases was fixed as 90 feet, something found till this day. That four bases became more or less the rule long before the first rules were drawn up by the Knickerbocker Club in 1845 is certain, but it seems likely that captains could decide on more.

4. Gloves

Unpadded gloves were used for the first time in 1875. Who used them first is not certain, some authorities say the catchers, others a first baseman (Waite) who

made them flesh-coloured so that the spectators would not laugh at him. They were used on both hands. Spalding supposedly saw great possibilities in this innovation, and being a great and popular player, wore black gloves to popularise them. In 1877 he started to make them and they took on. In 1891 they were padded.

5. Masks

A player by the name of F.W. Thayer, copying it from the fencers, was the first to wear a mask in 1875. As it filled great need it did not take long to take on.

6. Shin guards

These were used since 1908.

7. Chest protectors

They came into use in 1885.

8. Uniforms

Any clothing could be worn. Cricket clothing became the fashion and in 1851 the first uniform was worn when the Knickerbockers played against the Washington Club; blue woolen trousers, white flannel shirts and straw hats. Straw hats later made room for mohair caps and black patent leather belts also became popular. In 1876 special colours for Baseball clubs received attention. Each club had its own colour for stockings, but each position on the field also had its own distinctive colour.

9. Spikes

Spikes only started to be used in recent years.

10. Score books

The first score books were used in 1875, which is the vintage year of Baseball as far as equidistant goes.

Teams

Teams consisted of any number agreed on by the captains, as long as they consisted of an equal number. This remained the case even when the 1845 rules were drawn up. Passing through various phases it was eventually laid down that a team should consist of eleven players, later nine. At one time two catchers were used, a second behind the one which took up his place quite a way from the batsman. The catcher's box is a comparatively recent innovation.

Game

A match was decided by the number of runs each team scored after every member of it had batted, or a time was fixed and after its expiration the number of runs scored by each team was compared, provided, of course, that each team had the same number of hands or innings; or the team to first reach a pre-arranged number of points won, provided each team had the same number of hands. In 1845 it was laid down that the game should consist of twenty-one counts or aces, but at the conclusion an equal number of hands had to be played. In 1857 it was laid down that 9 innings should decide a match. In 1842 it was decided that three hands out, all out. (The word "hands" is a survival of the practice to use a hand instead of a bat).

Rules

In the early days of the game the pitcher was called the feeder or pecker and he had to toss the ball to suit the batsman, who could choose at which he wanted to hit. The

batsman, therefore, was the sole judge as to which balls he was going to hit, and no calls of balls and strikes were given. It seems as if a batsman from the earliest days was only given three chances, but these chances consisted of missed hits only and had nothing to do with a target. It must have been realised that the batsman was given too great a liberty, for he had to say before the throw what kind of ball he wanted, and his choice was limited to a high and low one, a high ball being between his waist and shoulders, a low one from the waist to about a foot from the ground. This procedure was followed till about 1889. The batsman could, however, still refuse a ball he did not ask for. It was only later that batsmen had to hit at good balls, but as there was no control many arguments ensued. Only in the middle of the 1860's were balls and hits called, but the rule was vague and it was only made to stop the delay on the part of batsmen. A "ball" was, for example, balls which passed over the batsman's head, or to the side opposite to him, which touched the ground before reaching home, which hit him or passed less than a foot from him. These balls were also called unfair balls, the others fair balls. But the batsman got a try ball which did not count either way and before 1880, although in theory three balls entitled him to first base, in practice nine such balls had to be delivered before he could take a walk, for the umpire - and at one time there were two of them plus a referee, who had to keep the balance between the two - only called out a ball on every third unfair ball. In 1887 the batsman also got first base if struck by the ball. Eight balls gave the batter first base in 1891; from 1881-1883 seven balls, 1884-1886 six, 1887-1888 five, and 1889 four. Foul balls did

not count as strikes, but here again the batsman was protected, for when he got a third strike against him he was warned that the next one would be his third. This led to batsmen bargaining on four strikes instead of three. The batsman, therefore, had five chances as it were, a try ball, three strikes and one, and on top of this foul hits did not count. It must be added, however, that foul balls were only balls which did not first touch the ground in the field of play before going out, that is, before 1877. On the other hand attempted bunts which rolled fair only counted as strikes since 1894.

The pitcher, also called a pecker or feeder, was not as fortunate as the batsman, for his play was very restricted. Not only did he have to bend to the whims and fancies of each batsman, but he had to pitch with an underhand action and with a straight arm. This type of throw gradually gave way to throwing with a bent arm, then the side-arm and ultimately overhand. In 1884 any kind of throw was permissible. Because of harder pitches the pitcher was placed further from the batsman and his box was removed backward another 5 feet from the home plate, making it 50 feet. In 1893 this distance was increased to what it is today.

A Yale pitcher, Avery, is credited with first pitching a curved ball and in 1876 curved balls were fairly extensively used.

A batsman was, therefore, out when he had "three" hits or strikes or good balls against him but only if the third strike was caught by the catcher. Also when he was caught on the fly or after one bounce. In 1858 catching a batsman out on the rebound was abolished, but up to 1883 he could be caught out if a rebound was a foul ball. As so many fielders used their caps to catch a batsman out, a rule prohibiting this came into use

in 1873. A batsman was out if caught on any tip. This was later, in 1888, altered to what it is today.

It is of interest to note that in 1842 only the first baseman was allowed to put a runner out as is done today, and it was considerably later that other basemen could also do it. These basemen fielded on their bases. It was only in the sixties that a first baseman, Comiskey, for the first time, left his base, leading to backing up which did not exist. The short-stop up to 1855 was supposed to have relayed the ball from the outfielders to those basemen only who were on their bases.

If the ball was relayed or thrown to a baseman before a runner touched the base, the baseman was out. A runner could also be burnt, soaked or plugged, that is, struck with the ball whilst running between bases. In 1848 this practice was abolished.

In 1880 a runner was declared out if he was hit by a batted ball. This rule came into force because runners could deliberately run into batted balls.

It is on record that in the early days of the game runners could run clockwise round the bases. Exactly when this made way for the anti-clockwise run could not be found out.

"ORIGINAL ROUNDERS" *

It is unlikely that there is another game with so many variations as the game of Rounders. Until uniform rules were drawn up in 1889, this game was played in so many different ways that it is hard to describe it. There is, however, modern rounders

* Books consulted: Stonehenge, 1868:570; Walker, 1892:1; Encyclopaedia of Sports, Games and Pastimes, n.d.:505; Gomme, 1894:145; Watson, 1899:467; Forbush and Allen, 1927:69; Collins, 1929:142; Hedges, 1933:77; Mason and Mitchell, 1937:327; McIntosh, 1962:42; Crozier, n.d.:94; Jarman, n.d.:55; Long, n.d.:38; The Popular Recreator, n.d.:2; Pollock, 1898:269; Pollock, 1899:467.

which was played according to standardised rules approved by the Ling Physical Education Association. Fortunately there are many sources dealing with the old forms, which will be put together in the description which follows.

Requirements

A bat or stick and a ball. The ball has "a centre of cork or India rubber covered over with worsted, wound tightly in all directions so as to make a sphere, and finally covered with stout white sheep's skin stitched in large sections" (Stonehenge, 1868:580). A tennis ball can also be used, when it is often hit by the bare hand. Rounders was mostly played with a hardish ball and to this day has retained such a ball.

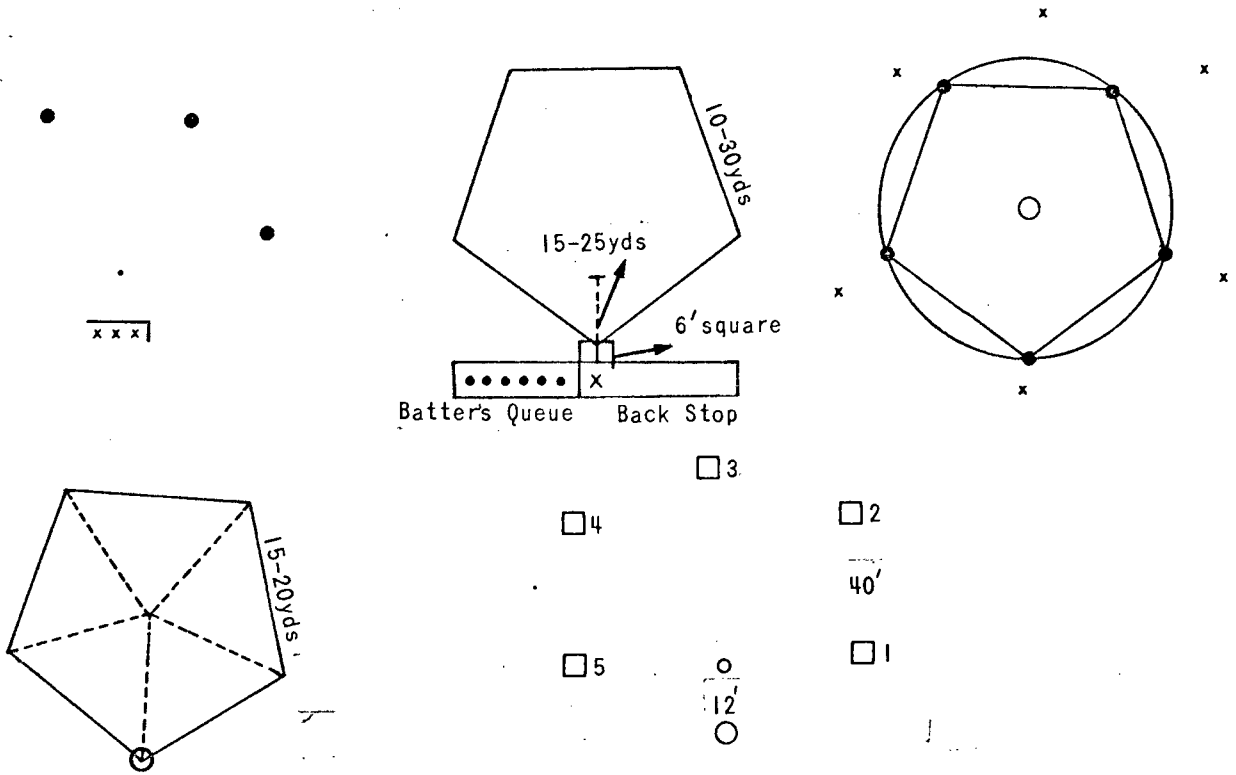
Teams

There is no limit to the number comprising a team, but twelve is the number given for an ideal team.

The Field

Mainly two kinds of fields are used depending to a certain extent on the number of bases used. Usually there are from three to five bases, but apparently never more. The bases are arranged in a circle or pentagon. In the middle of the pentagon or circle and equidistant from the bases is the feeder's box or line and behind the base line or in the home the batsmen take up their positions. Sometimes a stone or stump is used as the home and the batsman takes up his position in front of this, and sometimes a batsman's box 6 feet square is used. The bases can be pegs, stones which are partly buried or just lying on the ground, a hole or a circle two feet in diameter or any object which will suit the purpose. The distance they are apart range from 10-25 yards, and it is left to the captains to decide.

The following are examples of the fields used:



Object of the Game

The object of the game is to score a rounder, that is, to complete the run round the bases after a hit without being put out.

The Game and Rules

The captains of the two teams decide about the field, the number of bases, the distance they are apart; how match will be decided, whether by a fixed number of innings whether a catch or "shy" puts a team out or not, or within a certain time or after every player in each team has batted, and they also toss as to whose team shall bat first. A method sometimes used to toss was to throw the ball up and then scramble for possession of it.

The team to-bat has all its members in the batter's queue, in the home or house, or behind the base line. The fielders have a "feeder at the seat", a catcher and players outside the circle or pentagon. As an exception a feeder is not used when a batsman throws the ball up himself for his hit. Base guards are used by the fielders.

The feeder pitches the ball to the batsman to suit the latter who may decide which ball he shall hit. Often the feeder has to throw the ball at his knees, and he can pitch hard or sometimes between the knees and shoulders. If he decides to hit at a ball but misses he is usually out, or sometimes he is given a chance of trying to get to first base. He is entitled to three serves which he need not strike, but he must hit the fourth. If he does not, or misses the fourth ball, he is usually out. Three "balls" sometimes entitle a batsman to first base, a ball being one which does not pass over the other half of the "home" not used by the batsman, or, if no particular home is used, one which is out of his reach, or one which is lower than his knees or higher than his shoulders. Sometimes a batsman can run on a hit which suits him, but must run on the third. If a batsman strikes at a bad ball he need not run, but he must run on a good ball struck by him.

A batsman is also out if caught even after the ball has bounced once, when he hits the ball behind him, when he is "shied", "corked", "plugged", "Burnt" or struck before reaching a base, or touched with the ball in the hand of a player, or if a fielder holds the ball on a base before he gets there. Sometimes a batsman or any runner is out if the ball is grounded in the home circle before he reaches the base he is running to, or, sometimes if the pitcher bounces the ball in the pitcher's box

or if a base is hit before a runner gets there. Only one runner can occupy a base, and if two are on the same base, the first one must run. Runner must run over or on the outside of bases otherwise they are out. If the ball is returned to the feeder he can shy at a runner or he can ground the ball in the home circle. If he does this before a runner reaches a base, the runner is out. Sometimes a runner is allowed to go back to his base if he is not halfway between the bases when the ball is grounded or if he is more than halfway he may proceed, but in both cases he can be put out. Sometimes the grounding of the ball forces a runner to stop at a base and he cannot run except on a hit. A runner can stay on a base if a hit does not suit him, but he has to run if a runner behind him is forced to vacate his base. If a batsman runs for first base a runner on that base must run to second.

A runner cannot in any way interfere with a batted ball, nor may a fielder obstruct a runner. If he does the runner is entitled to the base he is running to. The feeder may feign a toss at the bases in the hope of touching a player who had left his base.

A runner is out if the ball is held on the base by a base guard or other fielder. A runner may run on an overthrow.

If the ball is hit or tipped over the baseline the batsman is out and runners must return to the bases they have left. The ball is sometimes also dead if a base guard has the ball. A runner must complete the round if he wants to bat again. If he does not he is out and one of those who are out can be brought back into play if one of their side scores a rounders or home run. Sometimes a home run puts all the players who are out back in play again. If there is nobody to bat the feeder

grounds the ball in the "home" to put the whole side out. In order to avoid this any runner can leave his base and run direct to the "home" but he exposes himself to be put out.

If there is only one batsman left he can claim "three fair hits for the rounders", that is, he sets himself the task to make a rounders without being put out. Grounding does not apply in this play. He gets three attempts in which to do this, but sometimes he forfeits his chance or chances if he starts running on his first or second hit and is put out. A rounder actually finishes at the fourth base, but a runner must stop there and go to the batting queue or home on a hit, without being put out, except when there is nobody to bat, when he must run and can also be put out. If he is forced to run he must go to home, otherwise he may run over the base line.

The scoring is done as follows: it is customary that every rounder counts the same whether it is a homer or not. Sometimes a home run counts four points and an ordinary run one point. Sometimes every base reached scores a point, and as an exception a runner only scores the bases he can reach on his own hit. In such cases he has to complete the round on other hits in order to bat again. Another way of scoring is the following: reaching second base - one point; third - two points; fourth - three points; fifth - four points and six - six points, that is, on a single hit. A complete rounder or home run sometimes brings a batsman who is out back into the game, but then the rounder is forfeited.

The object of the fielders is briefly to catch the ball or plug a runner. They may pass the ball to one another, but may not run with it. At times a batsman who is waiting his turn to bat can be plugged if he leaves the batting area. Sometimes if a side had been put out, a member of such a team may seize the ball and plug any of the team running in to bat before he reaches home. If he succeeds in doing this he puts his whole side back at bat. In this way teams can go on changing indefinitely. A player with the ball, when his opponents have been put out, may throw the ball over his shoulder to a sufficient distance, out of reach of his adversaries. As said before, the game terminates if all the players of each side have batted; when a certain number of innings has been played or when a time previously decided upon has expired. When a certain number of innings has to be played a "catch" or "plug" can put a whole side out, or a certain number of players put out terminates an innings.

MODERN ROUNDERS (Games and Sports in the Army, 1941:497).
(As approved by the Ling Physical Education Association).

The Rules

1. The Pitch

The distance between the batting square and the first post, between the first and second and between the second and third posts shall be $39\frac{1}{2}$ feet.

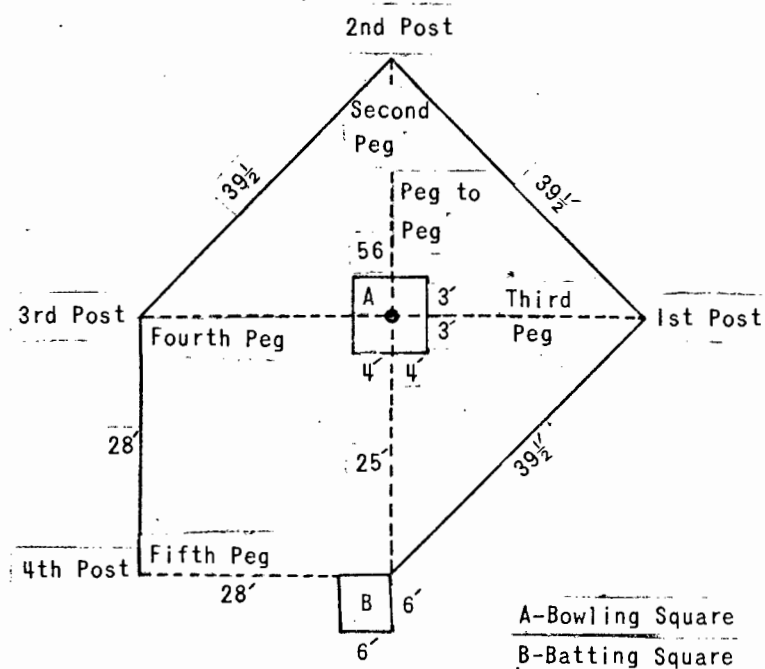
A line taken from the first post to the third and from the batting square to the second post shall measure 56 feet. The fourth post shall be placed in line with the

front of the batting square and 22 feet from its nearest side.

A fixed post at least 4 feet out of the ground, or a portable post of the same height, shall be placed at each of the four points.

(The simplest method of marking the pitch is by means of lengths of string. Put a peg into the ground where the right hand front corner of the batting square is to be, and directly opposite that, another peg at a distance of 56 feet - this gives second post).

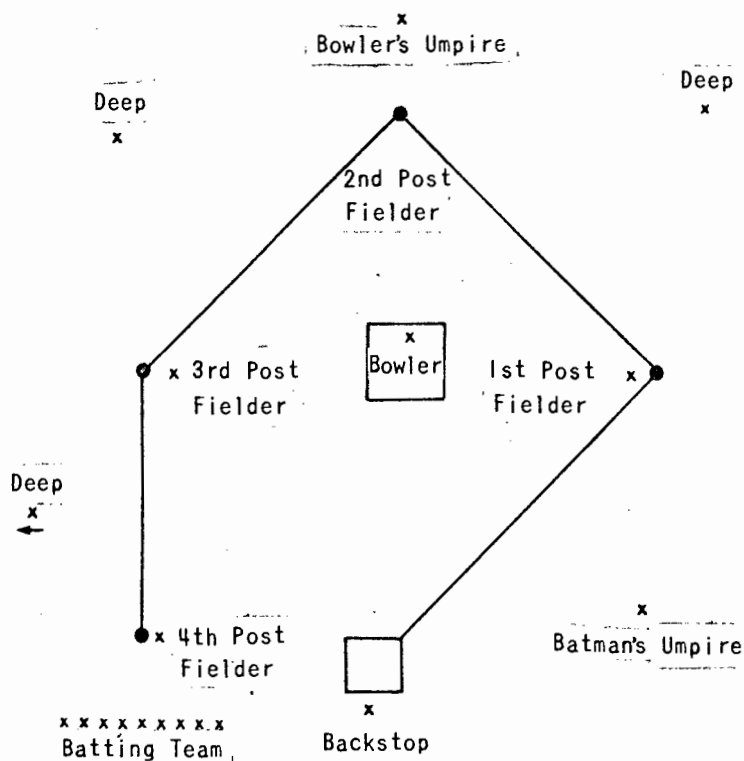
Plan for Marking the Pitch



Take a length of string measuring 79 feet and tie a knot in the centre (each half 39½ feet). Tie an end of the string to each peg and carry the centre knot out to the right until the string is taut. At the knot put in another peg. This gives first post.

Carry the knot to the left, pull the string taut, put in a peg - this gives third post.

Diagram showing suggested positions of players and umpires



Take a length of string 56 feet long with a centre knot (each half 28 feet) and tie an end to the peg at third post and the other to the peg first put in at the corner of the batting square. Carry the knot to the left - this give fourth post. These five points may now be joined with a white line which gives the outline of the pitch.

The Batting Square (6 feet x 6 feet) is easily made by marking a square from the peg first put in so that the front line is parallel to the front line of the bowling square and in a direct line with fourth post.

The Bowling Square (8 feet x 8 feet). By stretching the 56 feet string with its centre knot from first to third posts, the centre of the pitch may be found.

(The bowling square can then be marked in accordance with the measurements given in the plan. The front line of the bowling square must be parallel to this string and also to the front edge of the batting square, from which it is 25 feet distant.)

2. Batting Square

The batting square shall measure 6 feet x 6 feet, the front line being 25 feet from the bowling square (see plan).

3. Bowling Square

The bowling square shall measure 8 feet x 8 feet (see plan).

4. Neutral Ground

The neutral ground is the space between the fourth post and the batting square, extending as far back as the ground permits.

5. Ball, Stick and Bat

All matches shall be played with a regulation rounders ball and stick or bat. The ball shall weigh $2\frac{3}{4}$ -3 ounces and shall measure $7\frac{3}{4}$ -8 inches in circumference.

The stick shall be round, not flattened in any way; it shall measure $4\frac{1}{2}$ -5 inches round the thickest part and be 20 inches in length.

The bat shall measure 2 feet 6 inches in length and not more than 4 inches across the blade; only the flat side of the bat shall be used while playing.

6. The Team

In a match the number of players on each side shall be nine.

7. The Score

The side scoring the most rounders shall win the game.

8. Innings

The captains shall toss for choice of innings.

Each team shall have two innings to decide the match unless otherwise arranged by the captains.

The team shall maintain the same batting sequence throughout the innings.

9. Follow On

A team using a stick and leading by ten or more rounders in the first innings shall have the option of requiring the other team to follow on.

A team using a bat and scoring eighteen or more rounders in the first innings shall require their opponents to follow on if they have not made more than one-third of this score.

10. A Rounder

A batsman shall score one rounder, if, after hitting the ball, he succeeds in running round to and touching fourth post. He must run in a direct line and to the outside of each post. If he stops at a post because the next is touched by a fielder (with the hand holding the ball), he can, in the event of an overthrow, run on, but no rounder shall be scored. Only one rounder can be scored from any one hit.

A rounder run without hitting the ball shall score as half a rounder.

When a bat is used no rounder shall be scored if the batsman hesitates or stops. Not more than one batsman can occupy a post. Should two batsmen be at the same post the one who was there first must run on.

A batsman stopping at a post must maintain contact with it with his hands or stick. He can be put out at the next post immediately such contact ceases. The only exception to this rule is that a batsman when running may over-run a post after touching it, provided he runs straight on and not in the direction of the next post. He must always touch the fourth post or he can be put out.

11. Batting

The batsman shall stand with both feet in the square when the ball is bowled. He shall have only one ball bowled to him unless "No-ball" is called. The no-ball can be taken at his own discretion. He can then be put out but not caught.

No batsman shall start running between the posts when the bowler is ready to bowl, that is, has both feet in the square and ball in hand.

A batsman shall not leave a post until the next ball has been bowled, that is, left the bowler's hand, nor shall he return to a post unless ordered back.

If a batsman is between two posts when the bowler is in the square ready to bowl, he must complete the run to the next post.

All players waiting to bat shall stand to the left of the batting square, and as far back as possible in the

neutral ground. Players who are out shall not return to the neutral ground.

12. Last Man in

When there is only one batsman left on the batting side he shall be entitled to a rest of one minute and three good balls unless caught out. He can only run for one.

13. Substitutes

If during a game, a batsman should be incapacitated from running, a runner from his own team can be substituted. He must stand the same distance from the first post as the batsman and shall not run until the ball has been hit, or has passed the batsman.

14. A Backward Hit

If a batsman hit behind the front line of the batting square, or an imaginary extension of this line, he shall not be allowed to run past the first post until the ball has been returned in front of the batting square; should he run on the umpire shall order him back. In no case shall he score. (This does not refer to balls that drop in front of the line between fourth post and the batting square or an imaginary continuation of that line, and afterwards go behind).

Backward hitting may be allowed if the size of the ground permits.

15. Batsman out

A batsman shall be declared out:

- (a) If the ball be caught, unless "No-ball" has been called;

- (b) If he leaves the batting square before the ball is bowled (second offence);
- (c) If he runs to the inside of a post;
- (d) If a fielder, with the hand holding the ball, touches the post to which he is running before he makes contact;
- (e) If a fielder touches him with the hand holding the ball as he is running between the posts;
- (f) If he obstructs a fielder or intentionally deflects the course of the ball;
- (g) If he fails to touch the fourth post he can be put out.

N.B. The hand holding the ball shall count as the ball.

Two or more batsmen can be put out before the ball is returned to the bowler. The batsmen shall be put out individually until there are none left in the neutral ground. The remaining batsmen can be put out simultaneously by the ball being thrown full pitch into the batting square before one of them has reached fourth post.

This can be done by any fielder, and the ball need not be caught.

16. Obstruction

A fielder is considered to be obstructing should he in any way impede the batsman who is running a direct line between the posts or trying to make contact with a post. Penalty - Half a rounder.

A batsman is considered to be obstructing should he impede the player who is fielding the ball or intentionally deflect the course of the ball.

Penalty - He shall be out.

17. Bowling

The bowler shall bowl the ball under-arm, and must have both feet in the square during the whole of the bowling action. The bowler may leave the square in order to field the ball.

18. A No-Ball

A No-ball is:

- (a) One that is not bowled under-arm;
- (b) One that is jerked;
- (c) One which is bowled when the bowler has not both feet inside the square during the whole of the action;
- (d) One out of reach of the batsman, or on his left (except in the case of a left-handed player).
- (e) One that is higher than the top of the head or lower than the knee as it passes the batsman;
- (f) One straight at the batsman.

In (e) and (f) it does not mean that the ball must travel in a straight line from the bowler to the batsman.

A No-ball may be taken at the discretion of the batsman who can be put out but not caught. For three consecutive no-balls to the same batsman, the Penalty is half a rounder.

The bowler can be changed only after delivering a good ball. During the change the ball is dead.

19. Umpires

It is advisable that there should be two umpires.

The batsman's umpire shall stand on a level with the front line of the batting square and in a position to

see first post without turning. He shall call "Play" at the beginning of each innings. He shall call the score. He shall call "No-ball" for balls above the head or below the knee of the batsman and any that are jerked, and also foot faults of both bowler and batsman. He particularly gives decisions concerning the batting square, first and fourth posts, backward hits and catches. The bowler's umpire shall stand in a position where he can see the whole of the bowling action.

He shall call "No-ball" for wides, balls straight at or on the wrong side of the batsman, and foot faults.

He particularly gives decisions concerning second and third posts.

Umpires may appeal to each other on any point, and their decision shall be final.

General Details

1. Sandbags (12 inches square) or metal bases, can be used instead of posts.

With the equipment to put a batsman out the fielder must touch the base with the hand holding the ball, or, alternatively must have the ball in hand and one foot touching the base before the runner makes contact with either his stick or foot. A fielder may wait to catch the ball with his foot already touching the base. A batsman must not jump a base when running round.

2. The following alternative method of scoring is suggested in cases where a small ground is used, and where it is almost impossible to score rounders. A batsman having hit the ball and reached the second post without being

caught or put out shall score two points; if he reaches the third post he shall score three points; if the fourth post, four points. A Rounder run without hitting shall score two points.

3. Captain's Duties are the following: When a match is arranged between two teams one of which plays with posts and one with bases, the captains and umpires must decide beforehand upon the conditions of play and methods of scoring.
4. When sticks are used it is suggested that each player should be provided with one.

Three weights of sticks are obtainable, namely, light, medium and heavy and these can vary between 8-16 ounces (Games and Sports in the Army, 1941:497).

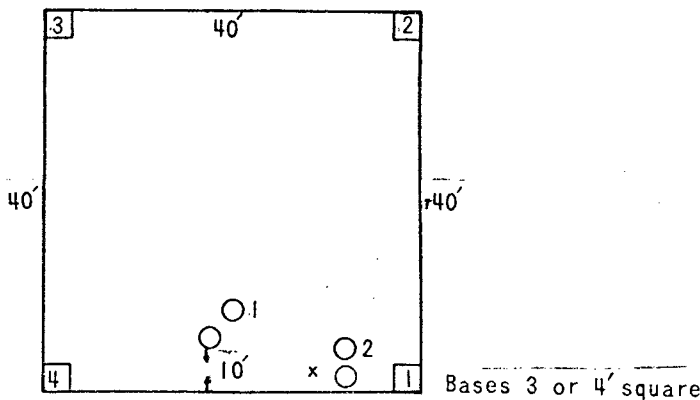
DANISH ROUNDERS *

Whether the description of this game is a true reflection of how the game is played in Denmark and whether it is played there, I cannot say. I have not been able to find it in any Danish book, but it is described by two authors, and for this reason it is given here.

Requirements

A light football or hand ball.

Field



According to one authority bowling circle is at "1" and according to another at "2"

* Described by Jarman, n.d.:44; MacCuaig and Clark, 1951:120.

The object of the game is to score runs.

Teams

Two teams, of eight or more players each. According to Jarman only one fielder take up his position outside the square.

The Game

The pitcher tosses the ball up for the batsman, who hits it with his hand, first or fore-arm. He may hit the ball anywhere, except back over the batting line, when he is out.

The ball may, however, roll over the line. He is also out if caught and so are runners not at bases. A runner is out if the ball is returned to the pitcher inside the pitching circle when he is not at a base. A pitcher can leave his circle to field a ball, but must return to it. More than one runner can occupy a base.

If no player is ready to bat the batting side is out and teams change round.

A home run scores two points, an ordinary run one point.

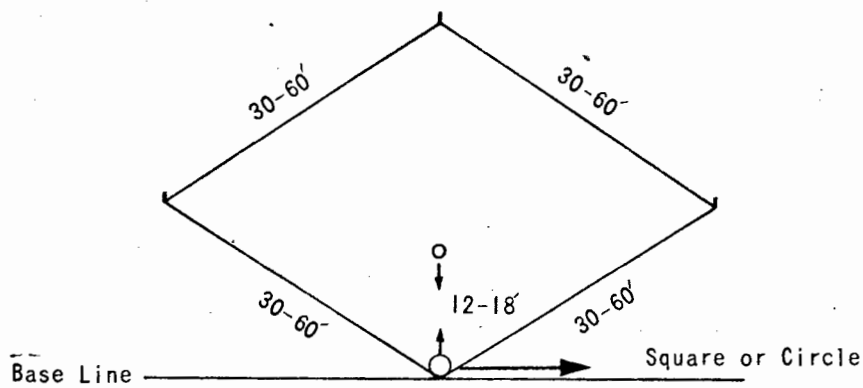
A run ends at the fourth base. A home run brings a batsman who is out back into the game.

GERMAN ROUNDERS (Herbert, 1946:128)

Requirements

A small bat and a ball, which may be a soft ball like tennis, volley or basket ball. Sometimes the hand is used instead of a bat. If played with a bat and tennis ball the bases should be 60 feet apart, otherwise 30 feet.

The Field



The object of the game is to score runs.

The Game

There may be a pitcher, but it is customary for the batsman to throw the ball up himself for his hit.

A hit is foul if it goes over the base line to the back of the batsman.

A batsman gets three chances if a pitcher is used, but if he throws the ball up himself only one.

A batsman becomes runner after a hit and he must run round the outside of the pegs which act as bases. He may dodge the ball, but not interfere with it and must follow the general line between bases. A run only counts if a runner can complete the circuit of the diamond without stopping and without being hit by the fielders, who may not run with the ball, but may pass it to one another. A catch does not put a batsman out. A run gives a batsman the opportunity to bat again.

As soon as all batsmen are out or six runs scored the teams change places.

SWEDISH ROUNDERS

Three or four rounders bats. One tennis ball. Four bases. A team consists of eight or more players. Both teams, Red and Blue, are numbered one to eight.

Two squares, the batting and the bowling squares, are drawn 20 feet away from each other, measuring from the inner line of both squares. The bowling square measures 8 feet x 8 feet while the batting square measures 6 feet x 6 feet.

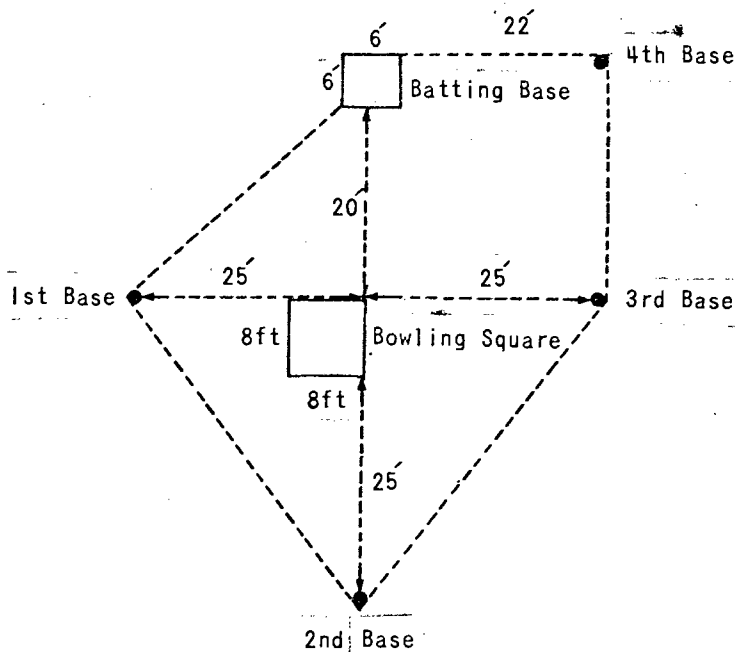
The third and first bases are 25 feet from the top line of the bowling square. The second base is 25 feet from the bottom line of the bowling square. The fourth base is 22 feet from and in line with the top line of the batting base. (see diagram).

If the Red team is fielding, No. 1 Red stands with the ball in the bowling base. No. 2 Red stands behind the batting base and is the Back Stop. The rest of the players stand anywhere about the field.

No. 1 Blue is the first batsman, and stands inside the batting base.

No. 1 Red, using under-arm action, bowls the ball to No. 1 Blue. The batsman can have three balls, and can choose which he runs on, but he must run on the third ball whether he hits it or not (unless it is a no-ball). He tries to reach the first base, or run outside all the bases before the ball is returned to the bowler, by the fielding side. When the bowler receives the ball he shouts "Stop".

The Field



The method of scoring is as follows:

- A batsman scores one point if he reaches first base;
- A batsman scores two points if he reaches second base;
- A batsman scores three points if he reaches third base;
- A batsman scores four points if he reaches fourth base.

He also scores:

- One point if he is put out by failing to reach second base;
- Two points if he is put out by failing to reach third base;
- Three points if he is put out by failing to reach fourth base.

This is from his own hit. He is automatically out when the ball is in the bowler's hands, and has no opportunity to score again until he bats once more in the second innings.

The first batsman retires from the field and his score is noted, and the second batsman comes in to bat. The game continues until all the batsmen in a team have had a turn, then the sides change over.

Rules

1. Fielding Side

- (a) A bowler must not leave the bowling square throughout an innings.

Penalty: One point awarded to the batting side.

- (b) The ball must be bowled in such a manner that it arrives over the batting base not higher than the batsman's head or lower than his knee.
Penalty: Half a point to the batting side.
- (c) The ball must always be returned to the bowler immediately.
- (d) In the second innings, No. 3 becomes bowler, and No. 4 back stop. If a third or fourth innings is played then No. 5 is bowler and No. 6 back stop. No. 7 is bowler and No. 8 back stop. This method trains a child to bowl, wicket-keep and field.

2. Batting Side

- (a) A batter is out if he runs inside a base, and his score for that or following bases does not count.
- (b) A batter may be caught out.
- (c) He is out directly the bowler receives the ball.
- (d) He is out if he throws his bat down, and does not carry it with him when running. This rule may be waived if there is a shortage of bats.
- (e) A batsman may run even though he has not hit the ball. He may score the equivalent points should he be successful in reaching first or second base.
- (f) Teams change over after each innings.
- (g) There must be a scorer and an umpire for the game
(Laing, n.d.:101).

DESCRIPTION OF GAMES ACCORDING TO THE STAGES OF THE EVOLUTION
OF ROUNDERS

"Original" Games of the Circular Running Era

CIRCULAR TIP CAT

This is how it was described by Strutt in 1801 ----- "four, six or eight holes in the ground in a circular direction, and as nearly as possible at equal distances from each other, and at every hole is placed a player with his bludgeon. One of the opposite party who stands in the field, tosses the cat to the batsman who is nearest him, and every time the cat is struck the players are obliged to change their situations, and run once from one hole to another in succession; if the cat be driven to any great distance they continue to run in the same order, and claim a score towards their game every time they quit one hole and run to another; but if the cat is stopped by their opponents and thrown across between any two of the holes before the player who has quitted one of them can reach the other, he is out" (Daiken, 1949:110).

From Collins (1929:238) we gather the following additional information:

A large circle is divided into four, six or eight equal parts by intersecting lines from the centre of the circle. Where these lines meet the circumference holes are made. These lines are sometimes omitted. The feeder is sometimes inside the circle. In other words, he is a special player. When the cat is hit every player must run. If the cat is caught the whole side is out. If three players fail to hit the cat the side is out, also if three players have been put out.

FOUR OLD CAT

The word "Four" is put in inverted commas because this is a game which could be played with one or more bases, depending upon the number of batsmen, just as is the case in Stones, Stoolball and Tip Cat. If there are more than two bases these bases are placed in a circle. This game is the same as the others in this group except only that batsmen used a stick with which to bat, a base is not used as a target, runners are put out by tagging them with the ball or touching the base with the ball before they can reach it, in other words grounding the ball at the base (Mason and Mitchell, 1937:326).

KEITS-SLAAN

In the south of Holland we also find a similar game to Tip-Cat where the hole are put to a definite use. Here, too, if there are two players, two holes are used and the batsmen run to and fro from hole to hole, as in Two Old Cat, but if there are more than two batsmen more holes are made so that every batsman defends a hole. The holes are also dug in a circle. The cattie is called a kalle, bontje, kanne or keits, kets or kaits. If a batsman hits at the kalle or keits he is not out if he misses and the hole is not struck, but he loses his opportunity to bat, as the "bowling" goes to the next batsman. Game is decided by a certain number of points, called "ovens" (De Cock and Tierlinck, 1903:36, 37).

STONES

This game has been played in Ireland for hundreds of years. "A circle of stones is formed according to the number of players, generally five or seven, on each side: one of the out party stands in the centre of the circle, and lobs at the different stones in rotation. At each hit a player gives,

all his side must change stations, in some places going round to the left, in others to the right. The stones are defended by a hand or stick, according as the ball or stick is lobbed. All the players are "out" if the stone is hit, or the ball or stick caught or one of the players hit while running (Daiken, 1949:23, 24).

STOOLBALL

This is a very old English game. It was mentioned in 1330 and also in 1450. In the United States of America it was played in 1651. Reference is made of this game in a song written by D'Urfey in the play of Don Quixote, acted at Dorset Gardens in 1694:

Down in a vale on a summers' day,
All the lads and lasses met to be merry;
A match for kisses at stool-ball to play,
and for cakes, and ale, and sider, and perry.

Chorus:

Come all, great, small, short, tall, away
to stoolball (Strutt, 1831:98).

Strutt (1831:97) describes Stoolball as follows:

A certain number of stools are set up in a circular form at a distance from each other, and every one of them is occupied by a single player; when the ball is struck, which is done with the hand, every one of them is obliged to alter his situation, running in succession from stool to stool, and if he who threw the ball can regain it in time to strike any one of the players, before he reaches the stool to which he is running, he takes his place, and the person touched must throw the ball, until he can in like manner return to the circle.

A catch also puts a player out and if the stool is struck a batsman is also out. The number of bases depends on the number of batsmen. Stones or stakes were also used as bases (Henderson, 1947:76; McIntosh, 1962:41). This game was modernised in 1916.

Games of the Running Era

CAT AND DOG *

Two holes, each about a foot in diameter and 7 inches in depth, or a circle 18 inches in diameter are used, 26 feet or 13 yard apart. At each hole a player takes up his position with a club or stick called the Dog. A Cat, a piece of wood, about 4 inches long and 1 inch in diameter, sometimes identical to the cattie in Tip Cat, is thrown by a player from one hole to the other, his aim being to get the cat to fall into the hole. If he succeeds the striker is out, also if the cat is caught by one of the fielders. If the cat is struck the batsmen change places and one is added to the score.

If the cat lands in the hole the player who so tossed it takes the place of the batsman. It is stated that at least three players participate in this game. Apparently only the striker is credited with a run or point. If this were so, three could play it, every player scoring for himself.

It is also not stated if the tosser could put the runners out by grounding the ball in the hole before it is reached by a runner, but this seems to have been the case (Wymer, 1949:72, 73).

CLUB BALL

Apparently Club Ball was a similar game to Cat and Dog and Lobber. According to Grace (1891:2) the batsman had to run there and back in order to score, and according to pictures of the game which date back to the 13th Century there is a big resemblance, but smaller than that used in Stoolball today.

* The Popular Recreator, Vol. I, n.d.:34; Grace, 1891:4.

The impression is conveyed that it is also an individual game and not a team game, and that the tosser stands close to the batsman. As there are fielders the object seems to be to catch the ball hit by the batsman after a toss.

My own impression, which I base on the pictures given by Strutt (1831:104, 105) is that this game has been fabricated to give Cricket an ancestor. According to one of the pictures the batsman stands with his back to the bowler and hits with a backward swing.

KETSEN, KETS-SLAAN, ETC.

This game is played in the south of Holland and Belgium where it is known under different names. Apart from the above it is also called Bontje-slagen, Kalle in de (n) put, Kallezoek, Kalleke-slaan, Kalleke-soek spelen, Kanne (met de) spelen, etc. Usually two players play against two others.

Two holes 4-5 metres apart are dug in the ground which are defended by the two batsmen with sticks about 1 metre long.

One of the two fielders throws a short stick about 1-2 decimetres long at the hole defended by a batsman. A batsman is out if the Keits, Kets, Kaits, et cetera - as the short stick is called - lands in the hole, if caught, or if the kets can be put into the hole before a batsman can put his stick in there after a run. Often other tasks are placed on the players after they have scored twenty points - a run being a point, but this is not a general rule and will, therefore, not be described (De Cock and Tierlinck, 1903:36, 37).

LOBBER

There are three or more players on each side, two stones or holes as stations and one lobber. The lobber lobs either a stick about three inches long or a

ball (the ball seems to be a new innovation, as a stick was always formerly used) while the batsman defends the stone or hole with either a short stick or his hand. Every time the stick or ball is hit, the boys defending the holes or stones must change places. Each one is out if the stick or ball lodges in the hole or hits the stone; or if the ball or stick is caught; or if it can be put in the hole, or hits the stone while the boys are changing places. The game is also played with two lobbers that lob alternatively from each end. The game is won by a certain number of runs (Daiken, 1949:25).

ONE OLD CAT

The batsman stands at the home base, the pitcher on the pitching base. The pitcher has a catcher, first, second, et cetera fielders to assist him. The pitcher tosses the ball to the batsman who, on hitting it, must run to the Run Base 25-50 feet away and back to score a run. The batsman is out if caught or if the ball is also caught on the first bounce. Also if he misses three balls and the third strike is caught by the catcher. Sometimes the batsman has three more strikes if the catcher muffs the first and sometimes he is out if he misses a strike and the catcher catches it. He is also out if a fly foul is caught. The fielder catching the ball takes the batsman's place, the latter becomes catcher, the first fielder pitcher, the second fielder first pitcher and so on. If the ball is returned to the catcher and the latter touches the home before the batsman the latter is out. Collins says the batsman or the Run Base can also be touched with the ball to put the batsman out. Also played without a catcher.

Sometimes no additional bases are used and the batsman is allowed to stay at the Run Base until he can be brought home by the other batsman (Forbush and Allen, 1927:226-228; Mason and Mitchell, 1937:326).

TIP CAT

A circle in which a hitting stick stands at which the pitcher tosses the cat. The batsman defends it or not. If not, he can only tip and hit the cattie if the pitcher misses the hitting stick and then runs to a base - 30 feet away and back. This he has to do without being caught or put out, which is done by the player nearest the circle. The cattie is returned to the circle, where such a player touches the "home" before the runner to put the latter out. If a batsman succeeds in covering the distance without being put out he scores a "run", "notch", or a point. He goes on scoring points until he is put out. Matches were played in England in which teams from various parts took part. Wood and Goddard (1938:631) say it was played in American pioneer days and frequently in England from where it came to America.

TIP AND RUN

Although this game was already played in the 12th Century it is possible that it had a different name, the present name apparently being a new one. It is also hard to find how the original game was played, but a modern version of it as played in Ireland seems to have retained some of the principles of those days.

A large flat stone is standing on its edge supported at the back by other stones or a stick. The ball is bowled from a flat stone a few yards from the "wicket". The batsman hits the ball and runs to tip the "bowling" stone with his bat, thence back to the wicket. The player who puts the batsman out, takes his place and the player who makes the most runs wins. There is no sign of this being a team game (Daiken, 1949:26).

Games of the Measurement Era

ONE OLD CAT

This is almost like the Tip Cat described below. If two boys play, the game is as follows:

Here the target is a circle or hole into which the player who is pitching tries to throw the cattie, the batsman defending the target. If he misses and the cattie falls into the hole or circle the batsman is out. If the batsman hits it he gets a chance to tip and hit the cattie. If the cattie is caught the batsman is out; if not he scores points for each bat length. Another way of scoring is as follows: the pitcher offers a number of bat lengths for the distance the cattie has been hit. If the two do not agree they bargain until they got a number which is to the liking of both. The distance is now measured and if the number agreed upon correspond with the distance nobody scores; if it is less the pitcher scores the distance in bat lengths and the same number is deducted from the batsman's score; if the number agreed upon is more than the distance the batsman scores that number.

The above game can also be played by more players when each has a set position. The scoring is done as before except that there is a system of changing of batsman, et cetera. The batsman is out if caught, also on rebound, after a third miss which is caught by the catcher, if he hits the cattie in certain directions, but if a third strike is muffed he gets three more chances (Forbush and Allen, 1927:226-228; Mason and Mitchell, 1937:326).

STOOLBALL

This game was played in Elizabethan and Stuart times (Hole, 1948 : 59).

Although mostly played with the hand when the batsman defended the stool a bat or staff was also used, in Wiltshire, and instead of a soft ball a very hard one, "stuffed with quills and covered with sole leather" (Hole, 1948:60). In Sussex wooden bats about the size and shape of battledores were used (Hole, 1948 :60), whereas in Wales and Lancashire the hand was used. Instead of stools wooden boards were used as also sticks. This game was mostly played by two players, the object of the batter being to protect his stool, scoring a point everytime he succeeds to hit the ball. The bowler aimed at hitting the stool and catching the batsman out, for each of which he sometimes scored a point which he adds to his score of hits (Forbush and Allen, 1927:160).

TIP CAT

Batter defends a circle which is the target. If he misses he is out; also if caught or if he fails to clear the circle. If the cattie thrown by the pitcher lands on the circumference of the circle he gets one chance at tipping and hitting the cattie. After his hitting the distance is measured in bat lengths or paces and he scores a point for each. Sometimes guessing has to take place and if he guesses too much he is out. In any case, we have here a distance principle which formed the bases of the game. Sometimes the fielders returned the cattie trying to "hit" the circle to put the batsman out, failing which the distance is measured and the batsman scores accordingly (Strutt, 1831:6, 109; Hole, 1948 :4, 39, 48, 61).

Games of the Trap Era

ANJELUS-SPELEN

A hole over which the anjelus (cattie) rests. One player throws this anjelus as far as he can with his stick, his opponent trying to catch it. If he catches it he throws at the stick which is placed crosswise over the hole, if he fails to catch it he has to throw the anjelus from where it comes to rest. If the fielder succeeds in hitting the stick the two change places. If not, the batsman gets three chances at tipping and hitting the anjelus as far as he can from the hole. This distance is measured in terms of bat lengths and he who first scores one hundred, or any number decided upon, wins (De Cock and Tierlinck, 1903:36-37).

KALLEKE-SLAGEN OP NE STEEN

The kalle or cattie is laid on a stone with part of it sticking out over its edge. The kalle is hit away by hitting the protruding end with another stick. The fielder tries to catch the batsman out, or, failing that, to hit the stick which is laid in front of the stone. If he fails, the batsman gets three tips and hits and then guesses the number of bat lengths the kalle is from the stone or brick. If he guesses correctly or just short of the number he nominates he scores that number of bat lengths, but if he guesses too many he is out and scores nothing. He is also out if he fails to hit the kalle five bat lengths from the stone. The player who first scores hundred, or any number decided upon, wins (De Cock and Tierlinck, 1903:36, 37).

KEITS-SLAGEN

A form of Keits-slagen also called Kalleke-slagen is played as follows:

A circle is used as target from which the batsman hits the keits. If caught he is out, otherwise the fielder(s) aimed at the circle. The batsman can now protect his circle, even using his body or arms behind the stick. If the keits lands in the circle he is out, if on the circumference he gets one chance at tipping-hitting, if outside three chances. After his tip-hit the batsman guesses the number of bat lengths the kaits or kalle is away from the circle. If he guesses correctly or just short of the bat lengths he nominated he scores that number, but if he guesses too many he is out and scores nothing. He is also out if he fails to hit the keits five bat lengths from the circle. The player who first scores the number agreed upon, wins (De Cock and Tierlinck, 1903:36, 37).

"KENNIKIE"

The name is presumably derived from "Cattie", "cattietjie", "kennikie" and is described as played in South Africa.

Two ordinary sticks about 1 inch thick to be used. The one to be about 18 inches long, the other 4-6 inches. A hole about 1½-2 inches deep and just longer and broader than the shorter stick is made in the ground. The first player puts the shorter stick, called the "kennikie", over the hole and facing the other men, he scoops it out with the longer stick, the bat. This is done as follows: the player holds one end of the bat with both hands and presses the other end in the hole so that it just touches and forms a rectangle with the kennikie. Some men prefer to put the kennikie in the hole and then scrape it out by standing astride with the backs to the fielders.

When the kennikie has been scraped out - distance and placing aimed at - and is not caught, the player puts his bat over the

hole and a fielder tries to hit it with the kennikie. If the kennikie is caught the player is out and the player who caught it gets a turn. If the bat is hit the player is also out and the successful thrower takes his place. If the bat is missed the player picks up the kennikie and does the Thumb (duimpie), that is, the end of the bat is held by the right (left) hand with the kennikie forming a rectangle with it, the thumb pressing the kennikie on the bat. By bringing up the arm with a jerk and letting the kennikie go, the latter is thrown into the air and the player tries to hit it. If he misses or is caught he is out. In case of miss the fielder to be first at the hole takes over. In many parts of the country the kennikie, on landing, can be kicked towards the hole, while still rolling. When it stops this cannot be done. In other parts a player who catches the cat after one bounce can try to tramp on the three, or less, strides, in which case he is at bat. After the first throw the aim of the fielders is to get the kennikie into the hole or less than a bat length from the hole; in which place the player is out. The batsman tries to prevent this by hitting the kennikie away, or if it is rolling towards the hole, to move his bat quickly backwards and forwards on the ground over the hole, to make sure of hitting it. When the kennikie is kicked towards the hole it is usually picked up and an effort made to pitch it into the hole. If the fielder shouts out "Baulking", before the batsman can shout "No Baulking", he is allowed to baulk as much as he likes. The other players all cluster round the hole and on the delivery of the kennikie try to obstruct the player by tramping on his bat as he moves it backwards and forward over the hole.

This goes on until the kennikie lies still. If it is less than a bat length from the hole he is out. If it is only one bat length he does the "sugartoe" (Suikertoon), that is, he puts the kennikie on the toes of his left foot (if right-handed) and throws it up, at the same time trying to hit it. If the kennikie is two bat lengths from the hole "Tip-top" is done, that is, the one end of the kennikie is held by the left hand and from there it is hit out of the hand and in the flight hit once more. Three bat lengths, the "Fist" is done, that is, the kennikie is put on the thumb side of the fist of the left hand, thrown up and hit. Four bat lengths: "Buck Horn" (Bok-horinkie): The two middle fingers rest and are drawn apart so that the cat lies on the little and first fingers, palm down. From here it is tossed up and hit. Five bat lengths: "Elbow" (Ellenbogie): Kennikie crosswise over the left elbow, tossed up and hit. Six bat lengths: "Eye" (Ogie): Kennikie crosswise over left eye, dropped and hit. Seven bat lengths: "Ear" (Oortjie): Kennikie behind left ear, dropped and hit. Eight bat lengths: "Chin" (kennikie). Nine bat lengths or more: A "Life", which means that even if the player is put out he can start again, thus using his "Life".

Lefthanders do the "Sugartoe" by tossing the kennikie up with the right foot, the "fist" and the Buck Horn" from the right hand, the "Elbow" from the right elbow, etc.

KNURR AND SPELL, NORTHERN SPELL

This game is also played with a trap, called a spell, a bat and ball, called a knurr or nurr. The nurr was a small hard ball made of wood, but sometimes of staghorn weighted with lead, or, in the Potteries, of wedgewood material. The bat

is a kibble or thin stick with a flat end. The trap and ball are regulation sizes and the trap sometimes works with a trigger which the batsman pulls. The object is to see which player can hit the ball the furthest, the distance being measured by all kinds of ingenious devices, which are sometimes very elaborate (Hole, 1948:49; Strutt, 1898:178).

PIKKENOOTJE DOEN (PIKKEN-HOUTJE)

A square is drawn on the ground from which the batsman hits the pikkenootje by throwing it up first and then hitting it. His opponent tries to catch the pikkenootje in order to score ten points. If he fails he tries to return the pikkenootje into the square to put the batsman out. If the pikkenootje lands on the circumference the batsman gets one chance at tipping and hitting; if outside the square three chances. Every time the batsman hits the pikkenootje he scores one point. The player who first scores hundred, or any number decided upon, wins (De Cock and Tierlinck, 1903:37, 38).

When a broadish bat is used a batsman can perform what is called a koesjebet (kaatseherd), that is, he can tip the pikkenootje and catch it on the bat and then run with it hitting the pikkenootje a few inches up as he does so. For every hit he scores one point.

PORSCHK, TITSCHKERL, NIGGELSCHLAGEN, MEGGERN, TRIEBELSPIEL

It extends from England and Iceland over the northern Asia and the whole of China and Korea to southern Japan in the vicinity of Kumamoko. Games of a similar type are even found among the Indians of North America in Ontario, South Dakota, New Mexico ... also in Samoa (Mehl, 1948:4).

Porschek (Cattie) is laid on a stone one part projecting. This part is hit to propel it into the air for the real hit.

The fielders must try and catch it. If they do, a change of sides follows. If not, they try to strike the bat. If they succeed, a change follows, if not, the batter has three hits and must try to reach hundred bat lengths. If he fails, somebody else bats. Sometimes a batting base is used, which helps the fielders to put a batsman out.

In Switzerland this game is called Niggelschlagen; in Saxony Porschek; in Austria Titschkerl (Gitschkelr); Scandanavia Pind; France Batonnet; Rumania Zurka; Bulgaria Tschuluk; Poland and Russia Tschischek or Ptichki; India Gulidanda (Bancroft, 1922:244); Italy Sfronbola. Furthermore, it is also played in Dalmatia, Armenia and all over the world (Mehl, 1949:10).

TIP CAT

The cattie is tipped and hit and the batsman is out if he is caught, he misses the cattie, he fails to clear the circle and if he guesses the number of bat lengths the cattie is from the circle, wrongly. He scores if he nominates the number of bat lengths correctly, or the number he nominates even if that should be less than the actual distance. If he nominates too many for the distance he is out, and the fielder who touches the cattie first, takes his place.

In order to make it difficult for the batsman the circle is made bigger, that is, 10-15 feet in diameter.

In Czechoslovakia this game is called Starling Tip Cat (Schpatschek) and it is played as above, but the batsman throws up the cattie himself. The fielders try to return it to the circle. If they succeed he is out, otherwise he gets three horses, that is, he can hit the cattie three times aiming at distance. He scores as in Tip Cat above (Strutt,

1831:109; Hole, 1948 :61; Collins, 1929:247).

TRAP BALL; TRAP, BAT AND BALL OR TRAP AND BALL

This game was already played in the beginning of the 14th Century. The trap simply is an improvement of the cattie in that it propels the ball up into the air. The ball, a small wooden one, is placed in a trap, shaped somewhat like a shoe, which at the heel has been hollowed out like a cup; a handle fixed along the trap is balanced at the middle, and has a flat end which nearly covers the cup-like hole at the heel of the trap. All kinds of improvised traps are used, for example, a hole over which the hitting end of a piece of wood is laid.

The batsman now uses the trap to propel the ball into the air and then hits it as far as possible. He is sometimes given three chances in which to do this.

The fielders now try to hit the trap. The batsman can protect it, but if he misses the ball he is out. The batsman scores a point everytime he hits the ball and also when the trap is missed. He is out if the ball is caught or the trap struck. Game is twenty-five points, or any figure previously decided upon. A variation of this game is the following: the batsman does not protect the trap after the hit, but the fielders have a free hand to aim at the trap. The batsman is out if caught, if the trap is hit or if the ball comes to rest less than a bat length from the trap. The batsman scores as many points as number of bat lengths the ball comes to rest from the trap (Strutt, 1898:595; Wymer, 1949:72; Hole, 1948 :4, 48, 49).

Games of the Catching Era

CLUB BALL

According to pictures used by Strutt and other writers it is quite obvious that in original Club Ball one player hit the ball for another or others to catch.

The same kind of game was played in Lapland, Bohemia, Poland (Mehl, 1949:154).

KASTIE OR CASTIE

Two teams, the one throwing the ball up for one of the other side to hit with a wooden club. If the fielders catch the ball they are at bat. A trap is also used to propel the ball up for the hit instead of a player throwing it up (Van Dale, 1924:927; Dozy, 1910:56; De Vrankrijker, 1937:59).

KIEPERS (ORIGINAL) AND KIETEMBAL

Instead of hitting the ball up into the air with the help of a trap the ball was simply thrown up. When thrown up the thrower in Amsterdam shouted "Kiepers" and in Overysel "Kulo". To catch the ball is expressed by "Kieper" and the catchers are called "Kiepers". These words, that is, "Kiept" ("for watch the ball and catch it") and "bal" produced the word "Kietembal". "Kulo" is derived from "Kule and ho", whilst "kulen" means rolling of the ball (Ter Gouw, 1871:190, 334, 338).

KNATTLEIKER

A very old game played by the Scandanavians with a trap as in Kastie, the object apparently being the same as in Kastie (Kerr, MDCCLXL:13).

OURANIA

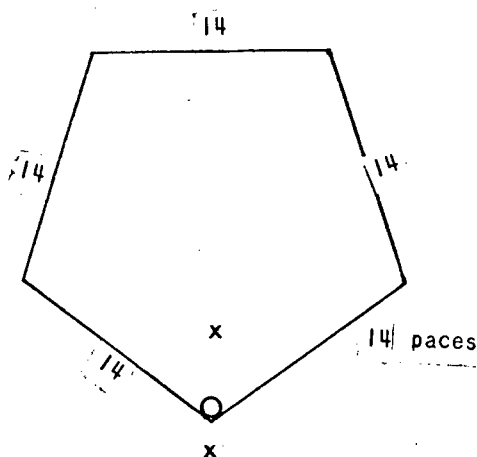
The ball is thrown as high as possible and one of the players has to try and catch it. Homer also described a game as played

by Halius and Loadamas in which one party threw the ball as high as he could, and the other, leaping up, caught it on its fall before his feet again touched the ground (Wilkinson, Vol. II, 1837:431).

WINDSPELEN (DUTCH GAME)

An old Dutch game and played with a trap and ball. The trap consists of a pole over which another is laid, a ball being on its one extremity. By hitting the other extremity of this cross-pole the ball is sent into the air and one of the players must try and catch it (these players are "aan de snor"), he who is successful getting a turn to send the ball up into the air. Usually the hitting of the pole is accompanied by a long drawn out shout of "Wi ... nd!" (Ter Gouw, 1871:286).

Ter Gouw (1871:186) expresses the opinion that the Germanic races already played it with stones or balls filled with sand.

B. THE LONGBALL GROUP OF GAMESBRENNBALDThe Field

The fielders score:

- (a) One point for each ball caught;
- (b) Two points for each ball hit at but missed by batsman;
- (c) One point for each runner between two bases when the catcher has touched a mark next to batsman's place with the ball;
- (d) One point for each runner who cannot be brought home by the saver.

The batsman gets two chances, but must run on the second, whether he misses it or not. The pitcher must throw the ball fast, but parallel to the ground, as far as possible to suit the batsman. A batsman can leave or hit a bad ball; if he hits it, it counts towards hit two hits (Törngren, 1905: 115).

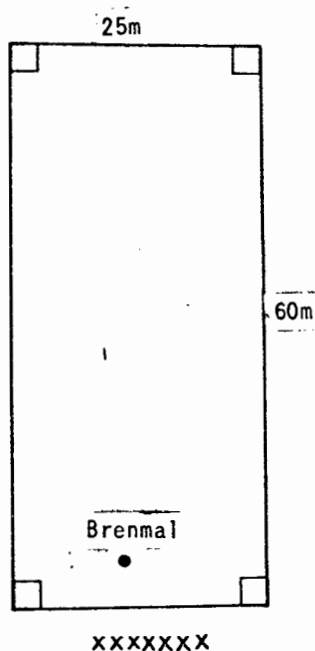
BRENNBALL

Requirements

A bat and ball (apparently the same as for Schlagball).

The Field

The same as for Schlagball, except that there is a base at each corner of the field, no oblique area, and 3 m from the batting line there is a "brenmal" or burning place.



Teams

Two teams of equal strength.

The object of the game is to score runs.

The Game

The players of the batting side are numbered and bat according to their numbers from the base or batting line by hitting the ball into the field. There is no pitcher. A batsman need not run on his hit, but can wait for a better hit by another batsman. Not more than four such players may wait for a hit.

If a batsman succeeds in doing the complete circuit on his own hit he scores four points; if he does so on somebody

else's hit two points, and if he does so by breaking his run at a base or bases one point.

In order to bat again a batsman must hit a home run. The fielders try to return the ball to somebody near the burning mark where it is grounded to put a runner out who at that moment is not at a base. If no batsman is left at the batting line the teams change places.

No burning of runners or teams changing over takes place.

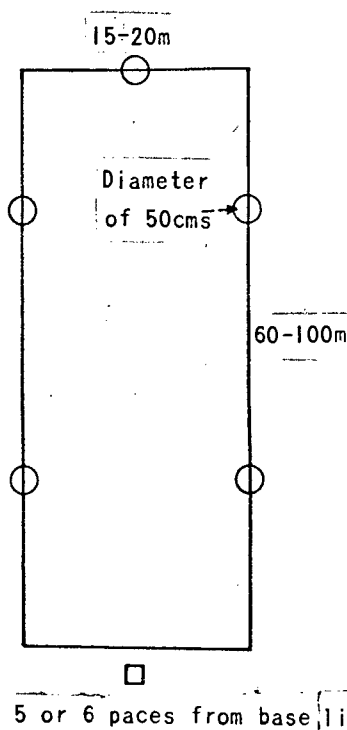
Apparently a catch also puts a batsman out, as also a foul hit (Köhler, 1936:102).

KAMPBAL

Requirements

A "Kaats" ball is usually used.

The Field



"Goals" 12-20 m from one another. There must be at least five such goals. This box is in the middle of the base line and five or six paces away from it.

Teams

No specific number and no specific position, except that one of the fielding side is a pitcher. Fielders called "ploete-raars" and the batting side, Defenders. Captains toss for sides.

Object

The object of the game is to score runs.

The Game

The pitcher tosses or hits the ball to the "batsman" from a distance of five or six paces in front of the "batsman".

The batsman must receive the ball high so that he can hit it into the field. He may not hit it back or outside the field, otherwise teams change places. He may refuse a bad ball. Pitchers are changed after three bad balls.

After the throw the batsman becomes runner.

The batsman and his team are out if the ball is caught or if a runner is struck with the ball. The runner may kick a ball near him away, but may not touch it with the hand, otherwise teams change places. He may stop at a base and shouts out "Goal" when he does so, in order to be immune from being plugged. A runner may not return to a base he has left, nor may he run from one base to another before the ball has been struck.

The fielders must part with the ball within three paces.

The runners may not overtake one another and not more than one can occupy a base. A run stops at the last base.

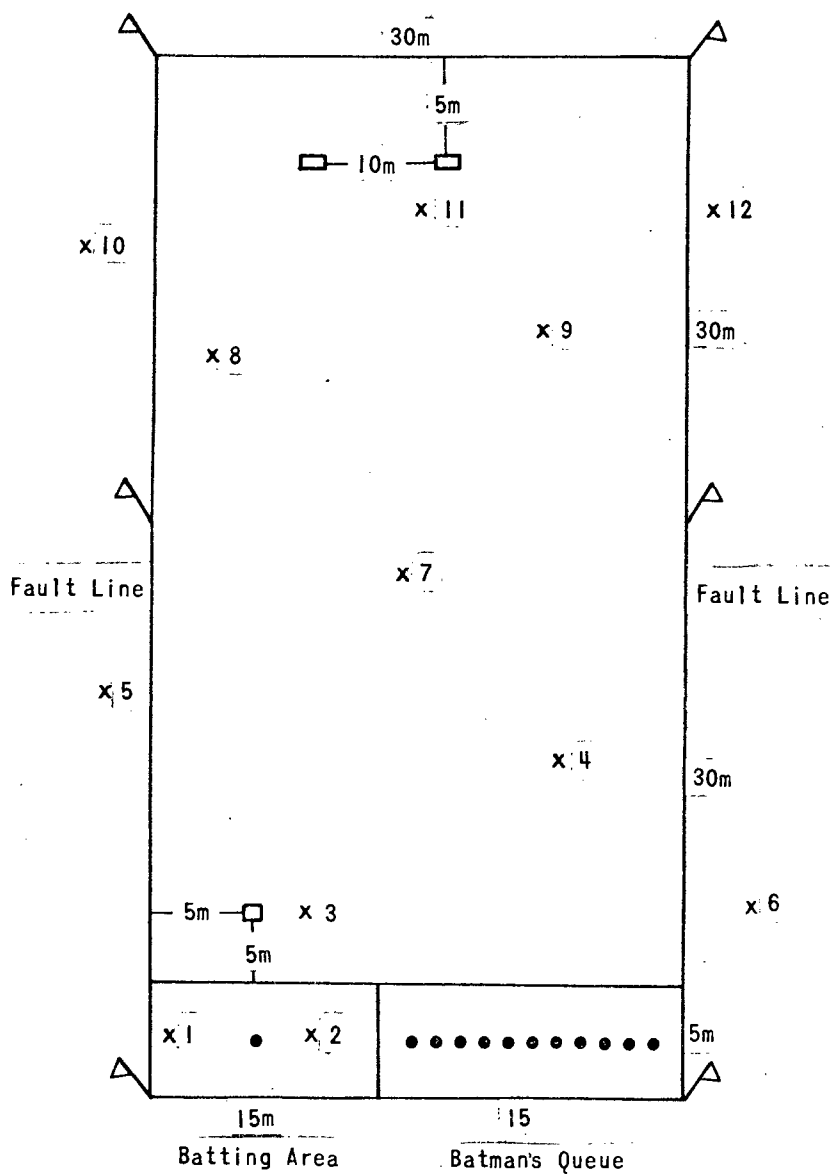
Teams change places with burning when a batsman makes a foul hit, but the team losing the batting may plug one of the new batting side and thereby regain the batting. They may not be plugged again. The team wins who has scored the biggest number of runs when play stops (Reglement van Lichamelijke Op-leiding, 1935:344).

KASTIE

Requirements

A bat made of hard wood with the handle 15 cm long and the batting piece 60 cm long. The latter is either round with a circumference of $3\frac{1}{2}$ -4 cm or with a diameter of $3\frac{1}{2}$ -5 cm measured through the non-oval sides. The ball is not too hard, nor too elastic. Three types can be used: a leather ball filled with horse hair with projecting seams; a red or grey rubber ball with a small cavity in the centre; a small elastic centre piece of $2\frac{1}{2}$ cm diameter, round which horse hair is put and then molten rubber on the outside.

The Field



For children the field is 30 x 50 m and for adults 30 x 60 m. The fields and fleeing base are poles driven into the ground, $1\frac{1}{2}$ m long and a diameter of $7\frac{1}{2}$ cm.

The Teams

Two teams, at least six or at the most twelve players each, who are numbered and each team with a distinguishing colour. The teams are called the batting and catching teams respectively, the latter taking their positions in the field as shown in the diagram. The batsmen take up their positions in the batsman's queue, the only place of safety whilst batsman. The pitcher takes up his position about 5 m from the

batsman in the batting area and has a catcher to assist him. Captains toss for sides.

The Object

The object of the batting team is to hit the ball in such a way as to enable them to reach one of the field bases and back, thereby scoring and obtaining the privilege to bat again. The catching side tries to obtain the batting privilege by trying to catch the ball (five catches putting the batting team out), burning a runner, or to return the ball to the batting area when there is nobody to bat.

The Game

Each batsman gets only one chance in which to hit the ball. If only one batsman remains he has three chances. He need not run on the first two hits, but the runner may do so in an endeavour to reach the batsman's queue. If he misses he can still run to the fleeing base and if he hits a foul ball he can return to the batting area. Such a batsman is called the "Saver", and he only acts in this capacity when a runner reaches the batsman's queue safely. Sometimes the saver is forced to run on any hit, and if he misses his third strike he can run to the fleeing base, but may not score and the runners may not run, except if the catching side brings the ball back into play by missing a "burn" at him. As a rule, however, teams change over if the saver misses a third ball or refuses to hit a good ball. When such a change of teams takes place no burning is allowed.

The batsman indicates with his hand at what height he wants the ball on its downward passage, that is, the ball is not thrown but tossed. He may refuse bad balls, but if he hits at them it counts. If he refuses to hit at a good ball it

counts as hit. The referee decides which balls are good or bad.

No runner or batsman may interfere with the ball. If this happens teams change over and burning is allowed.

Each runner scores a point if he can reach one of the field bases and come back to the batsman's queue without being put out. If he can achieve this feat on his own hit, he scores two points. A batsman may use the fleeing base if it suits him or he can return to it. A runner may, however, not make use of this base on his way back to the batsman's queue.

A runner may not use more than one of the field bases as a place of safety, and he must touch the post in order to be safe. He may, however, let go of the post if he feints to put the fielding side off. If a runner is obstructed by a fielder he may run to field base and back without being burnt. A game lasts for sixty minutes with an interval of ten minutes after thirty minutes play. The fielding side scores a point for each ball caught, whether it be caught inside or outside the playing field.

Changing of teams takes place

The changing of teams takes place without an opportunity to burn:

- (a) After five catches in the same innings;
- (b) When a runner leaves the field of play;
- (c) If a fielder of a team which changes does not immediately enter the playing field in the shortest way;
- (d) When the batting side is "starved out", that is, when no batsman is left in the batting area and a fielder grounds the ball in the batsman's queue;
- (e) When a saver mishits the third ball or refuses to hit at a good third ball.

The changing of teams takes place with an opportunity to burn:

- (a) If a runner is struck while touching a runner with the ball is not allowed and it must be a direct hit and not after a bounce;
- (b) If a member of the batting side should touch the ball no matter where.

When burning on changing over is permissible the new batting side can make use of the field and fleeing bases, but they must then return to the batsman's queue and do not score. Such players who take refuge at the fleeing base may only go home via one of the field bases.

There is no limit to the number of times teams can struck each other when changing places.

Legal hits

To this category belongs:

- (a) Balls hit into the playing field or over the far line;
- (b) Balls which roll over the foul lines after touching the ground or opponent or any other object;
- (c) Balls hit in any way over the side lines beyond the halfway flags.

Foul balls are:

- (a) Balls which leave the foul lines without touching the ground, an opponent or any other object;
- (b) If a batted ball falls inside or behind the batting area or batsman's queue.

When a foul strike takes place nobody may run and the batsman is out, and must wait in the batsman's queue for his next turn. A batsman may still run if he misses a ball, but may not score. He may, however, bat again.

If a batsman takes the bat with him or throws it outside the

batting area he forfeits his run.

The ball is dead when:

- (a) The ball is missed or it is a foul hit;
- (b) When changing takes place without burning;
- (c) Balls are lost.

The team wins which scores the most points in a game. The referee blows his whistle at the commencement of a game, before the first pitch after teams have changed over; the end of the game and before or after the interval. For the above he blows three times on his whistle.

He blows twice for foul balls, mishits and foul hits and once when a player is burnt.

The referee is assisted in matches by two linesmen. They take up their positions each on a side line to watch foul balls, interference by fielders or runners, the touching of bases by runners and whether runners leave the field.

Scoring

The score is kept as follows:

Behind each player's name the runs and catches he makes are noted, a run being represented by the figure "1" and a catch by a "c". The totals of two teams are easily obtained if their players are dealt with separately (Het Bewegingspel, 1932:261).

KIEPERS

Kiepers is played like Kastie with the following exceptions:

1. The fleeing base falls away.
2. There is no pitcher and the batsman throws the ball up himself for his hit.
3. The fielding side throws the ball over the front line

- of the batting area and batsman's queue. The moment this happens the whistle goes and each runner has to stop where he is.
4. A batsman may remain in the batsman's queue if his hit does not suit him and he can even return to it after starting his run. He can also return to a field base which he has left.
 5. If a fielder tries to hit a runner and misses the runner, he may go back to the batsman's queue in order to score, but fielders may try to burn him. If there is doubt as to whom the ball was thrown at, it is left to the thrower to say.
 6. Fielders may not run with the ball and if a fielder does not try to strike a runner he should immediately play on, that is, pass or throw it over the line at home.
 7. Catching only takes place with one hand.
 8. Teams change after three catches on condition that a catcher of a third ball throws the ball straight up into the air whilst facing home. The new fielding side can now catch the ball and try to burn their opponents. If a fielder catching a third catch fails to comply with the rules his side remains in the field, and a fourth catch is necessary to change over (Het Bewegingspel, 1932:274).

LONGBALL

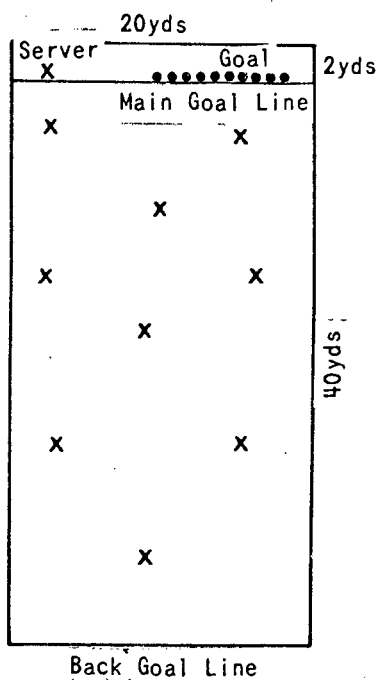
(As approved by the Ling Physical Education Association).

Teams

Two teams, of ten players each.

Ground

A rectangular space, 40 yards long by 20 yards wide. The longer boundaries to be called the side lines, and the shorter the goal lines. The main goal line is drawn parallel to the other two and two yards from the top goal line. The space between the top and the main goal lines forms the goal, and the lower boundary is called the back goal line (see plan).



Bat

A "Rounders" bat, that is, a cylindrical bat not more than 20 inches long, not flattened in any way, and measuring not more than $4\frac{1}{2}$ inches round the thickest part.

Ball

A tennis ball (or small Lacrosse ball).

Duration of Play

Forty minutes, with a half-time.

Captains

The captains shall toss for "in" game and decide beforehand on the batting order, on who shall be server, and where the other fielders shall be placed. By "in" game is meant batting, by "out" game is meant fielding.

Server

The server only (of the "out") shall stand in the goal. He shall warn the batsmen before he serves, and must not screw or feint the service. The batsman can claim another service if it is a badly-served ball, provided he has not attempted to hit it. The server is allowed to interrupt the serving by trying to hit an opponent. The batsmen are allowed three attempts to hit the ball (or one only if this is agreed upon beforehand).

Batsmen

The "in" game team lines up in file facing the server, inside the goal. The players hit in succession and in the same order throughout the game. In order to hit the ball again, the player must have scored a run. If a member of the "out" team causes "in" game, he gets a reward hit first, otherwise that player starts whose turn it was to hit when last his side got "out". The batsman may hit the ball hard or gently, or not at all; if he misses the ball when properly served, it is counted as a hit. The batsman should aim at hitting the ball beyond the back goal line, and is "out" if one foot is over the line.

The Run

A run is made when a player, without breaking the rules, has run from goal to back goal line and back again and the team has had no "out" game in between. The run can be broken by the runner waiting behind the back goal line for a favourable opportunity to complete the run. A batsman need not run on his own ball, he can stay in goal, behind the server, and run when an opportunity occurs from another member's hit. Two or more members of the team can be waiting at the top goal

line or back goal line at the same time. The fielders must not actively prevent their opponents from running. No run shall be started while the ball is in the server's hand.

The "out" team gets "in" game if one of the "in" team:

- (a) Deliberately touches the ball or hinders the "out" team in fielding;
- (b) Hits the ball to ground behind the top goal line or the side lines (it may roll outside the lines);
- (c) Runs over the side line; or
- (d) Is not in goal to hit.

The "out" team gets "in" game if one of the "out" team:

- (e) Hits an "in" team player with the ball when the "in" player has one or both feet in the field; or
- (f) Catches the ball from a hit.

A ball is caught when a player holds it before it touches the ground. The catcher calls "caught" and drops the ball on the spot where it is caught (unless it is outside the ground, when he must run inside, and place the ball there).

A player is hit if touched by the ball when in the field. He can dodge to avoid the ball provided he does not cross the side lines.

No fielder, except the server, may take more than three steps with the ball in hand. He must aim at a runner or pass to another fielder. If more than three steps are taken with the ball in hand the hit is invalid.

A fielder must not hold the ball more than five seconds. A hit from a ball held longer is invalid.

If there are no runners the ball must be passed to the server.

If a runner is aimed at by the fielder and missed, he is allowed to run straight back to goal freely or otherwise, and although he may not have reached the back goal line, he scores a run.

After a hit the bat should be placed on the ground, inside the goal. If it is thrown into the field so that it cannot be reached, it can only be brought back by a player making a run. If this gives "out" game, the new "in" team must bring the bat in themselves.

If a batsman has not run at the end of a ground, he must run for a "man's height", that is, the server throws the ball up about 6 feet and the batsman must run during that throw.

A runner waiting beyond the back goal line must get back to goal before it is his turn to hit again. If he does not, he shall run for a "man's height" throw.

The change from "in" to "out" game shall be made very quickly.

Umpire

The umpire shall sign to the scorers (two) after each point; call when the players change game, act as time-keeper, and give the result at the end of the game.

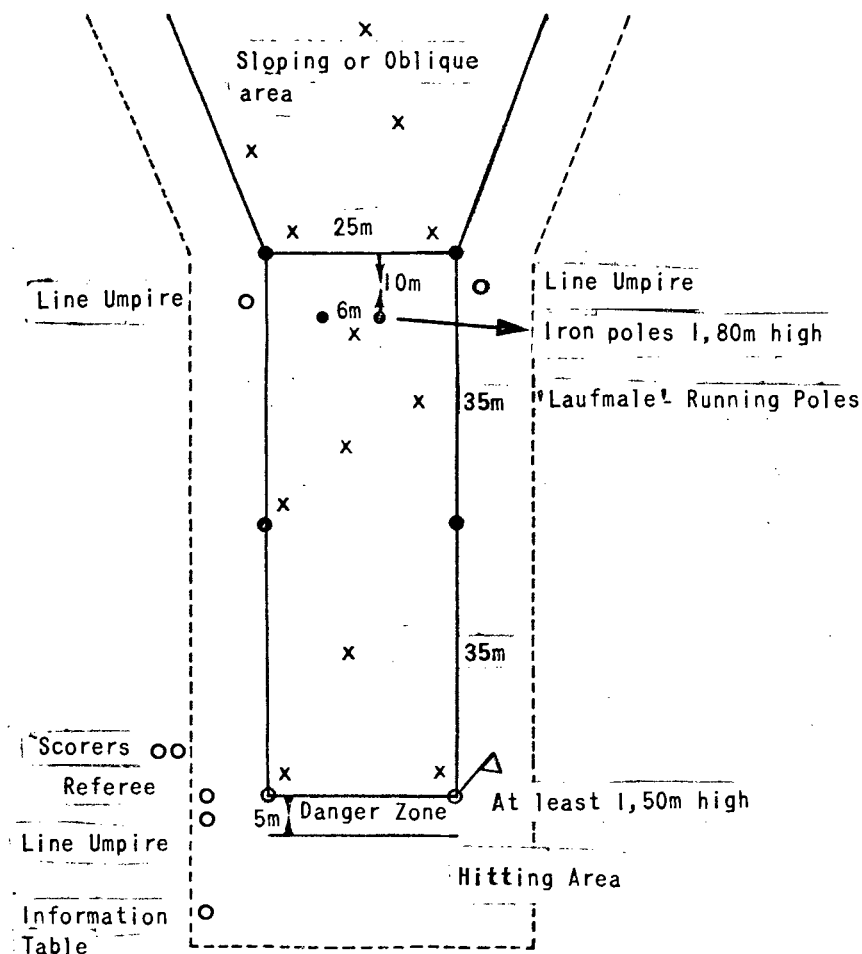
That team is the winner which has scored most points (Games and Sports in the Army, 1941:474; MacCuaig and Clark, 1951: 110).

MODERN SCHLAGBALL

A leather ball filled with Kroll-hair and having a circumference of 20-22 cm and weighing 80-90 gr. A round bat not longer than 1,25 m and made out of a solid piece of wood, the hitting area not thicker than 3 cm.

In matches it is customary for the referee to have an extra ball.

The Field



Dotted Line: Spectator's line 10 m from side lines.

For men and boys between 15 and 18 years the length of the field is as above but for women and children it is 60 m long. The danger of "Sperraum" may only be occupied by players who have batted and are waiting to run. If this is not observed a "penalty change" must take place after a warning.

Teams

Two teams of twelve players each. Nine can start a game and can be increased to twelve, but no changing of players allowed. The object of the game is to run to the running posts and back without being put out, thereby scoring and retaining the privilege to bat. Each such a run counts a point, as also a hit into the oblique area. Fielders also score a point if they catch a batted ball. Their object, besides scoring and catching a batsman out, is to put the runners out by "burning" them, forcing them over the side lines or throwing the ball into the batting area before a runner or runners have completed their run, thereby causing the ball to be dead and forcing the runners to stop.

The Game

The captains toss at the beginning of a game. A game lasts sixty minutes, but lost time must be added to it. A game starts and finishes with the referee blowing his whistle.

If a game ends in a draw an interval of ten minutes is had, after which captains again toss to see which team bats.

The game then continues for another fifteen minutes. If it is still a draw, another fifteen minutes is used to decide the issue, without an interval, but with tossing. If it is still a draw the game must be played over again.

The Batsmen

Batsmen must bat in a fixed order which must be observed throughout the game. A batsman gets only one chance to throw up and hit the ball.

A batsman who is not in the batting area when it is his turn to bat forfeits his turn, and can only bat when it is his turn again.

When teams change, the next batsman is the one who follows the last one put out before the change took place.

Only batsmen who succeed in making a run bat again in an innings. When a new innings starts all batsmen can bat again.

If a batsman bats out of his turn a "punishment" change of teams takes place.

If a fair hit fails as a result of obstruction of one of the fielders the hit must be taken again. Obstruction is ruled out if it takes place when a fielder runs towards the batting area, without entering it, to catch or field a batted ball. Obstruction by a member of the same team is also ruled out.

Fair Hits

A batted ball is legal and in play when it is hit into the field or oblique area. If it rolls out of the field before reaching the halfway flag without a fielder touching it, it is illegal, also if hit clearly over the side lines between the halfway posts and end flags. It may roll over these lines. If a batted ball rolls back into the batting area it is legal, but the "Halt Rule" applies, the ball being dead. A batsman or runner can in no way interfere with a batted ball. No batsman may in any way be outside the batting area whilst batting, not even with one foot over the line. A fair hit is one which is hit into the oblique area and counts one point towards the score.

An illegal hit is: When a batsman does not have both feet in the batting area when hitting the ball. When the bat slips out of a batsman's hand when he strikes the ball. If the ball does not leave the batting area after a hit, or if it hits any player inside that area.

If a batsman bats out of his turn.

When a batted ball falls outside the field or oblique area and when a batted ball rolls over the side lines before reaching the halfway posts without being touched by a fielder.

The ball is dead: When the ball is thrown over the batting line, or its extension, by a fielder; after an illegal strike, as soon as the possibility of a catch ceases; when it is thrown into the batting area after a burn, and there caught by one of the new fielders, or thrown on the ground; when a fielder runs with the ball under certain conditions (to be specified later); during a break in the game.

Such a ball "belongs" to the batting side and they may enter the field to fetch it.

A Run

A run is obtained when a player can run from the batting area to touch one of the running posts and back without a change of sides taking place. A run can be broken and need not be continuous.

If a player is obstructed he can return to the batting area without being put out. The referee's ruling is final.

A run starts when a batsman crosses the batting line. Such a player can only return to the batting area after completion of his run, but can wait in the Dangerous area for a better chance. If he returns without finishing his run it is considered

as leaving the play area, and is punished in the same way.

If a hit is illegal a runner must return to the place from which he started his run. Running can only start on a hit.

If a runner starts running before a hit he has to return to the place he started from. If such a player is burnt it still counts. A batsman who makes an illegal hit must also try to complete a run in order to bat again.

A batsman need not start to run if it does not suit him or if he makes an illegal hit, but not more than five such runners are allowed in the batting area. If there are five such players and a sixth is at bat at least one of them must run.

Batsmen are starved when the ball is thrown into the batting area with more than five runners waiting to start their run, or when the sixth batsman makes an illegal strike.

A run must be broken when the ball is dead and when the game is stopped.

Such a ball or game is announced by the whistle and runners must return to the places they left.

A broken run can be resumed as soon as the ball is back in play and when the whistle goes again. Such a break does not make a run illegal, only a change of teams does. A run finishes when a runner returns to the batting area and has both feet behind the line, whether in the air or on the ground.

A player is out of the field if he touches with his whole foot the top or side lines, or after starting a run but not finishing it he returns to the batting area. For these offences changing of teams takes place, but the batting can be retained by a "burn" of the new batting side.

When such a change for the above offences takes place a fielder who has the ball in his hands must drop it. A player is not guilty of the above offences if it takes place after a Halt has been called out. All he has to do is to return to the place from which he started running.

A batsman may not run with the bat or throw it back after starting his run. If he does this he has to start the run again from the beginning.

Burning

Any runner can be struck with the ball in any part of the field and as long as he does not touch one of the running posts. A fielder inside or outside the playing field may throw at a runner. When burning is successful teams change places. A fielder is not allowed to run with the ball. If he does, a burn does not count and the game continues, except if the referee thinks that a player does so deliberately and repeatedly, especially if a player runs with the ball after the last batsman has hit the ball, should the referee not blow his whistle and thereby jeopardise the chances of a runner or runners. A ball is still in play after a burn or after it flies or rolls over the batting area, but only the new fielding side can play it. While the ball remains in play in this manner the putgoing side can continue to run into the batting area or to a running post until the ball is dead.

The fielding side tries to burn the new batting side, but the ball is not allowed to be thrown into the batting area and the ball is considered dead if this happens, except if a member of the new fielding side after a burn takes a ball which runs over the batting area and throws it on the ground before a member of the new batting side is inside it. If this can happen the ball

is dead and the teams change sides again. This can, however, not take place if one or more batsmen have already reached the batting area. If a player already in the batting area is struck or the ball comes into that area or hits a fielder there, the ball is considered dead.

A Catch

The ball can only be caught with one hand after a legal or illegal hit, but it is not a catch if the ball touches any part of the body first before it is caught. If a runner interferes with a player about to catch the ball, the ball is considered caught.

Changing of teams

Teams change as a result of:

- (a) A legal burn;
- (b) A runner leaving the field of play;
- (c) A batsman touching a batted ball in any way;
- (d) Starving a team out;
- (e) Punishment change.

No burning to regain the privilege of batting can take place under (d) and (e), but is permissible under (a), (b) and (c).

Runs which are interfered with as a result of such a change-over are null and void and cannot be continued if such a side regains the privilege of batting again.

If a member of a side changing over to bat erroneously touches or fields a ball his side forfeits its batting privilege, but can regain it by means of a burn. The same applies if a new batting side touches a ball in the batting area before it is dead.

Starving a team out means getting the ball into the batting area, by a member of the new fielders, before a batsman reaches that area.

Punishment Change takes place as a result of:

1. A batsman batting out of his turn.
2. A runner purposely interfering with a fielder who is fielding the ball.

In this connection interfering entails:

- (a) When a runner purposely runs towards a fielder to push or run into him or hinders him throwing the ball;
 - (b) When a runner purposely touches a batted ball with any part of his body or with the bat;
 - (c) When a member of the batting side stops or takes a ball in play to, for example, prevent his team to be starved out.
3. If a runner who waits to run crosses the back line of the field or the batting line after he has already been warned.

Off-sides

A fielder of the side who is running in and who is fielding outside the field is off-sides and cannot be burnt whilst he remains outside the field; and is not allowed, by pain of a change-over, to interfere in any way with the game. He may take the shortest way to the batting area and stop on the side line, from where he may proceed on a hit. As soon as he enters the field he is subjected to all the rules of the game.

Officials

The officials include one referee, three linesmen and two scorers.

The referee inspects the field and gear before the commencement of a game. He starts and finishes the game, can stop it temporarily or permanently. He sees that the rules are observed and decides about each situation independently.

It is his duty to guard against rough play, to warn players guilty of such an offence, or to send them off the field. He takes up his position near the corner of the back and batting lines, outside the field of play.

The first linesman takes up his position near the referee and controls the batting area. The other two linesmen take up their positions on the side lines and move between the half-way posts and the far extremity of the field. These three assist the referee to control the game properly.

The referee alone can use his whistle. He can easily see and blow his whistle when the ball becomes dead in the batting area, but in other parts he needs the assistance of the linesman. As soon as a linesman holds his flag up the referee must immediately blow his whistle. As the first linesman has not much to do he can easily keep a record of how the game is proceeding.

For each team he has a double row and he uses the following signs: / = a run started; x = run completed; 1 = change of sides, for example

	1	2	3	4	5	6	7	8	9	10	11	12
Red	/	x	x	/								
White	/	/	/	x	x	/	/	x	x	/	/	/

Each team has a scorer and assistant whose score only acts as a guide and can be overruled by the referee. Signs used: 1 = run; 1 2 = 2 runs by same player in innings; 0 = catch; / = oblique or for hit.

A referee may stop a game as a result of trouble with players, spectators or the weather, but when the game is resumed players must return to the same position they occupied before such a stoppage. If this is not possible, he can retrace the game by letting the last batsman bat again and the players take up their positions accordingly.

Three blows on the whistle signify the beginning, end or a break in the game, two means teams change over and one indicates an illegal hit, halt, ball dead. The latter could also be called out, that is "Halt".

Note

The oblique area is a new innovation of recent origin. Before the rules were standardised, teams could change after a certain number of catches. A pitcher could also be used. Instead of running posts, bases were used in the corners of the far end line and runners had to run to both of these and back (Deutsches Reichsbund für Leibesübungen, 1938:Heft 2; Köhler, 1936:102; Strohmeyer, Vol. I, 1913:47, 293).

SLAGBAL

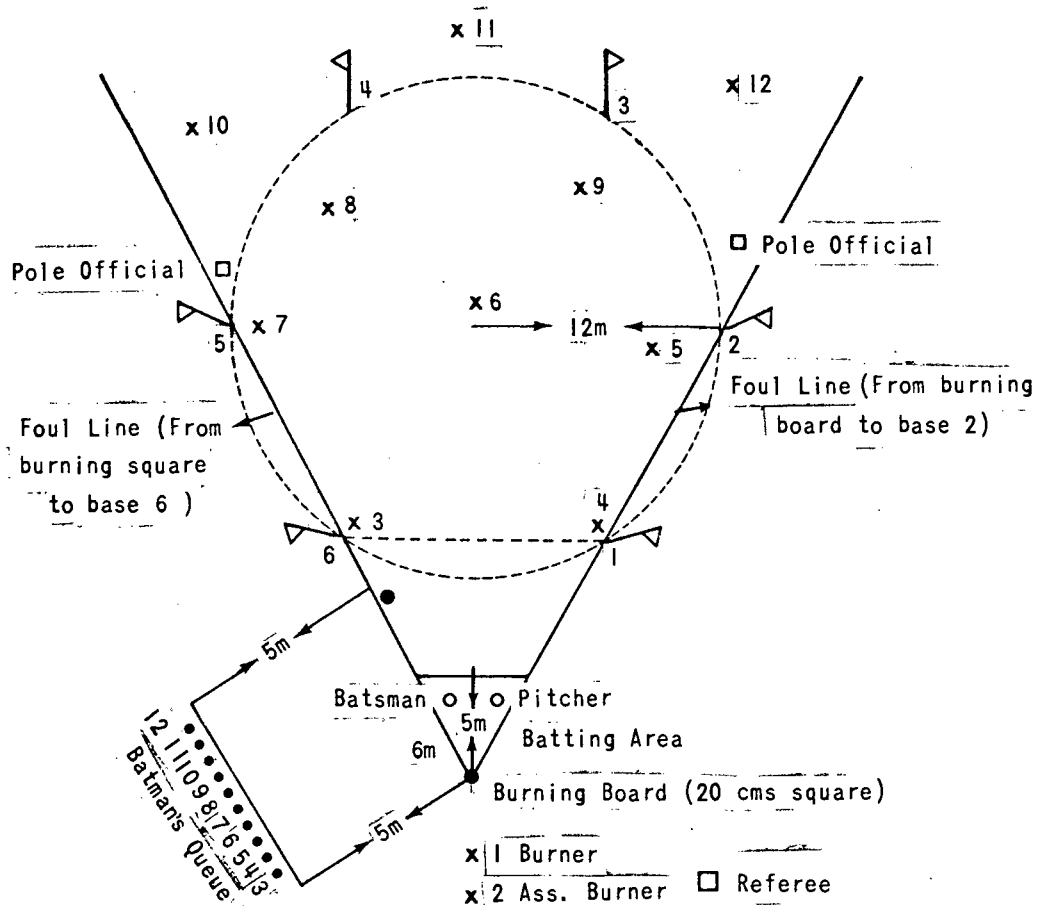
Requirements

A bat made of hard wood (ash or oak) and 30 cm long and 10 cm broad on the flat hitting side.

Ball

A Tennis or Kastie ball.

The Field



Flag posts are $1\frac{1}{2}$ m high.

Teams

Two teams of twelve players each. The batting side are numbered and bat in their proper order. The batsman is served to by a member of his own team, both of whom are in the batting triangle. The pitcher pitches according to the choice of the batsman who indicates with his hand where he wants to hit the ball on its downward passage. After a hit the pitcher becomes batsman and the third batsman pitcher. Each player of a batting side in this way becomes pitcher and then batsman.

A Hit

A hit is fair when it hits the ground inside the field beyond the hitting line. After this it can roll over the foul line. It is also fair if it hits an opponent and thereafter rolls

over the foul line.

Foul hit

When the ball touches the ground before reaching the hitting line or when it goes over the foul lines without touching the ground or an opponent inside the field of play.

A batsman gets three chances in which to hit the ball, but he must run on the first legal hit. He may refuse to strike a pitched ball which does not suit him, but if he hits at it, it counts as a hit, whether he misses it or not. If he does not hit a good ball it also counts as a hit.

A batsman may not take the bat with him or throw it outside the batting triangle. If he does, the whistle goes and he is out.

If, after two misses or foul hits, the third is also missed or a foul the batsman must run, but not further than the first base. Players already on bases may, however, not run under such circumstances.

Base Running

Base running should be round the outside of the base posts which must be touched with the left hand. A runner must always watch the ball, so that he is standing at a base when the whistle signifies that the burner has grounded the ball on the burning square. More than one runner may occupy a base and runners are allowed to overtake one another. Runners breaking their run at a base may only run on a hit. Runners who are out may only run on the next fair hit.

Burning

The object of the fielding side is to return the ball as quickly as possible to the burner, who grounds the ball on the bur-

ning square. If a runner is not at a base when this happens, he is out, but he may proceed to the base he is making for and must then finish the bases as usual.

The burner is assisted by another burner from his team who fields high and other balls and throws them to the burner who has to remain near the burning square.

Task of Fielders

The fielders take up their positions on the field as shown in the diagram and their main task is to return the ball as quickly as possible to the burner. They also try and catch a batted ball. Runners may not in any way interfere with a fielder.

Scoring

A home run, which ends at the sixth base, counts two points. All other runs count one point. If a player is put out during the course of his run a penalty point is registered against him and he does not score.

The fielders score one point for each catch. A player is out:

- (a) If he misses or foul three times. Such a batsman becomes runner, as we have seen, but he does not score.
- (b) If he is burnt out.
- (c) If he skips a base or goes round it on the inside. Such a player must return to such a base.
- (d) If he takes the bat with him or throws it outside the batting triangle.
- (e) If he kicks a ball. The whistle goes for this offence and runners must return to the bases they left before the transgression occurred.

Teams change

Teams change when:

- (a) Ten players of a team are out;
- (b) A certain number of catches have been made (a maximum of five);
- (c) There is no pitcher in the batting triangle.

If, for example, No. 6 was the last player at bat when the teams changed places, No. 7 is at bat when that team bats again.

After the interval the fielding side before the interval becomes the batting side and No. 1 starts to bat.

Duration of Game

A game lasts sixty minutes with an interval of approximately five minutes after thirty minutes play (Het Bewegingspel, 1932:213).

SWEDISH SCHLAGBALL *Ball

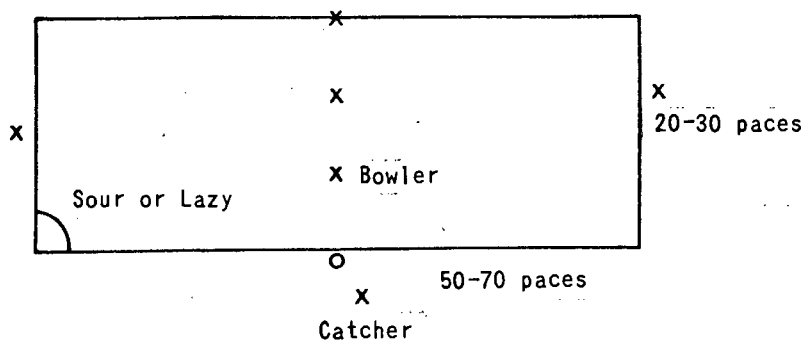
The ball is made of leather and about 75 cm in diameter.

Bat

The bat may be one- or two-handed bats of 1 m length or longer, the handle being thinner than the other end.

* Danish Longball is similar to Swedish Schlagball except for a few minor principles and will not be described here (Pick, 1952:120).

Field



Object

The object of the game is to run, after a hit, to the opposite side without being put out.

The Game

A pitcher throws the ball up between himself and the batsman to suit the latter. Each batsman gets three chances in which to strike the ball, but on a successful hit he must either run to the opposite side or go to the left hand corner, called the "sour" or "lazy". Here he waits until another batsman can assist him across. The runner can be thrown at by the pitcher or those fielders outside the field, but not by those between the objectives. A runner cannot leave the field; if he does he has to go back to the starting or home line. When the ball is caught the teams change places, and the outgoing party can be "burnt", that is, struck with the ball. This burning can go on indefinitely. If the ball is caught the catch is nullified if such a player tries to hit a runner. The batting side may not touch the ball at all except with the bat.

If three catches have been made the catcher can take the ball with him over the inner or home line and keep it until all his men are safe from burning.

When a team has two catches to its credit and it is burnt while changing takes place it loses the two.

Game is twenty-three points and points are scored equally for a catch and a run, that is, each a point (Törngren, 1905:130).

C. OLD GAMES BELONGING TO THE TARGET FAMILY

BEUGELEN

This is a different form of Klossen in that the ball was not thrown but hit through the arch. This arch could either be at the end or in the centre of the course, and was called the "beugel".

In the 17th Century the "beugels" could rotate, thereby enabling a player to hit his ball in such a way that it could come back. Sometimes the arch was in the form of the figure eight, with the top circle smaller than the bottom one. If the ball went through the top circle a player scored double the number of points than through the bottom one (Ter Gouw, 1871:334; Dozy, 1910:69; Schotel, 1905:124).

KLOOTSCHIETEN

Also called Cloutgespelen, Cloutgen spelen, Schietklooten, Werpklouten, et cetera. The original object of the game was to see who could roll the wooden disc the furthest, the place where the disc fell over being marked off. More often it was played with the object of covering a prearranged distance in the fewest rolls, or to aim at an object in the fewest throws or rolls and rarely strikes. It was also played on ice. If discs were not available stones were used.

In Holland sailors amused themselves in between voyages with these discs and tried to go round the city walls in the fewest throws or rolls. They even had their own handicap system. Good players were handicapped by a "klompschot", that is, a throw through their legs further back of the starting point. Weak players were given exemption of, for example, covering the last four trees of the course, which was called "vier

bomen", four trees. Tournaments were played for silver balls (Ter Gouw, 1871:324; Dozy, 1910:67; Van der Ven, MCMXX:226; Schotel, 1905:124).

KLOSSEN

This game is also referred to as Klosbaan, Klossen, Kloscen, Klootbaan or Rolbaan.

The klosbaan was marked off or boarded. At the one end was an iron or wooden arch through which the ball had to be rolled (wooden arch sometimes made of twigs planted in the ground, bent over and tied together). Each player only got one chance in which to do this, but got a second or third chance if he hit wood (if he "hout"), that is, hit the arch. For "klooten", that is, a roll through, two points were scored, and one for "hout". Twelve is game.

This game was also played by women during the Middle Ages, but in the 17th Century it was mostly confined to boys (Schotel, 1905:122; Ter Gouw, 1871:330).

KEGELSPEL - ANCIENT

This game was also called Kegelrollen, Konnig, Kegelen, Jeu de quille.

Big wooden balls or discs were used and the object was simply to see who could roll or hit them the furthest. The balls were sometimes so big that holes were drilled into them for the fingers. Later it was also played indoors, the object being to roll the ball through an arch which was on a level, raised surface.

Also played on ice and called Yskegelen when it was rolling for distance (Hecker and Heyn, 1924:187). This game was also played with 9 skittles of which the centre one was crowned or

with a round head in contrast to the others, the object being to see how many skittles could be bowled over in one throw. When played like this, as early as the 15th Century, it was called Konnig or King.

These skittles resembled a bell, Dutch schel, which was derived from the Latin skilla, scilla, squella. From schel we eventually got kegel.

The ball, in round form or shape, was also slid over a face of boards, hence the German name "Kegel schieten" (Hecker and Heyn, 1924 :187). "Het kegelen, nl. het kegelspel, verving in het laatst der M.E. het steenwerpen en was eigenlijk hetzelfde, daar oorspronkelijk met een steen naar de kegels werd geworpen" (Hecker and Heyn, 1924 :187; Schotel, 1905:122; De Vrankrijker, 1937:57; Ter Gouw, 1871:332).

Skittles in Britain

In England skittles is the recognized name for these games, but in previous Centuries different names were used, namely, skit-toles, sketells, cayles or keiles, kittle-pins, kayle-pins, skittle-pins, nine-pins, keel-pins. Only the old games are described.

CLOSH(E) OR CLOISH

"This game was played with pins which were thrown at with a bowl instead of a truncheon, and probably differed only in name from the nine-pins of the present time (Strutt, 1898: 272). For this game the terms clishe, cloish, closshe, cloyth, clashe, et cetera were used (and in Dutch and Flemish we find the word klos for a bowl or ball). "An obselete game with a ball or bowl, prohibited in many successive statutes in the 15th-16th Century. It was obselete before the time of Cowell

(1554-1611) who supposed it to be the equivalent to nine-pins or skittles" (Oxford Dictionary, 1961:114; Strutt, 1831:271).

DUTCH PINS OR SKITTLES

This game is also played with nine skittles, the one being the king-pin. Like skittles the players also bowl and tip at the skittles, the game being thirty-one points. If the king-pin could be taken out singly the game is won, otherwise it counts the same as the other pins (Strutt, 1831:273).

FOUR CORNERS

Four large skittles are placed on a square or diamond-shaped board, one of the angles only being presented to the players. The players stand at an agreed distance from the board and use a bowl "which is of the shape of a cheese and is made of the toughest, hardest and heaviest wood procurable" (The Encyclopaedia of Sport and Games, 1911:190). Strutt (1831:273) and Pollock (1899:569) say a bowl weighs from 6-8 lbs. The bowl must be thrown and not rolled at the skittles, the object being to beat them down in the fewest casts.

HALF-BOWL (sometimes called ROLLY-POLLY)

Henry IV prohibited this game. It receives its name from the fact that it is played with one half of a sphere of wood. It requires a smooth and level surface. For this reason it is often played in rooms. Fifteen pins of a conical form are required. "Twelve of these pins are placed at equal distances upon the circumference of a circle of about two feet and a half diameter; one of the three remaining pins occupies the centre; and the other two are placed without the circle at the back part of it, and parallel with the bowling-place, but so as to be in line with the bowling pin; forming a row of five pins, including two of those upon the circumference.

In playing this game, the bowl, when delivered, must pass above the pins, and round the end-pin, without the circle, before it beats any of them down; if not, the cast is forfeited: and, owing to the great bias of the bowl, this task is not very readily performed by such as have not made themselves perfect by practice. The middle pin is distinguished by four balls at the top; and, if thrown down, is reckoned for four towards the game; the intermediate pin upon the circle, in the row of five, has three balls, and is reckoned for three; the first pin without the circle has two balls, and is counted for two; and the value of all the others singly is but one. Thirty-one chalks complete the game; which he who first obtains is the conqueror. If the number be exceeded, it is a matter of no consequence; the game is equally won" (Strutt, 1831:274).

KAYLES

Whereas nine pins are mostly used this was not always the case, for there are pictures dating back to the 14th Century in which six, eight or four skittles were used. In the two pictures in Strutt's book where six or eight skittles are used the one is taller than the others, and is called the king-pin. The forms of the skittles also differed considerably; as can be seen from those pictures. The arrangement of these skittles was also not always the same. It seems as if they were placed in a row for what was called kyle-pins, whilst in nine-pins they were placed on a square frame in three rows. Sometimes balls were used to throw or roll at the skittles, whilst clubs and discs were also used (Strutt, 1831 :270; Hole, 1948:47).

KNOCKENDOWNS

Ten pins are used, the centre one being the king. "The ball must be grounded before it reaches the frame" (Walker, 1892:62).

LOGGATS

"A pastime analogous to kayles and clish, but chiefly played by boys and rustics, who substituted bone for pins" (Strutt, 1898:272). This is a very ancient game and was also abolished by Henry VIII. The Dutch, Romans, Frenchmen, et cetera had similar games, the Dutch calling it Kooten or Cooten, the Romans Ludus talorum, the French O jeu des osselets. Bones were placed in a row and thrown at with other bones, each player having such a bone. In Holland knuckle-bones were used and the game was brought to that country by the Romans (Dozy, 1910:62). Of Loggats Hole says: "It was mainly a country pastime, played on an ash-strewn ground with a bowl, or sometimes a stake, at which the loggats, or wooden pins, were aimed". In Hallivell's Dictionary it is described as "a use of bones instead of wooden pins". Steevers tells us "that it was a favourite sport at sheep-shearing festivals, the usual prize being a black fleece which the winner gave to one of the farmer's maid-servants on condition that she knelt down upon it and allowed herself to be kissed by all the young men present" (Hole, 1948:47; Strutt, 1831:272).

LONG BOWLS

"This consists simply in bowling a skittle ball along the ground for any distance in the smallest number of bowls. A farmer of Croydon undertook a wager to bowl a skittle ball from Croydon to London Bridge, a distance of eleven miles, in five hundred times. The wager being accepted, he performed the feat on August 4, 1739, in four hundred and forty-five

bowls, starting with each new bowl from the place where the skittle ball stopped (Walker, 1892:63). Strutt again describes another kind of Long-Bowling. "It was performed in a narrow enclosure, about twenty or thirty yards in length, and at the further end was placed a square frame with nine small pins upon it; at these pins the players bowled in succession; and a boy, who stood by the frame to set up the pins that were beat down by the bowl, called out the number, which was placed to the account of the player; and the bowl was returned by means of a small trough, placed with a gradual descent from the pins to the bowlers, on one side of the enclosure. Some call this game Dutch-rubbers (Strutt, 1831:270).

NINE-PINS

Again a board is used in the same way as for Four Corners, but nine pins are used, three on each side and one in the middle of the board. This game, like most of the others, is played in an alley, and sometimes a board is used on which the bowls are slid or rolled along. The bowl can either be a ball or a wooden disc, edged with iron. Again the object is to see who can beat the skittles down in the fewest throws or rolls. Sometimes each player gets three chances at the skittles, and if he can beat them all down in two throws it is called a single, and the skittles are put up again for the last throw. If they are all knocked down with this last throw it is called a double (Stonehenge, 1868:688; The Encyclopaedia of Sport and Games, 1911:190).

SKITTLES

Walker says the balls weigh up to fourteen or sixteen pounds for this game. The players must throw, not bowl, the ball at a distance of about 21 feet, although the distance is not always the same. Strutt (1831:272) says: "In playing at skittles, there is a double exertion; one by bowling, and the other by tipping; the first is performed at a given distance, and the second standing close to the frame upon which the pins are placed, and throwing the bowl through in the midst of them". For every pin knocked down on chalk or score is reckoned, "and the game of skittles consists in obtaining thirty-one chalks precisely; less loses, or at least gives the antagonist a chance of winning the game; and more requires the player to go again for nine, which must also be brought exactly, to secure himself" (Strutt, 1831:273). Walker (1892:61, 62) states that "In the ordinary game only one step is allowed to be taken whilst delivering the ball; but the 'trotting' game is frequently played. In this latter two or three steps are allowed, and the 'running up' is sometimes so advanced that the ball is hardly out of the hand before it touches the front pin".

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