**Games for the exercise and recreation of the body and mind**

**J.C.F. GutsMuths, Schnepfenthal, 1796**

**Preface**

Recreation is absolutely necessary for people, especially at young ages. Accordingly, if the millions of young people in our fatherland play just two hours every day, this amounts to many millions of hours of human existence. Should a great nation then be indifferent to this, if such a considerable amount of time, indeed more importantly, formative years are lost or used; if it’s used just to pass the time or to build strength; lax, tasteless, harmful or innocent, decent and useful? This is the serious viewpoint from which I ask this book to be regarded. In truth, I didn’t mean to trifle with these laboriously written trifles.

Since Tranquillus Suetonius, who wrote a book lost to us about the games of the Greeks, there have been an incredible number of books written about games. I nonetheless submit mine here to the public convinced that it is not yet a complete games book; but I do not doubt for one second that it is better for its intended use, more practical, and more systematic than any of its precedents. Any writer who is not entirely and with conviction convinced of this should scrap his writings rather than have them printed.

All books about games fall into two classes; they are either philological-historical like the valuable small works of Meursius, Boulangeruss, Hyde and are therefore of no use at all here; or they are written from a practical viewpoint, to enable society to play them. I know a considerable number of them, but not one composed according to any kind of basic system with a suitable choice, for a specific purpose, for certain subjects, with refined taste, and thoughtful appraisal of the value of each individual game. So all these books are, as it were, randomly thrown together, partly awful, not only tasteless but often rude, immoral, full of double entendre and bawdy.

Are we to believe that there are things printed in a small, very popular book from 1792 in Leipzig that derive from one of the most woeful scribblings from 1757 in Frankfurt? Game formulas like these: "With grace, you masters and companions, the devil is in hell, the master gives little money and many bones, be in grace with him" etc. or as in Dreißig’s, the compiler’s botch job “Pleasant companions” [“Angenehmen Gesellschafter”], 1792: “On one of my trees at home, I have two, three etc. leaves, on the third leaf was a snail with a house as cover, which crept under two, three branches, it wanted to sit and laze, with its two horns crept on to two thorns, and there deftly came two, three, four hands and took the snail with five fingers away.”

A collection of games has never been made from an educational point of view. Were games considered cheap antics, unworthy of the time, effort, and paper? Were scholars ashamed to describe them? Just imagine how many thousand shallow and deep scholarly miserable works should then have been left unprinted! It’s beside the point with books, whether book production remains in business or not, whether the paper miller, bookseller and scholars profit from it or not, whether they are deeply scholarly or not, the key question always remains the same, and even if only written above the stubble of the field, can they have a discernible influence on the physical or spiritual perfection of man? – Truly a wicked question, it looks like a soap bubble when applied to some thick, deeply scholarly work, shining brightly, superbly inflated, and remaining without consequence.

This book contains games for the young, but it is not written for the young, but for their parents, educators, and friends; thus not only descriptions, but also assessments of the individual games; thus the glances towards ancient Greece for historic illumination and pleasant memories of an amiable people; thus the tone, which is more dry descriptive rather than entertaining. I could easily have invented a few families, described their jolly meetings and thus woven games into it; this might be an appropriate tone, but I hate wasting paper and never write just to fill pages. Hence the preface which, as the first glance makes clear, is not designed for young people. This is not to say that young people should not understand most of the games in this collection and be able to play them; I just wanted to make it clear for whom the book has been written.

Games are a string of flowers, with which you can bind young people to you; so I prefer to give them to their teachers rather than to them. But what should young people do who – oh, it is indeed sadly often, very often the case! – have neither a teacher, or at least none for the time when they are not learning, whose parents either have no time or no inclination to look after them. I am still unsure whether to produce a simple, inexpensive games book for such people and first await a nod from the public.

As precise and detailed a description as possible of each game is to be found in the book at hand, which almost without exception regarding the active games, mostly derive from the actual experiments of the author. Should one or the other game appear too detailed, I would ask you to bear in mind that regard must be taken of those readers who do not immediately find what is self-explanatory, but for whom it must be said; and that the purpose of the book, aimed at practical application, requires extensive examination, because just general information does not usually suffice for implementation.

Nonetheless, it is hard enough to get young people accustomed to the somewhat complicated games, namely the ball games, to reach the point at which their enjoyable nature is fully revealed. Until this point has been reached, every game is difficult, especially for young people; a game should not be judged on the first impression it makes when still unusual.

The assessments of each game are indeed not extensive - for I had as little appetite to write several volumes as my readers have to read them - but sufficient to make the reader more aware of the content than he previously was.

All, except for about three which were described to me, are written either from my own experience, or collected, tried, described, amended, and here and there improved from various German and foreign areas for which my location was most advantageous. There are 106, because the limited number of pages could not take any more and forced me to stop at the board games. I hope people will be satisfied by this, as individually published games often cost six, twelve, 24 and more pennies.

Although the number is already most respectable and I myself still possess a considerable store, I would be most grateful if people would tell me about games from near and far areas; age and taste, abilities and knowledge, domestic situation and society of young people; the particular preferences of parents and educators, times of day and year, domestic situations etc., all make a large number of games necessary. I will therefore provide supplements and endeavour over time to establish a library of games, the like of which no nation has.



I owe the apposite execution of my idea in the bas-relief of the title to the masterly hand of our Ramberg and the understanding and true artist Stoelzel. Education leans as a beautiful female figure on the altar of nature, by her right hand the symbol of culture and in her left hand guidance, watching over the games of the innocent young ones. May parents take these simple thoughts to heart.

Schnepfenthal near Gotha, 6 April 1796

**Introduction**On the concept of games and the moral, political, and educational value of games; on their choice, properties, and classification.

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When boredom first visited the huts of man, enjoyment entered as well, offered his hand and asked these children of nature to dance. Thus emerged the most natural and innocent games, namely the active games. The huts became palaces, and there was also boredom; but action was forbidden, pleasure was silent and presented cards.

Boredom is always just the trigger for games; created by the natural drive to action. The expression of this motivation is seen in the games, according to the cultural level and sophistication of the peoples and individual persons, be it physical, intellectual, or a mixture of both. Thus the various categories of games. With games in the strict sense, the player has no goal other than amusement in the free effectiveness of his action. This is not the subject here, for where are such games where purely aesthetic values, namely form and design, are used as the equipment? I only know of one game which seems to belong here, namely so-called parkett.

However, it is customary not to call all, even playful, occupations with form and structure, a game. The immediate purpose of a game in the usual sense is amusement, then comes recreation or to guard against boredom. It is clear that this amusement is equally created by the effectiveness of our activity.

The means to make this activity effective are firstly, games equipment, which as inert, then as active material, hinders our activity. But because the equipment is not in itself interesting enough for our activity in almost all of our games, secondly, some kind of emotion, preferably ambition, has to be introduced and used to spur activity, thirdly, allow chance to more or less rule over the equipment to keep expectations in suspense and the activity lively. The reason we enjoy games is not just for the activity, but also in viewing the form of the games, that is, the agreed systematic order of our activity; if this is disrupted, our actions cannot fully engage with the game system, and this lessens the amusement. Games are therefore amusements for our recreation, created from the effectiveness and agreed form of our activity. This definition does not apply to games of chance, they are the chain with which luck leads the player at will by the nose using the scourge of emotions to caress, then punish him.

According to the above, it is easy to determine the general moral value of games in themselves. It is in line with the nature of emotion used to create the tension in our activity. The more innocent this is, the more innocent the game. Its value therefore varies as much as the nature of love of honour, of physical love, of greed. In line with the level of emotion, for every increase makes it not only more important, but also reduces the freedom of our activity; the game would be most innocent if it could be entirely free of it and be kept alive without any emotion at all.

Finally, according to the level of control which chance is accorded in a game; the game has more value if this only goes as far as necessary for moderate suspense of expectation and activity; but if control disappears completely, and all that moves at most are the fingertips to turn the cards, roll the dice, we give ourselves over entirely to chance, which lambasts us through our own emotions and thereby makes the game as sharp as stinging nettles; thus emerge games of chance, the worst of all immoralities.

But it is now time to leave the path of dry designation of terms; nowadays not much is thought of definitions, other than those of love, spun in a novel. Perhaps I can find a less arduous path.

Games are important trifles; because they were needed in all ages, by all peoples, young and old, because joy and pleasure are just as necessary to recover from work, unfortunately as well as to guard against boredom, and to satisfy digestive and mental power. Games are therefore found around the globe; everything plays, not just man and child, but also animals and their young, the fish in water, the dog, the horse, the lion and their young play. Who has penetrated the secrets of plants, the darkness of the elements, the mysteries of heat, electricity, magnetism, the endless distances of terrestrial bodies, and can dismiss all games?

“Play”, says the peerless Wieland, “is the first and only pastime of our childhood and remains the most pleasant one for the whole of our lives. Work like a beast of burden is the sad fate of the lowest, unhappiest, and most numerous class of mortals; but it runs against the intention and wishes of nature. The most beautiful arts of the muses are games, and as Pinda sings, the gods initiate no festivities or dances without the chaste graces. Aside from the forced service of iron necessity, what is there in life that is not a game? Artists play with nature, poets with their imagination, philosophers with ideas, beauties with our hearts, and kings, alas! – with our heads!”

Tradition always carried it to all corners of the world, and it may be harder to transplant a useful invention, the improvement of an agricultural instrument, from one country to another, than introduce a game from Polynesia to Germany. Our small girls do not know that their game with five stones is Greek or wherever it may come from, and our boys call Pflöcken what the Greeks named kindalismosu.

The farmers in Ströbeck play a game as do those on the Ganges, on Seünde-rud, on the Tigris, and on the snow mountains of Iceland, I mean chess; and the Laplander paints reindeer blood on spruce bark for playing cards, because there is no Parisian or Berlin factory near him. Such proliferation over such a long period, which happened so broadly and often so fast, is simply a sign of general need. Was it not just so with potatoes?

And even if the Holy Antonio, Archbishop of Florence, finds on dice as many sins as dots, and the Holy Bernard instructed the Abbot of Clairvaux to moisten each bite of bread with tears because the main purpose of the monastery is to shed tears upon the sins of the people and the monastery inhabitants; but a certain Abbot Abraham takes up the other side and allows even hermits pastimes, despite their most solid piety and extreme penitence. He even gave the example of the Holy John the Evangelist. I do not know from which legend he has this; he just says on dit, and common sense prevails in any case. His words are long, I wish to shorten them. John the Evangelist once played with a partridge by stroking it with his hand. There came a man, a hunter of note, and observed the Evangelist with wonder, because he was amusing himself with the animal in such an - to his mind - ignoble way; natural history was not yet fashionable at the time. Are you indeed the Apostle of whom all the world speaks and whose fame drew me here, how does this amusement fit with your fame? Good friend, answered the gentle John quite socratically: What do I see there in your hand? – A bow, answered the stranger. And why do you not have it taut and always ready to shoot? – Oh, that wouldn’t work; if it were always taut, it would lose its strength and soon be unusable. In that case, do not marvel at me, continued John; but my readers already know how a bow is used.

Nascitur ex assiduitate laborum animorum hebeduto quaedam et languor. - danda est remissio animis: meliores acrioresque requieti resurgent (Seneca “De tranquillitate animi”, Ch. XV: prolonged work weakens and deadens the spirit. Let it recover, that will sharpen and strengthen it.)

The character of an individual is revealed by their needs, even by just one, and so often that of whole nations; the childish craving for Nuremberg baubles shows the uneducated childish spirit of the black man; spirits or swearing betray the half or entirely raw person; the finery and make-up tell of the previously always flirtatious Frenchman, and the alabaster saints that the Spaniard procures from Nuremberg convey his superstitiousness.

Equally, the character of a people can be determined from their games. They are a very reliable touchstone by which, as with silver, the degree of crudeness and refinement of a people can be fairly accurately determined. Barbarous nations in all ages and corners of the world love the games of war and of chance (gambling), driven by the need for change from action or rest for the body. Violent and dangerous movements, simulations of warlike scenes, threatening to spear someone or smash their head, accompanied by wild, discordant music, denotes in them the barbarous, still entirely unrefined and unadulterated heroic spirit; just as the submission to the destiny of blind chance signifies their inability to think and lack of culture of the mind, which gropes around under the yoke of superstition in the barren wasteland of the unclear, where he awaits the evil or benign influence of the spirits between fear and hope, and finds only in this expectation the greatest interest of which his childish mind is capable.

The warlike games of our most distant ancestors, as well as their raging addiction to games of chance, is known. Exhausted from using weapons against men or animals, they returned to their huts and slept away the tedious time or gambled away possessions, property and freedom with dice. Restored once more after resting, driven by need, stomach or action, they took up weapons again, with hunting rifle or began warlike games.

Dice and weapons were beloved of the Huns, who knew almost no other laws than those of the hazard game.

It is possible to live entirely Germanic, like North American Teutons, with the Lenape and Iroquois; war or hunt, eat or sleep, game of chance or warlike games. Also here the gambling addiction is insatiable. Plum stones are used as dice, blackened on one side and yellow on the other. Placed in a bowl, the player throws them to the ground, left to chance, and passionately awaits their rise and fall. He scores five when he has the highest number of the winning colour, and wins the game when he scores five eight times. The lively participation of the spectators is betrayed by their loud shouting mixed with the rattling of the stones with each throw, as well as the dreadful facial contortions of the players and their emotionally charged grumbling against the evil spirits signify their brutal heads and unrestrained passions.

This is how whole villages, even whole tribes, play against each other. Instinct calls, they return to the hunt or to lively games, especially to dancing, a daily activity. A deerskin stretched over a barrel, pot, or hollow tree sets the beat in dull tones. The men lead the dance, the floor trembling from their stamping, and the air from their yelling. The modest woman follows silently and soberly with few motions. The dance is only hero-like for men. Each dances alone with daring and agility, proclaiming his own deeds or those of his ancestors, whilst the onlookers set the tempo with a raw tone. Even more frightful is the war dance, the simulation of general warlike slaughter. Does this description not reveal the main characteristics of these nations unadulterated and open for all to see? Let us for a moment ignore the cultural standing of the ancient Thracians; a game like this, which was common for them and related by Athenaeus, will bring us back to this. A man stood on an unstable stone holding a sickle. A noose was hung around his neck from the roof. Suddenly, one of the company knocked the stone over; and the poor fellow who had drawn the short straw, hung in the air. If he did not have enough presence of mind to immediately cut the rope with the sickle, would twitch to death accompanied by the laughter of the spectators. No-one would believe me if I attributed this game to the refined, educated Greeks or even the gentle Tahitians; I would be far more able to relocate it to New Zealand; an indication that the character and games of a nation are very closely linked.

These revealing details should therefore not be overlooked by the historical researcher who is not just concerned with regents, but far more with documenting the biographies of nations. “An enlightened spirit disdains nothing. Nothing that concerns people, nothing that distinguishes him, nothing that reveals the hidden workings of his heart, is irrelevant to the philosopher. And where is a person less on his guard than when he plays? Where is the character of a nation more accurately mirrored than in their most popular pleasures? - What Plato says about the music of each nation, applies also to its games; there is no change in them that is not a precursor or the result of a change in his moral or political state!"

I said that games are important trifles; for if, on the one hand, conclusions about the moral and political state of a nation can be made from their games, then, on the other, from that precise connection, it can be concluded that games will have a marked influence on character, and that they therefore belong to the educational means of whole nations. It is in the nature of things that they were often chosen according to the prevailing character, that this preceded the other. In this case, they would at least help to reinforce and cultivate it. Nonetheless it cannot be denied that they often came before this or that character trait were there, and helped to generate it. Often just an entirely random example of some distinguished person is required. If a king were to leave his cabinet exhausted from the cares of ruling and always head to play ballon or ball on the castle courtyard, then ballon and ball would soon replace cards in his residence, the provincial cities would soon follow and both games would have a most considerable influence on the character and state of health of his people, were not precisely the crown prince effete and continues where his father left off.

Card games were invented at the end of the 14th century and introduced for the amusement of the court of King Charles VI who was insane for almost thirty years. The consequences of this seemingly small matter are virtually impossible to assess. All Europe felt them and still feels them, and in some respect they gnaw at the roots of future generations. The court wind blew cards over all France, over Spain, Italy, over the whole of Europe! It was cards that progressively displaced the better exercise games and facilitated the effeminacy of nations, particularly the more noble classes. The proscription of war and hunting exercises, of tournaments, of pall mall, ball and shot games etc. was especially pursued by the card kings; they were largely responsible for the transformation of manly knighthood into French nobility, the annoying citizen wearing musk perfume.

Regents, lawmakers, philosophers, who understood the important influence of the delights on the national character and on the weal and woe of nations, paid great attention to games from time immemorial; Lykurg organised physical exercises, societies, and dances of the Spartans; Plato for the inhabitants of his republic; Emperor Justinian abolished gambling and replaced it with physical games (they were: jumping, pole vaulting, javelin, but without tip, horse racing, and wrestling). Charlemagne and Louis IX made game rules; Charles V of France issued orders against all gambling and recommended pure physical games and exercises (...amongst us the spirit of industry has already begun to make comments about civil target practice. I should like to live amongst a people that only works like a beast of burden and knows no social pleasures. His spirit shrinks and turns in on itself, just like his hands and fingers; stomach and purse become his idols, self-love will soon entirely displace brotherly love; because the public joy of citizenship is broken, the most beautiful bond that holds citizens together. If you want to pay off poverty by sacrificing public enjoyments, the loss is greater than the gain. O, there are completely different sides which can be improved in the relationship between the state economy and the economy of the citizen); Peter the Great introduced public entertainments to make his people more sociable etc.

In short, such orders would fill a good quarto manuscript, and exceed it if the endless number from councils and synods were included. The commands of unjust kings were often like the axe of woodcutters, they shattered whole countries; but could they ever entirely vanquish the card kings? They often caused upheaval in neighbouring states; but could they ever incite the subjects of the card kings to rebellion?

Go to cities, communities, families, where the spirit of chance and card games dominates, and look at the local mentality and the economic and physical condition. The sentence: “you will know them by their games” will be proved correct. Spadille has bleached this pale, sorrowful face; this distraction has produced nothing; nothing yells in the ears of the writer, there lies the pen; nothing in those of the judge, there lie the files etc.

I will not mention lotteries, that is the business of the distrainor in the pawn shops. It is an eternal shame that my games can never be a financial matter, for I would then be a hit; they would receive a massive boost and probably secure a profit in health and strength easily as big as the debit to the pocket from lotto. But enough of this hint; the material relating to the moral and political value of games would hardly fill a whole book.

If games can influence whole nations and achieve a marked change in their condition, then they are also an educational tool for youth, and I would dare through opposite treatment in games to make two entirely different creatures out of two quite similar boys, regarding their physical and mental states, even if, according to the most recent Hanover discoveries, education is neither science nor art, but who knows what.

Or is it in the first place so difficult to accept that a boy who over ten years receives a sensible variation between mental seriousness and physical fun, I mean between spiritual education and healthy physical exercises and games, that such a boy must thrive much better than if he had the same spiritual education but is allowed to seek recreation in cards and dice? As long as I cannot be convinced otherwise, I hold these trifles to be of educational importance. At this point, I must say something about the educational benefit and necessity of games.

1. If the greatest secret of education lies in the mutual contribution of mind and body exercises to recreation, then games, particularly active games and any physical exercises, are essential. Were this sentence not also in Émile, every schoolchild would declare it when he discards the book after the lesson. The same generally expressed impulse by young people proves this as sharply as the sharpest rational conclusion. Nonetheless, somehow there are people who entirely disregard the above sentence. “But”, they say with Cicero: “ad severitatem potius et ad studia quaedam graviora atque majora facti sumus.” (we are rather created for severity and for certain more important distinguished activities.)

I myself am entirely convinced of this, but believe that after mental education there can be no more serious study for young and old, than that aimed at the health and development of the body and amusement of the mind, because mental education is useless without it, just idle capital slowly rusting away. And whoever indeed believes that the hours where serious exertion of the mind cannot be continued must be used for something useful, e.g. for drawing, playing the piano, for organising insects and minerals, and the like, he has no real understanding of the economics of the young or adult human body, he is incapable of properly judging the useful against the more useful; he prefers the moon to the sun because it is so gentle and saves street lighting oil.

It is of course very feasible to entirely avoid all kinds of games and sustain oneself purely by merely switching between serious mental exertion and those playful activities; except I do not believe that this approach, especially with young people, can prevent a certain effeminate weakness, idleness, and bodily flabbiness.

In short, it must first be proven beyond reasonable doubt that the cultivation of the body is a farce, of no value to us, that our mind does not need the body, that it has no influence at all on our activity, on our character, and on the kindling or extinction of the divine spark that glows within us; when that has been done, the demands of nature have been refuted by the greatest doctors and most esteemed thinkers, then I will be silent and accept that I have preached nonsense, then I will be happy to claim that the time for recreation can be spent more nobly than with games and physical exercises.

If that is not possible, then I will not only summon doctors and thinkers to my aid, but even the saints, and maintain with Francis de Sales: “qu'il est force de relächer quelque fois notre esprit et notre corps encore ä quelque sorte de recreation; et que c'est un vice sans doute que d'etre si rigoureux, agreste et sauvage qu'on n'en veuille preridre aucune sur soi, ni en permettre aux autres.” (that it is necessary to grant our mind and our body some kind of recreation every now and again, and that it is doubtless a crime to be so strong, sharp and hard to grant neither oneself nor others recreation)

But should young or old scholars and educators of youth find it scandalous to play with young people, I refer them to Heraclitus who organised the boys games as teammates at the temple of Diana at Ephesus; or to how Socrates played with young people, to Scaevola, Julius Caesar and Octavius, who played ball eagerly, to Cosimo de’ Medici, who improved the whistling of his small grandson in public areas, to Gustav Adolf, who played blind man’s buff with his officers etc. It is only possible through an incomprehensible error of logic to regard billiards, skittles, and cards in public houses as entirely decent, yet public play with children as indecent.

2. Boredom is one of the most oppressive evils which, like some illnesses, turns a patient into an intolerable creature. Youth also suffer more often and habitually from this illness than the educated man. In the past, sources of entertainment were limited, so in future they will not think twice, but almost always feel, think and act on the spur of the moment. Past and future take them aside and befriend them, and when they have diverted them with suffering and joy and their causes, this provides them with material for evaluations, plans, pipe dreams and worries, until the irrepressible present takes charge and commandingly says what to now leave and what to do. So youth are missing two partners unrivalled for entertainment. Who can replace them other than their adult friends; they get material for activity from them, be it serious occupation, be it play.

3. Work, serious activities, and dealings with adults are artificial roles for young people, in which they gradually appear on the great stage; games are natural roles for them in their youthful paradise. There they appear disguised in stage dress, here in bare nakedness; so there it is difficult to make out their true character, but here it is always easy. Even the direction of their future way of life can be made out here and there through play.

4. A pupil’s indifference to all things scientific is a mistake from a tutor and puts everyone’s patience to the test. He works on a tree that will not bloom nor bear fruit; at the end, he cannot see the result of what he did; his assistant, the natural curiosity of youth is missing. He soon loses all hope because he believes the reason for this indifference lies in the temperament of the child. If he lets the child play, and is thereby participatory, keen, and active, then the blame for the indifference lies not in the child, but in an external influence. But even if the child is naturally on opium, it should, I would think, be possible to make a big difference through games, particularly active games.

5. There is a certain sensitivity that makes us easily take every small thing badly and reflect this immediately in our conduct. It is known how badly this goes down in society; who wants to touch a barrel that bursts as soon as you touch it? There are people, who out of insensitivity and good humour happily serve everyone and join in the laughter about themselves. If this is caused by a lack of delicacy or maybe a certain obtuseness, it is indeed an important mistake, but a greater, at least far less bearable one is that sensitivity.

The less sensitive person feels at home everywhere, is always welcome in society, he is known as a man who you can get on well with, who never takes offence; the other, the excessively sensitive, suffers for every small reason, the traces of displeasure and consternation are already drawn on his face when he is ribbed even in the slightest due to a small oversight or awkwardness; he cannot control himself and this alone causes him to be uncomfortable. Some games are very good at reducing this kind of sensitivity, by learning to bear things by laughing them off appropriately with a certain manly composure and openness. They accustom themselves to seriousness through fun, first learn how to bear banter and ribbing in the jovial world of games, and thus also cope with the serious world with more ease. If this failing is caused by a too great nervous irascibility, hence in the body, then the influence of physical exercises and active games outdoors can often banish it entirely, at least reduce it; if it resulted from a too delicate and too isolated upbringing, whereby each child easily becomes used to a singular, particular treatment and takes umbrage at any other, then play is the most admirable and clearly effective means. This failing yields not to reasoned argument and persuasion, but only exercise and experience; boys like this often need to be teased, ribbed, and chided over their sensitivity particularly by their peers, not in a premeditated way, but through the natural occasion of a game.

6. To win the hearts of children, you play with them; the always serious, admonishing tone may be able to instil respect and reverence, but it is not so easy to open up the heart for natural, unrestrained friendship and openness. One is always most open only towards one’s peers; the particular attitude of elders and higher classes makes us reticent, so people prefer to mix with people similar to themselves.

The educator gets closer to a young person through games, the closer he gets, the more he opens his heart to him, and relaxes when he sees him as a teammate, and he has the chance to inspire memories which would not be the case during study. Moreover, memories are more fruitful when evoked by someone of equal age and standing. We hear the voice of our own whole class, so a rebuke given from one pupil to another in quiet and in the bond of friendship and equality usually has greater effect than one from the teacher; from the mouth of the latter it sounds too adult, too old, whilst the other is young enough to be observed.

7. Games simulate the path of human life in the most diverse ways with a vividness in detail which can reach youth in no other way, through no other activity and situation. For nowhere is youth so little restricted by adults in its activities, in its whole contributions, so nowhere does it act more naturally, free, and more in line with the path of human life than here. Here you suffer a small insult, hastiness, unfairness, boast, finesse, a dashed hope, an uncomfortable character, a slow head, a fool, a jerk, superior mental and physical powers; here is cause for pain and sorrow, as well as joy and happiness, here is a chance to gauge the grace, skill, merit etc. of our fellow humans.

The young person is smoothened like a pebble in a stream, it’s always better to happen sooner rather than later, when the stream is not so foul and mouldy. Parents who raise their children rurally in small, domestic settings and protect them from the world of children, are well-meaning, but their educational plan is surely very poorly designed; they run the risk of having wilful, intolerant, inexperienced and too sensitive descendants.

8. Games spread cheerfulness and joy, delight and laughter amongst youngsters. If everyone were always merry and amused, surely not so much ill would occur. A sullen mood is not the benefactor of good and pleasantness; a continually earnest character is already less morally well-rounded than one where earnestness and fun are mixed harmoniously, even with equal purity of heart. The facility for all three is inborn, but the education lies in upbringing and in the educational circumstances. It remains always advisable to keep youth in a bright, cheerful mood, and include games to facilitate just that in education.

The more young people joke and laugh, as distinct however from actual foolishness, the more they are given space to show their natural, likeable openness, the more they are distanced from silent, sad introversion, that is never pleasant because they both induce distrust in pure morality; in short, the better they prosper in body and soul.

The holy Bernhard, mentioned above, is supposed to be no more an educator than the holy Basilius, who held laughter to be forbidden for all true Christians, and to complete the picture, the holy Gorgonie was not an educator because she detested all laughter and even regarded smiling as debauchery.

“The more they induce laughter”, said Basedow about games, “the more effective they are. I wish that adults both in the lower as well as higher spheres would joke and laugh more than they do. - Laughter is a human activity that exercises and strengthens both body and soul, and must have its place, whatever the cockeyed and bilious devotees may have to say.” He even advises a publisher to undertake a work of four to six alphabets with the title: “The innocent laughers”.

9. Games are necessary to maintain health, to strengthen, exercise, and harden the youthful body. It goes without saying that this only refers to physical games outdoors, not cards, or dice, or games of chance. I have had most varied and long opportunity to observe the influence of these games and physical exercise on many effete, fearful, modest, inactive and maladroit persons and have found them to be always admirable. Because I have already said a lot on this in my book on physical exercises, there will be no further discussion of this here.

That’s enough about the benefits of games; they also have their downsides that cannot be entirely ignored. Plato maintains there is nothing more damaging than to give children all kinds of games because this makes them fickle, open to tedium and a constant craving for new things. I don’t have a copy of the original any more, but it seems this is more about toys. In that case, nothing could be truer.

But you don’t need to go to Greece; I myself have had plenty of opportunity to observe the influence of games on a group of children that is easily large enough to reveal it; because the size of such a contiguous group increases the influence of the game. I have observed that far from all, rather just a few children become fickle as a result, thinking more about play than work, and fly into a somewhat too wilful mood. However, this is usually only those lads whose liveliness often verges on wildness. This is most evident in spring, a time when all creatures lapse into a certain joyful rebellion, a time when the fathers of a certain congregation in France, engaged primarily in education, call out to the schoolmasters at their school visitations: “Voila un temps orageux qui s'eleve; vos ecoliers vont de-venir intraitables; mettez-vous donc sur vos gardes, armez vos bras et doublez les chätiments!” (There will come a time of unrest; your students will not restrained. Be watchful, arm yourselves and increase punishments). It is not just probably that the season is more to blame than play; one’s own observations are most convincing here. Should youth alone remain cold as nature works on the regeneration of all creatures and gets all juices flowing? - However, even if we attribute nothing to the season, and only to games, a judicious friend of children will know how to moderate such capriciousness, partly through imagination, partly through methods; and in any case it also remains a very true observation, that such lively children often only then play best attention in class when their body is to a degree tired from action.

Games reduce the appetite of youth for work, they long to play and neglect work. This cannot be disputed. Only a very small number of people work to the true principle of perfection and beneficence of good around themselves; were the others able to ignore their stomachs, reproduce clothing on their skin like sheep, and live in their self-produced houses, they would indeed not work, but just have fun; for even if people are offered activity, they do not immediately like that which involves dry exertion, rather only that which is pleasurable; he only ever begins to like the other through practice and routine. If principle and necessity are the only drivers that set human hands and heads in motion, they both belong in the planning of youth education because we are raising them for this world.

It is therefore not enough to memorise that principle of perfection, but also sheer necessity maintains the work schedule for youth, which remains as long as necessary the spur of their activity, until routine and affection for work develop. There is no reason for concern with children, teenagers and play, who are convinced of the inviolability of this principle, not with those whose work schedule is determined by immutable laws, for whom it is law: first work, then play. From this it becomes very clear that the reason for being work-shy is not due to play, but lies in a flaw in education based on a false assessment of natural activity. We have the most regrettable habit of using play to entice children to work, if you work hard, you may also play! 

“To exert oneself for a game”, counters as well a venerable ancient, “and to work, is foolish and childish; but to play in order to work, that’s correct.” It is unpedagogical and irresponsible to shift the purpose of work for youth in such a way. Concerning wantonness during the game, the presence of the educator must be of such weight to properly suppress it. In the end, there always remains a very natural means to indicate to any child that commits this mistake caused by games: you cannot play because the game has a bad influence on you; try to master the game, only then may you play etc.

There are many types of games, sitting, active, instructive, group games, card, dice and gambling. Which games are the best? Which should one preferably play?

It is certainly not my intention to promote the sitting ones, namely dice and games of chance, because one of my main goals of this book is far more to help remove the taste for such from the circles of the young. These deplorable games which provide nothing for body nor mind, but instead are harmful to both, belong either on the lowest rung of mankind, in the hands of a raw savage who cannot think, or in those of the weak sophisticate who does not care to think, instead weakly allows himself to be titillated by chance. The well-bred youth should be neither, so should never even learn about either games. Even the best card games do not belong in the educational plans of the young.

On the one hand, for all I cannot bring myself to wrest them away in the evening from the man who has laboured manually all day, even though they could be replaced with far better games; on the other hand, they are to be condemned for all those who do no manual labour.

After Herodotus, the Lydian King Atys was the inventor of most of the ancient Greek games. His land lay in ineluctable famine; necessity focuses the mind, in his case his inventive drive, so the games had a majestic source. He thus shortened the time that his hungry people otherwise would have found very tiresome. He divided them into two halves, the first ate today whilst the other played, and tomorrow the other way round. Everyone would be satisfied with this move of a kingly head, but equally who could not laugh at the realisation that Atys also preferred physical games, e.g. ball games, that are suited to awaken hunger but not satisfy it.

However, this absurdity is in principle not as great as a similar, perhaps even greater, one perpetrated by the most cultivated classes of Europeans, who should surely know better than King Atys in the olden days two and a half centuries before the Trojan wars? What would he say if he heard that, following sedentary mental work, they want to recover by sitting and assailing their minds with the most fatal passion arousing games, and that before and after eating they spend hours on end in near silence fixed to games tables in their societies?

Woe betide you, o youth, if you conform to this laughable custom, it would almost be better to play under King Atys until death by starvation than allow your still healthy mind and body to rot. In the character of a nation it has to be a most estimable move for every rational person to significantly discriminate against those games, if not entirely held in contempt, rather than healthy exercises and other innocent games.

How badly it becomes Hercules when he discards the symbol of his strength, the mace, stunts the game of his lusty muscles, and trifles with a spindle like a woman. The so-called noble classes are like him, originally strong and brave, they leave their powers and weapons to rust in the lap of weakness. Sitting, especially card and chance games, have had an incredible influence on this for a long time. I hereby release them for ever, in that I recite this verse as farewell: “Initio furiis ego sum tribus addita quarta.” (I, gambling, have been added as the fourth to the three Furies)

Regarding this question there still remain many different games. Some are primarily to exercise the body, others to exercise the mind, either with the body entirely at rest, intentionally, or they allow sometimes more, sometimes less physical exercise. The resolution of these questions is best derived from the purpose of play. Why do we play?

The purpose is always:   
a) Entertainment to combat boredom, or   
b) Profit, or   
c) Recreation from work.

a) Bored people look for entertainment. If this is the only purpose, then all types of games are equally good, whatever fancy takes you according to time and place. This is therefore no criterion to judge by. But above all, boredom does not belong in the life of an active person, and equally not in education. 

b) Talk of profit is here as just as misplaced as talk of conquest of hazelnuts and almonds; but the profit in refinement of the mind, in education and strengthening of the body does deserve consideration here; for life is short and the row of links in the chain of education long. On its own, this contributes little to resolving the above question, because all good games afford this benefit, be they sitting or active, and so cannot determine the application of the various types of games.

c) Recreation is the true purpose of all games. In accordance with this, the answer to the above question is extremely easy. Recreation is a need, like sleep. It is always based on change of activity. There are largely two types, mental and physical. If human nature, particularly that of youth, could bear continuous serious activity, then complete recreation would come from the change between mental and physical work. Alone the change between seriousness and fun is required because recreation is thereby improved by a far greater degree. The answer to the above question flows from the natural law of change, all types of games are equally good, both sitting and active, as we have already seen in a) and b). Their use depends on the preceding serious activities, were they mental, then the game is physical, and vice versa.

This principle is so evident that it is difficult to counter. Sitting games thus belong in the main to those who do not exercise the mind much, who work with a lot of physical activity; active ones to the quiet, sedentary worker, as well as the friends of the sciences and arts. But thanks to our unnatural lifestyle, our scholars, artists, our gentility, in short, those who would wear long nails in China, play like warriors, fencers and ploughmen; from the writing desk they go to chess, from the Cabinet or from hosting a long meal to cards.

The main work of education is intellectual development, because it is the mind that actually makes the person. Please indulge this well-known, but here most useful thought. If one acknowledges its truth, then intellectual development, proportionate with the object to be educated, should always be taken seriously, never made a game of, in order to enable recreation for the working of the mind; on the one hand, because this recreation is not real, and on the other, because this steps outside the natural order and breaches the rights of the body; the lower the level of education, the more its rights should be upheld. Active games are therefore the most advisable and excellent means for recreation of the still youthful, weak mind. However, due to time, place, and circumstances, this in principle correct sentence very often suffers from neglect. Young people don’t sit all the time, they have often had enough action in the day, time and place prohibit physical games, in which case all other forms are appropriate.

A large number of games are to be found in this book; I rejected an even larger number. I am accountable to my readers; so I will now fulfil this by formulating my thoughts on the necessary characteristics of games. We leave all games that are spiced with double entendres, love innuendos, kisses etc. to the frivolous society of adults. Games for young people are only innocent, nothing graces them so much as innocence.

No game is disreputable for them, or entails something immoral; indeed I would add that in my morality for children, laughter, noisiness, loud calling, running and jumping in the right place and at the right time, do not belong to immoralities.

No game contains something against the sentiment of nobility and beauty, if it does not contribute to strengthening this sentiment. I hope no such game can be found here. Immorality can be found everywhere, but that is not my fault, rather due to the clay of society. Boys often play thief, they judge and hang, that is hideous and Thracian raw like the Anchonä.

A game can be childish, which is no mistake if it is for children; for a game can be declared by the wise to be respectable or proper, be charming and beautiful and is even less suitable for children than for adults. This is my short defence of small flirtations that will be found here and there.

Dangerous games are not good, because health and life are not joking matters. For this reason I have omitted the odd game that might have been of novel interest. But it should be borne in mind that dangerous is a very relative term, for even on your sofa you are not safe.

No game is entirely devoid of content, of no use; no-one does anything willingly without some purpose. Games therefore have to be in some way beneficial exercises for young people (also for adults). They have to exercise the body sometimes more, sometimes less, and promote its health, by running, jumping etc., or through cheerful laughter and gentle exercise. They must bring speed, power, and suppleness to the limbs, harden the body against pain by chance or design, and spark one then the other sense into action. They must be entertaining for young people, duly stretch their expectation, their ambition, their activity, duly dampen their too great sensitivity, test their patience, their levelheadedness, and to a degree put their youthful courage to the test. Ultimately they are exercises for observation, memory, concentration, fantasy, intellect etc.

We have no game that alone completely fulfils all these telling requirements, but there are many that nearly fit this picture, at least very nearly meet one or the other requirement.

The human spirit is very present in games, as Leibniz said: “il s'y trouve ä son aise.” (it is likely to be found there). That is a great hymn of praise for games in just a few words. The number of games is truly legion.

That great man placed them into three classes, he divided them into a) those that are based purely on numbers, b) those where it depends on a particular situation (“oü entre encore la Situation”), and c) those with action. I don’t like this classification, partly because it doesn’t cover all games, partly because it’s made solely according to the game material, which is by no means the main point of games. The usual classification divides games into sitting and active, which is good, but if we consider society, educational, and games of chance, then this is nothing but confusion of terms.

It appears to me that the only correct classification of games must be derived from its main principle, namely from the activity, arranging them according to the various ways in which this is expressed. The source of activity is not the body, thus there are no purely physical games, passive movements of the body must be assumed, even if purely in the mind. For that reason all active games are linked to exercising mental capacity. Alone the motivation to action is often expressed more by the body, thus physical or active games; often more and often entirely by mental energy, thus mind games; which are called sitting, or better, resting games, because the body is less, incidentally, or even not at all set in motion.

Thus arise two categories of games. A clear separating line arising from the nature of the matter itself does not at first glance appear between the two classes, but it is indeed there, between the majority of games. Only with a few games is it harder to determine their classification. With these, as with all of them, you assess the value of the exercise provided for the body on the one hand, and for the mind on the other. If the former is more significant than the latter, it belongs to the active games, and vice versa.

So for example, the game “The King is not at home” involves physical action, but alone the concentration exercise is predominant and more important than the minimal action indoors; I therefore count it as a resting game; but as soon as the same game is played outdoors under the name “The sculptor is gone”, with all kinds of body positions and with running and jumping, then the physical action is more valuable than the concentration exercise, and therefore belongs to the active games.

The activity of the mind, which occurs in all games without exception, is exerted via the various perceptual skills, be it fantasy, be it memory, be it wit etc. Even if these skills never seem entirely separate, but like parts of a machine, always operate somehow in connection, the one or other does surface on its own, or dominate over another.

Thus arise the various categories of games, namely:   
1. Observation games with sensory decision-making   
2. Concentration games   
3. Memory games   
4. Imagination and wit games   
5. Mind games with a high degree of evaluation   
6. Taste games

Finally, due to the presentation method of a system of games, note should be taken of the equipment; this consists of shots, balls, disks etc., often even the players themselves. Thus arise the various types of games, as ball games, shot games, disk games and group games, to which belong all those that use the people themselves as the equipment.

**Classification**

Class one – Active games

A Observation games with sensory decision-making

a) Ball games

b) Disk games

c) Shot games

d) Skittle games

e) Post, ring, and other games

f[) Winter games](http://www.sportpaedagogik-online.de/gutsmuths/spiel32.html)

[g) Group games](http://www.sportpaedagogik-online.de/gutsmuths/spiel34.html)

h) Night games

i) Solitary games

B Concentration games

C Imagination and wit games

D Purely physical games

Class two – Sitting or resting games

A Observation games with sensory decision-making

a) Group games

b) Solitary or solo games

B Concentration games

a)  Group games

b)  Solitary games

C  Memory games

D Imagination and wit games

E Taste games

F  Mind games with a high degree of evaluation

a)  Group games

b)  Board games

**Class one – Active games**

**A Observation games with sensory decision-making**

**a) Ball games**

**5. Torball (or English cricket)**

This game is unknown to us, and comes from England; there it meets with near universal approval, particularly when I add that, over there, as with billiards, it is played for money in strict accordance with rules, even by the most exalted people, and so precisely for that reason everything is assessed, measured, and determined according to rules. Indeed, it is an admirable game, which can also be played not for money by young and old, and deserves, even as a game for money, if adults are unable to play otherwise, much to be preferred to card games; for here the money is at least invested in very real profit for health.

Instruments: A good one in England costs about a guinea, but we Germans need only a few pennies for one. The wad of coarse woollen yarn for the ball is first softened in water overnight, then wound very tightly around a piece of cork, then baked. The coat is of strong, tanned and dampened leather, extremely taut. The ball weighs exactly five and a half, maximum five and three-quarter, ounces. No need to be precise.

The bat for adults must be hard wood, and can be lighter wood for children, three and a half feet long (more precisely, up to the full height of the hips of the player), four and a half to three-quarter inches wide. See figure 3c for the shape, and section b for the rest of its manufacture. It’s a pretty solid instrument, which is one and a half inches thick at the thickest point at the bottom.

The wickets can be finely turned, but you only need rods which can be cut from a nearby fence, see figure 3c. Such a wicket of three forked rods stuck in the ground is, according to the rules, two feet high (more or less) with a six and a half inches long crosspiece of wood (the bail) lying at the top in the forks. The rods are placed close enough to each other so that the ball cannot pass between without touching them.

There are two forms of the game, double and single.

**Double wicket**

The company should not be less than eight strong, most conveniently twelve, but there can be even more people. They split up, as in the German ball game, by drawing lots or by agreement into two numerically and in ability equal teams. Next comes the decision, as for instance in Appendix I.2, on which team plays first, that is they start. The wickets are placed 25 to 30 paces (to be precise, 66 feet) apart and parallel on an as flat as possible area, covered with short grass or even completely bald and hard. See figure 3 x-y. The three and a half feet long bowling crease o-o is marked in the ground with its backward-running side borders n-n, and also both batting creases m-m, four feet inside and between both wickets, or a touch more than the length of a bat. Following these preparations, the game can commence.

Assuming each team is made up of six people, that gives us a, b, c, d, e, f and 1, 2, 3, 4, 5, 6. The first ones go out to play, that is they hit the ball to score points. To this end, two of them, e.g. a and b (the best batters are usually not left to the end), make their way, each with a bat, to the batting areas, i.e. between o-o and m-m sideways beside their wicket, so there’s one on each of the places p. The other members of their team do nothing except for one who notches the points on a tally stick. But their opponents go to the places 1, 2, 3, 4, 5, 6. Players 1 and 2, in the bowling crease, roll the ball along the ground towards the wickets, that is 2 towards Y and 1 towards X, in an attempt to hit them. They do this as fast as they can, and with considerable force. But both batters a and b are like guards and try to hit the ball away with their bats, and keep it away from the hands of the opposing team 1-6. Upon hitting the ball, or if the ball evades the hands of the opponents 1-6 and has to be retrieved, a and b change places, that is, a runs to the previous batting place of b, who runs to that of a. If the ball is far enough away, they try to repeat this as much as possible, because each time they swap over, their team notches another point on the tally stick.

For their part, their opponents try to get a or b out as soon as possible; this can happen in a number of ways, which will be indicated below. Should a or b indeed be out, a teammate, e.g. c, takes his place, and the game continues as before. In this way, the batters get out one by one, and are replaced by one who hasn’t yet batted until there are none left of a-f. If the last pair of batters are at work and one of them gets out, then both go out, because there’s no-one left to replace them, and the team a-f has finished its first innings. Now it’s the turn of the opponents 1-6 to get points, and a-f take up their vacated places.

The game continues in this way; if 1-6 had the first innings, then a-f return to have the second, etc. The number of runs to be made can be determined at the start of the game, e.g. 44, 36, even up to 101 if there are many players, and the aim is to see which team can achieve it in the fewest innings and with the fewest hits. But it’s much more usual and better not to have a target number of runs, but to determine the number of innings of each team, and the winner is the one that scores the most runs in one, two, or several innings.

Now an understanding in the following laws about how the batter gets out.

The batter is out:

1) If the rolled ball hits his wicket so that the crosspiece falls out or a rod is taken out of the ground (or if preferred, when the ball just touches the wicket?)

2) If the ball is struck in the air and caught by one of the other team.

3) If the crosspiece is knocked off by one of the fielders with the ball in hand or by throwing it, when the batter is out of his batting crease, or is not holding the bat within the crease. (This is often the case when the batters are changing places and are not quick enough, or when the batter has jumped out of the batting crease after a faulty shot, or forgets to put his bat quickly enough behind the crease after a shot).

4) If the batter leaves his crease in order to prevent the catching of a hit ball.

5) If his partner has hit the ball in the air and he hits it again, or if he hits the ball on to his wicket.

6) If he touches or picks up the rolled ball by hand before it has stopped moving.

7) If he uses his leg to keep the ball from the wicket, be it by kicking or just placing it in the way, and the ball indeed hits his leg.

8) If he is careless and hits the wicket with his bat, or even knocks the crosspiece off.

9) If the crosspiece is knocked off a wicket by an opponent when the batters have passed each other in changing places, then out is the one who is running towards it. If they haven’t yet passed each other, then out is the one who left the broken wicket.

Laws and rules for the players

a) For the batters:

1) If the opponents don’t have the ball, but it’s not far away, and the batters want to change round, the one whose wicket is nearest to the ball doesn’t have to run straightaway, but can wait until the other batter has almost reached his place. The reason for this becomes clear with experience.

2) He shouldn’t hold the bat in front of the wicket as the rolling ball approaches, nor should he walk in front of it. The bat must be held high above the ground, ready to strike, as soon as the bowler from the other wicket calls: “Play!”

3) He may not sweep the whole length of the bat along the ground, but must try to hit the ball properly, and only once.

4) When he hits the ball, it can be that the ferocity of his strike takes him out of the batting crease; he should then immediately get hand, foot or bat behind the crease because if the bowler or any of the opponents should grab the ball and throw down the crosspiece before he gets a hand, foot or bat behind the crease, he is out. But as soon as the bowled or hit ball is back in the hands of the bowler, and he, the batter, has had his hand, foot etc. behind his crease again, he no longer needs to hold his position until the next call of “Play!”

With this game, it’s probably best to make it a rule that hand or foot don’t count, and that the bat must hit the ground after a strike; if it’s done after the bowler has hit the wicket with ball in hand or by throwing, then he’s out. This seems even better to me.

5) If the ball has been hit so that it flies towards the wicket from which it came and knocks the crosspiece off, then the batter at that end is out; but he is allowed to prevent this, even with his body.

6) If the ball has been hit and the opponents want to catch it, the batters may do all they can to prevent it, except touching the catcher or the ball.

b) for the fielders:

1) The players 3, 4, 5, 6 see to it that they catch the struck ball and, as is almost always the case, get it to the hands of the bowler as fast as possible. They therefore have to be able to throw the ball to hand well in order to prevent the batters changing places.

2) The bowlers in i and 2 may only bowl the ball and not throw it, because a ball thrown at the wicket is illegal. If the ball comes towards them, they have to stop it quickly any way they can in order to hit the wicket before the batter obtains his ground with his bat.

3) When bowling they must have one foot inside the bowling crease n-n, o-o, otherwise the ball is illegal.

4) They can tell the batters on which side of the wicket they have to hit.

**Single wicket**

If there are only about six in the group, single wicket cricket can be played. Only one wicket and one bat are needed for this. Assuming the wicket at Y, we place a bat between the two wickets at 7, split the group into two equal teams a, b, c und 1, 2, 3, and let the former go into bat first.

The batter places himself at p, the bowler on 7, one of his teammates at z behind the wicket Y and player 3 in the same area; in fact player i, to bowl the ball from 7 to the wicket, 2 and 3 to catch it and throw it back to the bowler. The batter tries to hit the ball back and away as often as it is bowled; should he succeed in this, or the ball somehow evades the hands of his opponents, he runs to the bat at 7 as many times as the absence of the ball allows, touches it with his and runs back to his batting crease. His teammates mark one notch on the tally stick each time he does this. If he gets out, b and after him c, go out to bat; then the team 1, 2, 3 go to bat etc. For those that are familiar with double wicket cricket, I need add no more, because the same laws and rules apply to single as to double wicket.

There is no need to sing the praises of cricket, it speaks for itself; for it has almost everything that one can ask for from a physical game. It is admirable outdoors exercise, provides a lot of enjoyment, exercises the lower and upper limbs in running, throwing and hitting, is simple, and can be very enjoyably played without betting, as slowly or as strenuously as one wishes. At the same time, it tests the ability to judge in various ways, and requires a high degree of concentration.

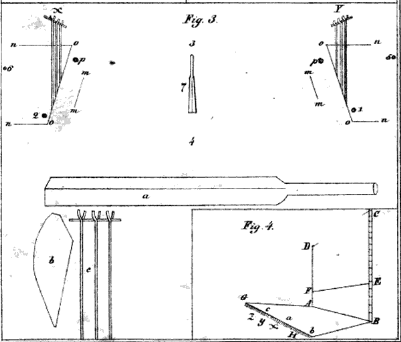
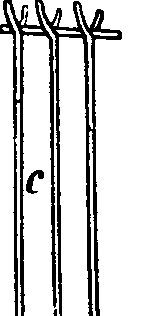


Fig 3c



Appendix I.2 

**Drawing lots and choosing**

To decide which of two teams gets first choice, each captain chooses a side of a gold coin, which is thrown into the air, and the one whose chosen side lands face up gets first choice for his team.