

The Eugenic College of Kantsaywhere

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THE EUGENIC COLLEGE OF KANTSAYWHERE.



-- by --

SIR FRANCIS GALTON, F.R.S.

*Please return this to
Sir Francis Galton
Gray's Inn House
Hendons*

*Please return L- to F. Galton, Gray's Inn
Harbours.*

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THE EUGENIC COLLEGE OF KANTSAYWHERE.

EXTRACTS FROM THE JOURNAL

-- of the --

late PROFESSOR I. DONOGHUE,

revised and edited, in accordance with his request,

by

SIR FRANCIS GALTON, F.R.S.

The man

^{never was} Mr. Cory ~~had~~ died a little before this date, leaving ^{f2}

all his property in the hands of trustees for the use of the Council at Kantsaywhere and their successors. He desired in his testament that ^{the} ~~its~~ income ^{should} ~~was to~~ be employed in improving the stock of the place, especially of its human breed. The methods of doing so, in force at the time of his death, were to be continued, with such future changes directed towards the same end, as experience might suggest. The College was to grant diplomas for heritable gifts, physical and mental, to

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encourage the early marriages of highly-diplomaed parents by the offer of appropriate awards of various social and material advantages, to relieve the cost of nurturing their children, to keep a minute register of results, and to discuss those results from time to time. He laid down the principle with much emphasis, that none of the income of his property was to be spent on the support of the naturally feeble. It was intended, on the contrary, to help those who were strong by nature to multiply and to be well nourished. The practice of charity, in the ordinary sense of protecting the feeble, ^{however commendable in itself} was to be left to such other agencies as might be formed independently of the College and not disapproved by it.

The 200 inhabitants of 1820 have now become 10,000, partly through natural increase at the full rate of the present population of Russia, where, in every decade, 100 becomes 140. At this rate, in 90 years the 200 would have become 4,000. Immigration accounts for the rest.

The Trustees of the College are the sole proprietors of almost all the territory of Kantsaywhere and they exercise a corresponding influence over the whole population. Their moral ascendancy is paramount. The families of the College and those of the town are connected by numerous inter-marriages and common interests, so the relation between them is more like that between the Fellows of a College and the undergraduates than between the Gown and Town of an English University. In short, Kantsaywhere may be looked upon as an active little ^{community,} town, containing a highly-respected and wealthy Guild. So much for the early history of Kantsaywhere.

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I had never been so keenly looked over before. It is the way of Kantsaywhere, for everybody is classed by everybody else according to their estimate ^{or knowledge} of his person and faculties. f5

Let me explain at once that what they are concerned with in one another are the natural, and therefore the only heritable, characteristics. We ^{have} hear much in political talk of the "prairie value" of land, that is to say, of its value when uncultivated, neither fenced nor drained, ploughed nor planted, only to be reached over the waste, ~~without the help of roads,~~ and having neither houses nor farm buildings. Applying this idea to man, as if he were land, it is the prairie value of him that the Kantsaywhere

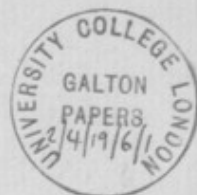
people seek to ascertain. ^{He's} ~~its~~ "brute value" would be
 a proper expression ^{if employed} in the original sense of that word,
 but "brute" has acquired so many disagreeable connota-
 tions that if used ^{here} ~~in the above sense~~ it would be ~~liable~~
~~to be~~ misunderstood.

I learnt that I was only just in time to undergo
 the first of my two examinations. It was merely a "Pass"
 one, but a necessary preliminary for admission to the
 "Honour" examination, in which the more successful
 candidates are classed in order of merit. The ^{Honour} examina-
 tion of girls for the year was just over, and the ~~honour~~
 lists were to be published that very night. The eldest
 daughter of the house, Miss Augusta ^{All fancy} Armbruster, was a
 candidate, and all the family were keenly anxious to
 learn the result, for it would have an important effect
 on her after-life. It seemed tacitly agreed that nothing
 should be said on this matter until the results arrived,
 so they were only too happy to have their thoughts
 diverted upon English topics and on my own affairs.

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In Kantsaywhere they think much more of the race than of the individual, and on my expressing a faint surprise, the family argued to the following effect. - "Suppose a person to be one of the two parents of four children. He or she contributes a half share to each, which is much the same as a whole share to two. This process may ^{continue} ~~go on~~ indefinitely in a growing population, ^{like their own} so his or her influence on the race ^{may} ~~would~~ increase in geometric proportion as the generations ^{go} ~~went~~ on. A person is therefore ~~far~~ more important as a probable progenitor of many others ^{now a less likely chance} than as a mere individual. ~~Moreover the individual might~~ ^{may} ~~leave no offspring at all.~~

I learnt that the object of the first examination was to give a Pass certificate for ["]Genetic ["]qualities. By genetic is meant, all that is transmissible by heredity, whether it be of ancestral origin or ^{else} a personal sport or mutation. The refusal to grant a Pass certificate is equivalent to an assertion that the person is unfit to have any offspring at all. By a second-class certificate, that permission is granted, but with reservations, of which more will be said later.



In reply to my expression of diffidence as regards my own success, I was emphatically reassured by my late scrutineers as to my personal capabilities, which Tom was pleased to rate at "30 at least", a term which will be explained later. But what my ancestral claims might be valued at, was another matter. They assured me that my sponsor, Mr. ^{Alfancey} ~~Armbruster~~, had already submitted an outline of them to the examiners in as favourable terms as the information warranted, and that he was quite satisfied with them for pass purposes, but ^{was sure that} ~~thought~~ they were insufficiently authenticated to receive ^{adequate} ~~much~~ credence from the examiners for honours. Consequently much fewer marks might be awarded me for my ancestry than I probably deserved. They all expressed surprise at foreigners knowing so little with exactness about their grandparents and other ancestors, saying, that everyone in Kantsaywhere knew their own as well almost as if they had been their playmates and comrades, and that they all possessed an abundance of well-authenticated facts about them.

I was told on inquiry, that those who were placed ⁴⁹ high in the list, as Miss Augusta was, were justified in expecting numerous advantages on their marriage, that as many of them as there were vacancies in the College ~~AM~~ (there were ten in the present year) were elected Probationers, and therefore future recipients of those advantages if their husbands were also adequately diplomaed, but not otherwise. What the girls most thought of, as Tom afterwards told me, was a marriage between two probationers whose joint marks exceeded 200 and who had at least 2 stars, ^{of which more will be said later} It gave the right of having the marriage conducted with special ceremony, and of its being known and recorded as a "College marriage". The offspring of such marriages are reckoned foster children of the College during their childhood, and they and their

"College parents" are helped in many important ways. But Tom added that his sister, in order to ^{obtain} ~~obtain~~ one, must marry a man with at least 107 marks and one star, and that very few of such unmarried men are available. I took full notes of what Tom told me of the advantages attached ~~with that~~ to a College wedding, ^{and} ~~to~~ others which were a little short of having a "joint 20 marks and two stars", but I must get them verified before putting the results into my journal.

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Retain if recast

CHAPTER V.

Pass and Honor Examinations.

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March 21st. Tom took me in the morning to the Examination Hall for the Pass Examination, where I went through physical tests, which I need not describe particularly, *as* they were ^{*similar to*} ~~much the same as~~ those which all Englishmen undergo before admission into the Army, Navy, Indian Civil Service, etc. ^{*But*} ~~Only~~ it was more strict and minute, *and* In the medical part, it was such as a very careful Insurance office might be expected to ^{*require*} ~~make~~. I was much questioned about the papers that Mr. Armbruster had ^{*attest*} sent in, as regards my personal knowledge of the authorities for the facts there set forth. They then smilingly gave me a first-class P.G. (Passed in Genetics) degree, and I had to imprint my fingers on their Register, for future identification if necessary. So I returned to my host with ^{*one small portion*} ~~the first instalment~~ of ^{*my*} ~~my~~ load of anxiety taken off my mind.

I heard a little now, but must inform myself more particularly hereafter, as to the fate of those who failed to pass. A Bureau was charged with looking after the unclassed parents and their offspring, and much was done to make the lot of the unclassed as pleasant as might be, so long as they propagated no children. If they did so, kindness was changed into sharp severity.

Labour Colonies are established where the very weakly are segregated under conditions that are not onerous, except ~~in the single restriction of living in celibacy.~~ *that they must work hard and*

It is difficult to describe the indignation and even the horror felt at Kantsaywhere, at acts that may spoil the goodness of their stock, of which they have become extremely proud and jealous. They look confidently forward to a coming time when Kantsaywhere shall have evolved a superior race of men. As it is, the people who are born there and emigrate, nearly always excel most of their competitors, *on equal terms* and return in after life with sufficient means

to end their days in tranquillity near their beloved college.

March 25th. This was the first of the four days to be occupied in the annual examination of ^{about 80} candidates for Honours, one quarter of them in each day. The examination consists of four divisions. The first is mainly anthropometric, the second is aesthetic, ^{& literary} the third is medical, and the fourth is ancestral. Many examiners are employed, and a staff of skilled clerks in addition. The examination is conducted in batches, each batch being assigned a particular hour for beginning, ^{for being} and thence forward ~~being~~ submitted to the four sets of Examiners successively.

My batch had to present itself at 12 noon. At that hour I handed my Pass Certificate to an official who sat in the Hall, by the entrance to a long enclosure of lattice-work, through which everything was easily seen from the outside. The enclosure contained a row of

narrow tables ranged down its middle, on which most of the measuring instruments were placed, the heavier ones standing on the ground between them. ^{Those} ~~Such~~ instruments ^{that} as required a longer time for their use than the rest, were duplicated. A passage ran between each side of the tables and the walls of the enclosure. Five attendants, each having one candidate in charge, ^{were} ~~are~~ engaged all day long in making a tour of the tables in succession. The candidate emerges and is dismissed at an exit-door, which is separated from the entrance by a low gate, over which the official can lean while he sits.

Immediately after entering the enclosure, my attendant made me ^{sign} ~~write~~ my name and impress my blackened fingers on a blank Schedule. It contained numerous spaces with printed headings, which the attendant filled in with pencil as he went on. He took me round the enclosure, testing me in turn by every instrument and recording the results. They referred to stature, both standing and sitting, span of arms, weight, breathing capacity, strength

of arm as when pulling a bow, power of grip, swiftness of blow, re-action time, discrimination (blindfold) between weights, normality of eye, acuity of vision, colour sense, acuteness of hearing, discrimination of notes, sensitivity of taste and of touch, and a few other faculties. Lastly the state of my teeth, which are particularly good, ^{and my mouth} ~~was~~ ~~tested~~ ^{were inspected.}

The entries to my schedule now and later on were, as I heard, to be examined and checked by clerks whose business it was to translate the Measures into Marks, according to a definite system. ^{related faculties} For ~~example~~ a sheet of paper, ruled in squares, ^{was} ~~had been~~ prepared ~~for~~ Weight and ^{in combination} Strength ^{on which} a series of successive weights was written down ^{the} ~~the~~ side of ~~it~~, and a series of strengths along ~~the~~ ^{its} top. In the square where the line of the one was crossed by the column of the other, the appropriate Mark was written. This was copied out by the clerk for the use of the Examiners. But more will be said later on of their Measures and Marks.

I was next taken to another part of the Hall and submitted to an examination for aesthetics^{literature}. I was given both prose and poetry to read aloud before the Examiners, A copy of these extracts ^{having} ~~had~~ ^{been} ~~given~~ ^{handed} to me to peruse beforehand. Then some simple singing was asked for. After this, a few athletic ^{games} ~~exercises~~ were gone through, as well as some marching past, and the Examiners noted their opinions on my Schedule. Then I was allowed an hour to write four short essays on given subjects. This was the only literary test.

I should say that they lay much stress on the aesthetic side of things at Kantsaywhere. "Grace and Thoroughness" is a motto carved over one of the houses for girls in the College, and I have seen it repeated more than once in embroidery and the like. A loutish boy and an awkward girl hardly exist in the place. They are a merry and high-spirited people, for whose superfluous energy song is a favourite outlet. Besides, they find singing classes to be one of the best ways of bridging over the differences

of social rank. Musical speech and clear but refined pronunciation is thought highly of, so is literary expression and this examination is intended to test all these. The 'arry and 'arriet class is wholly unknown in Kantsaywhere.

I was then medically examined in a private room, very strictly indeed, and much was asked about my early ailments and former state of health. Here again I need not go into details, for they can easily be imagined in a general way, even by a layman. It is wonderful how adroit the skilled medical examiners become in their task. Nothing seemed to escape their sharp observation, whether of old scars or any internal abnormality. My few defects were *and I thought my vaccination marks had become invisible* unimportant, but they were quickly noted and minutely examined. The principles on which marks are to be awarded are fully laid down in printed directions.

Lastly came the consideration of my ancestry. The papers communicated by Mr. *All fancy* Armbruster were produced and again looked into *and criticised* but much more minutely than before, and

the values^{of the} of authorities for the facts stated in them were keenly discussed. I lay under a difficulty here. The official records made at Kantsaywhere are so minutely kept, that the requirements of the examiners have grown to be extremely rigorous, as regards the evidences of ancestral gifts and maladies. All immigrants are more or less suspected. Besides this, such evidences as would require little confirmation in England, owing to the public ^{knowledge of the} characters of their ^{high} authorities, may, and do require more confirmation here than can easily be collected at home. I deeply resented my own ill luck in this matter. The examiners told me only what I was fully prepared to hear; but expressed at the same time, much regret that they were unable to give ~~me~~ as many marks for ^{my} Ancestral Efficiency as I possibly, or even probably, deserved. In fact, I only got 5 marks for my ancestry.

This concluded all that I had to undergo. I had spent about one hour under anthropometric tests, and from half-an-hour to one hour under each of the other three, besides the hour in essay writing, or about four hours in

all, exclusive of intervals. Candidates were undergoing examinations in different parts of the Hall at the same time, but not necessarily in the same order. The Medical room was wholly separated from the rest. The Examination Hall was in full use during 6 hours ~~of the day~~, so with duplicated examiners, more than 20 candidates could be wholly and easily examined in ^{a single} ~~one~~ day. Four such days dealt with all the 80 candidates. The clerks were simultaneously employed, each in copying and in reducing entries and adding up figures, which, after being checked by other clerks, were submitted to the chief examiners. Those gentlemen had also overseered and taken some part in the examinations.

The maximum number of positive marks that could be gained by each candidate is four times 30 or 120. A star * might also be gained in each subject. The marks were totalled, and ^{about half of them usually} ~~mostly~~ ranged between ⁴⁵ ~~+50~~ and +70. None of the candidates were given negative marks; ^{for} those who would otherwise have received them ^{having been} ~~had~~ already

These Supplementary Marks are supposed to attest that the natural
 Capacity of the person who receives them, exceeds that which was
 offered by the original number of Marks he had received.

In the evening, I found the party much saddened by all news, to the effect that one of their dearest friends, who had made a college wedding with much éclat a few years previously, had given birth to a deformed child. I expected to hear from Mrs. Bell fancy some severe remark on the subject, but was mistaken. She was most sympathetic with the family as with the child. The college was ^{informed of its existence} ~~informed of its existence~~. The marriage of its parents had its highest approval. It was brought into the world in conformity with the rules of the associate. The misfortune was due to some overlooked cause which might or might not be of a kind that would hereafter be understood and could be provided against. No blame whatever attached to the parents who should be whole-heartedly condoned with. The child should be in no way discouraged in account of its natural defect except as regards absolute prohibition hereafter to marry.

been weeded out by the Pass Examination. The names and marks of those who gained 70 marks and upwards are published in the newspaper, together with such brief notes as each case might call for. This part of the publication is official and wholly under the editorship of the Registrar.

I learnt that supplementary marks might ^{and often were} be accorded for especially good service to the community subsequent to the examination. They had to be proposed by the Board of Examiners, and the grounds for the proposal had to be set forth in their Annual Report. This was submitted to the final approval of the General Meeting, which was almost always given as a matter of course.

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I do not know much in detail about the examination for girls. It is carried out by women examiners who had taken medical degrees elsewhere, and is, I was assured, as thorough as that which I had myself undergone, and was considered to be as trustworthy.

There is a bi-furcation of the Examinations both for girls and boys, part of each of them being intended for

the more cultured class and part for the hard workers,
whether on farms or in town. *I think I need not go into particulars.*

I enquired minutely whether they ^{were unable to} could not devise
some test for endurance or staying power, which seemed to
me one of the most important of those they had to con-
sider. ^{It seemed} I ~~heard~~ that they had not as yet succeeded in
eliminating the effect of practice. Neither were they
enabled to examine into character directly ~~and~~ as a separ-
ate subject, partly because it was not fully developed at
the usual age of examination, and partly because of the
extreme difficulty ^{then} of estimating it justly, the teachers
and the comrades of a girl or boy often making sad mis-
takes of judgment.

I was assured that no doubt was felt as to the trustworthiness
of the marks given by the examiners, as a general rule subject rarely
to exceptions, such as might be expected. The sons of College
magistrates were unmistakably superior in bodily & mental gifts
to those of the ordinary folk of Kanton where, and these again
compare very favorably with those of neighboring districts. Besides
this numerous results are pointed out in which comparisons are
made between the children of highly educated parents & of those
who are less highly so. All concern in showing the general superiority
of the former, just as we find in all cases where we expect
of the offspring of various qualities of any domestic animals. ^{Agreement}
persuasion of this truth forms the firm basis of the customs and
ideals of Kanton where.

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down to p.43

CHAPTER VI.

The Calendar of Kantsaywhere.

Too many I's

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I returned to my host's house, where I was congratulated on having gone through my ordeal. I felt sure of success in the anthropometric part because I was something of an athlete, having rowed in a University race. I was also good in other respects, being ^{reputed by good judges to be} so prompt and sure a shot, that I have been urged, in all seriousness, to go to Monte Carlo and compete there for the valuable pigeon-shooting prizes. I knew I was all right medically, and thought I might do fairly in aesthetics. I, however, saw clearly that I was not even yet received with perfect freedom, except by Tom; the others evidently waited to learn how I should be placed, before letting themselves go, so to speak. They did not as yet invite me to accompany them to the houses of their friends, so I had much spare time, and thought the best way of occupying it until the lists were out, was ^{stay indoors and to} to make a careful study of the Calendar of Kantsaywhere College.

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It is very common that marriages between two noble
 Protestants are not ^{particularly} ~~so much~~ approved. The thought is that the
 girls, being very young, say about 22 years of age, which gives
 them time to mature both physically and get advantage of more
 than 4 generations being produced in each century. As for the men,
 they have to establish themselves in life some occupation, which
 cannot usually be done till nearly the age of thirty. Consequently
 many social gatherings are arranged to bring together young
 girl Protestants and older unmarried men also of the same
 profession. Persons may fall in love in Kantons, which
 as they do in England, on grounds more or less accountable to
 others, but it is felt here that the best girls & the best men should
 have the ^{proper} ~~best~~ opportunity of becoming friends & the earliest chance
 of falling in love with one another.

I saw little of Miss Augusta at this time, as she was invited to a succession of parties. The first four were official invitations given to ensure that each ^{girl} probationer, ^{and of the same sex} ~~of either sex~~, should be made acquainted with each ^(An equal number of male probationers) of the other. ^{of three or more years older in standing;} The ~~group~~ ^{are} of male probationers ~~is~~ divided more or less at random into two groups A. and B; the females into F and G, then the four official invitations are to A and F, A and G, B and F, B and G. They have an amusing old-fashioned method of grouping and re-grouping the guests at these entertainments, in order that each girl should have a full half hour of conversation with each young man. It approached to romps and banished diffidence.

I was surprised to learn from the Calendar, of the large extent of the College possessions in farms, houses, hostels and funds, which were used to encourage early marriages among the most highly diplomaed, I also perceived that the collegiates must look upon themselves, as they did, as a great family community, out of which

about one half of the members of each new generation were obliged to seek their living elsewhere, just as it usually happens in English families now. The Calendar ~~also~~ contained the names of all who, since the date of the preceding edition, had either received marks exceeding +70 or any special award. The record in the Calendar of their doings was minute. It corresponded in length to the paragraphs of Burke's or Debrett's Peerages, but differed totally from them by containing anthropological facts, and little else. It was a mine of information for enquiries into heredity, yet it was described as being only a brief abstract of what was preserved in MSS. in the records of the Registrar.

Tom had hinted to me that he thought his sister was slightly chagrined at her marks falling short of one half of those required for the great honor of a College wedding. The number and names of the men amongst whom she must marry, in order to secure one, was very small, and could easily be found from the Calendar. I looked

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for them and found only ^{twelve} ~~six~~, some or all of whom might be already engaged.

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The large property of the College consisted, first, of the original endowment, of which the income was now retained in England and had been accumulating during recent years to form an Emergency Fund. Secondly, of the fee simple of the district and all the houses, etc., that had been erected on it since the beginning of the Settlement. Thirdly, of gifts and bequests from former Collegiates, in gratitude for their rearing and in payment for its cost. Fourthly, the annual Eugenic Rates from Kantsaywhere. The inhabitants submitted as cheerfully to as heavy a rate in support of the College, as we do for the support of our Fleet, namely three quarters of £1 per head of the population. We, in England, numbering some 45 millions, contribute about 35 millions of pounds annually to the maintenance of our Navy. Here, the 10,000 inhabitants contribute £7,500 to the College, and could easily be persuaded to contribute more, if it were really needed.

or who are parents of children whose average marks exceed 10
and whose total marks exceed 200,

In very round numbers one half of the income from the last two sources, from gifts and from rates, goes to the Examining, Inspecting, and Registering Departments, which together form the soul of the place. The other half goes to collegiates who really need help to enable them to give proper nurture to their large families. This is done very judiciously on the joint recommendations made to the Committee of Awards, by a Board of District Visitors in conjunction with the District Inspector.

The Chief Medical Inspector is one of three High Officials, the Rector and the Registrar being the other two. These are elected by the Senate ^{at its Annual General Meeting} for a term of three years, and are re-eligible. The Senate consists of all resident collegiates of either sex, who had gained at least 70 marks, and is the supreme Authority, but in quiet times, the above-mentioned three high Officials, together with a Council, ~~also~~ annually elected at the General Meeting, manage matters very

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much in their own way. This constitution works very well on the whole, though with occasional ~~small~~ jars, much as those which occur in our leading Scientific Societies at home.

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An important Committee of this Council is charged with the care of those who fail to pass the Poll examination in Eugenics. Such persons are undesirable as individuals, and dangerous to the community, owing to the practical certainty that they will propagate their kind if unchecked. They are subjected to surveillance ^{and annoyance if} ~~when~~ they refuse to emigrate. Considerable facilities are afforded to tempt them to ^{go} ~~do so~~, and agents of the College, who are settled in the nearer towns to which they are most likely to drift, are prepared to take charge of them on their arrival. Their passage out is paid, small sums are granted to them at first, ^{on the condition of their} ~~but they are~~ never ~~allowed to~~ return to Kantsaywhere. They must renounce in writing all its privileges before ^{being} ~~they are~~ allowed the cost of deportation. Not a few of these persons

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do well enough, especially when the ^{principal} reason of their rejection is some hereditary taint, and not personal feebleness.

As regards the insane and mentally defective, suitable places for their life segregation are maintained in Kantsaywhere. With so small and Eugenic a population, the cases are few and easily dealt with.

The Regulations printed in the Calendar confirmed the view I had already formed, that the propagation of children by the Unfit is looked upon by the inhabitants of Kantsaywhere as a crime to the State. They ^{people} are not misled by the specious argument that there is no certainty whether the anticipations of their unfitness will be verified in any particular case and that the ^{individual} risk may be faced, ~~because~~ They look on the Community as a whole, ^{the results of unfit marriages} and know with statistical certainty, which differs little from absolute certainty whenever large numbers are concerned, ^{For instance, they say} that ~~any~~ 1000 unfit couples will assuredly produce a number of children that can be specified within

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narrow limits, of each grade of unfitness, though they cannot foretell whether these children will be the offspring of A, B, C, or X. This same statistical certainty forms ~~everywhere~~ ^{all the world over} a large part of the foundation of laws and penalties ^{in every part of the world.}

There are many grades of expected unfitness, ranging from that of the offspring of the idiots, insane, and the Feeble-minded, at the lower end of the scale, ^{of close worth} to whom the propagation of offspring is peremptorily forbidden, ^{it be} whether by forcible segregation or other ~~drastic~~ ^{strong} measures, ^{up to} up to the moderate unfitness expected in the offspring of parents who rank only a little below the average in eugenic worth. The methods of penalizing, taken in the order of their severity, are social disapprobation, fine, excommunication as by boycott, deportation, and life-long segregation. // ^{degree of restriction} The ~~grade of penalty~~ varies from the limitation of their ~~family~~ ^{offspring of unfit parents} to a small number, ^{up to} or to total prohibition ^{of offspring}. They say, that limitation of families is now a recognized institution

among most of the ^{cultured} ~~higher~~ and many of the artisan and
^{in Europe and America} labouring classes, and there is no reason why a sentence
demanding it for the protection of the nation should not
be passed, and the infraction of that sentence punished
as a criminal act. As regards fines, if the defaulter
cannot pay them, he is treated with severity as a
bankrupt debtor to the State, being placed in a La-
bour Colony with ^{work and hard} hard fare until it is considered that
he has purged his debt. // With so small a population as the
10,000 of Kantsaywhere, and with the general high level
of breed of its inhabitants, the cases of marked unfit-
ness are not sufficiently numerous to require formal
classification in ^{different} ~~an~~ asylum. They can be more or less
individually dealt with by the Board of Penalties.

The difficulty must again be discussed here, relat-
ing to the introduction of unfit immigrants. Municipal
laws have been enacted ^{that one} quite as severe as those in
America, and elsewhere, to exclude impecunious immigrants,
^{they are enacted} but here for the purpose of excluding the immigration

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of the constitutionally unfit into Kantsaywhere. Ships, as already mentioned, are only allowed to disembark their passengers subject to the fulfilment of certain ^{accepted} conditions. If unfulfilled, the ship-owners are obliged to convey them back to whence they came.

Registered medical men are established at the principal ports from which immigrants arrive, whose certificate that a person has passed the ordinary test for fitness in body and mind, is accepted. It exempts him from the somewhat more severe ^{and tedious} examination, of which I have already spoken, which is conducted in a building attached to the Custom House and must be ^{successfully} ~~favourably~~ gone through before he ^{is} ~~is~~ allowed to disembark even for a short residence. They are required later on, to pass the poll examination ^{which} ~~before they are~~ allowed ^{them to become citizens of} ~~to reside permanently in~~ Kantsaywhere.

The grades of unfitness on the part of those who are married, are determined by the number of their joint marks.

Immigrant parents, both of whom have received positive marks at the Poll examination, may keep their children with them, but not otherwise.

The ~~restriction~~ ^{by public sentiment & by penalty,} restriction placed ^{in extreme cases} on the number of offspring that a couple may propagate in Kantsaywhere, ~~which~~ is based on that of their joint marks. If these exceed +20 the restriction is nil and large families are encouraged. If between +10 and +20 they are restricted ^{by public sentiment} to three children. If over 0 and under +10, they are restricted to two children. If between 0 and -10, ^{they are restricted by law as well as by sentiment} to one child. If below -10, offspring is wholly prohibited to them. The above concessions

were ^{established} made as compromised, after balancing conflicting claims, ^{It is necessary to take into account} ~~namely, that of~~ ^{needs of} the parents, ^{and} the advantages of family life, ^{and} the well-being of the children, ^{as well as} ~~and~~ that of the race.

~~It is thought unseemly for those whose marks are only a little above -10, to have large families.~~

41

f34

CHAPTER VII.

Return to court

Measures and Marks.

-----+++++ oOo +++++-----

A paragraph in the Calendar headed "Measures & Marks" greatly interested me in connection with my previous statistical studies. These enabled me to easily understand the methods used in Kantsaywhere, which must seem puzzling and fanciful to others to whom they are wholly new. Such persons will, I ^{expect} ~~think~~, skip this chapter.

The object is to measure bigness and smallness of all kinds in any specified race or quality, ^{on equal terms. It must therefore be by means of} ~~a~~ a measure that is independent of feet, metres, pounds, seconds of time, or any other standard units in which the measurements were actually made. ^{It must have another property also, viz.} Tallness in a horse and tallness in a sheep or in a mouse, are widely different when expressed in ~~in~~ ^{such as inches. It however} ~~ones or other~~ absolute measure, but ~~it~~ seems almost evident at first sight that ^{absolute measures} ~~the latter~~ admit of being translated into other units of measurement which shall include "For a horse," "For a sheep," or whatever the animal or breed

1/2 f.35

of animal may be. Such a unit is called in Kantsaywhere a "Var". There are many kinds of Vars which are convertible into each other, ^{in every "Normal Series" (of which more directly), just} as feet are into metres, by a simple multiplier. The particular Var that is used here is called a "Q-Var." Its value is found, as will be described directly, or rather I should say it could so be found, because the actual process is abbreviated. The last time of revising previous determinations of the Q-Vars at Kantsaywhere was in the year 1900, so the full designation of the present value of a Q-Var is ^{here} "Q-Var, ^{Kantsaywhere} 1900."

The principle of the process is this. As many male adults as can be persuaded to attend are measured, just as I had been, in height, weight, strength, etc., Then the ^{several} measurements of all the persons, in respect to each of these faculties, were ranged separately in series, in the order of their magnitude, beginning with the smallest. One quarter of each series ^{is then} ~~was~~ cut off from either end of it. The bounding value of the smaller quarter ^{is} ~~was~~ called q.1; that of the larger, q.3. Half of the difference between q.1 and

q.3 ^{is} ~~was~~ taken as equal to 10 Q-Vars, and half of their sum ~~was~~ ^{is} accepted as the middlemost value of the series, and ^{It is} also ~~as~~ ^{assumed to be} the average of all the values contained in the series. There is justification for this, as will shortly be seen.

Each measure is translated into the middlemost value of the series, plus or minus so many Q-Vars. The quickly increasing rarity of larger values than 30 Q-Vars, and the fear of untrustworthiness in applying them, have led the examiners in Kantsaywhere to limit their measures to a maximum of 30 Q-Vars, in each of the four principal divisions of the Examination. If the candidate obviously deserves still higher marks, they add a star * with accompanying explanation. Tom's exclamation that I was "at least 30 in personal qualities" was thus explained.

Measurement ^{by} ~~of~~ Q-Vars, or indeed by any kind of Var, in the case of all "Normal" variables, has the further advantage of affording ^{means} ~~a principle~~ whereby class-place may be converted into measurement, or vice-versa, notwithstanding that they run at very different rates.

f.37

A Normal variable is one in which the individual variations are wholly caused by the random combinations of a multitude of very small and variable influences, some pulling forwards, others backwards. A formula of the frequency of different amounts of variations, when ~~they are~~ expressed in Q-Vars, according to this hypothesis, was first worked out by the great Mathematician Gauss. The variations ^{found to be} are disposed symmetrically on either side of the middlemost values, those on the positive side rising and those on the negative side falling at exactly the same rate. It follows that the middlemost value is the mean value of the series. Various Tables have since been computed from ^{Gauss's} ~~the~~ formula.

Observations have shown that most anthropological measurements made of large numbers of persons, of the same race and general nurture, conform to this theoretical law ^{or normal} with a useful degree of precision, whence it is reasonably inferred that such faculties as cannot yet be directly measured, but which can be classified by judgment, will do

the same. The suitability of candidates for a particular post, or the goodness of essays written by different candidates, are cases in point. ^{in a Normal group of values} Whenever the objects can be classified, their class-places can be converted into Q-vars.

⁺ Conversion of Q-Vars into Centesimal Class-Places.

Q-Vars.	- 30	- 20	- 10	0	+ 10	+ 20	+ 30
Class-places. (centesimal)	2	9	25	50	75	91	98

⁺ See "Natural Inheritance" by F. Galton, 1888, page 205, and Sheppard's Tables in Biometrika, 1907.

Measures made in Q-vars are converted into Marks by multiplying them by a factor appropriate to the importance of the faculty measured. Suppose, for sake of simplicity, that only two anthropometric faculties are in question, and that marks have to be given to their measures ^{taken in sample} in combination. Let them be strength and ^{keenness} acuity of vision. These are certainly of very unequal ^{intrinsic worth} value, and must be treated as such. Let us then, as a mere guess, take the sharpness

of vision at only one half of the importance of strength. Then the first step, in translating these Measures into their corresponding Marks, is to halve the measure of vision. The factor for vision ^{will} ~~is~~ ^{be} therefore $\frac{1}{2}$, or 0.5.

It would be tedious to go farther into detail. The only object at present is to give a first general idea of the operations to be gone through in determining Marks. Processes that seem tedious in description are wonderfully lightened by the use of appropriate Tables, and the trained clerks are able to deal rapidly with what is submitted to them. The calculations of each clerk are of course carefully checked by at least one other clerk, working independently.

VIII
H

f.40r

CHAPTER VIII.

Marks gained by me - Society of the Place.

--+++++-- oOo --+++++--

The lists came out on March 30. I got 17 marks less than Miss Armbruster, i.e. 77, but under the circumstances it was a very fair performance and I at once noticed the change in the reception given to me. It was distinctly more genial and intimate than before, and I was begged to accompany my host's family to half a score of different places to which they were invited. The loss of marks I had sustained owing to an "English" ignorance of my ancestry, became generally known and allowed for.

I will describe in a few words my general impressions of the Kantsaywhere society, to which I was now freely introduced.

I had carefully guarded myself against exaggerated expectations of what might have been achieved by ~~the~~ selective breeding at this ^{small} place. It is but a small community and, though of a high general level, the highest variations

(insert in page 56)

The physique of the gods reminded me of that of the "Hours" in the engraving of the famous picture of "Aurora" by Guido, in Rome. It is a favorite picture of mine and I recall it clearly. ^{These girls} have the same massive forms, short of heaviness and seem promising mothers of a noble race. The simple way of gathering the hair in a small knot at the back of the head, shown in the dancing "Hours" is the fashion at Kantsag where so is the general effect of their dresses, only they are here more decorously buttoned or fastened, than are the fly away garments in the picture.

As for the men they are well built, ^{look in military drill and} practical, in athletics, very courteous, but with a resolute look that suggests fighting qualities of a high order.

Both sexes are true to themselves, the women being thoroughly feminine and I may add, mammalian, and the men being as thoroughly virile.

from that level cannot be expected to exceed those of an enormously larger population whose level is somewhat, and even considerably, lower. There are nearly 50,000,000 inhabitants in the British Isles and only 10,000 in Kantsaywhere; that is, they are 5,000 times fewer. Again, however far gone a population may be in its decadence, it will retain enough organisation to bring forward its best specimens. *when there is a demand for them.*


I was greatly impressed by the tone and manner at the social gatherings that I attended, which were at first those of the more cultured class. The guests were gay without frivolity, friendly without gush, and intelligent without brilliancy; they were eminently a wholesome set of young people, with whom one could pass one's life, not only in serenity, but with satisfaction and even a large share of keen pleasure. *insert from opposite page* ~~No~~ petty gossip or scandal is heard in their conversation, but a great deal is said about family histories and the prospects of the coming generation. These subjects occupied almost as

much of their talk as athletics do at a public school,
 or as the performances of horses in racing circles. And
 it was genuine interest too: for they looked upon them-
 selves ^{as I have mentioned more than once,} with obvious pride as a chosen race for the pur-
 pose of furthering humanity, and were as suspicious and
 guarded against unknown outsiders as a Jew against a
 Gentile, or a Greek against a Barbarian. This gave a
 prevalent, and not a disagreeable mannerism. It suggested
 a constant sense of noblesse oblige, far removed from that ^{not significant} ~~derogatory~~
 "Oxford tone" which implies that the speaker is a superior
 person to his listener. I think the selection of
 Kantsaywhere College folk may be rated at as about equiva-
 lent to at least the best quarter of that of the population
 of Kantsaywhere town, which itself has a high level. The
 Collegiate average must be fully equal to the best 12th.
 of an English population. Now 1 in 12 is that of the
 foreman of a jury and, unquestionably, the foremen play
 their parts, as a rule, very respectably. We are accustomed
 to appreciate bodies of picked men in many ranks of life

VIII 4

f.43

and know well how superior they are. The crew of an Arctic research vessel ^{are said to be} ~~is~~ a magnificent set of men. So are the Sappers and Miners. At a somewhat lower, but yet conspicuous degree of selection, stand the persons attached to those great and well-managed estates, and firms, whose service is so popular that they have always more candidates to choose from than there are vacancies to fill.



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Nothing struck me more than the photographic workshops, ^{f44}
for besides their immediate interest, a religious parallel
was drawn from them, which will be described further on.
There is a great demand in Kantsaywhere for composite por-
traits of families. The material for making these is abun-
dant and excellent, as it has long since become the fashion,
now grown into an obligatory custom, for everyone to be
photographed, ^{at reasonable intervals} both in full face and in profile, under
similar and standard conditions of light, in addition to
whatever more artistic representation may be desired.

I am a bit of a photographer myself, and was delighted
at the punctilious and exact way by which composite photo-
graphs were made. There was no ^{unacknowledged} faking, but the work was
strictly truthful throughout the whole process. The object
is, I need hardly say, to superimpose the images of many
different portraits, all of the same size, aspect and

*
note

See Composite Portraits by F. Galton, Nature 1878.

shading, in succession for a short time, upon the same
photographic plate. The scale of the portraits and
their emplacement require much precision. Here the
various reductions and adjustments are leisurely made for
each portrait and in a separate frame. When the photo-
graphy begins, the frames are dropped in succession into
their exact place, ^{guided by pins and} resting on a horizontal board below a
fixed vertical camera.

go on page 68

mit

145

I saw several beautiful composites in the Studio, ^{f46}
of men and women, respectively. Every family desires
at least four family composites, one of the Grand-
Parental series, including Great Uncles and Aunts on
both sides; another of the Parental series, including
Father and Mother, uncles and aunts; and ^{yet} another of
self, brothers and sisters. Lastly, one made from the
four grandparents and the two parents, allowing one
^{half} ~~quarter~~ of the exposure time to each grand-parent that
was allowed to either parent.

^a
~~The~~ peculiar interest ~~of this~~ lies in the close
analogy between composite portraits and their religious
imagery, as will be seen from what is now about to be
said.

147

Their creed, or rather, I f47r
should say, their superstition - for it has not yet
crystallised into a dogmatic creed is, that living beings
and pre-eminently ^{that mankind} ~~man~~, are the only executive agents of
whom we have any certain knowledge. They look upon life
at large, as ^{probably a huge organisation,} ~~an organised whole~~ in which every separate
living thing plays an unconscious part, much as the
separate cells do in a living person. Whether the
following views were self-born or partly borrowed, I do
not know, but the people of Kantsaywhere have the strong
belief that the spirits of all the beings who have ever
lived are round about, and regard all their actions.
They watch the doings of men with eagerness, grieving
when their actions are harmful to humanity, and rejoicing
when they are helpful. It is a kind of grandiose personi-
fication of what we call conscience ^{a variety of} into composite

f.47v

There is also much difference of opinion as to the power of these spirits, some think them only sympathetic, others ascribe the faculty to them of inspiring ideas in man; others again accord them with occasion of physical powers.

What is their vision, is beyond picturing. ^{Smallness} is amount of actual life with the much larger amount of elements of hypothetical life.

48 48
portraits. I expect that many visionaries among them, -
for there are visionaries in all races - actually see
with more or less distinctness, the beseeching or the
furious figures of these imaginary spirits. *whether as witnesses or as accomplices*

There seems to be some confusion between the family,
the racial, and the universal cloud of spirit-watchers.
They are supposed to co-exist separately and yet may
merge into one *or many different* whole. Everyone here feels that they them-
selves will, after their life is over, join the spirit
legion and they look forward with eager hope that their
descendants will do what will then be agreeable and not
hateful to them. I have heard some who likened life to
the narrow crest of the line of breakers of a never-resting
and infinite ocean, eating slowly and everlastingly into
the opposing shore of an infinite and inert continent.
But that metaphor does not help much. *me* It is quite
possible that if their confused ideas were worked out
by theologians, who firmly believed in them in a

IXG
on valid grounds
 and who were able to define the extent of influence that the spirit would exert over the living world,

general way, a very respectable creed might be deduced.

Their superstition certainly succeeds, even as it is, in giving a unity of endeavour and a seriousness of action to the whole population.

They have no fear of death. Their funerals are not dismal functions as with us, but are made into occasions for short appreciative speeches, ~~or for sermons,~~ ~~in the above sense,~~ dwelling lovingly on the life work of the deceased.

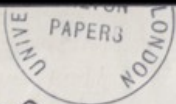
The houses near the town are ^{for the use of town dwellers, each} habitually ^{with small} villages, with gardens for flowers, vegetables and forest.

The extent of garden & agricultural land is about twenty-seven miles. There are about 300 holdings in all, of a rough general average of 20 acres each. About one half of these are let on a ~~long~~ long lease, especially to highly educated persons.

King's every married couple has perfect freedom in choosing his residence here, or in emigrating. ^{and change} The attractions offered to those who settle in the country are so large ^{in many} that the bulk of the population occupy farms or villas. A country life is considered to be so ^{continuous} healthy and long of duration that the diversion of a large part of the wealth of Rantay where is gladly allotted to its encouragement.

It is a great convenience to the Registrar to have so large a part of his charge located close at hand and for his Inspectors to have means of easily verifying doubtful statements by comparison with witnesses. Nearly every household undertakes some unpaid office connected with administration and there is abundance of local people of pettiestom who do this work well. Least a less gifted people their customs would hardly answer, but here it is otherwise.

The character of the farming at Rantay where is in some respects such as is described in Denmark but for the moral part it must have a closer resemblance to

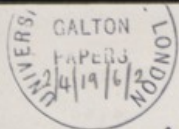


altogether - I fear my love
for Miss Jones is of the
limited order - anyhow
it seems to me that if
any one has it, it should
^{be Kantzay's whom}
^{or one of the Darwins?}
be Professor Pearson & I say
this is only my view, &
I don't want to urge it -
you & Sam will be better
judges than I. We all
enjoyed your & M.L.'s visit
so much. I wish you could
have stayed longer - your
affectionate cousin M.G.L.

f. 1r
Haven's corner
Minthead. March 27.

Write this
horribly untidy
dear Edward

I feel thinking of
writing to you about Kantzay
where when your letter came.
When I began the work of
execution, my heart misgave
me so much that I thought
I would begin by merely
"Bowdlerizing" it - and
then see. So I destroyed
all the story, all poor
Miss Augusta, the Homage



anecdotes & in fact every
thing not to the point -
but there were a good
many pages that I felt
myself incapable of
judging. So I am returning
you the mutilated copy,
hoping - (if you and Eva
could agree on the point)
that Prof. Karl Pearson
might see it. Unfortunately
Eva is not well enough
just now to be consulted,

so we must wait. Mutilated
as it is, poor Kautsky's work
can never be published, &
it is as safe from that as if
it were destroyed altogether,
but I think what remains
might interest Prof. Pearson
& possibly, though I doubt
it, be useful. Besides if
something survived, I should
not feel quite so much
like a Murderess! The
duplicate copy is destroyed

For PEN or PENCIL.

... THE ...
“TUDOR”
Memorandum Tablet.



200 PAGES.
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3^d.

Each Leaf can easily be removed without
loosening the others.



$$\frac{1}{F} = \frac{1}{f} + \frac{1}{f'}$$

$$F = 3'' \quad f' = 26 \quad f = 50''$$

$$\frac{1}{3} - \frac{1}{50} = \frac{1}{26} = \frac{150}{47}$$

$$47/150 \quad 3.10$$

$$141$$

$$90$$

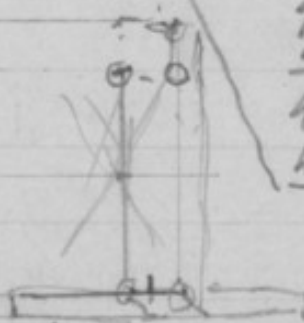
$$42$$

$$430$$

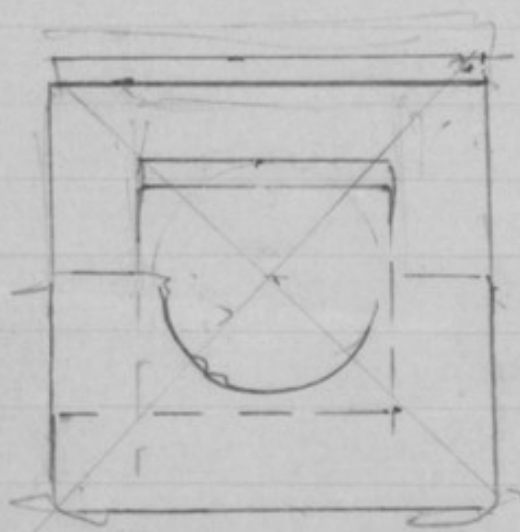
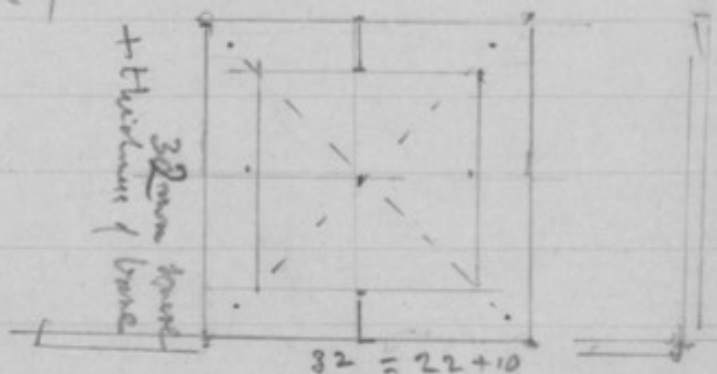
$$414$$

$$1.3$$

Diameter of lens 22 mm



4" total length of instrument



$$A:B = 100:12$$

$$z = \frac{100B}{A}$$

6

cy

n

str | cy st | ² coop | str | ⁵ Consider

not in nullis | internationalism

	1887 _A	1897 _B	100 $\frac{B}{A}$
United Kingdom	36.6	39.8	109
France	38.2	38.5	101
Germany	47.0	52.5	112
Russia	88.4	106.2	120
Sweden	343	380	111

$$100:96::95:n$$

$$96:90::90:n \quad z = \frac{8100}{96}$$

$$\begin{array}{r} 95 \\ 96 \\ \hline 576 \\ 864 \\ \hline 9216 \\ 96 \overline{) 8100685} \\ 768 \\ \hline 520 \end{array} \quad f3v$$

67.45

$$8^8 \quad 512$$

$$512^3 \quad 134217728 = 8^9$$

$$\begin{array}{r} 134217728 \\ 8 \\ \hline 1073741824 = 8^{10} \end{array}$$

f4ar

GRAYSHOTT,

Nr. HASLEMERE,

SURREY.

The $\frac{1}{2500}$ Ordnance Maps

that give the Village of Grayshott -

1910 Edition on XXXVII 14 + 13

ditto 9 + 12 give Grayshott Hall

& Land of Nod + To complete this

Parish of 700 aens a 5th map is required!

Two months ago this was the only scale
published of the New Ordnance Survey. probably

$\frac{1}{4}$ miles to an inch - are now ready

4c.

C. Lyndon

POST CARD



[28 Oct 1910]

f42v



Sir Francis Galton FRS

The Court

Grayschott

✓ Haskewere Bures

f.4bc

August 1910

I want you to read the little
 bit I have put about you,
 in my letter to Male,
 to see if you approve -

An example always explains -
 it's better to be written strong
 with Male

1051 021 643

Got all you want?
 and one strawberry

			Amity	Will
1.005	.002166	¹⁰ .02166	105.1	
		²⁰ .04332	110.5	5.4
		³⁰ .06498	116.1	5.6
		⁴⁰ .08664	122.1	6.0
		⁵⁰ .10830	128.3	6.2
1.01	.004321	¹⁰ .04321	118.5	
		²⁰ .08642	122.0	12.5
		³⁰ .12963	134.8	12.8
		⁴⁰ .17284	148.5	13.7
		⁵⁰ .21605	164.5	16.0
				3

f5

102	008600	r			
		10	.08600	1219	
		20	.17200	1486	26.7
		30	25800	1811	33.6
		40	34400	2208	3.97
		50	43000	2692	484
103	012837	r			
		10	12837	134.4	46.6
		20	25674	184.0	61.8
		30	38511	242.8	8.3.6
		40	51348	326.2	11.102
		50	64185	437.4	
101.5	006466	10	06466	116.1	18.3
		20	12832	134.4	21.6
		30	19398	156.0	25.4
		40	25864	181.4	29.1
		50	32330	210.5	
102.5	010724	10	10724	128.0	35.9
		20	21448	163.9	45.8
		30	32172	209.7	58.8
		40	42896	268.5	75.3
		50	53620	343.8	

f.6

$A = a + 1$	$\log A$	r	$r \log A$	antilog	diff	$2'$
.99.5	.997823	10	97823	95.1		
		20	95646	90.2	4.9	
		30	93469	85.9	4.3	
		40	91292	81.8	4.7	
		50	89115	77.8	4.3	
.99.0	.995635	10	95635	90.2		
		20	91270	81.7		
		30	86905	74.0		
		40	82540	66.7		
		50	78175	60.4		
.90.0	.954243	10	954243	.3497	2272	
		20	908486	.1215	1032	
		30	862629	.0183	10169	
		40	816872	.0014	0040	
		50	771215	.0004		
.80.0	.903090	10	90309	1.798	.0959	
		20	80618	41.5	0031	
		30	70927	.0684		
		40	61236	.0001		
		50	51545	.0000		

p. 7

.80 1.9031

.85 1.9294

.90 1.9542

.95 1.9778

-100

100

1

1

1010.004321

1

10 .04321

110.5

1100.009042

2

20 .09042

123.1

1100.013569

3

30 .13569

136.3

1120.018084

4

40 .18084

151.7

1120.022605

5

50 .22605

168.3

1100.5.002166

10

2.0217

1.052

.004332

20

2.0433

1.105

.006498

30

2.0650

1.161

.008664

40

2.0866

1.221

.010830

50

2.1083

1.283

1.020.008600

10

.08600

1.1219

20

.17200

1.1486

30

.25800

1.1811

40

.34400

1.2208

50

.43000

1.2693

6

$1+r$	$\log(1+r)$	n	$n \log(1+r)$	antilog	diff.	f8r
1.025	.010724	10	.10724	1.280		
		20	.21448	1.646		
		30	.32172	2.095		
		40	.42896	2.685		
		50	.53620	3.359		
1.030	.012837	10	.12837	1.344		
		20	.25674	1.805		
		30	.38511	2.428		
		40	.51348	3.262		
		50	.64185	4.384		
.985	1.993436	10	1.99344	.9851		
		20	1.98688	.9700		
		30	1.98032	.9552		
		40	1.97376	.9413		
		50	1.96720	.9272		
.980	1.991226	10	1.9912	.980		
		20	1.9824	.960		
		30	.9736	.940		
		40	.9648	.922		
		50	.9560	.904		

75	78	06	86	96	96
18	88	88	26	96	96

(This table recalculates before multiplication)
 Change of number in one generation of the
 descendants of 100 persons after various terms of
 years and according to different rates of annual change.

r = annual rate of change, n = number of years
 $(100 \pm r)^n$ = number in one generation after n years

(100 - r)	number of years				
	10	20	30	40	50
96.0	96	92	88	85	81
96.5	96	93	90	87	84
97.0	97	94	91	88	86
97.5	97	95	93	90	88
98.0	98	96	94	92	90
98.5	99	97	96	94	93
99.0	99	98	97	96	95
99.5	99	99	98	98	98
100.0	100	100	100	100	100
100.5	100.5	110	116	122	128
101.0	110	123	136	152	168
101.5	116	135	156	180	210
102.0	122	149	181	221	269
102.5	128	165	210	269	336
103.0	134	181	242	326	438
103.5	141	199	281	396	559
104.0	148	219	324	480	716

97

France 101

all records 110

France 120

8

log	log 1.000	n	n log (1.000)	antilog	diff
+.05	.995	10	.9997823	99.5	5
		20	.995646	99.0	5
		30	.993469	98.5	5
		40	.991292	98.0	5
		50	.989015	97.5	5
+.10	.990	10	.9956135	99.0	10
		20	.991270	98.0	10
		30	.986905	97.0	10
		40	.982520	96.0	10
		50	.978175	95.0	10
+.015	1.015	10	.06466	1161	176
		20	.12932	1347	176
		30	.19398	1563	211
		40	.25864	1805	26
		50	.32330	2105	306
+.02	1.02	10	.08600	1219	
		20	.17200	1486	27
		30	.25800	1811	33
		40	.34400	2208	39
		50	.43000	2692	49

$\frac{9931}{18} = 9986$ $\frac{9986}{13} = 9999$ $\frac{9999}{9} = 1111$ $\frac{9986}{14} = 999$ $\frac{9986}{15} = 999$ $\frac{9986}{16} = 999$ $\frac{9986}{17} = 999$ $\frac{9986}{18} = 999$ $\frac{9986}{19} = 999$ $\frac{9986}{20} = 999$ $\frac{9986}{21} = 999$ $\frac{9986}{22} = 999$ $\frac{9986}{23} = 999$ $\frac{9986}{24} = 999$ $\frac{9986}{25} = 999$ $\frac{9986}{26} = 999$ $\frac{9986}{27} = 999$ $\frac{9986}{28} = 999$ $\frac{9986}{29} = 999$ $\frac{9986}{30} = 999$ $\frac{9986}{31} = 999$ $\frac{9986}{32} = 999$ $\frac{9986}{33} = 999$ $\frac{9986}{34} = 999$ $\frac{9986}{35} = 999$ $\frac{9986}{36} = 999$ $\frac{9986}{37} = 999$ $\frac{9986}{38} = 999$ $\frac{9986}{39} = 999$ $\frac{9986}{40} = 999$ $\frac{9986}{41} = 999$ $\frac{9986}{42} = 999$ $\frac{9986}{43} = 999$ $\frac{9986}{44} = 999$ $\frac{9986}{45} = 999$ $\frac{9986}{46} = 999$ $\frac{9986}{47} = 999$ $\frac{9986}{48} = 999$ $\frac{9986}{49} = 999$ $\frac{9986}{50} = 999$ $\frac{9986}{51} = 999$ $\frac{9986}{52} = 999$ $\frac{9986}{53} = 999$ $\frac{9986}{54} = 999$ $\frac{9986}{55} = 999$ $\frac{9986}{56} = 999$ $\frac{9986}{57} = 999$ $\frac{9986}{58} = 999$ $\frac{9986}{59} = 999$ $\frac{9986}{60} = 999$ $\frac{9986}{61} = 999$ $\frac{9986}{62} = 999$ $\frac{9986}{63} = 999$ $\frac{9986}{64} = 999$ $\frac{9986}{65} = 999$ $\frac{9986}{66} = 999$ $\frac{9986}{67} = 999$ $\frac{9986}{68} = 999$ $\frac{9986}{69} = 999$ $\frac{9986}{70} = 999$ $\frac{9986}{71} = 999$ $\frac{9986}{72} = 999$ $\frac{9986}{73} = 999$ $\frac{9986}{74} = 999$ $\frac{9986}{75} = 999$ $\frac{9986}{76} = 999$ $\frac{9986}{77} = 999$ $\frac{9986}{78} = 999$ $\frac{9986}{79} = 999$ $\frac{9986}{80} = 999$ $\frac{9986}{81} = 999$ $\frac{9986}{82} = 999$ $\frac{9986}{83} = 999$ $\frac{9986}{84} = 999$ $\frac{9986}{85} = 999$ $\frac{9986}{86} = 999$ $\frac{9986}{87} = 999$ $\frac{9986}{88} = 999$ $\frac{9986}{89} = 999$ $\frac{9986}{90} = 999$ $\frac{9986}{91} = 999$ $\frac{9986}{92} = 999$ $\frac{9986}{93} = 999$ $\frac{9986}{94} = 999$ $\frac{9986}{95} = 999$ $\frac{9986}{96} = 999$ $\frac{9986}{97} = 999$ $\frac{9986}{98} = 999$ $\frac{9986}{99} = 999$ $\frac{9986}{100} = 999$

r	$\log(1+r)$	n	$n \log(1+r)$	antilog	diff
+.035	.014940	10	.14940	1410	58
		20	.29880	1990	81
		30	.44820	2806	115
		40	.59760	3959	163
		50	.74700	5585	
+.040	.017033	10	.1703	1176	
		20	.3406	2191	
		30	.5109	3242	
		40	.6812	4800	
		50	.8515	7104	
-.03	7.986772	10	9.98687	9701	38
		20	9.9736	9410	37
		30	9.9604	9128	35
		40	9.94728	8855	34
		50	9.93405	8590	
-.025	7.989005	10	.9890	9750	25
		20	.9780	9506	24
		30	.9670	9268	23
		40	.9560	9036	22
		50	.9450	8810	

7096
7104

9397
13
9410

10

$-r$	$\log(1-r)$	n	$n(\log 1-r)$	antilog	
-0.035	^{log 0.965} 1.984527	10	.98453	9649	338
		20	.98906	9311	323
		30	.95359	8986	314
		40	.93812	8672	303
		50	.92285	8365	
-0.040	^{log 0.960} 1.982271	10	.98227	9601	39
		20	.96454	9215	32
		30	.94681	8833	30
		40	.92908	8493	34
		50	.91135	8149	
	^{log 0.995} 1.99782	10	.99782	9952	
		20	.99564	9900	
		30	.99346	9849	
		40	.99128	9779	
		50	.98910	9752	

natural
unchecked fertility

labours - Boer colonial settlers - clergy

? occupations in regard to fertility, a tendency also,

- cattle & sheep. Heaps. - Race

little in relation to sterility - also fertility

203 Words in town - competing - as athletic with us - prizes,

Exhibition - newspapers - book of names, double first, fourth (9, 1)

Statistical - what is good for the State.

- Honour to parents of... First 12's, First Decimals, First Cent.

- 8 children good for 10 years only.

Lectures at the College. Professor & Research

Exhibition at the College. Prize given there

Particularly in regard to one, some certainty as regard money.

Kanaka War in agricultural, & supplying food to neighbouring mining settlements

College Female Prison, wives, Mah detached for farmers.

- Fund for exhibition & awards.

f. 14

1. To ascertain the most probable ^{believe} ~~correct~~ worth of an individual
from his own & his ancestors' achievements, ^{and} ~~and~~ the degree
of waste & wealth of each Ruler.

3 That a Register be kept of all Collectors ^{off} their families, containing all particulars considered necessary to carry out Rule 1

5. That the ~~unlawful~~ ^{unlawful} production of children by the artist shall be discontinued, & that such families shall not be supported in any way out of the College Funds.

$$\{-2, -1, 0, +1, +2\}$$

4. $\frac{EGW}{\text{max}} = \frac{1}{4}$ self, $\frac{1}{16}$ each of 2 parents; $\frac{1}{64}$ each of 4 Sibs; $\frac{1}{256}$ each of 8 g-grandparents; &

1/2 Their $\frac{1}{2}$ portion of value of ^{any} one of the children is his own F.G.W.

The personal value may be added to, by achievements.

p. 15

50 State children born annually

Capitalized cost of first year child 15 years ~~20~~ ≈ 400

say \$500 each child

for 50 children annual cost \$25,000

about $15 \times 50 = 750$ children ^{of state} living at same time

$\frac{1}{2}$ Insurance with school
A average 100000
 $C = \frac{1}{2}(I + A)$
(13000)

P = the personal worth, expressed in marks, determined by examinations and achievements

L = the latest ancestral worth. It is determined by the values of P in his several progenitors, allowing $\frac{1}{2}$ of the summed values of those of his two parents, $\frac{1}{4}$ of those of his four grandparents, & so on.

G = Genetic worth, $= \frac{1}{2}(P + L)$

MG = Summed values of G , of a married couple

Extra marks may at any time be assigned to P , for new achievement

Both members of a married couple are eligible as collegiates if their MG exceeds mediocrity

Examinations by tests to I given marks from -2 to $+2$

When the average value of the I marks of the children exceeds the parental MG , the excess may be added ^{to the latter} to the Registrar

Examine to P . Medical as in living. Anthrop. tests
achievements literary, ^{good manners, & looks} & art games. Inspection & conversation
Verdict of the Gen^l final. May be again added to after 2 years
or after some considerable addition to claims & opinion of Reg.
for L by the Registrar

Similar for G certificate - & to MG

A much more important is the Register Office here than elsewhere.

1. Collecting, dating by Examination & inspection.
2. Classifying & recording data.
3. Discussing them & obtaining results.

Avoidance of carte superiority. It is only to the
one effect, viz G, that inequality is to be shown. Of course
this ^{may} carry much with it in practice, but that need sh^d be suppressed.

Endowment of fit couples - Funds administered by Medical College

Mutual friendly support, in favour & ^{assistance} of the feet

None of these kinds is called chemistry

The College is a self governed union within a municipality

Collected in the hills, near the river, a narrow path. 8 flowers
wax as beautiful & moderate size, as the *dissecta*.

D. Monahan P + A., MG

Brass 2, Silver 1, & gold 5 bullion - Pacific

and of course with Mr. Ambrose & his family.
~~Now I had~~ help came from an unexpected quarter
 The above mentioned dignitaries had all one or more unmarried
 daughters of the gold button order and they were all aware that
 I ^{was} wanted 3 months short of that period position & was in
 consequence from their point of view unmarried. They as
 Tom Ambrose afterward told me, entered seriously into the
 question & as one of their gatherings his sister said "why
 not appoint him Associate Registrar with 3 months, entitling
 him to the duty of redrawing the arches & running our
 system of marks?" The girls all agreed they were
 over their respective families. Meetings at first informal
 a family affair were held between the high officials &
 the proposal was unanimously agreed to. It had I might
 speaking strongly in its favour. I was gladly accepted
 the honourable of meritorious office in which I assumed of her help
 by Mr. A. and we were married & decorated with the Golden
 MB, all within the month. I have given the subsequent
 month to idle happiness & the Company

Aug 29 1910 after many days rest
Ed. W. was here yesterday & Sat & I talked it over

Schuyler

Yamunig (best Guernsey & Dutch data)

Notation, figures.

Problems, records, & sketches

pop 10,000.

B or the per 10,000. Malthus p. 646. (1888-90)

India 317, U.K. 305, Hungary 438, France 233 total 228

per 649 Corkans 427, Maine 209, New Hampshire 191

(A) Expense for K.W. 400 ^{if living adults} breeding per 10,000 of pop ^{annually},
(200 male, 200 female.)

on mass of each 1st class pair £10 down, 2nd week to £2.10 annual

12 per child during 16 years = $10 + 75 = £85$ per child

Say 6 children to each first class man & 50 each = 510 per family

of the household 200 marriages let 1 in 5 be "first class" & supply 5 children

the per child the cost of £85 x 5 = £425 in total annual of 42,500

There = £4 1/2 to each head of pop.

In 810 Total Taxation in K.W. amount to £4 per head & a high mass 4 1/2 per mass

1/5 of the amount ^{brother} 400, or 80 are children of 1st class man $80 \times 425 = 34,000$

= 3.4 per head of pop of 10,000

(Continued)

Commence

200 marriages yearly - 200 births of either sex
 say $\frac{1}{5}$ of these ~~are~~ ^{are} £10 donation = £400 yearly

Suppose donation = the sum of the value of the property of the donor
 from a value = at least to the sum of the value of the property of the donor

After 10 years those that have not left the 5 have the 10
 £10 each

Take account of the value of the property

Other grants - free hospital chambers for 3 years $40 \times 3 = 120$
 medical attendance - or concubinage. (a 4th town)

Provision of employment in College Estates, (if parent.)
 Say the 40 best men could be endowed marriages &
 the children College wards.

Grade	0	1	2	3	4
No	0	25	81	98	100
	25	56	7	2	
above		water	high	precipitation	
down		high		high	

f.22v

Change	5	175	511	100
Nos	25	16	19	
Man	1 1/2	2	3	2
now	1/2	1/2	1/2	1/2

	Health		
Robert	100 marks	2 values	
VICOP			
Health	9 marks	2	3.0
	15	.2	

A.24

The art of examination
Students of it - in classes - tested

A Statistical Graph

an array

The average = the median

Quartile ^(quartiles) & quartiles each = $\frac{1}{4}$ quartile

Differences measured in quartiles (-ades)

Conversion of quartile ^(table) measures into weighted values

measured values can't deal with — Example
 Estimated by reference to description ^{of differences} & which quartile
 values have ^{per} added, especially if those = 1-10 20 30 40
 and interpolating by estimate

✓ Registered Families
 payment for their trouble in drawing up yearly Reports

1st a day = 2.12¹ a year ^{a little more than} 2 = ~~years~~ ^{to} £5 a year
 = exactly £5.4¹ or 5 guineas a year

for 15 years = 75 guineas for Paul child

for 6 children = 450 gu = $450 + 22 \cdot 10^1 = £472.10$

£500 covers not well a house £27.10¹ a year

for 5 children 375 gu = $375 + 18 \cdot 15^1 = 393.15$ ^{min 400}

^{subsidies} 20 ~~annual~~ ^{annual} net cost £8,000 annual income and an
 annual output of 20×5 (or 6) = 100 (or 120) children
 of whom say 25 are educated. £210 min 250

Expenditure on children	£	
Paul house rent for 20 years	£200	20
Education		40
Inspection & registration		

According to history, it frequently has given valuable men, & it commends itself
 little of G.V. generally valuable, worn as an order, with red ribbon
 of first & second class — Then such first, crossed with second.

Precedence as in Universities Official & Special
 Privilege & authorized land

Answers of friends

All first when small, it Antlounier in Chile
 When larger, examines (after further have passed to state exam),
 to select into the selection of the opinions of teachers, & having seen
 & talked to the boys in detail, to make their own ^{written} report ^{brief description} ^{recommending}
 a few more than there are vacancies. The authorities to see
 & talk with these ^{selected boys} of the final selection. ^(not necessarily answer)

The opinions of my group to what many of the boys belong to
 have been considered by the examiners — also references ^{& sponsors} required
 "Free from Vice."

The Sponsors ^{by a man of honor who} must know enough about the Referee & the boys also
 to make his opinion a ^{trustworthy} advocacy. The Referee must have first-
 hand knowledge of the boys & his parallel — ? official sponsors
 or ? the inspection — Drawing up certificate in a uniform form.

Examiners — Informants ^{School master} ^{School fellow} ^{Inspector} ^{Signatures} ^{Chairman} ^{mother/claustrophobia} ^{Sanitary record} ^{Good work industry} ^{Ranks witnessed} ^{Plan} ^{in graphic} ^{data} ^{with taking out after school}

At his request and by intervention over to the Naval War,
 accompanied by scholars friends of Referee, the state of the settlement
 at about 1826 was ^{of the young men of that time were} ^{the town of} ^{or father} ^{to the brother of} ^{of several gen} ^{allowing}
 30 years to a generation, but it generation a really followed generation

Naamie value
 Not what a man is, but what he can transmit hereditarily

$$\log 1.20 = 0.0792$$

$$\log 5.222 \quad \begin{array}{r} 9 \\ .7828 \end{array}$$

290 years = a 1st of 200 years 1000

$$\log 1.40 = 0.1461$$

$$\log 20.65 \quad \begin{array}{r} 9 \\ 1.3149 \end{array}$$

4000
2, 1/2 h tones

$$\log 1.30 = 0.1139$$

$$\log 10.99 = \begin{array}{r} 9 \\ 1.0351 \end{array}$$

Probationers
adopted children
4000 children
2000 of KW

Woodworth	Napier	Wedgewood
Coleridge	Bitterman	Barrow
Lastmington	Venn	Pollock
Sedgwick	Stephen	Herschel
Butler	Scott (Strawell & Ston)	Sedgwick
Lalish	Canning	Grange
Sheridan	Kennedy	Butler
Wesley	Schwartz	Stewart

Wesley - Woodworth

1/4

Wesley - Woodworth

15

in Grants
Loans to be repaid if prosperous - amount published as
a mark to those who have repaid. Loans on the promising
amount depends on what is then disposable
Legacies from holyman's pub = share of one child

f.30v

$$\text{Calc of } \frac{9}{100} \text{ of } = \frac{1}{x} \text{ of } 100 = \frac{1}{11} \text{ of } 100$$

$$9:100::1:x$$

$$\begin{array}{r} 9,000(100) \\ 91 \\ \hline 90.0 \\ 81.9 \\ \hline 81.9 \end{array}$$

$$\frac{1}{9} \times \frac{1}{2} = \frac{1}{18}$$

$$11.2 + 5.4 = 4x$$

44.2

$$\begin{array}{r} 91 \\ 90 \\ 81 \\ \hline 91 \end{array}$$

Palauensis - Money unit

See Wine Commercial sampler of all kinds

Elections

Current habit of classifying makes K.W. people quick at it
School classes

Class Places - units

All convertible into quarter unit

The Partition that cuts off

Part	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st	32nd	33rd	34th	35th	36th	37th	38th	39th	40th	41st	42nd	43rd	44th	45th	46th	47th	48th	49th	50th	51st	52nd	53rd	54th	55th	56th	57th	58th	59th	60th	61st	62nd	63rd	64th	65th	66th	67th	68th	69th	70th	71st	72nd	73rd	74th	75th	76th	77th	78th	79th	80th	81st	82nd	83rd	84th	85th	86th	87th	88th	89th	90th	91st	92nd	93rd	94th	95th	96th	97th	98th	99th	100th																																																																																																																																																	
1/2	1/4	1/8	1/16	1/32	1/64	1/128	1/256	1/512	1/1024	1/2048	1/4096	1/8192	1/16384	1/32768	1/65536	1/131072	1/262144	1/524288	1/1048576	1/2097152	1/4194304	1/8388608	1/16777216	1/33554432	1/67108864	1/134217728	1/268435456	1/536870912	1/1073741824	1/2147483648	1/4294967296	1/8589934592	1/17179869184	1/34359738368	1/68719476736	1/137438953472	1/274877906944	1/549755813888	1/1099511627776	1/2199023255552	1/4398046511104	1/8796093022208	1/17592186044416	1/35184372088832	1/70368744177664	1/140737488355328	1/281474976710656	1/562949953421312	1/1125899906842624	1/2251799813685248	1/4503599627370496	1/9007199254740992	1/18014398509481984	1/36028797018963968	1/72057594037927936	1/144115188075855872	1/288230376151711744	1/576460752303423488	1/1152921504606846976	1/2305843009213693952	1/4611686018427387904	1/9223372036854775808	1/18446744073709551616	1/36893488147419103232	1/73786976294838206464	1/147573952589676412928	1/295147905179352825856	1/590295810358705651712	1/1180591620717411303424	1/2361183241434822606848	1/4722366482869645213696	1/9444732965739290427392	1/18889465931478580854784	1/37778931862957161709568	1/75557863725914323419136	1/151115727451828646838272	1/302231454903657293676544	1/604462909807314587353088	1/1208925819614629174706176	1/2417851639229258349412352	1/4835703278458516698824704	1/9671406556917033397649408	1/19342813113834066795298816	1/38685626227668133590597632	1/77371252455336267181195264	1/154742504910672534362390528	1/309485009821345068724781056	1/618970019642690137449562112	1/1237940039285380274899124224	1/2475880078570760549798248448	1/4951760157141521099596496896	1/9903520314283042199192993792	1/19807040628566084398385987584	1/39614081257132168796771975168	1/79228162514264337593543950336	1/158456325028528675187087900672	1/316912650057057350374175801344	1/633825300114114700748351602688	1/1267650600228229401496703205376	1/2535301200456458802993406410752	1/5070602400912917605986812821504	1/10141204801825835211973625643008	1/20282409603651670423947251286016	1/40564819207303340847894502572032	1/81129638414606681695789005144064	1/162259276829213363391578010288128	1/324518553658426726783156020576256	1/649037107316853453566312041152512	1/1298074214633706907132624082305024	1/2596148429267413814265248164610048	1/5192296858534827628530496329220096	1/10384593717069655257060992658440192	1/20769187434139310514121985316880384	1/41538374868278621028243970633760768	1/83076749736557242056487941267521536	1/166153499473114484112975882535043072	1/332306998946228968225951765070086144	1/664613997892457936451903530140172288	1/1329227995784915872903807060280344576	1/2658455991569831745807614120560689152	1/5316911983139663491615228241121378304	1/10633823966279326983230456482242756608	1/21267647932558653966460912964485513216	1/42535295865117307932921825928971026432	1/85070591730234615865843651857942052864	1/170141183460469231731687303715884105728	1/340282366920938463463374607431768211456	1/680564733841876926926749214863536422912	1/1361129467683753853853498429727072845824	1/2722258935367507707706996859454145691648	1/5444517870735015415413993718908291383296	1/10889035741470030830827987437816582766592	1/21778071482940061661655974875633165533184	1/43556142965880123323311949751266331066368	1/87112285931760246646623899502532662132736	1/174224571863520493293247799005065324265472	1/348449143727040986586495598010130648530944	1/696898287454081973172991196020261297061888	1/1393796574908163946345982392040522594123776	1/2787593149816327892691964784081045188247552	1/5575186299632655785383929568162090376495104	1/11150372599265311570767859136324180752990208	1/22300745198530623141535718272648361505980416	1/44601490397061246283071436545296723011960832	1/89202980794122492566142873090593446023921664	1/178405961588244985132285746181186892047843328	1/356811923176489970264571492362373784095686656	1/713623846352979940529142984724747568191373312	1/1427247692705959881058285969449495136382746624	1/2854495385411919762116571938898990272765493248	1/5708990770823839524233143877797980545530986496	1/11417981541647679048466287755595961091061972992	1/22835963083295358096932575511191922182123945984	1/45671926166590716193865151022383844364247891968	1/91343852333181432387730302044767688728495783936	1/182687704666362864775460604089535377456991567872	1/365375409332725729550921208179070754913983135744	1/730750818665451459101842416358141509827966271488	1/1461501637330902918203684832716283019655932542976	1/2923003274661805836407369665432566039311865085952	1/5846006549323611672814739330865132078623730171904	1/11692013098647223345629478661730264157247460343808	1/23384026197294446691258957323460528314494920687616	1/46768052394588893382517914646921056628989841375232	1/93536104789177786765035829293842113257979682750464	1/187072209578355573530071658587684226515959365500928	1/374144419156711147060143317175368453031918731001856	1/748288838313422294120286634350736906063837462003712	1/1496577676626844588240573268701473812127674924007424	1/2993155353253689176481146537402947624255349848014848	1/5986310706507378352962293074805895248510699696029696	1/11972621413014756705924586149611790497021399392059392	1/23945242826029513411849172299223580994042798784118784	1/47890485652059026823698344598447161988085597568237568	1/95780971304118053647396689196894323976171195136475136	1/191561942608236107294793378393788647952342390272950272	1/383123885216472214589586756787577295904684780545900544	1/766247770432944429179173513575154591809369561091801088	1/1532495540865888858358347027150309183618739122183602176	1/3064991081731777716716694054300618367237478244367204352	1/6129982163463555433433388108601236734474956488734408704	1/12259964326927110866866776217202473468949912977468817408	1/24519928653854221733733552434404946937899825954937634816	1/49039857307708443467467104868809893875799651909875269632	1/98079714615416886934934209737619787751599303819750539264	1/196159429230833773869868419475239575503198607639501078528	1/392318858461667547739736838950479151006397215279002157056	1/784637716923335095479473677900958302012794430558004314112	1/1569275433846670190958947355801916604025588861116008628224	1/3138550867693340381917894711603833208051177722232017256448	1/6277101735386680763835789423207666416102355444464034512896	1/12554203470773361527671578846415332832204710888928069025792	1/25108406941546723055343157692830665664409421777856138051584	1/50216813883093446110686315385661331328818843555712276103168	1/100433627766186892221372630771322662657637687111424552206336	1/200867255532373784442745261542645325315275374222849104412672	1/401734511064747568885490523085290650630550748445698208825344	1/803469022129495137770981046170581301261101496891396417650688	1/1606938044258990275541962092341162602522202993782792835301376	1/3213876088517980551083924184682325205044405987565585670602752	1/6427752177035961102167848369364650410088811975131171341205504	1/12855504354071922204335696738729300820177623950262342682411008	1/25711008708143844408669511724558601640355247900524685364822016	1/51422017416287688817339023449108101809809431076064915969724032	1/102844034832575377634678046898216203619618862152129831939530064	1/205688069665150755269356093796432407239217743500099033299456128	1/411376139330301510538712187592864814478435487000198066598912256	1/822752278660603021077424375185729628956870974200396133197824512	1/1645504557321206042154848750371459257913741948400792266395649024	1/3291009114642412084309697500742918515827483896801584532791318048	1/6582018229284824168619395001485837031654967793603169065582636096	1/13164036458569648337238790002971674063309935587206338131165272192	1/26328072917139296674477580005943348126619871174412676262330544384	1/52656145834278593348955160011886696253239742348825352524661088768	1/105312291668557186697910320023773392506479484697650705049322177536	1/210624583337114373395820640047546785012958969395301410098644355072	1/421249166674228746791641280095093570025917938790602820197288710144	1/842498333348457493583282560190187140051835877581205640394577420288	1/1684996666696914987166565120380374280103671755162411280789154840576	1/3369993333393829974333130240760748560207343510324822561578309681152	1/6739986666787659948666260481521497120414687020649645123156619362304	1/13479973333575319897332520963043094240829374041299290246313238724608	1/26959946667150639794665041926086188481658748082598580492626477449216	1/53919893334301279589330083852172376963317496165197160985252954898432	1/107839786668602559178660167704344753926634992330394321970505909796864	1/215679573337205118357320335408689507853269984660788643941011819593728	1/431359146674410236714640670817379015706539969321577287882023639187456	1/862718293348820473429281341634758031413079938643154575764047278374912	1/1725436586697640946858562683269516062826159877286309151528094556749824	1/3450873173395281893717125366539032125652319754572618303056189113499648	1/6901746346790563787434250733078064251304639509145236606112378226999296	1/13803492693581127574868501466156128502609279018290473212224756453998592	1/27606985387162255149737002932312257005218558036580946424449512907997184	1/55213970774324510299474005864624514010437116073161892848899025815994368	1/110427941548649020598948011729249028020874232146323785697798051631988736	1/220855883097298041197896023458498056041748464292647571395596103263977472	1/441711766194596082395792046916996112083496928585295142791192206527954944	1/883423532389192164791584093833992224166993857170590285582384413055909888	1/1766847064778384329583168187667984448333987714341180571164768826111819776	1/3533694129556768659166336375335968896667975428682361142329537652223639552	1/7067388259113537318332672750671937793335950857364722284659075304447279104	1/14134776518227074636665345501343875586671901714729444569318150608894558208	1/28269553036454149273330691002687751173343803429458889138636301217789116416	1/56539106072908298546661382005375502346687606858917778277272602435578232832	1/1130782121458165970933227640107510046933752137

Let $N = n^0$ of generation before
the original & the last pair

a = annual increase in cost of food

r = rate of generation counts upward to

the most numerous intervening generation

The generations are supposed to intersect, each of them at
once, like interest paid annually, on a capital sum

$$(1+a)^{n-r} = 2^r \quad \text{Let } a = 0.01$$

$$(1.01)^{n-r} = 2^r$$

$$n \log(1.01) = r \log(2) = r \cdot 0.301, n=100$$

$$r(0.301 + \log(1.01)) = 100 \cdot \log(1.01)$$

$$\log(1.01) = 0.0043 = 0.4300$$

$$r(0.3053) = 0.43$$

$$r = \frac{0.43}{0.3053} = 1.43$$

Irwin Shephard: Table

PE	Wicks	N. Page
0.67449	1	1
1.34898	2	2
2.02347	3	3
2.69796	4	4
3.37245	5	5

$$\frac{1}{2} + \frac{1}{3} + \frac{1}{k} = 2$$

$$\frac{5}{6} = 2 - \frac{1}{k} = 2 \frac{2}{k}$$

$$\frac{24}{21\frac{1}{2}}$$

$$k = 44 \quad \frac{5}{6} + \frac{1}{44} = 44$$

$$2 \frac{1}{2} \times 12 = 22$$

Names of Ancestry, names, names of ancestry as
 in Peernan then is delivered to him to W. C. Cochrane, here to good.

For unnamed civil war 2/4/25 ad 23-24 an ^{last} thought
 They have their feng below the for 6 years

Collected classes
 Must not expect too much - high level not brilliant, but few
 a decent country, organization may be made in all the way
 the right into a not great show
 → features & presence
 Moravian - American

Form - Picket line - Arctic style, Japanese, Korean, etc.

Mammals - Mammals often - Balaia - regard L. features = enthusiasm
 Harmonic & exactness - not too in particular of vision

voice singing - Catlike - song at work - working

27

no forest growth -
 Topics - Products of the way - forest, bottom - Breeding, how what of
 is any, various of proper stock, a little in many, hospital - school

Must not be in Japan that I should of one. I am brought up of the school
 Helgoland - Neocentrius - Japan - Superstition not yet released
 not agree, not debate / x line? - reversal. Merged in all belief in
 Shingon - Plenum not become every year - Death - that truth
 of life of every child, even in its mind

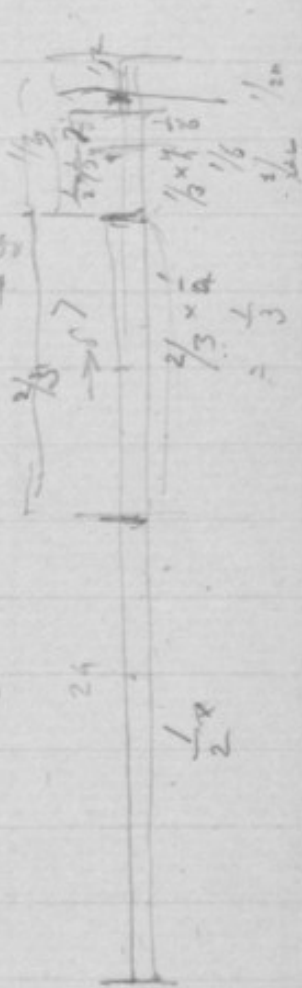
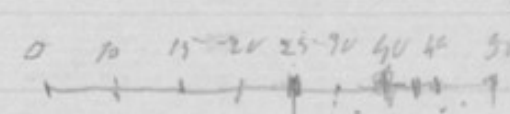
2. Nurse 2 120
8. Increase of pop. at various rates
12. Went to Heefe - Honor & parents' names dtd 10/9/7, Fancs
13. EGW estimated genetic worth
- 13a. Cost of each child
14. Extra marks to personal achievement
15. Mental Faculty support
19. Boston for 10, 100 annually
20. Health, history of employment in college work
23. Registered Families
24. Description of character, ascending lines
25. Cost
26. Spouses "Free from Vice"
27. Families represented in KW
- 27 29 30 Class places

f36

Abundance	ordinal	cal #	residual
0 ± 5	0		
25	1	1/2	1/2
16 = 2/3	2	2/3	1/3
41	3		
48	0		

$$\frac{1}{2} + \frac{1}{2} = 1$$

$$\frac{1}{25} + \frac{1}{25} = \frac{2}{25}$$



I II III IV V VI VII

$$50 + 25 + 16 + 7 + 2 = 100$$

$$50 + \frac{2}{3} \times 25 + \frac{3}{4} \times 8$$

* -3 -2	-1	0	+1	+2	+3 *
2 7 16	25	50	25	16 7 2	
-50		0	25	41 48 50	
0		50	75	98 98 x 100	
		88	25	16 6 2	

bars, 1 in 10 set 3 marks

no percent

Channel Num

Mark

50 to 60 ± 10	desirable	0 - ± 5
60 75 ± 15	with reservation	75 ± ± 10
75 91 16	desirable	+10 - +20
91 98 7	very desirable	+20 - +30
also 2	highly desirable	thru
sum 50		

Boundary Bound
 Francis
 Saperstein

Bellingham
 Grayfield
 Delamar
 Easton, Inverton
 Fitzcarrum
 Garra Heyman

Worth of a 44 old child

Swindled bring up in coats

Preference for Farmers life, more & healthier children

What grade of civility is comparable with only an
 average of 2 hours of daily work by when the hands were by the

The General Manager approaches the problem of establishing
 settlements with institutions similar to those of K.W. that shall help the families
 of mature couples both of whom are naturally endowed with qualities valuable
 to the community, and that shall help the feeble-minded or under such conditions
 by shall hinder them from propagating their kind. They authorize the Government
 of the College to negotiate for the purchase of the site mentioned in the Report and to take

The ^{proposed} constitution of the colony has been
 much discussed by the most progressive
 party of ~~Kaitangaroa~~ ^{the place} ~~where~~. I do not care
 to repeat their arguments ~~because~~ ^{they} constantly
~~inveigh~~ ^{finger} ~~at~~ ^{at} ~~justifying~~ ^{their extreme proposals} ~~to~~ ^{by} ~~examples~~ ^{numerous} like
 of other times and nations, because they were
 overruled by large majorities of the moderate party.
 As at present determined ^{the case} ~~it will~~ follow the lead of
 Kaitangaroa the constitution ^{of the colony} will be moulded on that
 of Kaitangaroa.

I should have liked to go more thoroughly
 than has been done ^{by the colony} ~~at~~ ^{but highly important} the ~~subject~~ ^{of}
 Kaitangaroa, but am deterred partly
 for fear of giving offence ^{to my kind friends} ^{and} ^{my leaders} here in England
 and partly because I am still ignorant of much
 that only a longer residence ^{in the colony} and a more intimate
 knowledge ^{of the people} ^{may} ~~can~~ teach me.

[Faint handwritten signature]

Nobody Nosed Fantasia
 Nowan Never Nomen Fiction
 Nevermore All fancy Fanciman Phantasy
 Dreamman Nullus Fitz Fiction, 7th fancy.

Fanciman Fitzfiction Deerman Roman Farigman
Fitzfancy Fableman
Fitzdraw allfancy

1. Danopine	Fattleman
armbrusters	airfancy
Cory	never was

One evening at the I found them saddened by the
 birth of a crippled child of one of their most intimate friends
 who had received a college education, a few years ago - this was their
 fourth child. M. A. said that of course the community ^{must}
 do every thing ^{possible} to make the life of the child pleasant, and it would
 have to be determined whether the deformity was ^{likely} to be hereditary or not.
 If it was, the child would hereafter be debarred from marrying but not
 otherwise. Any law the college was responsible to the child, who had
 been brought into existence in strict conformity with the rules they advocate
 owing of course to some neglected cause, which must be brought out
 as best that could hereafter be understood and provided against. The ^{general}
 results of K in practice are only average. The present is an
 unfortunate ~~unfortunate~~ deviation from that average. No blame whatever
 attaches to the parents; they should be whole-heartedly consoled with
 and the child be in no way ~~discouraged~~ discouraged in account of its
 natural defect, except in the one way (not mentioned), or possible
 prohibition to marry.

Chart

- 3 Military drill
 4 Investigations
 5 Infanterie
 4 Social meetings with
 other colleges

1 Less capital needed the first
 3 and more for the latter.

640 acres (one 1/2 mile

$\left[\frac{5 \text{ m}}{1} \right] \frac{1}{2} = 20$

640 x 30 = 19200 say 20,000 call Kuntzsch

20 acres but 1000 holdings

Then new families coming - each family lasts 40 years
or 400 families coming in at once

~~Unsettled~~

Assumed

x Full estate (1/2)

as in 1/2, not more subdivided

x ~~Secure belief~~

x Possibility of making right

x Endowed Guild Fund.

Statist Bureau

Personnel, medical, financial

Periodical show of best

reception

or sample of best

works

Universal service

Difficulties Insurance of persons

Rail versus highway. Suburban living, education, machine engineering

Collected classes

difficulties

Jealousy of Engineers

Check in machine, own family

1 Full recognition of Eng

2 Possibility of just machine

3 Fund (endowed or other)

f.40v

in medroce & hifagwadi in lutea red

1 coral

2 very good

3 hif

about slavia

Assured

Belief is however truly established

Probability of trustworthy marking of a planar is proved

A Eugene Smith, his very large family for administrative & awards

Physical, Medical Assistant, in Cash
 & Finance. — what the perfect school, pass, know, started
 Election ^{Board} of Management by Senate, committee of all deputation persons

Numbers so selected usually to be fixed by some simple rule.

Service ^{in General} 6 (3) years in the house of Secluded after 1 year.

Permanent Officers: President, Registrar, Chief Clerk, Secretary, Treasurer, Editor of Yearbook, Awards, Inspection, Annual Report of Council

Diplomas by Govt appointed members of Council, certificate of prob. Eng value.

Physical, medical, ancestral.

Passion for a candid franker broken limits Party bias, ^{stares} Part of race.
concerned desire to Reconstruct a Annual Report on Progress of race, very costly
but called for. Army of Inspectors, constantly demanded from them. Census returned
Statistical results acquiesced in. Constant study of diploma conditions

Answers - Honor, Great help, cash.

Titles & honor; - name Diploma; every merit, local diploma; older man, progress.

Cash; on m^o, in bill of Exch^g Childs, as 14.7.1

Helpful notes - ^{patron} social friends = god fathers Adoption must keep ^{in brackets} real names

Present value of an Annuity of £1 at 4%

for 1 year	0.96
2 yrs	1.89
3	2.78
4	3.63
5	4.45

6

7

8

9

10

11

12

13

A couple have 5 children
one born at end of each successive year
after marriage & an annuity of £1 is given
to each until close of 13th year

The present value of these annuities at 4% = 48.84

14	10.56	14-0	10.56	1 st	15	16	17	18
15	11.62	15-1	10.16	2 nd	11.12	11.65	12.12	12.65
16	11.65	16-2	9.76	3 rd	9.96	1.09	2.78	3.63
17	12.12	17-3	9.34	4 th	10.16	9.76	9.34	9.02
18	12.65	18-4	9.02	5 th	19			
19	13.13	19-5	8.68		13.13			
			57.52		4.45			
					8.68			
					48.84			