

THE BEALE TREASURE



CODE BROKEN

FOR FREE PDF DOWNLOADS OF
“*ASTRONOMICAL MINDS – THE TRUE LONGITUDE STORY*”
“*THE BOFFIN BIRD*”
“*THE CUCKOO PARADOX*”
“*THE BEALE TREASURE CODE BROKEN*”

PLUS
“*DETAILS OF TWO CASH PRIZES OF £10,000 & £500*”
“*COMPETITION RULES & HELPFUL HINTS*”
VISIT.....

www.samosbooks.org

Author’s note.

Readers might find the text disjointed but it follows the trail that was used to solve the Isaac Newton blackmail puzzle. Question each apparent mistake in the Beale texts and compare it to the way in which a similar error was made in the Newton blackmail case.

The Beale Treasure

Code Broken

Claims to have discovered the location of \$ millions worth of buried treasure in Bedford County, Virginia, have appeared at regular intervals since the Beale Papers were published in 1885. Although many have suggested it was a hoax, none, until recently have seriously set out to prove that. The evidence that confirms it was a very clever encrypted tale and the name of the person who performed this feat, is set out in this document.

Code-breakers, detectives that they are, only consider coincidences as a last resort. If it flies like a duck, quacks like a duck and lays eggs, it is not a pig. But every once in a while, when all else fails one must consider the possibility that a code set back in 1714 and only decrypted in 2009 ([refs 2/5](#)), might just turn out to be a pig that can fly. The similarities to the Beale case are uncanny.

The Sir Christopher Wren double substitution blackmail cypher.

One of the early claims on the Queen Anne Longitude prize had come from an unexpected source; Sir Christopher Wren, founding member and third Royal Society president. The man responsible for persuading his childhood playmate Charles II to issue instructions for building Greenwich Observatory specifically in order to solve the longitude at sea problem. The man who knew as much as anyone about the practical snags attached to this quest. A man who was, at the age of 82 still in possession of one of the finest mathematical brains in the country and known for his religious orthodoxy.

His son Christopher personally delivered a sealed packet to the Royal Society on behalf of his father who was no longer as mobile as once he had been. The packet was addressed to Sir Isaac Newton and came with a signed explanatory letter dated 30th November (o.s) 1714.

'I Present to the Royal Society, a Description of three distinct Instruments, proper (as I conceive) for Discovering the Longitude at Sea: They are describ'd in Cypher, and I desire you would, for Ascertaining the Inventions to the Rightfull Author; Preserve them among the Memorials of the Society, which in due time shall be fully explain'd by yr Obet, Humble Sert. Chr: Wren.'

In other words, Wren was not actually making a claim on the prize, merely establishing his position, possibly with the intention of benefiting his heirs. What exactly was in the mysterious package? Now 300 years later no one can be sure of anything other than that it contained a sheet of paper on which were written three separate lines of capital letters.

However when this document was auctioned with other of Newton's papers inherited by Viscount Lymington, a descendant of Catherine (the daughter of Newton's stepsister Hannah) and her husband John Conduitt at Sotheby's in 1936, it was certified as being by Edmond Halley's hand, not Wren's.

This was clearly a copy which Newton had permitted Halley to make and had then reclaimed. It was also this copy that had previously been cited by Newton's biographer Sir David Brewster in 1855 when he had been given access to these papers. If the original was lodged with RS records as Wren had requested, it has disappeared, as now has the Halley copy. The three enciphered descriptions were contained within the following three strings of letters:-

OZVCVAYINIXDNCVOCWEDCNMALNABECIRTEWNGRAMHHCCAW
ZEIYEINOIEBIVTXESCIOCPSEDMNANHSEEPRIWHDRAEHHXCIF
EZKAVEBIMOXRFCSLCEEDHWMGNNIVEOMREWWERRCSHEPCIP

According to one account these were later deciphered by a Francis Williams of Chigwell in Essex, but the first formally published solution appears to have come from Bancroft H. Brown of Dartmouth College, New Hampshire in 1927. By reversing the letters in each line and omitting every third letter the cipher then reads:-

WACH MAGNETIC BALANCE WOVND IN VACVO
FIX HEAD HIPPESS HANDS POISE TVBE ON EYE
PIPE SCREWE MOVING WHEELS FROM BEAKE

The omitted letters spelling CHR WREN MDCCXIV Z (or CHR WREN MDCCXIII Z in the 2nd string).

Brown's vague interpretation of these three sentences merged the second and third ciphers, suggesting the cipher referred to two instruments not three.

In 2002 Lisa Jardine published a virtually identical interpretation :-

WACH MAGNETIC BALANCE WOVND IN VACVO
FIX HEAD HIPPESS HANDS POISE TUBE ON EYE
PIPE SCREWE MOVING WHEELS FROM BEAKE

However Jardine managed a much better explanation than Brown, neatly describing three instruments in modern English. 'WACH MAGNETIC BALANCE WOVD IN VACVO' related to the direct method of carrying standard time by marine chronometer and harked back to 1662 at the RS when *'Dr Wren proposed to try a watch in Mr Boyle's (vacuum pump) engine.'*

The 'FIX HEAD HIPPE'S HANDS POISE TUBE ON EYE' described, not a juggler's routine but a method for taking accurate angle measurements at sea with a special type of telescope, again relating to research started in 1662. The final 'PIPE SCREWE MOVING WHEELS FROM BEAKE' suggested a device for measuring the speed of a ship through the water via a pipe set in the prow (the beake).

Neither the Brown nor Jardine solutions were precise decipherers, the 'V' at the beginning of the word 'VACVO' was actually a 'Y' (the 7th letter in the first line of Wren's cipher) and the word HANDS should have been spelt HANDES. Jardine had also changed the V in TVBE to a U.

Wren had worked on these three ideas, often in collaboration with Hooke over 50 years earlier and none had proved satisfactory at the time; or since. The description of the timer had been vague, that of the telescope device already published in some detail in 1705 and known by Wren to be flawed, and the ship's log (if that is what it was) which could not make allowances for surface currents, was of no more practical use than the existing log-line method. At first glance, a set of claims Wren knew were impractical, the crudely enciphered version of which he must have known would be unravelled by Newton in a matter of minutes.

In the circumstances, what exactly did Wren have in mind? If he was establishing a claim, why write to the late Robert Hooke's bitter enemy; why not submit a clearly written claim addressed to Burchett at the Admiralty, to each individual Longitude Board member (including Newton and Halley)?

If he was intending to submit a holding claim whilst he completed experiments at the age of 82 after a 50-year interlude, why use a crude cipher when he had previously been happy enough to match a Huygens affair (a5, b2, c2, d1, e4, h1, i2, l3, m3, n1, o3, p2, r2, s3, t2, u4, y1) with a straightforward unbreakable (?) cipher of his own (a7, b4, c4, d4, e12, f1, g5, h6, i10, l7, m1, n7, o9, p2, r6, s2, t7, v4, x1, y1)?

This coincidentally was cited by the president, Sir Aaron Klug at an anniversary meeting of the RS on of all days, the 30th November (1999).

If not for his son's comments (see below), one might conclude Wren was in an advanced stage of senility.

Wren had used IIII instead of IV in the second line, the three 'Z's, and the extra letter in HANDES to make each of the lines the correct length in order to contain the full messages; messages which could be easily deciphered. Yet he had been forced to degrade his actual descriptions to comply. And why not spell WATCH correctly?

Wren's reluctance to become involved in unseemly disputes was well known, and Newton must have realised these crude, badly phrased claims masked something much more important. Newton knew that Wren was aware of his own use of complex ciphers to conceal critical passages in his correspondence and would never have wasted his time sending Newton such an elementary cipher. Highly intelligent men did not correspond thus.

By this point Newton's nimble brain would have assumed that peculiarities in the original three lines of letters and in the masking solution, might well provide the clues. The first was the reverse method of writing employed to make the basic simple cipher a little less obvious and the second was the triple use of the year:- MDCCXIV (1714); $1+7+1+4 = 13$ (or 39 as the year was repeated three times).

Counting backwards from the final letter 'P' every 13 letters until you have a string of 39 letters produces
WHIHSIIANNPED - BEHCERLDIREEA - NSYGAXCMEVRAE.

At first glance at best another cipher but there are partial words that would have immediately caught Newton's eye in the first batch of 13 letters. WHIS (Whiston) IN (Himself) ANNE (The late Queen Anne) and PED or PAED (possibly paedophilia). Certainly enough to gain his immediate and full attention to a cipher, which surely he would then have unscrambled.

IN WHIS PAED BEH'LD IRE CER(T)AIN EV'RY'N CHASE AXE. G.M.

(To) Isaac Newton. William Whiston involved in paedophilia. Be aware that everyone will be after his blood. Graviora manet (worse to follow).

There is an even more sinister interpretation especially as there was otherwise no need to include a reference to Newton in the cipher because it was sent privately to him.

The longer Newton stared at the 39-letter message he had extracted, the more concerned and puzzled he would have become.

Newton surely would also have realised there was a second meaning to the final 11 letters of the cipher. CHASE AXE G.M. Go for the longitude prize (which had superseded the Thomas Axe prize) and worse will follow; the skeletons in your cupboard will be revealed. Did Wren know of his early forays into the world of alchemy, his injudicious use of the 'One Holy God' pseudonym and his Arian beliefs?

The classic beauty of Wren's underlying threatening message was that it made use of the 'faults' in the overlay ciphers. The odd omission of the 'T' from 'WATCH' is still missing in 'CERTAIN' (but see below); both the letters in the misspelt 'YACVO' are made correct use of; the substitution of the three U's by Latin V's in the smokescreen message provide a clue to a Latin content (GM) or perhaps a warning that others were aware of Newton's similar usage in his own pseudonym. Each 13 letter section spells out part of the message in sequence, carrying over three letters from the first section (HIN) and two from the second (HE). Every single one of the 'peculiarities' in the three strings which provided the clues to a successful decipherment (but only to a holder of the numeric key) were also essential features in the construction.

Even the standard abbreviated ending to Wren's accompanying letter provided a clue. Finally the omission of the 'T' from that first line would have confirmed to Newton that the threat was genuine and not a ghastly statistical fluke of his own imagining. This is because this letter *had* to be omitted to prevent the useless 11 letter repeat sequence of the 39 letters:-

WHISIIMNVO/WHISIIMNVO/WHISIIMNVO/WHISII.....

The beauty of the message at a personal level is that it was non-confrontational and although possibly libelous, totally secure. Wren had provided a covering innocuous cipher and only Newton would possess the key to the inner message that he dare not reveal.

But is there any evidence to suggest that Newton successfully deciphered the message and acted upon Wren's warnings? As far as is known Newton never did place Wren's ciphers on record as requested, and Wren never did reveal all, although he lived another eight years and according to his son *'the Vigour of his Mind...continued with a Vivacity rarely found at that age, till within a few Days of his Dissolution.'* ; (at the age of 90) both points suggesting the basic cipher was indeed only a smokescreen.

As for any positive reaction from Newton, he began regularly attending meetings of the commission which supervised the running of Wren's recently completed St. Paul's Cathedral and took a little pressure off Wren in doing so. An odd thing to do given that the magnificent new cathedral represented everything Newton secretly strongly opposed. He also seems to have quietened down considerably and the affairs of the RS became less acrimonious.

The similarities to the Beale case?

Most similarities will be detailed as the case unfolds, but two are mentioned here. When Queen Anne, sponsor of the £20,000 longitude prize, died in 1714, the English Parliament's Act of Succession of 1701 came into force and George 1 was King of Great Britain, etc., when the Wren cypher was delivered.

Secondly, the weird coincidence suggesting that indeed pigs can fly:-

INWHISPAEDBEHLDIRCERAINEVRYNCHASEAXEGM

Only 5 letters of the 39 are not connected in one way or another to the Beale hoax exposure. Even the names of three of the suspect code setters are included.

X Marks the Spot EXActly

Introduction

The Kindle version of David Baldacci's book 'Simple Genius' (ref 1) mentioned the Beale Treasure mystery and set out three long lists of numbers in an addendum. Apparently no one had been able to crack two of the three codes that would lead to the buried treasure; now valued at millions of dollars.

Baldacci's considered opinion that the chances of anyone cracking the codes were probably longer than winning the Powerball lottery, were a challenge one could not resist. In fact he repeated, as have others, an incorrect decrypt of the one code that had been broken. A mistake that, only when rectified, would eventually reveal all. But this would not lead to any treasure or riches of Powerball dimensions.

Obviously if there really was a buried treasure and the combined weight of the world's top cryptologists had already abandoned the quest, one's only hope of success lay on the assumption that there never was any treasure. It must have been a hoax, in which case the mysterious story teller would surely leave at least one clue to his or her identity somewhere in those three long lists of over 2000 numbers. What was the point of creating a wonderful but encrypted tale otherwise?

Before embarking on a detailed, and possibly brain-numbing arithmetically overloaded inspection of all those numbers, a brief summary of the history of Beale Treasure hunt is as follows:-

A number of documents were allegedly discovered in a locked box left in the care of a hotelier in Virginia by a group of hunters of buffalo and adventure (not in that order) with instructions to unlock said box if they failed to return within 10 years.

Well not quite; these 30 men somehow discovered gold and silver north of Santa Fe in 1819, brought tons of it back across desert and through hostile native Indian territory, buried it in iron pots and rushed back for more, then buried that (in more iron pots) along with some jewels they had swapped for gold in St Louis to lessen their weighty burden. No one ever heard from Thomas Beale or any of his anonymous pals again.

When the locked box was finally opened long after its sell-by date, it was found to contain some letters detailing said adventures, 3 lists of numbers and a letter of instructions. Someone then managed to decipher one of these lists using the 1322 word version of the Declaration of Independence. Unfortunately it did not tell him or her the location of this buried treasure.

By now the Great Californian gold rush had run its course and the tragic American Civil War had ended. Edgar Allan Poe had won a cash prize for his code-setting skills in his publication 'The Gold Bug' and promptly

passed on, and the disappointed de-coder passed all the documents to James B. Ward for safe keeping, before also almost certainly dying too. Ward published all the details in 1885.

Ward made little profit from this enterprise and when asked to produce the letters, claimed they had been lost in a fire; which was probably true. The typeset lists, letters and the decrypt of paper 2 were all that remained. An expert on word usage was of the opinion that all the Beale letters were compiled by the same hand.

One can download a copy of ‘The Beale Papers Containing Authentic Statements Regarding the TREASURE BURIED in 1819 and 1821, near Bufords in Bedford County, Virginia, and Which Has Never Been Recovered’ by James B. Ward (1885) (ref 3)

<http://www.unmuseum.org/bealepap.htm>

This account of the Beale buried treasure is a ‘must’ read before embarking on this paper. **A number-linked copy of the Declaration of Independence (DOI)** is detailed in ‘The Beale Papers’, a document that was used to decode Paper or List 2 (The Contents of the Depository). **A copy of the DOI and the 3 sheets of numbers are also located at the end of this document in the addendum.**

The names of the other, still un-deciphered 2 papers are ‘The Locality of the Vault’ (Paper or List 1) and ‘Names & Residencies’ (Paper or List 3). To save confusing repetition ‘Paper or List’ will be cut to an underlined ‘Paper’ in the text whenever referring to one of these 3 named lists of numbers.

A copy of ‘The Beale Treasure; a History of a Mystery’ by the painstaking researcher Peter Viemeister (1989) (ref 4) would also be helpful. It is also important for the reader to understand how a substitution cipher works in practice because the entire exposure of the Beale treasure hoax is linked to the apparent errors found mainly in the second part of this article

The first letter of any numbered word in list 1 & the DOI is to be transferred to the decoding list. For example, the first 4 words (16 letters) can be decoded using the first letter of the DOI number thus:-

i H A i E D E P O S O T E D i N
 115 73 24 807 37 52 49 17 31 62 647 22 7 15 140 47

The 4th number 807 represents an i not a V and the 11th number 647 is an O not an i. Note the apparent random selection of numbers representing any one letter. Continuing thus to the end of the list of numbers (set out below) provides a fairly legible, easily split three paragraph 160 word message despite a lack of punctuation.

A glance at the first page of the DOI numbered list will indicate that almost the entire message could have been restricted to the first 120 numbers. In any case the somewhat devious explanation only provided the value of the treasure, not its exact location.

134 incorrect numbers in 160+ words or 763 letters (over 18%) should not be dismissed as careless mistakes on the part of the code setter. The entire message is set out below with 'mistakes' highlighted in red.

The original would have been one long line of letters.

'I haie deposited in the copntt ol bedoort aboup fourmilesfrombulords in a epcaiation or iault, sip fest below the surlacs of thh gtound ths fotlowing articiss, beionging joiotly to the partfes whosl namfs ate givef in number thrff, httewith:

The first deposit cottistcd of ten hptdred and loprteen pouetr of gold, atd tsirtt-eight suodted and tweiie pounds of silier, deposited Noi. eighteen nineteen. The second wat abds Dec. fighteen twentt-onl, bnt aonsisttd oh ninetffn huedred and seien pounds oo gold, btd twelie hundted atd eightt-eight of silier; aiso tewels, obtained in St. Touit in epchange to sbie transportation, atd ialuel aa thirteet rhousand dollars.

The aboie is secutfly packhd in iton pots, with wrot coiiers. The iault is rougslt lined wtts stone, and the iesselr rest on solid stone, and and coisrfd wiah othtts. Paper number one descrialr the opaat localitt oo the iarlt, to that to dioficultt will ce sad tt finding it.'

Now the decrypted version with 'errors' corrected.

'I have deposited in the county of Bedford, about four miles from Buford's, in an excavation or vault, six feet below the surface of the ground, the following articles, belonging jointly to the parties whose names are given in number three, herewith:

The first deposit consisted of ten hundred and fourteen pounds of gold, and **thirty-eight hundred and twelve** pounds of silver, deposited Nov. eighteen nineteen. The second was made Dec. eighteen twenty-one, and consisted of nineteen hundred and seven pounds of gold, and twelve hundred and eighty-eight of silver; also jewels, obtained in St. Louis in exchange to save transportation, and valued at thirteen thousand dollars.

The above is securely packed in iron pots, with iron covers. The vault is roughly lined with stone, and the vessels rest on solid stone and are covered with others. Paper number one describes the exact locality of the vault, so that no difficulty will be had in finding it.'

The buried clue amongst the other 133 'errors' in list 1.

Leaving aside the '**thirty-eight hundred and twelve**' that was not an error, but is a clue that will be dealt with later, why select a DOI number 1005(P) for X ? The decrypt was easily readable anyway as a Z or + or = would have sufficed. Knowing there was no word in the DOI starting with an X, the text could have been altered from 'excavation' to 'dig' without loss of comprehension.

Having wasted time trying, like so many others, to read meaning into those 134 substituted letters, the underlying blackmail coded message from Wren to Newton coincidentally now came into play. Wren had used the displaced Roman numeral X as the key central letter in the word AXE, a word that carried a double-meaning threat. To chop Newton's illustrious standing and referral to the recently departed philanthropist Thomas Axe.

However the selection of P1005 for the absent DOI word beginning with X was not a threat, but a lynchpin; a major unlocking key. The other 133 'errors' were seemingly a collective, but very effective red herring.

Shortening the odds

It seemed a good idea to take a leaf out of Wren's book and work out how to reduce the 1250 or so number-linked letters in Papers 1 and 3 to something approaching Wren's 131 (that he then reduced to 39).

Unscrambling substitution ciphers based on numerical shifts require a key number. The need to shift everything 5 to the left or count only every 7th letter, can either be discovered by trial and error, or in the more complex cases by recognising an oddity and running with it.

This is how to end up working with a short list of 172 with the aid of an oddity – the number 2906. All 3 Papers are anchored to the 1322 word DOI; a statement many erstwhile treasure-hunters would have disagreed with. Paper 2 has only one 4-figure number (1005) and Paper 1 is the only list to include numbers above the DOI limit of 1322, and at the same time, to have numbers above 1005. Now the reason for the cryptologist selecting P (X) for 1005 will become clear.

The 7 List 1 numbers after 1005 but before DOI ending at 1322

1060 (**H**) (first letter of DOI 1060 ‘have’): 1065 (**T**); 1101(**A**); 1120 (**i**); 1164 (**F**); 1300 (**A**); 1317(**O**):

The 10 numbers exceeding 1322 in List 1 in sequence of appearance and reduced by deducting 1322.

Top 2 rows 1701 minus 1322=379= **S**; 1629 =307=**G**; 2018=696= **L**:
Lower rows 2160 =838=**P**; 1780=458=**C**: 1496=174=**S**:
 1817=495= **B**: 1431=109 = **T**; 1706 =384 = **S**:

Next to last row **2906**

Unlike the others, this last number cannot be reduced by 1322 (2906 minus 1322 =1584 and is still above the DOI limit). Now we have a peg we can hang our coat on.

If correct, the message, whatever it is, should somehow be linked to 2906. The DOI list of numbers provide exactly that. Using the above lists as an example, **P**(839) +**A**(1101) + **S**(384) + **C**(458) + **H**(1060) +**A**(1300) + **L**(696) =5838. As twice 2906 is 5812 this would be of no practical use. Even using one of the other S’s, it still will not fit. Of course not, because that would imply those 16 or 17 letters constituted the entire decrypted message (PASCHAL). A simple unsatisfactory end to the story, eliminating the key 2906 in the process.

However, classify 16 numbers as red special’s and retain the 17th, 2906 as the key. **SGLPCSBTS** + the seven **HTAiFAO**

Although these ‘special’ letters only appear in Paper 1 (and certainly not in Paper 2) there is no reason to suppose the code setter did not intend them to be used in the decoding of Paper 3 as well as Paper 1. It would have been far too obvious to potential code breakers had those numbers been listed publicly in both.

However with some 2000 choices of letters it is possible to create virtually any short string of words in the English language so long as they do not include X or Z. So like Wren, some method of reducing that number very considerably must have been envisaged by the code setter; a reduction that could leave very little room for error on the part of any successful code breaker. The following very strict restrictions comply.

Filter out any letters/numbers not noted in both Papers 1 and 3 and require that all 16 'specials' are included in any message. As already mentioned, the totals of the numbered letters must add up to 2906 or multiples thereof. There are only 172 of these matches (or possibly one or two more missed ones).

Anyone wishing to check this can do so easily enough. Take each list of numbers, write the corresponding DOI word first letter beneath each number. List all these (24, 403, 820 A) for example. Cross off all those that do not match both lists (403A in this case) and one is left with 172. These are they.

The blue numbers are sequential and might be useful for juggling totals. The 16 red* specials must all be included in any decrypt and all numbers may be used only once.

Combined Paper 1 and 3 joint numbers.

Letter A 24 25 27 28 36 51 81 83 88 98 103 116 150 181 200 201
208 236 251 326 820 1001* 1300*

Letter B 9 18 77 90 134 221 230 495*

Letter C 21 65 84 92 94 124 194 458*

Letter D 15 52 63 118 246 296 320

Letter E 7 33 37 49 85 89 138 214

Letter F 11 122 224 1164*

Letter G 48 113 127 307*

Letter H 6 73 107 301 460 936 1060*

Letter I 2 8 67 115 139 286 314 1022*

Letter J 120

Letter K 305

Letter L 42 101 102 176 365 696* 819

Letter M 117 461

Letter N 10 44 47

Letter O 12 31 43 46 56 106 132 136 160 321 416 890 975 1317*

Letter P 13 17 121 162 304 364 838*

Letter R 59 112 219

Letter S 35 38 71 78 **174*** 191 212 216 264 275 **379*** **384***
Letter T 3 14 16 22 26 29 34 39 41 50 55 **60 61 64 68 69 70 74 76 86**
87 97 99 109* 111 119 126 128 172 206 211 218 227 234 247 262 **1065***
Letter U 95
Letter W 19 23 40 66 72 93 213

Now bring into use the 2906 key that should identify the compiler.

To cynics, Paschal Buford was one of the tiny handful of hoax suspects and was related to Ward. He was thought to have been influenced by the award winning idea of ‘The Gold Bug’ (ref 6) by the late Edgar Allen Poe and had died by the time of Ward’s publication.

From the above 172 numbers/letters, selecting 60, apparently produces proof that Paschal (Buford) was indeed the story-teller and code compiler.

**PASCHAL’S TALE - THIS TRACT OF MINE IS BASED ON
 EDGAR ALLAN POE’S - THE GOLD BUG**

The 4 sections. –using all 16 special numbers with no duplication of any number.

PASCHAL’S TALE

P838*/A51/S174*/C458*/H6/A88/L696*/S384*/T109*/A27/L42/E33/=2906

THIS TRACT OF MINE

T1065*/H301/i1120*/S379*/T64/R59/A1001*/C21/T22/O106/F1164*/M461/i2/N10/E37 =5812

IS BASED ON EDGAR ALLAN POE’S

i139/S35/B495*/A1300*/S38/E49/D63/O1317*/N44/E85/D52/G113/A36/R112/A28/L101/L176/A83/N47/P364/O975/E89/S71 = 5812

THE GOLD BUG

T68/H1060*/E7/G307*/O890/L102/D320/B9/U95/G48/=2906

However neat the fit, the above decrypt is in fact another red herring because it omits any reference to a second tract (a gift of land) that will blind-side access to one of the three numeric keys (1701). Why a single ‘U’ when the code setter had plenty to chose from? Answer; because it prevented any chance of Paschal’s surname being included in the same decrypt as ‘The Gold Bug’, forcing the decoder to look further (See below).

Back to the Wren cypher again where the 1701 Act of Succession cropped up and where a V was used instead of a U because a V was required for EVRY'N CHASE.

Aware of the importance of presenting evidence to prove Paschal Buford was indeed the Paschal referred to in the first decrypt (not that there appears to have been another Paschal in Virginia at the time), 'THIS TRACT OF MINE IS' really should have read 'THOSE TRACTS OF MINE ARE'. This had been prevented by the $2 \times 2906 = 5812$ (self-imposed) restriction but after a considerable consumption of paper, pencil and head-scratching, (the code setter had no access to mechanical adding devices, so any code breaker should be able to produce solutions likewise) an answer was produced.

Again by hindsight this forced a 4 section solution, the first and last remaining exactly the same and using the same sequence of numbers, but the second now adding to 8716 (3×2906) and the third to 5812 (2×2906). Both these now using 19 new different numbers from the pot of 172 but still meeting all the self-imposed requirements. 79 out of 172 is a better average than Wren's 39 out of 142.

The 4 sections strung together now read:-

**PASCHAL'S TALE - THOSE TRACTS OF MINE ARE BASED ON
EDGAR ALLAN POE'S - THE GOLD BUG**

The 4 sections.

PASCHAL'S TALE

**P838*/A51/S174*/C458*/H6/A88/L696*/S384*/T109*/A27/L42/E33/
= 2906**

THOSE TRACTS OF MINE

**T86/H936/O975/S35/E49/T126/R59/A1001*/C194/T1065*/S379*/
O1317*/F1164*/M117/i1120*/N10/E85 = 8718 (3×2906)**

ARE BASED ON EDGAR ALLAN POE'S

**A1300*/R112/E89/B495*/A28/S38/E138/D15/O321/N44/E214/D63/
G127/A103/R219/A326/L819/L365/A201/N47/P304/O132/E37/S275
= 5812 (2×2906)**

THE GOLD BUG

T68/H1060*/E7/G307*/O890/L102/D320/B9/U95/G48/ = 2906

Note the use of O rather than E in THOSE tracts. Just like Wren's AXE, a clever play on words because Paschal is mentioning the gifted tracts of land he inherited as well as the tract of writing he had just compiled.

Paper 2 supplied the P(1005)X link that opened the way to making sense of those large numbers in Paper 1. Paper 3 combined with Paper 1 permitted the search to be reduced to manageable numbers.

The P(1005)X link was hidden in plain sight amongst 133 others and the same can be said for the large numbers in Paper 1. There is also something in Paper 3 that is hidden in plain sight.

Counting forwards from the beginning of Paper 3.

317, 8, 92, 73, 112, 89, 67, 318, 28, 96, 107, 41, 631, 78, 146, 397, 118,
 A I C H R E I H A R H T T S T T D
 98, 114, 246, 348, 116, 74, 88, 12, 65, 32, 14, 81, 19, 76, 121, 216, 85,
 A A D L A T A O C T T A W T P S E
 33, 66, 15, 108, 68, 77, 43, 24, 122, 96, 117, 36, 211, 301, 15, 44, 11, 46,
 E W D T T B O A F R M A T H D N F O
 89, 18, 136, 68, 317, 28, 90, 82, 304, 71, 43, 221, 198, 176, 310, 319, 81,
 E B O T A A B M P S O B T L A I A
 99, 264, 380, 56, 37, 319, 2, 44, 53, 28, 44, 75, 98, 102, 37, 85, 107, 117,
 T S B O F I I N R A N T A L E E H M

Adding the value of the first 85 in the top 5 lines cleverly ending at E 85, totals 10,230 (6x1705) but apparently another red herring.

Nothing of note occurred in Virginia in 1705 that would be noteworthy to Buford in the mid 1800's, and who is going to be bothered to add up 85 numbers (averaging about 121) anyway? But now inspect the bottom rows of the same Paper 3 where there are a lot of very big numbers.

The last 5 numbers...952,820,675,495 and 460 total 3402 (2x1701) and the next 18 total 3398(2x1699). This takes care of 2 numbers of importance and adding the top lines total of 10230 to 3398 and 3402 totals 17030 (10x1703) takes care of the other. The only mystery here is why Paschal Buford did not switch the last pair of numbers. Perhaps he was distracted by one of his grandchildren?

975, 10, 22, 18, 46, 137, 181, 101, 39, 86, 103, 116, 138, 164, 212, 218,

O N T B O T A L T T A A E O S T

296, 815, 380, 412 460, 495, 675, 820, 952

F A B W H B J A B

We now have 4 numbers. 1699/1701/1703/1705. One is redundant (it was used to assist in the creation of 1703) because it cannot be linked to Paschal Buford. The other 3 most certainly can.

Number 1699. Paper 2. The sum of the value of the treasure and its locality is 1699.

Number 1703

Paper 2. The sum of all the numerals in the decrypt is 1703.

Number 1701

Paper 1. This is the first four figure number to appear anywhere in the 2000+ numbers in this case. 1701 also relates, as already mentioned, to the year in which the English Parliament passed the Act of Settlement, so as to settle the succession to the English and Irish crowns on Protestants only. The next Protestant in line to the throne was the Electress Sophia of Hanover, of whom George 111 was a direct descendant.

Thus the date was probably etched in Paschal Buford's brain because otherwise King George 111 would not have succeeded to the English throne, and could not then have gifted land (a tract) to his father. Land that he then inherited and in which the Beale Treasure was now supposedly buried.

Ward's incorrect version as published by him in his copyrighted 1885 'The Beale Papers' stated **three thousand eight hundred** (25 letters) but the actual decrypt linked to the DOI numbers was **thirty eight hundred** (18 letters) as also mentioned earlier in this story.

Ward's mistake, repeated by many since, made no difference to the value of the treasure, but totalling the numbers now comes to a meaningless 2676 and proves he was not the source of the cryptic messages. Ward was merely acting on behalf of the real story teller. And that man was assuredly Paschal Buford as will now be demonstrated.

The (odd consecutive integers) new numerical keys, 1699/1701/1703 are all directly linked to the NAMES AND RESIDENCIES Paper 3.

Aptly named by Paschal Buford, but not in the way most thought.

Using the same 2906 numbering system on each of the 3 Papers, PASCHAL BUFORD can be totalled as 1699, 1701 or 1703 a vast number of times. Below is a very small sample. The blue numbers are ‘doubles’ and illustrate the practical use for ‘juggling’ adjacent numbers. Numbers in **blue** are ‘doubles’ and **in red*** are the ‘specials’.

Using that combined Paper 1/3 joint numbers list.

P13/**A200**/S35/C4/H6/**A27/L696*/B495***/U95/F11/O43/R59/D15=1699

P13/**A202**/S35/C4/H6/**A27/L696*/B495***/U95/F11/O43/R59/D15=1701

P13/**A201**/S35/C4/H6/**A27/L696*/B495***/U95/F11/O46/R59/D15=1703

The following examples are from Paper 1.

P17/**A200**/S78/C4/**H960/A24**/L176/B18/U95/F11/O5/R59/D52=1699

P17/**A200**/S78/C4/**H961/A25**/L176/B18/U95/F11/O5/R59/D52=1701

P17/**A201**/S78/C4/**H960/A27**/L176/B18/U95/F11/O5/R59/D52=1703

The following examples are from Paper 2.

P1005/**A24**/S78/C4/H73/**A27/L101**/B9/U95/**F159/O56**/R53/D15=1699

P1005/**A24**/S78/C4/H73/**A28/L101**/B9/U95/**F159/O57**/R53/D15=1701

P1005/**A25**/S78/C4/H73/**A28/L102**/B9/U95/**F159/O57**/R53/D15=1703

The following examples are from Paper 3.

P13/**A24/S274**/C21/H6/**A820/L101**/B9/U95/F11/O12/R53/D260=1699

P13/**A25/S274**/C21/H6/**A821/L101**/B9/U95/F11/O12/R53/D260=1701

P13/**A28/S274**/C21/H6/**A820/L101**/B9/U95/F11/O12/R53/D260=1703

How many can the reader produce, bearing in mind all the above coding was originally computed by Paschal Buford without the aid of even an adding machine? The author totted up 300+, again all without using an adding device, before abandoning the rather pointless exercise. Paschal Buford had certainly made his point, and very cleverly had he done so.

Any sleuth that had simply added some of those large numbers along the bottom of the NAMES AND RESIDENCIES Paper 3 would not have had any reason to stop when 3402 was reached, let alone continue for a further 18. As for bothering to add 85 numbers at the top of the same paper and arrive at 10230 ? A dead end anyway as there was no apparent reason for any of them, thanks in part to Ward’s mistake.

For Paschal Buford to muddy the depths of Paper 3 and plant any other coded message served no useful purpose and he (almost certainly) left all those other letters for others to puzzle over.

Paschal Buford produced all three pages of numbers and planned the entire escapade. He could juggle with numbers and letters and ‘fine tune’ the evidence until he was satisfied. Only then did he pass all the details on to James B Ward. How was he to know, being now also 6 feet under, that Ward would make such a mess of the Paper 2 decrypt in his pamphlet.

Flying Pigs.

INWHISPAEDBEHLDIRCERAINEVRYNCHASEAXEGM

The names of the three persons directly involved in the Beale Treasure Mystery mentioned earlier were WARD, BEALE and PASCHAL. Had there been another L, none of the three names would even had to duplicate a letter.

Conclusions.

Paschal Buford was a brilliant story teller, encouraged by another master, of the 19th Century who in my opinion he eclipsed. Not quite so good as Sir Christopher Wren in the art of code construction but perhaps the best of all time in codifying a tall story and confusing us all by constructing the easily unscrambled Paper 2 with its 134 errors, only one which had any meaning - the single key; P(X)1005.

The single ‘U’

The mystery of that single ‘U’ and its possible link to Buford is now explained. Papers 1 and 2 both listed U95 and U440 but Paper 3 listed U95 and U439. Hence the combined Paper 1/3 reduced list shows only U95. This is what occurs if one considers that the code-setter had by mistake written U439 instead of U440 and the combined list is increased from 172 to 173. Paschal’s surname can now be included thus:-

The 4 sections strung together would have read:-

**PASCHAL BURFORDS TALE - THOSE TRACTS OF MINE ARE
BASED ON EDGAR ALLAN POE’S - THE GOLD BUG**

The 2 sections.

**PASCHAL BURFORD’S TALE - THOSE TRACTS OF MINE
ARE BASED ON E A POE’S**

**P838*/A820/S174*/C458*/H460/A51/L696*/B221/U440/F122/O46/
R219/D296S384*/T109*/A201/L176/E33/T86/H936/O975/S35/E49/
T126/R59/A1001*/C194/T1065*/S379*/O1317*/F1164*/M117/i1120*/
N10/E85/A1300*/R112/E89/B495*/A28/S38/E138/D15/O321/N44/
E214/A326/P304/O132/E37/S275 = 7x2906 = 20342**

THE GOLD BUG**T68/H1060*/E7/G307*/O890/L102/D320/B9/U95/G48/ = 2906**

EDGAR ALLAN POE in full could not be used because all 3 'R's were already in use. But if this had been a mistake any code breaker would have had no reason to pursue investigations further. There was no mistake and there really was only U95, because the case was by no means closed as was demonstrated.

PART TWO**THE FREEMASONRY LINK & NEWTON'S ONLY INVENTION**

Note .The sections marked *** were first published in '*Astronomical Minds*' in 2009 (2) or '*The Cuckoo Paradox*' in 2012 (5); generally in far greater detail.

Part One did not explain exactly why Sir Christopher Wren sent Isaac Newton that threatening message, nor why he suspected Newton would be able to decode it.

1696 -1714. Newton's Revolutionary Invention and Wren's Response.

In 1696 or thereabouts, Isaac Newton, Warden of the Mint, already famous for his research into the properties of light, invented a new angle-measuring device. He sent a description to one the few friends he could trust; Edmond Halley currently controller of the temporary Mint at Chester.

The upshot being that 2 years later the newly promoted Commander E Halley, R.N., carried a secret marine self-correcting reflecting quadrant with him on all three of his Atlantic voyages of discovery.

Halley determined the longitude of Barbados, the correct position of the Scilly Isles, discovered that magnetic variation had shifted 3½ degrees west in the English Channel western approaches since last checked; and much else besides. Admiral Sir Cloudesley Shovell, his commander-in-chief had been affronted by the appointment of a landlubber being put in charge of (his) Royal Naval personnel and Halley was forbidden to publish his results or mention Newton's invention.

In 1701 a concerned Halley anonymously published a '*Warning to Mariners*' broadsheet, pointing out that the Scilly Isles were placed 10 miles south of the position shown on current charts and of the magnetic field's shift.

Six years later, charts still unaltered, Admiral of the fleet Sir Cloudesley Shovell, his flagship *Association* and two of his accompanying fleet *Eagle* and *Romney* ran headlong into the jagged reefs in the western approaches to the Scilly Isles. Shovell and all but one of the sailors from the three heavily armed 'Men-of-War' drowned.

The huge treasure chests aboard *Association* containing Shovell's personal fortune, sailors wages and loot, plus more than 200 heavy cannon, all finished up on the seabed and the bodies and most of what was left of the wooden ships eventually washed ashore on several of the islands, Despite desperate searches (mostly in private houses) nothing of any value was recovered.

Most of the drowned sailors were given paupers graves in the Scilly Isles and their next of kin fought for years to obtain the back pay owed (the men had not been paid off, the tragedy was not caused by an act of war etc.).

The admiral however, was given a hero's burial in Westminster Abbey and the real reasons for the disaster were hushed up. Newton and Halley were not amused and when Newton viewed the text on the admiral's grand marble edifice it seems he decided to engineer a disparaging comment; hidden but clear enough when pointed out to those of a like mind. Halley used an identical ploy two decades later when defending Newton's prior claim to the invention of the marine quadrant,

This is how the 'Newton cypher' worked. Add the total of the individual numbers in a text you have composed. Then number sequentially all the words starting with a capital letter; use that word or the first or last letter to construct a sentence or word that includes the cryptographer's identity. The numbering can commence forwards or backwards and will usually produce several results, all but one of which will be meaningless, thus protecting the cryptographer from exposure.

In the case in question Newton did not compose the epitaph (see below for the full details). The total numbers in the text (2+2+1+7+0+7+5+7) add up to 31. Lots of possibilities but none would have included the word 'Scilly', the 28th (2+8) letter, but if it had been the 29th (2+9) it could have been included. If any lowercase word prior to the 28th could somehow be capitalised, all would be well. Newton selected the easiest to get altered – 'services' a word that should have been capitalised anyway. Grinling Gibbons the mason in charge of the construction, or an assistant, was persuaded to alter the 's' to 'S', a clumsy alteration that remains visible to this day.

Deservedly is now the 18th capitalised word (1+8). **Shipwreckt** the 26th (2+6), **Scylly** the 29th (2+9) and **In** the 35th (3+5) -- total 31. There are still other combinations that also total 31, but again none that include the key word *Scylly*.

Sr¹ CLOUDESLEY² SHOVELL³ Knt⁴
 Rear⁵ Admirall⁶ of Great⁷ Britain⁸
 And⁹ Admirall¹⁰ and Commander¹¹ in Chief¹² of the Fleet¹³
 The¹⁴ juft rewards
 Of¹⁵ his long and faithfull Services¹⁶
 He¹⁷ was
 Defervedly¹⁸ beloved of his Country¹⁹
 And²⁰ efteem'd, tho' dreaded by the Enemy²¹
 Who²² had often experienced his Conduct²³ and Courage²⁴
 Being²⁵ Shipwreckt²⁶
 On²⁷ the Rocks²⁸ of *Scylly*²⁹
 In³⁰ his voyage from Thoulon³¹
 The³² 22^d of October³³ 1707 at Night³⁴
 In³⁵ the 57th year of his Age³⁶
 His³⁷ fate was lamented by all
 But³⁸ Efpecially³⁹ the
 Sea⁴⁰ faring part of the *Nation*⁴¹
 To⁴² whom he was
 A⁴³ Generous⁴⁴ Patron⁴⁵ and a worthy Example⁴⁶
 His⁴⁷ body was flung on the fhoar
 And⁴⁸ buried with others in the fands
 But⁴⁹ foon after taken up
 Was⁵⁰ plac'd under this Monument⁵¹
 Which⁵² his *Royal*⁵³ *Miftrefs*⁵⁴ has cauf'd to be Erected⁵⁵
 To⁵⁶ Commemorate⁵⁷
 His⁵⁸ Steady⁵⁹ Loyalty⁶⁰ and Extraordinary⁶¹ Vertues.⁶²

Unfortunately for Newton, Gibbons was also a friend of the official surveyor to Westminster Abbey, Sir Christopher Wren.

Wren, a mathematician of equal stature had no problem extracting the message. Not certain that Newton was the culprit, Wren waited nearly 7 years before making a move, by which time he was desperately short of funds needed to complete St Pauls Cathedral. Newton was by now Master of the Mint, president of Wren's beloved Royal Society and, with Halley, in charge of the newly funded Longitude Board; established ironically on the back of the Shovell disaster.

Man of principles, childhood playmate of the late King Charles 2nd, Wren decided to construct his own version of the 'Newton' cypher hidden within a ridiculous coded claim on the Longitude prize. If Newton responded, Wren would have his proof; the code within a code would not otherwise be decipherable; even by Newton (or Halley).

The story now takes a temporary leap forward and westward.

1850 -1889 Paschal Buford and those Flying Pig coincidental links to Wren's Blackmail Cypher.

The series of coincidence that suggested that indeed pigs could fly came about because of the number of similarities between the construction of Paschal Buford's cypher and that of Sir Christopher Wren's 1714 blackmail message to Isaac Newton.

As already pointed out in Part 1, in the deciphered underlying blackmail message, only 5 letters of the 39 were not connected in one way or another to the Beale hoax exposure. Even the names of three of the suspect code setters Beale, Ward and Paschal were included.

But even if Wren had been capable of teleporting, he could not have incorporated those letters into a message that had an entirely different meaning. In any case the letter frequency of A, E, I and O are not far removed from the average to be expected in a 39 letter string.

INWHISPAEDBEHLDIRCERAINEVRYNCHASEAXEGM

So what are the similarities between the codes that any code breaker, detective or copyright agent should view with suspicion?

The reduction of variables (Wren from 142 down to 39, Buford Lists 1 & 3 totals 1250 down to 172 and then again to 73).

The use of a well-known unmistakable text as a base. Wren, his cover cypher and Buford the 1322 word version of the Declaration of Independence, (DOI).

Wren using Roman numerals as letters and Buford using the first letter of DOI words and linking them to numbers that could be manipulated to suit.

Wren's use of Roman numerals X and I so as to avoid a meaningless repetition. Buford using an X where there was no need (excavate), thus enabling an entire decrypt possible when allotting a very specific letter P (the first letter in Wren's cypher) in its place and then selecting a carefully chosen DOI word for it.

Wren's use of numbers ($1+7+1+4 = 13$ and $\times 3 = 39$) and Buford using the 2 totals of Paper 2's treasure (1699 and 1703) as a base.

Wren's backward counting and Buford's backward and forward counting of numbers and letters in Paper 3 in order to confirm the 1699 and 1703 base.

At least 6 coincidences, yet Paschal Buford's decrypts still made perfect, in a disappointing sense.

This can only mean that Buford was in possession of a copy of Wren's entire decrypt. Yet apart from Wren, his son and Newton and Halley, no one apparently knew anything about it until the details were published in '*Astronomical Minds*' in 2009.

1714-1885 The Freemason-Royal Society link

There is only one way in which Buford could have obtained a written copy of Wren's entire blackmail cipher and accompanying decrypt; via a secretive confidential chain spanning the Atlantic. This would explain why Buford linked his sequence of decrypts to Edgar Allan Poe's '*The Gold Bug*' rather than betray a confidence by juggling his numbers/letters to permit the decrypt to read '*These tracts of mine are based on Sir Christopher Wren's Longitude claim*'.

Sir Christopher Wren (FRS, Pioneering Freemason) or his son Dr Christopher Wren, FRS and also a Freemason, must have been the two originating sources.

Can a forwarding link *of a document* (not word of mouth) be established initially entirely within fellowship of both the Royal Society and freemasonry?

Wren junior was born in 1675 and died in 1747 and became a fellow of the RS in 1693 and a freemason as early as 1721. By a weird coincidence John Beale FRS and a freemason was a friend of Wren senior and a famous male midwife who would have attended Wren junior's birth. However Beale died in June 1724. It is easy to imagine how the 'Wren code' document, or accurate copies, could have been distributed throughout the London branches of Freemasonry and at the same time understand why any such document/s would go no further. The fact that even the decrypt of three line smokescreen cipher was not published until 1927 confirms this point.

J T Desaguliers (1683-1737) FRS/Freemason might have been privy but was a friend of Newton as were one or two other unlikely conduits.

However George Graham (FRS 1721 born 1673/died November 1751) and the Reverend James Bradley the third Astronomer Royal (FRS 1718, born 1693/died July 1762 and no particular friend of Halley) were both Freemasons and Bradley would certainly have met the one person who could have taken a copy of the document across the Atlantic, Benjamin Franklin

Benjamin Franklin (FRS May 1756 born 1706/died April 1790) was a Freemason, had visited St Andrews University in 1759 and was noted for his number and letter puzzles. He is on record for issued challenges on breaking of codes to FRS fellows when in London.

This is about the end of the direct unbroken double link (FRS and Freemasonry) between Wren and Franklin. The case now moves to North America.

Exactly how an accurate copy of the 'Wren' code found its way from Franklin to James Ward within the long time span of a century is anyone's guess. But arrive it surely must have and Ward was the one person who then felt free to break the Freemason's code of secrecy, having been forced to resign from his lodge in 1867. Hence Paschal Buford, a cousin of Ward's and as far is known, not a Freemason, was handed a copy of 'Wren's' code. And so *'The Beale Buried Treasure'* complex code was devised, not to be published by Ward until after the death of Paschal (in 1875) and his wife Frances (in 1882).

1851 Real Buried Treasure

Whilst Paschal Buford in the early stages of concocting his fictitious tale of buried treasure hidden in his own back yard, far away across the Atlantic real buried treasure was being recovered.

The rocks around the Isles of Scilly caused the wreck of many ships over the years but following the loss a section of Sir Cloudesley Shovell's squadron of in 1707 it was somewhat belatedly decided that the old St. Agnes Island light (that Shovell's lookouts had failed to see) was inadequate.

When divers were preparing the base of the first stone lighthouse on Bishop Rock in 1851, they lived in a shack on the island of Rosevean, coincidentally the nearest piece of habitable land to the Gilstone Ledges, rocks that had done for three ships of Shovell's fleet all those years earlier. On days when the weather prevented work out on Bishop Rock they went diving for Shovell's treasure. According to the professional diver, Roland Morris (7) the only treasure they failed to recover were where items underneath the vast number of heavy cannon or were tucked out of sight in deep crevices.

2018 To Fly or not to Fly - The \$64,000 question

By whatever means the full details of the Wren cypher was acquired by Paschal Buford, be it by Ward, or via an anonymous package, the fact remains - *the details must have arrived from somewhere.*

Over the years, the following 4 lines of capital letters must have been carefully written down and then copied, without errors on several occasions; all the while being kept out of the public domain, within a secretive organisation of some description. Either that or pigs, after all can fly and 6 coincidences do, once in a while occur in real life.

OZVCVAYINIXDNCVOCWEDCNMALNABECIRTEWNGRAMHHCCAW
ZEIYEINOIEBIVTXESCIOCPSEDMNANHSEEPRIWHDRAEHHXCIF
EZKAVEBIMOXRFCSLCEEDHWMGNNIVEOMREWWERRCSHEPCIP

INWHISPAEDBEHLDIRCERAINEVRYNCHASEAXEGM

EZFMIQTOOZLZMRYTEAXBEALWTLOEAFXUIUPXBATNFDUQN

Edmond Halley's use of the Newton code in 1732

*It remains therefore to consider after what Manner Observations of the Moon may be made at Sea with the same Degree of Exactness: But since our worthy Vice President John Hadley, Esq; (to whom we are highly obliged for his having perfected and brought into common Use the Reflecting Telescope) has been pleased to communicate his most ingenious **Invention** of an Instrument for taking the Angles with great Certainty by Reflection, (Vide Transact. **No 420.**) it is more than probable that the same may be applied to taking Angles at Sea with the desired Accuracy.'*

The number count is $4+2+0 = 6$ and restricts any hidden message to a maximum of four words but provides an enormous 138 possibilities. However all but one have absolutely no relevance to the text. Yet '*No invention*' (a reverse count of capitalised words numbers **4** & **11**) surely sums up Halley's private opinion of Hadley's instrument perfectly. Unlike Newton, there would have been no need to sign the message as the author's name headed the article. This he could privately reveal without having to specifically mention the Admiralty embargo should he be called on to explain to those with very long memories why he had failed to properly register Newton's prior claim.

- Reference 1. Simple Genius, David Baldacci; Pan Books 2017*
Reference 2 Astronomical Minds, Ted Gerrard; Samos Books 2009
Reference 3 The Beale papers, James B Ward; 1885
Reference 4 The Beale Treasure; Peter Viemeister; Hamiltons 1987
Reference 5 The Cuckoo Paradox, Ted Gerrard; Samos Books 2012
Reference 6 The Gold Bug. Edgar Allan Poe; 1843 ([Kindle version 99p](#))
Reference 7 'Island Treasure' Roland Morris, Hutchinson, 1969

DECLARATION OF INDEPENDENCE

When(1) in(2) the(3) course(4) of(5) human(6) events(7) it(8) becomes(9) necessary(10) for(11) one(12) people(13) to(14) dissolve(15) the(16) political(17) bands(18) which(19) have(20) connected(21) them(22) with(23) another(24) and(25) to(26) assume(27) among(28) the(29) powers(30) of(31) the(32) earth(33) the(34) separate(35) and(36) equal(37) station(38) to(39) which(40) the(41) laws(42) of(43) nature(44) and(45) of(46) nature's(47) god(48) entitle(49) them(50) a(51) decent(52) respect(53) to(54) the(55) opinions(56) of(57) mankind(58) requires(59) that(60) they(61) should(62) declare(63) the(64) causes(65) which(66) impel(67) them(68) to(69) the(70) separation(71) we(72) hold(73) these(74) truths(75) to(76) be(77) self(78) evident(79) that(80) all(81) men(82) are(83) created(84) equal(85) that(86) they(87) are(88) endowed(89) by(90) their(91) creator(92) with(93) certain(94) unalienable(95) rights(96) that(97) among(98) these(99) are(100) life(101) liberty(102) and(103) the(104) pursuit(105) of(106) happiness(107) that(108) to(109) secure(110) these(111) rights(112) governments(113) are(114) instituted(115) among(116) men(117) deriving(118) their(119) just(120) powers(121) from(122) the(123) consent(124) of(125) the(126) governed(127) that(128) whenever(129) any(130) form(131) of(132) government(133) becomes(134) destructive(135) of(136) these(137) ends(138) it(139) is(140) the(141) right(142) of(143) the(144) people(145) to(146) alter(147) or(148) to(149) abolish(150) it(151) and(152) to(153) institute(154) new(155) government(156) laying(157) its(158) foundation(159) on(160) such(161) principles(162) and(163) organizing(164) its(165) powers(166) in(167) such(168) form(169) as(170) to(171) them(172) shall(173) seem(174) most(175) likely(176) to(177) effect(178) their(179) safety(180) and(181) happiness(182) prudence(183) indeed(184) will(185) dictate(186) that(187) governments(188) long(189) established(190) should(191) not(192) be(193) changed(194) for(195) light(196) and(197) transient(198) causes(199) and(200) accordingly(201) all(202) experience(203) hath(204) shown(205) that(206) mankind(207) are(208) more(209) disposed(210) to(211) suffer(212) while(213) evils(214) are(215) sufferable(216) than(217) to(218) right(219) themselves(220) by(221) abolishing(222) the(223) forms(224) to(225) which(226) they(227) are(228) accustomed(229) but(230) when(231) a(232) long(233) train(234) of(235) abuses(236) and(237) usurpations(238) pursuing(239) invariably(240) the(241) same(242) object(243) evinces(244) a(245) design(246) to(247) reduce(248) them(249) under(250) absolute(251) despotism(252) it(253) is(254) their(255) right(256) it(257) is(258) their(259) duty(260) to(261) throw(262) off(263) such(264) government(265) and(266) to(267) provide(268) new(269) guards(270) for(271) their(272) future(273) security(274) such(275) has(276) been(277) the(278) patient(279) sufferance(280) of(281) these(282) colonies(283) and(284) such(285) is(286) now(287) the(288) necessity(289) which(290) constrains(291) them(292) to(293) alter(294) their(295) former(296) systems(297) of(298) government(299) the(300) history(301) of(302) the(303) present(304) king(305) of(306) great(307) Britain(308) is(309) a(310) history(311) of(312) repeated(313) injuries(314) and(315) usurpations(316) all(317) having(318) in(319) direct(320) object(321) the(322) establishment(323) of(324) an(325) absolute(326) tyranny(327) over(328) these(329) states(330) to(331) prove(332) this(333) let(334) facts(335) be(336) submitted(337) to(338) a(339) candid(340) world(341) he(342) has(343) refused(344) his(345) assent(346) to(347) laws(348) the(349) most(350) wholesome(351) and(352) necessary(353) for(354) the(355) public(356) good(357) he(358) has(359) forbidden(360) his(361) governors(362) to(363) pass(364) laws(365) of(366) immediate(367) and(368) pressing(369) importance(370) unless(371) suspended(372) in(373) their(374) operation(375) till(376) his(377) assent(378) should(379) be(380) obtained(381) and(382) when(383) so(384) suspended(385) he(386) has(387) utterly(388) neglected(389) to(390) attend(391) to(392) them(393) he(394) has(395) refused(396) to(397) pass(398) other(399) laws(400) for(401) the(402) accommodation(403) of(404) large(405) districts(406) of(407) people(408) unless(409) those(410) people(411) would(412) relinquish(413) the(414)

right(415) of(416) representation(417) in(418) the(419) legislature(420) a(421) right(422) inestimable(423) to(424) them(425) and(426) formidable(427) to(428) tyrants(429) only(430) he(431) has(432) called(433) together(434) legislative(435) bodies(436) at(437) places(438) **unusual(439) uncomfortable(440)** and(441) distant(442) from(443) the(444) depository(445) of(446) their(447) public(448) records(449) for(450) the(451) sole(452) purpose(453) of(454) fatiguing(455) them(456) into(457) compliance(458) with(459) his(460) measures(461) he(462) has(463) dissolved(464) representative(465) houses(466) repeatedly(467) for(468) opposing(469) with(470) manly(471) firmness(472) his(473) invasions(474) on(475) the(476) rights(477) of(478) the(479) people(480) he(481) has(482) refused(483) for(484) a(485) long(486) time(487) after(488) such(489) dissolutions(490) to(491) cause(492) others(493) to(494) be(495) elected(496) whereby(497) the(498) legislative(499) powers(500) incapable(501) of(502) annihilation(503) have(504) returned(505) to(506) the(507) people(508) at(509) large(510) for(511) their(512) exercise(513) the(514) state(515) remaining(516) in(517) the(518) meantime(519) exposed(520) to(521) all(522) the(523) dangers(524) of(525) invasion(526) from(527) without(528) and(529) convulsions(530) within(531) he(532) has(533) endeavored(534) to(535) prevent(536) the(537) population(538) of(539) these(540) states(541) for(542) that(543) purpose(544) obstructing(545) the(546) laws(547) for(548) naturalization(549) of(550) foreigners(551) refusing(552) to(553) pass(554) others(555) to(556) encourage(557) their(558) migration(559) hither(560) and(561) raising(562) the(563) conditions(564) of(565) new(566) appropriations(567) of(568) lands(569) he(570) has(571) obstructed(572) the(573) administration(574) of(575) justice(576) by(577) refusing(578) his(579) assent(580) to(581) laws(582) for(583) establishing(584) judiciary(585) powers(586) he(587) has(588) made(589) judges(590) dependent(591) on(592) his(593) will(594) alone(595) for(596) the(597) tenure(598) of(599) their(600) offices(601) and(602) the(603) amount(604) and(605) payment(606) of(607) their(608) salaries(609) he(610) has(611) erected(612) a(613) multitude(614) of(615) new(616) offices(617) and(618) sent(619) hither(620) swarms(621) of(622) officers(623) to(624) harass(625) our(626) people(627) and(628) eat(629) out(630) their(631) substance(632) he(633) has(634) kept(635) among(636) us(637) in(638) times(639) of(640) peace(641) standing(642) armies(643) without(644) the(645) consent(646) of(647) our(648) legislatures(649) he(650) has(651) affected(652) to(653) render(654) the(655) military(656) independent(657) of(658) and(659) superior(660) to(661) the(662) civil(663) power(664) he(665) has(666) combined(667) with(668) others(669) to(670) subject(671) us(672) to(673) a(674) jurisdiction(675) foreign(676) to(677) our(678) constitution(679) and(680) unacknowledged(681) by(682) our(683) laws(684) giving(685) his(686) assent(687) to(688) their(689) acts(690) of(691) pretended(692) legislation(693) for(694) quartering(695) large(696) bodies(697) of(698) armed(699) troops(700) among(701) us(702) for(703) protecting(704) them(705) by(706) a(707) mock(708) trial(709) from(710) punishment(711) for(712) any(713) murders(714) which(715) they(716) should(717) commit(718) on(719) the(720) inhabitants(721) of(722) these(723) states(724) for(725) cutting(726) off(727) our(728) trade(729) with(730) all(731) parts(732) of(733) the(734) world(735) for(736) imposing(737) taxes(738) on(739) us(740) without(741) our(742) consent(743) for(744) depriving(745) us(746) in(747) many(748) cases(749) of(750) the(751) benefits(752) of(753) trial(754) by(755) jury(756) for(757) transporting(758) us(759) beyond(760) seas(761) to(762) be(763) tried(764) for(765) pretended(766) offenses(767) for(768) abolishing(769) the(770) free(771) system(772) of(773) English(774) laws(775) in(776) a(777) neighboring(778) province(779) establishing(780) therein(781) an(782) arbitrary(783) government(784) and(785) enlarging(786) its(787) boundaries(788) so(789) as(790) to(791) render(792) it(793) at(794) once(795) an(796) example(797) and(798) fit(799) instrument(800) for(801) introducing(802) the(803) same(804) absolute(805) rule(806) into(807) these(808) colonies(809) for(810) taking(811) away(812) our(813) charters(814) abolishing(815) our(816) most(817) **valuable(818)** laws(819) and(820) altering(821) fundamentally(822) the(823) forms(824) of(825) our(826) governments(827) for(828) suspending(829) our(830) own(831) legislature(832) and(833) declaring(834) themselves(835) invested(836) with(837) power(838) to(839) legislate(840) for(841) us(842) in(843) all(844) cases(845) whatsoever(846) he(847) has(848) abdicated(849) government(850) here(851) by(852) declaring(853) us(854) out(855) of(856) his(857) protection(858) and(859) waging(860) war(861) against(862) us(863) he(864) has(865) plundered(866) our(867) seas(868)

ravaged(869) our(870) coasts(871) burnt(872) our(873) towns(874) and(875) destroyed(876) the(877) lives(878) of(879) our(880) people(881) he(882) is(883) at(884) this(885) time(886) transporting(887) large(888) armies(889) of(890) foreign(891) mercenaries(892) to(893) complete(894) the(895) works(896) of(897) death(898) desolation(899) and(900) tyranny(901) already(902) begun(903) with(904) circumstances(905) of(906) cruelty(907) and(&)(908) perfidy(909) scarcely(910) paralleled(911) in(912) the(913) most(914) barbarous(915) ages(916) and(917) totally(918) unworthy(919) the(920) head(921) of(922) a(923) civilized(924) nation(925) he(926) has(927) constrained(928) our(929) fellow(930) citizens(931) taken(932) captive(933) on(934) the(935) high(936) seas(937) to(938) bear(939) arms(940) against(941) their(942) country(943) to(944) become(945) the(946) executioners(947) of(948) their(949) friends(950) and(951) brethren(952) or(953) to(954) fall(955) themselves(956) by(957) their(958) hands(959) he(960) has(961) excited(962) domestic(963) insurrections(964) amongst(965) us(966) and(967) has(968) endeavored(969) to(970) bring(971) on(972) the(973) inhabitants(974) of(975) our(976) frontiers(977) the(978) merciless(979) Indian(980) savages(981) whose(982) known(983) rule(984) of(985) warfare(986) is(987) an(988) undistinguished(989) destruction(990) of(991) all(992) ages(993) sexes(994) and(995) conditions(996) in(997) every(998) stage(999) of(1000) these(1001) oppressions(1002) we(1003) have(1004) petitioned(1005) for(1006) redress(1007) in(1008) the(1009) most(1010) humble(1011) terms(1012) our(1013) repeated(1014) petitions(1015) have(1016) been(1017) answered(1018) only(1019) by(1020) repeated(1021) injury(1022) a(1023) prince(1024) whole(1025) character(1026) is(1027) thus(1028) marked(1029) by(1030) every(1031) act(1032) which(1033) may(1034) define(1035) a(1036) tyrant(1037) is(1038) unfit(1039) to(1040) be(1041) the(1042) ruler(1043) of(1044) a(1045) free(1046) people(1047) nor(1048) have(1049) we(1050) been(1051) wanting(1052) in(1053) attention(1054) to(1055) our(1056) British(1057) brethren(1058) we(1059) have(1060) warned(1061) them(1062) from(1063) time(1064) to(1065) time(1066) of(1067) attempts(1068) by(1069) their(1070) legislature(1071) to(1072) extend(1073) an(1074) unwarrantable(1075) jurisdiction(1076) over(1077) us(1078) we(1079) have(1080) reminded(1081) them(1082) of(1083) the(1084) circumstances(1085) of(1086) our(1087) emigration(1088) and(1089) settlement(1090) here(1091) we(1092) have(1093) appealed(1094) to(1095) their(1096) native(1097) justice(1098) and(1099) magnanimity(1100) and(1101) we(1102) have(1103) conjured(1104) them(1105) by(1106) the(1107) ties(1108) of(1109) our(1110) common(1111) kindred(1112) to(1113) disavow(1114) these(1115) usurpations(1116) which(1117) would(1118) inevitably(1119) interrupt(1120) our(1121) connections(1122) and(1123) correspondence(1124) they(1125) too(1126) have(1127) been(1128) deaf(1129) to(1130) the(1131) voice(1132) of(1133) justice(1134) and(1135) of(1136) consanguinity(1137) we(1138) must(1139) therefore(1140) acquiesce(1141) in(1142) the(1143) necessity(1144) which(1145) denounces(1146) our(1147) separation(1148) and(1149) hold(1150) them(1151) as(1152) we(1153) hold(1154) the(1155) rest(1156) of(1157) mankind(1158) enemies(1159) in(1160) war(1161) in(1162) peace(1163) friends(1164) we(1165) therefore(1166) the(1167) representatives(1168) of(1169) the(1170) united(1171) states(1172) of(1173) America(1174) in(1175) general(1176) congress(1177) assembled(1178) appealing(1179) to(1180) the(1181) supreme(1182) judge(1183) of(1184) the(1185) world(1186) for(1187) the(1188) rectitude(1189) of(1190) our(1191) intentions(1192) do(1193) in(1194) the(1195) name(1196) and(1197) by(1198) authority(1199) of(1200) the(1201) good(1202) people(1203) of(1204) these(1205) colonies(1206) solemnly(1207) publish(1208) and(1209) declare(1210) that(1211) these(1212) united(1213) colonies(1214) are(1215) and(1216) of(1217) right(1218) ought(1219) to(1220) be(1221) free(1222) and(1223) independent(1224) states(1225) that(1226) they(1227) are(1228) absolved(1229) from(1230) all(1231) allegiance(1232) to(1233) the(1234) British(1235) crown(1236) and(1237) that(1238) all(1239) political(1240) connection(1241) between(1242) them(1243) and(1244) the(1245) state(1246) of(1247) great(1248) Britain(1249) is(1250) and(1251) ought(1252) to(1253) be(1254) totally(1255) dissolved(1256) and(1257) that(1258) as(1259) free(1260) and(1261) independent(1262) states(1263) they(1264) have(1265) full(1266) power(1267) to(1268) levy(1269) war(1270) conclude(1271) peace(1272) contract(1273) alliances(1274) establish(1275) commerce(1276) and(1277) to(1278) do(1279) all(1280) other(1281) acts(1282) and(1283) things(1284) which(1285) independent(1286) states(1287) may(1288) of(1289) right(1290) do(1291) and(1292) for(1293) the(1294) support(1295) of(1296)

this(1297) declaration(1298) with(1299) a(1300) firm(1301) reliance(1302) on(1303) the(1304) protection(1305) of(1306) divine(1307) providence(1308) we(1309) mutually(1310) pledge(1311) to(1312) each(1313) other(1314) our(1315) lives(1316) our(1317) fortunes(1318) and(1319) our(1320) sacred(1321) honor(1322)

Paper 1 The Locality of the vault.

71, 194, 38, 1701, 89, 76, 11, 83, 1629, 48, 94, 63, 132, 16, 111, 95, 84, 341, 975, 14, 40, 64, 27, 81, 139, 213, 63, 90, 1120, 8, 15, 3, 126, 2018, 40, 74, 758, 485, 604, 230, 436, 664, 582, 150, 251, 284, 308, 231, 124, 211, 486, 225, 401, 370, 11, 101, 305, 139, 189, 17, 33, 88, 208, 193, 145, 1, 94, 73, 416, 918, 263, 28, 500, 538, 356, 117, 136, 219, 27, 176, 130, 10, 460, 25, 485, 18, 436, 65, 84, 200, 283, 118, 320, 138, 36, 416, 280, 15, 71, 224, 961, 44, 16, 401, 39, 88, 61, 304, 12, 21, 24, 283, 134, 92, 63, 246, 486, 682, 7, 219, 184, 360, 780, 18, 64, 463, 474, 131, 160, 79, 73, 440, 95, 18, 64, 581, 34, 69, 128, 367, 460, 17, 81, 12, 103, 820, 62, 116, 97, 103, 862, 70, 60, 1317, 471, 540, 208, 121, 890, 346, 36, 150, 59, 568, 614, 13, 120, 63, 219, 812, 2160, 1780, 99, 35, 18, 21, 136, 872, 15, 28, 170, 88, 4, 30, 44, 112, 18, 147, 436, 195, 320, 37, 122, 113, 6, 140, 8, 120, 305, 42, 58, 461, 44, 106, 301, 13, 408, 680, 93, 86, 116, 530, 82, 568, 9, 102, 38, 416, 89, 71, 216, 728, 965, 818, 2, 38, 121, 195, 14, 326, 148, 234, 18, 55, 131, 234, 361, 824, 5, 81, 623, 48, 961, 19, 26, 33, 10, 1101, 365, 92, 88, 181, 275, 346, 201, 206, 86, 36, 219, 324, 829, 840, 64, 326, 19, 48, 122, 85, 216, 284, 919, 861, 326, 985, 233, 64, 68, 232, 431, 960, 50, 29, 81, 216, 321, 603, 14, 612, 81, 360, 36, 51, 62, 194, 78, 60, 200, 314, 676, 112, 4, 28, 18, 61, 136, 247, 819, 921, 1060, 464, 895, 10, 6, 66, 119, 38, 41, 49, 602, 423, 962, 302, 294, 875, 78, 14, 23, 111, 109, 62, 31, 501, 823, 216, 280, 34, 24, 150, 1000, 162, 286, 19, 21, 17, 340, 19, 242, 31, 86, 234, 140, 607, 115, 33, 191, 67, 104, 86, 52, 88, 16, 80, 121, 67, 95, 122, 216, 548, 96, 11, 201, 77, 364, 218, 65, 667, 890, 236, 154, 211, 10, 98, 34, 119, 56, 216, 119, 71, 218, 1164, 1496, 1817, 51, 39, 210, 36, 3, 19, 540, 232, 22, 141, 617, 84, 290, 80, 46, 207, 411, 150, 29, 38, 46, 172, 85, 194, 39, 261, 543, 897, 624, 18, 212, 416, 127, 931, 19, 4, 63, 96, 12, 101, 418, 16, 140, 230, 460, 538, 19, 27, 88, 612, 1431, 90, 716, 275, 74, 83, 11, 426, 89, 72, 84, 1300, 1706, 814, 221, 132, 40, 102, 34, 868, 975, 1101, 84, 16, 79, 23, 16, 81, 122, 324, 403, 912, 227, 936, 447, 55, 86, 34, 43, 212, 107, 96, 314, 264, 1065, 323, 428, 601, 203, 124, 95, 216, 814, 2906, 654, 820, 2, 301, 112, 176, 213, 71, 87, 96, 202, 35, 10, 2, 41, 17, 84, 221, 736, 820, 214, 11, 60, 760

Paper 2 The Contents of the Depository

115, 73, 24, 807, 37, 52, 49, 17, 31, 62, 647, 22, 7, 15, 140, 47, 29, 107, 79, 84, 56, 239, 10, 26, 811, 5, 196, 308, 85, 52, 160, 136, 59, 211, 36, 9, 46, 316, 554, 122, 106, 95, 53, 58, 2, 42, 7, 35, 122, 53, 31, 82, 77, 250, 196, 56, 96, 118, 71, 140, 287, 28, 353, 37, 1005, 65, 147, 807, 24, 3, 8, 12, 47, 43, 59, 807, 45, 316, 101, 41, 78, 154, 1005, 122, 138, 191, 16, 77, 49, 102, 57, 72, 34, 73, 85, 35, 371, 59, 196, 81, 92, 191, 106, 273, 60, 394, 620, 270, 220, 106, 388, 287, 63, 3, 6, 191, 122, 43, 234, 400, 106, 290, 314, 47, 48, 81, 96, 26, 115, 92, 158, 191, 110, 77, 85, 197, 46, 10, 113, 140, 353, 48, 120, 106, 2, 607, 61, 420, 811, 29, 125, 14, 20, 37, 105, 28, 248, 16, 159, 7, 35, 19, 301, 125, 110, 486, 287, 98, 117, 511, 62, 51, 220, 37, 113, 140, 807, 138, 540, 8, 44, 287, 388, 117, 18, 79, 344, 34, 20, 59, 511, 548, 107, 603, 220, 7, 66, 154, 41, 20, 50, 6, 575, 122, 154, 248, 110, 61, 52, 33, 30, 5, 38, 8, 14, 84, 57, 540, 217, 115, 71, 29, 84, 63, 43, 131, 29, 138, 47, 73, 239, 540, 52, 53, 79, 118, 51, 44, 63, 196, 12, 239, 112, 3, 49, 79, 353, 105, 56, 371, 557, 211, 505, 125, 360, 133, 143, 101, 15, 284, 540, 252, 14, 205, 140, 344, 26, 811, 138, 115, 48, 73, 34, 205, 316, 607, 63, 220, 7, 52, 150, 44, 52, 16, 40, 37, 158, 807, 37, 121, 12, 95, 10, 15, 35, 12, 131, 62, 115, 102, 807, 49, 53, 135, 138, 30, 31, 62, 67, 41, 85, 63, 10, 106, 807, 138, 8, 113, 20, 32, 33, 37, 353, 287, 140, 47, 85, 50, 37, 49, 47, 64, 6, 7, 71, 33, 4, 43, 47, 63, 1, 27, 600, 208, 230, 15, 191, 246, 85, 94, 511, 2, 270, 20, 39, 7, 33, 44, 22, 40, 7, 10, 3, 811, 106, 44, 486, 230, 353, 211, 200, 31, 10, 38, 140, 297, 61, 603, 320, 302, 666, 287, 2, 44, 33, 32, 511, 548, 10, 6, 250, 557, 246, 53, 37, 52, 83, 47, 320, 38, 33, 807, 7, 44, 30, 31, 250, 10, 15, 35, 106, 160, 113, 31, 102, 406, 230, 540, 320, 29, 66, 33, 101, 807, 138, 301, 316, 353, 320, 220, 37, 52, 28, 540, 320, 33, 8, 48, 107, 50, 811, 7, 2, 113, 73, 16, 125, 11, 110, 67, 102, 807, 33, 59, 81, 158, 38, 43, 581, 138, 19, 85, 400, 38, 43, 77, 14, 27, 8, 47, 138, 63, 140, 44, 35, 22, 177, 106, 250, 314, 217, 2, 10, 7, 1005, 4, 20, 25, 44, 48, 7, 26, 46, 110, 230, 807, 191, 34, 112, 147, 44, 110, 121, 125, 96, 41, 51, 50, 140, 56, 47, 152, 540, 63, 807, 28, 42, 250, 138, 582, 98, 643, 32, 107, 140, 112, 26, 85, 138, 540, 53, 20, 125, 371, 38, 36, 10, 52, 118, 136, 102, 420, 150, 112, 71, 14, 20, 7, 24, 18, 12, 807, 37, 67, 110, 62, 33, 21, 95, 220, 511, 102, 811, 30, 83, 84, 305, 620, 15, 2, 10, 8, 220, 106, 353, 105, 106, 60, 275, 72, 8, 50, 205, 185, 112, 125, 540, 65, 106, 807, 138, 96, 110, 16, 73, 33, 807, 150, 409, 400, 50, 154, 285, 96, 106, 316, 270, 205, 101, 811, 400, 8, 44, 37, 52, 40, 241, 34, 205, 38, 16, 46, 47, 85, 24, 44, 15, 64, 73, 138, 807, 85, 78, 110, 33, 420, 505, 53, 37, 38, 22, 31, 10, 110, 106, 101, 140, 15, 38,

3, 5, 44, 7, 98, 287, 135, 150, 96, 33, 84, 125, 807, 191, 96, 511, 118, 40,
370, 643, 466, 106, 41, 107, 603, 220, 275, 30, 150, 105, 49, 53, 287,
250, 208, 134, 7, 53, 12, 47, 85, 63, 138, 110, 21, 112, 140, 485, 486,
505, 14, 73, 84, 575, 1005, 150, 200, 16, 42, 5, 4, 25, 42, 8, 16, 811, 125,
160, 32, 205, 603, 807, 81, 96, 405, 41, 600, 136, 14, 20, 28, 26, 353,
302, 246, 8, 131, 160, 140, 84, 440, 42, 16, 811, 40, 67, 101, 102, 194,
138, 205, 51, 63, 241, 540, 122, 8, 10, 63, 140, 47, 48, 140, 288

Paper 3 Names and Residences

317, 8, 92, 73, 112, 89, 67, 318, 28, 96, 107, 41, 631, 78, 146, 397, 118, 98, 114, 246, 348, 116, 74, 88, 12, 65, 32, 14, 81, 19, 76, 121, 216, 85, 33, 66, 15, 108, 68, 77, 43, 24, 122, 96, 117, 36, 211, 301, 15, 44, 11, 46, 89, 18, 136, 68, 317, 28, 90, 82, 304, 71, 43, 221, 198, 176, 310, 319, 81, 99, 264, 380, 56, 37, 319, 2, 44, 53, 28, 44, 75, 98, 102, 37, 85, 107, 117, 64, 88, 136, 48, 151, 99, 175, 89, 315, 326, 78, 96, 214, 218, 311, 43, 89, 51, 90, 75, 128, 96, 33, 28, 103, 84, 65, 26, 41, 246, 84, 270, 98, 116, 32, 59, 74, 66, 69, 240, 15, 8, 121, 20, 77, 89, 31, 11, 106, 81, 191, 224, 328, 18, 75, 52, 82, 117, 201, 39, 23, 217, 27, 21, 84, 35, 54, 109, 128, 49, 77, 88, 1, 81, 217, 64, 55, 83, 116, 251, 269, 311, 96, 54, 32, 120, 18, 132, 102, 219, 211, 84, 150, 219, 275, 312, 64, 10, 106, 87, 75, 47, 21, 29, 37, 81, 44, 18, 126, 115, 132, 160, 181, 203, 76, 81, 299, 314, 337, 351, 96, 11, 28, 97, 318, 238, 106, 24, 93, 3, 19, 17, 26, 60, 73, 88, 14, 126, 138, 234, 286, 297, 321, 365, 264, 19, 22, 84, 56, 107, 98, 123, 111, 214, 136, 7, 33, 45, 40, 13, 28, 46, 42, 107, 196, 227, 344, 198, 203, 247, 116, 19, 8, 212, 230, 31, 6, 328, 65, 48, 52, 59, 41, 122, 33, 117, 11, 18, 25, 71, 36, 45, 83, 76, 89, 92, 31, 65, 70, 83, 96, 27, 33, 44, 50, 61, 24, 112, 136, 149, 176, 180, 194, 143, 171, 205, 296, 87, 12, 44, 51, 89, 98, 34, 41, 208, 173, 66, 9, 35, 16, 95, 8, 113, 175, 90, 56, 203, 19, 177, 183, 206, 157, 200, 218, 260, 291, 305, 618, 951, 320, 18, 124, 78, 65, 19, 32, 124, 48, 53, 57, 84, 96, 207, 244, 66, 82, 119, 71, 11, 86, 77, 213, 54, 82, 316, 245, 303, 86, 97, 106, 212, 18, 37, 15, 81, 89, 16, 7, 81, 39, 96, 14, 43, 216, 118, 29, 55, 109, 136, 172, 213, 64, 8, 227, 304, 611, 221, 364, 819, 375, 128, 296, 1, 18, 53, 76, 10, 15, 23, 19, 71, 84, 120, 134, 66, 73, 89, 96, 230, 48, 77, 26, 101, 127, 936, 218, 439, 178, 171, 61, 226, 313, 215, 102, 18, 167, 262, 114, 218, 66, 59, 48, 27, 19, 13, 82, 48, 162, 119, 34, 127, 139, 34, 128, 129, 74, 63, 120, 11, 54, 61, 73, 92, 180, 66, 75, 101, 124, 265, 89, 96, 126, 274, 896, 917, 434, 461, 235, 890, 312, 413, 328, 381, 96, 105, 217, 66, 118, 22, 77, 64, 42, 12, 7, 55, 24, 83, 67, 97, 109, 121, 135, 181, 203, 219, 228, 256, 21, 34, 77, 319, 374, 382, 675, 684, 717, 864, 203, 4, 18, 92, 16, 63, 82, 22, 46, 55, 69, 74, 112, 134, 186, 175, 119, 213, 416, 312, 343, 264, 119, 186, 218, 343, 417, 845, 951, 124, 209, 49, 617, 856, 924, 936, 72, 19, 28, 11, 35, 42, 40, 66, 85, 94, 112, 65, 82, 115, 119, 236, 244, 186, 172, 112, 85, 6, 56, 38, 44, 85, 72, 32, 47, 63, 96, 124, 217, 314, 319, 221, 644, 817, 821, 934, 922, 416, 975, 10, 22, 18, 46, 137, 181, 101, 39, 86, 103, 116, 138, 164, 212, 218, 296, 815, 380, 412, 460, 495, 675, 820, 952

END