

*Baker Street Elementary*

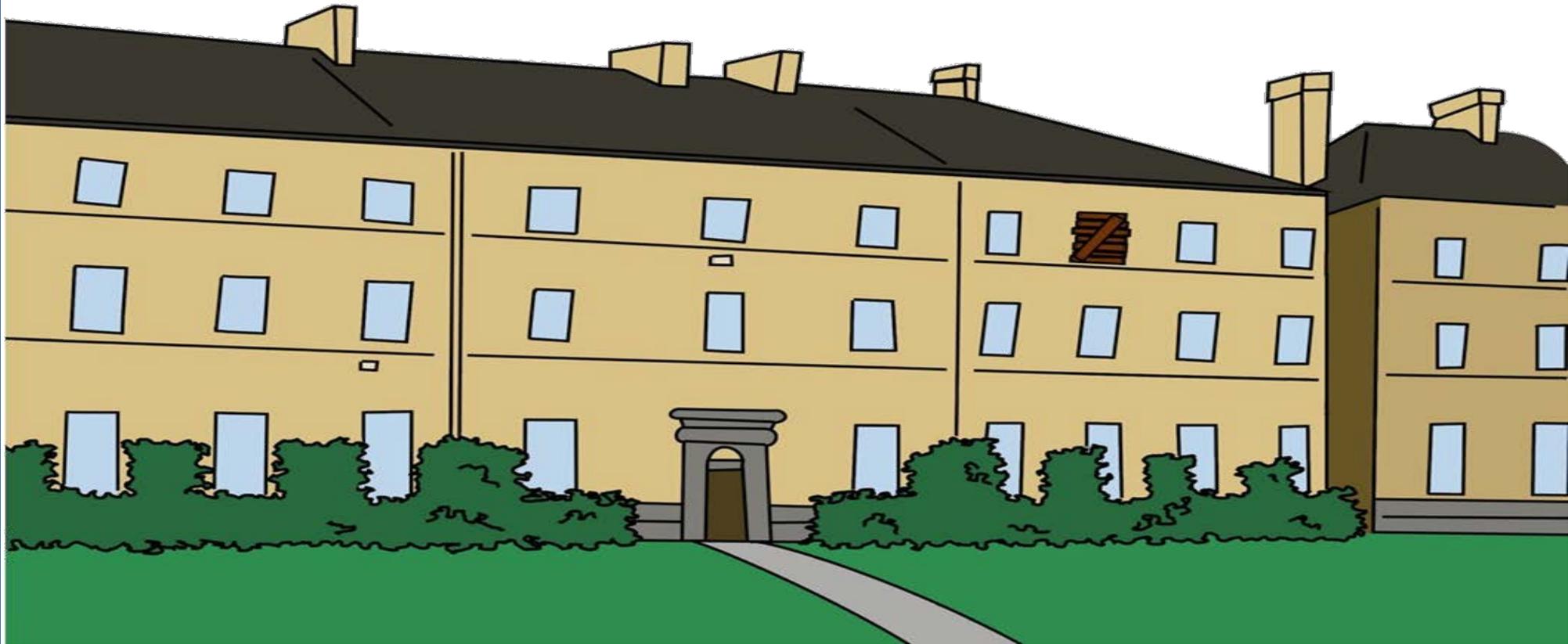
*Presents*

*"The Life and Times in Victorian London"*



# *Baker Street Elementary*

*The Life and Times in Victorian London*  
*# 085 -- Making Sense of the Message - 11/18/2018*





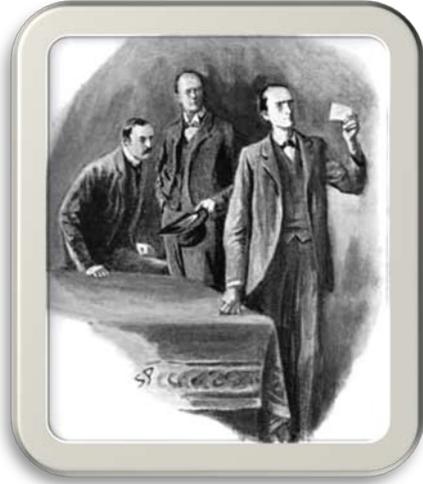
*Welcome to topic number 085...  
Today, Master Gregson and I  
will look at codes and ciphers  
during our period.*



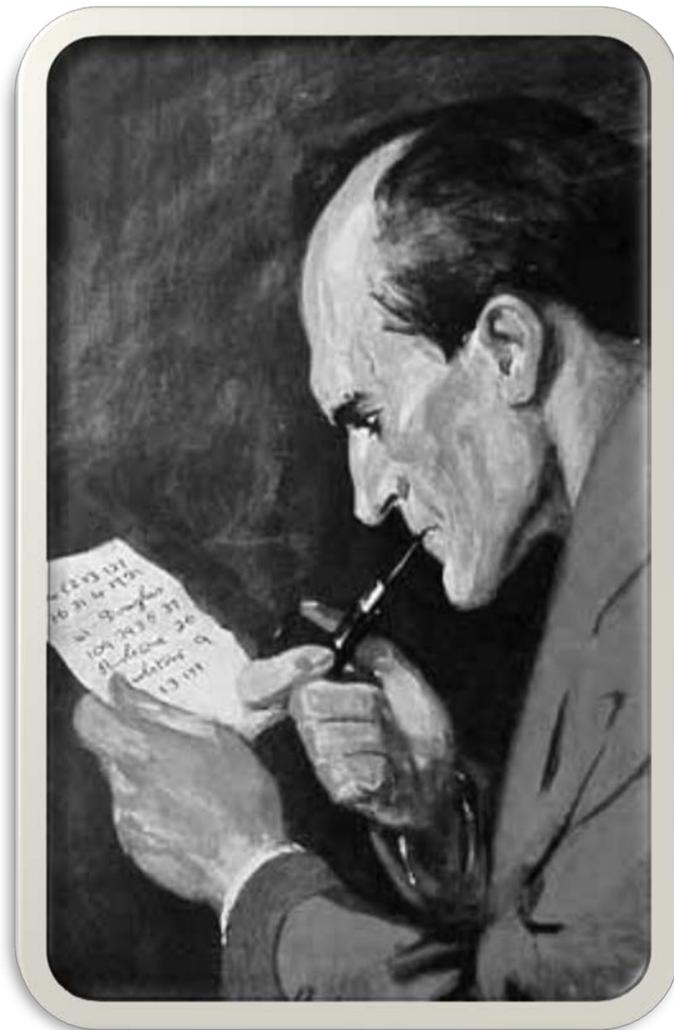
*Ciphers or codes will be used in six of the stories in the Canon, of which four Holmes must crack to solve a case.*



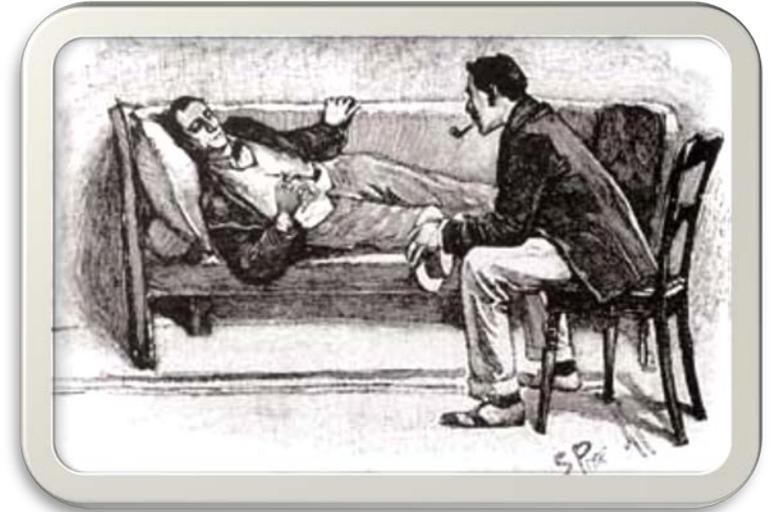
*He will note in "The Adventure of the Dancing Men" he has analyzed one hundred-sixty ciphers and does come across different ones in each of these stories.*



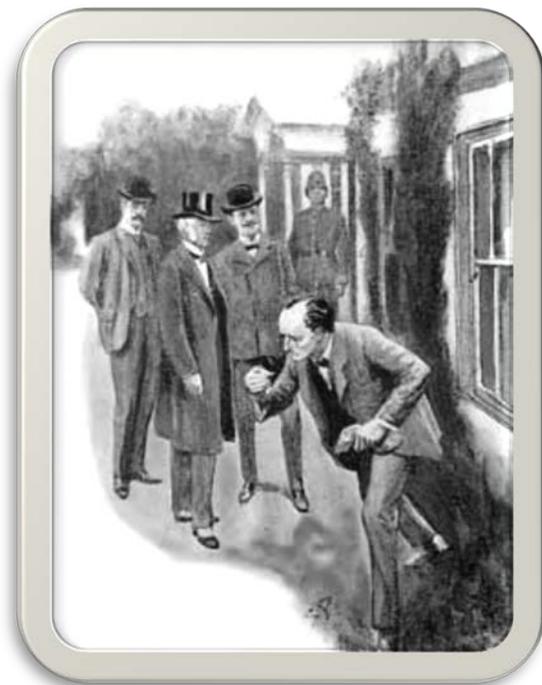
*In The Valley of Fear, Holmes will use an almanac to locate the words specified by a series of numbers and letters.*



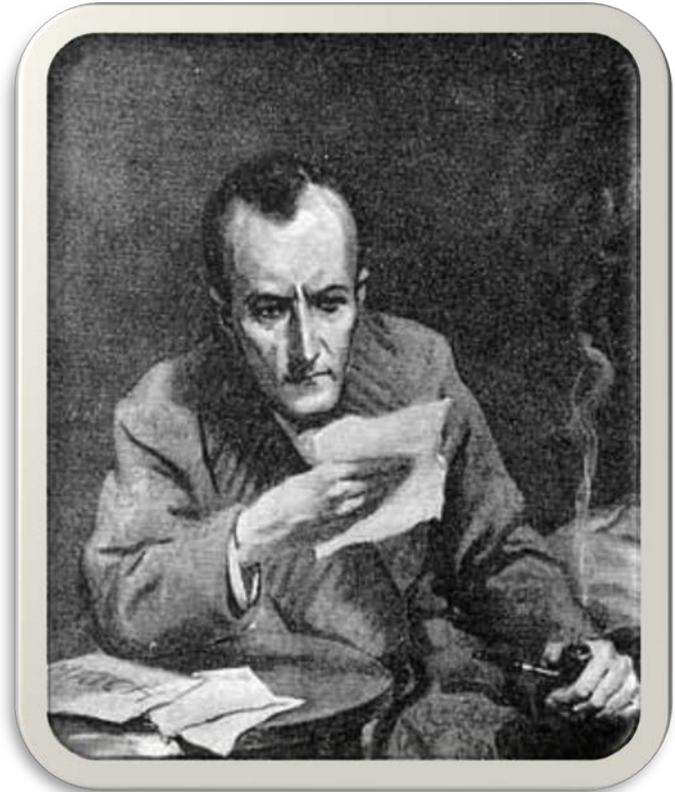
*In "The Adventure of the Gloria Scott," Holmes will determine every third word in a nonsensical message is a warning to the recipient.*



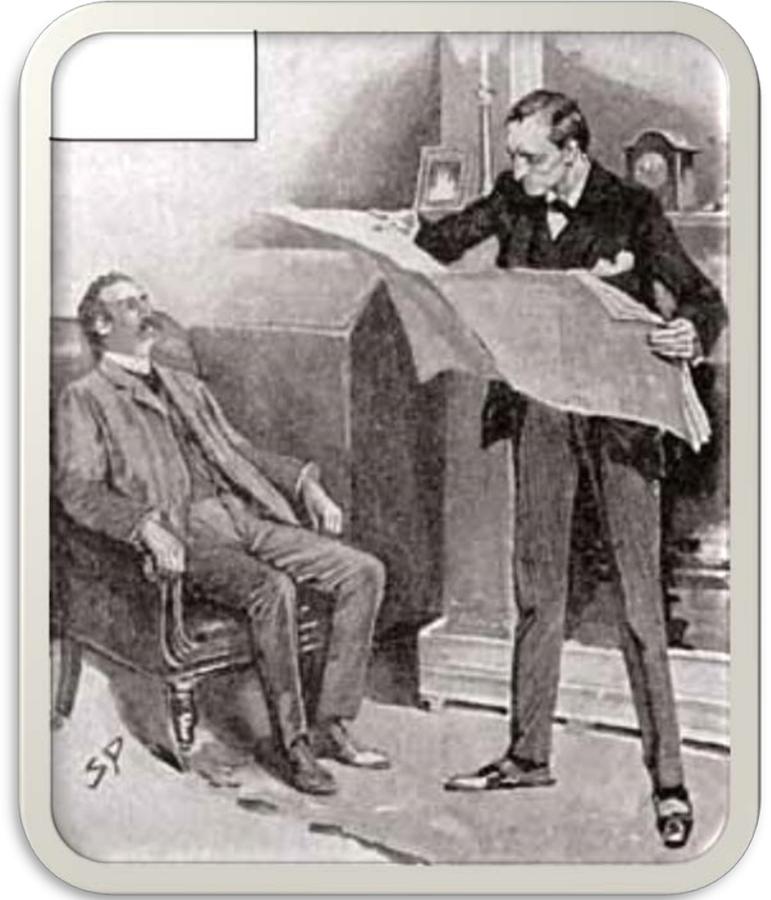
*In "The Adventure of the Dancing Men," Holmes must use his knowledge of substitution codes (more about that later) to read a series of messages sent through a string of stick figure drawings.*



*He will use a code he sees in the personal columns to contact Emilia Luccia in "The Adventure of the Red Circle."*



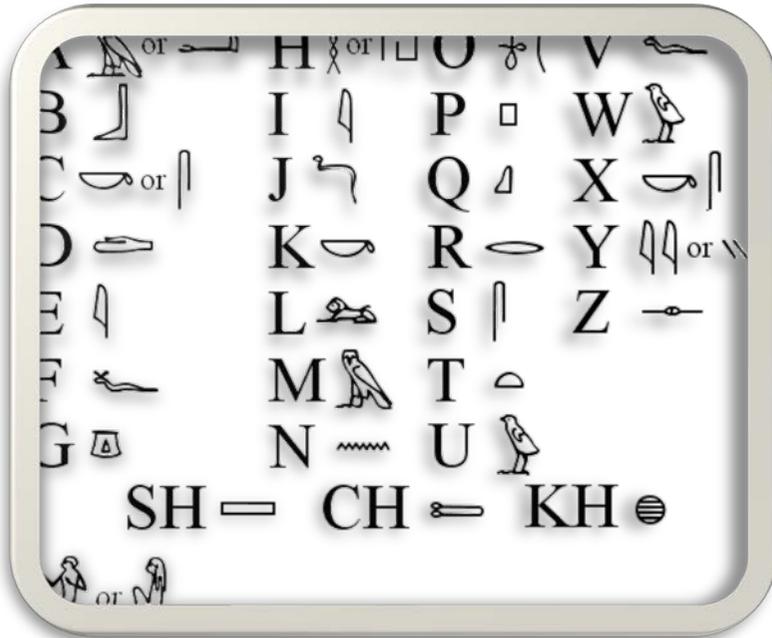
*The other two stories ("The Adventure of the Second Stain" and "His Last Bow") will mention a code, but neither requires Holmes's deciphering skills.*



*Cryptography, or the art of writing or solving codes, has a history going back to ancient Egypt where a text rearranged the letters in a stone carving to keep the message secret.*

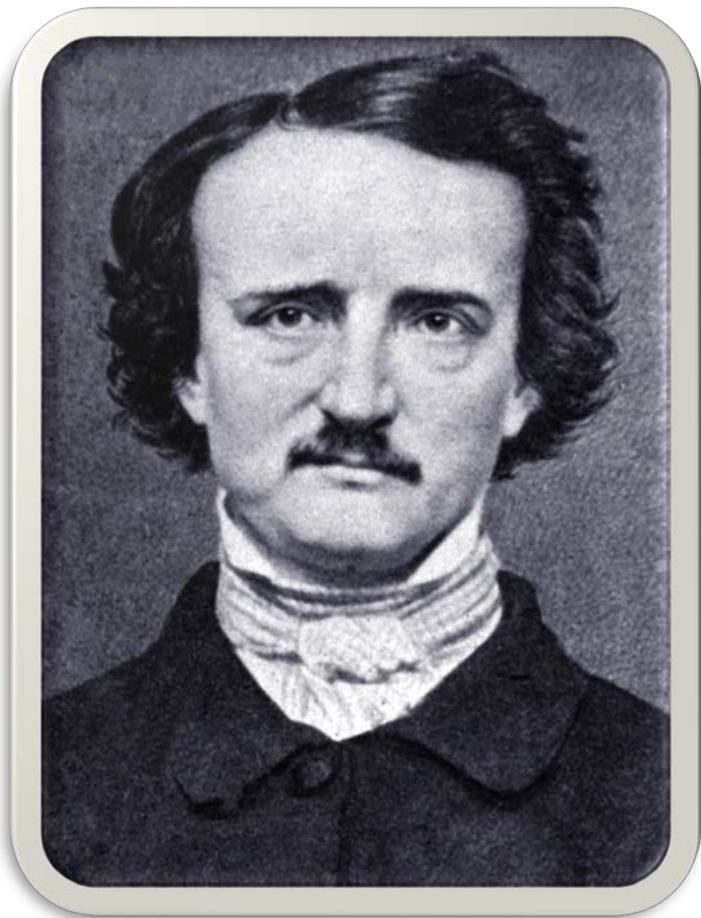


*In a time before the Internet or telephone of the 20<sup>th</sup> and 21<sup>st</sup> centuries, such messages had uses from lovers sending secret messages to political and religious intrigue to warfare.*



*Letters can be stolen and used for blackmail, as in "The Adventure of the Second Stain."*

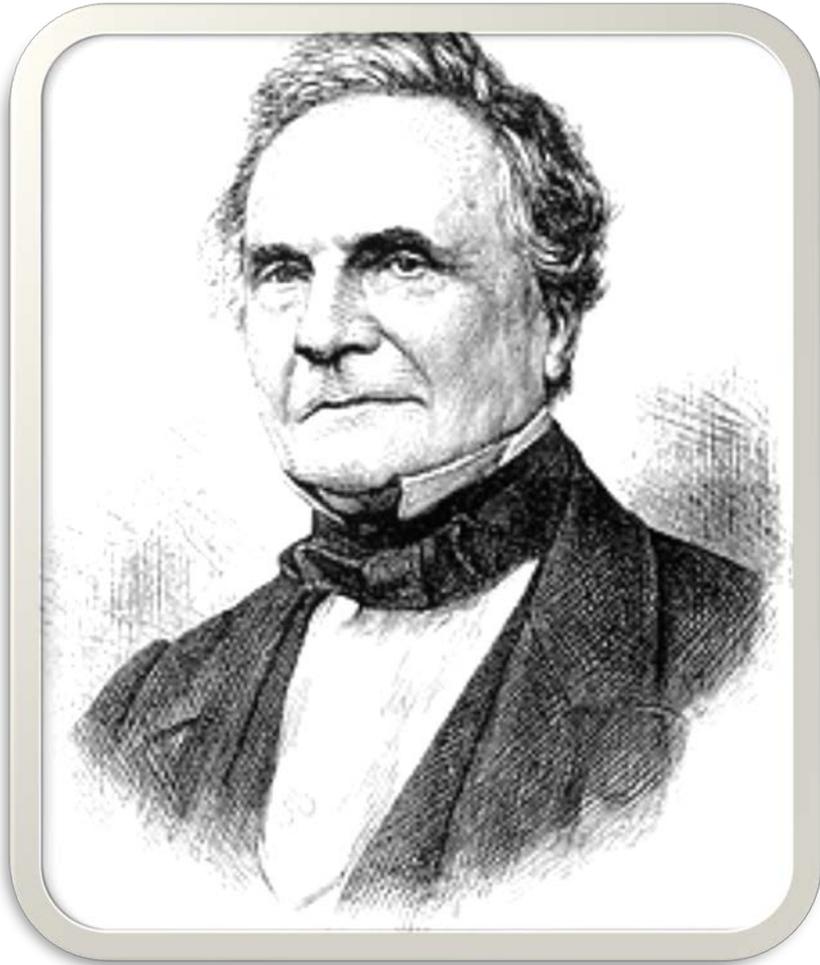




*The 1800s, however, see a surge in the practice, related in part to Edgar Allan Poe's essays and efforts to solve coded messages...*



*... as well as Charles Babbage's solving of more complicated ciphers during the British Crimean War.*



*Poe's fascination with cryptography was quite apparent in a series of essays "A Few Words on Secret Writing"...*

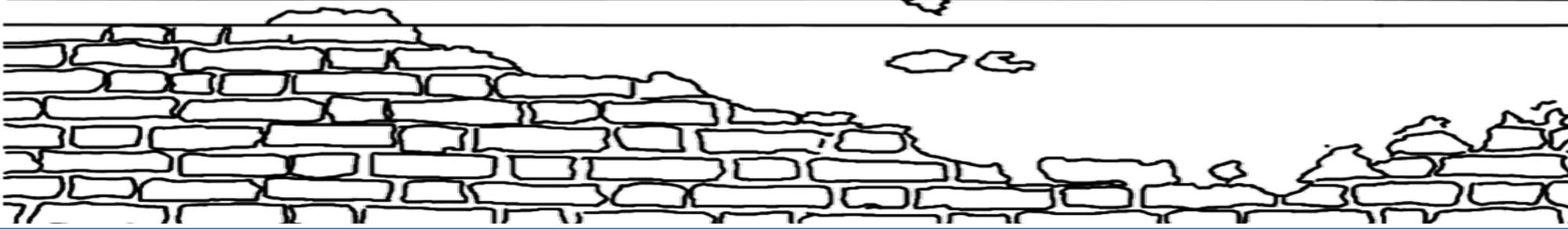
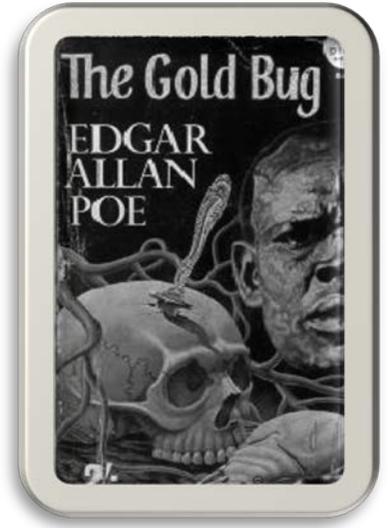


*A Few  
Words on  
Secret Writing*

Edgar Poe



*... where he discussed the use of substitution codes, which he used in his short story "The Gold Bug" and challenged his readers to submit messages for him to decipher.*



*Substitution codes involve using a 26-word phrase (or a series of 26 symbols) where the alphabet is written underneath, and the message is then rewritten using the new letters or symbols.*



### Substitution Codes

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Can you crack my code?

1. $g + o$	6. $i - j$	11. $k - q$	16. $kp - m$
2. $m^2$	7. $dg$	12. $j^2 + g$	17. $m - u$
3. $a + g$	8. $r - g$	13. $b - f$	18. $k(j - m)$
4. $q - y$	9. $gk$	14. $f^2$	19. $h(k^2)$
5. $f + w$	10. $d + f$	15. $e^2 - y$	

*For example, using the Latin phrase  
"Sauviter in modo, fortiter in re"  
("Gentle in manner, firm in deed"),  
the new, coded, alphabet would be:*



Sauviter In modo fortiter In re  
Abcdefgh ij klmn opqrstuv wx yz

**"Sherlock Holmes"  
becomes "irium rfodis."**



*As Holmes will describe in "The Adventure of the Dancing Men," decoding such messages involved knowledge of the most frequently occurring letters in English...*



*... and using those, through trial and error, to deduce the words until the message made sense.*

## Dancing Man Code (Sherlock Holmes)

												
A	B	C	D	E	F	G	H	I	J	K	L	M
												
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
												
1	2	3	4	5	6	7	8	9	0			







**The messages Tyler submitted are not the substitution code Poe had requested.**

**The first involved a more complex cipher requiring a key.**



DR JH OGXW TTHV NPH JIA VMSA VADT HUBH VVHHT W XGVA KIL  
SNB csyLNKSYd tCP TAl PiZGuc LLDi aLTL  
VB PdpwGPaE yGauU Ta QJBTBXPeE  
LAAD uvZ tCgDYRc dHB XFKxdgf ZcNSMEL Xk  
sfrb VbVdV bzaS  
XakV aLThya ses aNjma bGerth aNjma  
SEE P Gbtrd unO ckr Y OTY LRAQFO kLE P d sw xP  
Zlyz Xmdpa dVW aTg dky MAo cEpiwya sJz eL  
nk rAv rVcame nk  
VFHA IDah XKXTIax Ye lraFqW XQdKkUaama nk  
s b AgOia Xiey rpe GIOQgr NBLEmMq nk Lcoaz  
SAlbVl Nzq agtj hltg RZak CLe lV lW JdmnV  
IA kPtoYd eToYd  
Vph VDJ jafVletm cW dnb nNc W Mo kkm W  
AGG Ml yKiu cW raxwgtL ma s g aFecXsA  
Mjg ARNwAQ cMr rZz ElOHX WbVsk CFE r g K  
tda K Arpm ePdas Wpb hXTC gaakV zri PSLBD

*The second employed more than one code used for each letter of the alphabet.*

ehT luos eruces ni rehecnets i x e [se] i msta eht nward reggad dnasei fedst - i tñi opeht s  
The soul secure in her existence smiles at the drawn dagger and defies its point. The  
rats ll a hsedaf yawaehT nus fl esmih worg mid h ti wega dn aeruta n k n is n i s rae  
stars shall fade away the sun himself grow dim with age and nature sink in years  
tu b uohttl ahs hs iruolfnilatrom(m)jhtuoy truhnu dimaehtraw fost n(em)eleeh  
but thou shalt flourish in immortal youth unhurt amid the war of elements the  
k cerw fo rettamdnaeht hsurc f o s d i row  
wreck of matter and the crush of worlds

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Tyler's first cryptogram  
published by Edgar Allan Poe and  
solved independently by Terence Whalen and John Hodgson



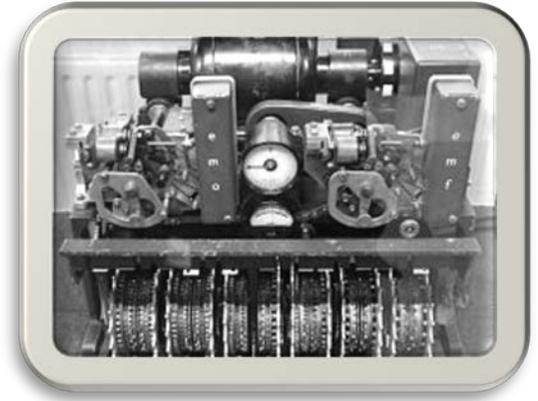
*While some speculation suggests the Tyler was Poe, an analysis by John Hodgson in 1993...*



*... indicates these were not the type of messages Poe would have used as a basis for the message.*



*The invention of a machine to produce and decipher coded messages will occur in 1917, and during the two world wars, cryptography will become even more complex.*



*For Holmes, however, the only computer needed to resolve the puzzles in the Canon is his brain.*



*So we have completed  
topic 85 in our series...*

*... yes, but we'll be  
back with another  
topic soon...*



## References for this topic:

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- <https://www.scientificamerican.com/article/a-cipher-from-poe-solved/>
- John Hodgson, "Decoding Poe? Poe, W.B. Tyler, and Cryptography" in *The Journal of English and Germanic Philology*. Vol 92, No. 4 (Oct. 1993), page 533



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"The Life and Times in Victorian London"

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