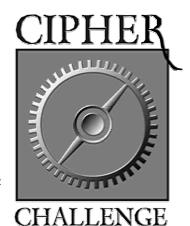
## **University of Southampton National Cipher Challenge Solutions**

## **Message 3 Plaintext:**

Addressee's Eyes Only

My Dear W,

Thank you for your kind, though somewhat ill-advised note! Unfortunately, I must remind you to take more care with encryption. Realistically we must be much more careful. Never reveal the word structure in an enciphered text as it weakens the security it may otherwise afford. Indeed I was denied any modicum of pleasure in deciphering your entirely transparent cipher. Now I must inform you that I may have encountered your mysterious interlocuter, a street musician by the name of M. Edouard Spion. Generosity forbids me to presume he means any harm, but his habit of playing a new fangled German accordion by the window of my study fills me with alarm (not to mention the



assault on my sensibilities!) and I fear it is possible that he is working for the French government. To ensure that he is unable to intercept our communications I suggest that the next one should be encrypted using a key word substitution cipher; the key word is characterised by my initial remarks herein.

Yours as ever,

Chas

PS My petitions to the Government for further advances to finish the Difference Engine and develop my Analytical Engine remain ignored. The death of the King last year and the accession of our new Queen Victoria and her Coronation this June have proved a distraction. Perhaps the Turning Machine will excite more interest from Lord Melbourne and his cabinet.

#### Cipher:

• Blocked Caesar shift by 13

#### **Notes:**

- Babbage was great at innovating but terrible at implementing. He persuaded the British Government to stump up about £17K for his Difference Engine No. 1 (a colossal sum in those days). After 10 years he abandoned the project and the Government lost confidence in him. More info on our links page under Charles Babbage.
- Among his many accomplishments Wheatstone invented the concertina. The accordion came out of developments in instrument making that were going on in Europe, and Germany in particular, in the early 19<sup>th</sup> century. Cyrillus Damian patented the first proper accordion in 1829 in Vienna. More details are at:

http://www.crosssound.com/CS00/CS00Instruments/CSTHEACCORDION/accordionENG.html



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http://www.d-and-d.com/contributions/tina-history.html

- E. Spion concatenated gives espion the French word for spy.
- William IV died and Queen Victoria succeeded to the throne in 1837. However she was not crowned until 28 June 1838 and barely 19 years of age! More info about Queen Victoria is at

http://65.107.211.206/vn/victor6.html

http://www.spartacus.schoolnet.co.uk/PRvictoria.htm

http://womenshistory.about.com/library/etext/bl eminent victoria i.htm



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