

British National Cipher Challenge 2011

Challenge 7B solution

The plaintext to challenge 7A said to expect “a columnar transposition with a twist”. The cipher turns out to be very much like a scytale that is, in fact, twisted.

First, write out the ciphertext in five rows of 240 characters:

```
T s o r m y n h e m u i t l T h e s y n p d d m r d t c r y e f . . .
i h I e c f g e s t n o e e I e s p h a a e t o r e e i e c a a . . .
m o m u o i s T e c i n m w c T t i r v r r h e e r n e s e r r . . .
e r t s r n o n m o c s y h a e c o a e t a t i m o d e i n s a . . .
i s s t d d i t p m a t s i n m p n c i m o e r u u s n n t a s . . .
```

Next, the twist. Twist it so that each column rotates downward by one more than the column before it:

```
T
i s
m h o
e o I r
i r m e m
s t u c y
s s o f n
t r i g h
d n s e e
d o T s . . .
i n e . . .
t m . . .
p . . .
. . .
```

Bring the letters that shift below the end of the original bottom line back up to the top, like they were being rotated around a cylinder (like the scytale):

```
T s t u c y i n e . . .
i s s s o f n t m . . .
m h o t r i g h p . . .
e o I r d n s e e . . .
i r m e m d o T s . . .
```

Now simply read off the plaintext in columns:

```
Timei sshor tsoIm ustre cordm yfind ingso ntheT empes . . .
```