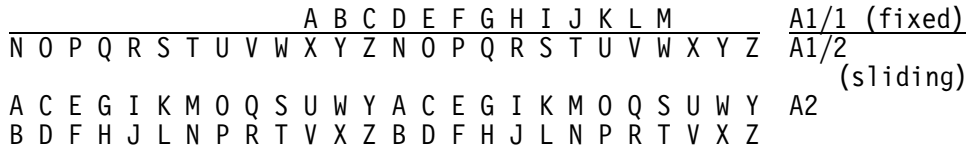


PORTAX (period times 16-24 lines deep, 8-12 lines paired)

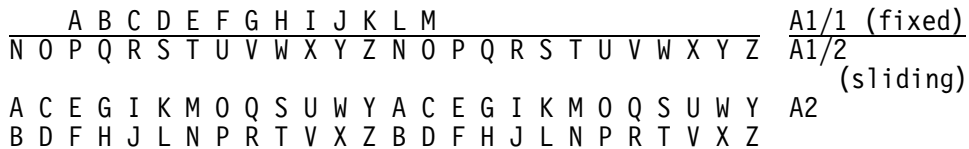
A slide is made up of two alphabets which have been labeled A1 and A2 in the diagram below. The fixed part of the slide contains the first half of the alphabet (A-M). The bottom row of the slide consists of the second half of the alphabet (N-Z). The second alphabet is written below in columns of two characters. The sequence on the sliding part repeats to allow for the slide.



Enciphering is by pairs. The message is written horizontally into a block under a keyword. Vertical pairs are enciphered. The first letter of the pair (top) is found in the upper alphabet (A1/1 or A1/2), the second is found in the lower one (A2). These are taken as diagonally opposite corners of a rectangle. The other corners are taken as the substitutes, the letter from the top being taken first. If the two letters are on the same vertical line, the other two letters on that line are the substitutes.

The slide shown is set for the key letters U or V (found below A of the upper part of the top alphabet). Using that key, "in" becomes JL, "no" becomes UA, and "na" becomes DB. The resulting cipher is taken off by horizontal rows.

The slide below is set up for the first column of the plaintext example below. A of A1 is set over the key letter E of A2 alphabet. Note how plain "ta" becomes cipher NM, while "bg", being in the same column in the strips, becomes QH in the vertical encipherment. The other columns are done in the same fashion as shown above.



pt: the early bird gets the worm

K: E A S Y

pt: t h e e	CT = N I J A
a r l y	M P B G
b i r d	Q C W K
g e t s	H Q J E
t h e w	U I K Y
o r m x	M P A T

CT: NIJAM PBGQC WKHQJ EUIKY MPAT.

Because of the vertical pairing, a final plaintext group in period seven would look like this if it doesn't fill out a block:

s	h	a	l	l	b	e
u	p	l	i	f	t	e
d	n	e	v	e		
r	m	o	r	e		