NUMBER

This subroutine (written by C.W. Nott of N.P.L) ends by placing the binary equivalent of the decimal digits in the state variable CONSTA and CONSTA+1.

This routine calls its own local routines; STAND which standardises the floating point number in W3 and W4 (binary exponent in W5); POWER which multiplies the number by the accumulator to the power of 10. Bearing in mind also the uses of the variable space (below) the routine should be clear from the flowchart.

LASTCH	last character read.
Sign	set to one if the exponent part is negative.
W3,4&5	used for the partially computed number.
Exp	set to one by the character '$_{10}$'
Point	set to one by the character '.'
Dec	used to count the number of decimal places and for any exponent.
Max	set to one if the integer or exponent part of the number exceeds capacity.
PWS	parameter for POWER
PMKR	marker to remember whether this power was negative or not.

ERRORS

FAIL 7; illegal number

FAIL 8; integer number too big.