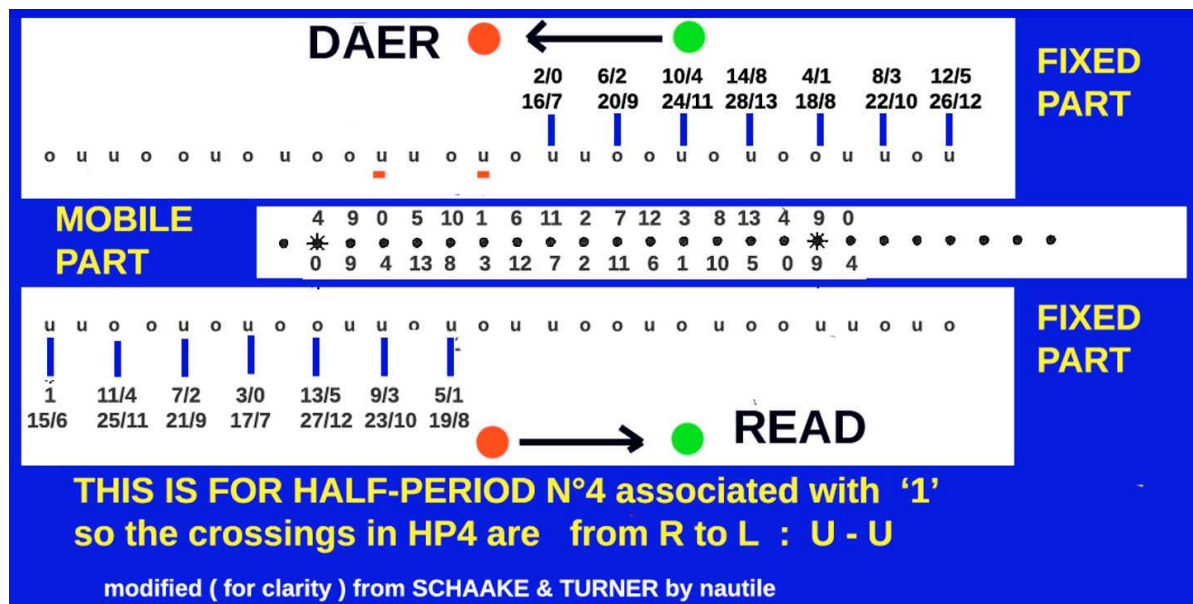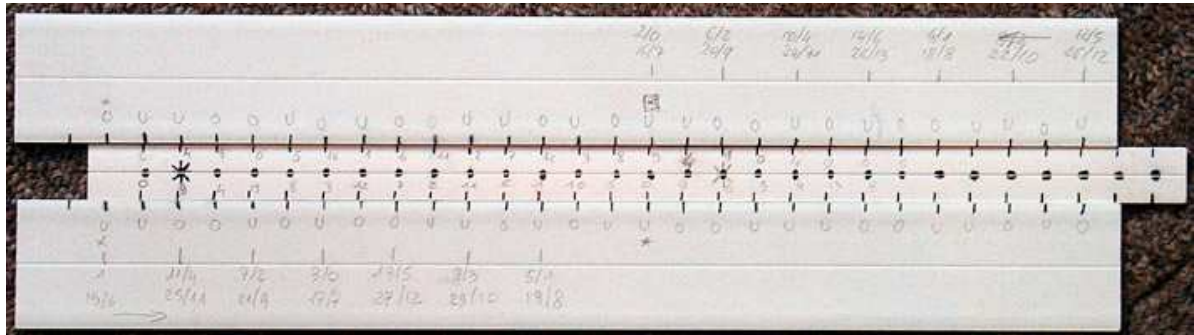# USING THE SLIDE RULE

We have completed our slide rule and we are as they say in French " comme une poule qui vient de trouver un couteau" / "like a hen that just found a knife" a bit embarrassed.

2/0	6/2	10/4	14/6	4/1	8/3	12/5
16/7	20/9	24/11	28/13	18/8	22/10	26/12

| | | | | | | |

O -U -U - O - O -U -O - U -O- O -U - U- O - U - O – U   U - O - O - U - O - U -O- O -U - U- O - U

————————————————————————————————————
    4   9   0   5 10   1   6 11   2   7 12   3   8   13 4   9   0

.   *   .   .   .   .   *   .   .   .   .
0   9   4 13   8   3 1 2   7   2 11   6   1 10   5   0   9   4

——
U - U - O - O - U - O -U - O – O –U -U- O - U- O – U U -O - O - U - O - U - O – O - U U-O- U - O

| | | | | | |
1/-1   11/4   7/2   3/0   13/5 9/3   5/1
15/8   25/11 21/9   17/7   27/12 23/10 19/8

This is the start position : this is for the   first HP (first of the ODD HP and firts of all the 2*B HP)
Easy as pie : mark it as HP 1 : { } Free Run
WOW , how intelligent and sure of us we are now.

Yes we can because we don't have anything special to get the HP 2 : (the first of the EVEN HP)

We are fortunate that SCHAAKE & TURNER made it so by astute thinking:

The right side star is already in alignment with 2/0 second HP and Bight number 0

```
                              2/0   6/2   10/4   14/6   4/1   8/3   12/5
                              16/7  20/9  24/11   28/13  18/8  22/10 26/12


                               |     |     |      |     |      |     |

   O -U -U - O - O - U -O - U -O- O -U - U- O - U - O – U   U - O - O - U - O - U -O- O -U - U- O - U
```
_____
```
     4   9  0  5 10  1  6  11 2  7 12  3  8   13 4   9  0
```

.   *   .   .   .   .   :   .   .   .   .   *   .   .   .   .

Now reading RIGHT TO LEFT (remember that ?) starting at the alignment right side star vertical
line with 2/0 above and going leftward we read the
4   9 **0**   5 10 1 6 11 2 7 12 3 8   13 4   9 0
stopping at numbers equal or less than the second member of the 'coupled' number : here ' 0 '
it happen that above this ' 0 ' is a ' U ' so HP é : { U }
Second HP has only one crossing : an Under

Now for the tricky part, almost rocket science ;-) how do we get the HP 3 ?
AH ! UMH !
Why do you think this is called a slide rule with a mobile part ?
because we slide the mobile part ! Is that enough clarity for Readers ?

O -U -U - O - O - U -O - U -O- O -U - U- O - U - O – U   U - O - O - U - O - U -O- O -U - U- O - U

_____
```
            4   9  0   5 10  1  6  11 2  7 12  3  8   13 4   9  0
```

     .   *   .   .   .   .   *   .   .   .   .   .
```
        0 9   4  13 8  3  12 7   2 11  6  1 10  5  0   9   4
```

_____
   U - U - O - O - U - O -U - O – O –U -U- O - U- O – U -U - O - O - U - O - U - O – O - U U-O- U - O
```
   |       |        |        |        |        |        |

 1/-1   11/4   7/2     3/0   13/5   9/3     5/1
  15/8  25/11  21/9   17/7  27/12  23/10  19/8
```
 Now we aligned the left side star on the lower 3/0 and we read LEFT TO RIGHT the
(zero is not but is still useful so don't suppress it unthinkingly !)
9 4 13 8 3 1 2 7   2 11 6 1 10 5 **0**   9   4 under the only number equal or less that the
second member of the 'coupled' 3/0 is a "U so HP 3: { O }   one Over in third HP

Are you beginning to understand how you need to go on ?
I certainly hope so. We need to do HP 4 :
That is so EVEN so on the UPPER fixed part of the slide rule

We align the right side star with the 'coupled' numbers we need   4/1

$$
\begin{array}{ccccccc}
2/0 & 6/2 & 10/4 & 14/6 & 4/1 & 8/3 & 12/5 \\
16/7 & 20/9 & 24/11 & 28/13 & 18/8 & 22/10 & 26/12
\end{array}
$$

| | | | | | | |

O -U -U - O - O -U -O U -O- O -U - U-   O - U - O –U   U - O - O - U - O U -O- O -U - U- O - U

---

4 9 0 5 10 1 6 11 2 7 12 3 8 13 4 9 0

. * . . . . * . . . . .
Reading RIGHT TO LEFT the
4 9 0 5 10 1 6 11 2 7 12 3 8 13 4 9
we find two that are equal or less that 1

so HP 4 : { O O }   or { 2 O] or {O2} two Over crossings

Now for HP 5 : well just do it yourself : go to lower fixed part and align left side star with 5 / 1

And so on

Now a last exercise HP 22 : say
So EVEN so upper fixed par so right side star
Align right side star with 22/10

$$
\begin{array}{ccccccc}
2/0 & 6/2 & 10/4 & 14/6 & 4/1 & 8/3 & 12/5 \\
16/7 & 20/9 & 24/11 & 28/13 & 18/8 & 22/10 & 26/12
\end{array}
$$

| | | | | | | |

-U -U - O - O - U -O - U -O- O - U - U- O -U- O U U - O - O - U- O   U -O- O - U - U- O - U

---

0 4 9 0 5 10 1 6 11 2 7 12 3 8 13 4 9 0 4

. * . . . . * . . .

So this should be HP 22 : {U2 O U2   O   U2   O U O U2 }

Now you are alone.

Bonne route