STORING NUMBERS

I → \[ \text{storage} \] → 0

<table>
<thead>
<tr>
<th>I</th>
<th>WEI. 0</th>
<th>NEXT 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<td>0</td>
</tr>
<tr>
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<td>1</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

???
S - R LATCH

\[ S \]
\[ \overline{R} \]

\[ Q \]
\[ \overline{Q} \]

"CROSS-COUPLED NANDS"

\[ S \rightarrow 1 \]
\[ \overline{R} \rightarrow 1 \]

"Quiescent" \Rightarrow S, R = 1

(Cannot have S, R = 0! (At same time))

Inconvenient!
The "gated" D latch

ALLOWS US TO "CONTROL" WRITES INTO STORAGE

(S = R = 0 DOESN'T HAPPEN)

N BIT REGISTER