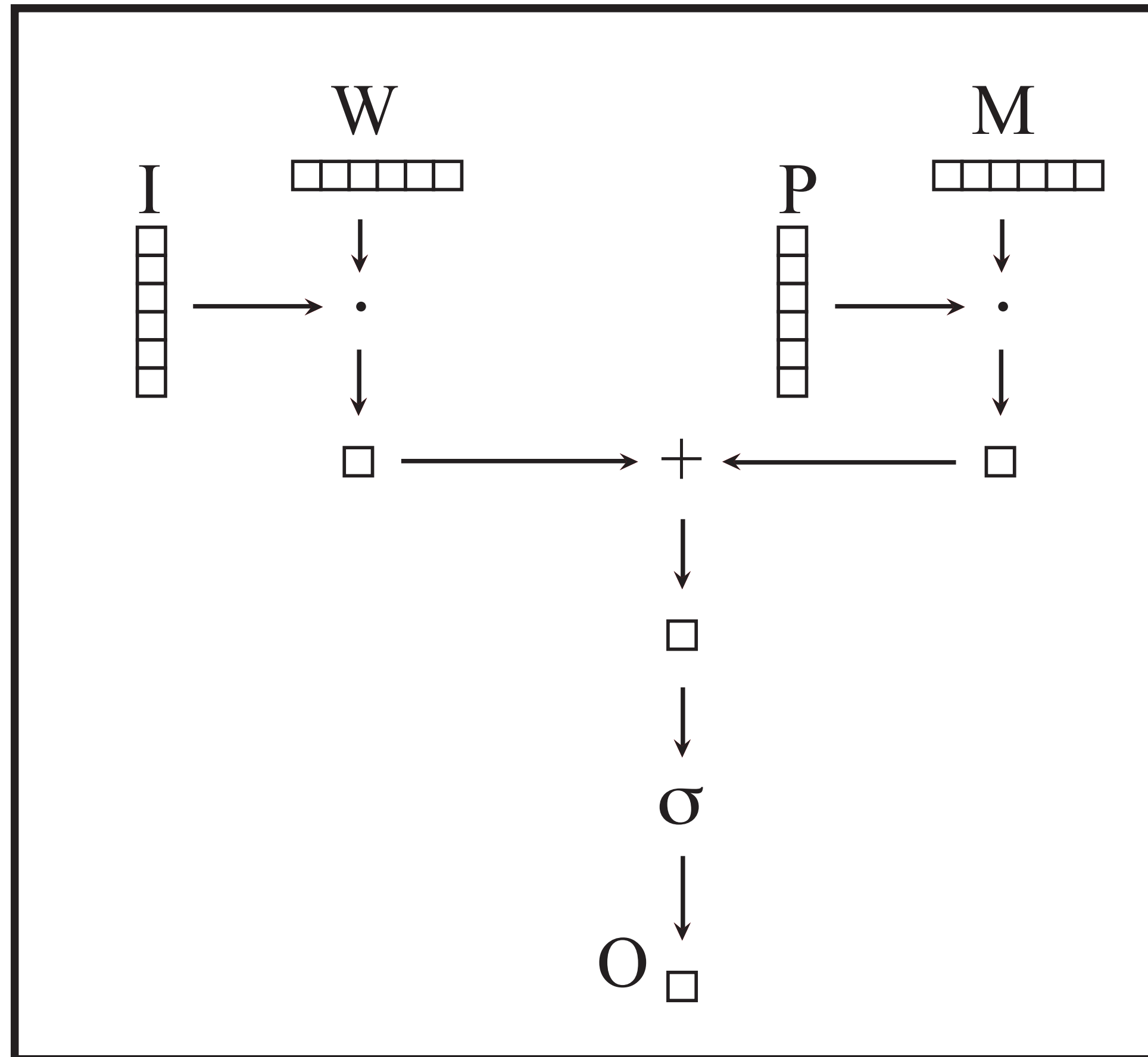


A Single Gate



Legend	
W	gate weights
I	input
O	output
P	previous states
M	gate memory weights
+	sum
.	dot product
σ	sigmoid function

$$\underbrace{g^{i \rightarrow j}}_O = \sigma \left(\underbrace{w_g^{i \rightarrow j}}_W \cdot \underbrace{h_t^{j-1}}_I + \underbrace{u_g^{i \rightarrow j}}_M \cdot \underbrace{h_{t-1}^*}_P \right)$$