$\overline{\quad\quad\quad\quad\text{MODULE } crackers2 \quad\quad\quad\quad}$

CONSTANTS $Things$, $People$
VARIABLES $desires$, $holds$

$Init \triangleq \wedge desires = [p \in People \mapsto \{\}]$
$\qquad\quad \wedge holds \;\; = [p \in People \mapsto \{\}]$

$Desire \triangleq \exists\, p \in People :$
$\qquad\qquad\quad \wedge desires[p] = \{\}$
$\qquad\qquad\quad \wedge \exists\, t \in Things :$
$\qquad\qquad\qquad\quad \wedge desires' = [desires \text{ EXCEPT } ![p] = \{t\}]$
$\qquad\qquad\qquad\quad \wedge \text{UNCHANGED } holds$

$Acquire \triangleq \exists\, p \in People :$
$\qquad\qquad\qquad \exists\, t \in desires[p] :$
$\qquad\qquad\qquad\quad \wedge t \notin holds[p]$
$\qquad\qquad\qquad\quad \wedge holds' = [holds \text{ EXCEPT } ![p] = holds[p] \cup \{t\}]$
$\qquad\qquad\qquad\quad \wedge \text{UNCHANGED } desires$

$Next \triangleq \;\; \vee Desire$
$\qquad\qquad \vee Acquire$

$Spec \triangleq Init \wedge \square[Next]_{\langle desires,\, holds \rangle}$