Suppose that $L/K$ is a finite, cyclic extension of number fields with Galois group $G$. Let $S$ be a finite set of primes of $K$ that contains all the infinite primes. The extension of ideals from $K$ to $L$ induces the $S$-capitulation map, whose kernel classifies the $S$-ideal classes in $K$ that become principal in $L$. In this talk, we first interpret the kernel and cokernel of the $S$-capitulation map in terms of $C_{L,S}$, the $S$-idèle class group of $L$. We then relate the arithmetic of $C_{L,S}$ to that of $U_{L,S}$, the group of $S$-units of $L$. We show that many known results in algebraic number theory, in particular Hilbert’s Theorem 94, follow as a direct consequence of our idèle-theoretic results. (Received September 17, 2016)