1023-Z1-214   **Kent M. Neuerburg*** (`kneuerburg@selu.edu`), Department of Mathematics, SLU Box 10687, Hammond, LA 70402, and **G. Alan Cannon** (`acannon@selu.edu`), Department of Mathematics, SLU Box 10687, Hammond, LA 70402. *Ideals in Dorroh Extensions of Rings.*

The Dorroh extension is typically applied to embed a ring without unity into a ring containing unity. However, de Alwis investigated the ring resulting from applying this extension to the ring of integers. We show that the Dorroh extension of any ring with unity is isomorphic to a direct product of rings. Using this isomorphism we are able to verify the results of de Alwis and extend them to the Dorroh extension of any ring with unity. Also, given any ring, R, we give conditions under which an ideal of the Dorroh extension, $\mathbb{Z} * R$, can be expressed as a product (in the extension) of an ideal in $\mathbb{Z}$ and an ideal in R. (Received August 24, 2006)