Milestones in the History of Dislocations

Here are a few of the major milestones in the discovery of dislocations:

Theory of Timpe (1905)
Elasticity Volterra (1907)

Theoretical shear limit Frenkel (1926)

"Verhakungen" Dehlinger (1929)

Postulate of (edge) Polanyi (1934) dislocations Taylor (1934)

Postulate of screw Burgers (1939) dislocations

 Multiplication mechanisms of <u>Frank-Read</u> (1950) dislocations

Direct
 observation of
 dislocations
 (TEM)
 Hirsch et al. (1956)

Dislocation free Si crystal Dash (1960) growth

These discoveries solved the **3000** year old puzzles of metallurgy! But no Noble prizes were awarded and mankind hardly noticed that something big has happened.