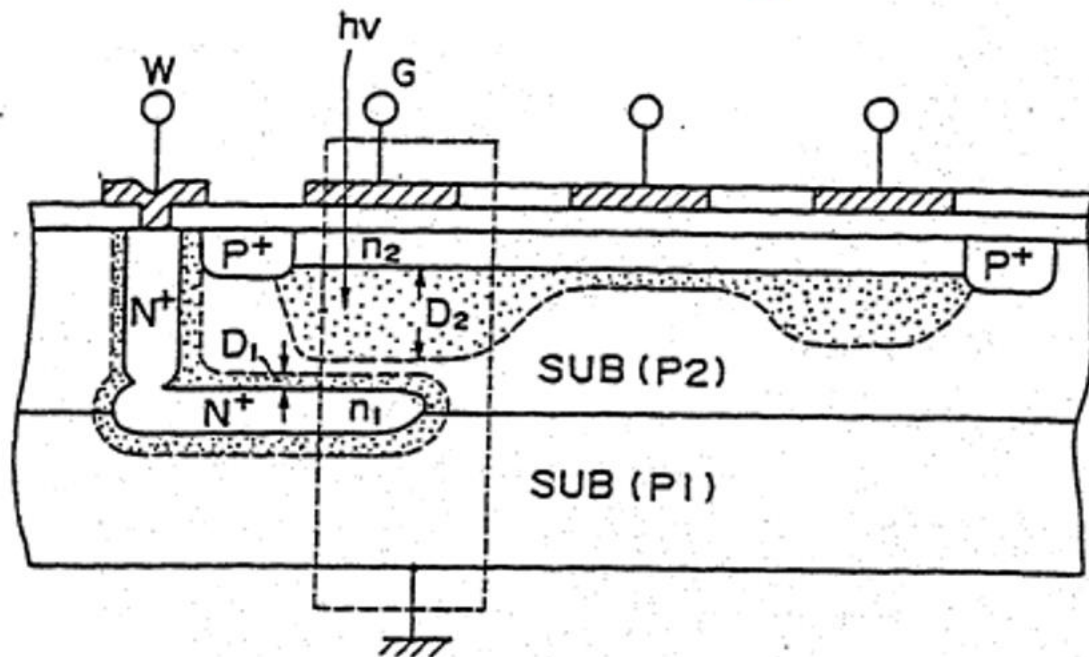


USP3896485 applied on Dec 3, 1973

Inventor J. M. Early at Fairchild

First Vertical Overflow Drain (VOD)
with Anti-blooming Function
used in Buried Channel CCD image Sensor



This is the first triple junction type NPN photodiode.
However, CCD/MOS capacitor is used for charge storage.

By applying the negative gate electrode voltage on the CCD/MOS capacitor, the surface of the buried channel storage region can be pinned to the substrate ground voltage.

