



(57) Abrégé(suite)/Abstract(continued):

have several disk coulter assemblies attached to the frame. Some are dedicated to inserting seed into the soil and other fertilizer. In an alternate configuration, the implement or tool bar may have a combination of shanks and coulters. In any given application it may not be necessary to use some of the coulter disks assemblies. Because of the wear on coulters as they move through the soil and encounter rock and other debris, it is advantageous to be able to quickly lift some of the coulter disks out of the soil while operating with other disks. The present invention provides an eccentric rotating element attached to a spring which generally in operation exerts force upwardly on the coulter arm and therefore maintains the coulter in a downward position. By rotating this eccentric rotating element the spring may be released and the coulter disk raised, by hand, off the ground and thereafter locked in place with a spacer element. With the present invention the operator can easily lift or lower coulters in the midst of a seeding operation.

