

Title (en)  
APPARATUS FOR LOOSENING UP COMPACT GROUND

Publication  
**EP 0217040 B1 19900502 (DE)**

Application  
**EP 86110267 A 19860725**

Priority  
DE 3534676 A 19850928

Abstract (en)  
[origin: EP0217040A2] 1. An apparatus for loosening up fields composed of a top layer and a dynamic layer, e.g. of sand sports grounds, hard tennis courts, sports tracks or the like, with the aid of pins or spikes which are adapted to be fed into the field and to move therein and are slanted at their free ends and thereby form a long-drawn-out angular surface, said pins or spikes protruding radially from the surface of at least one roller which is adapted to be rolled over the field to be loosened up, the length of the pins or spikes distributed over the circumference and length of the roller being greater than the thickness of the top layer of the field, characterized in that the slant of the pins or spikes (3) - taken from the viewpoint of a pin in the vertical - is arranged in such a way that the shorter expanse of the long-drawn-out angular surface is oriented in the direction of travel or rotation of the roller (4).

IPC 1-7  
**E01C 23/08**

IPC 8 full level  
**E01C 23/08** (2006.01); **E01C 23/082** (2006.01)

CPC (source: EP)  
**E01C 23/0825** (2013.01)

Designated contracting state (EPC)  
AT BE CH DE FR IT LI NL

DOCDB simple family (publication)  
**EP 0217040 A2 19870408; EP 0217040 A3 19871119; EP 0217040 B1 19900502**; AT E53872 T1 19900615; DE 3534676 A1 19870416; DE 3534676 C2 19881013; DE 3670868 D1 19900607

DOCDB simple family (application)  
**EP 86110267 A 19860725**; AT 86110267 T 19860725; DE 3534676 A 19850928; DE 3670868 T 19860725