

Title (en)  
ICE-SCRAPER

Title (de)  
EISKRATZER

Title (fr)  
GRATTOIR

Publication  
**EP 1377198 A1 20040107 (DE)**

Application  
**EP 02732516 A 20020322**

Priority  
• DE 20105712 U 20010330  
• EP 0203216 W 20020322

Abstract (en)  
[origin: WO02078507A1] The invention relates to an ice-scraper (10), in particular for windscreens, in addition to the side and rear windows of vehicles. Said scraper comprises a handle (1) and a blade (3, 4). The aim of the invention is to provide an ice-scraper (10) with the aforementioned features, which is more versatile to use than conventional ice-scrappers and which provides a suitable type of blade for each task. To achieve this, the blade (3, 4) is configured as a two-layer dual blade (3, 4), one layer (4) of which consists of a plastic material and the other (3) of metal, whereby the scraping edges (7) of the dual blade (3, 4) run flush and parallel with one another.

IPC 1-7  
**A47L 13/08; A47L 1/06; B60S 3/04**

IPC 8 full level  
**A47L 1/16** (2006.01)

CPC (source: EP)  
**A47L 1/16** (2013.01)

Citation (search report)  
See references of WO 02078507A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**DE 20105712 U1 20010830**; EP 1377198 A1 20040107; WO 02078507 A1 20021010

DOCDB simple family (application)  
**DE 20105712 U 20010330**; EP 0203216 W 20020322; EP 02732516 A 20020322