

Title (en)  
FRAMELESS PUZZLE

Title (de)  
RAHMENLOSES PUZZLE

Title (fr)  
PUZZLE SANS CADRE

Publication  
**EP 3766552 A1 20210120 (EN)**

Application  
**EP 18909702 A 20180313**

Priority  
CN 2018078867 W 20180313

Abstract (en)  
A frameless puzzle, comprising a fixing structure (10), a plurality of outer puzzle pieces (20) and a plurality of inner puzzle pieces (30); the top surface and the bottom surface of the fixing structure (10) are respectively provided with an upper joining ring slot (11) and a lower engaged surrounding groove (12); the outer puzzle pieces (20) are disposed on the fixing structure (10) and are connected to each other to form a ring shape; the inner puzzle pieces (30) are disposed at the inner side of the outer puzzle pieces (20); each of the outer puzzle pieces (20) includes a top section (21), a side section (22) and a bottom section (23); an upper engaging portion (211) of the bottom surface of the top section (21) penetrates through the upper joining ring slot (11) for joining, the side section (22) is foldably connected to the top section (21), and can be folded to fit to the side surface of the fixing structure (10); and the bottom section (23) is foldably connected to the side section (22) and can be folded to a lower engaging portion (231) of the bottom section (23) to penetrate through the lower engaged surrounding groove (12) for joining. As the outer puzzle pieces (20) are disposed and joined on the fixing structure (10), and the bottom section (23) is joined to the bottom surface of the fixing structure (10), there is no need for the bottom surface of the top section (21) to protrude to allow the side section (22) to join, thereby greatly reducing the thickness of the top section (21) and facilitating processing, manufacturing, spraying or printing and also facilitating assembly.

IPC 8 full level  
**A63F 9/10** (2006.01)

CPC (source: EP)  
**A63F 9/10** (2013.01); **A63F 9/1044** (2013.01); **A63F 2009/0032** (2013.01); **A63F 2009/1244** (2013.01)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3766552 A1 20210120**; **EP 3766552 A4 20220223**; **EP 3766552 B1 20240410**; **EP 3766552 C0 20240410**; WO 2019173973 A1 20190919

DOCDB simple family (application)  
**EP 18909702 A 20180313**; CN 2018078867 W 20180313