

Title (en)  
Method and apparatus for forming metal frames for reinforced concrete

Title (de)  
Verfahren und Vorrichtung zur Herstellung von Bewehrungskäfigen

Title (fr)  
Méthode et dispositif de fabrication des cages d'armature

Publication  
**EP 1378302 A3 20040915 (EN)**

Application  
**EP 03014545 A 20030704**

Priority  
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Abstract (en)  
[origin: EP1378302A2] A method for forming metal frames for reinforced concrete comprises picking in succession individual stirrups (12) having a closed or open profile at a front input region (E), and transferring each individual stirrup (12) from the input region (E) by way of grip means (51) that can move along a longitudinal direction. The picked stirrup (12) is transferred to welding means (80) associated with traction means (74) that can move along the longitudinal direction. At least one longitudinal auxiliary rod (11) is fixed externally to each bracket (12) and is retained by the welding means (80). At the same time, the welding means (80) are moved alternately into a forward position, by the actuation of the traction means (74), in order to produce the stepwise traction of the auxiliary rod (11) and of the stirrups (12) during coupling thereto by the welding means (80), so as to form an intermediate lattice (10) for the final production of a frame. The invention also relates to an apparatus for forming metal frames.  
<IMAGE>

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**B21F 27/00** (2013.01); **B21F 27/125** (2013.01)

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• [DA] EP 0667195 A1 19950816 - SCHNELL SRL [IT]  
• [DA] WO 8505053 A1 19851121 - BRUCE HOWARD  
• [A] EP 0811442 A1 19971210 - SCHNELL SPA [IT]

Cited by  
EP1714716A1; CN113828975A; EP1655088A1; CN109676301A; ES2264640A1; EP1570929A1; GR1009295B; EP1911909A1; EP1864727A1; EP2087952A1; CN108580758A; CN113828712A; CN117753895A; US7442247B2; WO2006136629A1

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