

Title (en)  
**MULTI-STAGE FORGING PRESS**

Publication  
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Application  
**EP 86112692 A 19860913**

Priority  
DE 3534319 A 19850926

Abstract (en)  
[origin: EP0216283A2] Multi-stage forging presses have a plurality of medium spaces which can alternatively be acted upon separately or together, are closed off in each case in the inner space of a cylinder by a piston and are formed by one centrally arranged cylinder and two laterally arranged cylinders. A space-saving design requiring less constructional complexity is achieved by the invention by only one cylinder (8) being provided which has at least two stages (8a, 8b) differing in diameter and having the same stroke in depth and by a stepped piston (7) being provided which is adapted to the step of the cylinder bore in diameter and length. In particular, a two-stage design is provided. Here, three applied-pressure stages can be obtained by different dimensioning of the core piston surface and the annular piston surface, the core piston surface in particular being dimensioned for the smaller proportion of the total applied pressure. Furthermore, a two-piece design of the stepped piston is provided within the scope of the invention. <IMAGE>

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IPC 8 full level  
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CPC (source: EP)  
**B21J 9/022** (2013.01); **B21J 9/12** (2013.01); **B30B 1/32** (2013.01)

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• [X] DE 45323 C  
• [X] AT 48789 B 19110710 - HUBER CARL  
• [X] DE 2747548 A1 19790426 - THYSSEN INDUSTRIE

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CN103537597A; CN117245048A

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