

Title (en)

Clamping pliers with self-adjusting jaws.

Title (de)

Klemmzange mit selbststellenden Backen.

Title (fr)

Pince-étau à machoires auto-réglables.

Publication

EP 0216717 A1 19870401 (FR)

Application

EP 86420238 A 19860922

Priority

- FR 8514310 A 19850924
- FR 8610720 A 19860715

Abstract (en)

1. An improvement vice-clamp of the type comprising a first fixed jaw (2) integral with a main U-shaped lever (1) and a second movable jaw (6) associated hingedly with a main lever under the action of a toggle device (9-10) which forms an operational and gripping lever for interlocking said jaws on the object to be clamped after passing past a dead centre, said second V-shaped jaw (6) being provided with a rearward portion penetrating into the corresponding profile of said main lever while being capable of oscillating within oblong apertures (4) provided on the webs of the fixed lever, said vice-clamp being characterized in that said movable jaw (6) is provided at the lower end thereof with a single means (5, 16) permitting the shifting and the positioning of the jaw, the latching and the interlocking of the oscillating axis thereof on the main lever engaged and centered within said smooth and curvilinear oblong apertures, said means being contoured to provide on the one hand the shifting and the positioning of the movable jaw and to provide on the other hand a co-operation with the contour of said apertures, while being urged firmly and wedged against the two edges of said apertures, in accordance with the position of said means for the clamping of the part to be maintained, the gripping of the object to be clamped being thus made possible without a previous adjustment of the spacing apart of the jaws.

Abstract (fr)

La pince-étau objet de l'invention comprend une première mâchoire fixe (2) solidaire d'un levier principal (1) et une seconde mâchoire mobile (6) susceptible d'osciller dans des lumières oblongues (4) du levier principal sous l'action d'une genouillère (9, 10) formant levier de manœuvre pour bloquer lesdites mâchoires sur l'objet à serrer après franchissement d'un point mort; ladite second mâchoire (3) étant agencée avec une partie arrière (1.1) pénétrant dans le profil correspondant dudit levier principal en étant susceptible d'osciller dans des lumières oblongues (1.4) établies sur les flasques du levier fixe; ladite pince étant caractérisé en ce que ladite mâchoire mobile (3) comportant à son extrémité arrière un moyen de blocage, de verrouillage de son axe d'oscillation sur le levier principal engagé et centré dans lesdites lumières pour assurer et coopérer avec le profil desdites lumières selon sa position en vue du serrage de la pièce à maintenir, et autorisant la préhension de l'objet à serrer sans réglage préalable de l'écartement des mâchoires.

IPC 1-7

B25B 7/10; B25B 7/12

IPC 8 full level

B25B 3/00 (2006.01); **B25B 7/10** (2006.01); **B25B 7/12** (2006.01)

CPC (source: EP)

B25B 3/00 (2013.01); **B25B 7/10** (2013.01); **B25B 7/123** (2013.01)

Citation (search report)

- [YD] GB 1355269 A 19740605 - WILSON N R
- [YD] US 4275623 A 19810630 - WALTER JAMES
- [A] US 2751801 A 19560626 - HOSTETTER JOHN L
- [A] US 3104571 A 19630924 - TRYBUS STANLEY L
- [A] US 2661648 A 19531208 - JONES HAROLD T

Cited by

EP1202837A4; EP0967051A1; EP2149428A1; FR2802137A1; EP0638393A1; AU672111B2; US8056451B2; US7861622B2; US11370088B2; US7444907B2; WO0143921A1; US10207394B2; US11154965B2; US11745313B2

Designated contracting state (EPC)

AT BE CH DE GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0216717 A1 19870401; EP 0216717 B1 19891220; DE 3667622 D1 19900125; ES 2004339 A6 19890101

DOCDB simple family (application)

EP 86420238 A 19860922; DE 3667622 T 19860922; ES 8602099 A 19860923