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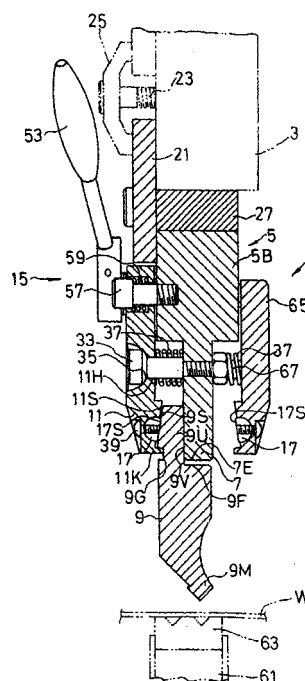
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(54) **Upper tool and upper tool assembly comprising said upper tool for use with a press brake and method of clamping said upper tool**

(57) In an upper tool for a press brake clamped between a support plate (7) of an upper tool holder body (5) attached to a lower portion of an upper table (3) and an upper tool clamp member (11), the upper tool (9) is formed with an inclined surface (9S) narrowed upward at an upper portion thereof and with an engage groove (9G) engaged with an engage projection (11K) of the upper tool clamp member (11) and formed under the inclined surface (9S). Therefore, the inclined surface (9S) is brought into contact with an inclined surface of the upper tool clamp member (11), when the upper tool is clamped between the upper tool holder body (5) and the upper tool clamp member (11), in such a way that clamping force can be further increased when the upper tool is engaged with a die (63). Further, in an upper tool holder apparatus for a press brake, the pivotal upper tool clamp member (211) is formed with an engage projection (211P) engaged with a drop prevention groove (205G) formed in the upper tool (205), and the upper tool holder apparatus further comprises clamp operation lever (215) for selectively moving to a clamp position A at which the clamping force can be applied to the upper tool clamp member (211) from the clamping force generating spring (213) to clamp the upper tool tightly; an unclamp position B at which the clamping force can be reduced to allow the upper tool to be adjustably shifted horizontally, and an exchange position C at which the

upper tool clamp member (211) can be moved away from the upper tool to allow the upper tool to be exchanged vertically with another one.

FIG.2





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Place of search The Hague		Date of completion of the search 8 December 2004	Examiner Gerard, O
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