

**CIRCUIT INTERRUPTER WITH PLASMA ARC ACCELERATION
CHAMBER AND CONTACT ARM HOUSING**

Abstract of the Disclosure

An electrical circuit interrupter (10) comprising a housing (14, 18) with an operating mechanism (63) disposed therein and including first and second separable main contacts (62, 64) disposed within the housing is taught. There is an electrically conducting first contact support (68) which has a shape which substantially doubles back upon itself and which has parallel, spaced apart first and second legs forming a central region. An electrically insulating support member (246) is supplied which is disposed in the central region and has a substantial portion outboard of the central region in a disposition to shield a portion of the contact support member. It also has a portion (260, 268) which captures the first contact support member (68). In addition, magnetic plates (78) are disposed within the central region for cooperating with other closed loop magnetic plates (74) outside of the support member for providing a slot motor action for the movable contact. An arc runner (88) is provided which is trapped between the support member (246) and the contact support conductor (68). All of this is disposed upon a protrusion (308) in the housing of the circuit breaker and held in place by way of a securing device (310). Lastly, a mandrel (291) is provided for supporting the forementioned external magnetic plates (74). The mandrel is gas evolving so that under the influence of the heat of an electrical arc it evolves gas which helps to push the arc out and away from the opening contacts. The aforementioned gas propels the formed arc outwardly away from the contacts in an effort to cool and interrupt the arc.

(Fig. 1)