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ABSTRACT**INTERLOCK FOR ELECTRICAL SWITCHES HAVING PLUNGERS
ENGAGING OPERATING MECHANISM**

5 An interlock (17) for a pair of electrical switching devices (1, 3) includes plungers (19, 21) mounted through the switch housing and engaging the operating mechanism (13, 15) which opens and closes the switch. The plunger (19, 21) of each switch is coupled to a pivotally mounted cam plate (33, 65) by a pin (51, 83) which engages a camming slot (45, 77) in the cam plate for mutual movement of the plunger (19, 21) and cam plate (33, 65). The cam plates (33, 65) associated with the pair of switches (1, 3) are connected by a connecting link (31) for coordinated rotation. When one switch (1) is closed, the operating mechanism (13) extends the associated plunger (19) which through the cam plates (33, 65) and connecting link (31) raises the other plunger (21) to block closing of the other switch (3). When a plunger (19, 21) is in blocking position, the coupling pin (51, 83) engages an overtoggle section (49, 81) of the camming slot (45, 77) of the associated cam plate (33, 65) such that a force generated by any attempt to close the associated switch (1, 3) is directed through the pivot axis (37, 67) of the cam plate (33, 65) and generates no component tending to rotate the cam plate. Hence, no force is transmitted to the connecting link (31) or to the cam plate (33, 65) and plunger (19, 21) associated with the switch (1, 3) which is already closed. Opposed springs (61, 93) bias the respective cam plates (33, 65) toward the overtoggle position and urge the interlock (17) to an intermediate position when both switches (1, 3) are open so that either may be closed. A single actuator (27, 29) can be used to selectively block operation of a single switch (1, 3) without transmittal of a force generated by an attempt to close the switch back through the actuator (27, 29) to a manual or motor operator.

This Sheet Has Been Replaced

