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(54) **Title:** MACHINE-ACTUATED AND REMOVABLE SAFETY CLOSURE WITH ANTI-ROTATION AND MACHINE-RELEASED HOLDER

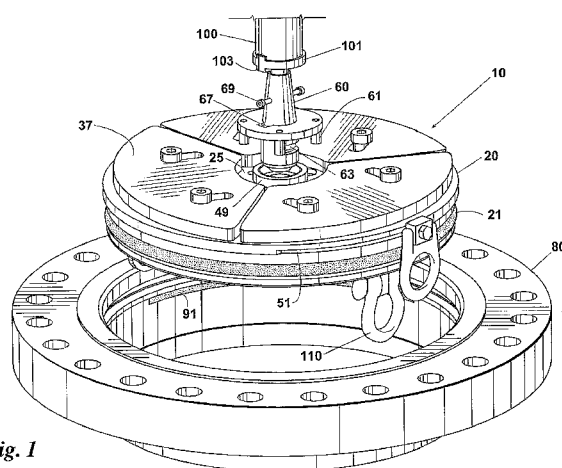


Fig. 1

(57) **Abstract:** An improved machine-actuated removable safety closure made according to this invention includes a latch and central hub combination which permits a plug holder to self-align with the drive holes of the closure's cam plate so that an operator can retrieve the closure without having to lean directly over it. A bypass valve interferes with the cam plate when the bypass is in its closed position. This interference prevents the cam plate from actuating the locking leaves. Anti-rotation slots located on the plug body and the flange of the tubular member interlock and prevent rotation of the plug body beyond a certain rotational window during the setting process and when the plug body is in its final sealing position. The latch, along with means to secure the plug holder to the boring bar, allows the holder to be retrieved from the set plug.

