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(54) Title: A VALVE ASSEMBLY HAVING A UNITARY VALVE SLEEVE

(57) Abstract: A valve assembly preferably including a housing having a recess and a flange face and a valve sleeve disposed within the recess. The sleeve preferably includes an annulus having an outer surface and an inner surface that defines a passageway about a central axis, the outer and inner surfaces being radially spaced from one another to define a wall. The wall has a first end portion and a second end portion axially spaced from the first end portion, and homogenous material properties from the first end portion to the second end portion. Preferably, the first end portion defines a lip for supporting the annulus in the recess and further defines a first chamber that encases at least a portion of a first support member. The second end portion preferably defines a flange portion along the outer surface for engaging the flange and further defines a second chamber that encases at least a portion of a second support member.

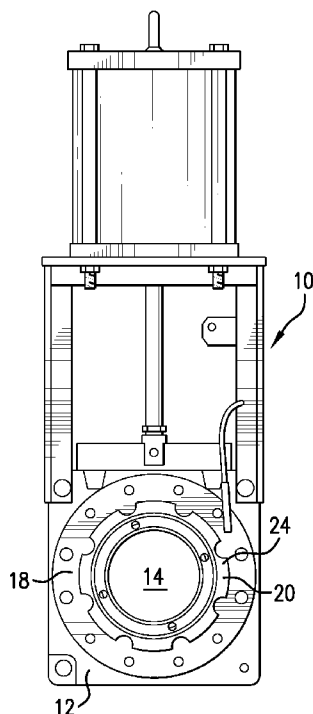


FIG. 1



MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, **Published:**
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, — *with international search report (Art. 21(3))*
ML, MR, NE, SN, TD, TG).

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- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*