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(54) Title: SAFETY VALVE HARNESSING WEIGHT AND GRAVITY FOR FAIL-SAFE CLOSURE

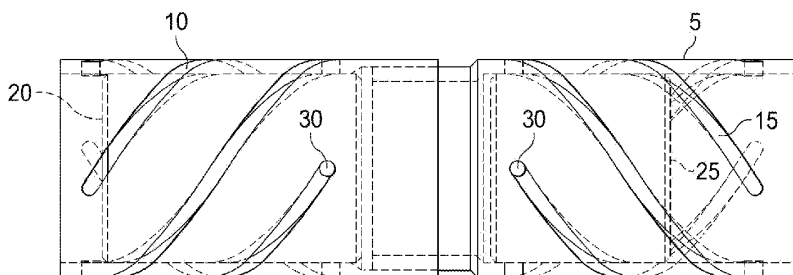


FIG. 1

(57) Abstract: A safety valve includes a rotatable helical slot cylinder having a body and a throughbore running axially through the body. The helical slot cylinder additionally has an upper helical slot and a lower helical slot slotted in the body of the helical slot cylinder and the helices of the upper helical slot and the lower helical slot are the inverse of each other. The upper sleeve is coupled to the upper helical slot of the helical slot cylinder and has a throughbore. The lower sleeve is coupled to the lower helical slot of the helical slot cylinder and has a throughbore. The upper sleeve and the lower sleeve are disposed within the throughbore of the helical slot cylinder. The safety valve additionally includes a weighted component directly or indirectly coupled to the upper sleeve and a flapper assembly directly or indirectly coupled to the lower sleeve.



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