

ABSTRACT

"ARRANGEMENT FOR CONTINUOUS CIRCULATION OF DRILLING FLUID DURING DRILLING OPERATIONS"

A circulation unit (3) for an arrangement arranged to continuously circulate drilling fluid during drilling is described, in which a housing (31) is provided with a centre bore (313) which is defined by upper and lower annular sealing elements (32, 32') which are rotatably supported in the housing (31); the sealing elements (32, 32') are provided with a centre opening (321) which, by the expansion of said sealing elements (32, 32'), is closable or fits tightly against a pipe (5, 51, 51', 431); and a gate valve (34) in a closed state forms a fluid-tight partition between upper and lower chambers (311, 312) in the housing (31), and in which each of the sealing elements (32, 32') is connected in a fluid-tight manner to a rotatable packer pipe (331) surrounded by a packer assembly (33 and 33', respectively) that fits tightly against the circumference of the packer pipe (331) and against the housing (31). An arrangement for the continuous circulation of drilling fluid during drilling, including a circulation unit (3) arranged between upper and lower rotary units (2, 2'), is described as well.

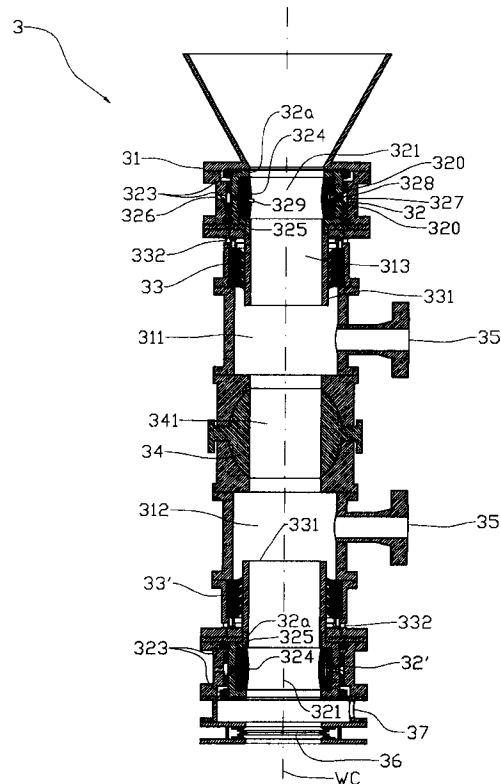


Fig. 1



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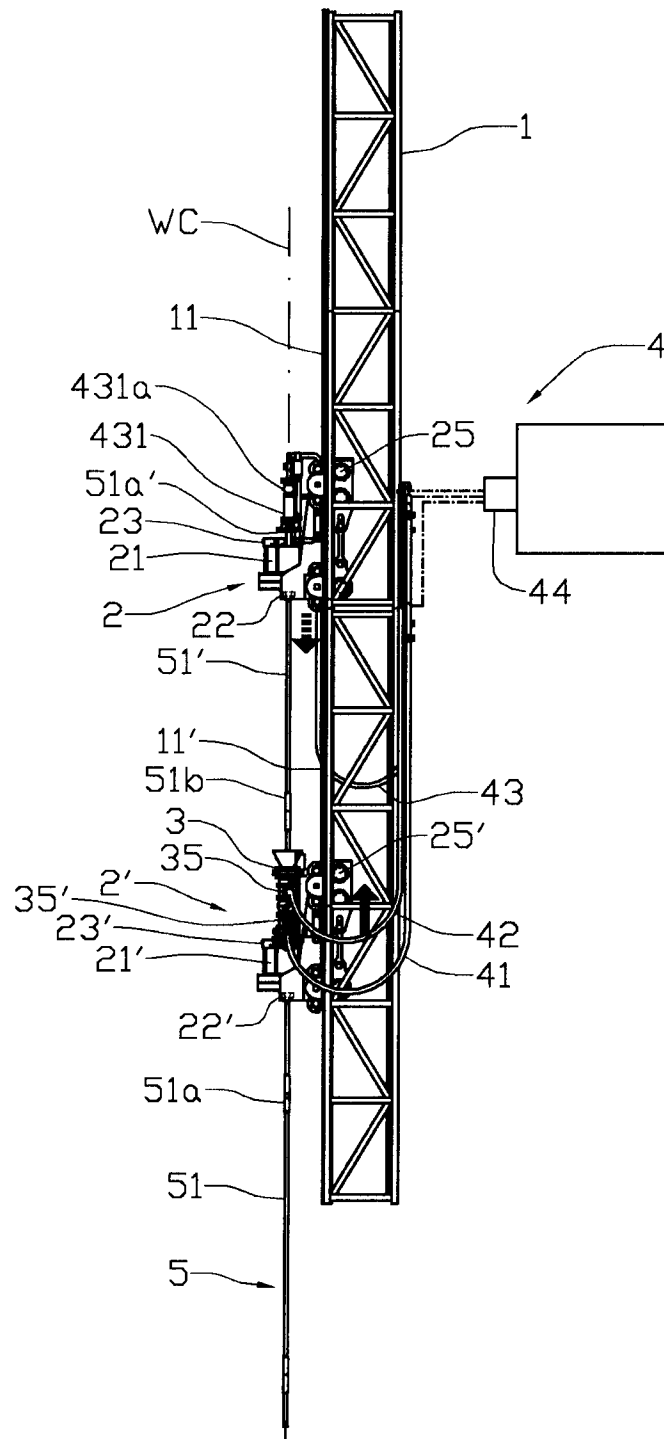


Fig. 2

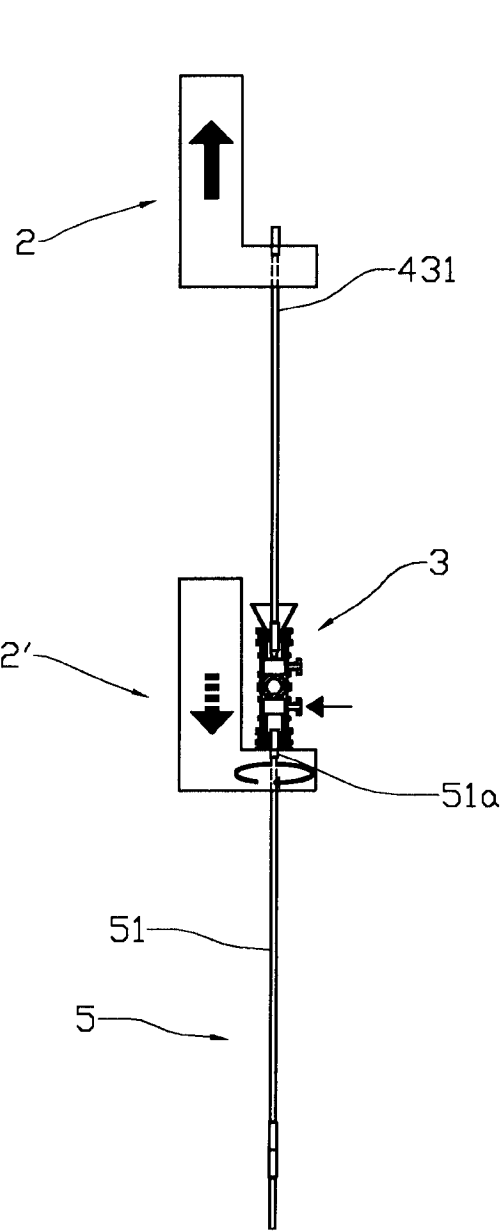


Fig. 3

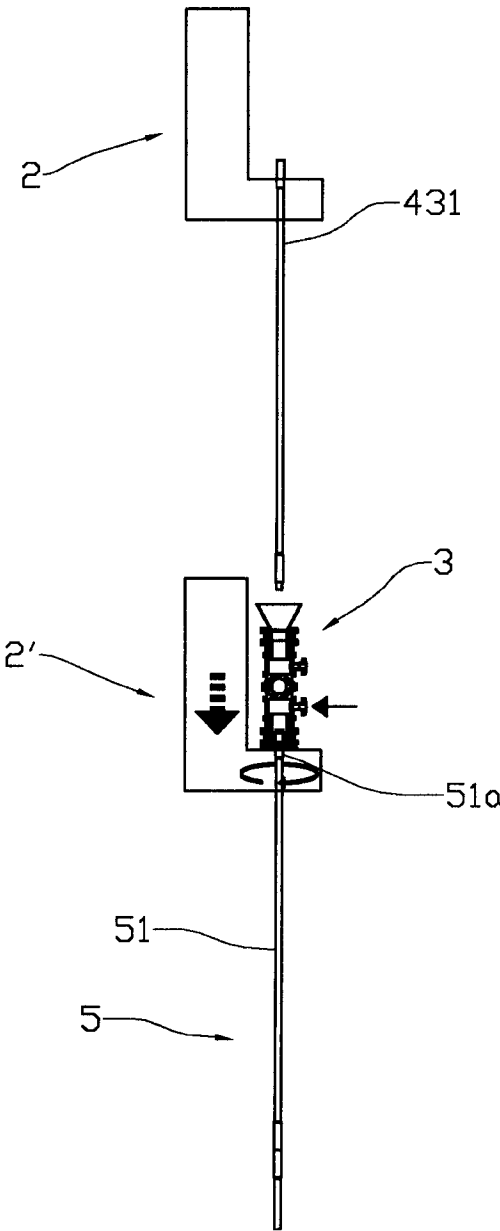


Fig. 4