seal which enables this adjustment to be made. The speed with which the valve member 84 is moved also may be determined by adjustment of the pressure on spring 92. Safety valve 117 preferably is set to maintain closed against the pressure in the casing 1. However, crude petroleum contains dissolved gases and when the sample in the jar 114 is subjected to changes in atmospheric temperature such as are normally encountered in the oil fields, the pressure in the jar may become too high. Under such conditions the safety valve 123 opens to permit the escape of excess pressure.

Having described my invention, what I desire to claim and secure by Letters Patent is:

1. An automatic sampler comprising a conduit carrying a moving stream of fluid, means in said conduit operated by the flow of fluid therethrough, a tube extending into the flowing stream in said conduit, said tube having a passageway therethrough terminating in an orifice, a valve in said conduit for normally closing said orifice, and snap action means operated by said first mentioned means for operating said valve member with a snap action.

2. A sampler mechanism comprising a conduit for carrying a stream of fluid, means in said conduit operated by the flow of fluid therethrough, means projecting through said fluid substantially to the center of the flowing stream, said latter means having an orifice therein whereby a sample may be removed, and a valve in said conduit operated by said first mentioned means for opening and closing said orifice.

3. A sampler mechanism comprising a conduit for carrying a stream of fluid, means in said conduit operated by the flow of fluid therethrough, means projecting through said fluid substantially to the center of the flowing stream, said means having an orifice therein whereby a sample may be removed, a valve for normally closing said orifice, snap action means operated by said first mentioned means for operating said valve, and means for adjusting duration of the open position of said valve.

4. An automatic sampler comprising a conduit, means operated generally in proportion to the flow of fluid through a conduit, said conduit having a passageway therethrough terminating in an orfice, a valve member adapted to close said orifice and having a shoulder thereon, a rocker arm, a trigger member carried by said rocker arm and having a portion adapted to engage said shoulder, a release cam positioned in the path of said trigger, and means operated by said first mentioned means for oscillating said rocker arm.

5. An automatic sampler comprising a conduit, means operated generally in proportion to the flow of fluid through a conduit, said conduit having a passageway therethrough terminating in an orifice, a valve member adapted to close said orifice and having a shoulder thereon, a rocker arm, a trigger member carried by said arm and having a portion adapted to engage said shoulder, a release cam positioned in the path of said trigger, means operated by said first mentioned means for oscillating said rocker arm, and means for adjusting the position of the release cam.

6. An automatic sampler comprising a conduit, a bushing adjustably threaded into said conduit, means for locking said bushing in position, a bore in said bushing, a valve member including a stem operating in said bore, adjustable spring means urging said valve in one direction, means having an orifice therein co-operating with said valve for removing a sample of fluid from the conduit, means adapted to be operated generally in proportion to the flow of fluid through said conduit, trigger means operated by said last named means to open said valve, and means on said trigger means adapted to engage said bushing for releasing said valve.

7. An automatic sampler comprising a conduit, means operated generally in proportion to the flow of fluid through said conduit, a rocker arm shaft extending into said conduit, a rocker arm secured thereto, spring means biasing said rocker arm and shaft in one direction, said first mentioned means moving said rocker arm against the bias of said spring means, a sampler valve opened upon movement of said rocker arm in one direction, means for releasing said sampler valve from the rocker arm, and means independent of the rocker arm for closing said valve.

8. An automatic sampler comprising a conduit adapted to carry a moving stream of fluid, rotary means in said conduit operated by the flow of fluid therethrough, a valve orifice provided in said conduit removed from the area of turbulence caused by said rotary means whereby a sample of fluid may be removed from said conduit, a valve in said conduit for normally closing said orifice, and snap action means operated by said rotary means for operating said valve member with a snap action.

9. An automatic sampler comprising a conduit for the flow of fluid, a receiver, an orifice provided for the escape of a sample quantity of fluid from the conduit to said receiver, a valve member for closing said orifice, snap action means for operating said valve, means adapted to be operated by the flow of fluid in said conduit to operate said snap action means, and means for adjusting the opening period of the valve member to determine the quantity of sample removed to the receiver.

10. In an automatic sampler, a conduit, a guide bushing in said conduit having a bore therein closed at its outer end, a valve member having a piston operating in said bore, means substantially balancing fluid pressure on opposite sides of said piston, spring means urging said valve in one direction, means having an orifice therein co-operating with said valve for removing a sample of fluid from said conduit, and means for periodically operating said valve with a snap action.

11. An automatic sampler comprising a conduit, a guide bushing in said conduit having a bore therein closed at its outer end, a valve member having a piston operating in said bore, spring means urging said valve in one direction, means having an orifice therein co-operating with said valve for removing a sample of fluid from said conduit, means for periodically opening said valve, release means on said bushing to release said opening means to allow snap closing of the valve, and means to adjust said release means to determine the quantity of sample removed.

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