B. S. FLORADAY

PISTON AND CYLINDER CONSTRUCTION

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INVENTOR.

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This application is a continuation of abandoned application Serial No. 699,196, filed March 14, 1924.

My invention relates to piston and cylinder construction. I have shown my invention as embodied in the piston and cylinder construction of hydraulic brake-operating mechanism applied to motor vehicles. In such construction a closed hydraulic system is employed. It is, therefore, necessary that leakage of the operating fluid be prevented. If leakage occurs the mechanism will fail to operate or its operation will be unsatisfactory.

Another feature of importance is the provision with a cylinder open at each end and having a pair of opposed pistons mounted therein, of improved spring structure acting on each piston in the pair in opposition to the hydraulic pressure in the cylinder, such spring structure tending to hold the two pistons in opposite directions in the cylinder.

In the drawings:

Figure 1 is a side elevation of the piston and cylinder construction embodying my invention.

Figure 2 is a cross-sectional view taken on line 2-2 of Fig. 1.

In the drawings, let 10 indicate a frame member. This may be the frame member of a motor vehicle as I have illustrated my invention as embodied in the piston and cylinder construction of hydraulic brake-operating mechanism for motor vehicles. Cylinder 12 is supported below the frame member by a bracket 14. The cylinder shown is open at each end and a pair of pistons indicated respectively 16 and 18 are disposed in the cylinder, as appears in Fig. 2. This cylinder is intended to be used as part of a closed hydraulic brake-operating system and has a single inlet and exhaust opening 20 leading to a suitable source of fluid pressure (not shown in the drawing). This opening 20 is shown as situated approximately midway the ends of the cylinder.

Each piston has an extension or connecting rod 34 to which is secured a yoke 36. These yokes are disposed at an angle to each other and extend over the cylinder and one yoke extends through the other yoke. At the end of each yoke opposite the point of its engagement with the piston a cable 38 or other suitable connection is attached which leads to mechanism to be operated by the movement of the pistons. I provide a pair of springs 40 disposed at opposite ends of the cylinder connecting the two yokes to exert pressure thereon counter the force exerted by the pistons. These springs tend to hold the pistons in opposite directions and toward each other in the cylinder.

What I claim is:

In piston and cylinder construction, a cylinder, a pair of opposed pistons operationally disposed therein, a connecting rod for each piston, a yoke for each connecting rod, each yoke passing around the cylinder and arranged at an angle to the other yoke and passing therethrough, and a pair of springs one at each end of the cylinder disposed between the respective yokes to exert pressure thereon counter the force exerted by the pistons.

In testimony whereof, I, BURTON S. FLORADAY, sign this specification.

BURTON S. FLORADAY.