

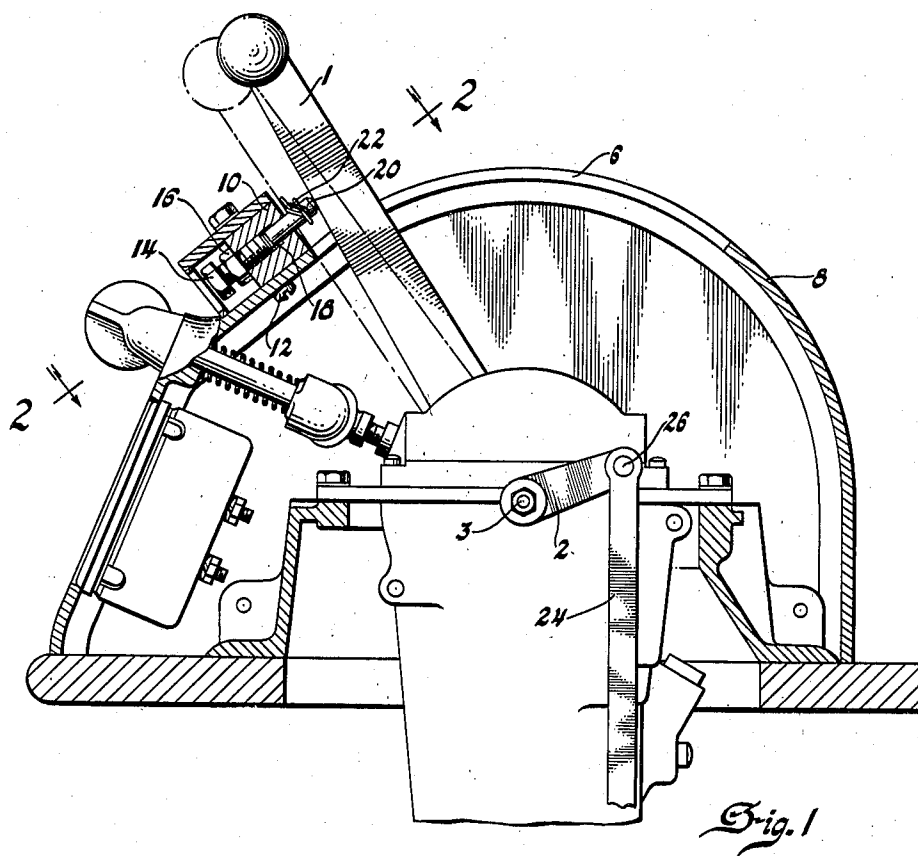
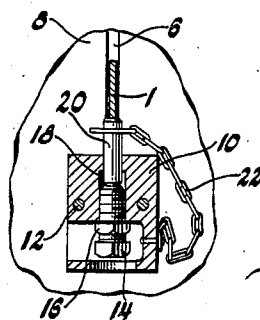
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ENGINE CONTROL MEANS

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ENGINE CONTROL MEANS

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1 Claim. (Cl. 74-526)

This invention relates to control means involving a lever or other member which is required to be moved to different positions to control a mechanism.

More particularly it relates to a control means for an engine and especially a member movable to vary the amount of fuel supplied thereto.

The object of the invention is a control means with fixed and adjustable stop means for determining two different positions of the control means.

The above and other objects of the invention will be apparent as the description proceeds.

In the drawing

Figure 1 is a part sectional view of a control stand for an engine.

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

The control means includes a bell crank lever comprising a lever arm 1 and a lever arm 2 both rigidly secured to a shaft 3 constituting a fulcrum about which the bell crank lever may be turned as its lever arm 1 is moved in an arc of a circle to different positions in a slot 6 in a quadrant 8.

Mounted on the quadrant 8 at one end of the slot 6 is a fixed stop means consisting of a block 10 rigidly secured to the quadrant by bolts such as 12. The block 10 determines one position of the lever arm 1 (i. e., the position thereof shown in broken lines in Figure 1).

There is a hole through the block 10 which is closed at one end by a screw 14 with a lock nut 16 to form a pocket 18 for a removable spacer 20, the depth of the pocket being adjustable by turning of the screw 14, which constitutes an abutment for said removable spacer, which is adjustable in relation to said fixed stop means. The removable spacer 20 projects from said pocket 18 to an extent depending on the adjustment of the screw 14, and determines another position of the lever arm 1 (i. e., the position thereof shown in full lines in Figure 1).

It will be seen that the removable spacer must be removed before the lever arm 1 can be moved to the position shown in broken lines in Figure 1, and to prevent loss or misplacement of the spacer

when this is done, a keeper chain 22 by which it is connected to the block 10 is provided.

In the use of the device as a control means for an engine to vary the amount of fuel supplied thereto, movement of the lever arm 1 from its fixed stop means 10 towards the other end of the slot 6 is arranged to move a fuel supply control member to vary the amount of fuel supplied to the engine from a zero quantity to a maximum quantity, the spacer 20 determining an intermediate position of the lever arm 1 in which just sufficient fuel for idle running of the engine is supplied.

As shown in Figure 1, the fuel supply control member is the rod 24 pivotally connected to the lever arm 2 by a link pin 26, but it will be appreciated that the specific kind of connection between the manual control lever 1 and the fuel supply control member is quite immaterial; it may be of any suitable sort.

The device is especially suitable as a control means for a Diesel engine wherein movement of the rod 24 would vary the delivery of the fuel injection pumps (not shown) from zero to maximum in well known way, since it provides an adjustable stop determining the position of the control means for idle running of the engine with provision (by removing the spacer) for moving the control means therebeyond to a position in which the supply of fuel is reduced to zero to stop the engine.

I claim:

Control means for an engine including a member movable to vary the amount of fuel supplied thereto from zero to maximum, fixed stop means determining the position of the member for zero fuel supply, and a removable spacer between said fixed stop means and said member for determining the position of the member for idle running of the engine, said removable spacer being supported in a pocket in said fixed stop means, into which it is inserted when in use, and screw means extending into the other end of the pocket for adjusting the depth thereof.

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