Claims

What is claimed is:

1. A push button device, comprising:

a retainer with opposing top and bottom ends and an axial bore including a square recess section of the axial bore in the top end of the retainer, and a collar at a distal portion of the top end, said axial bore having a central cavity with a floor and a roof defining a bottom and a top of the central cavity respectively, said central cavity containing two opposite facing sets of cams, a cam set on the floor and a cam set on the roof;

a plunger slideably operative within the axial bore moveable between extended and retracted positions, said plunger comprising a button which extends upwardly from the top end of the retainer through the collar when in the retracted position and further having a cylindrical pin at the distal bottom end of the plunger extending from the bottom end of the retainer when the plunger is in the extended position; and

a flanged midsection of the plunger of lateral square cross-section configured and constructed such that corners of the flanged midsection act upon the cams to rotate the plunger in the same rotational direction for each alternating up and down reciprocal stroke of the plunger.

2. The device of claim 1 wherein the flanged midsection of the plunger occupies the square recess section of the retainer when the plunger is in the retracted position.

3. The device of claim 2 wherein the retainer has an end cap at the bottom end which is affixed to a body of the retainer captivating the plunger within the retainer.

4. The device of claim 3 having a spring operative between the end cap and the flanged midsection which urges the plunger upwardly toward the retracted position.

5. The device of claim 3 wherein the end cap is affixed to the body of the retainer and has a shank extending from the bottom of the retainer, said shank configured to attach to a hole in a supporting structure.

6. The device of claim 1 wherein each cam has an angled face which is engageable with the corners of the flanged midsection.

7. The device of claim 6 wherein the central cavity is cylindrical.

8. The device of claim 7 wherein each set of cams comprises cams located along a peripheral wall of the central cavity.

9. The device of claim 8 wherein the cams in each set are substantially identical and the cam sets are angularly offset from one another one-half the arc length of each cam.

10. The device of claim 6 wherein the cams consist of pointed vertically extending teeth.

11. The device of claim 1 wherein the flanged midsection abuts the retainer collar when the plunger is in the retracted position.