What is claimed is:

1. A bypass valve apparatus for assembly in a tubing string inserted in a subterranean wellbore wherein the tubing string contains well fluids and forms an annulus between the tubing string and the wellbore, the valve comprising:

   an elongated tubular walled body for connection in the tubing string, a passageway extending axially through the body;

   a bypass passageway extending radially through the wall of the body; and

   a valve element repeatedly movable into and out of engagement with the passageway to selectively block and permit flow through the passageway whereby well fluids flow into the body flow through the bypass passageway.

2. The bypass valve of **claim 1** additionally comprising a spool mounted in the body for relative movement with respect to the body.

3. The bypass valve of **claim 2** wherein the valve element comprises a ball-shaped valve element operably associated with the spool and moved by the spool into and out of engagement with the passageway.

4. The bypass valve of **claim 3** wherein the spool is mounted for rotational movement with respect to the body.

5. The bypass valve of **claim 2** additionally comprising a slot and pin engaging the slot, limiting the movement of the spool.

6. The bypass valve of **claim 5** wherein the slot is located on the exterior of the spool and the pin is connected to the body.

7. The bypass valve of **claim 6** wherein the slot is endless.

8. The bypass valve of **claim 2** wherein the body comprises portions which are axially telescopable when axial force is applied to the body.

9. The bypass valve of **claim 8** additionally comprising means for moving the spool when the body is axially telescoped.

10. The bypass valve of **claim 9** wherein the moving the spool consists of rotating the spool.

11. The bypass valve of **claim 9** wherein the moving the spool consists of axially moving the spool.

12. The bypass valve of **claim 9** wherein the moving the spool comprises rotating and axially moving the spool.

13. The bypass valve of **claim 9** wherein the means for moving comprises a slot and pin engaging the slot.

14. The bypass valve of **claim 3** wherein the ball valve element comprises hardened material.

15. The bypass valve of **claim 3** wherein the ball valve comprises metallic material.

16. The bypass valve of **claim 8** additionally comprising and trigger selectively preventing and permitting telescoping.

17. The bypass valve of **claim 16** wherein the trigger permits telescoping only when the axial force exceeds a set amount.

18. The bypass valve of **claim 17** wherein the set amount of force can be varied.

19. A method of using a valve to selectively provide bypass flow in a well containing tubing string inserted in a subterranean hydrocarbon wellbore wherein the tubing string contains well fluids and forms an annulus between the tubing string and the wellbore, comprising the steps of:

providing a valve with a body that telescopes to open and close a bypass port in the body upon actuation of a trigger;

setting the force valve of a trigger for selectively permitting and preventing telescoping of the valve body;

assembling the valve in a tubing string;

inserting the tubing string and valve to a subterranean location in the wellbore without telescoping the valve body;

providing sufficient telescoping force on the body to telescope the body and open the bypass port to provide bypass flow; and

thereafter, providing sufficient telescoping force to the body to telescope the body and close the bypass port.

20. The method of **claim 19** comprising the additional step of repeatedly applying sufficient telescoping force to the body to repeatedly open and close the bypass port.

What is claimed is:

1. A bypass valve apparatus for assembly in a tubing string inserted in a subterranean wellbore wherein the tubing string contains well fluids and forms an annulus between the tubing string and the wellbore, the valve comprising: an elongated tubular wailed body comprising a main body and mandrel for connection in the tubing string, the mandrel mounted to extend axially into and move axially with respect to the main body, a passageway extending axially through the body; a bypass passageway extending radially through the wall of the body; and a sleeve valve element mounted in the body to rotate into and out of fluid engagement with the bypass passageway to selectively block and permit flow through passageway whereby well fluids flow into the body flow through the bypass passageway, the sleeve mounted to rotate as the main body and mandrel axially move with respect to each other.

2. The bypass valve of claim 1 additionally comprising a spool mounted in the body for relative movement with respect to the body.

3. The bypass valve of claim 2 additionally comprising a slot and pin engaging the slot, limiting the movement of the spool.

4. The bypass valve of claim 2 wherein the body comprises portions which are axially telescope when axial force is applied to the body.

5. The bypass valve of claim 4 additionally comprising means for moving the spool when the body is axially telescoped.

6. The bypass valve of claim 5 wherein the moving the spool consists of rotating the spool.

7. The bypass valve of claim 5 wherein the moving the spool consists of axially moving the spool.

8. The bypass valve of claim 5 wherein the moving the spool comprises rotating and axially moving the spool.

9. The bypass valve of claim 5 wherein the means for moving comprises a slot and pin engaging the slot.

10. The bypass valve of claim 4 additionally comprising a trigger selectively preventing and permitting telescoping.

11. The bypass valve of claim 10 wherein the trigger permits telescoping only when the axial force exceeds a set amount.

12. The bypass valve of claim 11 wherein the set amount of force can be varied.

13. A bypass valve apparatus for assembly in a tubing inserted in a subterranean wellbore wherein the tubing string contains well fluids and forms an annulus between the tubing string and the wellbore, the valve comprising: an elongated tubular walled body for connection in the tubing string, a passageway extending axially through the body; a bypass passageway extending radially through the wall of the body; and a valve element repeatedly movable into and out of engagement with the passageway to selectively block and permit flow through the passageway, whereby well fluids flowing into the body will flow through the bypass passageway; a spool mounted the body for relative movement with respect to the body; the valve element comprises a ball-shaped valve element operably associated with the spool and moved by the spool into and out of engagement with the passageway.

14. The bypass valve of claim 13 wherein the spool is mounted for rotational movement with respect to the body.

15. The bypass valve of claim 13 wherein the ball valve element comprises hardened material.

16. The bypass valve of claim 13 wherein the ball valve comprises metallic material.

17. A bypass valve apparatus for assembly in a tubing string, inserted in a subterranean wellbore, wherein the tubing string contains well fluids and forms an annulus between the tubing string and the wellbore, the valve comprising: an elongated tubular walled body for connection in the tubing string, a passageway extending axially through the body; a bypass passageway, extending radially through the wall of the body; a valve element repeatedly movable into and out of engagement with the passageway to selectively block and permit flow through the passageway, whereby well fluids flow into the body flow through the bypass passageway; and a spool mounted in the body for relative movement with respect to the body; comprising a slot and pin engaging the slot, limiting the movement of the spool and, wherein the slot is located on the exterior of the spool, and the pin is connected to the body.

18. The bypass valve of claim 17 wherein the slot is endless.

19. A method of using a valve to selectively provide bypass flow in a well containing tubing string inserted in a subterranean hydrocarbon wellbore wherein the tubing string contains well fluids and forms an annulus between the tubing string and the wellbore, comprising the steps of: providing a valve with a body comprising a main body and a mandrel, each separately connected to the tubing string, the main body and mandrel axially telescope with respect to each other to open and close a bypass port in the body upon actuation of a force valve in a trigger; setting the force valve of the trigger for selectively permitting and preventing telescoping of the valve body; assembling the valve in a tubing string; inserting the tubing string and valve to a subterranean location in the wellbore without telescoping the valve body; providing sufficient telescoping force on the body to telescope the body and open the bypass port to provide bypass flow; and thereafter, providing sufficient telescoping force to the body to telescope the body and close the bypass port.

20. The method of claim 19 comprising the additional step of repeatedly applying sufficient telescoping force to the body to repeatedly open and close the bypass port.

21. The method of claim 19, wherein the step of providing telescoping force comprises placing the tubing string in a weight down condition.