We claim:

1. A setting mechanism for a subterranean tool, comprising:

a selectively movable piston mounted to a mandrel so that movement of said piston sets the subterranean tool;

said piston is selectively exposed to pressure on a first side and is referenced to an opposing pressure in a reference chamber such that said selective exposure creates a force imbalance on said piston to urge said piston to move to reduce the volume of said reference chamber while setting the subterranean tool;

said reference chamber pressure in said reduced volume configuration further rises after sufficient movement of said piston that sets the subterranean tool, whereupon with said tool set further movement of said piston opens access to said reference chamber for said further raising of pressure therein.

2. The mechanism of claim 1, wherein:

said reference chamber pressure is raised to equal pressure selectively exposed to said first side of said piston.

3. The mechanism of claim 1, wherein:

said reference pressure rises only after said movement of said piston.

4. The mechanism of claim 1, wherein:

said selective exposure on said first side of said piston occurs with surrounding annular space pressure at a predetermined first value and said rise of said reference chamber pressure occurs on elevation of surrounding annular space pressure to a second value higher than said first value.

5. The mechanism of claim 4, wherein:

a first rupture disc in communication with said first side of said piston is broken with said pressure at said first value and a second rupture disc in communication with said reference chamber is broken with pressure at said second predetermined value.

6. The mechanism of claim 1, wherein:

said reference chamber pressure rise occurs with undermining a seal in communication with said reference chamber responsive to movement of said piston to set the subterranean tool.

7. The mechanism of claim 1, wherein:

said reference chamber pressure rise occurs with selective communication of said reference chamber to higher pressure.

8. The mechanism of claim 7, wherein:

said higher pressure is located in a surrounding annular space to said mandrel.

9. The mechanism of claim 8, wherein:

said selective communication occurs with undermining a barrier between said reference chamber and said surrounding annular space.

10. The mechanism of claim 9, wherein:

said barrier undermining begins only after movement of said piston sets the subterranean tool.

11. The mechanism of claim 10, wherein:

said barrier undermining begins with exposure to fluid from the surrounding annular space made possible by movement of said piston.

12. The mechanism of claim 11, wherein:

said barrier undermining occurs from pressure of fluid from said surrounding annular space; and

said barrier undermining occurs from dissolving, disintegrating or otherwise failing said barrier as a result of exposure to fluid from said surrounding annular space.

13. The mechanism of claim 12, wherein:

said barrier is made from a controlled electrolytic material.

14. The mechanism of claim 10, wherein:

a diffuser in the path of pressure between an undermined seal and said barrier.

15. The mechanism of claim 10, wherein:

said pressure access to said first side occurs with breaking a rupture disc;

said piston is precluded from moving by being in pressure balance if at least one of said seals leaks before breaking said rupture disc.

16. A setting mechanism for a subterranean tool, comprising:

a selectively movable piston mounted to a mandrel so that movement of said piston sets the subterranean tool;

said piston is selectively exposed to pressure on a first side and is referenced to an opposing pressure in a reference chamber such that said selective exposure creates a force imbalance on said piston to urge said piston to move to reduce the volume of said reference chamber while setting the subterranean tool;

said reference chamber pressure in said reduced volume configuration further rises after movement of said piston that sets the subterranean tool;

said reference chamber pressure rise occurs with selective communication of said reference chamber to higher pressure;

said higher pressure is located in a surrounding annular space to said mandrel;

said selective communication occurs with undermining a barrier between said reference chamber and said surrounding annular space;

said barrier undermining begins only after movement of said piston sets the subterranean tool;

a diffuser in the path of pressure between an undermined seal and said barrier;

said pressure access to said first side occurs with breaking a rupture disc;

said piston is locked to said mandrel until the said rupture disc breaking initially moves a lock sleeve to unsupport dogs extending through said piston and into a mandrel recess.

17. A setting mechanism for a subterranean tool, comprising:

a selectively movable piston mounted to a mandrel so that movement of said piston sets the subterranean tool;

said piston is selectively exposed to pressure on a first side and is referenced to an opposing pressure in a reference chamber such that said selective exposure creates a force imbalance on said piston to urge said piston to move to set the subterranean tool;

said reference chamber pressure rises after movement of said piston;

said pressure access to said first side occurs with breaking a rupture disc;

said piston is locked to said mandrel until the said rupture disc breaking initially moves a lock sleeve to unsupport dogs extending through said piston and into a mandrel recess;

said lock sleeve comprises a passage extending transversely therethrough between two said seals such that leakage of another of said seals before said rupture disc is broken puts said lock sleeve in pressure balance such that said piston cannot move relative to said mandrel.

18. The mechanism of claim 9, wherein:

said barrier is located directly on said reference chamber for external access for replacement or within said piston and in fluid communication with said reference chamber .