CLAIMS:

1. A drill string for use in a well drilling system that comprises a rig that, in operation, drives the drill string in rotation in a well from a location above the well, the drill string comprising:

a vibration damping drill pipe section comprising drill pipe assembled to be deployed at a location where vibration damping is desired, the vibration damping drill pipe section comprising a plurality of pipe segments made of a vibration damping material; and

a further drill pipe section assembled to the vibration damping drill pipe section and made of a different material less able to dampen vibration experienced by the drill string during rotation of the drill string by the drilling rig system,

wherein the drill string is advanced in the well only by rotation of the drill string by torque applied by the drilling rig system from the location above the well.

2. The drill string of claim 1, wherein the vibration damping material comprises an aluminum alloy.

3. The drill string of claim 1, wherein the vibration damping drill pipe section is disposed adjacent to a bottom hole assembly.

4. The drill string of claim 3, wherein the vibration damping drill pipe section is disposed immediately adjacent to the bottom hole assembly.

5. The drill string of claim 1, wherein the vibration damping material comprises a titanium alloy or a composite material.

6. The drill string of claim 1, wherein the vibration damping drill pipe section has a length of between about 90 feet and about 1,500 feet.

7. The drill string of claim 1, wherein the vibration damping drill pipe section has a length of less than 500 feet.

8. The drill string of claim 1, wherein the vibration damping drill pipe section has a length of less than 100 feet.

9. The drill string of claim 1, wherein the vibration damping drill pipe section has a length of less than about 20% of the overall length of the drill string.

10. The drill string of claim 1, comprising a plurality of vibration damping drill pipe sections made of vibration damping material alternated with drill pipe sections made of a different material less able to dampen vibration experienced by the drill string during drilling.

11. A drill string for use in a well drilling system that comprises a rig that, in operation, drives the drill string in rotation in a well from a location above the well, the drill string comprising:

a drill bit;

a bottom hole assembly adjacent to the drill bit;

a vibration damping drill pipe section comprising drill pipe adjacent to the bottom hole assembly opposite to the drill bit, the vibration damping drill pipe section comprising a plurality of pipe segments made of a vibration damping material; and

a further drill pipe section adjacent to the vibration damping drill pipe section and made of a different material less able to dampen vibration experienced by the drill string during rotation of the drill string by the drilling rig system,

wherein the drill string is advanced in the well only by rotation of the drill string by torque applied by the drilling rig system from the location above the well.

12. The drill string of claim 11, wherein the vibration damping material comprises an aluminum alloy.

13. The drill string of claim 11, wherein the vibration damping drill pipe section has a length of between about 90 feet and about 1,500 feet.

14. The drill string of claim 11, wherein the vibration damping drill pipe section has a length of less than 500 feet.

15. The drill string of claim 11, wherein the vibration damping drill pipe section has a length of less than 100 feet.

16. A method for making a drill string comprising:

assembling a drill bit and bottom hole assembly;

assembling a vibration damping drill pipe section comprising drill pipe made of a vibration damping material;

assembling a further drill pipe section adjacent to the vibration damping drill pipe section and made of a different material less able to dampen vibration experienced by the drill string as drilling advances further into a well, and

advancing the drill string in the well only by rotation of the drill string by torque applied by a well drilling system from a location above the well.

17. The method of claim 16, comprising assembling a further vibration damping drill pipe section above the further drill pipe section as drilling advances still further into the well.

18. The method of claim 16, wherein the vibration damping material comprises an aluminum alloy.

19. The method of claim 16, wherein the vibration damping drill pipe section has a length of between about 90 feet and about 1,500 feet.

20. The method of claim 16, wherein the vibration damping drill pipe section has a length of less than 500 feet.