CLAIMS

1. A clamping apparatus for clamping an elongate object, the apparatus comprising:

a housing defining a first aperture therethrough for enabling an elongate object to extend through said apparatus, wherein the housing comprises a first body part having a second aperture therethrough for receiving said elongate object, and a second body part having a third aperture therethrough for receiving said elongate object, wherein the second body part is adapted to be mounted to said first body part, and wherein said second and third apertures define said first aperture;

actuator means arranged in said housing; and

a plurality of clamping members adapted to slidingly engage said actuator means;

wherein said clamping members are arranged in said housing and the second body part is adapted to engage said first body part to cause movement of said clamping members relative to said actuator means, in an axial direction of an elongate object extending through said apparatus;

wherein said movement of said clamping members relative to said actuator means causes sliding movement of said clamping members relative to said actuator means between at least one first condition, in which said elongate object can move in said axial direction relative to said clamping members, and at least one second condition, in which said elongate object is clamped between said clamping members;

wherein a plurality of said clamping members are each adapted to slidingly engage a pair of further said clamping members arranged adjacent thereto when moving between a said first condition and a said second condition;

wherein a plurality of said clamping members overlap in said axial direction;

wherein said actuator means comprises a plurality of first engaging surfaces, and a plurality of said clamping members each comprise a respective second engaging surface, adapted to engage a respective said first engaging surface, such that said movement of said plurality of clamping members relative to said actuator means, in said axial direction of an elongate object extending through said apparatus, causes radial movement of said plurality of clamping members relative to said actuating means;

wherein a plurality of said clamping members each has a respective first engaging portion, adapted to slidingly engage a further said clamping member adjacent thereto radially outwards of said further clamping member, and a respective second engaging portion, adapted to slidingly engage said further clamping member radially inwards of said further clamping member; and

wherein at least one said first engaging portion has a respective first radially extending surface adapted to engage a second radially extending surface of a said second engaging portion of a further said clamping member.

2. An apparatus according to claim 1, comprising a first plurality of said first engaging surfaces and a second plurality of said first engaging surfaces, and the apparatus comprises a first plurality of said clamping members having a first plurality of said second engaging surfaces, adapted to engage said first plurality of said first engaging surfaces, and a second plurality of said clamping members having a second plurality of said second engaging surfaces, adapted to engage said second plurality of said first engaging surfaces.

3. An apparatus according to claim 2, wherein said actuator means comprises a first actuator member, having said first plurality of first engaging surfaces, and a second actuator member, having said second plurality of first engaging surfaces.

4. An apparatus according to any one of the preceding claims, wherein a plurality of said first and/or second engaging surfaces are inclined relative to an axial direction of an elongate object extending through said housing.

5. An apparatus according to any one of the preceding claims, wherein a plurality of said first engaging surfaces is provided on respective protrusions on said actuator means, and a plurality of said second engaging surfaces is provided on respective recesses in said clamping members, wherein said recesses are located radially inwards of said protrusions in use.

6. An apparatus according to any one of the preceding claims, further comprising engaging means for preventing axial movement of a pair of adjacent said clamping members relative to each other.

7. An apparatus according to claim 6, wherein the engaging means comprises at least one protrusion on a said clamping member of said pair and at least one recess of the other said clamping member of said pair for slidably receiving a respective said protrusion.

8. An apparatus according to any one of the preceding claims, wherein at least one said clamping member includes at least one sheath penetrating portion adapted to penetrate a sheath of an elongate object passing through the apparatus.

9. An apparatus according to claim 8, wherein at least one said sheath penetrating portion comprises at least one spike.

10. An apparatus according to any one of the preceding claims,
further comprising biasing means for biasing a plurality of said clamping members towards said first condition.

11. An apparatus according to claim 10, wherein the biasing means comprises at least one biasing member adapted to engage a respective said clamping member and said actuator means.

12. An apparatus according to claim 11, wherein at least one said biasing member comprises a respective resilient annular member.

13. An apparatus according to any one of the preceding claims, wherein at least one said clamping member is electrically conductive.

14. An apparatus according to any one of the preceding claims, wherein the apparatus is adapted to clamp a cable.

15. A cable gland including a clamping apparatus according to any one of the preceding claims.