

WHAT IS CLAIMED IS:

1. An intravaginal ring device comprising a flat, circular or oval ring made with a non-segmented uncoated thermoplastic elastomer, excluding copolymeric silicone, wherein the ring contains one or more non-hormonal spermistatic agents; and, wherein the ring encircles a curved, non-resorbable polymeric barrier which is attached to the ring; and wherein the ring covers the cervix when inserted into a subject.
2. The intravaginal ring device according to claim 1, wherein the uncoated thermoplastic elastomer is selected from one or more of styrene-butadiene block copolymer, ethylene vinyl acetate copolymer, poly(methyl methacrylate), poly(butyl methacrylate), poly(vinylchloride), nylon, plasticized soft nylon, poly(ethylene terephthalate) (PET), poly(ethylene), poly(acrylonitrile), polychlorotrifluoroethylene (PCTFE), poly(ethylene-vinyl esters), poly(ethylene-vinyl acetate), poly(vinylchloride-diethyl fumarate), poly(esters of acrylic and methacrylic), poly(amides), poly(vinyl chloride), PTFE (polytetrafluoroethylene) poly(urethane), polypropylene or other poly(olefins).
3. The intravaginal device according to claim 2, wherein the uncoated thermoplastic elastomer is selected from ethylene vinyl acetate copolymer, polyurethane, or PET.
4. The intravaginal ring device according to claim 3, wherein the uncoated thermoplastic elastomer is ethylene vinyl acetate copolymer.
5. The intravaginal ring device according to any one of claims 1-4, wherein the polymeric barrier is a mesh comprised of one or more polyolefin, nylon, and/or silk.
6. The intravaginal ring device of claim 5, wherein the polyolefin is polypropylene or polyethylene.
7. The intravaginal ring device according to any one of claims 1-6 wherein the mesh or barrier is a mono-or multi-filament polymer.

8. The intravaginal ring device according to any one of claims 1-7, wherein the ring contains one or more spermiostatic metals and/or metal salts.
9. The intravaginal ring device according to claim 8, wherein the ring contains spermiostatic metals and/or salts selected from one or more of ferrous sulfate, ferrous gluconate, iron amino acid chelates, copper sulfate, copper gluconate, copper amino acid chelates, and copper oxide.
10. The intravaginal ring device according to claim 9, wherein the ring further comprises ascorbic acid.
11. The intravaginal ring device according to claim 10, further comprising a removal tab.
12. The intravaginal ring device according to any one of claims 1-11 wherein the intravaginal ring has less distortion after storage or after insertion into a subject for at least 14 days when compared to an intravaginal ring device made with a copolymeric silicone matrix in which both rings contain equivalent amounts and composition of nonhormonal spermiostatic agents and/or ascorbic acid if present.
13. An intravaginal ring device comprising a saddle-shaped, oval ring made with a non-segmented uncoated thermoplastic elastomer, excluding copolymeric silicone, wherein the ring contains one or more non-hormonal spermiostatic agents; and, wherein the ring encircles a curved, non-resorbable polymeric barrier which is attached to the ring; and wherein the ring covers the cervix.
14. The intravaginal ring device according to claim 13, wherein the thermoplastic elastomer is selected from one or more of styrene-butadiene block copolymer, ethylene vinyl acetate copolymer, poly(methyl methacrylate), poly(butyl methacrylate), poly(vinylchloride), nylon, soft nylon, poly(ethylene terephthalate) (PET), poly(ethylene), poly(acrylonitrile), PCTFE, poly(ethylene-vinyl esters), poly(ethylene-vinyl acetate), poly(vinylchloride-diethyl fumarate), poly(esters of

acrylic and methacrylic), poly(amides), poly(vinyl chloride), PTFE (polytetrafluoroethylene) poly(urethane), polypropylene or other poly(olefins).

15. The intravaginal device according to claim 14, wherein the thermoplastic elastomer is selected from ethylene vinyl acetate copolymer, polyurethane, or PET.

16. The intravaginal ring device according to claim 15, wherein the uncoated thermoplastic elastomer is ethylene vinyl acetate copolymer.

17. The intravaginal ring device according to claim any one of claims 13-16, wherein the barrier is a mesh comprised of one or more polyolefin, nylon, and/or silk.

18. The intravaginal ring device of claim 17, wherein the polyolefin is polypropylene or polyethylene.

19. The intravaginal ring device according to claims any one of claims 13-18, wherein the mesh and/or barrier is a mono- or multi-filament polymer.

20. The intravaginal ring device according to any one of claims 13-19, wherein the ring contains one or more spermistatic metals and/or metal salts.

21. The intravaginal ring device according to claim 20, wherein the spermistatic metals and or metal salts are selected from one or more of ferrous sulfate, ferrous gluconate, iron amino acid chelates, copper sulfate, copper gluconate, copper amino acid chelates, copper oxide.

22. The intravaginal ring device according to claims any one of 13-21 wherein the intravaginal ring has less distortion after storage or after insertion into a subject for at least 14 days when compared to an intravaginal ring device made with a copolymeric silicone matrix in which both rings contain equivalent amounts and composition of nonhormonal spermistatic agents and/or ascorbic acid if present.

23. An intravaginal ring device comprising a flat, circular or oval ring made with a segmented uncoated thermoplastic elastomer, excluding copolymeric silicone, with a

removal tab, wherein the ring contains one or more non-hormonal spermistatic agents; and, wherein the ring encircles a curved, non-resorbable polymeric barrier which is attached to the ring; and wherein the ring covers the cervix when inserted into a subject.

24. The intravaginal ring device according to claim 23, wherein the uncoated thermoplastic elastomer is selected from one or more of styrene-butadiene block copolymer, ethylene vinyl acetate copolymer, poly(methyl methacrylate), poly(butyl methacrylate), poly(vinylchloride), nylon, soft nylon, poly(ethylene terephthalate) (PET), poly(ethylene), poly(acrylonitrile), PCTFE, poly(ethylene-vinyl esters), poly(ethylene-vinyl acetate), poly(vinylchloride-diethyl fumarate), poly(esters of acrylic and methacrylic), poly(amides), poly(vinyl chloride), PTFE (polytetrafluoroethylene) poly(urethane), or polypropylene or other poly(olefins).

25. The intravaginal ring device according to claim 24, wherein the thermoplastic elastomer is selected from ethylene vinyl acetate copolymer, polyurethane, or PET.

26. The intravaginal ring device according to claim 25, wherein the thermoplastic elastomer is ethylene vinyl acetate copolymer.

27. The intravaginal ring device according to any one of claims 23-26, wherein the barrier is a mesh comprised of one or more polyolefin, nylon, and/or silk.

28. The intravaginal ring device of claim 27, wherein the polyolefin is polypropylene or polyethylene.

29. The intravaginal ring device according to any one of claims 23-28 wherein the barrier or mesh is a mono- or multi-filament polymer.

30. The intravaginal ring device according to any one of claims 23-29, wherein the intravaginal ring device contains one or more spermistatic metals and/or metal salts.

31. The intravaginal ring device according to any one of claims 23-30, wherein the spermistatic metals and or salts are selected from one or more of ferrous sulfate, ferrous gluconate, iron amino acid chelates, copper sulfate, copper gluconate, copper amino acid chelates, copper oxide.

32. The intravaginal ring device according to claim 31, wherein one segment of the ring contains spermistatic metals and or metal salts and another segment further comprises ascorbic acid.

33. The intravaginal device according to any one of claims 23-32, wherein the intravaginal ring has less distortion after storage or after insertion into a subject for at least a week when as compared to an intravaginal ring device with at least two segments made with a copolymeric silicone matrix in which both rings contain equivalent amounts and composition of nonhormonal spermistatic agents and ascorbic acid.

34. The intravaginal ring device according to any one of claims 23-32 wherein the intravaginal ring has less distortion after storage in packaging containing or after insertion into a subject for at least 14 days when compared to an intravaginal ring device made with a copolymeric silicone matrix in which both rings contain equivalent amounts and composition of nonhormonal spermistatic agents and/or ascorbic acid if present.