CLAIMS

1. A transseptal insertion device for precise and safe transseptal insertion of a medical device through a cardiac septum comprising:

a device housing having a distal end and a proximal end and including an outer wall and an inner wall wherein said inner wall and said outer wall are fixedly connected together and said inner wall and said outer wall are stationary relative to each other and said inner wall and said outer wall define an annular gap therebetween and wherein said inner wall defines a central lumen extending between said proximal and distal ends and wherein the medical device is received within said central lumen of said device housing;

a slidable body positioned within said device housing annular gap, said slidable body having a distal end and a proximal end and defining a central lumen, configured to receive said device housing inner wall, said slidable body comprising a pusher and a guide element wherein said guide element is positioned on said slidable body distal end and said pusher extends within said device housing annular gap wherein said slidable body moves within said device housing annular gap from a first retracted position wherein at least a distal end of said pusher and said guide element are received within said device housing to a second advanced position wherein said guide element extends from said device housing distal end so as to contact the cardiac septum and wherein the medical device is configured to advance though said guide element for penetrating the cardiac septum.

2. The transseptal insertion device according to claim 1 wherein said device housing annular gap extends circumferentially within said device housing.

3. The transseptal insertion device according to claim 1 wherein a proximal end of said guide element is positioned within said device housing in said second advanced position.

4. The transseptal insertion device according to claim 1 wherein said guide element is a web comprising parallel, spaced apart longitudinal members and annular transverse members provided at spaced apart intervals with respect to each other wherein said longitudinal members and said transverse members define openings in said web.

5. The transseptal insertion device according to claim 1 wherein said guide element is expandable.

6. The transseptal insertion device according to claim 1 wherein said pusher comprises at least two pusher rods wherein said at least two pusher rods are radially displaced.

7. The transseptal insertion device according to claim 1 wherein said device housing distal end has a first diameter and said pusher has a second diameter in said second advanced position wherein said second diameter is greater than said first diameter.

8. The transseptal insertion device according to claim 1 wherein said medical device is a catheter.

9. The transseptal insertion device according to claim 1 wherein said guide element has a distal and proximal end and is expandable in said second advanced position to a conical shape wherein said distal end of said guide element is expanded relative to said proximal end of said guide element.

10. The transseptal insertion device according to claim 1 wherein said guide element further comprises at least one anchor on a distal end thereof for anchoring said guide element to the cardiac septum in said second advanced position.

11. The transseptal insertion device according to claim 1 wherein said device housing distal end is tapered.

12. The transseptal insertion device according to claim 1 further comprising an intermediate catheter configured for receipt of the medical device wherein said intermediate catheter is slidably positioned within said central lumen of said device housing.

13. The transseptal insertion device according to claim 1 wherein said slidable body includes an ultrasound transducer.