CLAIMS

What is claimed is:

1. A welding gun comprising:

a gun assembly including a handle having a cable receiving end and also a connecting end;

said connecting end including a tubular end fitting having female threads proximal to said connecting end;

said end fitting also having an aperture adjacent said female threads;

a neck assembly including a body tube having a welding end and also a connecting end;

said connecting end of said body tube being telescopically engageable with said tubular end fitting;

said connecting end of said body tube including an annular recess inwardly spaced from a terminus of said connecting end;

said connecting end of said body tube also including a locking nut and male threads engageable with said female threads;

said locking nut and male threads being disposed adjacent said annular recess away from said terminus; and

a stop fitable in said aperture and extending into said annular recess in an assembled disposition of the gun, thereby restricting axial movement of said neck assembly relative to said gun assembly yet allowing rotational movement of said neck assembly relative to said gun assembly.

2. The welding gun of claim 1, wherein said annular recess is a small diameter portion of said connecting end of said neck assembly.

3. The welding gun of claim 1, wherein said annular recess is smaller in diameter than said male threads and said terminus of said connecting end of said neck assembly.

4. The welding gun of claim 1, wherein said aperture generally has a quadrilateral shape.

5. The welding gun of claim 1, wherein said aperture is generally circular in shape.

6. The welding gun of claim 1, wherein said stop is a key.

7. The welding gun of claim 6, wherein said key is retained by an inner surface of said handle adjacent said female threads of said tubular end fitting.

8. The welding gun of claim 6, wherein said key includes a protrusion along an inner edge that is positioned in said annular recess in the assembled disposition of the gun.

9. The welding gun of claim 8, wherein said annular recess includes a sidewall opposite said locking nut and male threads, and said protrusion of said key is contactable with said sidewall of said annular recess, thereby limiting axial movement of said neck assembly.

10. The welding gun of claim 1, wherein said stop is a screw threadable in said aperture.

11. The welding gun of claim 10, wherein a portion of a body of the screw is positioned in said annular recess in the assembled disposition of the gun.

12. The welding gun of claim 11, wherein said annular recess includes a sidewall opposite said locking nut and male threads, and said portion of the screw body is contactable with said sidewall of said annular recess, thereby limiting axial movement of said neck assembly.

13. The welding gun of claim 1, wherein said stop is a pin.

14. The welding gun of claim 13, wherein an end of said pin is positioned in said annular recess in the assembled disposition of the gun.

15. The welding gun of claim 14, wherein said annular recess includes a sidewall opposite said locking nut and male threads, and said pin end is contactable with said sidewall of said annular recess, thereby limiting axial movement of said neck assembly.

16. The welding gun of claim 13, wherein a side surface of said pin is positioned in said annular recess in the assembled disposition of the gun.

17. The welding gun of claim 16, wherein said annular recess includes a sidewall opposite said locking nut and male threads, and said pin side surface is contactable with said sidewall of said annular recess, thereby limiting axial movement of said neck assembly.

18. A method of assembling a welding gun, the method comprising the steps of:

providing a gun assembly including a handle having a cable receiving end and also a connecting end, said handle comprising two separable members, said connecting end including a tubular end fitting having female threads proximal to said connecting end, and said end fitting also having an aperture adjacent said female threads;

separating said two handle members;

providing a neck assembly including a body tube having a welding end and also a connecting end, said connecting end of said body tube including an annular recess inwardly spaced from a terminus of said connecting end, a locking nut, and male threads engageable with said female

threads, said locking nut and male threads being disposed adjacent said annular recess away from said terminus;

telescopically engaging said connecting end of said body tube with said tubular end fitting of said gun assembly;

fitting a stop in said aperture, said stop extending into said annular recess; and

connecting said two handle members to secure said stop in said annular recess, thereby restricting axial movement of said neck assembly relative to said gun assembly yet allowing rotational movement of said neck assembly relative to said gun assembly.

CLAIMS

What is claimed is:

1. A welding gun comprising:

a gun assembly including a handle having a cable receiving end and also a connecting end;

said connecting end including a tubular end fitting having female threads proximal to said connecting end;

said end fitting also having an aperture adjacent said female threads;

a neck assembly including a body tube having a welding end and also a connecting end;

said connecting end of said body tube being telescopically engageable with said tubular end fitting;

said connecting end of said body tube including a locking nut and male threads engageable with said female threads;

characterised in that:

said connecting end of said body tube includes a circumferential, annular ring-like recess perpendicular to a longitudinal direction of said body tube and inwardly spaced from a terminus of said connecting end;

said locking nut and male threads are disposed adjacent said annular recess away from said terminus; and

a stop defined by an arcuate key circumferentially fitable in said aperture and extending into said annular recess in an assembled disposition of the gun, thereby restricting axial

movement of said neck assembly relative to said gun assembly yet allowing rotational movement of said neck assembly relative to said gun assembly.

2. The welding gun of claim 1, wherein said circumferential, annular ring-like recess is a small diameter portion of said connecting end of said neck assembly.

3. The welding gun of claim 1, wherein said circumferential, annular ring-like recess is smaller in diameter than said male threads and said terminus of said connecting end of said neck assembly.

4. The welding gun of claim 1, wherein said aperture generally has a quadrilateral shape.

5. The welding gun of claim 1, wherein said arcuate key is retained by an inner surface of said handle adjacent said female threads of said tubular end fitting.

6. The welding gun of claim 1, wherein said arcuate key includes a protrusion along an inner edge that is positioned in said circumferential, annular ring-like recess in the assembled disposition of the gun.

7. The welding gun of claim 8, wherein said circumferential, annular ring-like recess includes a sidewall opposite said locking nut and male threads, and said protrusion of said arcuate key is contactable with said sidewall of said

circumferential, annular ring-like recess, thereby limiting axial movement of said neck assembly.

8. A method of assembling a welding gun assembly including a handle having a cable receiving end and also a connecting end, said handle comprising two separable members, said connecting end including a tubular end fitting having female threads proximal to said connecting end, and said end fitting also having an aperture adjacent said female threads, said gun assembly also including a neck assembly including a body tube having a welding end and also a connecting end, a locking nut, and male threads engageable with said female threads, characterised by:

telescopically engaging said connecting end of said body tube with said tubular end fitting of said gun assembly;

fitting a stop defined by an arcuate key circumferentially in said aperture; and

connecting said two handle members to secure said arcuate key in said annular recess, thereby restricting axial movement of said neck assembly relative to said gun assembly yet allowing rotational movement of said neck assembly relative to said gun assembly;

wherein said connecting end of said body tube includes a circumferential, annular ring-like recess perpendicular to a longitudinal direction of said body tube and inwardly spaced from a terminus of said connecting end, said locking nut and male threads are disposed adjacent said annular recess

away from said terminus, and said arcuate key extends into said annular recess.