

conductive contact is ~~slidably~~ mounted within the nozzle, ~~and is movable between an~~
extended position and a depressed position. In the extended position the first contact
protrudes from the nozzle, while in the depressed position the first contact is
substantially disposed within the nozzle. The first contact is spring-biased toward the
5 ~~extended position.~~ ^{while the} The second contact is mounted to a sidewall of the inner sleeve.
The outer sleeve is slidably mounted over the inner sleeve and is ^{longitudinally} movable between a
forward position and a retracted position. The outer sleeve forms at least one locking
10 finger at a distal end thereof and ^{spaced} ~~circumferentially located~~ away from the second
contact. The inner sleeve forms ^{means} ~~a ramp~~ for laterally displacing the locking finger
outward in response to movement of the outer sleeve from the retracted position to
the forward position.

Brief Description of the Drawings

FIG. 1a is a perspective view of a connector embodying the present invention;
FIG. 1b is another perspective view of the connector in FIG. 1a showing
15 insertion of the connector into a cigarette lighter socket;
FIG. 2 is an exploded perspective view of the connector in FIG. 1a;
FIG. 3 is a longitudinal section of the connector in FIG. 1a showing the
connector partially inserted into a cigarette lighter socket, showing a positive contact
of the connector in an extended position, and showing an outer sleeve of the
20 connector in a retracted position;
FIG. 4 is a longitudinal section of the connector in FIG. 1a showing the
connector fully inserted into the cigarette lighter socket, showing the positive contact
of the connector in a depressed position, and showing the outer sleeve of the
connector in the retracted position; and
25 FIG. 5 is a longitudinal section of the connector in FIG. 1a showing the
connector fully inserted into the cigarette lighter socket, showing the positive contact
of the connector in the depressed position, and showing the outer sleeve of the
connector in a forward position.

Detailed Description of the Preferred Embodiment

30 Turning now to the drawings, FIGS. 1a-b and 2 illustrate a connector 10 for
connecting an electronic device to a vehicle electrical system. The connector 10
includes a hollow inner sleeve 12, a hollow outer sleeve 14, a positive electrical

What is Claimed is:

1. A connector for connecting an electronic device to a vehicle electrical system, comprising:

a hollow inner sleeve forming a nozzle located at a distal end of said sleeve and opening into an interior of said inner sleeve;

a first conductive contact mounted within said nozzle;

a second conductive contact mounted to a sidewall of said inner sleeve; and

a hollow outer sleeve slidably mounted over said inner sleeve and

longitudinally movable between a forward position and a retracted position, said outer sleeve forming at least a first ^{laterally displaceable} ~~expandable~~ locking finger at a distal end thereof and spaced away from said second contact, said inner sleeve forming means for displacing said first locking finger laterally outward in response to longitudinal movement of said outer sleeve from said retracted position to said forward position.

2. The connector of claim 1, wherein said first contact is slidably mounted within said nozzle and is movable between an extended position and a depressed position, said first contact protruding from said nozzle while in said extended position and said first contact being substantially disposed within said nozzle while in said depressed position, said first contact being biased toward said extended position.

3. The connector of claim 1, wherein said outer sleeve forms a second ^{laterally displaceable} ~~expandable~~ locking finger at a distal end thereof and spaced away from said second contact, said inner sleeve forming a ~~second~~ ramp for displacing said second locking finger laterally outward in response to movement of said outer sleeve from said retracted position to said forward position.

4. The connector of claim 1, wherein said inner sleeve includes a generally cylindrical distal portion and a generally elliptical proximal portion, said cylindrical portion forming said nozzle at the distal end thereof.