cleaning. Additionally, each of the hubs, housing bodies and vanes is substantially identical to, and therefore interchangeable with, every other hub, housing body and vane. This makes re-assembly after cleaning very easy. Of course, it would be possible to make some of the parts permanently attached, but this could result in more difficulty in cleaning. Nonetheless, such embodiments fall within the scope of the invention. For example, the housing bodies could be a single housing that is divided into two chambers, each accessible from an opposite end of the housing. Thus, it will be seen that the housing can be made up of multiple housing bodies, each having at least one chamber, or one housing body with at least two chambers. The number of "modules" of housing bodies, vanes and hubs is virtually unlimited, and could range from two to any number greater than two.

While certain preferred embodiments of the present invention have been disclosed in detail, it is to be understood that various modifications may be adopted without departing from the spirit of the invention or scope of the following claims.

The invention claimed is:

1. A flow divider for receiving fluent matter from at least one source and dividing the fluent matter substantially equally among a plurality of destinations, the flow divider comprising:

(a) a housing;

(b) a first chamber in the housing, the first chamber being defined by a first radially inwardly facing surface and a first wall, the first chamber having an inlet cavity formed in the first radially inwardly facing surface, wherein the inlet cavity is in fluid communication with a source passage that is formed through the housing and is spaced from the chamber, and the source passage has an axis that is substantially parallel to the axis of the first radially inwardly facing surface and is in fluid communication with said at least one source, the chamber also having an outlet cavity formed in the first radially inwardly facing surface in fluid communication with a first one of said plurality of destinations;

(c) a first cylindrical hub rotatably mounted in the first chamber and having an axis substantially parallel to the axis of the first radially inwardly facing surface, a first radial slot extending through the first hub, and a second radial slot extending through the first hub transverse to the first slot;

(d) a first vane slidably mounted in the first slot and having opposite vane ends seating against the first radially inwardly facing surface;

(e) a second vane slidably mounted in the second slot and having opposite vane ends seating against the first radially inwardly facing surface;

(f) a second chamber in the housing, the second chamber being defined by a second radially inwardly facing surface and a second wall that separates the first chamber from the second chamber, the second chamber having an inlet cavity formed in the second radially inwardly facing surface, wherein the inlet cavity is in fluid communication with the source passage and is in fluid communication with said at least one source, the second chamber also having an outlet cavity formed in the second radially inwardly facing cylindrical surface in fluid communication with a second one of said plurality of destinations;

(g) a second cylindrical hub rotatably mounted at least partially through the second wall and extending into the second chamber and having an axis substantially parallel to the axis of the second radially inwardly facing surface and drivingly linked to the first hub, a third radial slot extending through the second hub, and a fourth radial slot extending through the second hub transverse to the third slot;

(h) a third vane slidably mounted in the third slot and abutting the second radially inwardly facing surface at opposite vane ends; and

(i) a fourth vane slidably mounted in the fourth slot and abutting the second radially inwardly facing surface at opposite vane ends.

2. The flow divider in accordance with claim **1**, further comprising:

(a) a third chamber in the housing, the third chamber being defined by a third radially inwardly facing surface and a third wall that separates the second chamber from the third chamber, the third chamber having an inlet cavity formed in the third radially inwardly facing surface, wherein the inlet cavity is in fluid communication with the source passage, the second chamber also having an outlet cavity formed in the third radially inwardly facing cylindrical surface in fluid communication with a third one of said plurality of destinations;

(b) a third cylindrical hub rotatably mounted at least partially through the third wall and extending into the third chamber and having an axis substantially parallel to the axis of the third radially inwardly facing surface and drivingly linked to the second hub, a fifth radial slot extending through the third hub, and a sixth radial slot extending through the third hub transverse to the fifth slot;

(c) a fifth vane slidably mounted in the fifth slot and abutting the third radially inwardly facing surface at opposite vane ends; and

(d) a sixth vane slidably mounted in the sixth slot and abutting the third radially inwardly facing surface at opposite vane ends.

3. The flow divider in accordance with claim **1**, wherein the housing, hubs and vanes have connecting structures that permit them to be disconnected and disassembled for cleaning.

4. The flow divider in accordance with claim **1**, wherein said first and second hubs are drivingly linked by at least one protrusion extending from the second hub into at least one corresponding recess formed in the first hub.

5. The flow divider in accordance with claim **4**, wherein said at least one protrusion further comprises at least one longitudinal tang extending from one end of the second hub, and said corresponding recess further comprises at least one longitudinal slot formed in one end of the first hub.

6. The flow divider in accordance with claim **1**, further comprising a first end cap mounted to a first end of the housing, and a second end cap mounted to a second, opposite end of the housing, said end caps forming closures for the chambers.

7. The flow divider in accordance with claim **6**, wherein said first end cap has a recess for receiving at least one protrusion formed on one of said hubs.

8. The flow divider in accordance with claim **7**, wherein each of said hubs has a reduced-diameter necked region forming a shoulder, and an aperture is formed in each wall at each chamber for rotatably receiving said necked region of a corresponding hub.

9. A flow divider for receiving fluent matter from at least one source and dividing the fluent matter substantially equally among a plurality of destinations, the flow divider comprising: