CLAIMS

1. A carrier for transporting a plurality of articles on a convey line of a microwave heating system, in which each of the articles comprises a pouch having a base portion and a top portion, where the base portion is at least twice as thick as the top portion, the carrier comprising:

a frame comprising first and second spaced apart end members; and

an upper support structure and a lower support structure extending between the first and the second end members and configured to secure the articles in the carrier,

in which a pouch receiving space is defined between an upward facing surface of the lower support structure and a downward facing surface of the upper support structure,

in which the downward facing surface and/or the upward facing surface comprises a series of recesses,

in which each of the recesses is configured to receive the base portion of one of the pouches so as to secure the pouch in the pouch receiving space.

2. A carrier according to Claim 1, in which the downward facing surface presents a series of upper recesses and in which the upward facing surface presents a series of lower recesses and in which the lower recesses are spaced from one another by a lower recess spacing and the upper recesses are spaced from one another by an upper recess spacing.

3. A carrier according to Claim 2, in which the upper recess spacing and the lower recess spacing are substantially the same.

4. A carrier according to Claim 2, in which the upper and lower recesses are offset from one another to form an offset region between the upper and lower recesses, and in which the offset region is configured to receive a base portion of one of the pouches and a top portion of an adjacent pouch in an overlapped configuration.

5. A carrier according to Claim 2, in which the upper recesses and lower recesses are offset from one another by an offset distance and in which the offset distance is less than one-third of the upper and the lower recess spacing.

6. A carrier according to Claim 5, in which the offset distance is in the range of from 0.5 to 3 inches and in which the lower recess spacing and/or the upper recess spacing are in the range of from 2 to 10 inches.

7. A carrier according to Claim 1, in which the pouch receiving space is configured to hold the pouches in a non-horizontal orientation.

8. A carrier according to Claim 7, in which the pouch receiving space is configured to hold the pouches at a pouch orientation angle in the range of 5 to 40° from the horizontal.

9. A carrier according to Claim 7, in which the pouch receiving space overlaps adjacent pouch receiving space.

10. A carrier according to Claim 1, in which the upper and lower support structures respectively comprise upper and lower groups of slats.

11. A carrier for transporting a plurality of articles on a convey line of a microwave heating system, in which each of the articles comprises a pouch having a base portion and a top portion, where the base portion is at least twice as thick as the top portion, the carrier comprising:

a frame comprising first and second spaced apart end members; and

an upper support structure and a lower support structure extending between the first and the second end members and configured to secure the articles in the carrier,

in which:

a pouch receiving space is defined between an upward facing surface of the lower support structure and a downward facing surface of the upper support structure,

each of the recesses is configured to receive the base portion of one of the pouches so as to secure the pouch in the pouch receiving space,

the pouch receiving space is configured to hold the pouches in a non-horizontal orientation, and

the pouch receiving space overlaps an adjacent pouch receiving space.

12. A carrier according to Claim 11, in which the pouch receiving space is configured to hold the pouches at a pouch orientation angle in a range of 5 to 40° from the horizontal.

13. A carrier according to Claim 11, in which the downward facing surface presents a series of upper recesses and in which the upward facing surface presents a series of lower recesses and in which the lower recesses are spaced from one another by a lower recess spacing and the upper recesses are spaced from one another by an upper recess spacing.

14. A carrier according to Claim 13, in which the upper recess spacing and the lower recess spacing are substantially the same.

15. A carrier according to Claim 13, in which the upper and lower recesses are offset from one another to form an offset region between the upper and lower recesses, and in which the offset region is configured to receive a base portion of one of the pouches and a top portion of an adjacent pouch in an overlapped configuration.

16. A carrier according to Claim 13, in which the upper recesses and lower recesses are offset from one another by an offset distance and in which the offset distance is less than one-third of the upper and the lower recess spacing.

17. A carrier according to Claim 16, in which the offset distance is in the range of from 0.5 to 3 inches and in which the lower recess spacing and/or the upper recess spacing are in the range of from 2 to 10 inches.

18. A carrier for transporting a plurality of articles on a convey line of a microwave heating system, in which each of the articles comprises a pouch having a base portion, the carrier comprising:

a frame comprising an upper support structure and a lower support structure,

in which:

a pouch receiving space is defined between an upward facing surface of the lower support structure and a downward facing surface of the upper support structure,

the downward facing surface presents a series of upper recesses,

the upward facing surface presents a series of lower recesses, and

each of the lower recesses is configured to receive the base portion of one of the pouches so as to secure the pouch in the pouch receiving space.

19. A carrier according to Claim 18, in which:

the pouch receiving space is configured to hold the pouches in a non-horizontal orientation, and

the pouch receiving space overlaps an adjacent pouch-receiving space.