CLAIMS

What is claimed is:

1. A movable partition system, comprising:

a plurality of hingedly coupled panels configured to be movably coupled to a track;

a leading end assembly having a first side and a second side opposing the first side, the leading end assembly coupled to at least one panel of the plurality of hingedly coupled panels;

a closure assembly coupled to the leading end assembly, the closure assembly comprising:

a first latching member having a portion thereof positioned proximate to the first side of the leading end assembly; and

a second latching member having a portion thereof positioned proximate to the second side of the leading end assembly; and

an opposing wall closure assembly configured to be positioned proximate to an end portion of the track.

2. The movable partition system of claim 1, wherein a portion of the first latching member is positioned and configured to extend through an opening formed in the first side of the leading end assembly and a portion of the second latching member is positioned and configured to extend through another opening formed in the second side of the leading end assembly.

3. The movable partition system of claim 1, wherein the closure assembly further comprises a retaining assembly coupled to the first latching member and the second latching member, the retaining assembly retaining the first latching member and the second latching member in an initial, retracted position at least partially within the leading end assembly.

4. The movable partition system of claim 3, wherein the retaining assembly is configured to release the first latching member and the second latching member upon reaching a predetermined temperature to enable the first latching member and the second latching member to translate to an extended position.

5. The movable partition system of claim 4, wherein the retaining assembly comprises at least one volume of material configured to melt at the predetermined temperature.

6. The movable partition system of claim 5, wherein the closure assembly further comprises at least one biasing element biasing the first latching member and the second latching member toward the extended position.

7. The movable partition system of claim 6, wherein the first latching member and the second latching member each comprise an elongated member extending laterally along a portion of the leading end assembly, each of the first latching member and the second latching member having a proximal portion coupled to the at least one volume of material and a distal portion configured to extend from the leading end assembly and to selectively mate with a receiving assembly when the first latching member and the second latching member are in the extended position.

8. The movable partition system of claim 7, wherein the at least one biasing element comprises a spring disposed around a portion of each elongated member of the first latching member and the second latching member.

9. The movable partition system of claim 5, wherein the first latching member and the second latching member each comprise an elongated member extending vertically along a portion of the leading end assembly, each of the first latching member and the second latching member having a proximal portion coupled to the at least one volume of material and at least one side latching portion extending laterally from the elongated member along a portion of the leading end assembly, the at least one side latching portion positioned and configured to extend from the leading end assembly to selectively mate with a receiving assembly when the first latching member and the second latching member are in the extended position.

10. The movable partition system of claim 9, wherein the first latching member and the second latching member each further comprise an at least partially diagonal recess formed in a portion of the first latching member and the second latching member, and wherein the leading end assembly comprises a plurality of guides, each guide of the plurality of guides being received in a recess of the first latching member and the second latching member, the recess of each of the first latching member and the second latching member being configured to displace a portion of the first latching member and the second latching member associated therewith laterally along the leading end assembly to extend from the leading end assembly.

11. The movable partition system of claim 10, wherein the at least partially diagonal recess is formed in each at least one side latching portion of the first latching member and the second latching member.

12. The movable partition system of claim 9, wherein each elongated member of the first latching member and the second latching member is configured to extend a portion of the at least one side latching portion from the leading end assembly responsive to a gravitational force when the elongated member is released by the at least one volume of material.

13. The movable partition system of claim 9, wherein each elongated member of the first latching member and the second latching member is disposed within the leading end assembly, the leading end assembly having a plurality of openings formed therein, each opening of the plurality of openings be sized to enable at least one side latching portion to pass therethrough.

14. The movable partition system of any one of claims 1 through 13, wherein the opposing wall closure assembly comprises two strike moldings, each of the two strike moldings forming at least one opening of a plurality of openings, each opening of the plurality of openings configured to receive at least one of the first latching member and the second latching member.

15. The movable partition system of claim 1, wherein the opposing wall closure assembly comprises at least two latching members extending from opposing sides of the opposing wall closure assembly, and wherein the of the first latching member and the second latching member of the leading end assembly each comprise at least one opening formed in the leading end assembly, each opening configured to receive at least one of the at least two latching members of the opposing wall closure assembly.

16. A method of securing a movable partition, the method comprising:

retaining a first latching member and a second latching member in a retracted position; and

extending the first latching member and the second latching member to an extended position, comprising:

extending the first latching member in a first direction to engage with an opening formed in a receiving assembly; and

extending the second latching member in a second direction to engage with another opening formed in the receiving assembly.

17. The method of claim 16, further comprising positioning the first latching member and the second latching member to have a greater amount of potential energy in the retracted position than in the extended position.

18. The method of claim 17, wherein positioning the first latching member and the second latching member comprises biasing the first latching member and the second latching member into the extended position.

19. The method of claim 17, wherein positioning the first latching member and the second latching member comprises positioning the first latching member and the second latching member to have a greater amount of gravitational potential energy in the retracted position than in the extended position.

20. The method of any one of claims 16 through 19, further comprising heating a portion of the movable partition to a predetermined temperature to release the first latching member and the second latching member from the retracted position.

AMENDED CLAIMS
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What is claimed is:

1. A movable partition system, comprising:

a plurality of hingedly coupled panels configured to be movably coupled to a track;

a leading end assembly having a first lateral side and a second lateral side opposing the first lateral side, the leading end assembly coupled to at least one panel of the plurality of hingedly coupled panels;

a closure assembly coupled to the leading end assembly, the closure assembly comprising:

a first latching member having a portion thereof configured to extend from the first lateral side of the leading end assembly; and

a second latching member having a portion thereof configured to extend from the second lateral side of the leading end assembly; and

an opposing wall closure assembly configured to be positioned proximate to an end portion of the track.

2. The movable partition system of claim 1, wherein a portion of the first latching member is positioned and configured to extend through an opening formed in the first lateral side of the leading end assembly and a portion of the second latching member is positioned and configured to extend through another opening formed in the second lateral side of the leading end assembly.

3. The movable partition system of claim 1, wherein the closure assembly further comprises a retaining assembly coupled to the first latching member and the second latching member, the retaining assembly retaining the first latching member and the second latching member in an initial, retracted position at least partially within the leading end assembly.

4. The movable partition system of claim 3, wherein the retaining assembly is configured to release the first latching member and the second latching member upon reaching a predetermined temperature to enable the first latching member and the second latching member to translate to an extended position.

5. The movable partition system of claim 4, wherein the retaining assembly comprises at least one volume of material configured to melt at the predetermined temperature.

6. The movable partition system of claim 5, wherein the closure assembly further comprises at least one biasing element biasing the first latching member and the second latching member toward the extended position.

7. The movable partition system of claim 6, wherein the first latching member and the second latching member each comprise an elongated member extending laterally along a portion of the leading end assembly, each of the first latching member and the second latching member having a proximal portion coupled to the at least one volume of material and a distal portion configured to extend from the leading end assembly and to selectively mate with a receiving assembly when the first latching member and the second latching member are in the extended position.

8. The movable partition system of claim 7, wherein the at least one biasing element comprises a spring disposed around a portion of each elongated member of the first latching member and the second latching member.

9. The movable partition system of claim 5, wherein the first latching member and the second latching member each comprise an elongated member extending vertically along a portion of the leading end assembly, each of the first latching member and the second latching member having a proximal portion coupled to the at least one volume of material and at least one side latching portion extending laterally from the elongated member along a portion of the leading end assembly, the at least one side latching portion positioned and configured to extend from the leading end assembly to selectively mate with a receiving assembly when the first latching member and the second latching member are in the extended position.

10. The movable partition system of claim 9, wherein the first latching member and the second latching member each further comprise an at least partially diagonal recess formed in a portion of the first latching member and the second latching member, and wherein the leading end assembly comprises a plurality of guides, each guide of the plurality of guides being received in a recess of the first latching member and the second latching member, the recess of each of the first latching member and the second latching member being configured to displace a portion of the first latching member and the second latching member associated therewith laterally along the leading end assembly to extend from the leading end assembly.

11. The movable partition system of claim 10, wherein the at least partially diagonal recess is formed in each at least one side latching portion of the first latching member and the second latching member.

12. The movable partition system of claim 9, wherein each elongated member of the first latching member and the second latching member is configured to extend a portion of the at least one side latching portion from the leading end assembly responsive to a gravitational force when the elongated member is released by the at least one volume of material.

13. The movable partition system of claim 9, wherein each elongated member of the first latching member and the second latching member is disposed within the leading end assembly, the leading end assembly having a plurality of openings formed therein, each opening of the plurality of openings be sized to enable at least one side latching portion to pass therethrough.

14. The movable partition system of any one of claims 1 through 13, wherein the opposing wall closure assembly comprises two strike moldings, each of the two strike moldings forming at least one opening of a plurality of openings, each opening of the plurality of openings configured to receive at least one of the first latching member and the second latching member.

15. The movable partition system of claim 1, wherein the opposing wall closure assembly comprises at least two latching members extending from opposing sides of the opposing wall closure assembly, and wherein the of the first latching member and the second latching member of the leading end assembly each comprise at least one opening formed in the leading end assembly, each opening configured to receive at least one of the at least two latching members of the opposing wall closure assembly.

16. A method of securing a movable partition, the method comprising:
retaining a first latching member and a second latching member in a retracted position; and
extending the first latching member and the second latching member to an extended position, comprising:
extending the first latching member in a first lateral direction to engage with an opening formed in a receiving assembly; and
extending the second latching member in a second lateral direction to engage with another opening formed in the receiving assembly.

17. The method of claim 16, further comprising positioning the first latching member and the second latching member to have a greater amount of potential energy in the retracted position than in the extended position.

18. The method of claim 17, wherein positioning the first latching member and the second latching member comprises biasing the first latching member and the second latching member toward the extended position.

19. The method of claim 17, wherein positioning the first latching member and the second latching member comprises positioning the first latching member and the second latching member to have a greater amount of gravitational potential energy in the retracted position than in the extended position.

20. The method of any one of claims 16 through 19, further comprising heating a portion of the movable partition to a predetermined temperature to release the first latching member and the second latching member from the retracted position.

CLAIMS

What is claimed is:

1. A movable partition system, comprising:

a plurality of hingedly coupled panels configured to be movably coupled to a track;

a leading end assembly having a first lateral side and a second lateral side opposing the first lateral side, the leading end assembly coupled to at least one panel of the plurality of hingedly coupled panels;

a closure assembly coupled to the leading end assembly, the closure assembly comprising:

a first latching member having a portion thereof configured to extend from the first lateral side of the leading end assembly; and

a second latching member having a portion thereof configured to extend from the second lateral side of the leading end assembly; and

an opposing wall closure assembly configured to be positioned proximate to an end portion of the track.

2. The movable partition system of claim 1, wherein a portion of the first latching member is positioned and configured to extend through an opening formed in the first lateral side of the leading end assembly and a portion of the second latching member is positioned and configured to extend through another opening formed in the second lateral side of the leading end assembly.

3. The movable partition system of claim 1, wherein the closure assembly further comprises a retaining assembly coupled to the first latching member and the second latching member, the retaining assembly retaining the first latching member and the second latching member in an initial, retracted position at least partially within the leading end assembly.

4. The movable partition system of claim 3, wherein the retaining assembly is configured to release the first latching member and the second latching member upon reaching a predetermined temperature to enable the first latching member and the second latching member to translate to an extended position.

5. The movable partition system of claim 4, wherein the retaining assembly comprises at least one volume of material configured to melt at the predetermined temperature.

6. The movable partition system of claim 5, wherein the closure assembly further comprises at least one biasing element biasing the first latching member and the second latching member toward the extended position.

7. The movable partition system of claim 6, wherein the first latching member and the second latching member each comprise an elongated member extending laterally along a portion of the leading end assembly, each of the first latching member and the second latching member having a proximal portion coupled to the at least one volume of material and a distal portion configured to extend from the leading end assembly and to selectively mate with a receiving assembly when the first latching member and the second latching member are in the extended position.

8. The movable partition system of claim 7, wherein the at least one biasing element comprises a spring disposed around a portion of each elongated member of the first latching member and the second latching member.

9. The movable partition system of claim 5, wherein the first latching member and the second latching member each comprise an elongated member extending vertically along a portion of the leading end assembly, each of the first latching member and the second latching member having a proximal portion coupled to the at least one volume of material and at least one side latching portion extending laterally from the elongated member along a portion of the leading end assembly, the at least one side latching portion positioned and configured to extend from the leading end assembly to selectively mate with a receiving assembly when the first latching member and the second latching member are in the extended position.

10. The movable partition system of claim 9, wherein the first latching member and the second latching member each further comprise an at least partially diagonal recess formed in a portion of the first latching member and the second latching member, and wherein the leading end assembly comprises a plurality of guides, each guide of the plurality of guides being received in a recess of the first latching member and the second latching member, the recess of each of the first latching member and the second latching member being configured to displace a portion of the first latching member and the second latching member associated therewith laterally along the leading end assembly to extend from the leading end assembly.

11. The movable partition system of claim 10, wherein the at least partially diagonal recess is formed in each at least one side latching portion of the first latching member and the second latching member.

12. The movable partition system of claim 9, wherein each elongated member of the first latching member and the second latching member is configured to extend a portion of the at least one side latching portion from the leading end assembly responsive to a gravitational force when the elongated member is released by the at least one volume of material.

13. The movable partition system of claim 9, wherein each elongated member of the first latching member and the second latching member is disposed within the leading end assembly, the leading end assembly having a plurality of openings formed therein, each opening of the plurality of openings being sized to enable at least one side latching portion to pass therethrough.

14. The movable partition system of any one of claims 1 through 13, wherein the opposing wall closure assembly comprises two strike moldings, each of the two strike moldings forming at least one opening of a plurality of openings, each opening of the plurality of openings configured to receive at least one of the first latching member and the second latching member.

15. The movable partition system of claim 1, wherein the opposing wall closure assembly comprises at least two latching members configured to extend from opposing sides of the opposing wall closure assembly, and wherein the first latching member and the second latching member of the leading end assembly each comprise at least one opening formed in the leading end assembly, each opening configured to receive at least one of the at least two latching members of the opposing wall closure assembly.

16. A method of securing a movable partition, the method comprising:

retaining a first latching member and a second latching member in a retracted position at least partially in a leading end assembly of the movable partition having a first lateral side and a second lateral side opposing the first lateral side; and

extending the first latching member and the second latching member from the leading end assembly to an extended position, comprising:

extending the first latching member from the first lateral side of the leading end assembly in a first lateral direction to engage with an opening formed in a receiving assembly; and

extending the second latching member from the second lateral side of the leading end assembly in a second lateral direction to engage with another opening formed in the receiving assembly.

17. The method of claim 16, further comprising positioning the first latching member and the second latching member to have a greater amount of potential energy in the retracted position than in the extended position.

18. The method of claim 17, wherein positioning the first latching member and the second latching member comprises biasing the first latching member and the second latching member toward the extended position.

19. The method of claim 17, wherein positioning the first latching member and the second latching member comprises positioning the first latching member and the second latching member to have a greater amount of gravitational potential energy in the retracted position than in the extended position.

20. The method of any one of claims 16 through 19, further comprising heating a portion of the movable partition to a predetermined temperature to release the first latching member and the second latching member from the retracted position.