

**CLAIMS:**

1. A retractable screen system, comprising:
  - a screen;
  - the screen extending a height between an upper end and a lower end;
  - the screen extending a length between a first side and a second side;
  - a roller tube;
  - the roller tube extending a length between a first end and a second end;
  - the roller tube having an axis of rotation;
  - the roller tube having an exterior surface;
  - a first end cap;
    - the first end cap connected adjacent the first end of the roller tube;
    - the first end cap having an exterior surface;
    - the exterior surface of the first end cap extending from an inner end to an outer end;
    - wherein the exterior surface of the first end cap curves from a larger diameter at the inner end of the first end cap to a smaller diameter at the outer end of the first end cap;
  - a second end cap;
    - the second end cap connected adjacent the second end of the roller tube;
    - the second end cap having an exterior surface;
    - the exterior surface of the second end cap extending from an inner end to an outer end;
    - wherein the exterior surface of the second end cap curves from a larger diameter at the inner end of the second end cap to a smaller diameter at the outer end of the second end cap;
  - wherein the upper end of the screen is connected to the roller tube;
  - wherein the screen is opened by rotating the roller tube in a first direction which causes the screen to wrap around the exterior surface of the roller tube;

wherein the screen is closed by rotating the roller tube in a second direction, opposite the first direction,

which causes the screen to unwrap from around the exterior surface of the roller tube;

wherein when the screen wraps around the roller tube the first side of the screen wraps around the curved

exterior surface of the first end cap when the screen wraps around the roller tube; and

wherein when the screen wraps around the roller tube the second side of the screen wraps around the

curved exterior surface of the second end cap when the screen wraps around the roller tube.

2. The system of claim 1, wherein the larger diameter of the first end cap approximately matches the diameter of the roller tube.
3. The system of claim 1, wherein the first end cap is connected to a collar that is connected to the roller tube.
4. The system of claim 1, wherein the position of the first end cap is adjustable towards and away from the first end of the roller tube.
5. The system of claim 1, wherein the position of the first end cap is adjustable along the axis of rotation.
6. The system of claim 1, wherein the position of the first end cap is adjustable along a length of an axle that extends outward from the first end of the roller tube.
7. The system of claim 1, wherein the position of the first end cap is adjustable relative to the first end of the roller tube.
8. The system of claim 1, wherein the exterior surface of the first end cap and the exterior surface of the second end cap are convex surfaces.
9. The system of claim 1, wherein the first end cap is connected to the first end of the roller tube by one or more first features configured and arranged to connect to one or more second features of the first end of the roller tube.
10. The system of claim 1, wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the first end cap toward the outer end of the first end cap.

11. The system of claim 1, wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the first end cap to the outer end of the first end cap; and wherein the plurality of flexible arms are configured to flex inward toward the axis of rotation.
12. The system of claim 1, wherein the screen includes a first interlock at the first side of the screen and a second interlock at the second side of the screen, the first interlock and the second interlock having a thickness larger than a thickness of the screen.
13. The system of claim 1, further comprising:
  - a first track assembly positioned adjacent the first side of the screen;
  - the first track assembly having a first elongate channel and a first screen receiver configured to receive the first interlock;
  - a first magnet associated with one of the first elongate channel and the first screen receiver of the first track assembly;
  - a first magnetic member associated with the other of the first elongate channel and the first screen receiver of the first track assembly; andwherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.
14. The system of claim 1, further comprising:
  - a first length adjustment member associated with the first end cap;
  - a second length adjustment member associated with the second end cap; andwherein the first length adjustment member is configured and arranged to facilitate the adjustment of the position of the first end cap relative to the first end of the roller tube;
  - wherein the second length adjustment member is configured and arranged facilitate the adjustment of the position of the second end cap relative to the second end of the roller tube.
15. A retractable screen system, comprising:
  - a screen;
  - the screen extending a length between a first side and a second side;

the screen extending a height between an upper end and a lower end;

a roller tube;

the roller tube having an axis of rotation;

a first end cap operably connected adjacent a first end of the roller tube; and

wherein the first end cap has an exterior surface having a convex curved shape.

16. The system of claim 15, wherein the convex curved shape of the first end cap extends from a larger diameter adjacent that approximately matches a diameter of the roller tube to a smaller diameter.

17. The system of claim 15, wherein the first end cap is connected to a collar that is connected to the roller tube.

18. The system of claim 15, wherein the position of the first end cap is adjustable towards and away from the first end of the roller tube.

19. The system of claim 15, wherein the first end cap is connected to the first end of the roller tube by one or more first features configured and arranged to connect to one or more second features of the first end of the roller tube; and

wherein the one or more first features of the first end cap include one or more fingers, the one or more second features of the first end of the roller tube include one or more recesses, and the one or more fingers are configured and arranged to mate with the one or more recesses.

20. The system of claim 15, wherein the exterior surface of the first end cap extends from an inner end to an outer end;

wherein the first end cap includes a plurality of flexible arms extending outward from the inner end of the exterior surface of the first end cap to the outer end of the exterior surface of the first end cap.

21. The system of claim 15, wherein the exterior surface of the first end cap extends from an inner end to an outer end;

wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the exterior surface of the first end cap to the outer end of the exterior surface of the first end cap; and

wherein the plurality of flexible arms are configured to flex inward toward the axis of rotation of the roller tube.

22. The system of claim 15, further comprising:

a first length adjustment member associated with the first end cap;

wherein the first length adjustment member is configured and arranged to facilitate the adjustment of the position of the first end cap along the axis of rotation relative to the first end of the roller tube.

23. The system of claim 15, wherein the screen includes a first interlock at the first side of the screen and a second interlock at the second side of the screen, the first interlock and the second interlock having a thickness larger than a thickness of the screen.

24. The system of claim 15, further comprising:

a first track assembly positioned adjacent the first side of the screen;

the first track assembly having a first elongate channel and a first screen receiver configured to receive a first interlock connected to the first side of the screen;

a first magnet associated with one of the first elongate channel and the first screen receiver of the first track assembly;

a first magnetic member associated with the other of the first elongate channel and the first screen receiver of the first track assembly; and

wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.

25. A retractable screen system, comprising:

a roller tube;

the roller tube extending a length from a first end to a second end;

the roller tube having an axis of rotation;

- the roller tube having an exterior surface;
- a screen;
- the screen extending a length between a first side and a second side;
- the screen extending a height between an upper end and a lower end;
- the screen having a first interlock connected to the first side;
- the first interlock having a thickness that is greater than a thickness of the screen;
- a first end cap operably connected adjacent the first end of the roller tube;
- the first end cap having an exterior surface having a convex curved shape that extends from a larger diameter adjacent its inner end to a smaller diameter adjacent its outer end;
- a first length adjustment member associated with the first end cap;
- wherein the first length adjustment member is configured and arranged to facilitate the adjustment of the position of the first end cap relative to the first end of the roller tube;
- wherein when the roller tube is rotated in a first direction the screen is raised by wrapping the screen around the exterior surface of the roller tube;
- wherein when the roller tube is rotated in a second direction, opposite the first direction, the screen is lowered by unwrapping the screen from around the exterior surface of the roller tube;
- wherein when the screen is wrapped around the roller tube, the first interlock wraps around the curved exterior surface of the first end cap.
26. The system of claim 25, wherein when the position of the first end cap is adjusted relative to the first end of the roller tube this affects where the first interlock wraps around the first end cap thereby affecting the effective rate at which the first interlock wraps around the first end cap.
27. The system of claim 25, wherein when the first end cap is adjusted outward, away from the first end of the roller tube, the effective rate at which the first interlock wraps around the first end cap is increased.

28. The system of claim 25, wherein when the first end cap is adjusted inward, toward the first end of the roller tube, the effective rate at which the first interlock wraps around the first end cap is decreased.
29. The system of claim 25, wherein the larger diameter of the first end cap approximately matches the diameter of the exterior surface of the roller tube.
30. The system of claim 25, wherein the first end cap is connected to a collar that is connected to the roller tube.
31. The system of claim 25, wherein the position of the first end cap is adjustable along the axis of rotation.
32. The system of claim 25, wherein the position of the first end cap is adjustable along a length of an axle that extends outward from the first end of the roller tube.
33. The system of claim 25, wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the first end cap toward the outer end of the first end cap.
34. The system of claim 25, wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the first end cap to the outer end of the first end cap; and wherein the plurality of flexible arms are configured to flex inward toward the axis of rotation of the roller tube.
35. The system of claim 25, further comprising:  
a first track assembly positioned adjacent the first side of the screen;  
the first track assembly having a first elongate channel and a first screen receiver configured to receive the first interlock;  
a first magnet associated with one of the first elongate channel and the first screen receiver of the first track assembly;  
a first magnetic member associated with the other of the first elongate channel and the first screen receiver of the first track assembly; and

wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.

36. A retractable screen system, comprising:

a roller tube;

the roller tube extending a length from a first end to a second end;

the roller tube having an axis of rotation;

a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper end and a lower end;

the screen having a first interlock adjacent a first side of the screen;

the screen having a second interlock adjacent a second side of the screen;

the upper end of the screen operably connected to the roller tube;

a first end cap;

the first end cap having a curved exterior surface that extends from a larger diameter to a smaller diameter;

the first end cap positioned adjacent the first end of the roller tube;

a second end cap;

the second end cap having a curved exterior surface that extends from a larger diameter to a smaller diameter;

the second end cap positioned adjacent the second end of the roller tube;

wherein when the roller tube is rotated in a first direction the screen wraps around the roller tube;

wherein when the screen wraps around the roller tube the first interlock wraps around adjacent the first end cap;

wherein when the screen wraps around the roller tube the second interlock wraps around adjacent the second end cap;

wherein the position of the first end cap is adjustable relative to the first end of the roller tube so as to

adjust where the first interlock engages the curved exterior surface of the first end cap;

wherein the position of the second end cap is adjustable relative to the second end of the roller tube so as

to adjust where the second interlock engages the curved exterior surface of the second end cap.

37. The system of claim 36, further comprising:

a first magnetic track assembly;

the first magnetic track assembly positioned adjacent the first end of the roller tube;

wherein the first interlock of the screen is received within an opening in the first magnetic track assembly.

38. The system of claim 36, wherein the larger diameter of the first end cap approximately matches a diameter of the roller tube.

39. The system of claim 36, wherein the first end cap is connected to a collar that connects to the roller tube.

40. The system of claim 36, wherein the position of the first end cap is adjustable towards and away from the first end of the roller tube.

41. The system of claim 36, wherein the position of the first end cap is adjustable along the axis of rotation of the roller tube.

42. The system of claim 36, wherein the position of the first end cap is adjustable along a length of an axle that extends outward from the first end of the roller tube.

43. The system of claim 36, wherein first end cap includes a plurality of flexible arms that extend outward from an inner end to an outer end.

44. The system of claim 36, wherein when the first end cap is adjusted outward, away from the first end of the roller tube, the effective rate at which the first interlock wraps around the first end cap is increased.

45. The system of claim 36, wherein when the first end cap is adjusted inward, toward the first end of the roller tube, the effective rate at which the first interlock wraps around the first end cap is decreased.

46. A retractable screen system, comprising:

a roller tube;

the roller tube extending a length from a first end to a second end;

a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper end and a lower end;

the upper end of the screen operably connected to the roller tube;

a first end cap;

the first end cap having a curved exterior surface;

the first end cap positioned adjacent the first end of the roller tube;

a second end cap;

the second end cap having a curved exterior surface;

the second end cap positioned adjacent the second end of the roller tube;

wherein when the roller tube is rotated the screen wraps around the roller tube the first side of the screen

wraps around adjacent the first end cap and the second side of the screen wraps around adjacent

the second end cap;

wherein the position of the first end cap is adjustable relative to the first end of the roller tube so as to

adjust where the first side of the screen engages the curved exterior surface of the first end cap;

wherein the position of the second end cap is adjustable relative to the second end of the roller tube so as

to adjust where the second side of the screen engages the curved exterior surface of the second

end cap.

47. A track system, comprising:

a screen;

a lock member;

the lock member connected to a first side of the screen;

the lock member having an inner side and an outer side;

wherein the outer side of the lock member is connected to the screen; wherein the inner side of the lock member is free;

wherein when in a retracted position, the inner side of the lock member lays flat with the screen; and wherein when in a deployed position, the inner side of the lock member extends away from the screen.

48. The system of claim 47, wherein the outer side of the lock member is sewn to the screen.

49. The system of claim 47, wherein the outer side of the lock member is welded to the screen.

50. The system of claim 47, wherein the outer side of the lock member is adhered to the screen.

51. The system of claim 47, further comprising:  
a screen receiver having a channel;  
wherein the channel is configured to receive the lock member;  
and wherein the inner side of the lock member restricts movement of the lock member in a channel to a path substantially parallel to a length of the channel.

52. The system of claim 47, further comprising:  
a second lock member having  
an inner side and an outer side;  
wherein the outer side of the second lock member is connected to the screen;  
wherein the inner side of the second lock member is free;  
wherein when in a retracted position, the inner side of the second lock member lays flat with the screen;  
and wherein when in a deployed position, the inner side of the second lock member extends away from the screen.

53. The system of claim 47, further comprising:

a second lock member having an inner side and an outer side;  
wherein the outer side of the second lock member is connected to the screen;  
wherein the inner side of the second lock member is free;  
wherein when in a retracted position, the inner side of the second lock member lays flat with the screen;  
wherein when in a deployed position, the inner side of the second lock member extends away from the screen;  
and wherein the inner side of the second lock member restricts movement of the lock member in a channel to a path substantially parallel to a length of the channel.

54. A retractable screen system, comprising:

a roller tube;  
the roller tube extending a length between opposing ends;  
a screen;  
the screen extending a length between a first side and a second side;  
the screen extending a height between an upper side and a lower side;  
a lock member;  
the lock member connected to the first side of the screen;  
the lock member having an inner side and an outer side;  
wherein the outer side of the lock member is connected to the screen;  
wherein the inner side of the lock member is free;  
wherein the upper end of the screen is connected to the roller tube;  
wherein the screen is configured to move between a retracted position and a deployed position  
wherein when in the retracted position the screen is wrapped around the roller tube, and  
wherein when in the deployed position the screen is held within a channel of a screen receiver;  
wherein when in a retracted position, the inner side of the lock member lays flat with the screen;

and wherein when in a deployed position, the inner side of the lock member extends away from the screen.

55. The system of claim 54, wherein the inner side of the lock member restricts movement of the lock member in the channel to a path substantially parallel to a length of the channel.

56. The system of claim 54, wherein when in a deployed position, the inner side of the lock member extends away from the screen and is received in a secondary channel of a screen receiver thereby preventing inward movement of the screen.

57. The system of claim 54, wherein the outer side of the lock member is sewn to the screen.

58. The system of claim 54, wherein the outer side of the lock member is welded to the screen.

59. The system of claim 54, wherein the outer side of the lock member is adhered to the screen.

60. A low profile track system, comprising:

a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper side and a lower side;

a lock member attached along one side of a plurality of sides including the first side, the second side, the upper side, and the lower side of the screen; wherein the lock member includes a strip of material extending a length along the one side of the screen between a first end and a second end;

the strip of material extending a width from an outer side to an inner side;

wherein a portion the strip of material adjacent to the outer side is operatively connected to a portion of the screen adjacent to the one side;

wherein a portion the strip of material adjacent to the inner side is detached from the screen;

a first track assembly;  
the first track assembly positioned adjacent the one side of the screen;  
the first track assembly having an elongate channel and a screen receiver;  
the screen receiver having a channel defined between by first sidewall and a second sidewall;  
the first and second sidewalls each extending a length between a first end of the first track assembly and a second end of the first track assembly and extending from an open front end of the channel to a closed back end of the channel;  
and wherein the first sidewall of the channel is configured and arranged to, when the lock member is inserted in the channel, extend over the strip of material of the lock member, further extend around the inner side of the strip of the material, and further extend back toward the outer side between the strip of material and the screen.

61. The system of claim 60, wherein:

the lock member includes a second strip of material extending the length along the one side of the screen between the first end and the second end;  
and the second strip of material extending a width from an outer side to an inner side;  
the second sidewall of the channel is configured and arranged to, when the lock member is inserted in the channel, extend over the second strip of material of the lock member, further extend around the inner side of the second strip of the material, and further extend back toward the outer side of the second strip of material between the strip of material and the screen.

62. The system of claim 60, wherein the outer side of the strip of material is sewn to the screen.

63. The system of claim 60, wherein the outer side of the strip of material is welded to the screen.

64. The system of claim 60, wherein the outer side of the trip of material is adhered to the screen.

65. A track system, comprising:

a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper side and a lower side;

an interlock attached along one side of a plurality of sides including the first side, the second side, the upper side, and the lower side of the screen; the interlock extending a length along the one side of the screen between a first end and a second end;

a first track assembly;

the first track assembly positioned adjacent the one side of the screen;

and the first track assembly having an elongate channel and a screen receiver.

66. The system of claim 65, further comprising:

one or more pads configured and arranged to prevent the first track assembly from making direct contact with the screen receiver, thereby reducing noise.

67. The system of claim 65, wherein the one or more pads have one or more features configured and arranged to operably connect the pad to the track assembly.

68. The system of claim 65, wherein the one or more pads have one or more features configured and arranged to operably connect a magnetic member to the track assembly.

69. The system of claim 65, wherein the one or more pads have one or more features configured and arranged to operably connect a magnetic member to the track assembly;

wherein the magnetic member has a curved shape.

70. The system of claim 65, wherein the one or more pads include two pads having complementary features configured and arranged to, when mated, self-align the screen receiver in the first track assembly.

71. The system of claim 65, further comprising:

a set of lights coupled to the first track assembly along the length of the channel.

72. The system of claim 65, further comprising:

a set of lights coupled to the first track assembly along the length of the channel;

wherein the set of lights are light emitting diodes.

73. The system of claim 65, further comprising:

a set of lights coupled to the first track assembly along the length of the channel;

wherein the set of lights are located in a recess of the first track assembly.

74. The system of claim 65, further comprising:

a set of lights coupled to the first track assembly along the length of the channel;

and a transparent guard over the set of lights.

75. The system of claim 65, further comprising: a set of lights coupled to the first track assembly along the length of the channel; and a battery power supply connected to the set of lights.

76. The system of claim 65, further comprising:

a set of lights coupled to the first track assembly along the length of the channel;

a battery power supply connected to the set of lights;

and one or more energy harvesters configured and arranged to recharge the battery power supply.

77. A retractable screen system, comprising:

a screen;

the screen extending a height between an upper side and a lower side;

the screen extending a length between a first side and a second side;

a roller tube;

the roller tube extending a length between a first end and a second end;

wherein the screen includes a first interlock at the first side of the screen;

a first track assembly positioned adjacent the first side of the screen;

the first track assembly having a first elongate channel and a first screen receiver configured to receive the first interlock;

a first magnet associated with one of the elongate channel and the screen receiver of the first track assembly;

a first magnetic member associated with the other of the elongate channel and the screen receiver of the first track assembly;

wherein a magnetic bond is formed between the first magnet and the first magnetic member of the first track assembly;

wherein the first interlock includes a strip of material extending a length along the first side of the screen, the strip of material extending a width from an outer side to a respective inner side; wherein a portion the each strip of material adjacent to the outer side is operatively connected to a portion of the screen adjacent to the one side; and wherein a portion the each strip of material adjacent to the inner side is detached from the screen.

78. The system of claim 77, further comprising:

one or more pads configured and arranged to prevent the first track assembly from making direct contact with the first screen receiver.

79. The system of claim 77, wherein the one or more pads have one or more features configured and arranged to operably connect the pad to the track assembly.

80. The system of claim 77, wherein the one or more pads have one or more features configured and arranged to operably connect the first magnetic member to the track assembly.

81. The system of claim 77, wherein the first magnetic member has a curved shape.

82. The system of claim 77, wherein the one or more pads include two pads having complementary features configured and arranged to, when mated, self-align the screen receiver in the first track assembly.

83. The system of claim 77, further comprising: a set of lights coupled to the first track assembly along the length of the channel.

84. The system of claim 77, further comprising:

a set of lights coupled to the first track assembly along the length of the channel;

wherein the set of lights are light emitting diodes.

85. The system of claim 77, further comprising:

a set of lights coupled to the first track assembly along the length of the channel;  
wherein the set of lights are located in a recess of the first track assembly.

86. The system of claim 77, further comprising:

a set of lights coupled to the first track assembly along the length of the channel;  
and further comprising a transparent guard over the set of lights.

87. The system of claim 77 further comprising:

a set of lights coupled to the first track assembly along the length of the channel;  
and a battery power supply connected to the set of lights.

88. The system of claim 77, further comprising:

a set of lights coupled to the first track assembly along the length of the channel;  
and one or more energy harvesters configured and arranged to recharge the battery power supply.

89. A retractable screen system, comprising:

a screen;

the screen extending a height between an upper end and a lower end;

the screen extending a length between a first side and a second side;

a roller tube;

the roller tube extending a length between a first end and a second end;

the roller tube having an exterior surface;

a first end cap;

the first end cap connected adjacent the first end of the roller tube;

the first end cap having an exterior surface;

the exterior surface of the first end cap extending from an inner end to an outer end;

wherein the exterior surface of the first end cap curves from a larger diameter at the inner end of the first  
end cap to a smaller diameter at the outer end of the first end cap;

a second end cap;

the second end cap connected to the second end of the roller tube;

- the second end cap having an exterior surface;
- the exterior surface of the second end cap extending from an inner end to an outer end;
- wherein the exterior surface of the second end cap curves from a larger diameter at the inner end of the second end cap to a smaller diameter at the outer end of the second end cap;
- wherein the upper end of screen is connected to the roller tube;
- wherein the screen is opened by rotating the roller tube in a first direction which causes the screen to wrap around the exterior surface of the roller tube;
- wherein when the screen wraps around the roller tube the first side of the screen wraps around the curved exterior surface of the first end cap when the screen wraps around the roller tube;
- and wherein when the screen wraps around the roller tube the second side of the screen wraps around the curved exterior surface of the second end cap when the screen wraps around the roller tube.
90. The system of claim 89, wherein the larger diameter of the first end cap approximately matches the diameter of the roller tube.
91. The system of claim 89, wherein the first end cap is connected to a collar that is connected to the roller tube.
92. The system of claim 89, wherein the position of the first end cap is adjustable towards and away from the first end of the roller tube.
93. The system of claim 89, wherein the position of the first end cap is adjustable along a length of an axis of rotation that extends through the center of the roller tube.
94. The system of claim 89, wherein the position of the first end cap is adjustable along a length of an axle that extends outward from the first end of the roller tube.
95. The system of claim 89, wherein the position of the first end cap is adjustable relative to the first end of the roller tube.
96. The system of claim 89, wherein the exterior surface of the first end cap and the exterior surface of the second end cap are convex surfaces.

97. The system of claim 89, wherein the first end cap includes a plurality of segments, wherein the plurality of segments are configured and arranged to independently connect to an end surface of the first end of the roller tube.
98. The system of claim 89, wherein the first end cap is connected to the first end of the roller tube by one or more first features configured and arranged to connect to one or more second features of the first end of the roller tube.
99. The system of claim 89, wherein the first end cap is connected to the first end of the roller tube by one or more first features configured and arranged to connect to one or more second features of the first end of the roller tube;
- and wherein the one or more first features include one or more fingers, the one or more second features include one or more recesses, and the one or more fingers are configured and arranged to mate with the one or more recesses.
100. The system of claim 89, wherein the first end cap includes a plurality of protrusions and the roller tube includes a plurality of openings, wherein the first end cap is connected to the first end of the roller tube by inserting the protrusions of the end cap into the openings of the roller tube.
101. The system of claim 89, wherein the first end cap is connected to the first end of the roller tube by a first set of threads on the first end cap that are configured and arranged to engage a second set of threads on the first end of the roller tube.
102. The system of claim 89, wherein the first end cap is connected to the first end of the roller tube by a first set of threads on the first end cap that are configured and arranged to engage a second set of threads on the first end of the roller tube.
103. The system of claim 89, wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the first end cap toward the outer end of the first end cap.
104. The system of claim 89, wherein the first end cap includes a plurality of flexible arms extending outward from the inner end of the first end cap to the outer end of the first end cap;

and wherein the plurality of flexible arms are configured to flex inward toward an axis of rotation of the roller tube.

105. The system of claim 89, wherein the screen includes a first interlock at the first side of the screen and a second interlock at the second side of the screen, the first and second interlocks having a thickness larger than a thickness of the screen.

106. The system of claim 89, further comprising:

a first track assembly positioned adjacent the first side of the screen;

the first track assembly having a first elongate channel and a first screen receiver configured to receive the first interlock; a first magnet associated with one of the elongate channel and the screen receiver of the first track assembly;

a first magnetic member associated with the other of the elongate channel and the screen receiver of the first track assembly;

and wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.

107. The system of claim 89, further comprising:

a first track assembly positioned adjacent the first side of the screen;

the first track assembly having a second elongate channel and a second screen receiver configured to receive the second interlock;

a first magnet associated with one of the elongate channel and the screen receiver of the first track assembly;

a first magnetic member associated with the other of the elongate channel and the screen receiver of the first track assembly;

and wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.

108. The system of claim 89, further comprising:

a first length adjustment member associated with the first end cap;

a second length adjustment member associated with the second end cap;  
and wherein the first length adjustment member is configured and arranged to facilitate the adjustment of  
the position of the first end cap relative to the first end of the roller tube;  
wherein the second length adjustment member is configured and arranged facilitate the adjustment of the  
position of the second end cap relative to the second end of the roller tube.

109. A retractable screen system, comprising:

a screen;  
the screen extending a length between a first side and a second side;  
the screen extending a height between an upper end and a lower end;  
a roller tube, wherein the upper end of the screen is operably connected adjacent the roller tube and  
extends beyond the ends of the roller tube;  
a first end cap is operably connected adjacent a first end of the roller tube;  
a second end cap connected to a second end of the roller tube;  
wherein the first end cap has an exterior surface having a convex curved shape;  
and wherein the second end cap has an exterior surface having a convex curved shape.

110. The system of claim 109, wherein the convex curved shape of the first end cap extends from a  
larger diameter adjacent that approximately matches the diameter of the roller tube to a smaller  
diameter.

111. The system of claim 109, wherein the first end cap is connected to a collar that is connected to  
the roller tube.

112. The system of claim 109, wherein the position of the first end cap is adjustable towards and away  
from the first end of the roller tube.

113. The system of claim 109, wherein the position of the first end cap is adjustable along a length  
of an axis of rotation that extends through the center of the roller tube.

114. The system of claim 109, wherein the position of the first end cap is adjustable along a length  
of an axle that extends outward from the first end of the roller tube.

115. The system of claim 109, wherein the position of the first end cap is adjustable relative to the first end of the roller tube.
116. The system of claim 109, wherein the first end cap includes a plurality of segments;  
wherein the plurality of segments are configured and arranged to independently connect adjacent the first end of the roller tube.
117. The system of claim 109, wherein the first end cap is connected to the first end of the roller tube by one or more first features configured and arranged to connect to one or more second features of the first end of the roller tube.
118. The system of claim 109, wherein the first end cap is connected to the first end of the roller tube by one or more first features configured and arranged to connect to one or more second features of the first end of the roller tube;  
and wherein the one or more first features of the first end cap include one or more fingers, the one or more second features of the first end of the roller tube include one or more recesses, and the one or more fingers are configured and arranged to mate with the one or more recesses.
119. The system of claim 109, wherein the exterior surface of the first end cap extends from an inner end to an outer end;  
wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the exterior surface of the first end cap to the outer end of the exterior surface of the first end cap.
120. The system of claim 109, wherein the exterior surface of the first end cap extends from an inner end to an outer end;  
wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the exterior surface of the first end cap to the outer end of the exterior surface of the first end cap;  
and wherein the plurality of flexible arms are configured to flex inward toward an axis of rotation of the roller tube.
121. The system of claim 109, wherein the first end cap is connected to the first end of the roller tube by an adhesive.

122. The system of claim 109, wherein the first end cap is connected to the first end of the roller tube by a first set of threads on the first end cap that are configured and arranged to engage a second set of threads on the first end of the roller tube.
123. The system of claim 109, wherein the screen includes a first interlock at the first side of the screen and a second interlock at the second side of the screen, the first and second interlocks having a thickness larger than a thickness of the screen.
124. A retractable screen system, comprising:  
a first track assembly positioned adjacent the first side of the screen;  
the first track assembly having a first elongate channel and a first screen receiver configured to receive the first interlock;  
a first magnet associated with one of the elongate channel and the screen receiver of the first track assembly;  
a first magnetic member associated with the other of the elongate channel and the screen receiver of the first track assembly;  
and wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.
125. The system of claim 124, further comprising:  
a first track assembly positioned adjacent the first side of the screen;  
the first track assembly having a second elongate channel and a second screen receiver configured to receive the second interlock;  
a first magnet associated with one of the elongate channel and the screen receiver of the first track assembly;  
a first magnetic member associated with the other of the elongate channel and the screen receiver of the first track assembly;  
and wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.

126. A retractable screen system, comprising:

- a screen;
- the screen extending a length between a first side and a second side;
- the screen extending a height between an upper end and a lower end;
- a bottom bar;
- the bottom bar connected to the lower end of the screen;
- a roller tube;
- the upper end of the screen connected to the roller tube;
- a motor;
- the motor operatively connected to the roller tube;
- wherein operation of the motor causes rotation of the roller tube thereby opening or closing the screen;
- a first track assembly;
- the first track assembly positioned adjacent the first side of the screen;
- the first track assembly having an elongate channel and a screen receiver;
- a second track assembly;
- the second track assembly positioned adjacent the second side of the screen;
- the second track assembly having an elongate channel and a screen receiver;
- wherein the first track assembly and the second track assembly provide tension on the screen through magnetic attraction;
- a first end cap;
- the first end cap connected to the first end of the roller tube;
- the first end cap having an exterior surface the exterior surface of the first end cap extending from an inner end to an outer end;
- a second end cap;
- the second end cap connected to the second end of the roller tube;

wherein the upper end of the screen is connected to the roller tube;  
the second end cap having an exterior surface;  
the exterior surface of the second end cap extending from an inner end to an outer end;  
wherein when the screen is connected to the roller tube, the screen wraps around the exterior surface of  
the roller tube;  
wherein when the screen is connected to the roller tube, the first side of the screen extends past the first  
end of the roller tube, and the second side of the screen extends past the second end of the roller  
tube; and wherein the exterior surface of the first end cap and the exterior surface of the second  
end cap curve from the exterior surface of the roller tube to a smaller diameter thereby providing  
a smooth transition for the screen and preventing creases in the screen when the screen wraps  
around the roller tube.

127. The system of claim 126, further comprising:

a first length adjustment member associated with the first end cap;  
a second length adjustment member associated with the second end cap;  
and wherein the first length adjustment member is configured and arranged to facilitate the adjustment of  
the position of the first end cap relative to the first end of the roller tube;  
wherein the second length adjustment member is configured and arranged facilitate the adjustment of the  
position of the second end cap relative to the second end of the roller tube.

128. The system of claim 126, further comprising:

a first track assembly positioned adjacent the first side of the screen;  
the first track assembly having a first elongate channel and a first screen receiver configured to  
receive a first interlock connected to the first side of the screen;  
a first magnet associated with one of the first elongate channel and the first screen receiver of the first  
track assembly;  
a first magnetic member associated with the other of the first elongate channel and the first screen  
receiver of the first track assembly;

and wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.

129. The system of claim 126, further comprising:

a second track assembly positioned adjacent the second side of the screen;

the second track assembly having a second elongate channel and a second screen receiver

configured to receive a second interlock connected to the second side of the screen;

a first magnet associated with one of the second elongate channel and the second screen receiver of the second track assembly;

a first magnetic member associated with the other of the second elongate channel and the second screen receiver of the first track assembly;

and wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the second track assembly.

130. The system of claim 126, further comprising:

a roller tube;

the roller tube extending a length from a first end to a second end;

the roller tube having an exterior surface;

a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper end and a lower end;

the screen having a first interlock connected to the first side;

the first interlock having a thickness that is greater than a thickness of the screen;

a first end cap operably connected adjacent the first end of the roller tube;

the first end cap having an exterior surface having a convex curved shape that extends from a larger diameter adjacent its inner end to a smaller diameter adjacent its outer end;

a first length adjustment member associated with the first end cap;

- wherein the first length adjustment member is configured and arranged to facilitate the adjustment of the position of the first end cap relative to the first end of the roller tube;
- wherein when the roller tube is rotated in a first direction the screen is raised by wrapping the screen around the exterior surface of the roller tube;
- wherein when the roller tube is rotated in a second direction, opposite the first direction, the screen is lowered by unwrapping the screen from around the exterior surface of the roller tube;
- wherein when the screen is wrapped around the roller tube, the first interlock wraps around the curved exterior surface of the first end cap; wherein when the position of the first end cap is adjusted relative to the first end of the roller tube this affects where the first interlock wraps around the first end cap thereby affecting the effective rate at which the first interlock wraps around the first end cap.
131. The system of claim 126, wherein when the first end cap is adjusted outward, away from the first end of the roller tube, the effective rate at which the first interlock wraps around the first end cap is increased. In one or more implementations, when the first end cap is adjusted inward, toward the first end of the roller tube, the effective rate at which the first interlock wraps around the first end cap is decreased. In one or more implementations, the larger diameter of the first end cap approximately matches the diameter of the exterior surface of the roller tube.
132. The system of claim 126, wherein the first end cap is connected to a collar that is connected to the roller tube.
133. The system of claim 126, wherein the position of the first end cap is adjustable along a length of an axis of rotation that extends through the center of the roller tube.
134. The system of claim 126, wherein the position of the first end cap is adjustable along a length of an axle that extends outward from the first end of the roller tube.
135. The system of claim 126, wherein first end cap includes a plurality of flexible arms extending outward from the inner end of the first end cap toward the outer end of the first end cap.

136. The system of claim 126, wherein the first end cap includes a plurality of flexible arms extending outward from the inner end of the first end cap to the outer end of the first end cap; and wherein the plurality of flexible arms are configured to flex inward toward an axis of rotation of the roller tube.
137. The system of claim 126, further comprising: a first track assembly positioned adjacent the first side of the screen;
- the first track assembly having a first elongate channel and a first screen receiver configured to receive the first interlock;
- a first magnet associated with one of the first elongate channel and the first screen receiver of the first track assembly;
- a first magnetic member associated with the other of the first elongate channel and the first screen receiver of the first track assembly; and
- wherein a magnetic bond is formed between the first magnet and the first magnetic member of the of the first track assembly.
138. A retractable screen system, comprising:
- a roller tube;
- the roller tube extending a length from a first end to a second end;
- a screen;
- the screen extending a length between a first side and a second side;
- the screen extending a height between an upper end and a lower end;
- the screen having a first interlock adjacent a first side of the screen;
- the screen having a second interlock adjacent a second side of the screen;
- the upper end of the screen operably connected to the roller tube;
- a first end cap;
- the first end cap having a curved exterior surface that extends from a larger diameter to a smaller diameter;

- the first end cap positioned adjacent the first end of the roller tube;
- a second end cap;
- the second end cap having a curved exterior surface that extends from a larger diameter to a smaller diameter;
- the second end cap positioned adjacent the second end of the roller tube;
- wherein when the roller tube is rotated in a first direction the screen wraps around the roller tube;
- wherein when the screen wraps around the roller tube the first interlock wraps around adjacent the first end cap;
- wherein when the screen wraps around the roller tube the second interlock wraps around adjacent the second end cap;
- wherein the position of the first end cap is adjustable relative to the first end of the roller tube so as to adjust where the first interlock engages the curved exterior surface of the first end cap;
- wherein the position of the second end cap is adjustable relative to the second end of the roller tube so as to adjust where the second interlock engages the curved exterior surface of the second end cap.
139. The system of claim 138, further comprising:
- a first magnetic track assembly;
- the first magnetic track assembly positioned adjacent the first end of the roller tube;
- wherein the first interlock of the screen is received within an opening in the first magnetic track assembly.
140. The system of claim 138, wherein the larger diameter of the first end cap approximately matches a diameter of the roller tube.
141. The system of claim 138, wherein the first end cap is connected to a collar that connects to the roller tube.
142. The system of claim 138, wherein the position of the first end cap is adjustable towards and away from the first end of the roller tube.
143. The system of claim 138, wherein the position of the first end cap is adjustable along a length of an axis of rotation that extends through the center of the roller tube.

144. The system of claim 138, wherein the position of the first end cap is adjustable along a length of an axle that extends outward from the first end of the roller tube.
145. The system of claim 138, wherein first end cap includes a plurality of flexible arms that extend outward from an inner end to an outer end.
146. The system of claim 138, wherein when the first end cap is adjusted outward, away from the first end of the roller tube, the rate at which the first interlock wraps around the first end cap is increased.
147. The system of claim 138, wherein when the first end cap is adjusted inward, toward the first end of the roller tube, the rate at which the first interlock wraps around the first end cap is decreased.
148. A retractable screen system comprising:
- a roller tube;
  - the roller tube extending a length from a first end to a second end;
  - a screen;
  - the screen extending a length between a first side and a second side;
  - the screen extending a height between an upper end and a lower end;
  - the upper end of the screen operably connected to the roller tube;
  - a first end cap;
  - the first end cap having a curved exterior surface;
  - the first end cap positioned adjacent the first end of the roller tube;
  - a second end cap;
  - the second end cap having a curved exterior surface;
  - the second end cap positioned adjacent the second end of the roller tube;
- wherein when the roller tube is rotated the screen wraps around the roller tube the side of the screen wraps around adjacent the first end cap and the second side of the screen wraps around adjacent the second end cap;

wherein the position of the first end cap is adjustable relative to the first end of the roller tube so as to  
adjust where the first side of the screen engages the curved exterior surface of the first end cap;  
wherein the position of the second end cap is adjustable relative to the second end of the roller tube so as  
to adjust where the second side of the screen engages the curved exterior surface of the second  
end cap.

149. A retractable screen system, comprising:

a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper end and a lower end;

a roller tube;

the roller tube extending a length between opposing ends;

the roller tube having an exterior surface;

the roller tube having an axis of rotation;

a circumference adjustment assembly;

the circumference adjustment assembly operably connected to the roller tube;

the circumference adjustment assembly having an adjustment member;

the circumference adjustment assembly having a control assembly;

wherein the upper end of the screen is connected to the roller tube;

wherein the screen is configured to wrap around the roller tube when the roller tube is rotated in a first  
direction;

wherein the screen is configured to unwrap from around the roller tube when the roller tube is rotated in a  
second direction, wherein the second direction is opposite the first direction;

and wherein the control assembly is configured to adjust the position of the adjustment member relative  
to the roller tube, thereby modifying an effective circumference of the roller tube.

150. The system of claim 149, wherein the control assembly is configured to adjust the position of an outer surface of the adjustment member relative to the axis of rotation of the roller tube, thereby modifying the effective circumference of the roller tube.
151. The system of claim 149, wherein the roller tube includes a recess; wherein the adjustment member includes a portion configured and arranged for insertion in the recess; and wherein the control assembly is configured and arranged to adjust the depth which the portion of the adjustment member is inserted into the recess.
152. The system of claim 149, wherein the roller tube includes a recess; wherein the portion of the adjustment member is configured and arranged for insertion in the recess includes a threaded portion; and wherein the control assembly includes a fastener configured and arranged to engage the threaded portion; and wherein rotation of the fastener adjusts the depth to which the portion of the adjustment member is inserted into the recess.
153. The system of claim 149, wherein the roller tube includes a recess; and the recess is a channel extending along at least a portion of the length the roller tube.
154. The system of claim 149, wherein the adjustment member is configured and arranged to overlay a portion of the exterior surface of the roller tube.
155. The system of claim 149, wherein the circumference adjustment assembly is located at a first position along the length of the roller tube; and  
the system further comprises a second circumference adjustment assembly located at a second position along the length of the roller tube.
156. A retractable screen system, comprising:  
a screen;  
the screen extending a length between a first side and a second side;  
the screen extending a height between an upper end and a lower end;  
a roller tube;  
the roller tube extending a length between opposing ends;

- the roller tube having an exterior surface;
- the roller tube having an axis of rotation;
- a circumference adjustment assembly;
- the circumference adjustment assembly having an adjustment member, the adjustment member
- configured and arranged to increase an effective circumference of the roller tube at a position
- where the adjustment member is attached to the circumference adjustment assembly;
- and the circumference adjustment assembly having a fastener, the fastener configured and arranged
- connect the adjustment member to the roller tube.
157. The system of claim 156, wherein the adjustment member is configured and arranged to overlay a portion of the exterior surface of the roller tube when the adjustment member is attached to the roller tube, thereby increasing effective circumference of the roller tube.
158. The system of claim 156, wherein the fastener includes a first feature configured and arranged to interlock with a second feature of the roller tube.
159. The system of claim 156, wherein the roller tube includes a recess; and wherein the fastener is attached to the adjustment member, the fastener is configured and arranged to mate with the recess in the roller tube.
160. The system of claim 156, wherein the roller tube includes a recess; and wherein the fastener includes one or more features configured and arranged to hold the faster in place when mated with the recess of the roller tube.
161. The system of claim 156, wherein the roller tube includes a recess; and wherein the recess is a channel extending along at least a portion of the length the roller tube.
162. The system of claim 156, wherein the circumference adjustment assembly is located at a first position along the length of the roller tube; and
- the system further comprises a second circumference adjustment assembly, the second circumference adjustment assembly located at a second position along the length of the roller tube.

163. The system of claim 156, wherein the circumference adjustment assembly is located at a first position along a cross section of the roller tube; and  
the system further comprises a second circumference adjustment assembly located at a second position of the cross section of the roller tube.
164. A retractable screen system, comprising:  
a screen;  
the screen extending a length between a first side and a second side;  
the screen extending a height between an upper end and a lower end;  
a bottom bar;  
the bottom bar connected to the lower end of the screen;  
wherein the screen is configured to move between a fully opened position and a fully closed position;  
a first base plate;  
a first magnetic component operatively connected with the bottom bar;  
the first base plate positioned adjacent the fully closed position; and  
wherein when the bottom bar is moved to a fully closed position, the base plate and the bottom bar mechanically interlock with one another as well as magnetically attract to one another thereby securing the bottom bar in position.
165. The system of claim of 164, further comprising a second magnetic component operatively attached to the first base plate and configured to magnetically couple with the first magnetic component when the screen is fully lowered.
166. The system of claim 164, further comprising:  
a first feature operatively connected to the bottom bar and a second feature operatively connected to the first base plate;  
wherein first feature is configured to mate with the second feature.

167. The system of claim 164, wherein the system includes a first feature operatively connected to the bottom bar and a second feature operatively connected to the first base plate; wherein one of the first and second features is a post and the other one of first and second features in a hole.
168. The system of claim 164, wherein the system includes a first feature operatively connected to the bottom bar and a second feature operatively connected to the first base plate; wherein one of the first and second features is a male feature and the other one of the first and second features is a female feature.
169. The system of claim 164, wherein the system includes a first feature operatively connected to the bottom bar and a second feature operatively connected to the first base plate; wherein one of the first and second features is magnetic and the first and second features are magnetically attracted to one another.
170. The system of claim 164, further comprising:  
a second base plate;  
the second base plate having a third feature;  
the bottom bar having a fourth feature;  
and wherein when the screen moves to a fully closed position, the third and fourth features engage one another.
171. The system of claim 164, further comprising:  
a first track assembly;  
the first track assembly positioned adjacent the first side of the screen;  
the first track assembly having an elongate channel and a screen receiver that is configured and arranged to receive the first side of the screen;  
wherein the screen receiver of the first track assembly is magnetically attracted toward an end wall of the elongate channel of the first track assembly;  
a second track assembly;

the second track assembly positioned adjacent the second side of the screen;

the second track assembly having an elongate channel and a screen receiver that is configured and arranged to connect with the second side of the screen;

wherein the screen receiver of the second track assembly is magnetically attracted toward an end wall of the elongate channel of the second track assembly; and

wherein the magnetic attraction of the screen receiver of the first track assembly toward the end wall of the elongate channel of the first track assembly, as well as the magnetic attraction of the screen receiver of the second track assembly toward the end wall of the elongate channel of the second track assembly provides tension on the screen.

172. The system of claim 164, further comprising:

a first track assembly, a second track assembly, and a second base plate;

wherein the first base plate includes a member configured and arranged to operably connect to a bottom end of the first track assembly; and

wherein the second base plate includes a member configured and arranged to operably connect to a bottom end of the second track assembly.

173. The system of claim 164, further comprising:

a first track assembly and a second magnetic component operatively attached to the first track assembly;

the second magnetic component configured and arranged to magnetically couple with the first magnetic component when the screen is fully lowered.

174. A retractable screen system, comprising:

a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper end and a lower end;

a roller tube;

the roller tube extending a length between opposing ends;

- the roller tube having an exterior surface;
- the roller tube having an axis of rotation;
- the upper end of the screen connected to the roller tube;
- wherein the screen is configured to wrap around the roller tube when the roller tube is rotated in a first direction, thereby raising the screen;
- wherein the screen is configured to unwrap from around the roller tube when the roller tube is rotated in a second direction, thereby lowering the screen, wherein the second direction is opposite the first direction;
- a bottom bar;
- the bottom bar connected to the lower end of the screen;
- a base plate;
- the base plate having a first feature;
- the bottom bar having a second feature; and
- wherein when the screen moves to a fully closed position, a first feature of the bottom bar and a second feature of the base plate engage one another thereby securing the bottom bar in position.
175. The system of claim 174, wherein the first feature is configured to mate with the second feature.
176. The system of claim 174, wherein the first and second features are configured and arranged to prevent vertical separation of the first and second features when horizontal forces are exerted on the features.
177. The system of claim 174, wherein one of the first and second features is a post and the other one of first and second features in a hole.
178. The system of claim 174, wherein one of the first and second features is a male feature and the other one of the first and second features is a female feature.

179. The system of claim 174, wherein one of the first and second features is magnetic and the first and second features are magnetically attracted to one another.
180. The system of claim 174, further comprising a second base plate;  
the second base plate having a third feature;  
the bottom bar having a fourth feature; and  
wherein when the screen moves to a fully closed position, the third and fourth features engage one another.
181. The system of claim 174, further comprising a first track assembly;  
the first track assembly positioned adjacent the first side of the screen;  
the first track assembly having an elongate channel and a screen receiver that is configured and arranged to receive the first side of the screen; and  
wherein the screen receiver of the first track assembly is magnetically attracted toward an end wall of elongate channel of the first track assembly.
182. The system of claim 174, further comprising a first track assembly and a first base plate having a member configured and arranged to operably connect to a bottom end of the first track assembly.
183. The system of claim 174, further comprising: a first magnetic component operably connected to the bottom bar;  
a first track assembly; and  
a second magnet operatively attached to the first track assembly, the second magnetic component configured and arranged to magnetically couple with the first magnetic component when the screen is fully lowered.
184. The system of claim 174, further comprising: a first magnetic component operably connected to the bottom bar;  
a first track assembly;

a second magnetic component operatively attached to the base plate, the second magnetic component configured and arranged to magnetically couple with the first magnetic component when the screen is fully lowered.

185. A retractable screen system, comprising: a screen;  
the screen extending a length between a first side and a second side;  
the screen extending a height between an upper end and a lower end;  
a bottom bar;  
the bottom bar connected to the lower end of the screen;  
wherein the screen is configured to move between a fully opened position and a fully closed position;  
a base plate;  
the base plate positioned adjacent the fully closed position;  
wherein when the bottom bar is moved to a fully closed position, the base plate and the bottom bar interlock with one another thereby securing the bottom bar in position;  
a roller tube;  
the roller tube extending a length between opposing ends;  
the roller tube having an exterior surface;  
the roller tube having an axis of rotation;  
the upper end of the screen connected to the roller tube;  
wherein the screen is configured to wrap around the roller tube when the roller tube is rotated in a first direction, thereby raising the screen;  
wherein the screen is configured to unwrap from around the roller tube when the roller tube is rotated in a second direction, thereby lowering the screen, wherein the second direction is opposite the first direction; and  
wherein when the screen moves to a fully closed position, a first feature of the bottom bar and a second feature of the base plate engage one another.

186. The system of claim 174, wherein one of the first and second features is a post and the other one of first and second features in a hole.
187. The system of claim 174, wherein one of the first and second features is a male feature and the other one of the first and second features is a female feature.
188. The system of claim 174, wherein one of the first and second features is magnetic and the first and second features are magnetically attracted to one another.
189. A retractable screen system, comprising: a screen;  
the screen extending a length between a first side and a second side;  
the screen extending a height between an upper end and a lower end;  
a bottom bar;  
the bottom bar connected to the lower end of the screen;  
wherein the screen is configured to move between a fully opened position and a fully closed position;  
a first magnetic component operatively connected with the bottom bar;  
a first base plate;  
the base plate positioned adjacent the fully closed position;  
wherein when the bottom bar is moved to a fully closed position, the first magnetic component of the bottom bar magnetically attracts to the base plate thereby securing the bottom bar in position;  
a roller tube;  
the roller tube extending a length between opposing ends;  
the roller tube having an exterior surface;  
the roller tube having an axis of rotation;  
the upper end of the screen connected to the roller tube;  
wherein the screen is configured to wrap around the roller tube when the roller tube is rotated in a first direction, thereby raising the screen;

wherein the screen is configured to unwrap from around the roller tube when the roller tube is rotated in a second direction, thereby lowering the screen, wherein the second direction is opposite the first direction;

the base plate having a first feature; and

the bottom bar having a second feature; and

wherein when the screen moves to a fully closed position, the feature of the bottom bar and the feature of the base plate engage one another.

190. The system of claim 189, wherein one of the first and second features is a post and the other one of first and second features is a hole.

191. The system of claim 189, wherein one of the first and second features is a male feature and the other one of the first and second features is a female feature.

192. The system of claim 189, wherein one or more of the above claims, wherein one of the first and second features is magnetic and the first and second features are magnetically attracted to one another.

193. A retractable screen system, comprising: a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper end and a lower end;

a bottom bar;

the bottom bar connected to the lower end of the screen;

the bottom bar extending a length between a first end and a second end;

wherein the screen is configured to move between a fully opened position and a fully closed position;

a first base plate;

the first base plate positioned adjacent the first side of the screen adjacent the fully closed position;

a second base plate;

the second base plate positioned adjacent the second side of the screen adjacent the fully closed position;

wherein when the bottom bar is moved to a fully closed position, the first base plate and the second base plate interlock with the bottom bar thereby securing the bottom bar in position;

a roller tube;

the roller tube extending a length between opposing ends;

the roller tube having an exterior surface;

the roller tube having an axis of rotation;

the upper end of the screen connected to the roller tube;

wherein the screen is configured to wrap around the roller tube when the roller tube is rotated in a first direction, thereby raising the screen;

wherein the screen is configured to unwrap from around the roller tube when the roller tube is rotated in a second direction, thereby lowering the screen, wherein the second direction is opposite the first direction;

the base plate having a feature;

the bottom bar having a feature; and

wherein when the screen moves to a fully closed position, the feature of the bottom bar and the feature of the base plate engage one another.

194. The system of claim 193, wherein one of the first and second features is a post and the other one of first and second features in a hole.

195. The system of claim 193, wherein one of the first and second features is a male feature and the other one of the first and second features is a female feature.

196. The system of claim 193, wherein one of the first and second features is magnetic and the first and second features are magnetically attracted to one another.

197. A retractable screen system, comprising: a screen;

the screen extending a length between a first side and a second side;  
the screen extending a height between an upper end and a lower end;  
a bottom bar;  
the bottom bar connected to the lower end of the screen;  
the bottom bar extending a length between a first end and a second end;  
a first magnetic component operatively connected with the bottom bar adjacent the first end;  
a second magnetic component operatively connected with the bottom bar adjacent the second end;  
wherein the screen is configured to move between a fully opened position and a fully closed position;  
a first base plate;  
the first base plate positioned adjacent the first side of the screen adjacent the fully closed position;  
a second base plate;  
the second base plate positioned adjacent the second side of the screen adjacent the fully closed position;  
wherein when the bottom bar is moved to a fully closed position, the first magnetic component of the bottom bar magnetically attracts to the first base plate and the second magnetic component of the bottom bar magnetically attracts to the second base plate thereby securing the bottom bar in position;  
a roller tube;  
the roller tube extending a length between opposing ends;  
the roller tube having an exterior surface;  
the roller tube having an axis of rotation;  
the upper end of the screen connected to the roller tube;  
wherein the screen is configured to wrap around the roller tube when the roller tube is rotated in a first direction, thereby raising the screen;

wherein the screen is configured to unwrap from around the roller tube when the roller tube is rotated in a second direction, thereby lowering the screen, wherein the second direction is opposite the first direction;

the base plate having a feature;

the bottom bar having a feature; and

wherein when the screen moves to a fully closed position, the feature of the bottom bar and the feature of the base plate engage one another.

198. The system of claim 197, wherein one of the first and second features is a post and the other one of first and second features in a hole.

199. The system of claim 197, wherein one of the first and second features is a male feature and the other one of the first and second features is a female feature.

200. The system of claim 197, wherein one of the first and second features is magnetic and the first and second features are magnetically attracted to one another.

201. A retractable screen system, comprising: a screen;

the screen extending a length between a first side and a second side;

the screen extending a height between an upper end and a lower end;

a roller tube;

the roller tube extending a length between opposing ends;

the roller tube having an exterior surface;

the roller tube having an axis of rotation;

the upper end of the screen connected to the roller tube;

wherein the screen is configured to wrap around the roller tube when the roller tube is rotated in a first direction, thereby raising the screen;

wherein the screen is configured to unwrap from around the roller tube when the roller tube is rotated in a second direction, thereby lowering the screen, wherein the second direction is opposite the first direction;

a bottom bar;  
the bottom bar connected to the lower end of the screen;  
a base plate;  
the base plate having a first feature extending vertically from the base plate;  
the bottom bar having a second feature configured and arranged to connect with the first feature of  
the base plate when the bottom bar is lowered to the base plate, wherein the first and  
second features are configured and arranged to physically inhibit horizontal movement of  
the bottom bar when the first feature is connected with the second feature;  
wherein the base plate includes a first magnetic component;  
wherein the bottom bar has a second magnetic component; and  
wherein the first magnetic component is configured and arranged to magnetically couple with the  
second magnetic component when the first feature is connected with the second feature.

202. The system of claim 201, wherein the first feature is configured to mate with the second  
feature.

203. The system of claim 201, wherein one of the first and second features is a post and the  
other one of first and second features in a hole.

204. The system of claim 201, wherein one of the first and second features is a male feature and  
the other one of the first and second features is a female feature.

205. The system of claim 201, wherein one of the first and second features is magnetic and the  
first and second features are magnetically attracted to one another.

206. The system of claim 201, further comprising a seal attached to the bottom of the bottom  
bar;  
wherein the seal is a woolpile.