[0013] Each nail plate may be stamped from a single metal sheet. The plurality of projections may comprise rounded tips. The plurality of projections may be arranged in rows and columns. The rows and columns may be in a zig-zag pattern.

[0014] The pallet may further comprise a plurality of fasteners coupling the pair of end deck boards and the pair of connector boards to the plurality of support blocks.

[0015] The base layer may comprise a pair of spaced apart end deck boards and a pair of spaced apart connector boards orthogonal to the pair of end deck boards. The pair of end deck boards and the pair of connector boards may be non-overlapping. The pallet may further comprise a plurality of nail plates coupled between respective ends of the pair of end deck boards and the plurality of support blocks. Each nail plate may have a first surface comprising a plurality of projections extending outwards therefrom and embedded into one of the end deck boards, and a second surface opposite the first surface and devoid of any projections, and contacting a support block.

[0016] The wooden pallet may also comprise a plurality of nail plates coupled between respective ends of the pair of connector boards and the plurality of support blocks. Each nail plate may have a first surface comprising a plurality of projections extending therefrom and embedded into one of the connector boards, and a second surface opposite the first surface and devoid of any projections, and contacting a support block.

[0016a] According to an aspect of the invention, a wooden pallet is disclosed, the wooden pallet comprising a base layer; a cargo layer comprising a pair of spaced apart wooden connector boards, a pair of spaced apart wooden end deck boards orthogonal to said pair of wooden connector boards, with respective ends of said pair of wooden end deck boards overlapping respective ends of said pair of wooden connector boards, and a plurality of spaced apart wooden intermediate deck boards between said pair of wooden end deck boards and coupled to said pair of wooden connector boards, with a gap area between an inside edge of each wooden end deck board and an adjacent inside edge of one of said wooden intermediate deck boards; a plurality of spaced apart support blocks between said cargo layer and said base layer and forming a gap therebetween for receiving a lifting member; and a plurality of nail plates coupled between the respective ends of said pair of wooden connector boards and the respective ends of said pair of wooden end deck boards in said cargo

layer, with each nail plate comprising a first surface comprising a plurality of projections extending outwards therefrom and embedded into the end of one of said wooden end deck boards, a second surface opposite the first surface and contacting the end of one of said wooden connector boards, and a backstop extending within the gap area between the inside edge of each wooden end deck board and an adjacent inside edge of one of said wooden intermediate deck boards, with said backstop having an edge that is parallel to and contacting the inside edge of one of said wooden end deck boards to absorb an impact to an outside edge thereof.

[0016b] According to another aspect of the invention, a method for making a wooden pallet is disclosed, the method comprising providing a base layer; providing a cargo layer comprising a pair of spaced apart wooden connector boards, a pair of spaced apart wooden end deck boards orthogonal to the pair of connector boards, with respective ends of the pair of wooden end deck boards overlapping respective ends of the pair of wooden connector boards, and a plurality of spaced apart wooden intermediate deck boards between the pair of wooden end deck boards and coupled to the pair of wooden connector boards, with a gap area between an inside edge of each wooden end deck board and an adjacent inside edge of one of the wooden intermediate deck boards; positioning a plurality of spaced apart support blocks between the cargo layer and the base layer and forming a gap therebetween for receiving a lifting member; and positioning a plurality of nail plates between the respective ends of the pair of wooden connector boards and the respective ends of the pair of wooden end deck boards, with each nail plate comprising a first surface comprising a plurality of projections extending outwards therefrom and embedded into the end of one of the wooden connector boards, and a second surface opposite the first surface and contacting the end of one of the wooden connector boards, and a backstop extending within the gap area between the inside edge of each wooden end deck board and an adjacent inside edge of one of the wooden intermediate deck boards, with the backstop having an edge that is parallel to and contacting the inside edge of one of the wooden end deck boards to absorb an impact to an outside edge thereof.

[0017] Another aspect of the wooden pallet is directed to the nail plates, wherein each nail plate may have a length corresponding to a length of an end deck board. This simplifies the manufacturing process.

[0018] Yet another aspect is directed to a method for making a wooden pallet, as described above.

Brief Description of the Drawings

[0019] FIG. 1 is a top perspective view of a pallet with highlighted

Claims

1. A wooden pallet comprising:
a base layer;

a cargo layer comprising

a pair of spaced apart wooden connector boards,

a pair of spaced apart wooden end deck boards orthogonal to said pair of wooden connector boards, with respective ends of said pair of wooden end deck boards overlapping respective ends of said pair of wooden connector boards, and

a plurality of spaced apart wooden intermediate deck boards between said pair of wooden end deck boards and coupled to said pair of wooden connector boards, with a gap area between an inside edge of each wooden end deck board and an adjacent inside edge of one of said wooden intermediate deck boards;

a plurality of spaced apart support blocks between said cargo layer and said base layer and forming a gap therebetween for receiving a lifting member; and

a plurality of nail plates coupled between the respective ends of said pair of wooden connector boards and the respective ends of said pair of wooden end deck boards in said cargo layer, with each nail plate comprising

a first surface comprising a plurality of projections extending outwards therefrom and embedded into the end of one of said wooden end deck boards,

a second surface opposite the first surface and contacting the end of one of said wooden connector boards, and

a backstop extending within the gap area between the inside edge of each wooden end deck board and an adjacent inside edge of one of said wooden intermediate deck boards, with said backstop having an edge that is parallel to and contacting the inside edge of one of said wooden end deck boards to absorb an impact to an outside edge thereof.

2. A wooden pallet according to Claim 1 wherein said plurality of projections comprise rounded tips.

3. A wooden pallet according to Claim 1 wherein said plurality of projections is arranged in rows and columns.

4. A wooden pallet according to Claim 3 wherein the rows and columns are spaced apart to substantially cover the first surface of said nail plate.

5. A wooden pallet according to Claim 3 wherein the rows and columns are in a zig-zag pattern.

6. A wooden pallet according to Claim 1 wherein each nail plate is stamped from a single metal sheet.

7. A wooden pallet according to Claim 1 further comprising a plurality of fasteners coupling said pair of spaced apart wooden connector boards and said pair of spaced apart wooden end deck boards to said plurality of support blocks, with at least a portion of said plurality of fasteners penetrating through said nail plates.

8. A wooden pallet according to Claim 1 wherein each backstop is triangular or rectangular shaped with an open interior.

9. A wooden pallet according to Claim 8 wherein an upper corner of the inside edge of each wooden end deck board is notched; and wherein an upper tip of each backstop is angled into the notch.

10. A wooden pallet according to Claim 9 wherein each upper tip is substantially coplaner with an upper surface of each wooden end deck board.

11. A method for making a wooden pallet comprising:

providing a base layer;

providing a cargo layer comprising

a pair of spaced apart wooden connector boards,

a pair of spaced apart wooden end deck boards orthogonal to the pair of connector boards, with respective ends of the pair of wooden end deck boards overlapping respective ends of the pair of wooden connector boards, and

a plurality of spaced apart wooden intermediate deck boards between the pair of wooden end deck boards and coupled to the pair of wooden connector boards, with a gap area between an inside edge of each wooden end deck board and an adjacent inside edge of one of the wooden intermediate deck boards;

positioning a plurality of spaced apart support blocks between the cargo layer and the base layer and forming a gap therebetween for receiving a lifting member; and

positioning a plurality of nail plates between the respective ends of the pair of wooden connector boards and the respective ends of the pair of wooden end deck boards, with each nail plate comprising

a first surface comprising a plurality of projections extending outwards therefrom and embedded into the end of one of the wooden connector boards, and

a second surface opposite the first surface and contacting the end of one of the wooden connector boards, and

a backstop extending within the gap area between the inside edge of each wooden end deck board and an adjacent inside edge of one of the wooden intermediate deck boards, with the

backstop having an edge that is parallel to and contacting the inside edge of one of the wooden end deck boards to absorb an impact to an outside edge thereof.

12. A method according to Claim 11 wherein the plurality of projections comprise rounded tips.

13. A method according to Claim 11 wherein the plurality of projections is arranged in rows and columns.

14. A method according to Claim 13 wherein the rows and columns are spaced apart to substantially cover the first surface of the nail plate.

15. A method according to Claim 11 wherein each nail plate is stamped from a single metal sheet.

16. A method according to Claim 11 further comprising using a plurality of fasteners to couple the pair of spaced apart wooden connector boards and the pair of spaced apart wooden end deck boards to the plurality of support blocks, with at least a portion of the plurality of fasteners penetrating through the nail plates.