WHAT IS CLAIMED IS:

1. A precast wall having an integrated wall structure constructed by pouring concrete between precast panels, the precast wall comprising:

an outer panel and an inner panel spaced apart at a distance and facing each other;

a plurality of truss connection members connecting the outer panel and the inner panel;

rail members buried in the outer panel and the inner panel, respectively, and connected to the truss connection members,

wherein the truss connection members include horizontal members spaced apart at a distance and horizontally connecting the rail members and inclined members respectively connecting the rail members in an oblique direction between one horizontal member and another horizontal member of the horizontal members; and

coupling members respectively coupled one surface of a corresponding rail member, of the rail members connected to the truss connection members, in a longitudinal direction,

wherein the coupling members have a structure, with both end portions being bent in the same direction, and threads being formed on the both end portions.

2. The precast wall according to claim 1, wherein the

rail members comprise extension members extending in longitudinal directions and buried in the outer panel and the inner panel and a plurality of link members connected to the extension members.

3. The precast wall according to claim 2, wherein the link members have a bent shape, such that each of the truss connection members is joined to one surface of a corresponding link member among the link members, and each of the coupling members is coupled to the corresponding link member associated with a corresponding horizontal member of the horizontal members.

4. The precast wall according to claim 3, wherein each of the coupling members penetrates through the corresponding link member from a position opposite the truss connection members and is coupled to one surface of the corresponding link member by bolt-nut fastening.

5. The precast wall according to claim 4, wherein the outer panel is formed higher than the inner panel to provide an outer wall of the wall structure.

6. The precast wall according to claim 4, further

comprising lifting plates disposed on upper free ends of the outer panel and the inner panel, such that lifting cables are connected to the lifting plates,

wherein a lifting plate of the lifting plates, protruding upward from the inner panel, forms a stepped portion between one portion of the lifting plate and an upper end of the inner panel.

7. The precast wall according to claim 4, wherein a precast slab is placed on the upper free ends of the outer panel and the inner panel, and in-situ concrete is poured simultaneously into a central space between the outer panel and the inner panel and onto the precast slab.

8. The precast wall according to claim 1 or 4, further comprising lower connection members fastening the lower ends of the outer panel and the inner panel to a foundation, thereby allowing the outer panel and the inner panel to resist wind load or impact load.