



FIG. 1 (Prior Art)

10

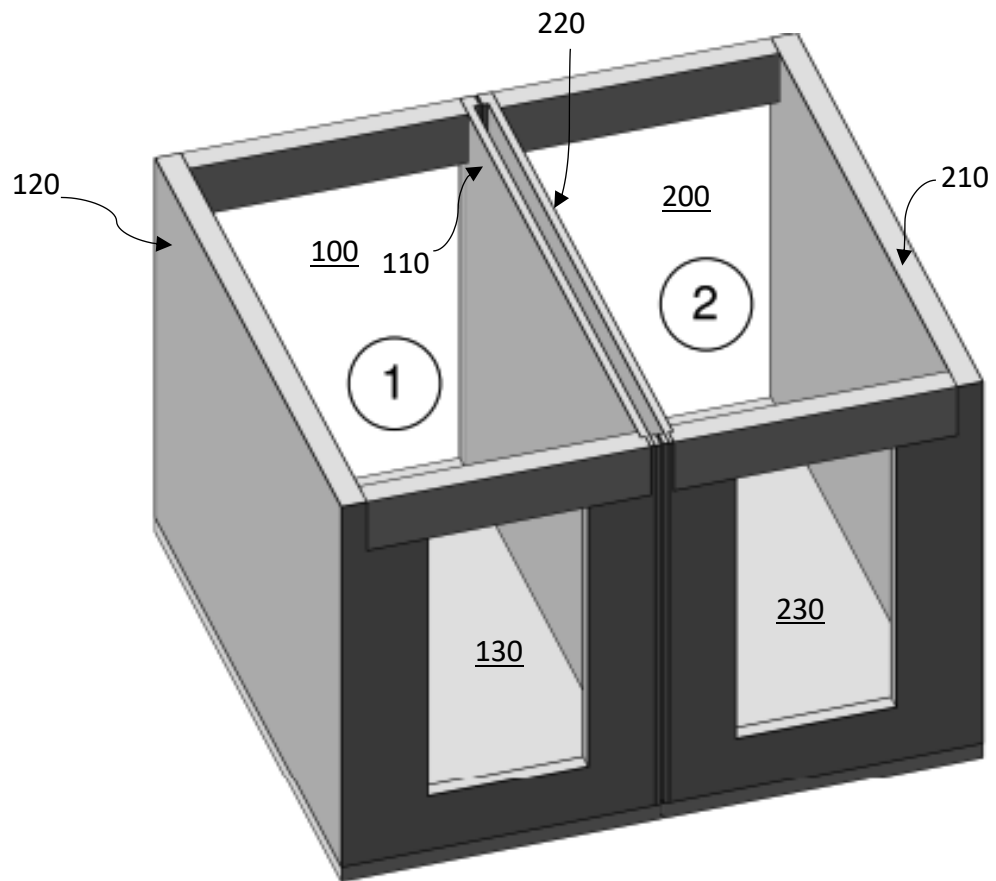


FIG. 2

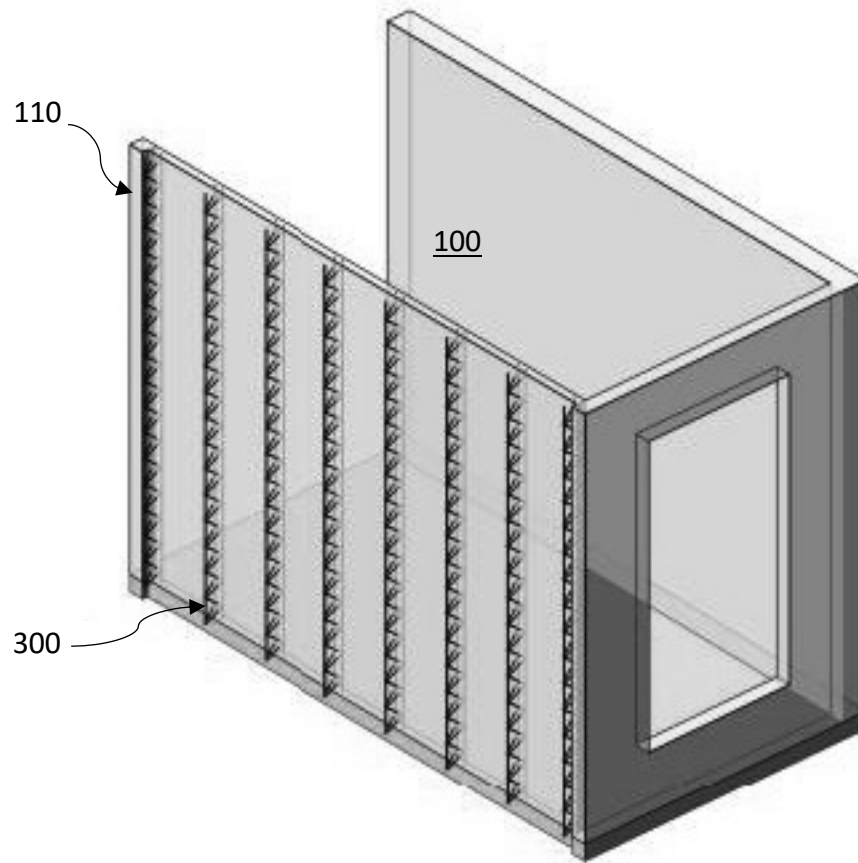
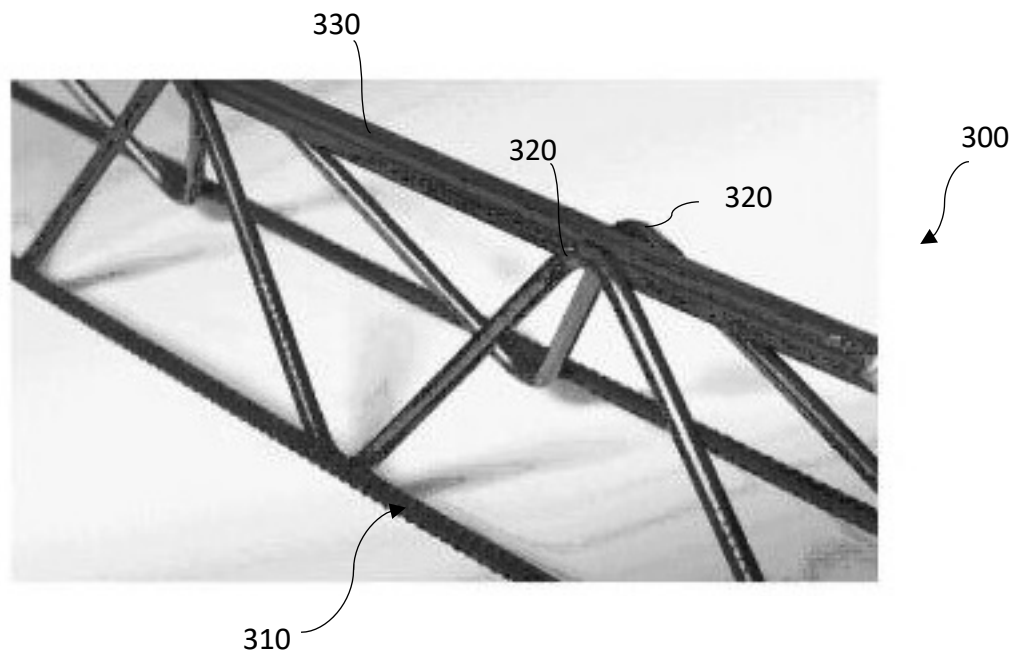


FIG. 3

**FIG. 4**

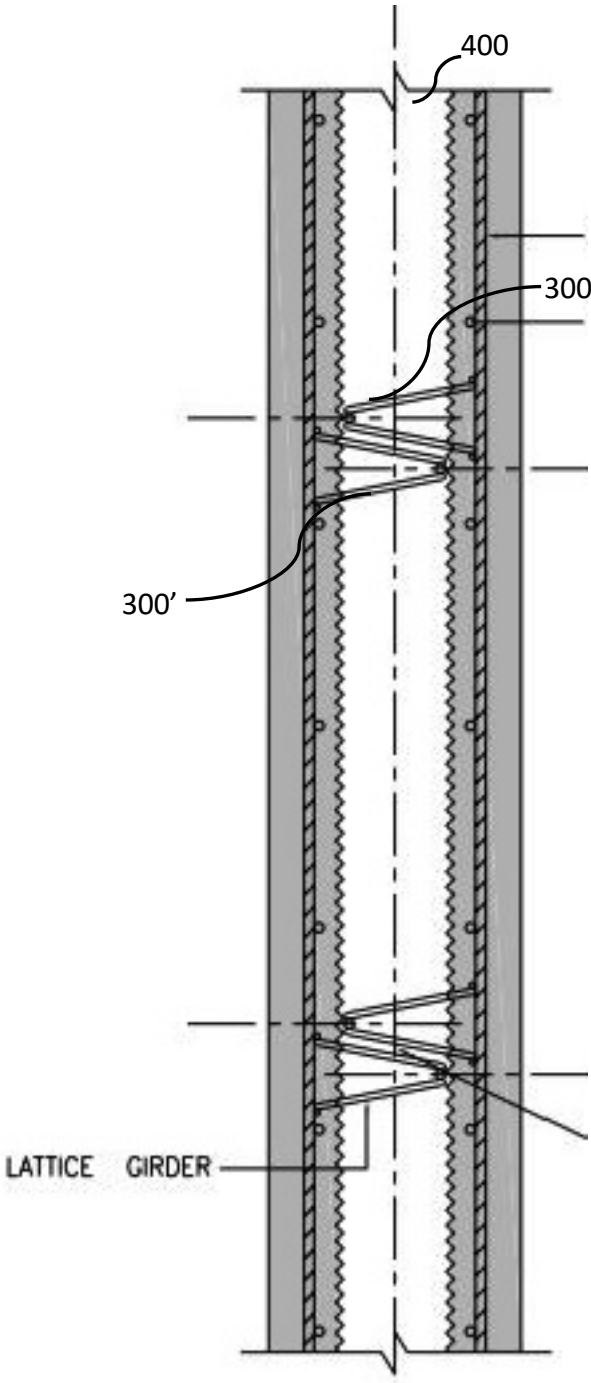


FIG. 5

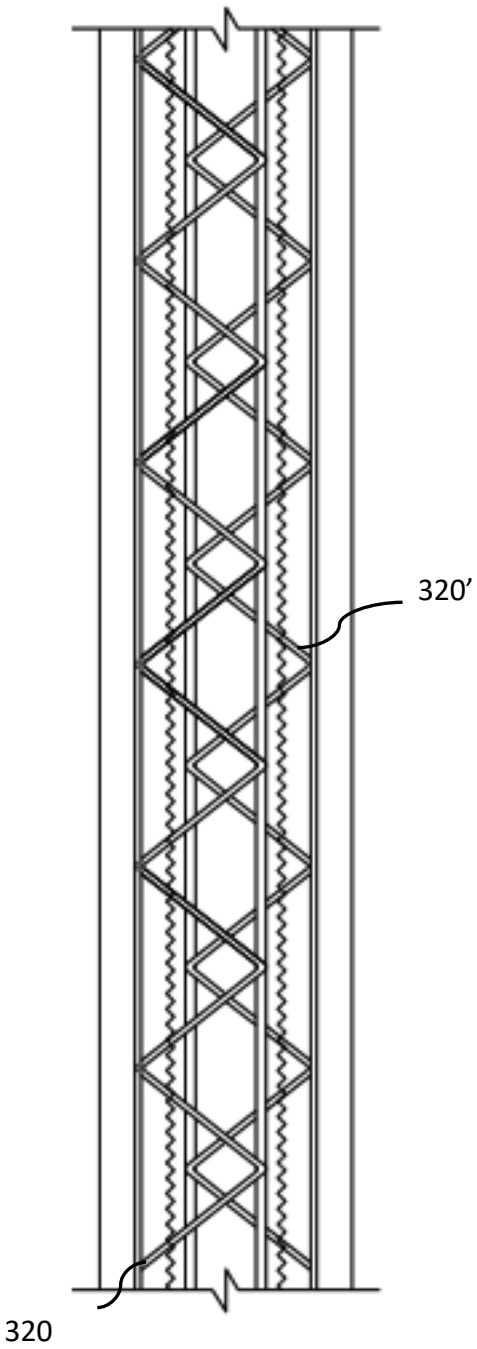


FIG. 6

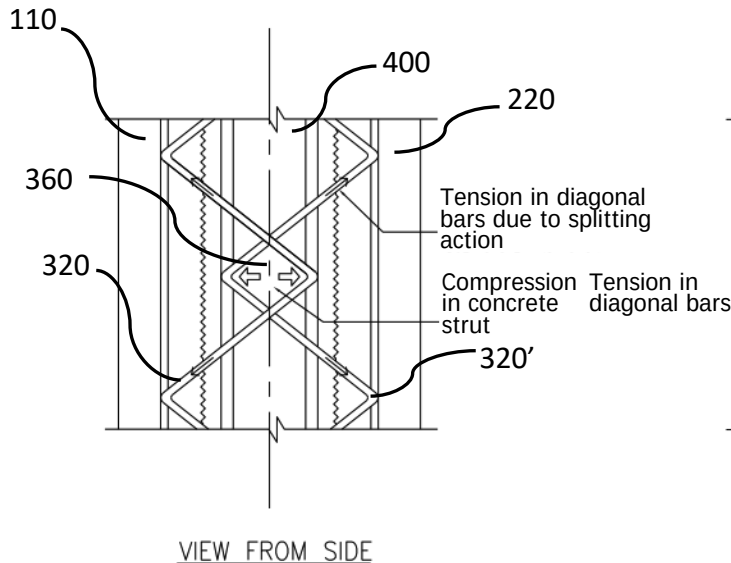


FIG. 7A

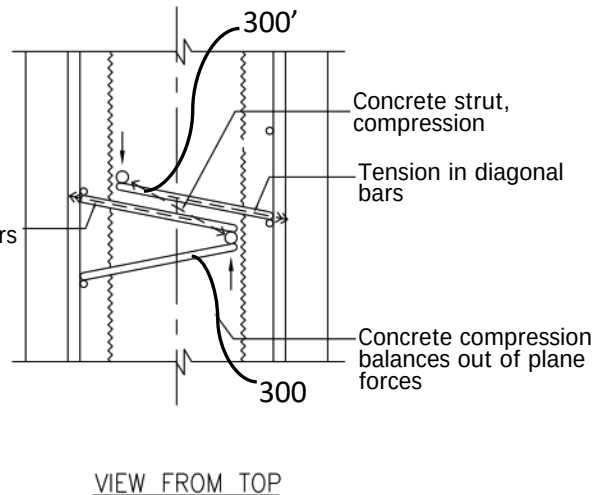
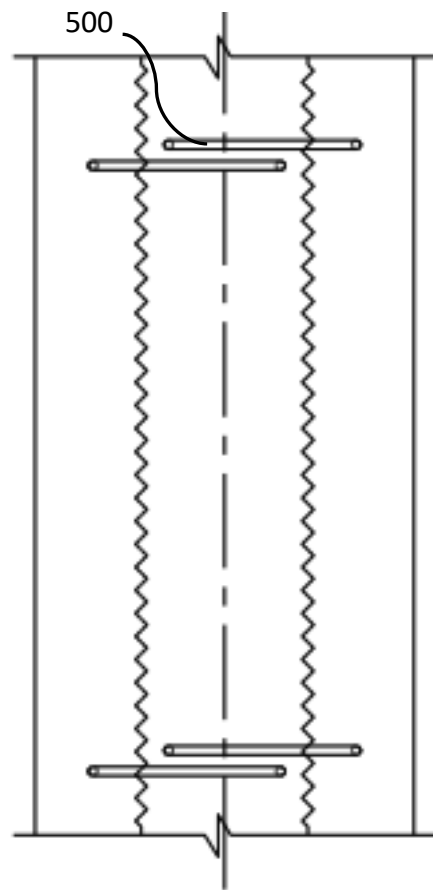
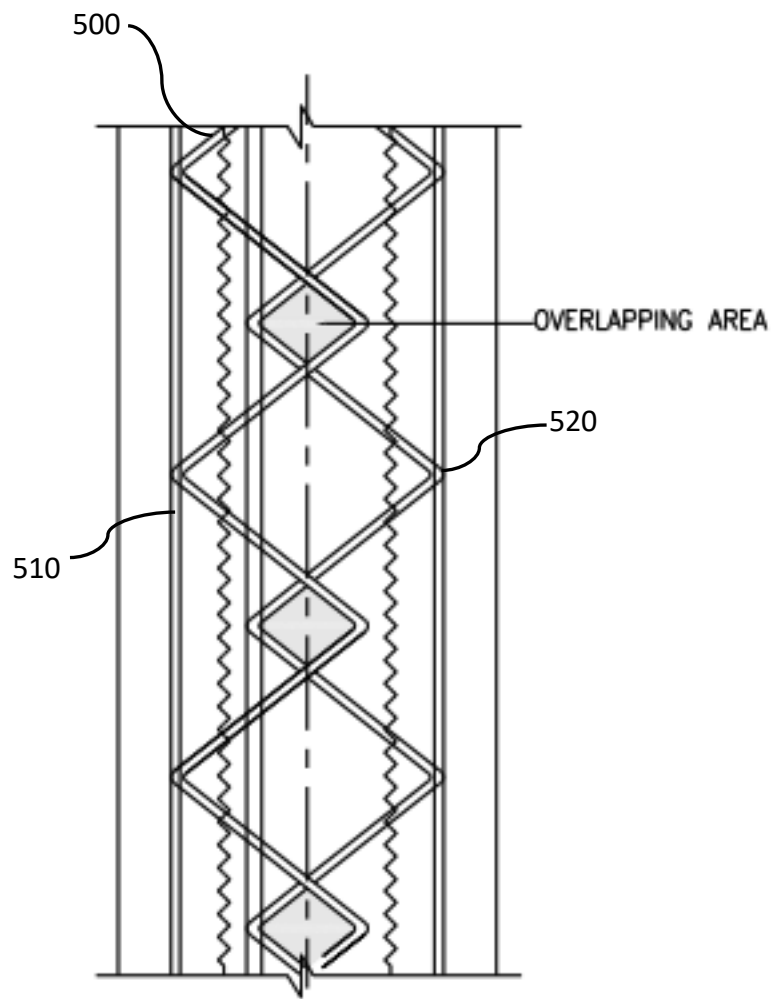


FIG. 7B



VIEW FROM TOP

FIG. 8A



VIEW FROM SIDE

FIG. 8B

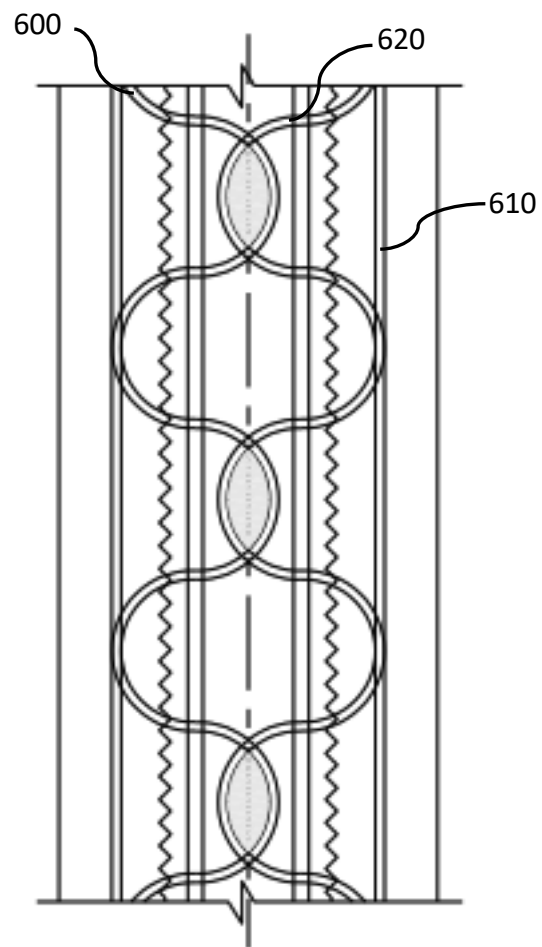


FIG. 9

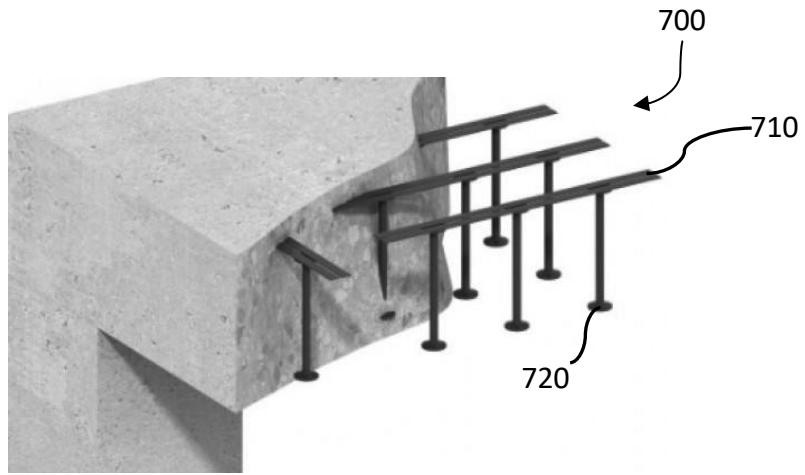


FIG. 10

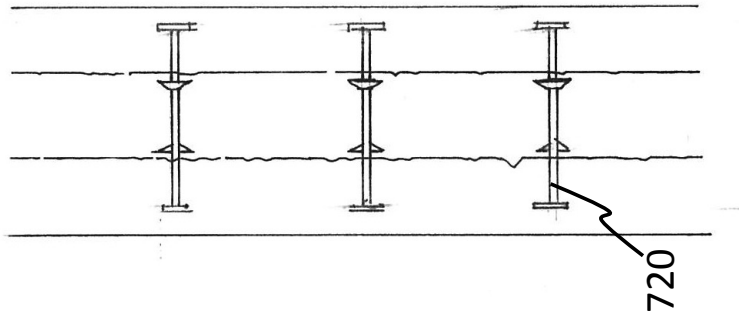


FIG. 11B

VIEW OF SHEAR STUDS FROM SIDE

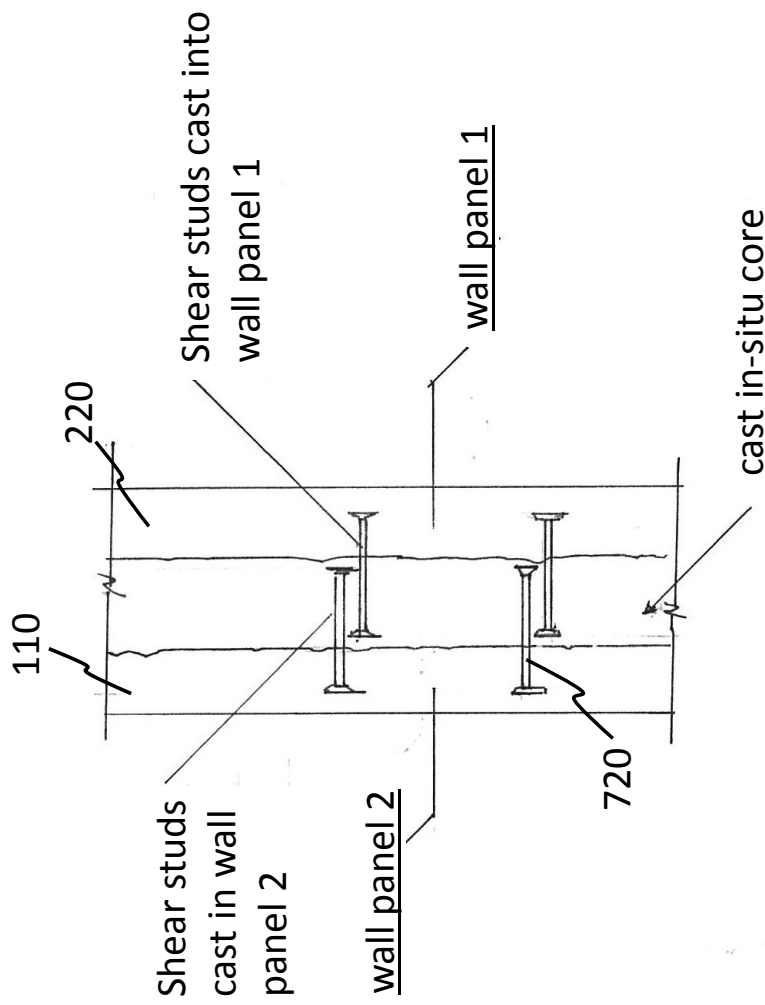


FIG. 11A

BLOW UP VIEW OF SHEAR STUDS FROM TOP

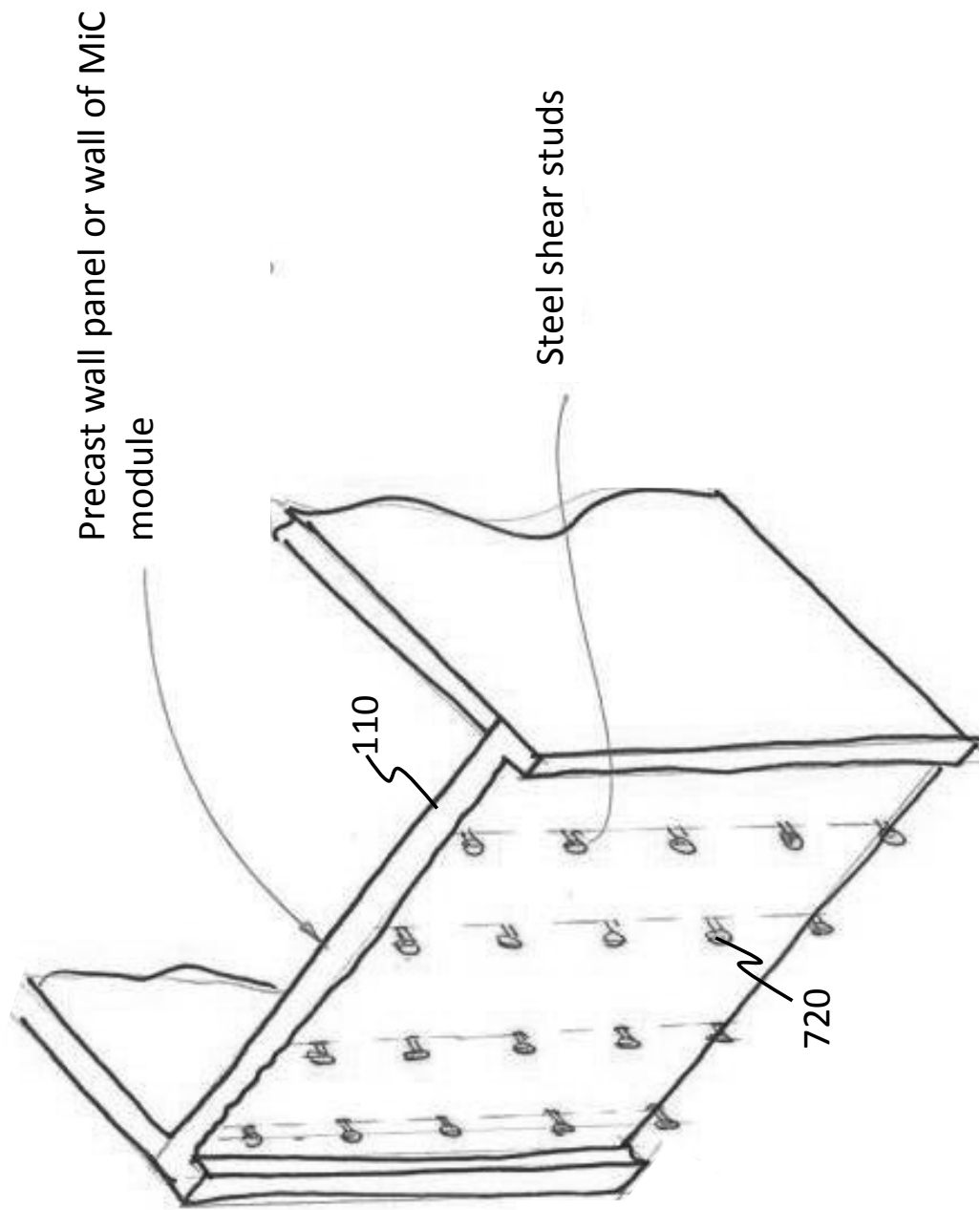
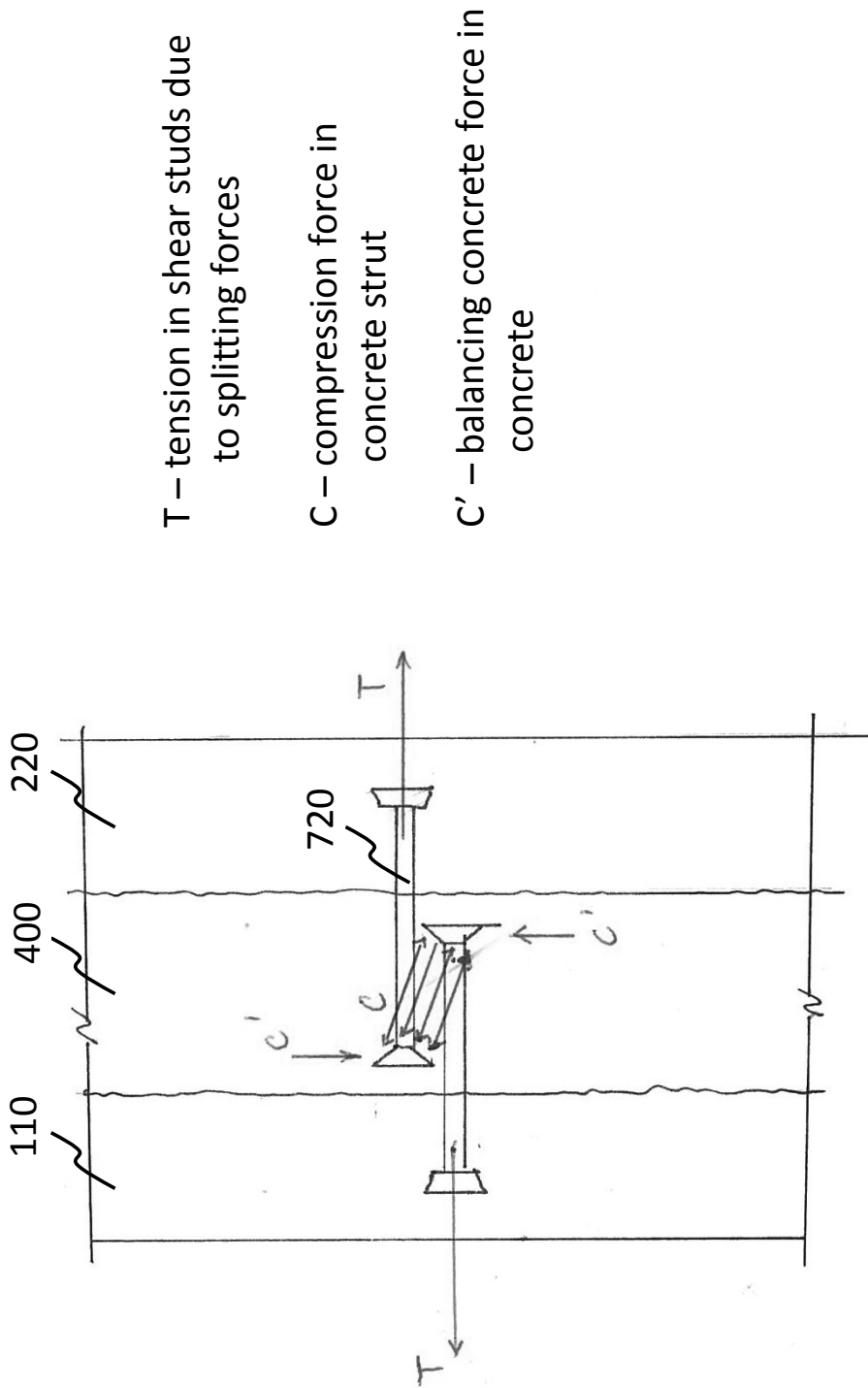


FIG. 12



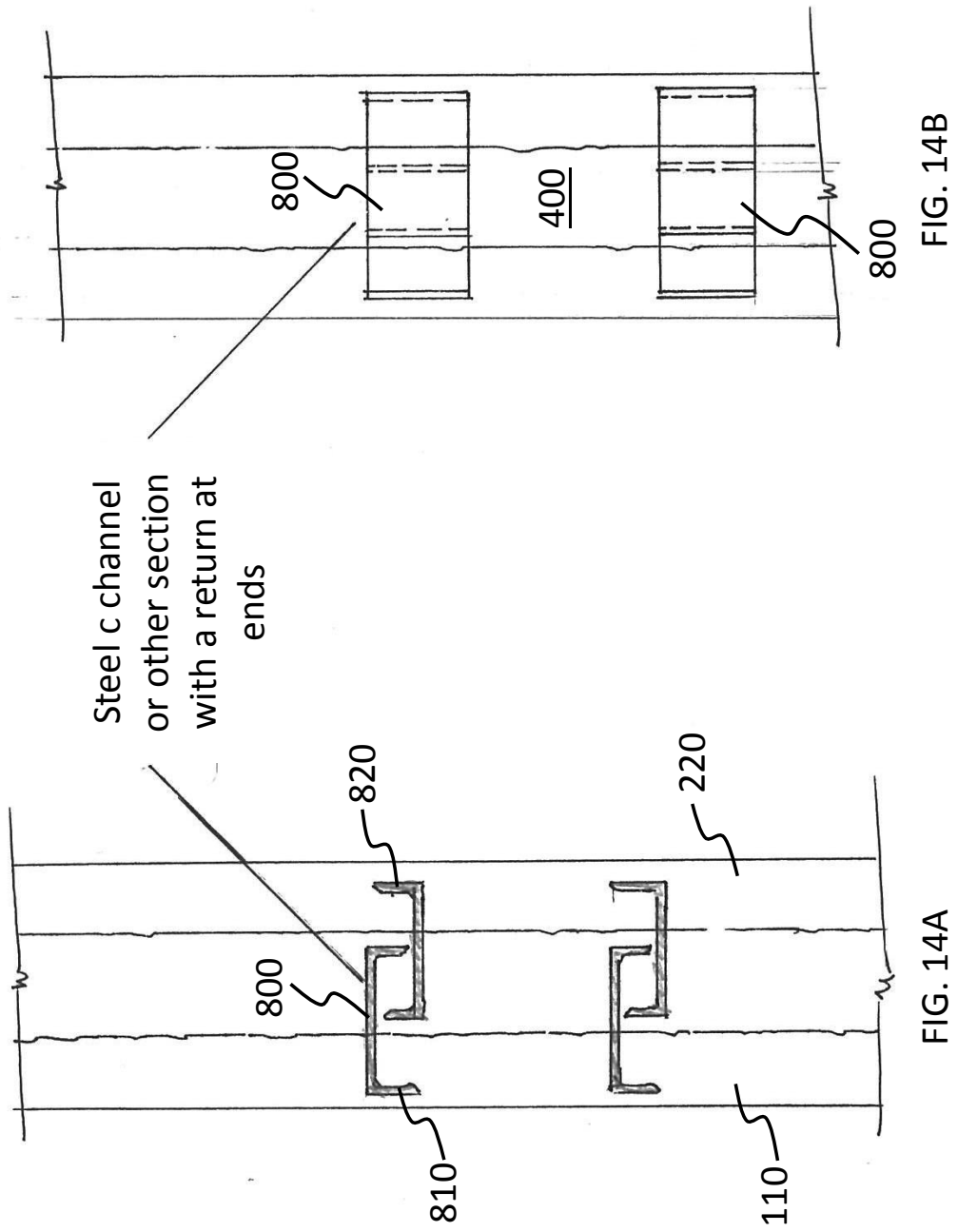
T – tension in shear studs due to splitting forces

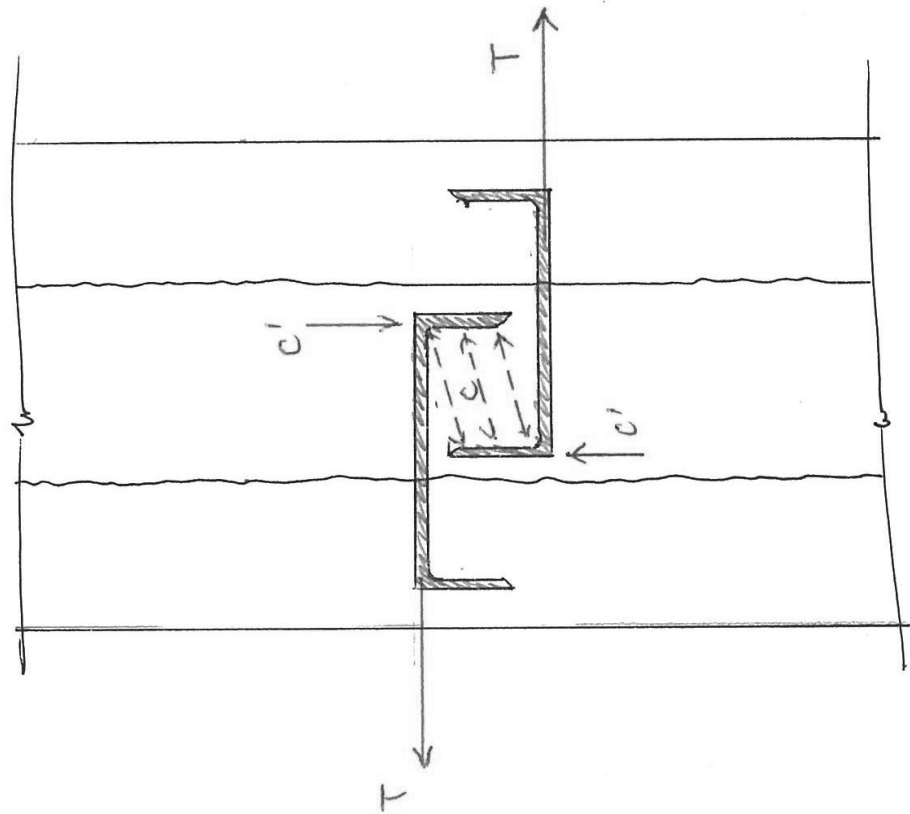
C – compression force in concrete strut

C' – balancing concrete force in concrete

STRUCTURAL ACTION OF OVERLAPPING SHEAR STUDS

FIG. 13





T – tension in steel plate due to splitting force

C – compression in concrete strut against return part of steel section

C' – balancing force in concrete

STRUCTURAL ACTION

FIG. 14C

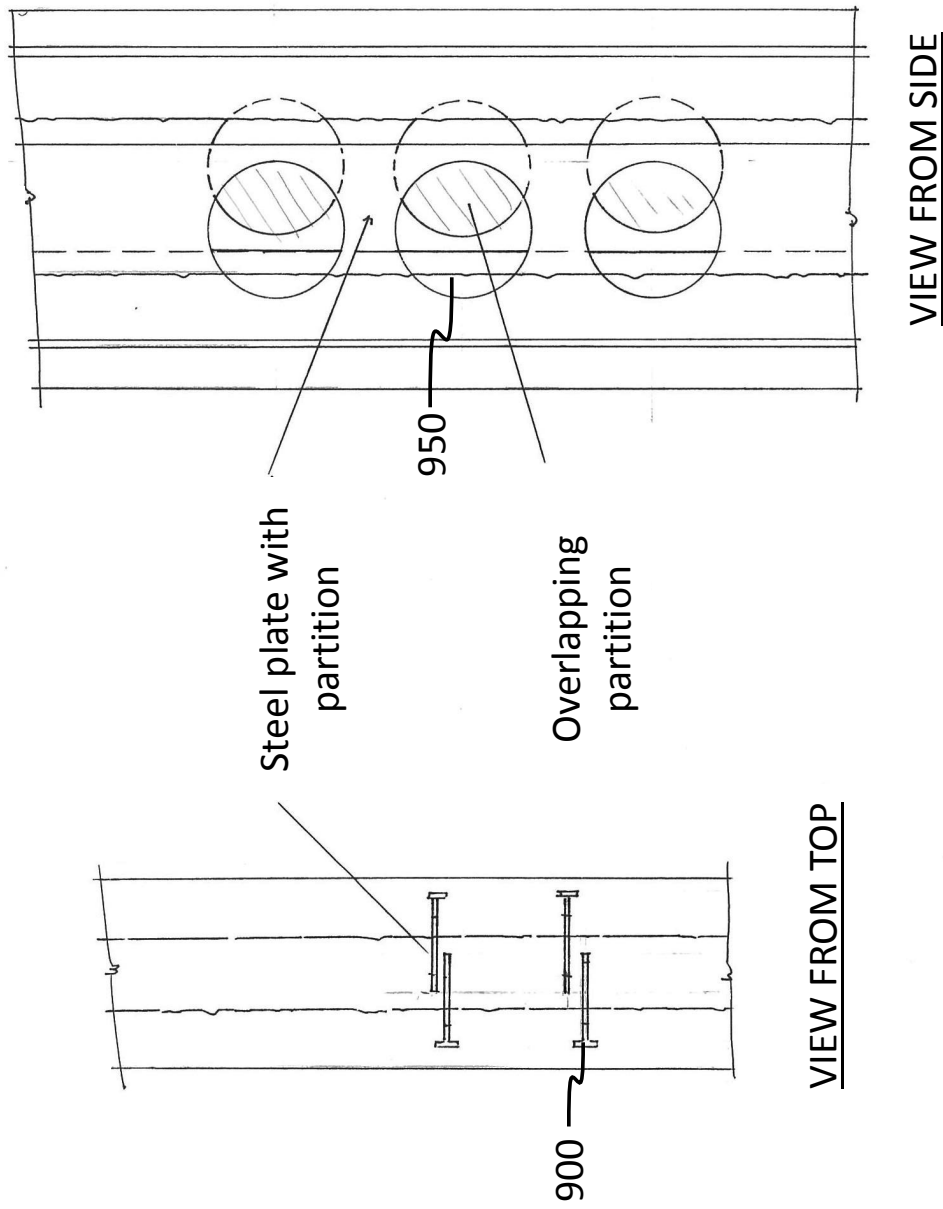
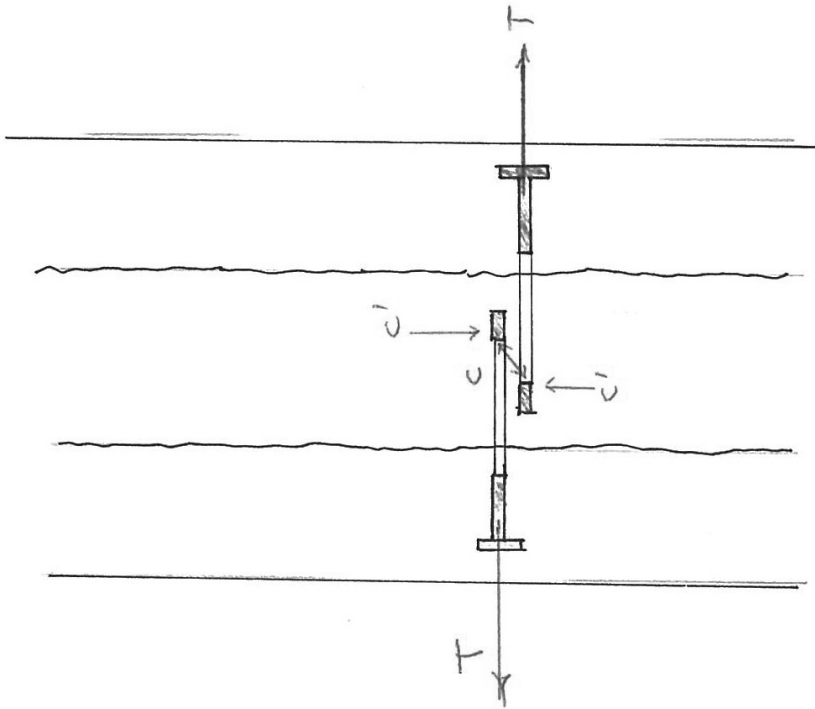


FIG. 15A

FIG. 15B

- T – tension in steel plate due to splitting force
- C – compression in concrete strut against edge of perforation
- C' – balancing force in concrete



STRUCTURAL ACTION OF 2 PERFORATED PLATES PLACED SIDE BY SIDE

FIG. 15C

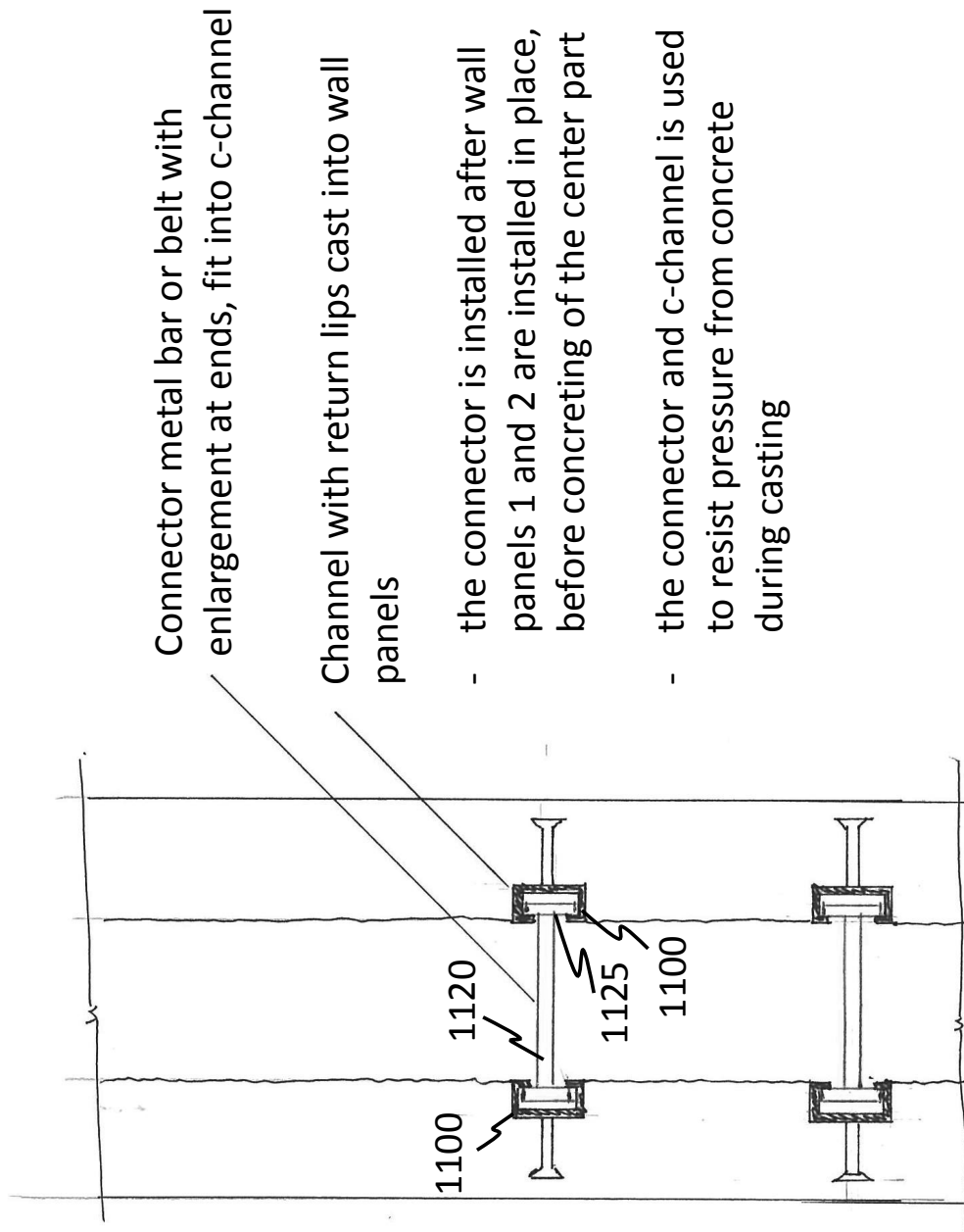


FIG. 16A

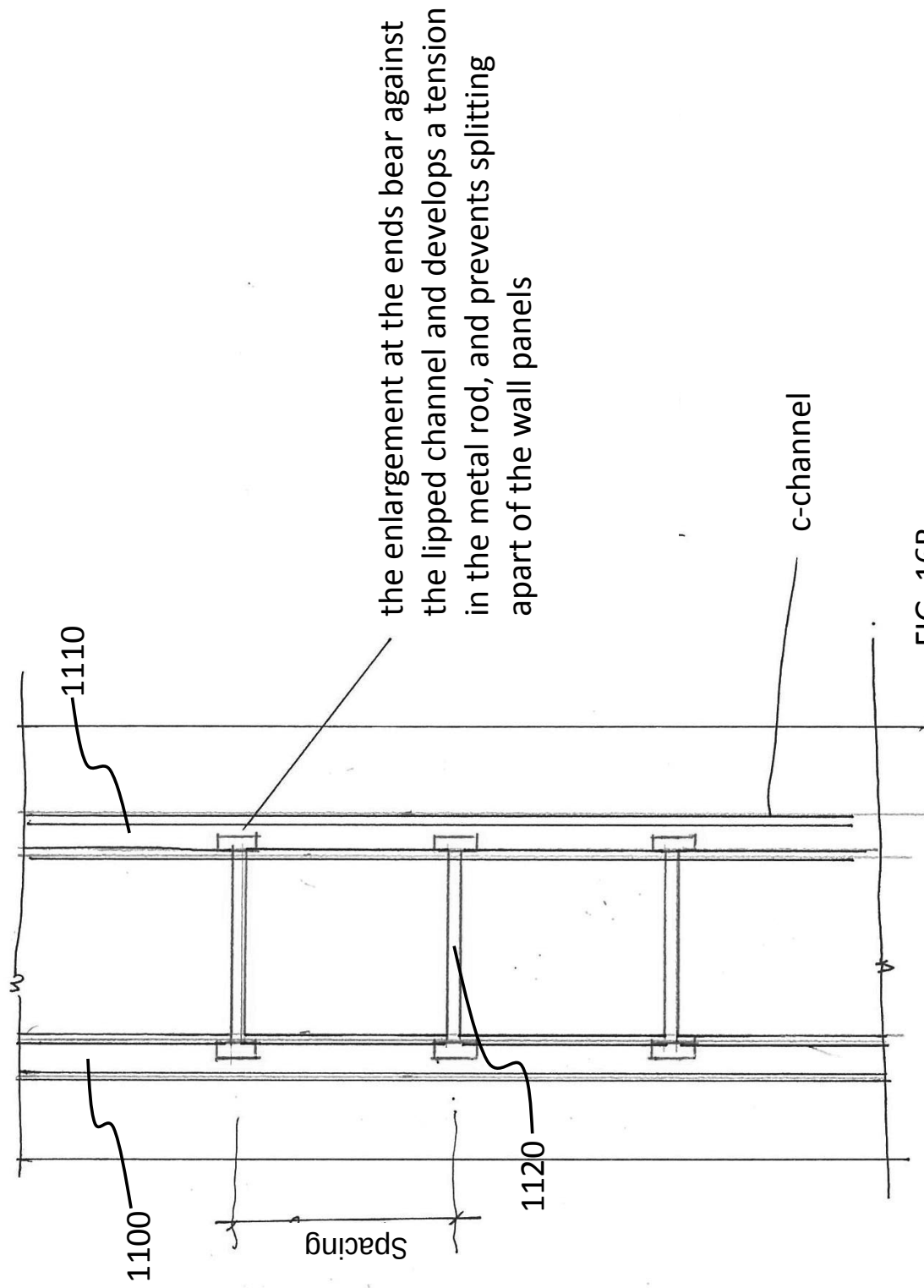


FIG. 16B

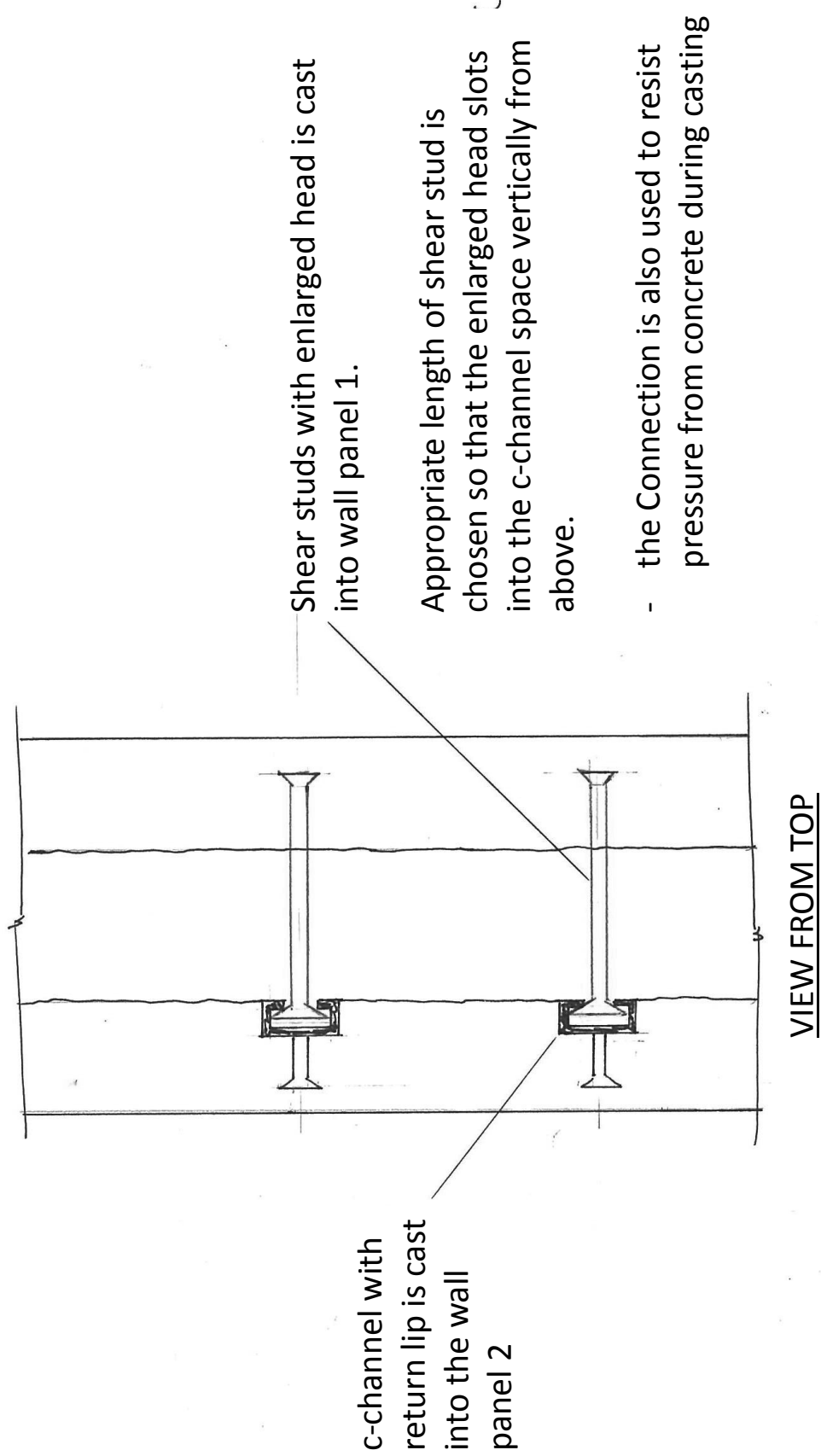


FIG. 17A

The enlargement at the ends bear against the lipped channel and develops tension in the shear stud, and prevents splitting apart of the wall panels

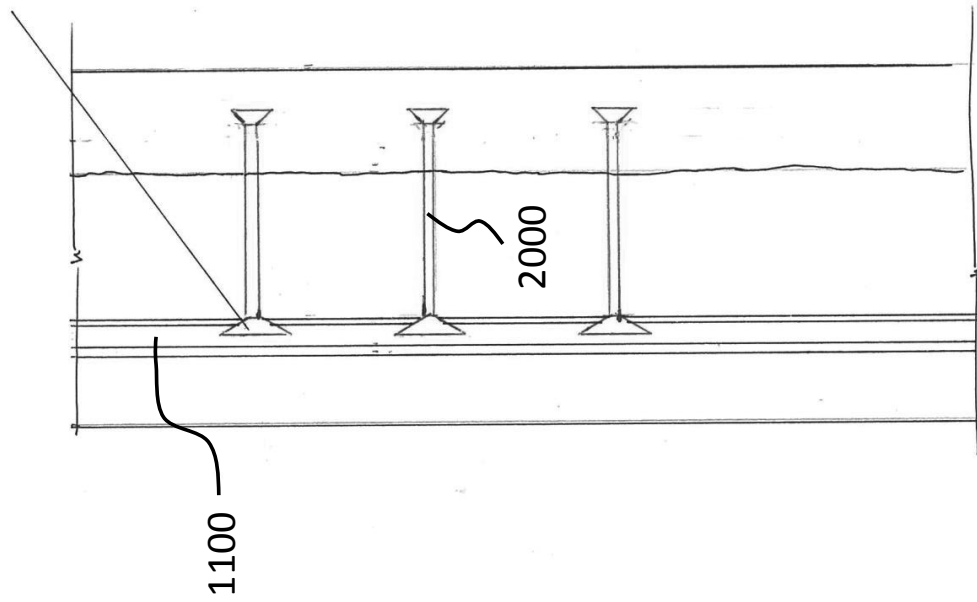


FIG. 17B

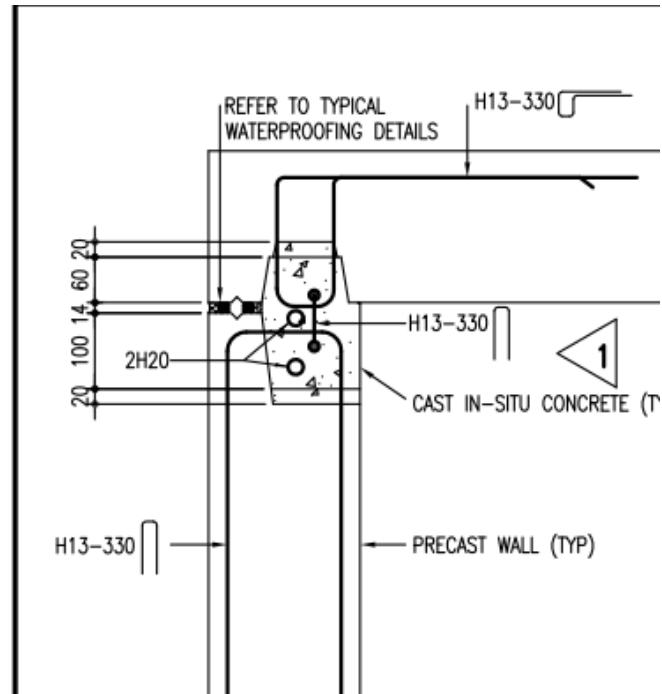


FIG. 18 (PRIOR ART)

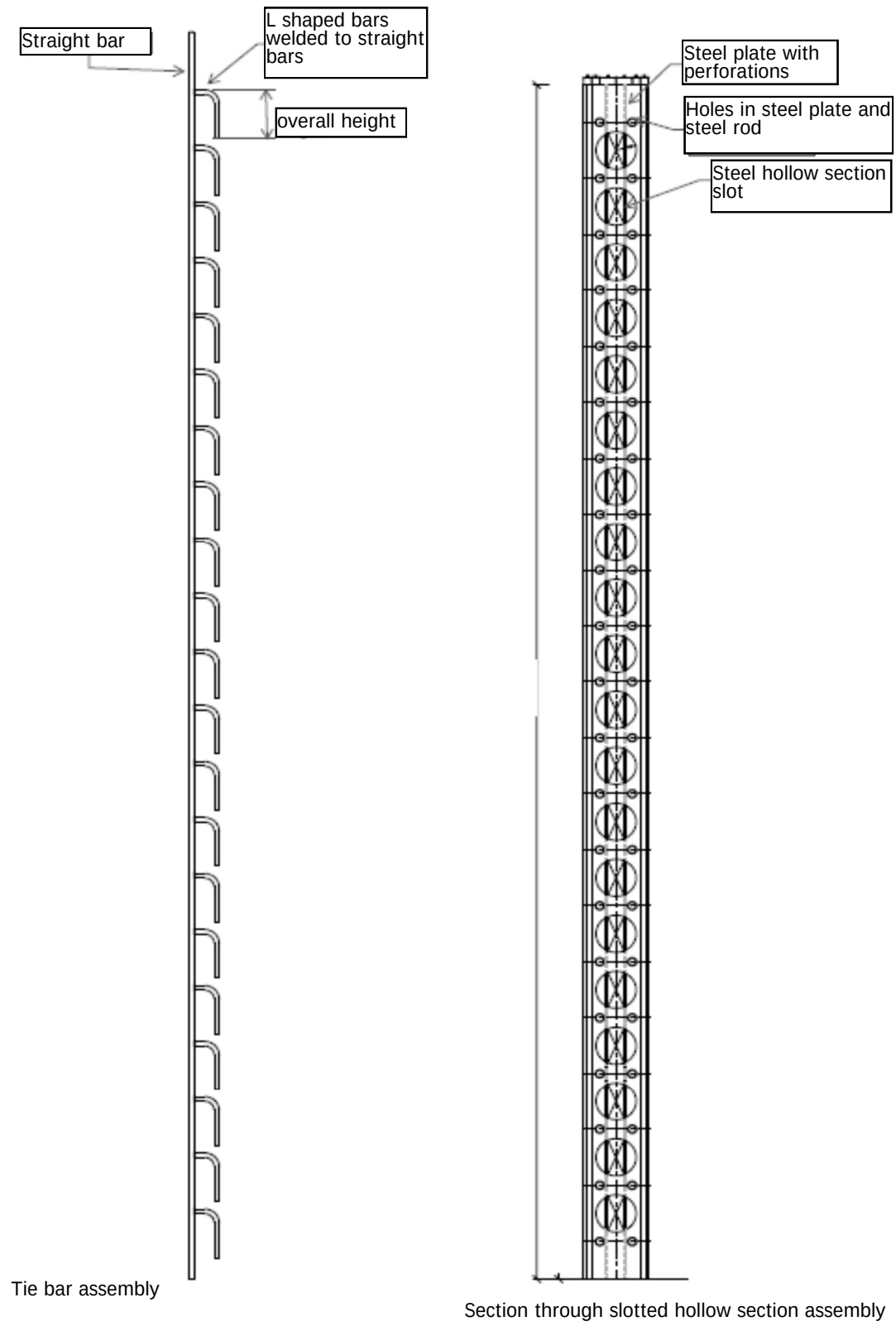


FIG. 19

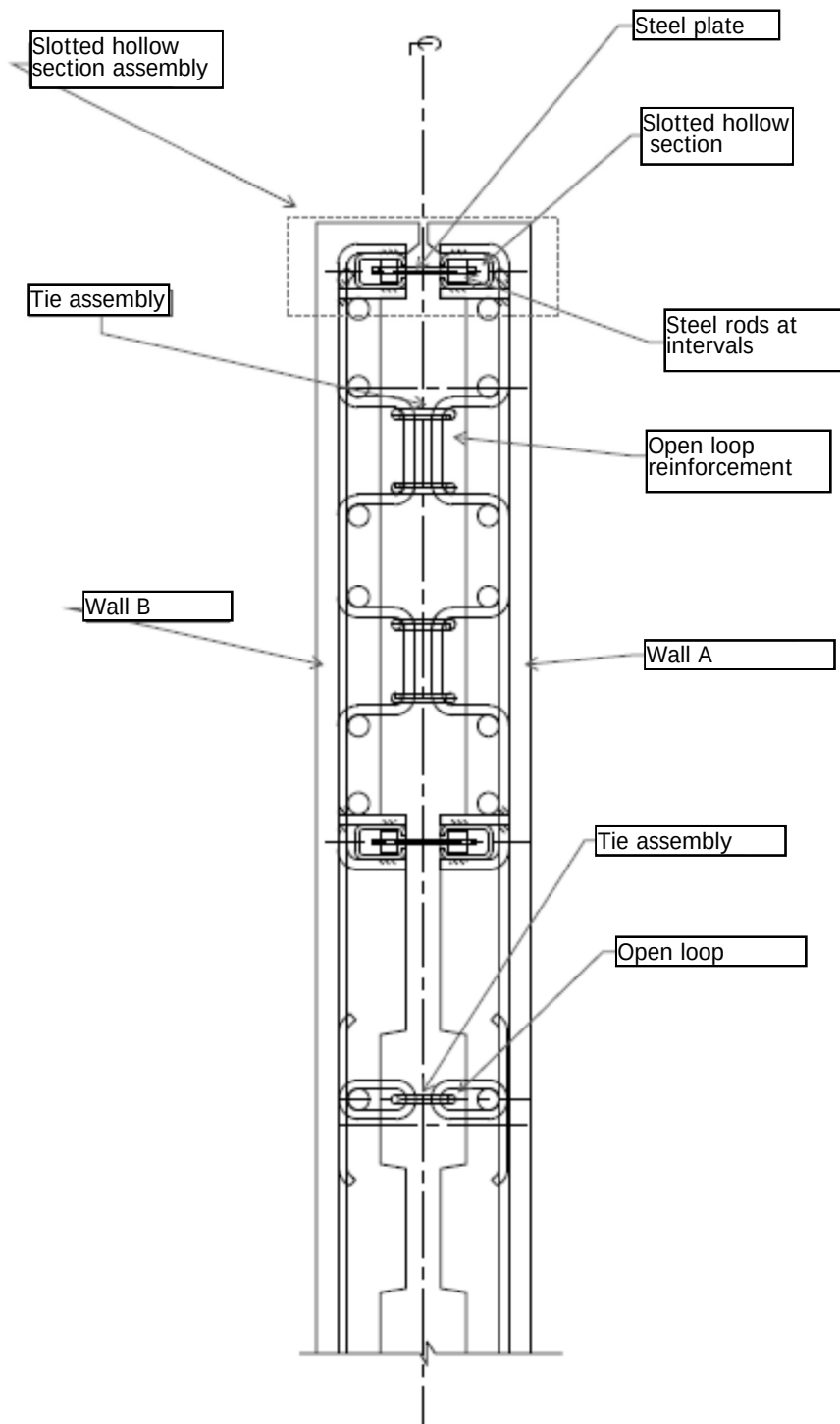


FIG. 20