

CLAIMS

What is claimed is:

1. A two-piece fastener for attachment to a panel, comprising:
a retainer adapted to be received within a hole in a panel, said retainer having a shank
5 with peripheral gripping means for engaging a wall of the panel hole, the retainer further
having and a central through-hole; and
an insert having multiple self-clinching features of successively increasing diameter
adapted for attachment to the retainer by insertion into the retainer through-hole causing
deformation of a retainer through-hole wall by one or more of the self-clinching features.
- 10 2. The device of claim 1 wherein the insert has a flange at one end immediately adjacent a
self-clinching feature of greatest diameter.
3. The device of claim 2 wherein the insert has a threaded through-bore.
4. The device of claim 1 wherein the retainer gripping means are longitudinal knurls.
5. The device of claim 2 wherein the insert has an elongate stud which extends upwardly
15 from the insert opposite the flange.
6. The device of claim 1 wherein the retainer has a head of enlarged diameter at one end
from which the shank extends.
7. The device of claim 6 assembled to the panel which is rigidly clamped between the
retainer head and the insert flange by direct contact with opposite sides of the panel between
20 them.
8. The device of claim 1 wherein the retainer and insert are metallic.
9. The assembly of claim 7 wherein the panel is non-metallic.
10. The assembly of claim 7 wherein each self-clinching feature comprises a land and an
undercut.
- 25 11. The assembly of claim 10 wherein the retainer central through-hole wall defines a
cylinder.
12. The assembly of claim 10 wherein the insert is attached to the retainer by displacement
of retainer material by at least one of the lands into at least one of the undercuts.