

Title (en)

JOINER, ANCHOR BOLT, ROAD RIVET, LINE RIVET, AND POINT RIVET

Title (de)

VERBINDER, ANKERBOLZEN, NIET FÜR STRASSEN, LINIEN UND PUNKTE

Title (fr)

FIXATION, BOULON D'ANCRAGE, RIVET DE TYPE ROUTIER, RIVET EN LIGNE ET RIVET EN POINT

Publication

**EP 0882855 A4 20000202 (EN)**

Application

**EP 97944153 A 19971017**

Priority

- JP 9703749 W 19971017
- JP 33747496 A 19961203
- JP 1181997 A 19970106
- JP 15924397 A 19970602

Abstract (en)

[origin: WO9824993A1] Improvements to a joiner used in mounting stone to stone, concrete, and asphalt and mounting panel or the like to stone, an anchor bolt for mounting and securing of a fixture and a box or the like to a wall surface, a road rivet, a line rivet, a point rivet and the like installed on road for prevention of traffic accident. A joiner comprising a left joint member including an insertion plate having a semi-circular shape, formed with a plurality of slits and provided with a protective frame, and a joint plate having a bolt and nut mounted in an insertion hole, and a right joint member comprising an elliptical-shaped insertion plate and a joint plate secured perpendicularly to the insertion plate; an anchor bolt formed at one end thereof with an integrally molded semi-circular insertion plate and having a nut releasably threaded onto the other end thereof; a joiner comprising a flat member, of which connection is provided continuous to an anchor formed to have a substantially T-shape, and a T-shaped member composed of a connection and an upright portion connected to the flat member; a road rivet provided with a semi-circular anchor portion, which is provided on an underside of a reflective portion attaching thereto a reflective plate and is formed to be semi-circular shaped; a road rivet, in which the reflective portion has a flattened trapezoidal shape; a road rivet comprising a cylindrical portion provided with a reflective portion and mounted to a base, and a cross-shaped anchor provided on an underside of the base; a metallic joiner comprising an insertion portion formed with upper and lower bend pieces and provided continuous to an end of an anchor portion having a semi-circular shape; a line rivet comprising an anchor portion formed with a plurality of through holes and provided on an underside of an elliptical-shaped exposed portion; and a point rivet provided with a plurality of through holes in a round-shaped exposed portion.

IPC 1-7

**E04F 13/14**

IPC 8 full level

**E01F 9/011** (2006.01); **E01F 9/06** (2006.01); **E01F 9/677** (2016.01); **E04F 13/08** (2006.01)

CPC (source: EP KR)

**E01F 9/553** (2016.02 - EP KR); **E01F 9/677** (2016.02 - EP KR); **E01F 9/685** (2016.02 - EP KR); **E04F 13/0853** (2013.01 - EP KR)

Citation (search report)

- No further relevant documents disclosed
- See references of WO 9824993A1

Cited by

WO03058150A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**WO 9824993 A1 19980611**; EP 0882855 A1 19981209; EP 0882855 A4 20000202; KR 19990082063 A 19991115

DOCDB simple family (application)

**JP 9703749 W 19971017**; EP 97944153 A 19971017; KR 19980705785 A 19980728