Claims

[Claim 1] A rail damper mounting apparatus, comprising:
a)a clipping device adapted to clip onto a rail; and
b)a mounting device adapted to allow an oscillator to secure thereto;
wherein the mounting apparatus forming a first clipping point and a second clipping point located above a plane defined by foot tips of the rail on two sides of the rail, and a third clipping point below the plane, when the rail damper mounting apparatus is installed to the rail;
wherein the clipping device comprises a rail web contact member and a rail foot contact member; the rail web contact member forming the first clipping point and the second clipping point above the plane at a foot and a web of the rail respectively, when the rail damper mounting apparatus is installed to the rail; the rail foot contact member forming the third clipping point below the plane at the foot of the rail;
wherein the rail web contact member has a side edge in a curved shape that faces the web of the rail when the rail damper mounting apparatus is installed to the rail; and
wherein the rail web contact member is formed as a single piece with the rail foot contact member; the side edge forming the first and second clipping points when the rail damper mounting apparatus is installed to the rail.

[Claim 2] The rail damper mounting apparatus of claim 1, wherein the rail web contact member is further formed as a single piece with the mounting device, where the side edge at least partially follows the contour of an oscillator installed to the mounting device.

[Claim 3] The rail damper mounting apparatus of claim 1, wherein the first and second clipping points are located on the side edge at substantially the same radial distance from a rotating center defined by an intersection of two lines respectively normal to tangential lines at the first and second clipping points.

[Claim 4] The rail damper mounting apparatus of claim 1, wherein the rail foot contact member contains a slot for receiving the foot of the rail from a side direction; the third clipping point formed between a bottom face of the foot of the rail and the slot when the rail damper mounting apparatus is installed to the rail.

[Claim 5] The rail damper mounting apparatus of claim 1, wherein the third clipping point is located at the bottom face of the foot of the rail when the rail damper mounting apparatus is installed to the rail.

[Claim 6] The rail damper mounting apparatus of any one of claims 1 to 5, wherein the mounting device has a plate shape; the mounting device adapted to allow two oscillators to secure thereto at two sides of the plate shape.

[Claim 7] The rail damper mounting apparatus of any one of claims 1 to 3, wherein the rail damper mounting apparatus is adapted to be connected to a similar rail damper mounting apparatus on an opposite side of the rail by an extension arm.

[Claim 8] A rail damper system comprising:
a) a plurality of rail damper mounting apparatus according to any one of claims 1 to 6 that are installed to a railway; and
b) an oscillator installed to each said rail damper mounting apparatus;
wherein the plurality of rail damper mounting apparatus is positioned along a longitudinal direction of a rail, and/or positioned symmetrically on rail of the railway.