

SPECIFICATION

Mounting Girder for the Plates of a Wall or Ceiling Lining

The present invention relates to a mounting
5 girder for the plates of a wall or ceiling lining.

Many forms of mounting girder for the plates of
a wall or ceiling lining have been proposed but
few of them are simple to manufacture and have
sufficient strength, for example, to support, in
10 addition to the wall or ceiling lining, material such
as insulating material placed above or behind the
lining.

It is now proposed, according to the present
invention, to provide a mounting girder for the
15 plates of a wall or ceiling lining, said girder being
of a cross-section having a central V-shape or U-
shape portion and outwardly directed flanges,
each flange being provided on its side facing
away from the V-shape or U-shape central portion
20 with holding lugs each of such a shape as to have
first and second ends each able individually to
hold a respective side of a plate whereby such a
plate can have one side held on the first end of
one said lug and an opposite side held on the
25 second end of another said lug, said lugs being
punched and bent out of the plane of the flanges
along an axis parallel to the axis of the girder, the
punchings being arranged substantially at the
centre of the width of the flanges to occupy about
30 half of the width of the flanges, and being bent
out of the flanges on that side of the lugs near to
the central portion of the cross-section.

Such a construction has the advantage that
there is sufficient flange surface available on each
35 side of the holding lugs that the flange surface
retains sufficient strength not to be deformed
during the punching process. The strength of the
flange surface is also sufficient when the girder is
simultaneously used as a holder for heat or sound
40 insulating materials and these materials are
placed on the flange surfaces.

Advantageously, the punched holding lugs
occupy from 40% to 55% of the width of the
flanges.

45 It is also proposed, according to the invention,
for the spacing between adjacent holding lugs to
be less than the width of the standard lining plate
and for at least two holding lugs to have their
outer portions, relative to one another, spaced by
50 the width of a standard lining plate so as to
receive such a lining plate thereon. A standard
lining plate is normally of a width of 8 to 10.5
centimetres.

Additional connecting holes may be provided
55 in the flanges of the girder for insertion of
connecting elements with which adjacent girders
can be connected with each other.

Desirably, the holding lugs are of mushroom-
shaped cross-section.

60 In order that the invention may more readily be
understood, the following description is given,
merely by way of example, reference being made
to the accompanying drawings, in which:—

Figure 1 is a side elevation of one embodiment
65 of girder according to the invention;

Figure 2 is a front view of the girder of Figure
1; and

Figure 3 is a top view of the cut sheet from
which the girder of Figure 1 is bent.

70 Referring now to the drawings, the girder 1 is
profiled axially symmetrically and has a central U-
shaped portion, the free edges of the U-section
being bent outwardly to form horizontal flanges 2.
From the flanges 2 are punched out mushroom-
75 shaped holding lugs 3 which are bent down, the
bends being nearer the centre of the cross-
section. On these holding lugs there may be
suspended wall or ceiling panels which have
inturned rims at their side edges. The mushroom-
80 shaped lugs 3 each have a curved side portion,
one of which will engage under the inturned rim
on one side of the panel and a similar portion of
another lug can engage under the inturned rim on
the other side of such a panel.

85 For this purpose, the spacing between the lugs
is less than the width of a standard panel plate,
that is about 8 to 10.5 centimetres, and the
spacing between the outer edges of two lugs is
equal to such a standard plate width.

90 As can be seen from Figure 3, the flange
portions 2 have initially punched out therefrom
apertures 5 and after these have been punched
out, a punch line 4 is formed to produce the
remainder of the mushroom-shaped panel. The
95 final punching operation involves bending down
along the line 6 which, as mentioned above, is
nearer the central portion of the cross-section.

By providing the initially punched out apertures
5, when the lugs are punched out, no ridges are
100 formed on the sheet edges which would lead later
to deformation of the holding lugs when the latter
are bent out, or which would render the
subsequent suspension of the panels or plates
into the holding lugs more difficult.

105 In order to ensure sufficient rigidity of the
flanges 2 on each side of the punchings for the
holding lugs, these punchings are arranged
substantially in the centre of the flanges and are
so dimensioned that they occupy about half or
110 less than half of the flange width, preferably
between 40 and 55% of the width.

Holes 7 are provided for the insertion of
connecting elements by which adjacent girders
can be connected with each other if necessary.

115 Claims

1. A mounting girder for the plates of a wall or
ceiling lining, said girder being of a cross-section
having a central V-shape or U-shape portion and
outwardly directed flanges, each flange being
120 provided on its side facing away from the V-shape
or U-shape central portion with holding lugs each
of such a shape as to have first and second ends
each able individually to hold a respective side of
a plate whereby such a plate can have one side
held on the first end of one said lug and an
125 opposite side held on the second end of another
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said lug, said lugs being punched and bent out of

the plane of the flanges along an axis parallel to the axis of the girder, the punchings being arranged substantially at the centre of the width of the flanges to occupy about half of the width of the flanges, and being bent out of the flanges on that side of the lugs near to the central portion of the cross-section.

5 2. A mounting girder according to claim 1, wherein the punchings occupy from 40% to 55% of the width of the flanges.

10 3. A mounting girder according to claim 1 or 2, wherein the spacing between two adjacent holding lugs is less than the width of a standard lining plate and wherein at least two holding lugs

15 have their outer portions, relative to one another, spaced by the width of a standard lining plate.

4. A mounting girder according to any preceding claim, wherein the holding lugs are of mushroom-shaped cross-section.

20 5. A mounting girder according to any preceding claim, wherein connecting holes are provided in the flanges for the insertion of elements connecting adjacent mounting girders.

25 6. A mounting girder for the plates of a wall or ceiling lining, said girder being substantially as hereinbefore described, with reference to and as illustrated in the accompanying drawings.

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