APPLICATION FOR A PATENT

G.W. TAYLOR INDUSTRIES LIMITED

We hereby apply for the grant of a Patent for an invention entitled...

IMPROVEMENTS IN AND RELATING TO FASCIAS AND GUTTERS FOR BUILDINGS

Which is described in the accompanying provisional specification.

My address for service is: SANDERCOCK, SMITH & BEADLE, 203 Riversdale Road, Hawthorn, Victoria, 3122, Australia

Dated this 24th day of April, 1979

G.W. TAYLOR INDUSTRIES LTD.

To:

THE COMMISSIONER OF PATENTS

By: Charles Sandcock

(Signature)

SANDERCOCK, SMITH & BEADLE

This form must be accompanied by either a provisional specification (Form 9 and true copy) or by a complete specification (Form 10 and true copy).

AUSTRALIAN-
27 APR 1979
PATENT OFFICE

F. D. Atkinson, Government Printer, Canberra
COMMONWEALTH OF AUSTRALIA
PATENTS ACT, 1952-1969
DECLARATION IN SUPPORT OF AN
APPLICATION FOR A PATENT

In support of the Application made by (a) HARRY EDE TAYLOR

for a patent for an invention entitled:

(b) "IMPROVEMENTS IN AND RELATING TO FASCIAS AND GUTTERS
FOR BUILDINGS"

I/We, (a) HARRY EDE TAYLOR, a British subject

of (c) McLarens Falls Road, R.D.1, Tauranga, New Zealand

do solemnly and sincerely declare as follows:

1. I am/We are the Applicant(s) for the Patent.

2. I am/We are the actual Inventor(s) of the invention (xx when a person other than the Inventor(s) is the Applicant).

The actual Inventor(s) of the invention and the facts upon which I/We am/are entitled to make the Application are as follows:

I/We are the Assignee(s) of the said Inventor(s)

DECLARED at Tauranga

this Thirteenth day of March 1975.

(a) Harry E Taylor
CLAIM 1. A support member for use in the erection and support of a fascia and gutter assembly, comprising an inner part arranged for securement to a support structure below the periphery of a roof of a building, an outer side part with which a fascia member can be engaged and a medial part shaped to receive a gutter channel member into which water from the building roof can flow, said medial part having a bearing portion on which the gutter member base can rest and said bearing portion being adjustable for vertical height to determine the longitudinal fall of the gutter member when engaged with and supported by a plurality of the support members mounted in horizontally aligned relationship.
Name of Applicant: HARRY EDE TAYLOR
G.W.Taylor Industries Limited
Amber Crescent

Address of Applicant: McLauren's Falls Road, R.D.I, Tauranga, New Zealand.

Actual Inventor: Harry Ede Taylor

Address for Service: SANDERCOCK & CO., 7 Illawarra Rd., HAWTHORN,
Victoria, 3122.

Complete Specification for the invention entitled: IMPROVEMENTS IN AND RELATING TO
FASCIAS AND GUTTERS FOR BUILDINGS

The following statement is a full description of this invention, including the best method of performing it known to me:

*Note: The description is to be typed in double spacing, pica type face, in an area not exceeding 9 1/2" in depth and 6 1/2" in width, on tough white paper of good quality and it is to be inserted inside this form.
This invention relates to gutters for buildings, and more particularly relates to fascias and gutter assemblies of metal or plastics materials and the support of such assemblies.

An object of this invention is to provide an improved support member for use with a combination fascia and gutter assembly of the kind referred to and including means for determining the necessary longitudinal fall of the gutter for efficient drainage whilst providing adequate support to such gutter and whilst supporting the fascia in a horizontal position.

Other objects and advantages of the invention will become apparent from the ensuing description.

According to this invention therefore, there is provided a support member for use in the erection and support of a fascia and gutter assembly, comprising an inner part arranged for securement to a support structure below the periphery of a roof of a building, an outer side part with which a fascia member can be engaged and a medial part shaped to receive a gutter channel member into which water from the building roof can flow, said medial part having a bearing portion on which the gutter member base can rest and said bearing portion being adjustable for vertical height to determine the longitudinal fall of the gutter member when engaged with and supported by a plurality of the support members mounted in horizontally aligned relationship.

Further, according to a second aspect of this invention there is provided a combination fascia and concealed gutter assembly comprising a plurality of similar support members.
arranged for securement in generally horizontal aligned relationship on a support structure below the periphery of a roof of a building, a metal or plastics fascia member arranged for engagement with outer edge portions of said secured support members, and a gutter channel member into which water from the building roof can flow arranged for fitment within the support members; each support member having a medial bearing portion on which the gutter member base can rest and said bearing portions being adjustable for vertical height to determine the longitudinal fall of the gutter member when engaged with the support members.

Some preferred aspects of the invention will now be described by way of example and with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a support member in accordance with the invention,

Figure 2 is a sectional view of one preferred fascia and gutter assembly at one of the support members, and

Figures 3 and 4 are fragmentary views illustrating modifications of the support member of this invention.

In the preferred application and forms of the invention, the combination fascia and gutter assembly provides an economical, tidy and pleasing way of finishing roof peripheral edges at the eaves and soffits of buildings, particularly domestic dwellings. Typically such roof structures include inclined rafters 1 with transverse horizontal purlin members 2 supporting the roofing material 3 e.g. metal
or tiled roofing material.

The rafters 1 are terminated short of the roofing material 3 periphery so that such roofing material 3 overhangs the rafters 1 slightly, and the support members (generally indicated by the arrow 4) each include an inner flat vertically disposed plate part 5 which may be provided with pre-formed nail or screw holes 6 and is arranged for nailing or screwing to a rafter end portion, at one side thereof so that a medial vertically disposed support plate part 7 (below the upper edge of the inner end part 5) extends from the secured inner end part 5 in general alignment with the respective rafter 1 for substantially the width of the gutter channel member (generally indicated by the arrow 8) to be utilised with the assembly, and an outer support part 9 for the gutter outer wall 10 and fascia member (generally indicated by the arrow 11) extends integrally from such medial support plate part 7.

To facilitate fitment of the support members 4 and dispense with the need for measuring for correct location, (where the rafters 1 are precut or trimmed with the correct overhang), each support inner end part 5 can be provided with a right angled flange portion 5a above the medial part 7 and forming an abutment to abut a rafter 1 end at the junction between the secured end part 5 and medial support plate part 7. The height of the support member 4 at such junction is also preferably substantially equivalent to the typical depth of a rafter end, the lower edge of the support inner end part 5 can be also inclined to conform with the usual inclination of the lower edge of a rafter 1
in sloping rafter and roof constructions.

In one preferred form of the invention (illustrated in figures 1 and 2 of the drawings) each support member 4 is fabricated from a single piece sheet metal e.g. galvanised steel, copper or aluminium (complementary to the material utilised for the construction of the gutter channel member 8 and the fascia member 9 so that no adverse electrolytic action may be set up between abutting parts of the assembly), and vertical adjustment at such medial support part 7 for determining the correct fall of the gutter channel member 8, whilst providing adequate support thereto, is provided by means of a curved or bendable tab or flap member 12 formed integrally with and extending laterally up and over from the upper edge part of the medial support plate part 7, so that such flap member 12 can be easily further bent or adjusted to the required height (as shown in broken outline in figure 1) to create the required longitudinal fall of the gutter channel member 8.

In an alternative construction (shown by way of example in fragmentary figure 3) and which may be particularly applicable in the case of support members 4 constructed from plastics materials not likely to remain at positions to which bent, it is envisaged that vertical height adjustment means for each member 4 could be provided by having a bearing portion formed by a flat tab or flap 12a extending upwardly from the main medial support part 7 and with a series of horizontal weakened or score lines 12b (one above the other in preferably equal spaced relationship) at any of which portions of the bearing part 12a
can be bent over or severed from the remainder. The provision of a series of weakened or score lines can be of advantage as graduation lines facilitating the obtaining of the correct and evenly graduated fall in the gutter member 8.

It is envisaged that other vertical height adjustment means can be provided, and one other example shown in figure 4 includes a separately formed bearing member 12c secured such as by a bolt or screw 12d to the medial part 7 and through a vertical slot 12e in one or both parts, but the previously described and illustrated curved or bendable tab or flap 12 (or severcable tab 12a) more simply adjusts to the correct height before or after fitting of the gutter channel member 8 and further permits the support member 4 to be easily manufactured from a single piece of metal at relatively low cost.

The support member medial and inner parts 7 and 5 are integral and generally flat and aligned and may be provided with at least one but preferably a plurality of horizontally disposed strengthening ribs 4a (pressed out from one side of a sheet metal construction) and, in the case of sheet metal supports, timber engaging spikes or prongs 6a can be pressed out of the inner end part 5 to facilitate initial location of the support members before final sec-

The outer part 9 of each support member 4 extends integrally from and upwardly beyond the medial support part 7 to provide support to the outer wall 10 of the gutter channel member 8, and to the fascia member 11. Such outer
part 9 may be of upstanding channel formation with a web portion 9a extending normal to the plane of the support member inner and medial parts, 5 and 7, an inner flange portion 9b above the medial support part and an outer flange portion 9c parallel thereto in providing a substantially rigid and strengthened outer support part 9. The fascia member 11 is preferably provided with a medial inwardly directed wide flat longitudinal rib formation 11a (such rib adding strength and a decorative appearance to the fascia member 11) which can lie flat against the outer face of the outer part web portion 9a or be spaced fractionally therefrom by slight projections 9d arranged to engage the upper and lower stronger longitudinal edge parts of such rib 11a. The fascia member 11 has an upper longitudinal edge portion 13 rolled over so that the under edge portion 13a may locate on an upper arcuate inturned edge portion 14 integral with the outer part web portion 9a and extending from an inverted channel portion 15 at the upper end of the web portion 9a and which can locate partially within the rolled formation 13 of the fascia member 11 for secure fitment.

The lower outer edge part aligned with flange 9b and medial part 7 of the support member 4 is provided with an inner stepped formation 16 forming a positive abutment for an inner returned longitudinal edge portion 17 at a lower longitudinal rolled edge part 18 of the fascia member 11 extending inwardly and upwardly to form a combination water channel and finishing bead. Such water channel 7.8 being provided preferably with a plurality of spaced drain apertures or slots 19 (e.g. 1" x 1/8" slots at approximately 12" spacing) whereby any water overflowing from the gutter member 8 or infiltrating between the gutter member 8 outer
wall 10 and the fascia member 11 can be drained therefrom.

The gutter channel member 8 is preferably made so as to be complementary to the support members 4 and fascia member 11 and is preferably of unconventional angular cross-section with substantially flat inner, base and outer walls (designated 21, 22 and 10 respectively) with relatively sharp junctions between such walls and so that the base wall 22 in particular may be supported for a substantial part of its width by the flap member 12 of each support member 4. The inner wall 21 is also arranged to bear against the inner part 5 of each support member 4 (against the flange portion 5a where provided). The outer wall 10 has at least a part which can rest on one or both of the inner edges of the flanged portions 9b and 9c of the support member outer part 9, and an upper edge portion 10a which is turned inwardly and downwardly and then upwardly so as to bear in spring fit against the inner side of the fascia member rolled upper edge portion 13 to minimise the possibility of water creeping between the upper edge of the gutter member outer wall 10 and such fascia member upper rolled edge portion 13. The inturned and downturned portion 10b of the gutter member outer wall 10 forms an outer channel with the upwardly extending edge portion 10a and is preferably provided with a plurality of spaced apertures or slots 20 (e.g. again 1" x 1/8" slots at approximately 12" spacing) so that any water infiltrating between the outer wall upper edge 10a and the fascia member upper rolled edge portion 13 can drain through such apertures 20 into the gutter channel 8a. Preferably also such apertures or slots 20 and the upper edge
of the inclined portion are below the level of the inner
wall upper edge 21a so that such apertures 20 may also act
as overflow apertures 20 through which excess water in the
gutter channel 8a can overflow in the event of excessive
rainfall or gutter blockage so that such excess water
does not overflow the inner wall 21 and adversely affect
the building parts below the roof 3, any water overflowing
through the apertures 20 can be drained from the fascia
member lower apertures 19 in the lower rolled edge portion
18. The junction or corner at the gutter member outer:
wall 10 and base 22 preferably projects below the base 22 to
provide a drip edge 23 to counter capillary action.

The returned inner lower edge portion 17 of the fascia
member 11 preferably also forms an elongate channel directed
towards the building and capable of receiving an edge
portion of a soffit panel 24 which may be inclined under
the rafter end portions (as shown in broken outline) or
supported generally horizontal (as shown in full).

Particular embodiments of the invention have been de-
scribed and illustrated by way of example, but it will be
appreciated that other variations of and modifications to
such embodiments can take place without departing from the
scope of the appended claims.
THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A support member for use in the erection and support of a fascia and gutter assembly, comprising an inner part arranged for securement to a support structure below the periphery of a roof of a building, an outer side part with which a fascia member can be engaged and a medial part shaped to receive a gutter channel member into which water from the building roof can flow, said medial part having a bearing portion on which the gutter member base can rest and said bearing portion being adjustable for vertical height to determine the longitudinal fall of the gutter member when engaged with and supported by a plurality of the support members mounted in horizontally aligned relationship.

2. A support member as claimed in claim 1 wherein the bearing portion is a tab or flap member formed integrally with and extending upwardly from the main medial part of the support member.

3. A support member as claimed in claim 2 wherein the tab or flap member is arranged to be bent laterally of said main medial part.

4. A support member as claimed in claim 2 or claim 3 wherein said tab or flap member is provided with a series of horizontal weakened or score lines at any of which portions of the tab or flap member can be bent over or severed from the remainder.

5. A support member as claimed in any one of the preceding claims and fabricated from a single piece of sheet metal.

6. A support member as claimed in claim 1 wherein the bearing portion is part formed separately from the remainder.
of the support member and is secured to the medial part by means of such as a bolt or screw passing through a vertical slot in at least one of the parts.

7. A support member as claimed in claim 5 wherein timber engaging spikes or prongs are pressed out of the support member inner part.

8. A support member as claimed in any one of the preceding claims wherein the inner and medial parts are generally flat and aligned and provided with at least one horizontally disposed strengthening rib.

9. A support member as claimed in any one of the preceding claims wherein the outer side part extends upwardly from the medial part to provide an outer support for the gutter channel member outer wall, and has upper and lower portions over and with which inturned upper and lower longitudinal edge portions of a metal or plastics fascia member can engage.

10. A support member as claimed in claim 9 and claim 5 wherein the outer side part is of upstanding channel formation with a web portion extending normal to the plane of the support member inner and medial parts and having inwardly directed flange portions, the upper end part of the web portion extending beyond the flange portions and being turned inwardly and downwardly and upwardly to form an arcuate seat for a rolled upper longitudinal edge portion of the fascia member, and the lower end of the outer side part aligned with one flange portion and the medial part extends below the medial part to provide an abutment for a returned lower longitudinal edge portion of the fascia member.
11. A support member for use in the erection and support of a fascia and gutter assembly, arranged and constructed and adapted for use substantially as hereinbefore described with reference to the accompanying drawings.

12. A combination fascia and concealed gutter assembly comprising a plurality of similar support members arranged for securement in generally horizontal aligned relationship on a support structure below the periphery of a roof of a building, a metal or plastics fascia member arranged for engagement with outer edge portions of said secured support members, and a gutter channel member into which water from the building roof can flow arranged for fitment within the support members; each support member having a medial bearing portion on which the gutter member base can rest and said bearing portions being adjustable for vertical height to determine the longitudinal fall of the gutter member when engaged with the support members.

13. A combination fascia and concealed gutter assembly as claimed in claim 12 wherein each support member is the support member according to any one of claims 1 to 11 inclusive.

14. A combination fascia and concealed gutter assembly arranged and constructed substantially as hereinbefore described with reference to the accompanying drawings.

15. The articles, things, parts, elements, steps, features, methods, processes, compounds and compositions referred to or indicated in the specification and/or claims of the application individually or collectively, and any and all combinations of
Dated this 30th day of March, 1976.

G.W. Taylor Industries Limited

HARRY EDD TAYLOR

by his Patent Attorneys

SANDERCOCK & CO.