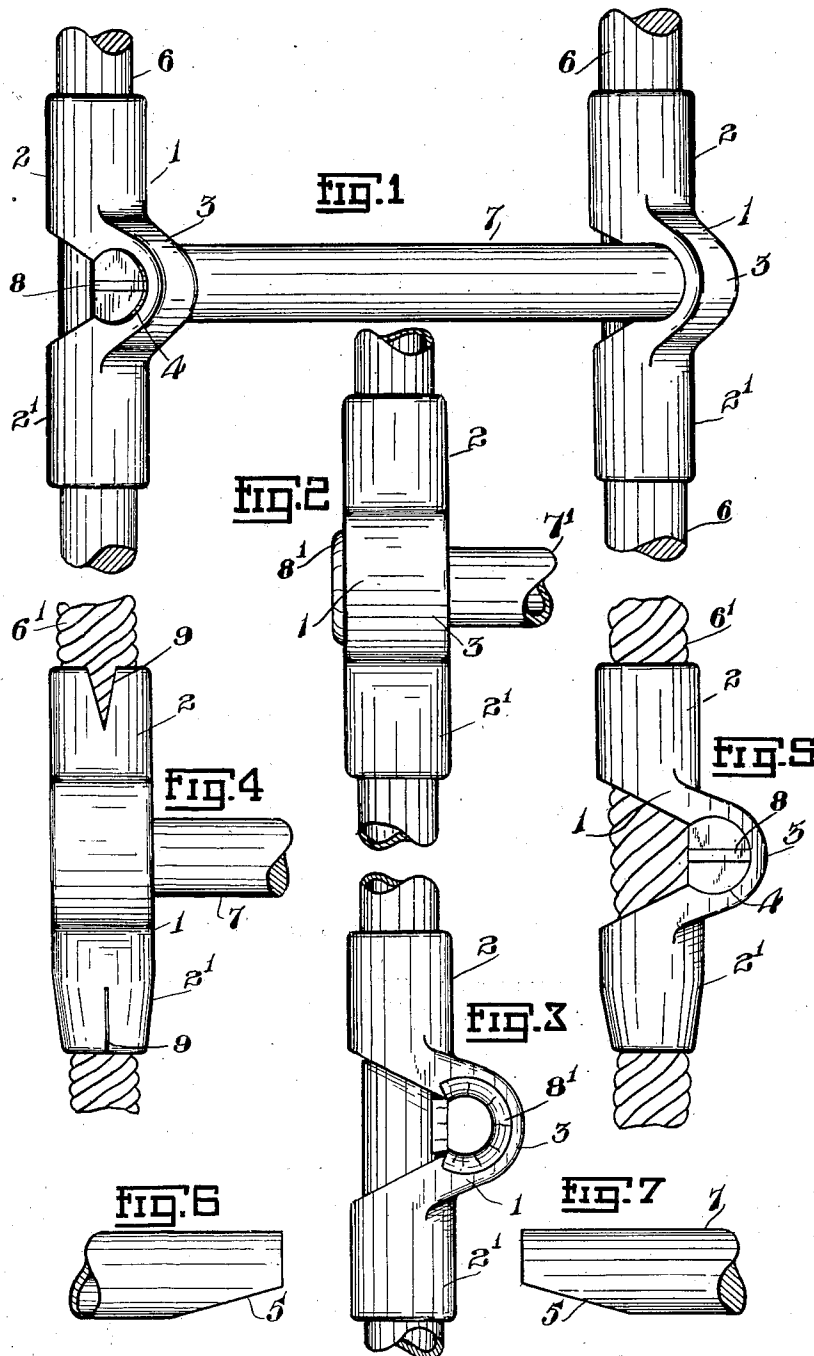


No. 898,286.

PATENTED SEPT. 8, 1908.

A. TOUPIN.
BRACKET FOR BUILDING CONSTRUCTION.

APPLICATION FILED DEC. 7, 1907.



WITNESSES
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BRACKET FOR BUILDING CONSTRUCTION.

No. 898,286.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed December 7, 1907. Serial No. 405,622.

To all whom it may concern:

Be it known that I, AMABLE TOUPIN, of the village of St. Agathe, in the Province of Manitoba, Canada, carpenter, have invented
5 certain new and useful Improvements in Brackets for Building Construction, of which the following is the specification.

My invention relates to improvements in a device to be used for connecting horizontal
10 supporting braces or connections to uprights or standards, and while it is more especially intended and designed for use in holding the vertical and horizontal members of ladders yet it is applicable in other structures.

15 The object of the invention is to provide a bracket of the above mentioned character which shall be simple and inexpensive in construction, strong and durable, and so made that it may be readily applied and as
20 easily removed.

Another object of the invention is to so construct the device that it is applicable no matter what the material used in connection with it, be it wood, iron, or rope, and a further
25 object is to avoid the use of screws and such like for holding the portions together, the parts being arranged and constructed as hereinafter more particularly described.

Figure 1 is a perspective view of a portion
30 of a ladder fitted with my invention, the vertical and cross members being of wood. Fig. 2 is a front elevation of a vertical and horizontal member secured together by my bracket, the members being of metal such as
35 gas pipe. Fig. 3 is a side elevation view of the parts, as in Fig. 2. Fig. 4 is a front elevational view of my bracket, as applied to rope vertical, and wooden cross members. Fig. 5 is a side elevational view of the parts,
40 as shown in Fig. 4. Figs. 6 and 7 are detailed side views showing the manner in which the horizontal members are tapered at the ends, the one being of iron and the other of wood.

45 In the drawings like characters of reference indicate corresponding parts in each figure.

The reference numeral 1 represents my improved bracket, which is formed with two
50 hollow side extensions 2 2', the openings being in vertical alinement and of a cross sectional area sufficient to receive the vertical supporting members as hereinafter more particularly described. The wings 2 2' are inter-connected by a loop or band 3 which is
55 displaced wholly to the side of the vertical

or main members. The opening 4 formed in the loop passes horizontally or at right angles to the opening in the members 2 2' and when the vertical standards are in position
60 the side face of the standard passes across and cuts off a portion of the otherwise complete circular loop as clearly shown in Figs. 3 and 5. This band is of sufficient width to give support to the horizontal members
65 which are held by the bracket to the verticals.

In the drawings I have shown several modifications all embodying my invention, slight deviations being made, dependent on
70 the materials being held together. All the cross or horizontal arms have their ends tapered on one side as at 5, Figs. 6 and 7, the object of this being to give an increased frictional surface when placed against the up-
75 rights and to allow for a wedging effect.

Referring to Fig. 1, 6 are vertical uprights or standards formed from wood, preferably cylindrical in shape, and solid in form. 7 is a horizontal or cross member formed of
80 wood and having its ends tapered on one side as at 5, Fig. 7. In applying my bracket it is slipped on the upright 6 and the cross arm 7 is inserted with the end in the opening in the band 3, the flat or tapered side 5 being against
85 the face of the upright. The cross arm is forced or hammered in, binding with the vertical member. To further insure against the arm pulling out, the end is slit, and a wedge 8 forced into the opening, spreading the end.
90 The frictional contact between the vertical and cross member is ample to support several hundred pounds.

Figs. 2 and 3 show a deviation where iron cross arms 7' are used, requiring that the
95 cross arms be flattened the same as if wood were used, but to hold the arm from pulling out it is flattened and tapered at the end and flanged back as at 8' against the side face of the loop. This prevents any lateral movement,
100 and the frictional contact between the members is sufficient to support the weight carried by the cross arms as aforesaid.

Figs. 4 and 5 show a further modification where rope is used for the verticals 6' and
105 wood for the cross arms. In this case the cross arm is held in position in the same manner as described and shown in Fig. 1, but the extensions 2 2' are slit at 9 and, when the rope is inserted, squeezed to the rope, as shown
110 clearly in the lower extension 2', Fig. 4. This is sufficient to hold the brackets from

sliding when the ladder or such like is being used.

I wish to draw attention to the fact that I do not require to use screws or like contrivances for holding the members together solidly. I am aware that brackets having bearings disposed at right angles to each other are now in use but in these the members fitting into the bearings are absolutely free, the one from the other, and means such as the screws have to be used for holding the members in place within the bearings or sleeves.

What I claim as my invention is:

1. In a device of the class described the combination with the vertical upright and the bracket sleeved thereon, and having a laterally extending supporting band, of cross arms having their end side faces flat and tapered and fitting in the opening between the band and the upright, as and for the purpose specified.

2. In a device of the class described the combination with the upright and the bracket sleeved thereon, said bracket consisting of two extensions looped together by an outstanding band, of a cross arm having a portion of its face at the end, flattened, and tapering toward the end, the cross arms fitting

within the opening bounded by the outstanding band and the upright, as and for the purpose specified.

3. In a device of the class described the combination with the upright and the bracket sleeved thereon and formed from two extensions inter-connected by an outstanding band, of a cross arm having a portion of its face at the end flattened, and tapering toward the end and means for preventing withdrawal of the arm, as and for the purpose specified.

4. In a device of the class described the combination with the upright and the bracket sleeved thereon and formed from two extensions inter-connected by an outstanding band, of a cross arm having a portion of its face at the end flattened and tapering toward the end, and a wedge to prevent withdrawal of the arm, as and for the purpose specified.

Signed at Winnipeg, in the Province of Manitoba, this 23rd day of October, 1907.

AMABLE TOUPIN.

Witnesses:

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