123,887

PATENT SPECIFICATION

Application Date, Apr. 30, 1918. No. 7211/18.
Complete Left, Oct. 30, 1918.
Complete Accepted, Mar. 13, 1919.

PROVISIONAL SPECIFICATION.

Improvements in and relating to Temporary Buildings and Shelters.

I, PETER NORMAN NISSEN, c/o The Institute of Mining & Metallurgy, 1, Finsbury Circus, in the City and County of London, Lieutenant-Colonel Commanding Royal Engineers, G.H.Q. Troops of the British Expeditionary Force, France, do hereby declare the nature of this invention to be as follows:—

This invention relates to an improved construction of temporary building, shelter or shed, which is applicable where a cheap construction which can be erected by unskilled labour is the primary desideratum.

The improved construction embodies one or more bays each of which comprises a series of rough posts such as forest poles which are arranged in two parallel rows and are let into the ground to a suitable depth depending on the nature of the soil, and in some cases may be provided with bottom or foot boards.

On the top of these two rows of posts are fixed rails each of which consists of a series of baulks on the upper side of which are fixed battens of a lesser length and width than the baulks. The baulks which are all of one length are slightly shorter than the distance between the centres of the posts so as to allow room for the coach screws, by which they are clamped down to the posts, to pass between them. These coach screws which are screwed into the tops of the posts pass through dog washers which lie on and engage the ends of the adjacent baulks.

The length of the battens which are fixed on the tops of the baulks by spikes or nails is so much less than said baulks as will allow space for the dog washers engaging the ends of the baulks.

As the width of the battens is less than that of the baulks their sides form opposed shoulders on the upper side of the baulks for the support of the corrugated sheets forming the roof. The sheets are all of the same length which is slightly greater than the distance between the two rows of posts so that when the sheets are placed with their two end edges resting respectively on the rails carried by the two rows of posts, said ends rest against the shoulders thereon and the sheets are thus caused to assume a bow or arch shape. The end edges of the sheets are retained in position by means of clamping bars which engage the corrugations of the sheets and are held down by coach screws screwed into the rails. When the building or shelter consists of more than one bay these clamps engage the sheets forming the two roofs of the adjacent bays. This method of fixing obviates the necessity for any holes in the corrugated sheets.

Along the under side of the rails are arranged metal gutters preferably made of sheet iron. These are made in uniform lengths which exceed the pitch of

[*Price* 6*d*.]

the supporting posts and of a width exceeding that of the rails. They are fixed in position by being placed on the top of the posts before the rails are placed in position and are clamped between said rails and posts by means of the fixing coach screws.

In order to keep the gutter as narrow as possible narrow fillets of wood may be interposed between the under sides of the rails and the gutters where the rails meet the posts but this is not obligatory.

The gutters are laid shingle-wise with an overlap and in fixing the coach screws are driven through the gutters into the posts whereby the holes in them are sealed, the final fixing being effected by screwing home the coach screws.

By this form of construction the shedding or building can be moved and used over and over again without damage to the parts, and it will obviously be unnecessary in erecting same the second or subsequent times to make new holes in the gutters.

So long as there is a slight slope a large area can be covered without the use of trusses whereby the height of the building can be kept low, and where bracing is necessary same may be formed by boards nailed or otherwise fixed to the posts and arranged either horizontally or diagonally.

Dated this 30th day of April, 1918.

PHILLIPSS,
70, Chancery Lane, London, W.C. 2,
Agents for the Applicant.

COMPLETE SPECIFICATION.

Improvements in and relating to Temporary Buildings and Shelters.

I, PETER NORMAN NISSEN, c/o The Institute of Mining & Metallurgy, 1, Finsbury Circus, in the City and County of London, Lieutenant-Colonel Commanding Royal Engineers, G.H.Q. Troops of the British Expeditionary Force, France, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to temporary buildings such as sheds and shelters, and has for its object a cheap construction which can be erected by unskilled labour, and in which the parts can be used over and over again without damage.

I attain this end by the construction shown in the accompanying drawing in which:—

Fig. 1 is a view in front elevation,

Fig. 2 is a view in plan,

Figs. 3 & 4 are broken views—on an enlarged scale—in side elevation, transverse section and plan respectively showing details of construction.

Throughout the views similar parts are marked with like letters of reference.

The improved construction embodies one or more bays each of which comprises a series of rough posts such as forest poles which are arranged at an approximately similar distance apart in two parallel rows, shouldered rails carried by said posts, curved or bent corrugated metal sheets supported by said rails, clamping devices for said sheets and gutters fixed between the posts and rails.

The posts are let into the ground to a suitable depth depending on the nature of the soil, and in some cases may be provided with bottom plates or boards. On the top of these two rows of posts are fixed rails each of which consists of a series of baulks *b* on the upper sides of which are fixed battens *c* which are of a

lesser width than the baulks so as to form longitudinal shoulders thereon and preferably also of a lesser length so as to leave the ends of the baulks clear for the clamping and fixing plates or washers. The baulks *b* which are all of one length are slightly shorter than the distance between the centres of two adjacent posts so as to allow room for the coach screws *d*—by which they are clamped down to the posts—between their adjacent ends thus dispensing with the necessity of making holes through the baulks. The coach screws *d* which are screwed into the tops of the posts *a* pass through and engage dog washers *e* which clamp the ends of the adjacent sections of the rail to the posts *a* preferably by engaging the ends of the baulks *b* as shown in Figs. 2 & 3. At the extreme ends of the rails the dog washers are supported by chocks b^1. The battens are permanently fixed on the tops of the baulks *b* by spikes nails or the like.

The corrugated sheets *f* which form the roof and which are all bent to the same curve are of such a length that their ends just fit in and lie between the shoulders formed by the battens carried by the baulks of the rails. The end edges of the sheets *f* are retained in position by means of clamping bars *h* which engage the corrugations of the sheets and are held down by coach screws screwed into the battens of the rails. When the building or shelter consists of more than one bay these clamps engage the sheets forming the roofs of the adjacent bays. This method of fixing roofing sheets obviates the necessity for any holes in said sheets.

Along the under sides of the rails are arranged gutters *m* preferably made of sheet iron. These are made in uniform lengths which exceed the pitch of the supporting posts *a* and have a width exceeding that of the baulks *b*. These gutters are fixed in position by being placed on the top of the posts *a* before the baulks *b* are placed in position and are clamped between said baulks and posts by means of the fixing coach screws *d*.

In order to maintain the effective cross sectional area of the gutters without increasing their width two narrow fillets of wood *n n* may be interposed between the under sides of the baulks *b* and the gutters *m* where said baulks rest on the posts so as to form a central as well as two side channels at these points. The gutters *m* are laid shingle-wise with an overlap and in fixing them the coach screws *d* are driven through them into the posts whereby the holes in them remain sealed, the final fixing being effected by screwing home said coach screws.

By this form of construction the shedding or building can be moved and used over and over again without damage to the parts, and it will obviously be unnecessary in erecting same the second or subsequent times to make new holes in the gutters.

So long as there is a slight slope a large area can be covered without the use of trusses whereby the height of the building can be kept low, and where bracing is necessary same may be formed by boards nailed or otherwise fixed to the posts and arranged either horizontally or diagonally.

It will be appreciated that by using covering sheets without holes in them absolute universal repeated fitting can be obtained and that as the galvanisation of the sheets is not impaired, as is the case when holes are made in them, excessive oxidization is prevented.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A temporary building such as a shed or shelter, comprising a series of upright posts arranged at an approximately equal distance apart in parallel rows; rails fixed on the tops of said posts, said rails comprising baulks which are all of one length which is slightly shorter than the distance between the centres of the posts in the rows, and battens fixed on the tops of the baulks said battens being of a lesser width than the baulks; clamping means for fixing said

baulks to the posts; corrugated metal sheets bent or curved in the direction of the corrugations and adapted to rest on the rails carried by two adjacent rows of posts; and plates or the like for clamping the sheets to the rails.

2. In a building or shelter as claimed in the preceding claim, making the battens employed to form the shoulders on the rails shorter than the baulks for the purpose of providing spaces between the ends of said battens for the dog washers employed to fix the baulks in position and to enable said washers to directly engage said baulks.

3. The combination with a building or shelter as claimed in the preceding claims of gutters consisting of lengths of sheet iron channelling which are placed between the under sides of the baulks of the rails and the tops of the upright posts and are fixed in relation to said parts by the clamping means employed to fix the rails to the posts.

4. In a building or shelter as claimed in the preceding claim, providing a space between the under sides of the baulks of the rails and the floor of the guttering by placing narrow distance pieces between said parts where the rails are fixed to the posts.

5. In a temporary building or shelter, the combination of rows of upright posts *a*, rails comprising baulks *b* and battens *c* fixed to said posts by means of coach screws *d* and dog washers *e* either with or without chocks b^1, bent or curved corrugated metal covering sheets *f*, bars or plates *h* for clamping the plates *f* to the rails, guttering *m* and distance pieces *n*.

6. The improved temporary building or shelter, substantially as herein described and illustrated by the accompanying drawing.

Dated this 30th day of October, 1918.

PHILLIPSS.

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123,887. NISSEN'S COMPLETE SPECIFICATION. (1 SHEET)

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 1.

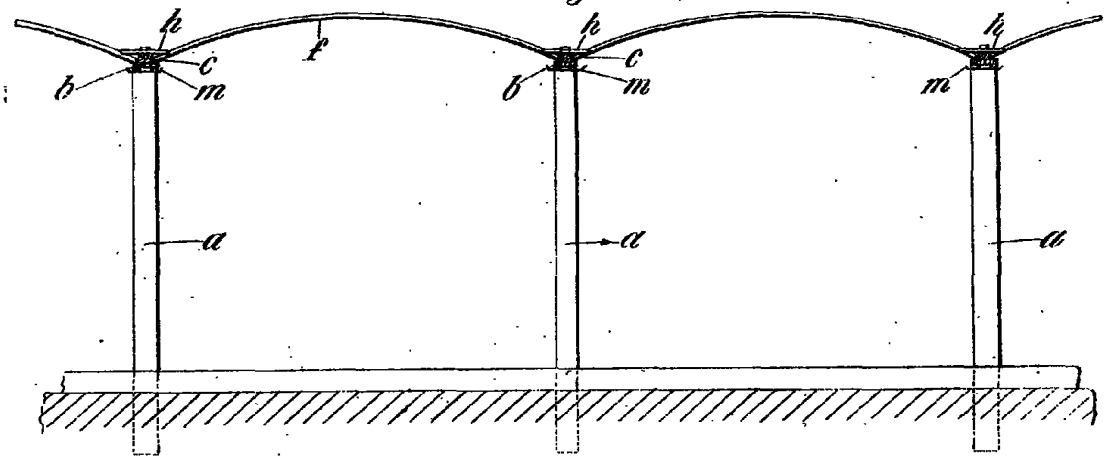


Fig. 2.

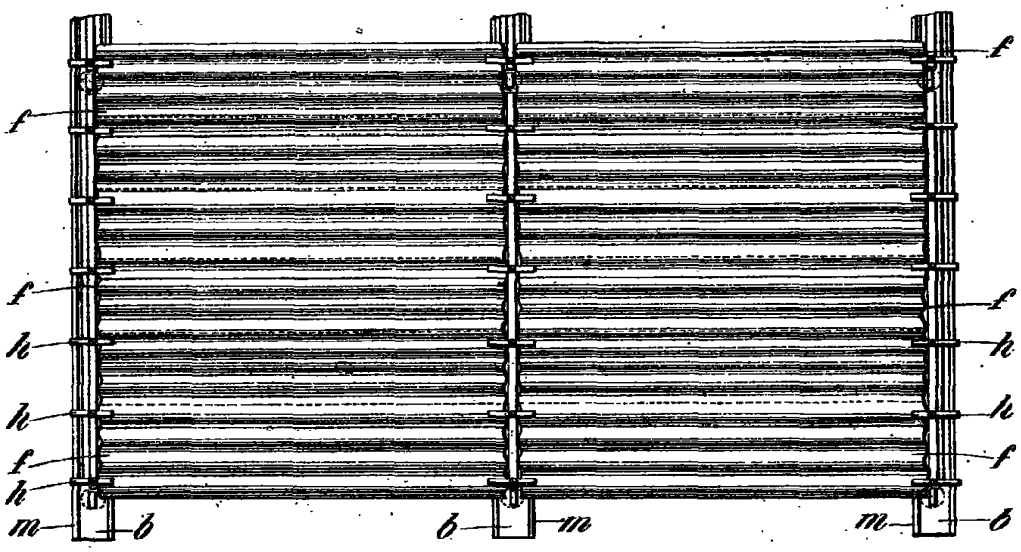


Fig. 3.

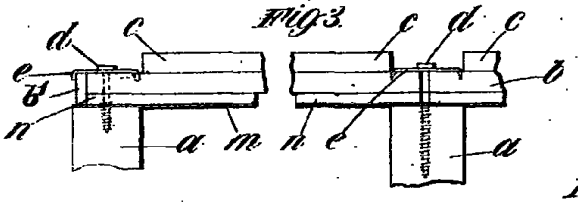


Fig. 4.

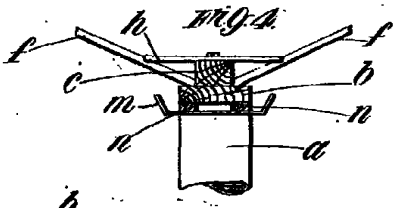
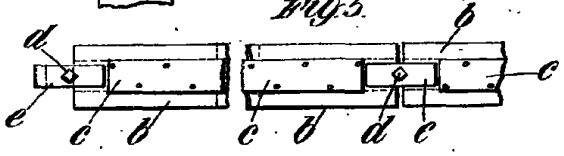


Fig. 5.



Malby & Sons, Photo-Litho.