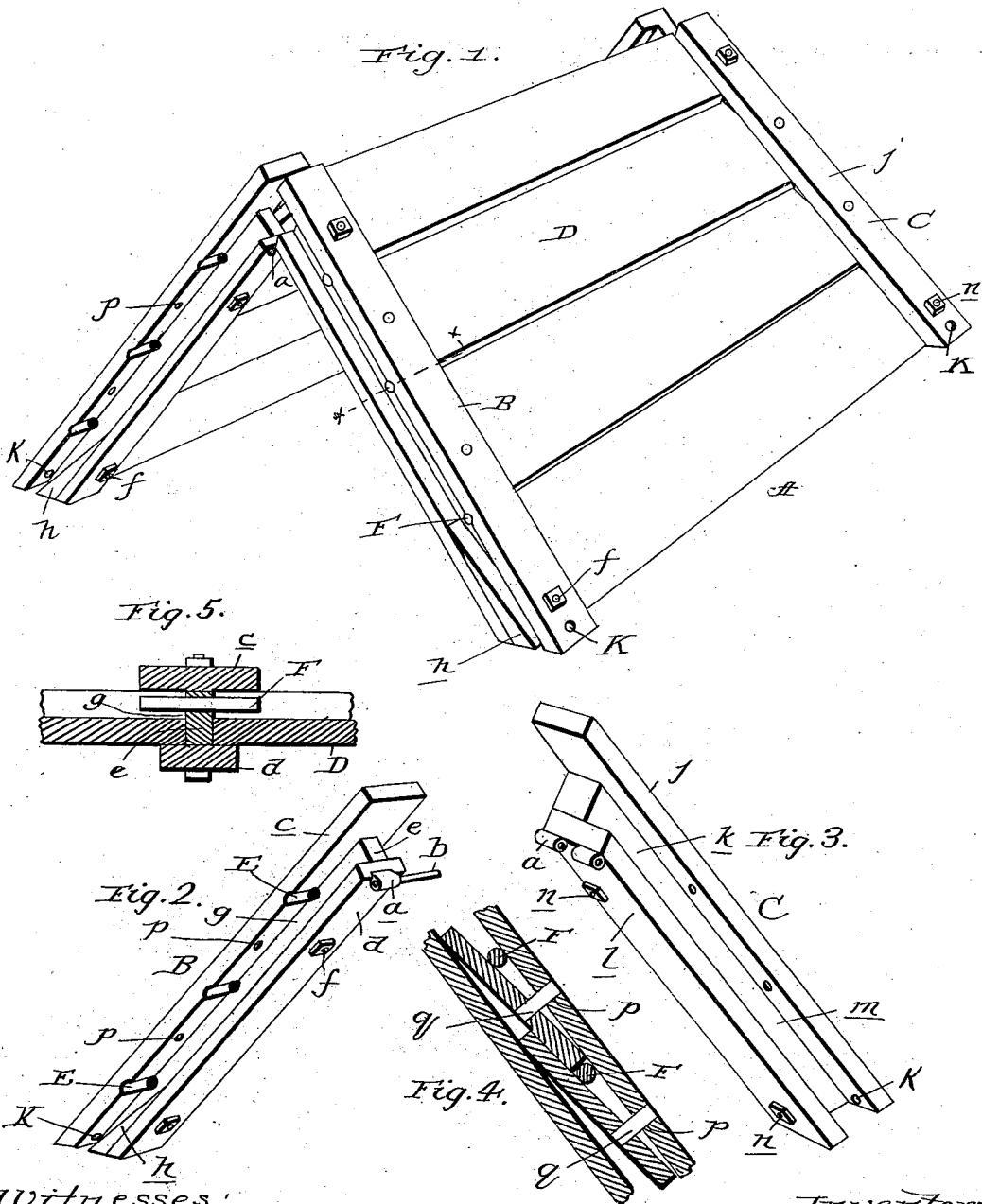


(No Model.)

W. JEHLE & W. A. CLARK.
ROOFING.

No. 508,110.

Patented Nov. 7, 1893.



Witnesses:
W. F. Matthews
W. F. Matthews

Inventors
Wm Jehle &
Wm A Clark
By *James J Sheehy*
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM JEHLÉ AND WARREN A. CLARK, OF PANA, ILLINOIS.

ROOFING.

SPECIFICATION forming part of Letters Patent No. 508,110, dated November 7, 1893.

Application filed July 21, 1892. Serial No. 440,787. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM JEHLÉ and WARREN A. CLARK, citizens of the United States, residing at Pana, in the county of Christian and State of Illinois, have invented certain new and useful Improvements in Portable Roofs; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in portable roofs and it has for its general object to provide such a roof of a cheap, simple, and durable construction and one adapted to serve with equal facility as the roof of a building or as a cover for hay and grain ricks and the like.

Other objects and advantages will be fully understood from the following description and claims when taken in connection with the accompanying drawings, in which—

Figure 1, is a perspective view of our improved roof in an operative position. Fig. 2, is an enlarged perspective view of the middle rafter of one section. Fig. 3, is a similar view of one of the end rafters, and Fig. 4, is a detail view illustrating the pins for supporting the boards or panels in the middle rafter, and the pins for fixing said board with respect to the rafters, and Fig. 5, is a detail section taken in the plane indicated by the line *x, x*, Fig. 1.

Referring by letter to said drawings:—A, indicates the sections of the roof; B, the middle rafters; C, the end rafters, and D, the boards or panels which are connected to and supported by the middle and end rafters as will be presently described. The middle and end rafters of the two sections are provided at their upper ends with hinge-barrels *a*, as better shown in Fig. 1; and these hinge barrels are designed, when properly placed, to receive a removable pintle *b*, whereby it will be seen that the sections may be adjusted to the pitch desired and may be readily disconnected when desirable which is an important advantage.

As better shown in Fig. 2, of the drawings, the middle rafters B, when made of wood, preferably comprise the three pieces *c, d*, and *e*, which are connected together by bolts as *f*,

placed at suitable intervals. The pieces *c, d*, which form the outer and inner sides of the rafter are disposed in the same plane as illustrated, but the intermediate piece *e*, is disposed at right angles so as to form the kerfs or grooves *g*, designed to receive the ends of the boards or panels. These kerfs or grooves *g*, are of a greater width than the thickness of the boards or panels D, and they are provided adjacent to their lower ends with the wedge shaped projections *h*, which are connected to the inner side of the piece *d*, and are designed to form a rest for the lowermost boards or panels and pitch the same at a slight angle with respect to the groove as better shown in Fig. 1.

In practice, we prefer to make the grooves *g*, of a width equal to twice the thickness of the boards or panels employed so as to enable the said boards to overlap each other and thereby shed the water and prevent the same from entering the building or rick upon which the roof is placed.

E, indicates transverse apertures which are formed in the pieces *c*, and *e*, of the middle rafters, and F, indicates removable pins which are designed to be placed in the apertures E, to support and prevent settling of the boards or panels. When boards or panels of equal width are employed upon opposite sides of the middle rafters, these pins F, may extend upon opposite sides of the intermediate piece *e*, but when boards of various widths are employed, pins are introduced from opposite sides of the piece *e*, and at different elevations to support the same.

The end rafters C, of the sections are preferably made in three pieces *j, k*, and *l*; the middle piece *k*, being of a less width than the others, as shown, so as to form a kerf or groove *m*, in one side of the rafter to receive the outer ends of the boards or panels. These pieces *j, k*, and *l*, are connected by bolts *n*, placed at suitable intervals; and the outer piece *j*, as well as the outer piece *c*, of the middle rafter, are provided with apertures *p*, for the passage of pins *q*, which take into the boards or panels and serve to fix the rafters with respect to the same. These pins *q*, are preferably removable in practice so as to enable a person to readily take the roof apart for transportation or repair.

K, indicates bolt holes which are formed in the lower ends of the middle and end rafters and are designed for the passage of bolts to connect the roof to the frame of a building.

5 These holes K, when the roof is employed to protect a hay or grain rick may serve for the connection of an anchor rope, which may be connected at its opposite end to a heavy stone or other suitable anchor.

10 By reason of the construction described, it will be readily perceived that the boards or panels and the middle and end rafters may be readily connected together and the said boards or panels may be conveniently lapped; 15 it being simply necessary to rest the lowermost boards or panels against the wedges *h*, so as to pitch the same at an angle and then place the boards one upon the other. It will also be perceived that through the medium 20 of the pins F, the boards may be prevented from settling and may be held even throughout their length which is a desideratum.

Our improved roof is adapted as before stated, to serve as the roof of a building or as 25 a protection for hay and grain ricks and the like, and we lay stress upon the fact that the roof may be readily put together, and placed and secured in position without the employment of skilled labor or expensive tools. 30 When not in use, the roof may be taken apart and packed compactly in a barn or other suitable place.

Although we have in some respects specifically described the construction and relative 35 arrangement of the several elements of our improved roof, yet we do not desire to be understood as confining ourselves to such specific construction and arrangement, as we reserve the right to make, in practice, such 40 changes or modifications as fairly fall within the scope of our invention.

Having described our invention, what we claim is—

1. In a portable roof, the combination with 45 a middle rafter having kerfs or grooves in two of its opposite sides and also having the wedge shaped rests *h*, at the lower ends of said grooves; of the end rafters having a kerf or groove in their inner sides, the boards or panels 50 taking into the kerfs or grooves of the said

middle and end rafters, and pins taking through the rafters and boards and adapted to connect the same together, substantially as and for the purpose set forth.

2. In a portable roof, the combination with 55 a middle rafter having kerfs or grooves in two of its opposite sides and also having the transverse apertures E, the wedge shaped rests arranged in said kerfs or grooves and at or adjacent to the lower ends thereof, and the pins 60 F, adapted to rest in the apertures E; of the end rafters having a kerf or groove in their inner sides, and the boards or panels taking into the kerfs or grooves of said middle and end rafters and adapted to bear upon the 65 wedge shaped rests *h*, and the pins F, substantially as and for the purpose set forth.

3. In a portable roof, the combination with a rafter having a kerf or groove and also having the transverse apertures E, the pins F, 70 adapted to be placed in said apertures E, and the wedge-shaped or beveled rest arranged in the groove at or adjacent to the lower end thereof; of the boards or panels adapted to 75 take into the groove and rest upon the rest *h*, and the pins F, substantially as specified.

4. In a portable roof, the combination of two sections comprising the middle rafters having hinge boards at their upper ends and 80 also having kerfs or grooves in their opposite sides, and the transverse apertures E, the pins F, adapted to take into said apertures E, the wedge shaped or beveled rests arranged in the kerfs or grooves, the end rafters having 85 hinge barrels at their upper ends and also having a kerf or groove in their inner sides, the boards or panels taking into the kerfs or grooves of the middle or end rafters, and the removable pintles taking through the hinge barrels of the rafters of the two sections, and adapted to connect said sections together, all 90 substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM JEHLLE.
WARREN A. CLARK.

Witnesses:

F. S. CLARK,
J. H. O'REAR.