F. C. KEIGHLEY.

MINE ROOF SUPPORT.

APPLICATION FILED MAY 5, 1908.

904,878. Patented Nov. 24, 1908.

Fig. 1.

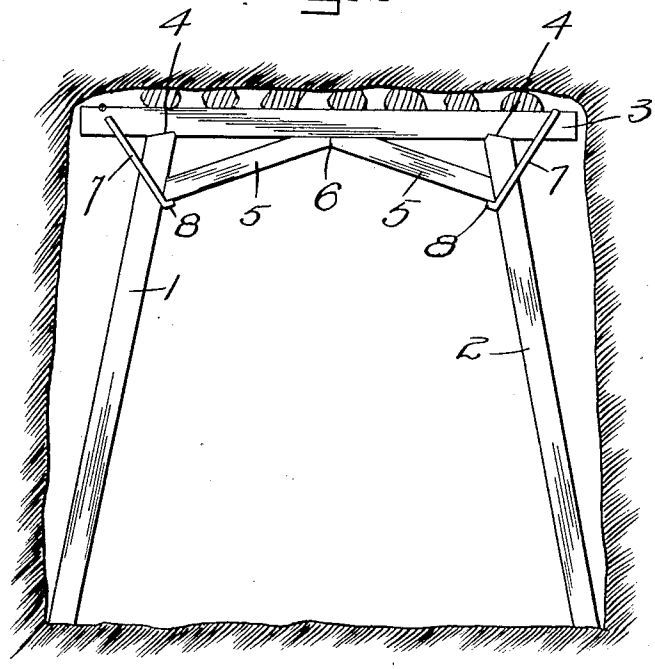
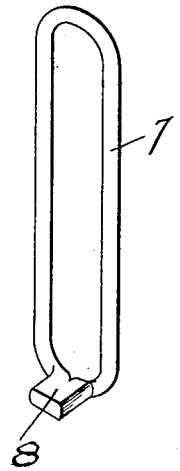


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK C. KEIGHLEY, OF UNIONTOWN, PENNSYLVANIA.

MINE-ROOF SUPPORT.

No. 904,878. Specification of Letters Patent. Patented Nov. 24, 1908.

Application filed May 5, 1908. Serial No. 431,065.

To all whom it may concern:

Be it known that I, FREDERICK C. KEIGHLEY, a citizen of the United States, residing at Uniontown, in the county of Fayette and State of Pennsylvania, have invented a new and useful Mine-Roof Support; and I do hereby 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.

The invention relates to a support for the roof of a mine and has for its object to provide an exceedingly simple, strong and durable device of this character adapted to be used in supporting mines of various kinds.

This invention is an improvement over my Patent No. 875,182 which was issued to me December 31, 1907.

The main features of the device will hereinafter appear.

In the accompanying drawing Figure 1 is a side elevation of a mine roof support constructed in accordance with this invention. Fig. 2 is a perspective view of the stirrup.

Referring to the drawings, 1 and 2 designate the standards or mine supports of my device which converge, as shown in the drawing, toward the top. Horizontally arranged across the top of these standards is a cross beam 3 which is provided with recesses 4 which receive the upper end of the converging members and which hold the same in their proper position. The device is braced by inclined braces or members 5 which abut against the inner faces of the upper portion of the standards, as clearly shown, and their upper ends form a junction, as at 6, beneath the horizontal member 3. The lower ends of the braces are held against displacement by means of stirrups 7, as clearly shown in the drawings. These stirrups are mounted on the outer ends of the cross beam 3 and also engage the standards. The lower end of each stirrup is provided with a projection 8 which is formed by a loop in the stirrup which is welded together into one solid piece.

It will be seen that as pressure is applied to the upper or horizontal member 3, the standards will have a tendency to move inwardly and will be prevented from so doing by the brace members 5, as will be clearly understood.

From the foregoing, the simplicity and exceeding great strength of the device will be clearly apparent; also the great advantage of speedy construction is an important point in the utility of this invention.

Having thus described the invention, what I claim as new and useful and desire to secure by Letters Patent is:—

A device of the class described, comprising a pair of standards, a horizontal member, having notches engaged by said standards, said standards being inclined inwardly, inclined braces extending from the upper part of said standards to a point near the center of said horizontal member, stirrups adapted to encircle the upper portions of said standards and the ends of the horizontal member, said stirrups being formed with projections at their lower ends, said projections being adapted to support the inclined braces at the point where they meet the standards.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK C. KEIGHLEY.

Witnesses:

D. M. BINN,

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