

(No Model.)

H. J. LEWIS.
BUCKLE PLATE.

No. 469,063.

Patented Feb. 16, 1892.

Fig 3

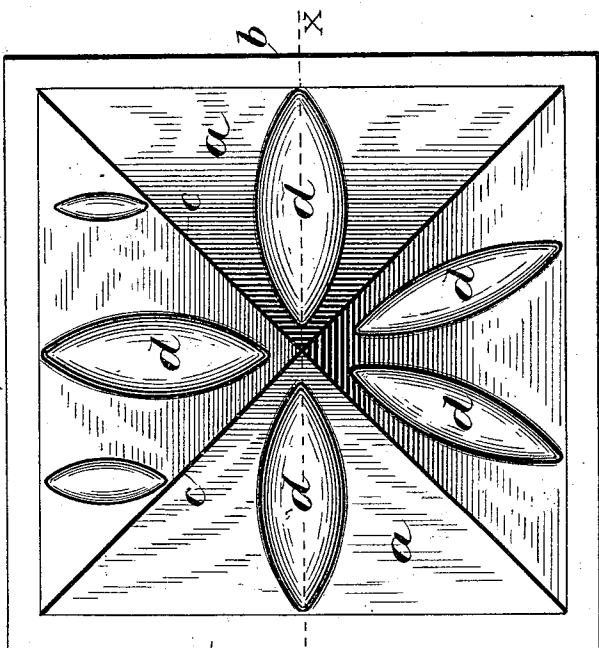


Fig 1

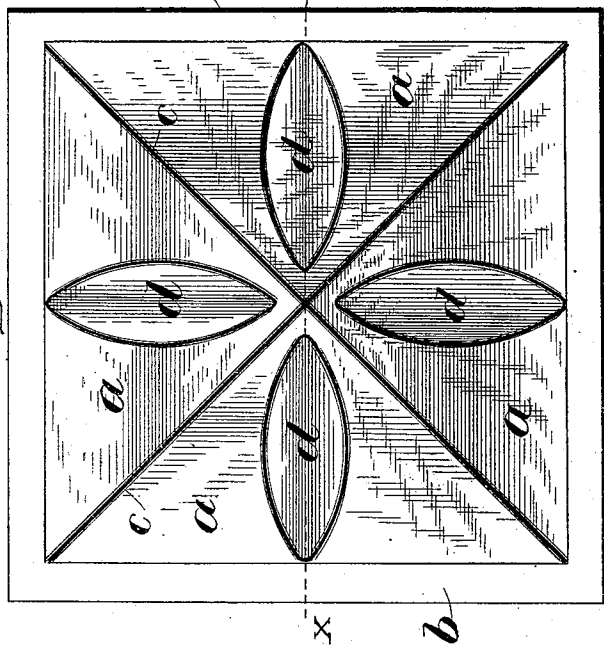


Fig 4



Fig 2



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY J. LEWIS, OF PITTSBURG, PENNSYLVANIA.

BUCKLE-PLATE.

SPECIFICATION forming part of Letters Patent No. 469,063, dated February 16, 1892.

Application filed October 12, 1891. Serial No. 408,457. (No model.)

To all whom it may concern:

Be it known that I, HARRY J. LEWIS, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Buckle-Plates; 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.

My invention relates to that class of buckle-plates placed between the joists of floors in buildings and between the girders of bridges; and my object is to strengthen the sloping sides of the plate to prevent them from bending or collapsing under the strain, wherein larger sizes can be made available.

To this end my invention consists in the peculiar features and combinations of parts, more fully described hereinafter, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a top view of a buckle-plate having four arched sides to which my improvement is applied; Fig. 2, a section through the center and through X X of the above view; Fig. 3, a top view of a modification in which the shape of the plate is given that of a pyramid with additional corrugations; Fig. 4, a transverse central section through X X of the preceding figure.

The letter *a* represents the four equal sides of a plate having a rectangular base formed by a flange *b*. These sides are composed of two very low arches arranged at right angles to each other, said arches intersecting at diagonal lines or groins *c*, extending over from corner to corner of the base. Across the central portion of each side are formed oval corrugations or depressions *d*, which extend or radiate from near the top or center of the arch to or nearly to its base. The bottom *e* of the corrugations is straight and forms a brace to stiffen and prevent the sides from bending.

To further describe the corrugations, it will be stated that the bottom or vertex *e* of each projects downward or inward. In Figs. 3 and 4 a modification is shown, in which the sloping sides are straight and provided with smaller intermediate corrugations projecting inward and outward.

It is evident that my invention could be varied in many other slight ways that would naturally suggest themselves to a skilled mechanic. Therefore I do not limit myself to the exact construction herein shown, but consider myself entitled to all such variations as come within the spirit and scope of my invention.

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

1. A buckle-plate in which the sloping sides are provided with radiating corrugations or depressions, as and for the purpose substantially as described.

2. A groined buckle-plate in which the sloping sides are provided with corrugations or depressions, as set forth.

3. The herein-described groined buckle-plate, in which the sloping sides are provided with oblong corrugations having their longest diameters extending away from the base of the plate, substantially as and for the purpose set forth.

4. A groined buckle-plate in which the sloping sides are provided with integral depressions or corrugations projecting beyond the exterior surface of the sides, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY J. LEWIS.

Witnesses:

LUCIUS O. FRAZIER,
DANIEL J. SULLIVAN.