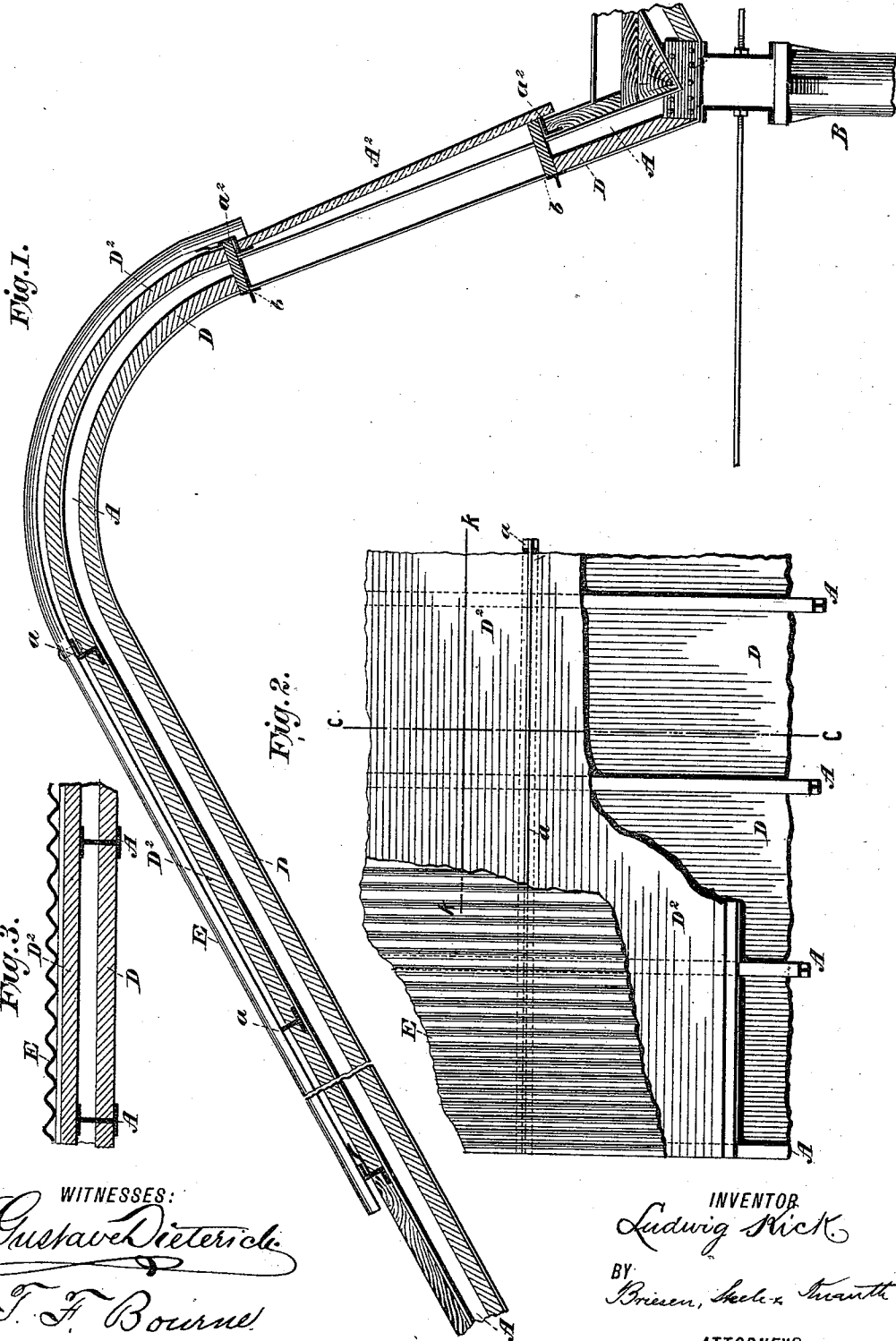


(No Model.)

L. KICK.  
SHED ROOF FOR FACTORY BUILDINGS.

No. 428,494.

Patented May 20, 1890.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

LUDWIG KICK, OF NEW YORK, N. Y.

## SHED-ROOF FOR FACTORY BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 428,494, dated May 20, 1890.

Application filed September 23, 1889. Serial No. 324,713. (No model.)

*To all whom it may concern:*

Be it known that I, LUDWIG KICK, a resident of the city of New York, county and State of New York, have invented certain new and useful Improvements in Shed-Roofs for Factory Buildings, &c., of which the following is a specification.

Heretofore shed-roofs for factory buildings have been made of wood or iron, the beams and the supports for the same having been connected together at their upper ends, but the sharp edge at the junction of the beams and supports required a rather inconvenient junction of the parts. It is difficult to fasten isolating-layers to such roofs, especially when it is necessary to leave access to the single parts for the purpose of repairs.

The object of my invention is to overcome these difficulties and to provide a beam for the roof whereby the junction of a beam and support is obviated, thereby reducing the trouble and expense of constructing the roofs, and whereby, also, the isolating-layers may be readily connected with the beams of the roofs.

The invention consists in the novel details of improvement and combinations of parts that will be more fully hereinafter set forth, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a longitudinal sectional elevation on the plane of the line *c c*, Fig. 2, showing my improved shed-roof. Fig. 2 is a partly-broken plan view of a portion of the shed-roof; and Fig. 3 is a detail section on the line *k k*, Fig. 2.

In the accompanying drawings, the letter A represents a beam of a roof, which consists of a single piece of iron extending from the supporting-posts B, (only one of which is shown in the drawings,) so as to form a roof-support, the beam at the peak of the roof being curved or arched, as indicated. The straight ends of the beam are tangential to the curve of the peak, as shown. By this means the separate beam and support for the same heretofore used are replaced by a single beam, whereby the junction of a beam and support is avoided, the arch of my beam be-

ing in the position usually occupied by the junction of the beam and support. By this means the use of a top beam is made unnecessary. The several beams A are connected together by cross-pieces *a*, upon which the roof E may be placed. The windows A<sup>2</sup> are to be placed between the beams A, and for this purpose iron cross-pieces *a*<sup>2</sup> are placed in the desired position between two beams A, and the frame *b*, of wood or the like, is placed between said cross-pieces and said beams. The lower flanges of the beams or supports A serve to support an isolating-layer D, (see Fig. 3,) which may be made of boards of gypsum or other suitable material, while a similar isolating-layer D<sup>3</sup> is placed upon the upper flanges of the beams A. The roofing-plate E, which preferably consists of rolled zinc or the like, bent in accordance with the curve or arch of the beams A, is placed over the beams A and isolating-layer D<sup>2</sup>, and may be connected to the cross-pieces *a* or otherwise secured in position. Between the isolating-layers D D<sup>3</sup> is an isolating-layer of air, or, if preferred, the space between D and D<sup>3</sup> may be filled with a suitable light material, which may be a bad conductor of heat or a fire-proof substance.

The above construction of roof will be found advantageous for many reasons, principally the junction between the beams and supports heretofore used is dispensed with, whereby leakage at that part is prevented, and also on account of the reduction in cost of constructing the roofs.

Having now described my invention, what I claim is—

1. The beams A for a shed-roof, consisting of a continuous bar which is curved or arched at the peak of the roof and extending from supporting-posts at each end of the beam, the straight ends of the beam A being tangential to the curve at the peak, substantially as herein shown and described.

2. The beams A for a shed-roof, each consisting of a continuous bar which is curved or arched at the peak of the roof, the straight ends of said bar being tangential to the curve, combined with the cross-bar, *a* connecting said beams, and with the roofing-plate E, that

is bent in accordance with the curve or arch of the beams A and that is placed over the same, substantially as described.

3. The beams A for a shed-roof, each consisting of a continuous bar which is curved or arched at the peak of the roof, combined with the isolating-layers D D<sup>2</sup>, supported by said beams and having an isolating-space between them, with the cross-bars *a*, connecting

the beams A, and with the roofing-plate E, that is bent in accordance with the curve or arch of the beams and that is placed over the same and over the isolating-layers D D<sup>2</sup>, substantially as described.

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Witnesses:

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