L. HEYNEMANN.

PREHEATING DEVICE.

APPLICATION FILED APR. 1, 1908.

906,879. Patented Dec. 15, 1908.

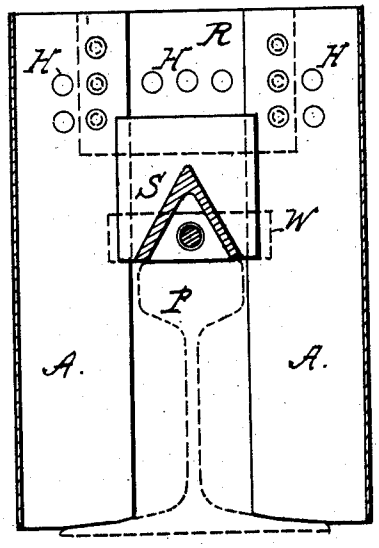


Fig 1.

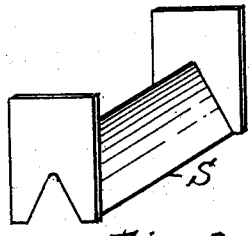


Fig. 3

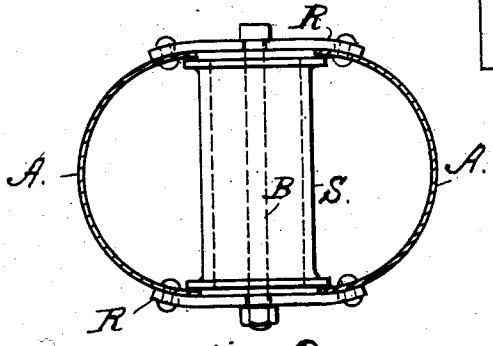


Fig. 2.

Witnesses:
Anton Lukaszewske
Stephen Kerrison.

Inventor:
Lionel Heynemann

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

LIONEL HEYNEMANN, OF SAN FRANCISCO, CALIFORNIA.

PREHEATING DEVICE.

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To all whom it may concern:

Be it known that I, LIONEL HEYNEMANN, a citizen of the United States, residing at 436 Folsom street, in the city and county of San Francisco and State of California, have invented a new and useful Preheating Device, of which the following is a specification.

My invention relates to improvements in welding processes, more particularly in those known as the Thermit process the electric welding and cast welding process. Before the application proper of these processes it is necessary to heat the parts to be welded by a torch or other means. This is commonly called preheating; and the present method of preheating is to direct the flame of a torch against the parts. A great deal of such heat is dissipated and lost by radiation, and with a single torch the heating is only one sided and in some cases heats those parts least that need it most and vice versa.

The objects of my invention are to preheat these parts more effectively and rapidly than heretofore and provide means to save such parts from the flame that need such protection. I attain these objects by the device illustrated in the accompanying drawing adapted to rail welding—in which—

Figure 1 is a vertical section. Fig. 2 is a horizontal section. Fig. 3 is an isometric perspective of one of the parts of the device.

Similar letters refer to similar parts throughout the several views.

The device shown illustrates a hood for the preheating of rails in the street, preparatory to welding the joint. The rail is shown at P in dotted lines in Fig. 1.

The rail hood consists of two pieces of sheet iron or sheet steel A A curved to suit the particular section to be welded—leaving a space between them so that the hood can straddle the rail. These two pieces are connected by a strap R riveted to each; and shown in Figs. 1 and 2.

A saddle S—preferably of cast iron—and shown in Figs. 1— 2— and 3 has for its object the protection of the head of the rail from the direct flame and also to divide the flame so as to heat each side of the web and foot of the rail evenly. This saddle fits loosely in the hood and is movable along one axis of the hood so that it can be adjusted to suit the height of the rail. A flange on either end of the saddle covers the space between the two parts A A of the rail hood and by means of the bolt B and washers W on each end of the bolt the saddle can be clamped securely to these two parts. These washers W W are only shown in Fig. 1 as the strap R covers the washers in Fig. 2. This saddle may also be permanently secured to the hood without the adjustable feature. The circles shown at H H H Fig. 1 indicate holes in the hood to enable the flame to supply itself with the necessary quantity of air.

The method of operation is as follows: The hood is set over the rail, straddling the same, and resting on the foot of the rail. The saddle S is adjusted and clamped; and then the flame from the torch is directed down into the hood. The flame is split by the saddle and strikes the web and foot of the rail—while the head is protected. This protection is very desirable, as otherwise the head might be softened and permanently injured by the direct flame.

It is not essential that the hood should have the form shown; it may be altered to suit different sections to be preheated.

I am aware that prior to my invention hoods have been made to concentrate the heat of torches; and I therefore do not claim such hoods broadly; but,

I claim:

1. In combination a preheater-hood containing a flame splitting and protecting device substantially as set forth.

2. In combination a preheater-hood containing an adjustable flame-splitting and protecting device.

3. In combination a preheater-hood consisting essentially of a mantle and a saddle substantially as described.

4. In combination a preheater-hood A and a saddle S substantially as described.

5. In combination a preheater-hood A and the adjustable saddle S substantially as described.

6. In combination a split hood A, and saddle S, substantially as described.

7. In combination, the split hood A the adjustable saddle S, the bolt B and washers W W substantially as described.

8. In combination—the hood A—the saddle S and holes H H H substantially as described.

LIONEL HEYNEMANN.

Witnesses:

ANTON LUKASZENSKE,

S. H. KERRISON.