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E. A. RICHARDS ET AL
METAL RECTIFIER ASSEMBLY

2,336,889

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Fig. 1.

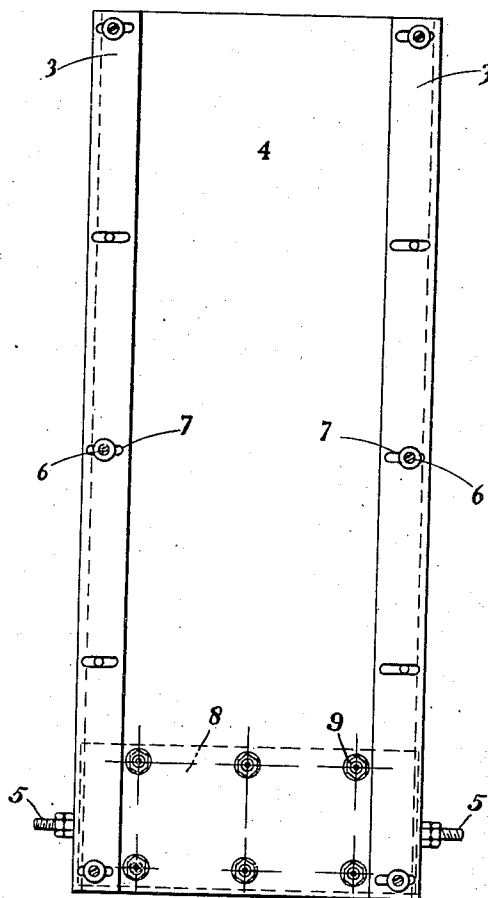


Fig. 2.

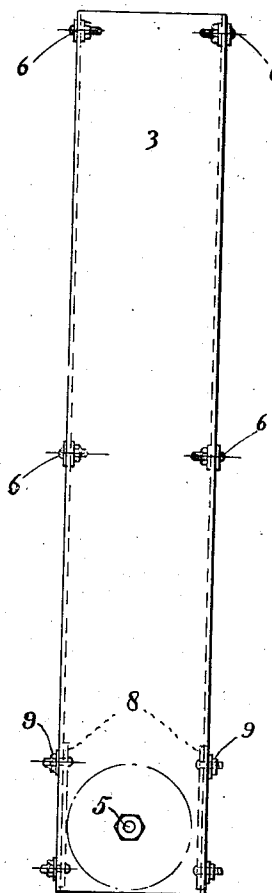
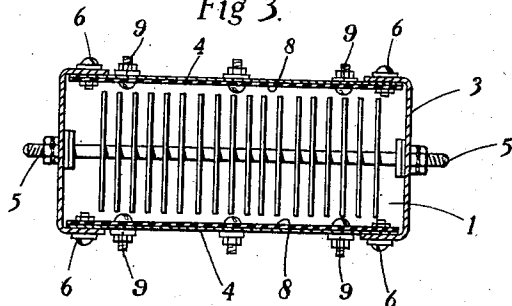


Fig. 3.



INVENTOR

E. A. Richards
L. J. Ellison

BY

RR Morris

ATTORNEY

UNITED STATES PATENT OFFICE

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METAL RECTIFIER ASSEMBLY

Edward Arthur Richards and Leslie James Ellison, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

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2 Claims. (Cl. 175—366)

This invention relates to metal rectifier assemblies and to the effective cooling of the metal rectifier units incorporated in such sets. Metal rectifier units have previously been provided with aluminium cooling fins but aluminium fins are normally expensive and are at present unobtainable, and it is the object of the invention to provide other cooling means for use instead of such cooling fins.

According to the invention each rectifier unit of a metal rectifier assembly is provided with a separate cooling chimney.

A cooling chimney and rectifier unit according to the invention are shown in the accompanying drawing comprising Figs. 1 to 3, in which Figs. 1, 2 and 3 are respectively a front elevation, a side elevation and a plan.

In the drawing, 1 indicates a metal rectifier unit secured in position at the bottom end of a cooling chimney. The chimney fits closely over the rectifier unit 1 and assists the cooling of the unit by increasing the air flow over the surface of the unit. The chimney comprises two metal end plates 3 of channel construction serving as supports for two metal side plates 4 of a width suited to the overall length of the rectifier unit 1. The end plates 3 are mounted on the spindle 5 which supports the discs of the rectifier unit 1.

The side plates 4 are fixed to the end mem-

bers 3 by means of screws 6 which may be self-cutting and pass through slotted holes 7 in order to make allowance for slight variations in the overall length of individual rectifier units. Pieces of insulating material 8 may be riveted by rivets 9 to the insides of the side plates 4 so as to avoid any possibility of the metal side plates 4 short circuiting discs in the rectifier. These strips and rivets are shown in Figs. 1 and 2.

In cases where more than one metal rectifier unit is employed, each unit is secured in position at the bottom end of a separate chimney similar to the chimney shown.

What is claimed is:

1. A metal rectifier assembly comprising a rectifier stack of a plurality of rectifier elements mounted on a common spindle, channel shaped end plates wider than said rectifier elements mounted with their lower ends at opposite ends of said rectifier stack, and side plates fastened to and held in position by said end plates to form a cooling chimney extending upwardly from said stack.

2. A metal rectifier assembly according to claim 1, wherein said end plates are mounted on and held in position by said spindle.

EDWARD ARTHUR RICHARDS.
LESLIE JAMES ELLISON.