

Nov. 1, 1938.

G. M. EHLERS

2,135,134

PACKAGING DEVICE

Filed March 19, 1937

FIG. 1.

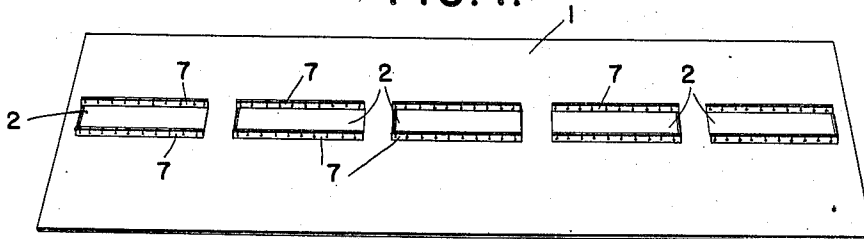


FIG. 2.

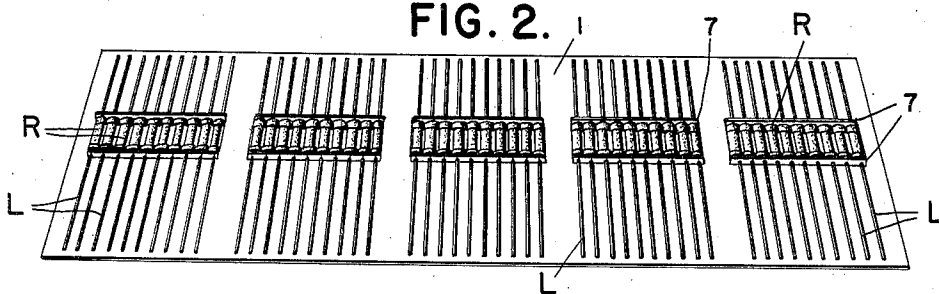


FIG. 3.

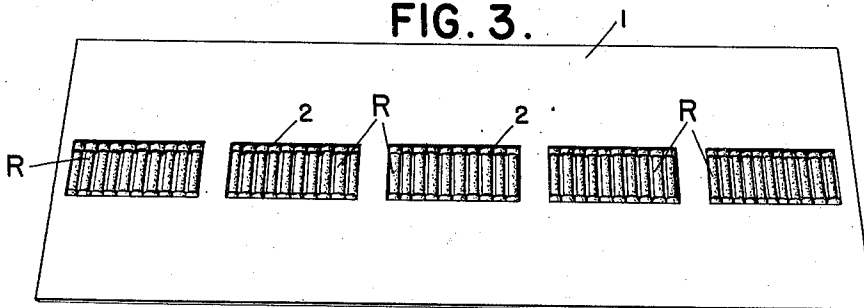


FIG. 4.

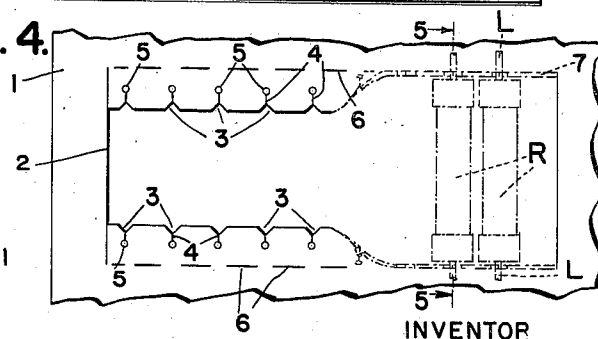


FIG. 5.

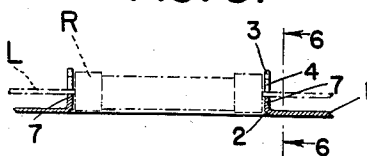
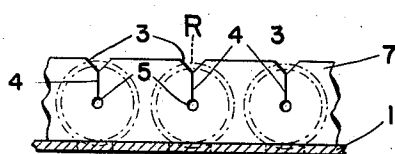


FIG. 6.



GEORGE M. EHLERS

BY John W. Michael

ATTORNEY

UNITED STATES PATENT OFFICE

2,135,134

PACKAGING DEVICE

George M. Ehlers, Milwaukee, Wis., assignor to
Globe-Union Inc., Milwaukee, Wis., a corpo-
ration of Delaware

Application March 19, 1937, Serial No. 131,842

2 Claims. (Cl. 206—79)

This invention relates to an improvement in mounting and packaging fixed resistors or similar electrical devices of the type having end leads projecting axially therefrom.

5 An object of the invention is to provide an extremely simple and economical construction for compactly mounting and packaging resistors of this type with the resistors releasably though securely held in position in such a way that their end leads are adequately protected and main-
10 tained in straight extended position parallel to each other. The resistors are neatly arranged and attractively displayed and this, in such manner that they may be inspected without removal. Moreover the device facilitates and simplifies the
15 counting of the resistors. Any number may be mounted on each device and counted as a unit. And the device lends itself to automatic loading of resistors.

20 Other objects and advantages reside in certain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference
25 being had to the accompanying drawing, forming a part of this specification, and in which:

Figure 1 is a perspective view of a device embodying the present invention as it appears before being loaded with resistors;

30 Figure 2 is a similar view of the device loaded with resistors;

Figure 3 is a perspective view of the underside of the device;

35 Figure 4 is a fragmentary view in top plan and on an enlarged scale showing how portions of the sheet or blank are cut and folded to engage and hold the lead wires of the resistors;

Figure 5 is a view in section taken on line 5—5 of Figure 4; and

40 Figure 6 is a view in section taken on line 6—6 of Figure 5.

Referring to the drawing the numeral 1 designates a rectangular sheet of light material possessed of suitable resiliency to enable it to be stamped and formed up in the manner shown. Heavy paper or light weight cardboard of appropriate quality may be advantageously employed.

At spaced points along the center of the sheet it is stamped or cut out to provide rectangular slots 2. The material of the sheet along each side edge of each slot is also formed with a row of V-shaped notches 3. At the inner edge of each notch 3, a slit 4 is formed and at the inner end
55 of each slit the material is perforated or formed

with a small circular hole 5. The notches, slits and holes at one side of each slot are transversely alined with those at the other side thereof. All the notches, slits and holes are of substantially the same dimensions. A short distance outwardly of each row of holes 5, the material of the sheet is indented or creased or otherwise provided with a line of fold 6 so that the strip-like portion between each line of fold 6 and the adjacent edge of the slot 2 may be bent up to form a vertical flange 7 along each side edge of each slot. The material of the sheet is sufficiently stiff to insure the flanges 7 remaining vertical after they are once bent up to such position.

With a device constructed in this manner it may be loaded with resistor R by presenting the portions of the lead wires L adjacent the resistor ends to transversely alined notches 3 and pressing or pushing such portions down through the slits 4 and into the holes 5. It will be seen that while the notches and holes are not essential to the support of the resistors they are of substantial advantage in that they respectively facilitate the assembly and allow the material of the supporting flanges 7 to frictionally grip the lead wires without excessive distortion of the paper.

When assembled with the holder the resistors are arranged in groups, groups of ten in the structure illustrated, and the resistors of each group are disposed parallel and closely adjacent, with the lead wires in straight extended position and close to the imperforate portions of the sheet to be protected thereby. The holders may be piled or stacked one on top of the other and when so stacked may be compactly packaged. Since the resistors are supported slightly above the top surface of each sheet, the top edges of the flanges 7 of one sheet are partially interfitted in the slot 2 of the next overlying sheet when the holders are stacked.

While I have shown and described my invention as capable of advantageous use in packaging fixed resistors it is obvious that it may be used with equal advantage for the packaging of end lead condensers or other electrical devices of similar structure.

While I have shown and described one construction in which the invention may be advantageously embodied, it is to be understood that the constructions shown have been selected merely for the purpose of illustration or example and that various changes in the size, shape and arrangement of the parts may be made without departing from the spirit of the invention or the scope of the subjoined claims.

The invention claimed is:

1. A holder for fixed resistors having end leads
and comprising a flat sheet of material provided
with longitudinally spaced slots and having ver-
tical flanges along each longitudinal side edge of
each slot, said flanges having transversely alined
slits adapted to receive and frictionally grip por-
tions of the end leads and retain the end leads
in straight extended position closely adjacent a
surface of the sheet to be protected thereby.
2. A holder for fixed resistors having end leads

extending axially therefrom and comprising a flat
sheet of material provided with a slot intermedi-
ate opposed edges thereof, both side edges of the
slot being provided with upturned flanges having
transversely alined slits adapted to receive and
frictionally grip portions of the end leads closely
adjacent the ends of the resistors to support the
resistors on the holder over the slot and to retain
the end leads closely adjacent the surfaces of the
sheet on the opposite sides of the slot.

GEORGE M. EHLERS.