

H. L. PALMER.
Non-Conducting Platform or Mat.

No. 198,412.

Patented Dec. 18, 1877.

Fig. 1.

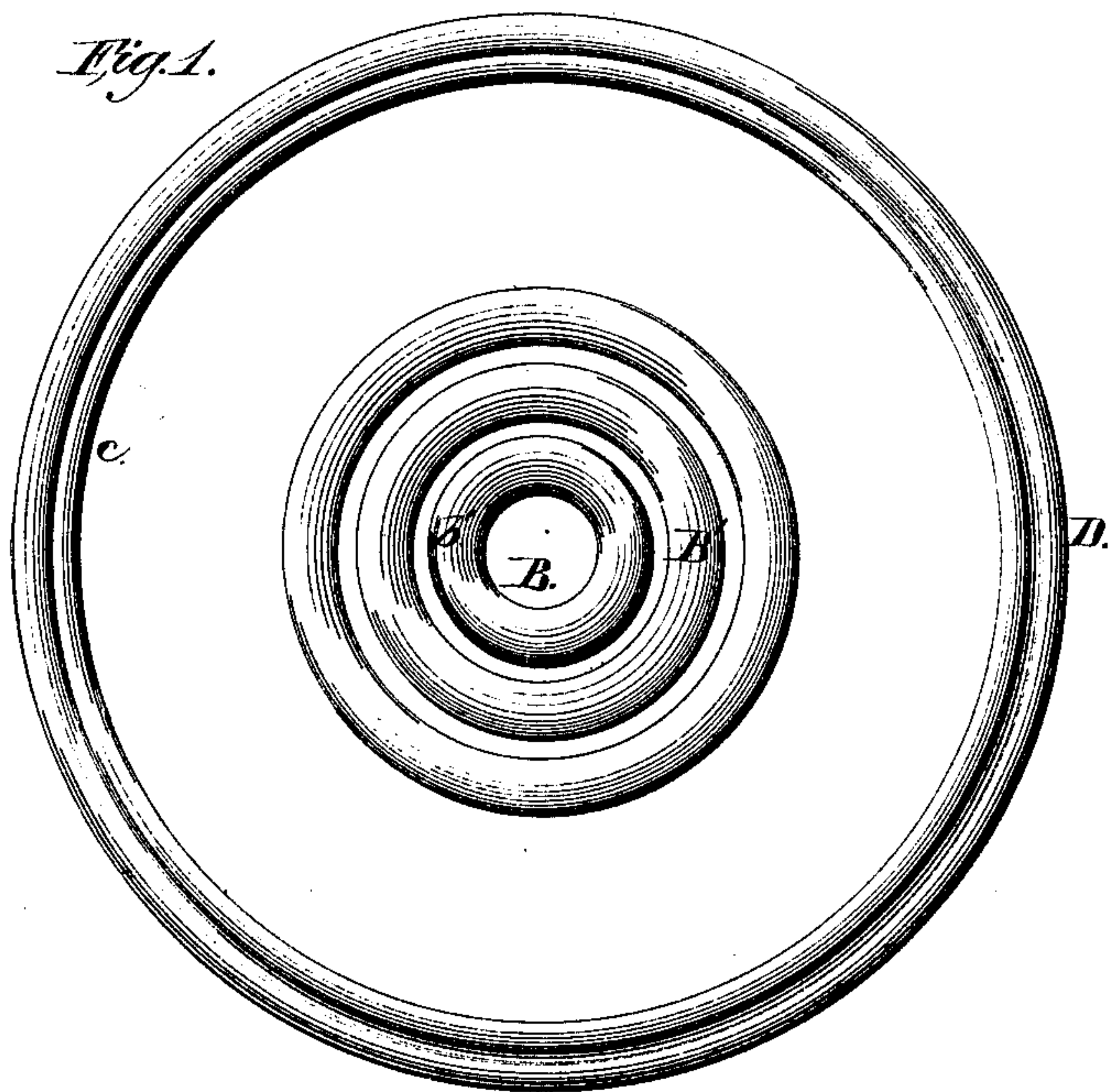


Fig. 2.



Witnesses:

Isaac Halstead
J. Edwin Cox

Inventor:

Henry L. Palmer.

UNITED STATES PATENT OFFICE.

HENRY L. PALMER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN NON-CONDUCTING PLATFORMS OR MATS.

Specification forming part of Letters Patent No. **198,412**, dated December 18, 1877; application filed September 8, 1876.

To all whom it may concern:

Be it known that I, HENRY L. PALMER, of No. 143 Lawrence street, Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Non-Conducting Platforms or Mats, of which the following is a specification:

The invention relates to platforms or mats whereon heated articles or various devices in which heat is developed are to be placed for the general purposes of safety and convenience.

Hitherto such structures have been made to consist of an exterior sheet of metal, usually zinc, attached, in some instances, to an underlying and supporting body of wood; in others to a stiffer sheet of sheet-iron, and in still others to thick and stiff pasteboard or like material, the method of attachment being to secure the two together by nails, or by turning the edge of the exterior sheet over and under the edge of the supporting-body.

Among the objections to these structures so made are, to the first, the necessary thickness and cost of the body proper; to the second and third, the increased weight and cost. These three forms are also liable to the common objection that the body controls the superimposed metal sheet, and frequently causes it to warp or twist with, and follow the shape of, the less yielding support, so as to prevent its lying invariably flat, as it is desirable that it should do.

The object of my invention is to produce a platform composed of a top sheet of metal and an underlying non-conducting body for heat, in which the top sheet shall be stiff enough to retain its own shape, and also control, to a sufficient extent, the underlying part, instead of being controlled thereby, as hitherto. The top sheet is usually made of zinc.

The invention consists, first, in a metal sheet, a thin and pliable lining of paper, felt, or other like pliable material, and a layer of cement, lying between the two, and attaching the lining to the under side of the metal sheet.

It also consists in stiffening the metal sheet, to the back of which the lining is applied, by the turning or lapping under of the edge of the sheet.

It consists, further, in annular and substantially concentric corrugations formed in the same, in such number and location, according

to the size of the platform, as to give the same the requisite stiffness when used in conjunction with the pliable lining.

It also consists in both these means of stiffening the metal sheet, in conjunction with the lining, which is caused to directly adhere to the sheet, so as to aid in giving the desired stiffness or self-sustaining character to the whole structure, while also acting as a non-conductor.

In the accompanying drawing, Figure 1 is a top view of the complete platform, and Fig. 2 is a sectional view of the same.

b' and *B'* are concentric corrugations formed in the metal sheet *A*, and their object and effect are to so increase the stiffness or stability of the flat sheet from, in, or on which they are formed in the completed article that it may be capable of sufficient self-support to permit it to be handled as a practical independent structure, whether it be superimposed upon others of the same kind in masses, or handled singly. These may be increased to any desired extent.

The edge of the sheet *A*, as shown at *D*, is folded, underlapped, or rolled under for the purpose of stiffening the sheet, and may be made round, like a wire, and associated with an annular corrugation located near, to aid in the common purpose.

The lining *E* is cemented to the back of the sheet *A*. This may be done either after it has been corrugated and beaded or folded on the edge, or before these operations are performed, by means of paste or any suitable cement. After pasting, it is exposed in any ordinary way for a brief period to dry. This cement, being preferably made of non-combustible material, and of any known kind suitable for attaching the lining to the metal sheet, adds to the protecting and non-conducting qualities of the platform.

These platforms may be made round, square, oval, oblong, or polygonal in form.

I am aware that pasteboard, tarboard, and other kinds of thick paper material have been hitherto used for similar purposes, alone, covered with enameled and other cloth, and also with sheet-zinc.

My invention differs from all these in the characteristics herein described, whereby the

metal sheet itself controls its own form, and also that of the non-conducting lining, so that the structure will lie flat down when in use, and have sufficient stiffness for all necessary handling.

I do not limit my invention to any precise form of corrugation. It may be made more or less curved or angular in cross-section, and larger or smaller, according to circumstances. The principle of my invention calls for curved or angular bracing-shapes formed from the body of the sheet. The number may also be varied.

The folds and corrugations may be partly, or even entirely, omitted without vitiating my invention entirely, since, by making the layer of cement attaching the lining sufficiently thick and stiff, a practical platform may be constructed, and I contemplate such a modification of my platform.

I claim as my invention—

1. A non-conducting platform or mat consisting, first, of a top sheet of metal; second, of a layer of cement; and, third, of a pliable lining of paper, felt, or like material, arranged in the order named.

2. A non-conducting platform or mat composed of a sheet-metal top and an easily-flexible lining, of paper or other like suitable material, E, cemented directly to the back of the metal sheet.

3. A non-conducting platform or mat composed of a top sheet of metal, provided with one or more concentric corrugations, in combination with a pliable lining, E, adherent directly to the back of the top sheet, as and for the purposes specified.

4. A non-conducting platform or mat composed of a sheet-metal top, provided with a folded edge, D, in combination with a pliable lining cemented to the back of the metal sheet, as shown and described.

5. A non-conducting platform or mat consisting of a sheet of zinc, provided with concentric corrugations, located at suitable distances from the center, and also with a folded edge, the metal sheet having a pliable lining cemented to its under surface, as set forth.

HENRY L. PALMER.

Witnesses:

THEODORE R. SHEAR,
GEORGE A. HAMMEL.