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S. L. RAU

2,301,970

PUNCH-BOARD

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FIG. 1.

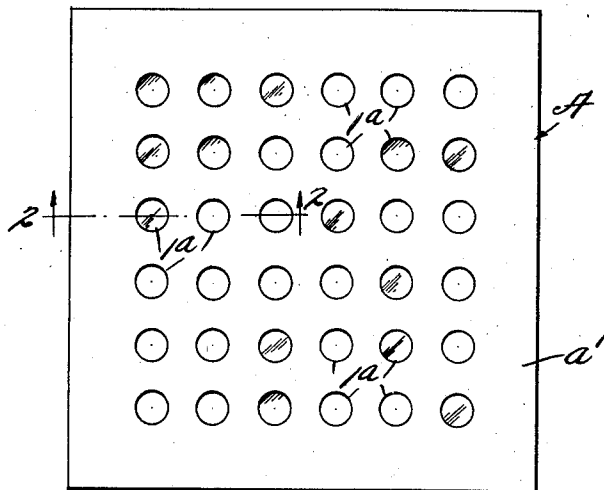


FIG. 2.

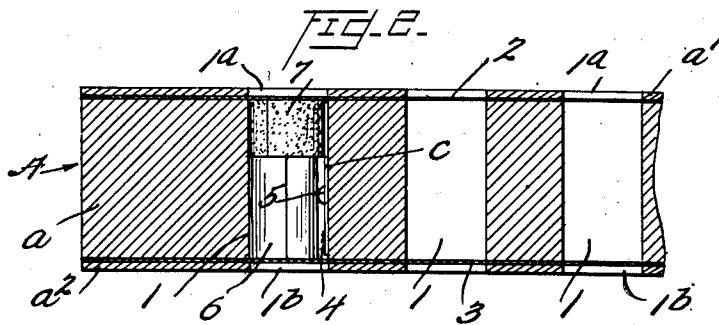


FIG. 3.

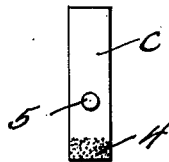
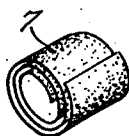


FIG. 4.



Inventor

Stanley I. Rau,

By

Robert Watson.

Attorney

UNITED STATES PATENT OFFICE

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PUNCHBOARD

Stanley L. Rau, Miami, Fla.

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5 Claims. (Cl. 273—139)

This invention relates to what are generally known as punch-boards, consisting of a board having a plurality of through openings in which paper fillers bearing names, numbers or other indicia, are inserted, and these are punched out at random by means of a suitable punch. The purpose of the present invention is to provide means for causing a slight explosion each time a filler is punched out, so that the proprietor of the place where the punch-board is in use can tell by the reports whether the board is being used and how often. Further, operating the punch-board is a game, and much amusement and zest is added to the game by the light explosions which result from the punching of the fillers from the board.

In the accompanying drawing,

Figure 1 is a front view of the punch-board;

Figure 2 is an enlarged section through part of the board on the line 2—2 of Figure 1;

Figure 3 is a plan view of the strip which carries the explosive material and

Figure 4 is a perspective view of a flexible strip having abrasive material thereon for detonating the explosive material.

Referring to the drawing, A indicates the punch-board, which may be of any suitable size and have any desired number of through holes for holding the usual filler pieces consisting of paper having numbers, names or other matter printed thereon.

The board, as shown in Figure 2, comprises a relatively thick body portion *a*, which may be made of layers of cardboard, and this portion has a plurality of cylindrical openings 1. A front plate *a'* extends over the part *a* and this front plate has openings 1^a which register with the openings 1. A thin sheet of slightly elastic material 2, such as the product known as Cellophane, lies between the parts *a* and *a'* of the board and closes the forward ends of the openings 1 when the board is loaded and set up for use. A back plate *a*² extends over the rear side of the part *a'*, and this plate has openings 1^b which also register with the openings 1. A thin film of easily frangible material 3 lies between the part *a* of the board and the rear cover plate and closes the rear ends of the openings 1. The sheets 2 and 3 serve as seals to prevent moisture from entering the openings in the body of the board and also retain the contents of said openings. Preferably the sheet 2 is of sufficient strength to afford resistance to the insertion of the punch into the holes 1^a, so that when sufficient pressure is applied to the punch to cause

it to shear the sheet, the latter will yield suddenly and the punch will be given a quick movement.

In loading the board a strip of flexible material *c*, preferably heavy paper or light cardboard, is placed endwise in each opening 1 and adhesively secured to its side wall. This strip has at its rear end a coating of abrasive material 4, which may be fine sand, and adjacent this, but closer to the central portion of the strip, is a small quantity of a fulminate 5, such, for instance, as is used in toy torpedoes. The abrasive and the fulminate face the axis of the opening. Within the opening is placed the filler paper 6, suitably folded, the rear end of the paper abutting against the frangible sheet 3 and extending forwardly beyond the fulminate, and in front of the filler is placed a coiled strip of paper or cloth 7 having an abrasive surface, such as sand paper or emery cloth, the strip having sufficient resiliency to expand its abrasive outer surface into engagement with the wall of the opening.

In practice, the board is held in a suitable frame and when a punch is inserted in one of the openings 1^a in the front plate *a'* and sufficient pressure is applied to the punch, the strip 2 is cut through and the punch quickly pushes the abrasive material 7 and the filler 6 rearwardly, forcing the filler through the film 3 and at the same time forcing the abrasive coil 7 past the fulminate 5, causing a light explosion. Some of the fulminate may be ground to dust and carried to the abrasive material on the strip *c* and there exploded by the friction of the abrasive material on the strip 7.

There are various ways in which the abrasive material and the fulminate may be arranged so that an explosion will occur when a filler is punched from an opening in the punch-board. For instance, the abrasive material may be attached to the front part of the filler and the fulminate 5 and abrasive 4 may be cemented directly to the wall of the opening instead of being applied to the strip *c*. It will be understood that as many openings as desired in the punch-board will be loaded with a filler and explosive producing means, although for the purpose of illustration I have shown only one opening so loaded.

What I claim is:

1. A punch-board having an opening there-through, a filler in said opening, a fulminate affixed to the side wall of said opening, and means for detonating said fulminate while the filler is being punched from the opening.

2. A punch-board having an opening there-
through, a filler in said opening, a fulminate
affixed to the side wall of said opening, and
means for detonating said fulminate while the
filler is being punched from the opening com-
prising an abrasive substance movable with the
filler and adapted to engage the fulminate while
the filler is being punched from the opening.

3. A punch-board having a plurality of open-
ings therethrough each adapted to receive a
filler, a filler and a fulminate in one of said open-
ings, and means for detonating said fulminate
while said filler is being punched from the
opening.

4. A punch-board having a plurality of open-
ings therethrough each adapted to receive a filler,

a filler and a fulminate in one of said openings,
the fulminate being affixed to the side wall of
the opening, and means for detonating said ful-
minate while the filler is being punched from
the opening.

5. A punch-board having a plurality of open-
ings therethrough each adapted to receive a
filler, a filler and a fulminate in one of said
openings, the fulminate being affixed to the side
wall of the opening, and means for detonating
said fulminate while the filler is being punched
from the opening comprising an abrasive sub-
stance movable with the filler and adapted to
engage the fulminate.

STANLEY L. RAU.