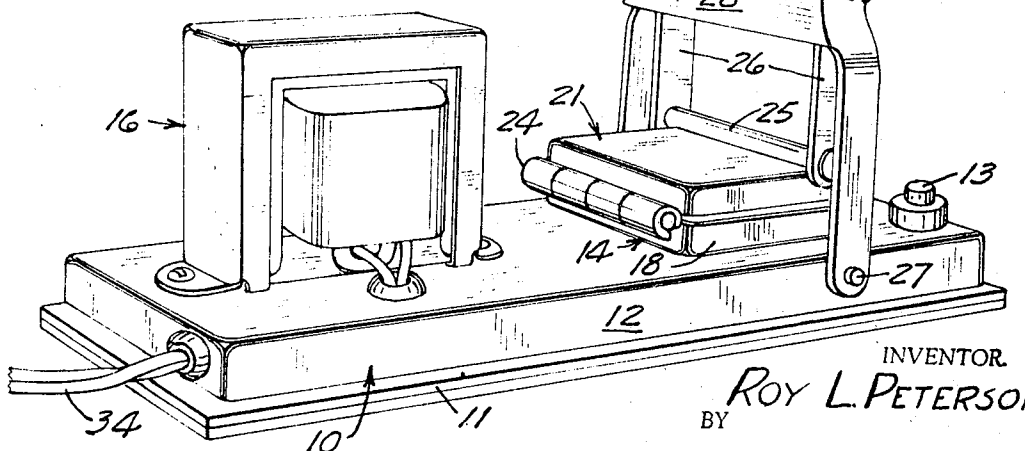


3,450,031

Filed Nov. 10, 1966



INVENTOR.
ROY L. PETERSON
BY
Gilbert B. Gehrenbeck
AGENT

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3,450,031
PRESS

Roy L. Peterson, 73 Wildwood Beach Road,
Mahtomedi, Minn. 55115

Filed Nov. 10, 1966, Ser. No. 593,489

Int. Cl. B30b 15/34

U.S. Cl. 100—93

2 Claims

ABSTRACT OF THE DISCLOSURE

There is described a hand-operated press suitable for enclosing and sealing coins and similar articles in transparent envelopes for preserving and protecting the same. The press includes opposing pressure platens having a resiliently compressible pad on each surface thereof.

This invention relates primarily to the protection and preservation of rare coins, and more particularly to apparatus for hermetically sealing such coins within transparent plastic film envelopes, where they remain fully protected from abrasion and contamination while remaining entirely visible.

The apparatus is in the form of a hand-operated press. The coin, desirably in clean and untarnished condition, is inserted in a small open-top transparent plastic envelope, for example of thin polyethylene film, which is placed between the platens of the press. The press is closed by means of a compound lever system. The two opposing resiliently compressible platens force the two sides of the envelope tightly against the enclosed coin or against each other, while expelling essentially all of the initially enclosed air through the open end. Momentary pressure on a control button then activates a heater unit to cause heat-sealing of the envelope across its end. The platens are then separated and the coin, in its protective sealed envelope, is removed.

The apparatus is illustrated in the appended drawing, in which

FIGURE 1 is a view in perspective from one side of the apparatus with the platens in open position,

FIGURE 2 is a similar view from the opposite side and with the platens in closed position, and

FIGURE 3 is a top plan view, and FIGURE 4 a side elevation, with portions removed, showing details of the heat-sealing unit.

The apparatus 10 of FIGURES 1 and 2 consists of a base 11 and hollow cover 12 on which are mounted a push-button 13, lower platen 14, lever 15, and transformer 16. The lower platen includes a pan 18, pad 19, and heating unit 20. An upper platen 21, consisting of a pan 22 and pad 23, is movably attached to the lower pan 18 by means of a hinge 24. A rod 25 fastened across the pan 22 is connected to the side arms of the inverted U-shaped lever 15 by connecting links 26. The lever 15 is supported at the ends of its side arms on pins 27 extending from opposite side edges of the cover 12. A crosspiece 28 reinforces the lever 15 and also serves as a stop to hold the lever with the platens in fully closed condition.

The heating unit 20, shown in more detail in FIGURES 3 and 4, consists of an insulating block 30 perforated near each end to receive connecting and supporting prongs 31 between which extends a resistance wire 32. The prongs

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31 are frictionally retained within the block 30 but may be forcefully removed and replaced when necessary, as in the replacement of the wire 32. The prongs make connection at their extended ends with suitable receptacles, not shown, within the cover 12, thus permitting easy removal and replacement of the entire unit 20.

The resistance wire, and the top and upper side edges of the block 30, are covered with a flexible strip 33 of heat-resistant protective sheet material, of which a preferred example is glass fabric reinforced "Teflon" polytetrafluoroethylene film pressure-sensitive adhesive tape. The tape is easily applied and as easily removed. It is heat-resistant, yet is sufficiently heat-conductive to permit rapid heating of the plastic envelope; and the heat-softened envelope does not adhere to the surface of the film. The adhesive holds the film in smooth close conformity with the upper surface of the block 30 and with the exposed resistance wire 32.

The pads 19, 23 are of a firm grade of resilient rubbery synthetic sponge. They extend sufficiently beyond the rim of their respective pans to provide strong pressure against each other as the lever 15 is brought to the closed position, but are sufficiently resilient and compressible to accept both thick coins and thin sheets of plastic between them when thus pressed together. They fit closely within their respective pans, which in turn prevent the pads from expanding laterally when under compression and thus assure uniformity of pressure. The upper surface of the heater unit 20 is somewhat below the upper level of the pad 19 and may be aligned with, or slightly above, the top edge of the pan 14, the upper pad 23 providing fully adequate pressure to assure removal of air and hermetic sealing of envelopes along the heater area.

The heater element is connected in series with the push-button switch 13 and the secondary of the transformer 16, the primary of which is connected to a source of power through the cord 34. The use of a transformer provides for high efficiency without overheating of the apparatus; but other means for controlling the voltage at the resistance wire 32, such for example as additional resistors, may be substituted.

A short heating period of no more than one or two seconds is ordinarily adequate to cause the formation of a hermetic seal across the previously open end of the plastic envelope, particularly where the latter is of thin polyethylene film or the like. Timing of such short periods is easily accomplished with adequate precision without mechanical assistance, and the push-button 13 is entirely sufficient and provides maximum convenience for such operations, although automatic timing and shutoff means may be added if desired.

It is ordinarily found desirable to allow a brief cooling period before opening the press and removing the sealed coin, so that the seal line of the envelope may first cool somewhat and be fully resistant to any tearing action arising during the opening and removal operation. Sticking and tearing of the envelope are also avoided by the use of adhesion-resistant coverings such as the adhesive tape 33, as previously noted.

What is claimed is as follows:

1. A press suitable for use by coin collectors and numismatists for rapidly and conveniently sealing coins within small transparent protective plastic envelopes, said

press consisting essentially of: a base; opposing pressure platens each having a resiliently compressible surface, said platens being hingedly connected together along one side, one of said platens containing a heater element closely adjacent the side opposite the hinge and being fastened to said base; lever means for closing and opening said press fastened to said base and consisting of an open frame having the general shape of an inverted U, a bearing bar and a stop bar connecting the two legs of the U at approximately their centers, and a pair of connecting links suspended from said bearing bar and attached at their opposite ends to the upper platen member of said press; and control means for actuating and de-actuating said heater element.

2. A press according to claim 1 wherein each said

platen comprises a resiliently compressible pad within an enclosing open-faced pan.

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PETER FELDMAN, *Primary Examiner.*

U.S. Cl. X.R.

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