



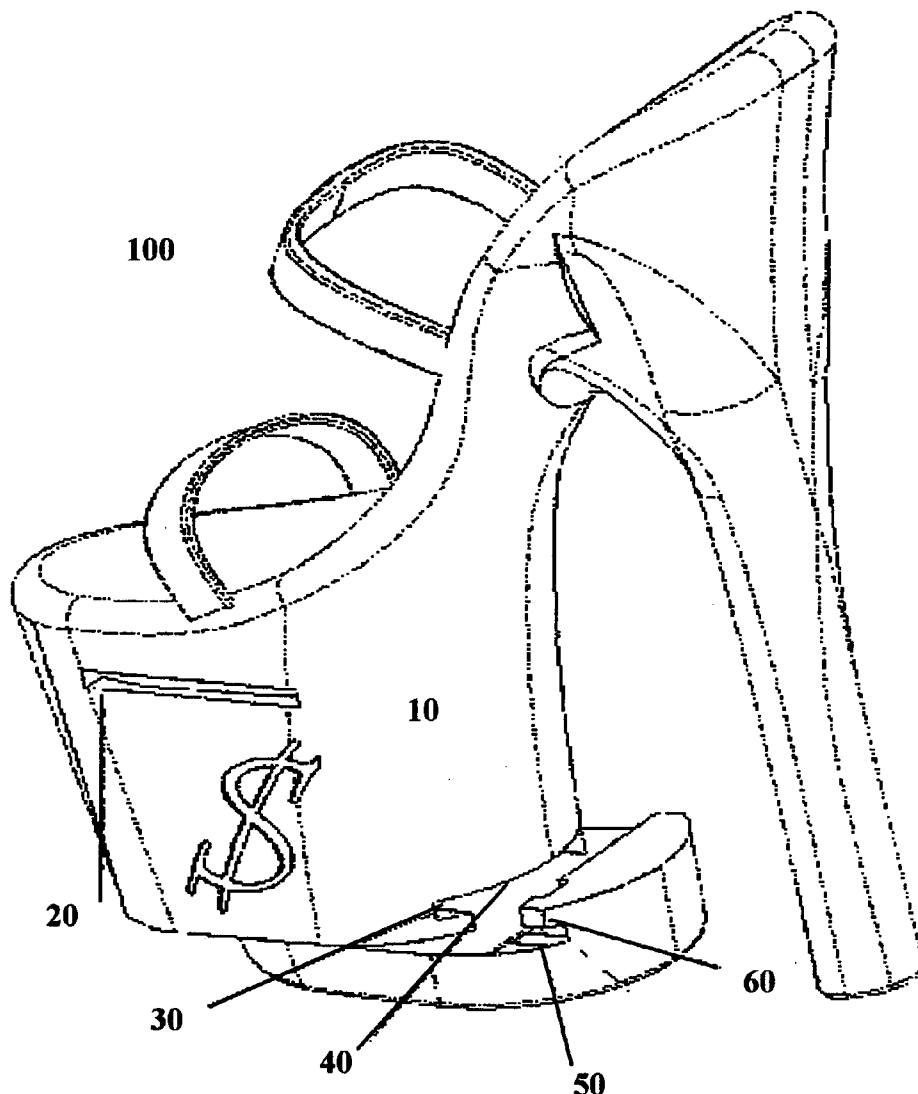
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(19) **United States**(12) **Patent Application Publication****Peters**(10) **Pub. No.: US 2005/0284004 A1**(43) **Pub. Date: Dec. 29, 2005**(54) **SECURE SHOE AND METHOD OF USING SAME**(52) **U.S. Cl. .... 36/136; 36/1**(76) **Inventor: Margaret Tryphena Peters, Las Vegas, NV (US)**(57) **ABSTRACT**

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The present invention provides a secure shoe, comprising a shoe casing and a payment slot in communication with the shoe casing for receiving funds. The secure shoe of the present invention may comprise a chamber disposed within the shoe casing, a removable sole in communication with the shoe casing and various locking components. The secure shoe may further comprise an indicator light and an electronic card reader in communication with the payment slot. A method of using the shoe for secure payment wherein a payment card is swiped through the payment slot of the shoe is also provided.



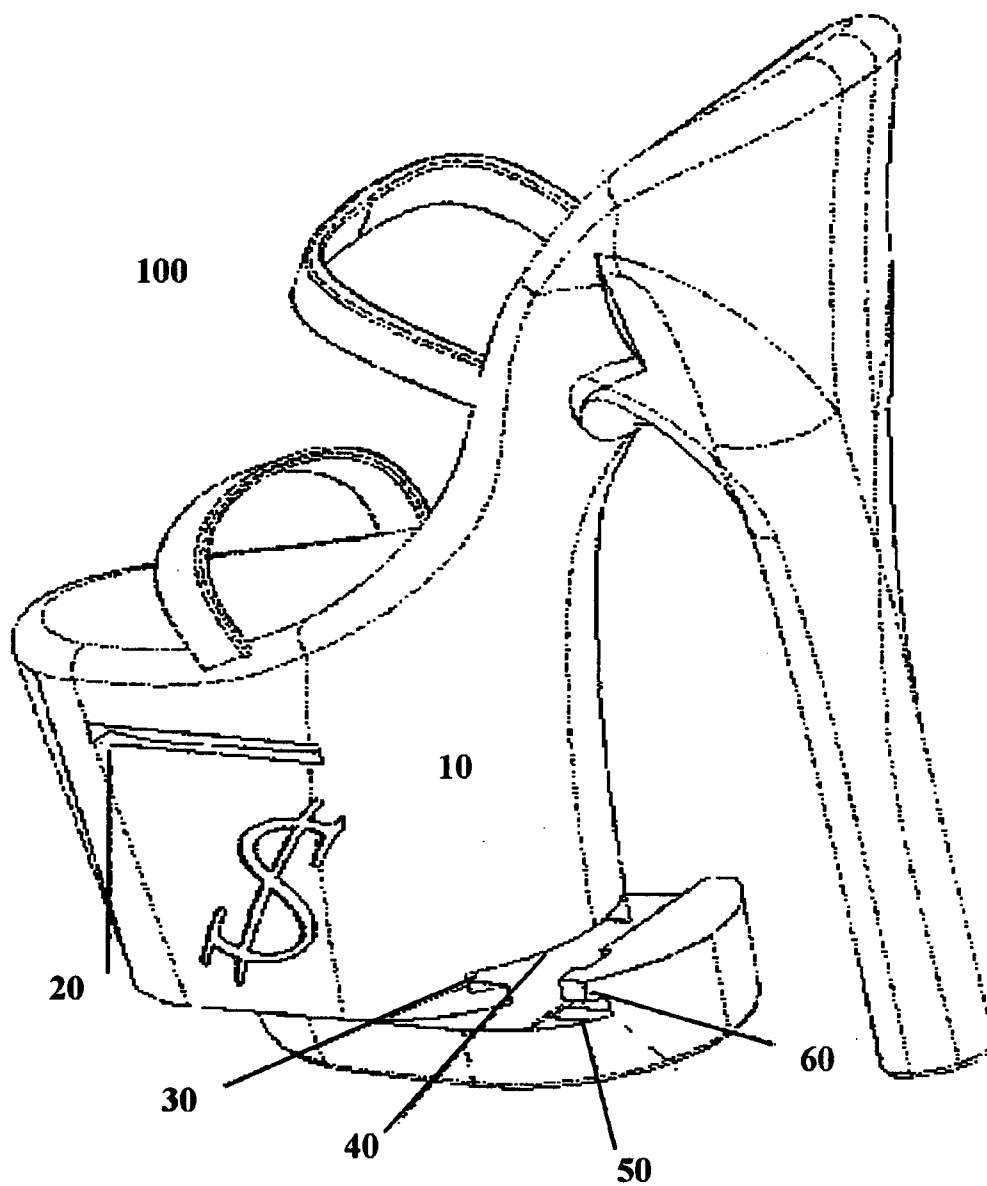
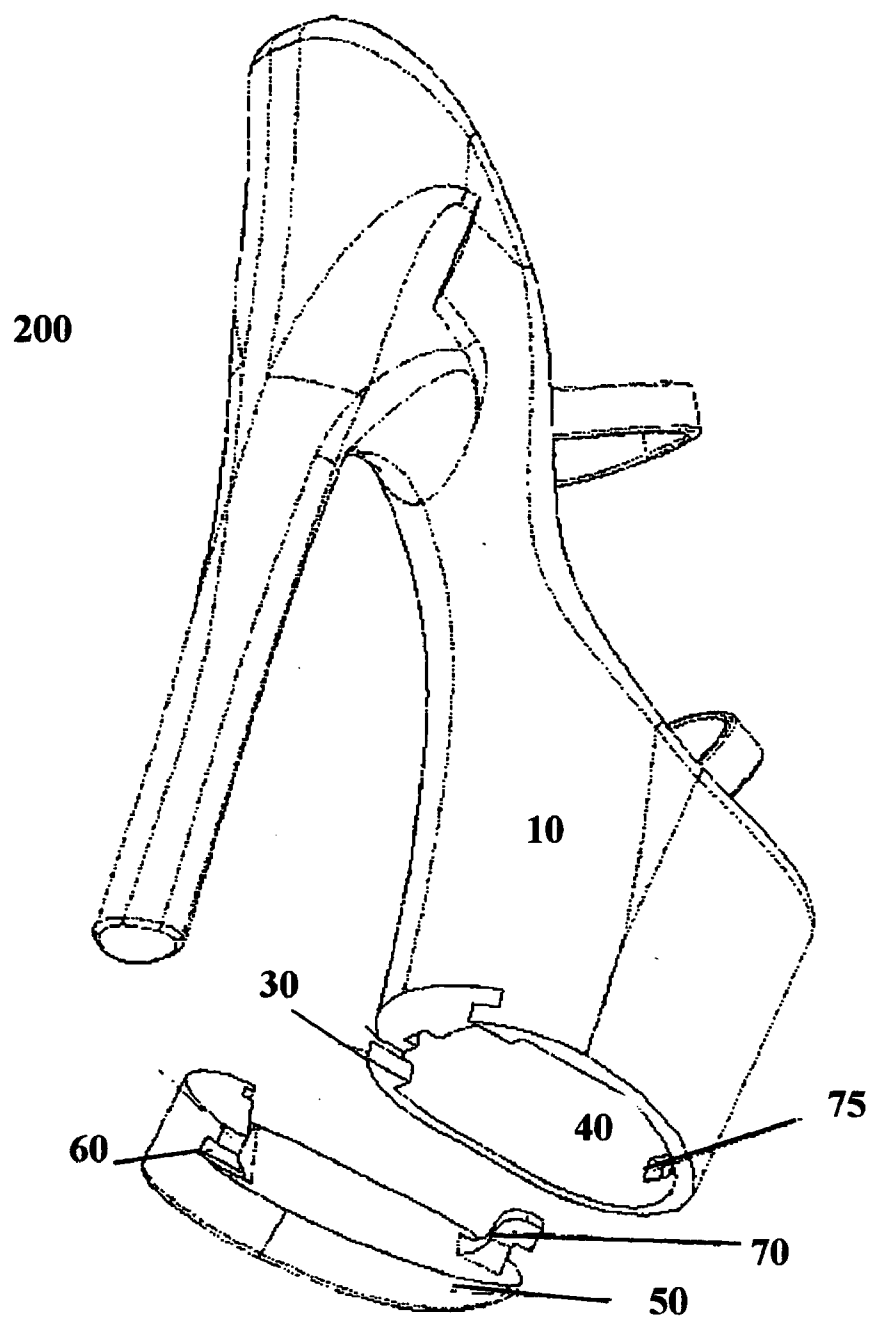
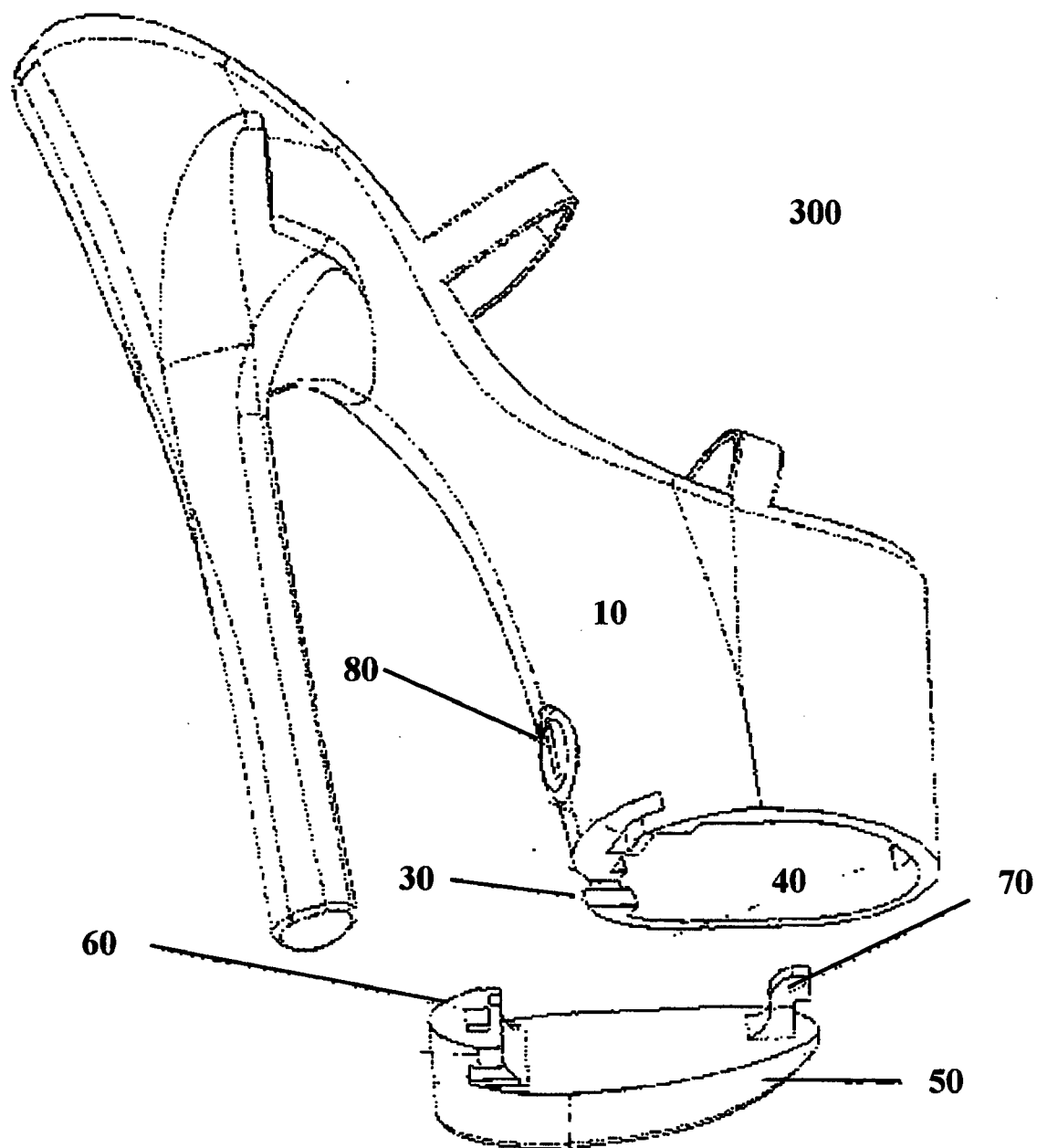


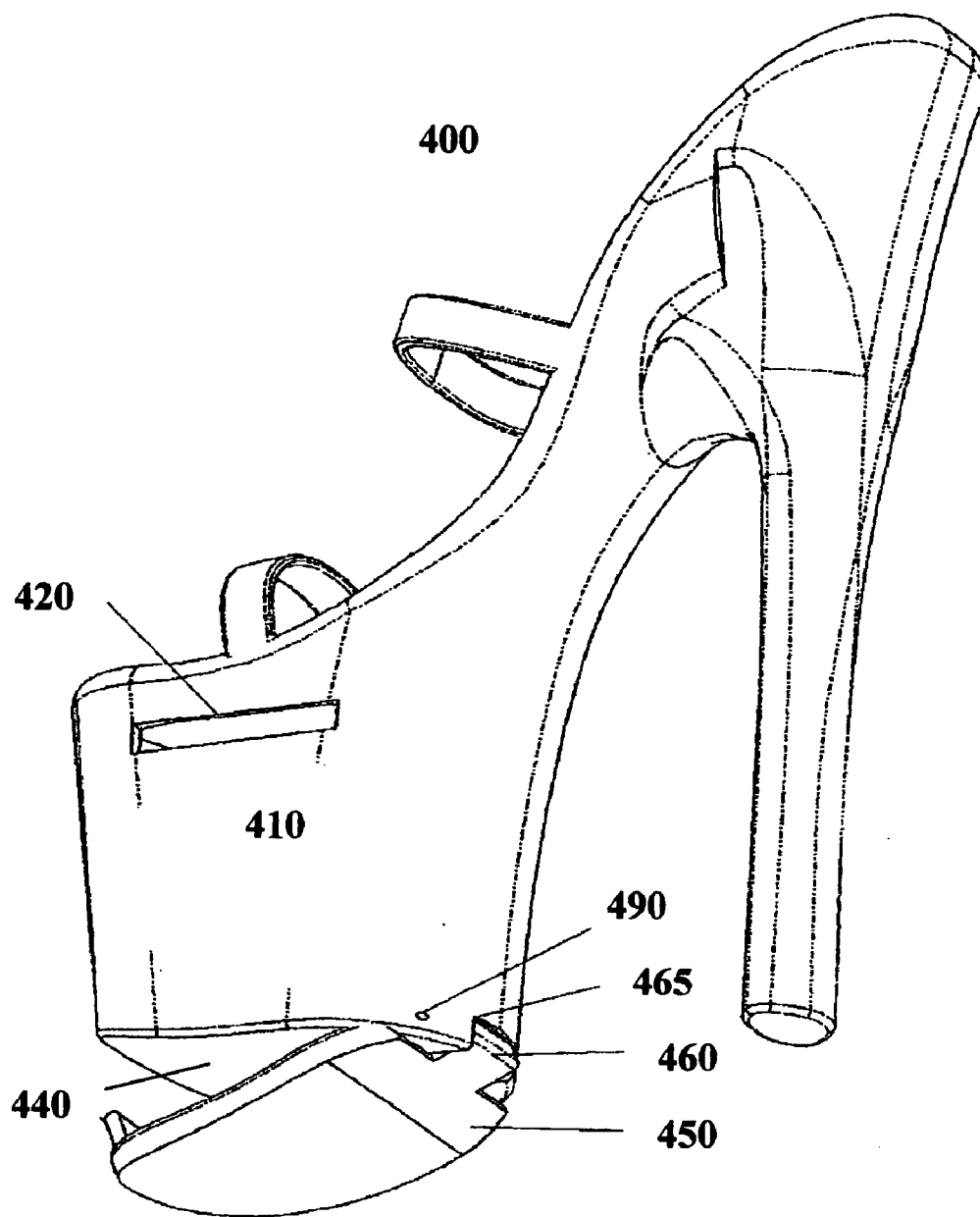
FIG. 1



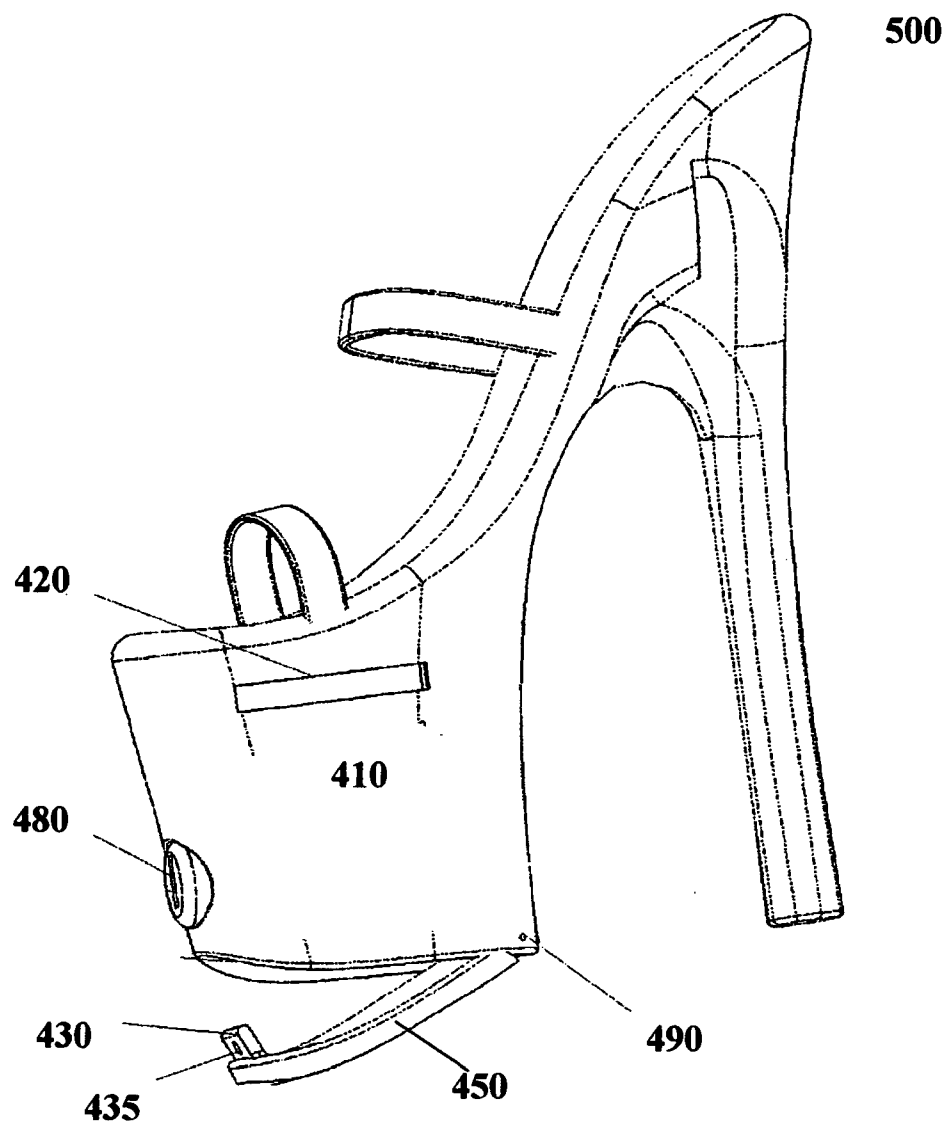
**FIG. 2**



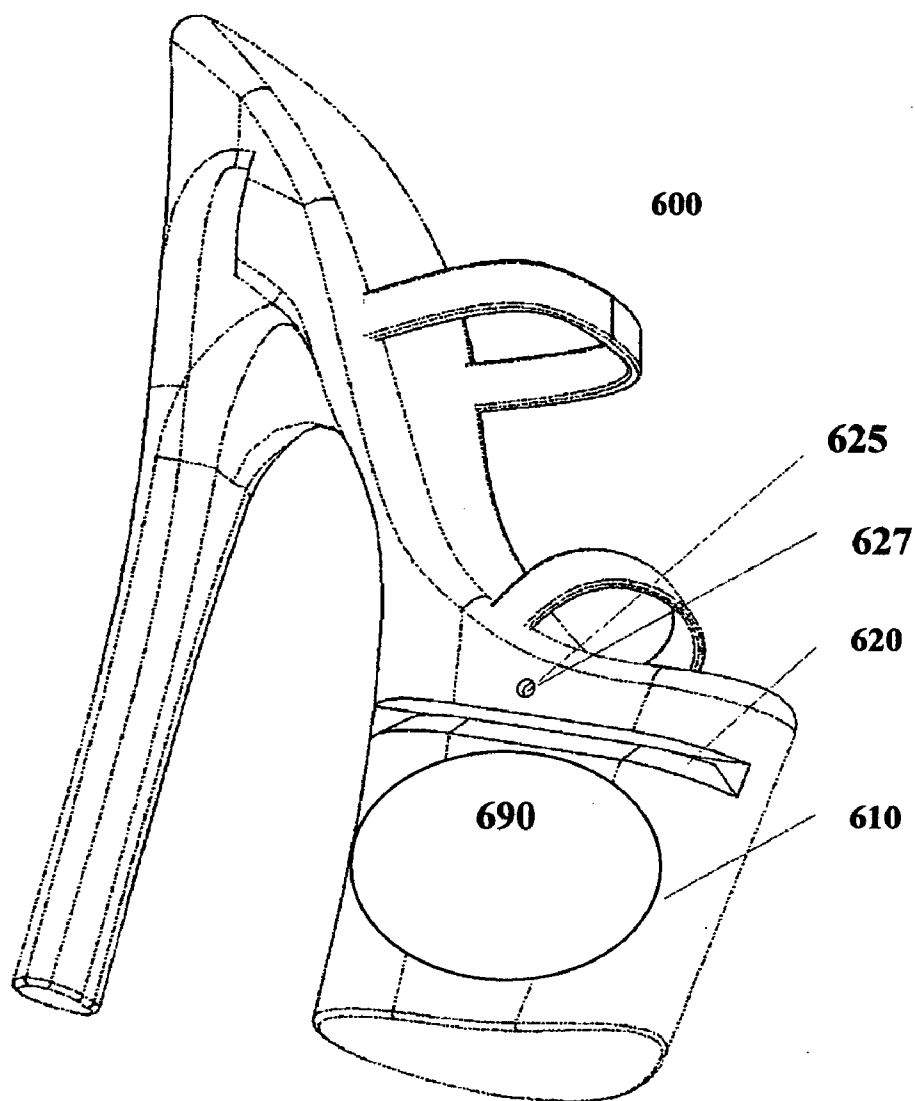
**FIG. 3**



**FIG. 4**



**FIG. 5**



**FIG. 6**

## SECURE SHOE AND METHOD OF USING SAME

### BACKGROUND OF THE INVENTION

[0001] The present invention is directed to a system and a method for securing payment means and/or personal information and, in particular, to a system and a method which uses a shoe to securely receive and/or store payment.

[0002] It is known in the art to store personal items in pockets that can be attached to a shoe. For example, U.S. Pat. Nos. 4,280,287; 4,296,559; 4,638,579; 4,726,128 all teach pockets for storing personal items. These pockets are then stitched, tied or otherwise attached to parts of the shoe. U.S. Pat. No. 6,094,844 shows a detachable pocket that may be connected into a part of the shoe, namely, the sole. The personal items thus stored may include small amounts of cash and credit cards.

[0003] It is also known in the art to store electronic personal information in items that can be attached to a shoe. For example, U.S. Patent Application No. 20010045469 describes a locket that stores medical information electronically. One embodiment of this locket may be attached to a shoe.

[0004] However, it would be desirable to provide a system and method for securely storing personal items within an actual shoe. Such a shoe may be desirable in the fashion industry by women who wish to wear heels that are fashionable and yet practical because the heeled shoes store their payment means, such as credit cards or cash. Although the shoe pockets described in the previously named art might be used in such industries to store some funds—these pockets are unlikely to store large amounts of cash.

[0005] It would also be desirable to provide a system and method to securely receive and/or store electronic funds within an actual shoe. Such a shoe is particularly useful in industries such as the exotic dance industry, where large funds are paid to dancers. These dancers may be carrying extremely small means or no means at all for carrying the funds. Again, the shoe pockets previously described in the art might be used to store some funds but are not likely to store the large amount of cash involved in this industry. Furthermore, these pockets are not designed to securely process and received electronic funds.

### SUMMARY OF THE INVENTION

[0006] Thus, one object of the present invention provides a secure shoe, comprising a shoe casing and a payment slot in communication with the shoe casing for receiving funds.

[0007] The secure shoe of the present invention may comprise a chamber disposed within the shoe casing, a removable sole in communication with the shoe casing, interlocking components disposed upon the shoe casing for receiving the removable sole, as well as interlocking components disposed upon the removable sole for snapping the removable sole to the shoe casing. The removable sole may be slidably or hingedly attached to the shoe casing. Furthermore, the secure shoe may be locked using, for example, a lock and key mechanism, a combination lock or an electronic lock.

[0008] The secure shoe of the present invention may have an upper and lower heel with the chamber for funds in the

lower heel and may further comprise an indicator light and an electronic card reader in communication with the payment slot.

[0009] Another object of the present invention provides a secure shoe comprising a shoe casing and an electronic card reader disposed within the casing. The secure shoe further comprises a payment card for use with the electronic card reader, wherein electronic funds are disbursed onto the payment card.

[0010] Yet another object of the present invention provides a method of secure payment wherein a payment card is swiped through the payment slot of a shoe comprising a casing and a payment slot disposed within the casing. The funds may be provided onto the card, for example, by converting cash to electronic funds. These funds may then be deducted from the card in specific preprogrammed increments. The use of the card may also be monitored so that reward points may be awarded for frequent use.

[0011] The foregoing, and other, features and advantages of the invention will become further apparent from the following detailed description of the presently preferred embodiments, read in conjunction with the accompanying drawings. The detailed description and drawings are merely illustrative of the invention and do not limit the scope of the invention being defined by the appended claims in equivalence thereof.

### DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 shows a first perspective view of one embodiment of the present invention;

[0013] FIG. 2 shows a second bottom view of the embodiment of FIG. 1;

[0014] FIG. 3 shows a third perspective view of the embodiment of FIG. 1;

[0015] FIG. 4 shows a first bottom view of a second embodiment of the present invention;

[0016] FIG. 5 shows a second perspective view of the embodiment of FIG. 4;

[0017] FIG. 6 shows a first perspective view of a third embodiment of the present invention.

### DETAILED DESCRIPTION

[0018] FIG. 1 shows a first perspective view of a shoe 100 in accordance with one embodiment of the present invention. Shoe 100 comprises a shoe casing 10 with a chamber 40 disposed therein. Chamber 40 is slidably enclosed by shoe casing 10 and a removable sole 50. Thus chamber 40 may be accessed by sliding sole 50 away from casing 10. Chamber 40 may also be accessed via fund slot 20, for example by inserting funds into chamber 40 via slot 20. Such funds may include, but are not limited to, cash, checks, credit cards, debit cards, other types of electronic banking cards and points cards. In the embodiment of FIG. 1, sole 50 has a rear locking component 60 which is received into rear receiving locking component 30 of casing 10. When rear locking component 30 receives rear locking component 60, the shoe 100 is effectively locked and any contents of chamber 40 are secured.



[0019] Casing **10** may be formed of any suitable material for a shoe, such as plastic, a suitable metal, fiberglass, etc. Removable sole **50** may also be formed of such material. Casing **10** and sole **50** may be formed of the same or different materials.

[0020] Locking components **30** and **60** may also be formed of any suitable material for a shoe as described above. In one embodiment of the invention, one or both of locking components **30**, **60** may be magnetic, providing further means for securing chamber **40**. As can also be seen in **FIG. 1**, it is possible to provide more than one rear locking component **60** and more than one rear receiving locking component **30**.

[0021] **FIG. 2** shows a second bottom view of a shoe **200** in accordance with the present invention. Shoe **200** further comprises a front locking component **70**, which is received into front receiving locking component **75**. Locking components **70** and **75** may also be formed of any suitable material for a shoe as described above. In one embodiment of the invention, one or both of locking components **70**, **75** may be magnetic, providing further means for securing chamber **40**. Although it is not illustrated in the present example, it is possible to provide more than one front locking component **70** and more than one front receiving locking component **75**.

[0022] **FIG. 3** shows a third perspective view of a shoe **300** in accordance with the present invention. Shoe **300** further comprises a manual lock **80**. Manual lock **80** may also be formed of any suitable material for a shoe as described above. In one embodiment of the invention, manual lock **80** may be magnetic, providing further means for securing chamber **40**. Although it is not illustrated in the present example, it is possible to provide more than one manual lock **80**. In some embodiments of the invention, manual lock **80** can be locked with a standard lock and key mechanism as is well known in the art. In such embodiments, a key (not shown) is inserted into manual lock **80** and turned in order to further secure sole **50** to shoe casing **10**. In a preferred embodiment of the invention, the key is sold and packaged with the shoe **100**. Moreover, the key may be sold on a fashion wristband to be worn in coordination with the shoe, e.g. the shoe and wristband are in complementary colors. In other embodiments of the invention, manual lock **80** is a combination lock or an electronic locking mechanism.

[0023] **FIG. 4** shows a first bottom view of a shoe **400** in accordance with a second embodiment of the present invention. Shoe **400** comprises a shoe casing **410** with a chamber **440** disposed therein. Chamber **440** is removably enclosed by shoe casing **410** and a removable hinged sole **450**. Thus chamber **440** may be accessed by moving sole **450** away from casing **410**. In the embodiment of **FIG. 4** this is accomplished by moving top hinge **465** and bottom hinge **460** away from each other. Hinges **460** and **465** are connected to each other as is well known in the art. Chamber **440** may also be accessed via fund slot **420**, for example by inserting funds into chamber **440** via slot **420**. Such funds may include, but are not limited to, cash, checks, credit cards, debit cards, other types of electronic banking cards and points cards. In the embodiment of **FIG. 4**, casing **410** further includes a pinhole **490** to keep the sole **450** aligned, as is known in the art.

[0024] Casing **410** may be formed of any suitable material for a shoe, such as plastic, a suitable metal, fiberglass, etc. Removable sole **450** may also be formed of such material. Casing **410** and sole **450** may be formed of the same or different materials. Hinges **460** and **465** may also be formed of any suitable material for a shoe as described above.

[0025] **FIG. 5** shows a second perspective view of a second embodiment of a shoe **500** in accordance with the present invention. Shoe **500** further comprises a manual lock **480**. Manual lock **480** may also be formed of any suitable material for a shoe as described above. In one embodiment of the invention, manual lock **480** may be magnetic, providing further means for securing chamber **440**. Although it is not illustrated in the present example, it is possible to provide more than one manual lock **480**. In some embodiments of the invention, manual lock **480** can be locked with a standard lock and key mechanism as is well known in the art. In such embodiments, a key (not shown) is inserted into manual lock **480** and turned in order to further secure sole **450** to shoe casing **410**. As described above, the key may be packaged and sold in coordination with the shoe **500** and may even be provided on a fashion wristband to be worn with the shoe. As can be seen in **FIGS. 3 and 5**, the manual lock **80**, **480** of the secure shoe of the present invention may be placed in any suitable location on the shoe. In addition, it is possible that more than one lock or a combination of locks may be used to provide further securing of chamber **440**.

[0026] Shoe **500** further comprises a front locking component **430**, which is received into shoe casing **410**. Front locking component **430** may then be securely snapped into shoe casing **410**, thereby effectively closing off chamber **440**. Locking component **430** may also be formed of any suitable material for a shoe as described above. In one embodiment of the invention, locking component **430** may be magnetic, providing further means for securing chamber **440**. As can be seen in **FIG. 5**, locking component **430** may also comprise a pinhole **435** which may be appropriately fastened to manual lock **480** as is well known in the art. Although it is not illustrated in the present example, it is possible to provide more than one front locking component **70** and more than one front receiving locking component **75**.

[0027] **FIG. 6** shows a first perspective view of a shoe **600** in accordance with a third embodiment of the present invention. Shoe **600** comprises a shoe casing **610** with a fund slot **620** disposed therein. Funds may be electronically inserted into fund slot **620** by swiping a card through slot **620** as is well known in the art. Such funds may include, but are not limited to, check cards, credit cards, debit cards, other types of electronic banking cards and points cards. In a preferred embodiment, the cards swiped may be pre-programmed to interact with slot **620** in predetermined increments, such as \$20. This allows the establishment greater convenience and control over the amounts of the transactions involved. In the embodiment of **FIG. 6**, shoe **600** further comprises an electronic interface **690**, such as a programmable computer chip, which may store and/or process the information from the cards swiped in fund slot **620** as is well known in the art. Shoe **600** may further comprise one or more infrared or other optical type scanners **625** for receiving or transmitting information, such as financial data, as is well known in the art.

[0028] Alternatively, shoe 600 may comprise an LED or other indicator light 627 to provide information about the transaction swiped through slot 620. For example, a red light will indicate that the transaction was not approved; while a green light indicates approval.

[0029] Casing 610 may be formed of any suitable material for a shoe, such as plastic, a suitable metal, fiberglass, etc. Slot 620 may be any suitable infrared or other optical scanner for reading card information, as is well known in the art. For example, a card reader for use with a smart card chip is now fairly standard in the art for use with credit cards and debit cards.

[0030] In one method of the present invention, shoe 600 is used by preprogramming a card with a pre-paid amount of funds. For example, a patron enters an establishment and pays cash to 'top up' his card. The patron may then swipe the card through slot 620 as many times as desired until the pre-paid amount is exhausted. In one embodiment of the invention, the establishment can pre-program the card or the card reader to deduct specific amounts, such as \$20 increments, with each swipe. This provides the establishment with greater control over the amounts of transactions and allows the shoe wearer greater convenience and ease in concluding transactions. The pre-paid card may also be used as a points card, wherein a returning patron's visits are rewarded with points or other perks for frequent card use. Cards may even be pre-purchased and presented as gifts, for example, to members of a bachelor party.

[0031] Of course, various changes, modifications and alterations from the teachings of the present invention may be contemplated by those skilled in the art without departing from the intended spirit and scope thereof. It is intended that the present invention only be limited by the terms of the appended claims.

1. A secure shoe, comprising:
  - a shoe casing;
  - a payment slot in communication with the shoe casing for receiving funds.
2. The secure shoe of claim 1, further comprising:
  - a chamber disposed within the shoe casing, wherein the slot is in communication with the chamber and the funds are received into the chamber.
3. The secure shoe of claim 1, further comprising:
  - a removable sole in communication with the shoe casing.
4. The secure shoe of claim 3 wherein the removable sole is slidably removable from the shoe casing.
5. The secure shoe of claim 4 further comprising:
  - at least one receiving interlocking component disposed upon the shoe casing for receiving the removable sole.

6. The secure shoe of claim 4 further comprising:
  - at least one interlocking component disposed upon the removable sole for snapping the removable sole to the shoe casing.
7. The secure shoe of claim 3 further comprising:
  - at least one hinge attaching the removable sole to the shoe casing.
8. The secure shoe of claim 7, further comprising:
  - at least one pinhole for aligning the hinge.
9. The secure shoe of claim 1, further comprising:
  - a lock in communication with the shoe casing.
10. The secure shoe of claim 9 wherein the lock is selected from a group consisting of:
  - a lock and key mechanism, a combination lock and an electronic lock.
11. The secure shoe of claim 1 wherein the casing comprises an upper portion and a lower portion, the chamber disposed within the lower portion.
12. The secure shoe of claim 1 further comprising:
  - an indicator light.
13. The secure shoe of claim 1 further comprising:
  - an electronic card reader in communication with the payment slot.
14. A secure shoe comprising:
  - a shoe casing; and
  - an electronic card reader disposed within the casing.
15. The secure shoe of claim 14, further comprising:
  - a payment card for use with the electronic card reader, wherein electronic funds are disbursed onto the payment card.
16. A method of secure payment, comprising:
  - providing a shoe, wherein the shoe comprises a casing and a payment slot disposed within the casing;
  - swiping a payment card through the payment slot to authorize release of funds.
17. The method of claim 16, further comprising:
  - providing funds on a payment card.
18. The method of claim 16 further comprising:
  - converting cash to electronic funds to be provided on the payment card.
19. The method of claim 16, further comprising:
  - deducting funds from the payment card in a preprogrammed increment.
20. The method of claim 16, further comprising:
  - monitoring the use of the payment card; and
  - providing rewards points based on the use of the payment card.

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