Jan. 26, 1954 J. C. WILSON ET AL 2,667,350

ELECTRIC SHOCKING DEVICE

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Fig. 1.

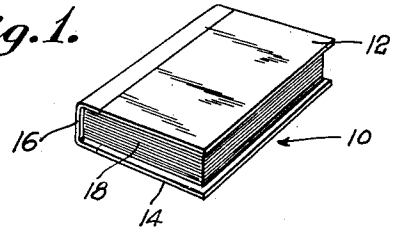


Fig. 2.

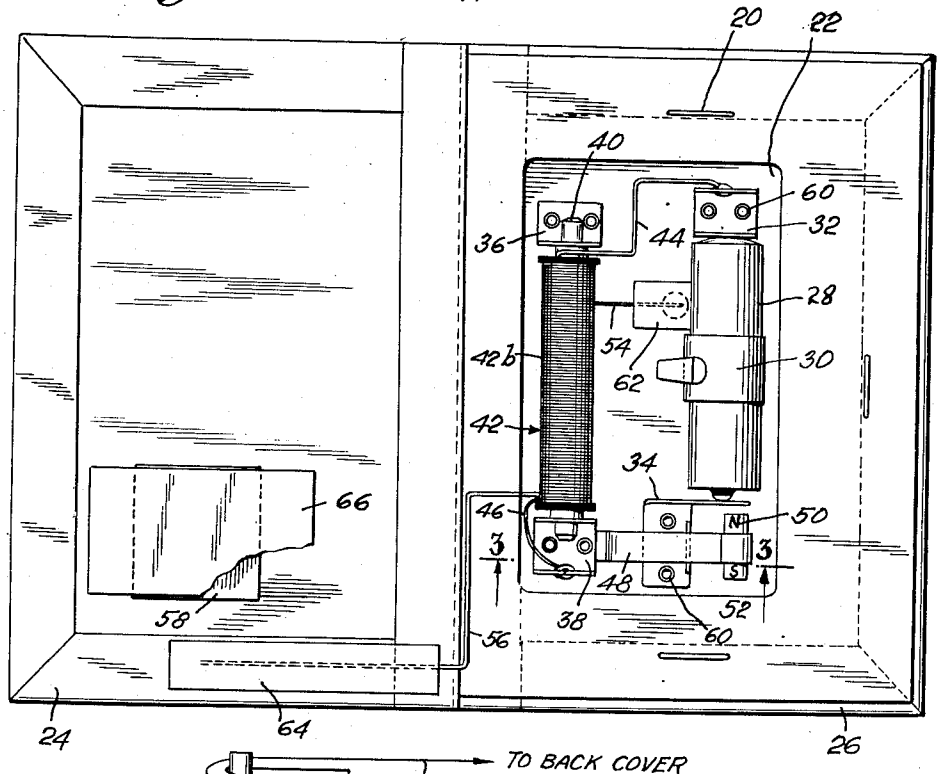


Fig. 4.

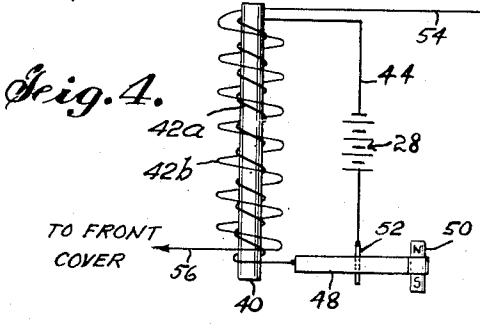
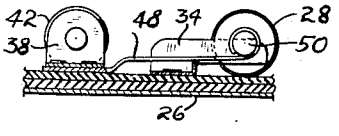


Fig. 3.



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ELECTRIC SHOCKING DEVICE

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2 Claims. (Cl. 272—27)

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This invention relates to an electric shocking device which simulates a book.

The principal object of this invention is the provision of a simulated book which delivers an electric shock to the person who opens it. The covers of the simulated book are electrically conductive and they are connected to the secondary winding of an induction coil which is concealed within the simulated pages of said simulated book. A source of direct electrical current and a vibrating type of interrupter are also concealed within the simulated pages of said simulated book and they are connected to the primary winding of said induction coil. The primary circuit is normally open both when the simulated book is closed and when it is open. The interrupter vibrates and thereby intermittently closes and opens the primary circuit only during the brief period of time which immediately follows the opening of the book. The secondary circuit is also normally open since the two covers of the book are insulated from each other. The secondary circuit closes when the book is held in the hands, one hand being in contact with the front cover and the other being in contact with the back cover. Hence, when the book is opened an induced intermittent current is caused to flow through the person opening the book and he is thereby subjected to the experience of an electric shock.

An important feature of the present invention is the use of electrically conductive book covers. These covers may be made entirely of electrically conductive material, or they may be covered with electrically conductive material or electrically conductive material may be applied to them.

In the preferred form of this invention, the book covers are made of cardboard or pasteboard and they are covered with metal foil which, of course, is highly conductive to electrical current. The back or backbone of the book is made in conventional manner and it is not covered with metal foil. It serves, therefore, to insulate the foil of the back cover from the foil of the front cover. Furthermore, the use of metal foil on the covers of the book and the use of a conventional back or backbone for the book provides a most realistic appearance which strongly simulates the appearance of a genuine book.

Another important feature of the present invention is the primary circuit interrupter. This interrupter comprises the following elements: a fixed contact bar, a spring metal contact bar which is mounted for vibration into and out of

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contact with the fixed contact bar, a magnet secured to the spring metal contact bar, and a magnetic plate secured to the inside of the front cover of the book. The spring metal contact bar is normally out of engagement with the fixed contact bar when the book is open. When the book is closed, the magnetic attraction between the magnet on the spring metal contact bar and the magnetic plate on the front cover has the effect of anchoring the magnet and the front cover together. This has the further effect of preventing the spring metal contact bar from engaging the fixed contact bar and the still further effect of holding the front cover in closed position. As the front cover is begun to be raised to open position, the magnet tends to move upwardly with it, and the spring metal contact member which supports the magnet is thereby loaded. However, further upward movement of the front cover to open position severs the magnetic link between the magnet and the magnetic plate and the loaded spring metal contact member thereby springs back and into engagement with the fixed contact bar. Contact between the two contact members is thereby made and broken as the spring metal contact member vibrates into and out of engagement with the fixed contact bar.

A preferred form of the present invention is shown in the accompanying drawing in which:

Fig. 1 is a perspective view of the simulated book herein described and claimed, showing said simulated book in closed position.

Fig. 2 is a plan view of said simulated book showing it in open position and exposing its working parts.

Fig. 3 is a sectional view on the line 3—3 of Fig. 2.

Fig. 4 is a diagrammatic view of the two electric circuits of the mechanism shown in Fig. 2.

It will be seen in Fig. 1 that the simulated book 10 which is made in accordance with the present invention has a front cover 12, a back cover 14, a back or backbone 16 and simulated pages 18. These simulated pages are stapled together by means of staples 20, as Fig. 2 clearly shows, so as to hold them together. A cutout 22 is formed in the stapled pages 18 and it will be seen in Fig. 2 that the working parts of the apparatus herein claimed are mounted in said cutout. Front cover 12 is covered with metal foil 24 and back cover 14 is also covered with metal foil 26. The covers of the book and its simulated pages are made preferably of cardboard or pasteboard and the foil is made, preferably, of aluminum or any

other suitable metal which provides a realistic appearance and which is highly conductive to electrical current. The back or backbone of the book may also be made of cardboard or pasteboard and it may be covered with cloth of the type conventionally used in binding books. The back or backbone is not conductive to electric current and it, therefore, serves to insulate the front and back foil of the front and back covers from each other.

Mounted in cutout **22** is a dry cell **28** and a clip **30** holds it in place in said cutout. There are two brackets **32** and **34** which engage the two ends of the dry cell and which prevent axial dislodgment thereof. These two brackets also serve as electric contacts with respect to the two terminals of the dry cell. A second pair of brackets **36** and **38** are also provided in cutout **22** and they support the iron core **40** of an induction coil **42**. A wire **44** connects bracket **32** to one end of the primary coil or winding **42***a* of said induction coil, and a second wire **46** connects the opposite end of the primary coil or winding to bracket **38**.

Secured at one end to bracket **38** is a vibratory arm **48** which supports at its opposite end a bar magnet **50**. Vibratory arm **48** is made of spring metal so that it may engage in vibratory movement. Below vibratory arm **48** and spaced therefrom, is a bar **52** which constitutes an upwardly extending flange on bracket **34** above mentioned. Vibratory arm **48** is normally out of contact with bar **52**, but when contact is made between said arm and said bar, the primary circuit of the apparatus is thereby closed and it will be noted that said primary circuit comprises the following elements: dry cell **28**, bracket **34**, bar **52**, vibratory arm **48**, bracket **38**, wire **46**, the primary coil or winding **42***a*, wire **44** and bracket **32**.

A wire **54** connects one end of the secondary winding **42***b* of induction coil **42** to foil **26** of the back cover of the book. A second wire **56** connects the opposite end of the secondary coil or winding **42***b* to foil **24** of the front cover of the book. Thus it is that the two foil covers are connected to each other in series through the secondary coil **42***b*. There is no complete circuit, however, until an electrical connection is made between the two foil covers of the book in addition to the electrical connection through the secondary coil. In the normal use of the present device, this additional electrical connection is provided when the book is held in one hand and the front cover is opened with the other hand. In such case, the body of the person holding and opening the book constitutes the electrical connection which completes and closes the circuit to the secondary coil.

Although the free end of vibratory arm **48** supports magnet **50** it is nonetheless normally out of engagement with bar **52**. Since the vibratory arm is made of spring metal, it is well adapted to engage in vibratory movement into and out of contact with bar **52**. It will be noted in Fig. 2 that a magnetic plate **58** is secured to the inside or underside of front cover **12**. When the front cover is in closed position, magnetic plate **58** is disposed directly above magnet **50**. Magnetic attraction between the magnet and the magnetic plate tends to anchor the magnet and the front cover to each other, thereby tending to prevent the front cover from moving into open position and also tending to prevent vibratory arm **48** from engaging contact bar **52**. When the front cover is raised to open position against the action of the magnetic force last mentioned, the magnet

is abruptly released from its anchored position and the vibratory arm **48** tends to spring back in the direction of contact bar **52**. It engages said contact bar and disengages it in vibratory fashion thereby closing and opening the circuit which includes the dry cell and the primary winding of the induction coil. Electric current is thereby generated or induced in the secondary winding of said induction coil and it surges through the body of the person who holds the book in one hand and opens the front cover with his other hand.

It will be seen that some of the parts of the apparatus above described may be secured to the covers of the book either by means of eyelets or adhesive coated tape or any other suitable fastening means. For example, brackets **32**, **34**, **36** and **38** are secured to the underside of the back cover of the book by means of eyelets **60**. Wire **54** is secured to the inside of said back cover by means of an adhesive coated strip **62**. Similarly, an adhesive coated strip **64** secures wire **56** to foil **24** of the front cover and an adhesive coated patch **66** secures magnetic plate **58** to the inside of the front cover.

It will be understood that the foregoing is descriptive of a preferred form of this invention and that this preferred form may be modified in many ways and other forms may be provided within the broad spirit of the invention and the broad scope of the claims.

As used in this specification, the term "magnetic plate" relates to a plate, made of iron or other suitable material, which is responsive to magnetic attraction. It may also be magnetic in the sense of itself constituting a magnet. The vibratory arm, in such case, need not carry a magnet, but it should carry a bar made of magnetically responsive material, such as iron. The foregoing all assumes a passive or inactive role for the vibratory arm insofar as the interplay of magnetic forces is concerned. It will be understood, however, that the vibratory arm may itself be magnetized or made of magnetically responsive material.

We claim:

1. An electric shock producing book, comprising a hollow dummy book having electrically conductive front and back covers which are hinged to said book and are insulated from each other, an induction coil in said book having primary and secondary windings, the secondary winding being connected at one of its ends to one of said covers and at its opposite end to the other of said covers, a dry cell in said book having positive and negative terminals, and an interrupter in said book connected to one of said terminals and to one end of said primary winding, the other terminal being connected to the other end of the primary winding, said interrupter comprising a fixed contact member, a coacting resilient vibratory contact member which is secured at one end to the back cover and which is normally biased away at its opposite end from the fixed contact member, a magnet secured to said opposite end of the vibratory contact member and a coacting magnetic plate secured to the front cover of the book, said magnet and magnetic plate being attracted to each other when the front cover is swung to closed position to magnetically hold the front cover in closed position, thereby locking the vibratory contact member against vibrating into engagement with the fixed contact member under ordinary handling, but releasing said vibratory contact member for in-

termittent engagement through its resiliency with said fixed contact member when the front cover is swung to open position and the magnet and magnetic plate are thereby separated.

2. An electric shock producing book, comprising a hollow dummy book having front and back covers which are made at least in part of electrically conductive material and which are hinged to said dummy book and are insulated from each other, an induction coil mounted between said front and back covers, the secondary winding of said induction coil being connected at one end to the electrically conductive part of one of said covers and at its opposite end to the electrically conductive part of the other of said covers, a dry cell also mounted between said front and back covers, one terminal of said dry cell being connected to one end of the primary winding of said induction coil, and a vibratory interrupter which is connected to the other terminal of the dry cell and to the opposite end of the primary winding, said induction coil, dry cell and vibratory interrupter being mounted within said hollow dummy book and being fixed therein against accidental dislodgment, said vibratory interrupter comprising a fixed contact member and a vibratory spring metal contact member which is secured at one end to the back cover and which

is normally biased away at its opposite end from the fixed contact member, said spring metal contact member being mounted for vibratory movement into and out of engagement with the fixed contact member, the free end of said spring metal contact member and the front cover of the book being provided with coacting magnetically attractive means which tend to anchor the spring metal contact member and the front cover to each other, thereby tending to prevent movement of the front cover into open position and vibratory movement of the spring metal contact member into engagement with the fixed contact member under ordinary handling, but releasing said vibratory contact member for intermittent engagement through its resiliency with said fixed contact member when the front cover is swung to open position and the magnetically attractive means are thereby separated.

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