Dec. 24, 1963 W. J. HAHN 3,115,434

MAGNETICALLY ATTACHED CRUCIFIX FOR CASKETS

Filed June 29, 1960 3 Sheets-Sheet 1

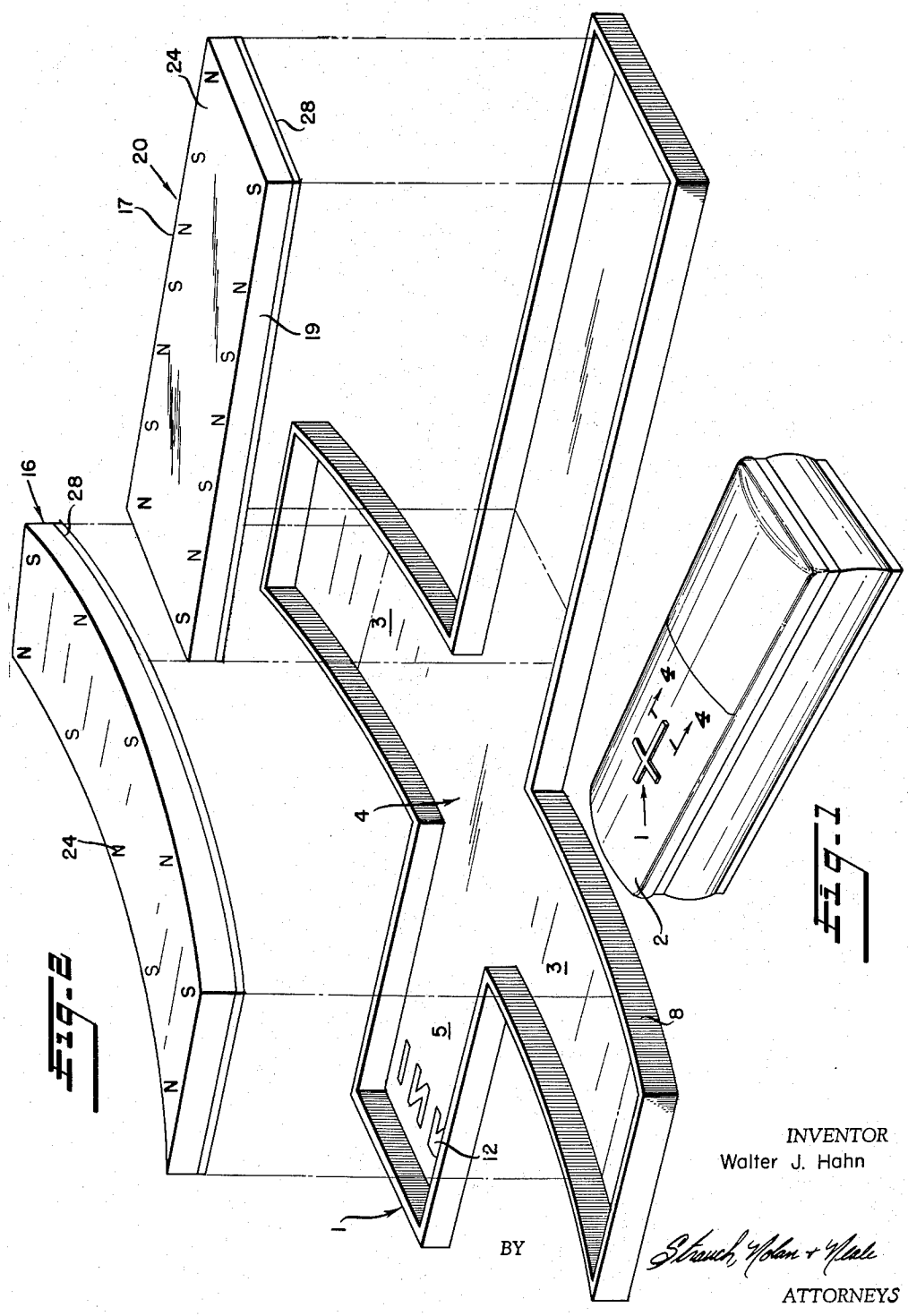


Fig. 2

Fig. 1

INVENTOR
Walter J. Hahn

BY Strauch, Nolan & Neale

ATTORNEYS

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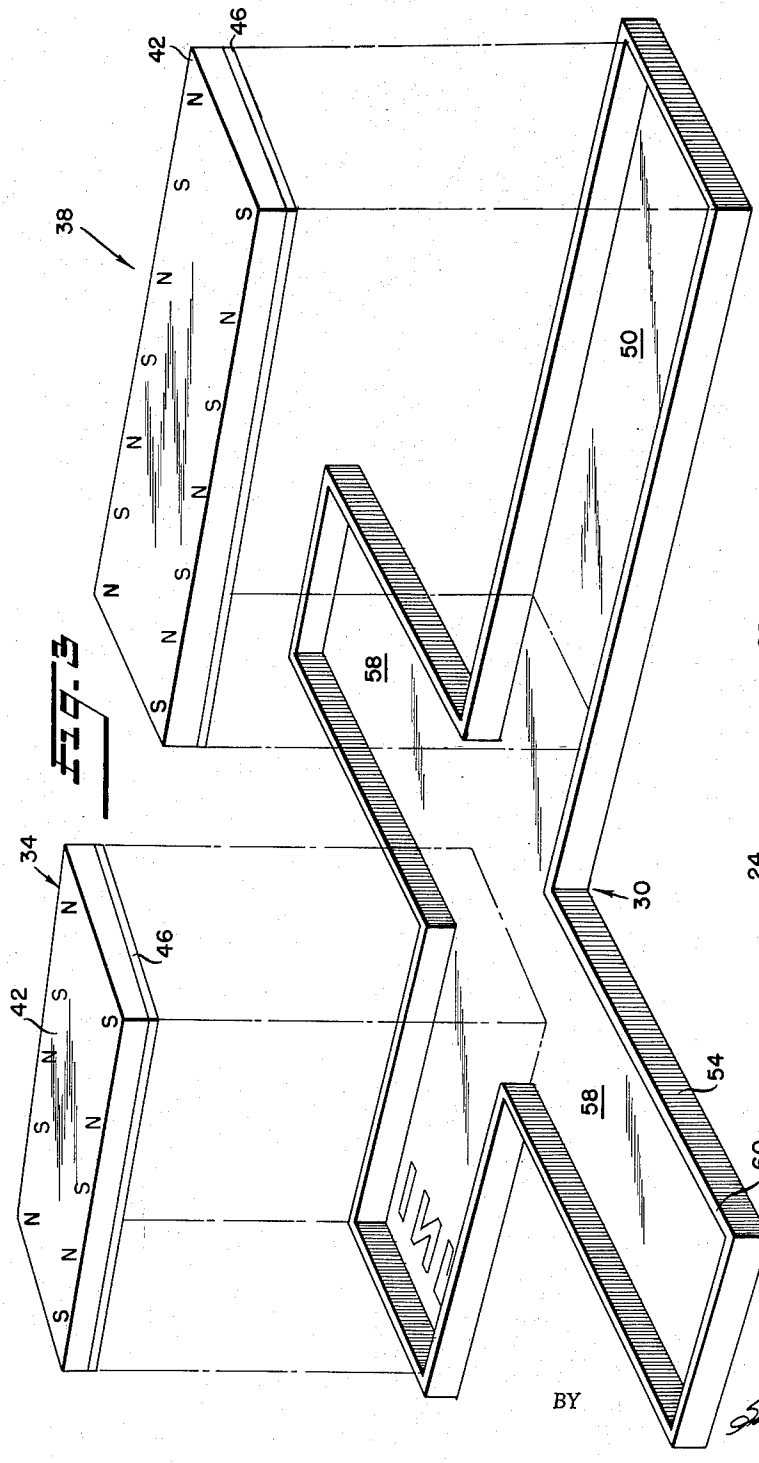


FIG. 3

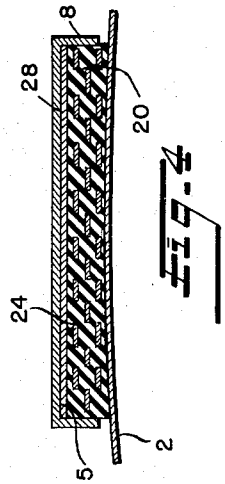


FIG. 4

INVENTOR
Walter J. Hahn

BY Strauch, Nolan & Neale
ATTORNEYS

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MAGNETICALLY ATTACHED CRUCIFIX FOR CASKETS

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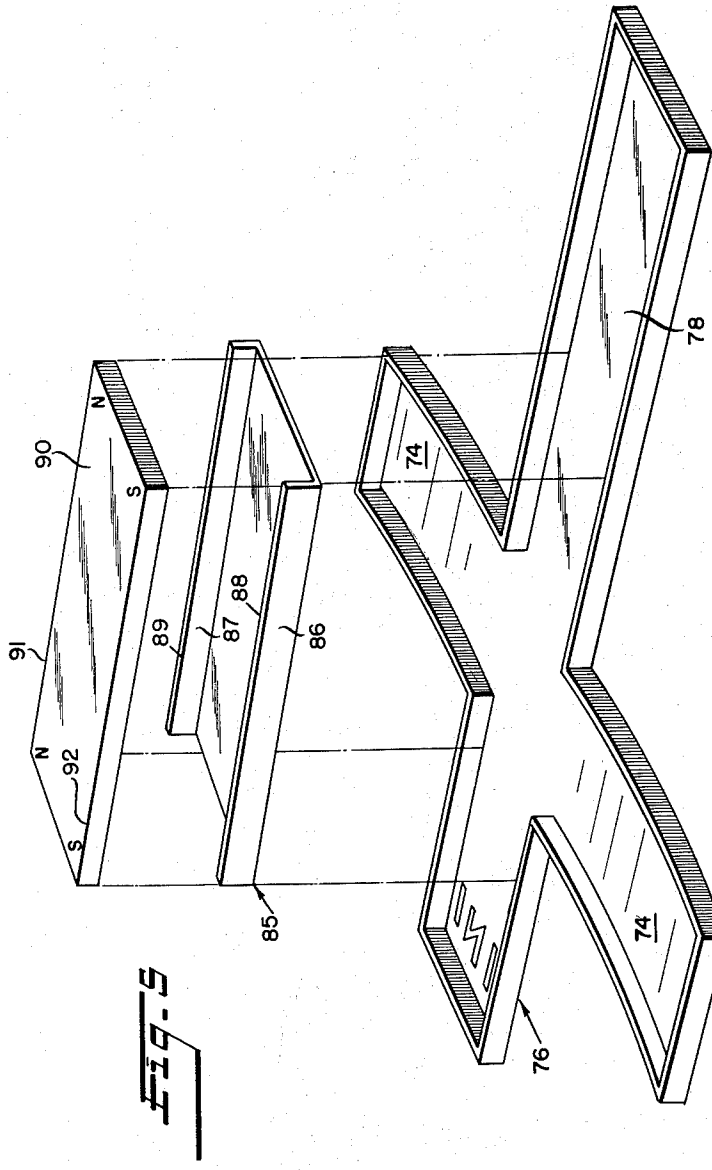


FIG. 5

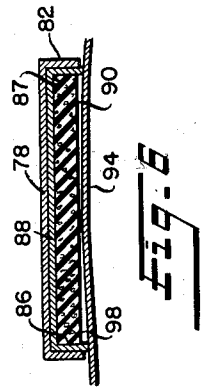


FIG. 6

INVENTOR
Walter J. Hahn

BY Strauch, Nolan & Neale

ATTORNEYS

United States Patent Office

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MAGNETICALLY ATTACHED CRUCIFIX FOR CASKETS

Walter J. Hahn, Springfield, Ohio, assignor to Springfield Metallic Casket Co., Inc., Springfield, Ohio, a corporation of Ohio

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2 Claims. (Cl. 161—3)

This invention relates to a magnetic device for attaching an object to a surface of magnetizable material. More specifically the invention relates to a mounting means for a crucifix to be placed on a casket.

The specific problem which the device of the present invention was designed to solve is that of attaching a crucifix to a metal casket of the sealer type; that is, a casket which is hermetically sealed by gasketing or the like in order to provide a better protection of the corpse after interment.

Ordinarily, a crucifix is attached by means such as metal screws or nuts and bolts. Such attachment devices, however, ruin the seal of a sealed casket. Further, a crucifix is often removed from the casket before it is lowered into the grave; if, therefore, the attachment is sufficiently firm to satisfy the requirement of the transportation of the casket, then it may be difficult to detach the crucifix at the end of the ceremony. It is evident that any device for attaching a crucifix to a sealer type of casket in an entirely satisfactory manner must have the characteristics of avoiding holes in the casket and yet providing a firm but readily removable connection.

Such a device as shown in the patent to Hillenbrand No. 2,712,191, provides for a magnetic attachment of a crucifix to a casket top. This attachment device however, has the disadvantages of employing relatively expensive material comprising a rubber block having a specially cut slot therein, and a specially shaped permanent magnet to fit in said slot.

Accordingly, it is an object of the present invention to provide an attachment device which is inexpensive, easily assembled, and simply attached to a metallic surface.

A further object of the present invention is to provide an attachment means which will provide a secure, but temporary mounting and which is easily removed when desired without vitiating the surface upon which it is mounted or impairing the sealing capabilities of a casket or the like when mounted thereon.

Still another object of the present invention is to provide an attachment device employing magnetic rubber mounted in a channel member of magnetizable material to thereby reduce the amount of magnetic rubber required to provide the necessary holding force.

Other objects and advantages of the present invention will become apparent to those skilled in the art from the appended claims, and from the following description and accompanying drawings wherein:

FIGURE 1 is a pictorial view of a typical casket having a conventional arched top with a crucifix attached thereto in accordance with the present invention;

FIGURE 2 is an exploded pictorial view of the back side of a crucifix showing the relationship of the mounting means of the present invention with a crucifix;

FIGURE 3 is an illustration similar to FIGURE 2

showing a different relationship between the mounting means of the present invention and the crucifix;

FIGURE 4 is a section view taken along line 4—4 of FIGURE 1 illustrating the relation between the crucifix, mounting means, and casket top;

FIGURE 5 is a perspective view of another and preferred embodiment of the magnetically attached crucifix of the present invention; and

FIGURE 6 is a section view of the embodiment shown in FIGURE 5 mounted on a casket top similar to FIGURE 4 which is taken along line 4—4 of FIGURE 1.

As shown in FIGURE 1, a crucifix indicated generally at 1 is illustrated mounted on casket top 2. The back or rear of crucifix 1 (shown pictorially in FIGURE 2) has a back surface 4 and a peripheral rim 8 extending at substantially right angles from back surface 4. Rim 8 is substantially the same depth at any point around the periphery of crucifix 1 and forms with back surface 4, a receptacle for a mounting device. Arms 3 of the crucifix are bent in an arc backwardly from the main body portion 5 of the crucifix so as to substantially conform to the configuration of a casket top. An ornamental object 12 which may be a design or letter in the form of a relief image may be placed on the outer face of the crucifix without obstruction or interfering with the use of the present mounting means.

The mounting device for the crucifix comprises one or more retaining blocks such as 16 and 20. Block 16 comprises a rubber magnet layer 24 which consists of a rubber matrix having magnetic metal particles completely embedded therein. Such material is disclosed in U.S. Patent No. 2,589,766, reference being had to this patent for a detailed description of the magnetic material 24. Blocks 16 and 20 may have dimensions in the order of 1 inch by 4 inches and are so magnetized as to have multiple poles, that is several north and south poles running along opposite edge 17 and 19, and spaced no further than one inch apart. In practice, I prefer to use a spacing between adjacent poles of opposite polarity of about 5/8 inch as shown in FIGURE 2.

Bonded to each block 16 and 20 is a backing plate 28 which may be of 20 gauge steel. The rigid backing plate 28 of a magnetizable material increases significantly the strength of the magnetic field provided by blocks 16 and 20. This is necessary since the crucifix, being placed on the casket top, must support its own weight thereon when the casket top is open. Further, each block 16 and 20 is shaped so as to fit into the hollow back or receptacle formed by back surface 4 and rim 8 of the crucifix. For example, block 16 is arcuately bent similarly as arms 2 are bent from body 3 of the crucifix. Thus, when block 16 is inserted into the area defined by rim 8 it will have a flush engagement with the back surface of arms 3 and body 5 of crucifix 1. Block 20, on the other hand, is formed into a substantially flat slab since the degree of curvature of the main body portion 5 of the crucifix is slight in conforming to the center portion of the casket top. Each block 16 and 20 is bonded to a crucifix 1 as by adhesive or any other suitable means in order to permanently retain the mounting device in engagement with the crucifix or other ornamental objects which are to be mounted.

Obviously, any number of mounting blocks may be used to mount the crucifix, two being exemplarily shown

as the preferred number with either crucifix shown in FIGURES 2 and 3. Block 16 extending across the curvature of casket top 2 will provide good lateral support for the crucifix. Also, while arms 2 are shown bent backwardly from body 3 so as to adapt a crucifix to conform to the surface of a casket lid, it is to be understood to be within the contemplation of this invention to gradually vary the depth of rim 8 laterally with respect to the casket top so that the top surface hereof as viewed in FIGURE 2 will conform with the arched surface of the casket top while the crucifix body and arms remain planar and to also vary the depth of the attachment blocks to be slightly deeper than said rim throughout their lengths.

The relationship of elements in the assembled state is illustrated in FIGURE 4. Block 20 is snugly received in the receptacle formed by rim 8 and back surface 4 of the crucifix. Such snug engagement of block 20 into the receptacle is to eliminate spaces between block 20 and rim 8. This thereby prevents rubber magnet layer 24 from compressing when the crucifix is placed on the casket top 2, which in the event of inadvertent excessive pressure on the crucifix, would permit the edge of rim 8 to engage and perhaps scratch the casket top. Layer 24 therefore remains thicker than rim 8 at all times to assure optimum positive engagement with casket top 2.

FIGURE 3 illustrates another embodiment of the present invention wherein it is desired to mount an object such as a crucifix indicated generally at 30 on a planar surface. Mounting blocks 34 and 38 each having a rubber magnet layer 42 and a magnetizable steel backing 46 are cut to conform to sections of the crucifix body 50. Since the crucifix is to be placed on a flat surface there is less danger of it being knocked off the casket top and therefore lateral support blocks such as 16 shown in FIGURE 2 are not needed.

The retaining block structure is otherwise the same as that of blocks 16 and 20 described in connection with FIGURE 2. A rim 54 extends vertically from the rear side of crucifix 30 similarly as does rim 8 extend from crucifix 1 as shown in FIGURE 1. The body 50 as well as arms 58 lie in the same plane as does the upper surface 60 of rim 54. Mounting blocks 34 and 38 are cut to a size which will permit them to be inserted into an upper and lower section of crucifix body 50 similarly as shown in FIGURE 4. The blocks are bonded as by adhesive to the body 50 and extend slightly above the upper surface 60 of rim 54 so as to provide contact with the metallic casket top lid (not shown). The amount of spacing above the surface of rim 54 is slight so as not to be objectionable in appearance but is sufficient to face the crucifix body and rim from the casket top. Thus, the crucifix is mounted on the casket top, but does not physically engage it.

From the foregoing description, it can be seen that the attachment device of the present invention provides for mounting an object onto a metallic surface without having metal to metal contact or object to metal contact. Further, since the mounting device has only an exposed layer of rubber with magnetized particles embedded therein, there is no hard surface exposed which comes into contact with the casket lid which might mar or otherwise damage said lid. The assembly requires no special machining or manufacturing processes and is simple and inexpensive.

Since the rubber material containing magnetized metal particles is relatively expensive, it is advantageous to construct the crucifix in the manner as shown in FIGURES 5 and 6. The crucifix 76, there illustrated is similar to crucifix 1 shown in FIGURES 1 and 2, has arms 74 bent back slightly form a body portion 78, and a peripheral rim 82.

The mounting device for crucifix 76 may consist of a metal backing channel member 85 secured as by adhesive or frictional engagement to crucifix 76 against body portion 78, and between opposite sides of peripheral rim 82. Channel member 85 has parallel side walls 86, 87 and a bottom wall 88 and is preferably an integral piece of magnetizable material such as 20 gauge steel. Glued, frictionally wedged into, or otherwise secured to channel 85, is a magnetic block 90 which is preferably magnetic rubber material of the type described above and used in the mounting devices shown in FIGURES 1 to 4, except that in this embodiment, block 90 may be magnetized so that opposite parallel sides 91, 92 are north and south of the magnet respectively. It is not necessary when a channel backing member 85 is used that multiple poles be provided in the magnetic rubber as is required where a flat plate backing member such as that shown in the embodiments of FIGURES 2–4, is used because of the more efficient magnetic circuit provided. Opposite parallel sides 91, 92 of block 90 are thus the north and south poles of the magnet respectively.

Walls 86 and 87 of channel 85 may have an extremely smooth polished top surface 88, 89 for engagement with a casket top 94 such as shown in FIGURE 6, and are constructed to be of a height greater than the height of rim 82 and greater than the thickness of block 90. Thus neither magnetic block 90 nor rim 82 of the crucifix comes into direct contact with casket top 94. Rim 82 is generally of a heavier material than channel 85 and therefore it is more desirable to have channel 85 engage the casket top than the rim. If desired, wall surfaces 88 and 89 of channel 85 may be coated with an extremely thin layer of plastic, rubber, or any other suitable smooth, non-abrasive material. Since block 90 has a thickness less than the height of walls 86, 87 measured in the direction of thickness of block 90, there will be a slight air gap 98 between casket top 94 and block 90 which results in a greatly increased concentration of the magnetic field and hence stronger magnetic pull exerted by block 90 than where it is used in direct contact with a casket top.

Further, in the embodiment shown in FIGURES 5 and 6, the need of having a cross block in the curved crucifix arm portions such as shown in FIGURE 2 is eliminated since the magnetic material will have a stronger attraction for top 94 and since the channel walls 86, 87 bridge an arcuate portion of casket top 94 and give lateral support to crucifix 76 sufficient to resist forces tending to slip the crucifix to one side.

While only a single mounting block of magnetic rubber is mounted in crucifix body portion 78, a plurality of blocks may be employed if desired. A block extending the full length of body 78 may also be used. The size of the block used will depend upon the size and weight of the crucifix and to a certain extent, the degree of attraction between the casket top and magnetic material.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiments are therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

What is claimed and desired to be secured by United States Letters Patent is:

1. In combination, a crucifix to be mounted on a casket top having walls of substantially equal height on each side extending therefrom to form a peripheral rim; mounting means secured to said crucifix between opposite sides of said rim comprising a channel backing member of magnetizable material having a base portion and side walls having a height slightly greater than the height of said peripheral rim for engaging said casket top, a magnetic attachment block mounted in said channel said block comprising a matrix of rubber having permanently magnetized particles embedded therein polarized to provide poles of opposite polarity at opposite sides of said

attachment block and having a thickness less than the height of said walls.

2. In combination a crucifix to be mounted on a casket top of magnetizable material, said crucifix having outwardly extending opposed arms with a back surface generally conforming with the contour of the casket top and having a peripheral rim extending from the back surface thereof, an attachment device for affixing said crucifix to said casket top comprising a backing member of magnetizable material secured to the back surface of said crucifix and having side walls extending parallel to and slightly beyond said rim for engaging the casket top and a magnetizing means comprising a layer of rubber having dispersed permanently magnetized particles embedded therein polarized to provide poles of opposite polarity parallel to the plane of said layer in a direction normal to the side walls of said backing member, the thickness of said layer being less than the height of said side walls to provide an air gap between said layer and the top of said casket.

References Cited in the file of this patent

UNITED STATES PATENTS

2,712,191 Hillenbrand ---------- July 5, 1955

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,115,434 December 24, 1963

Walter J. Hahn

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 4, line 10, after "south" insert -- poles --.

Signed and sealed this 5th day of May 1964.

SEAL)
ttest:

ERNEST W. SWIDER
ttesting Officer

EDWARD J. BRENNER
Commissioner of Patents