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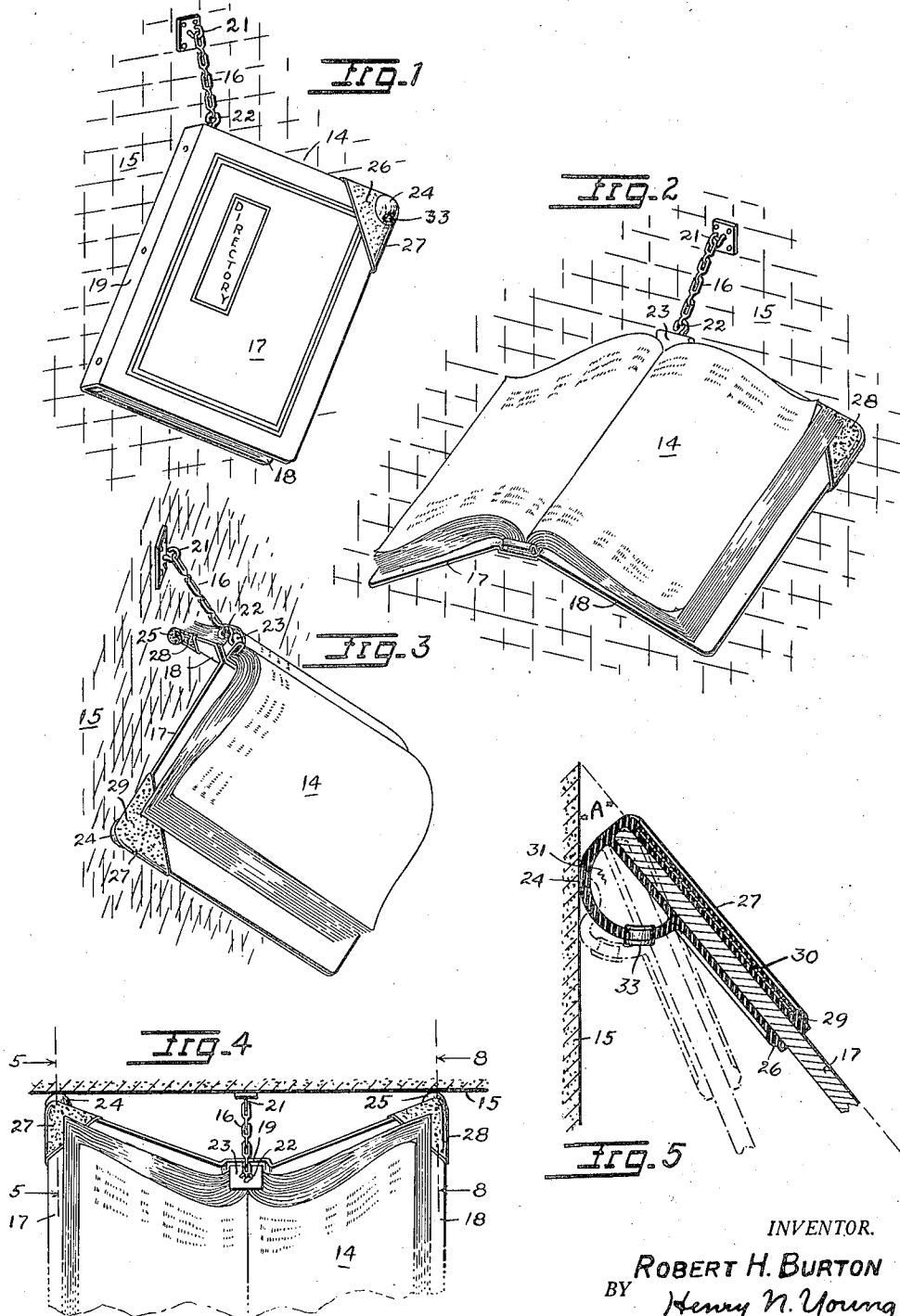
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2,059,679

BOOK SUPPORTING DEVICE

Filed April 10, 1935

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

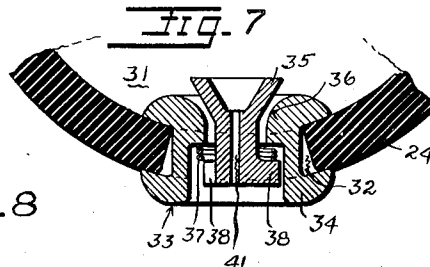
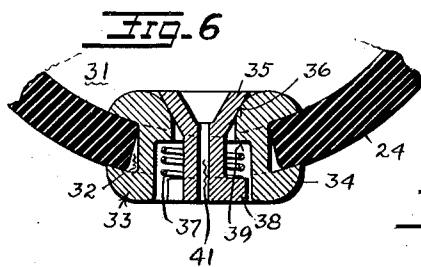
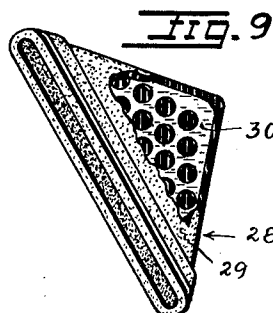
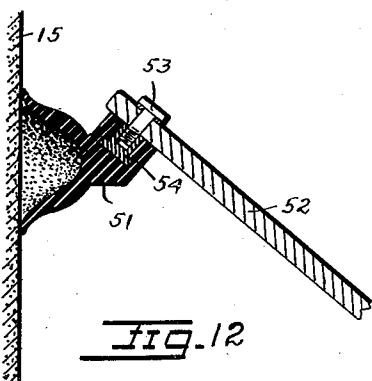
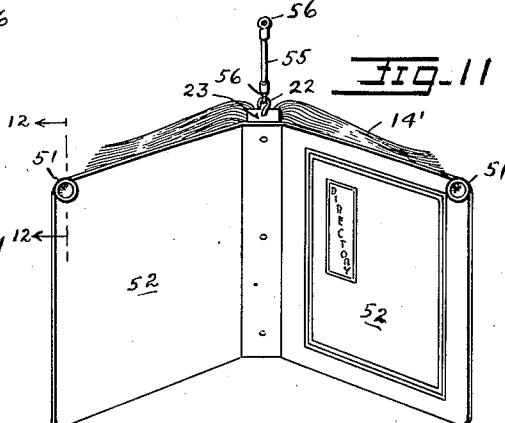
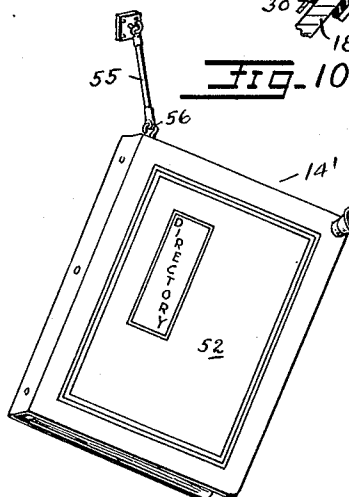
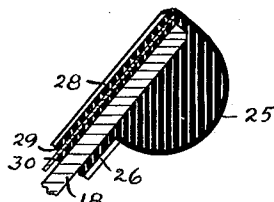


Fig. 8



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BOOK SUPPORTING DEVICE

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6 Claims. (Cl. 45—58)

The invention relates to a device for supporting a telephone directory or other book from and at a vertical wall to extend from the wall in position and condition for its unhampered use.

5 A general object of the invention is to provide a simple and effective book-supporting method and means for use with a book which normally hangs against a wall at the end of a supporting chain or other suitable member.

10 Another object is to provide a book-supporting device having its elements mounted solely on the cover of the book whereby the wall does not directly carry any element of the device, and the device is solely an attachment for the book cover.

15 A further object is to provide a device of the character described which provides for an angularly adjusted positioning of the supported book for facilitating its use.

20 An added object is to provide a means whereby a book supported by the present device may be automatically released to assume its normally pendant position after a predetermined period of time following its supported disposal for use by means of the device.

25 The invention possesses other objects and features of advantage, some of which, with the foregoing will be set forth or be apparent in the following description of preferred embodiments thereof, and in the accompanying drawings, in which,

30 Figure 1 is a perspective view showing a book in its normally depending position at the end of a supporting chain therefor and carrying wall-engaging members embodying a means of the present device.

35 Figures 2 and 3 are perspective views showing the book supported in usable position in accordance with the present device.

40 Figure 4 is a plan view of the book as it is disposed against a supporting wall for its use.

Figure 5 is an enlarged fragmentary section at 5—5 in Figure 4.

45 Figures 6 and 7 are enlarged fragmentary sections through a valve means shown in Figure 5.

Figure 8 is an enlarged fragmentary section at 8—8 in Figure 4.

50 Figure 9 is an enlarged perspective view of an element used in the embodiment of Figures 1 to 8.

Figure 10 is a perspective view showing a book supported in its normal hanging position and provided with another embodiment of the wall-engaging elements for supporting the book to extend from the wall at which it normally hangs,

Figure 11 is a rear view of the book of Figure 10 as it is supported from the wall for its use.

Figure 12 is an enlarged fragmentary section at 12—12 in Figure 11.

In the provision of a telephone directory adjacent a telephone instrument which is mounted on a wall, it has become a well established practice to suspend the book from the wall on a chain or cord whereby the book may lie generally flat against the wall when not in use, this device being almost universally used within public telephone booths. When the book is to be used, the user must support the book on one hand while turning the pages with the other, thereby making it inconvenient for the user to write down any information or to place a call while holding the book. If a bracket shelf is provided at the wall for supporting the book to leave the user's hands free, an undue amount of space may be taken up by the shelf, particularly if the available space is limited, as in a telephone booth. In accordance with the present invention, a device is provided for supporting the suspended book in a position for its use at an adjusted angle in a manner to leave the user's hands free and at the same time avoid a fixed mounting of any element on the wall except the usual anchorage for the supporting chain or cord.

As is particularly illustrated in Figures 1 to 9 inclusive, the device of the present invention is operatively associated with a book 14 which is normally supported from a wall 15 by means of a chain 16 by which it is fastened to the wall. The book 14 may be a telephone book or a business directory or any book for occasional reference, and for present purposes must have relatively stiff front and rear cover members 17 and 18 which respectively extend from opposite edges of a back cover member 19.

The book 14 may be either permanently or releasably fixed to the cover back 19. If the book is a directory, it may best be replaceably mounted in the cover whereby the same cover may be used repeatedly for succeeding editions or issues of the book; this arrangement is assumed for the present disclosure of applications of the invention.

The chain 16 has one end thereof secured to the wall 15 at a hook 21 which is suitably fixed on the wall, and has its other end secured to a hook 22 provided on an integral extension 23 of the cover member 19, said extension being directed transversely from the member 19 at the upper end thereof and above the leaves of the book. If a ready release of the cover and book from the wall

is to be prevented, the hooks 21 and 22 may be closed as eyes. It will be understood that the chain 16 essentially provides a flexible tension member which connects the book to the wall, and that it may comprise a fibrous cord or a metal rod, instead of a chain, for its purpose.

It will now be noted that friction members 24 and 25 are respectively fixed on, and protrude from, outside faces of the cover sides 17 and 18 adjacent the upper free corners thereof. The members 24 and 25 provide convex bearing faces, and are preferably formed of a resilient material such as a moderately hard rubber composition, at least at their bearing faces which are more or less rough.

As is particularly shown, the members 24 and 25 comprise projections which extend integrally from the outer side walls 26 of triangular elements 27 and 28 which provide pockets to receive the corresponding cover corners therein. The elements 27 and 28 are of complementary shape and structure for mounting on the different cover corners, and are conveniently formed of the same material as the members 24 and 25 which they respectively carry, such being assumed in the present showing wherein the members and elements are unitarily associated in a homogeneous structure of rubber or the like. If desired, the side walls of the elements 27 and 28 may be stiffened in a suitable manner for stiffening the cover corners at which they are positioned; in the present instance, the inner side walls 29 of the elements have perforated metallic plates 30 embedded and keyed therein for appropriately stiffening them.

When not in use, the book would preferably hang from the wall hook 21 in the manner shown in Figure 1, whereby to then be out of the way. With the friction members 24 and 25 mounted on the book cover and the book hanging on the tension member 16, a person desiring to read in the book would open the book more or less centrally thereof to angularly separate the cover portions 17 and 18 through an angle somewhat exceeding one hundred eighty degrees while pulling the book out at the bottom to dispose it in spaced relation to the wall and at the desired angle for reading. The book would then be swung against the wall to engage the friction members 24 and 25 with the wall face, after which a release of the book from its manual support will result in its remaining in a set angular relation to the wall, as is brought out in Figures 2 to 4 inclusive.

It will be understood that the supported book is retained in the described extending relation to the wall by reason of its weight producing a thrust component against the wall of such magnitude as to prevent the urged slipping movement of the members 24 and 25 upwardly along the wall to release the book from its set position. The wall surface is assumed to have an appropriate coefficient of friction with respect to that of the members 24 and 25 for producing the desired effect, usual plastered or varnished or papered walls all being satisfactory.

When a book is supported from a wall by means of the present device, the pages of the book may be turned freely without effecting the operativeness of the device. Furthermore, it is noted that the upward thrust of the book cover against the friction members 24 and 25 tends to hold the elements 27 and 28 in their mounted positions on the cover whereby said elements need not be permanently fixed in place as a con-

dition for the operativeness of the support device.

In practice, it is found that the obliquity of the supported and extended book with respect to the wall may vary somewhat whereby the book may be set and held at the most convenient angle for use by persons of different height or vision, an average angular disposition of the book for its use by a person of average height being originally provided for through the disposition of the wall hook 21 at the proper height. The acute angle which is defined with the vertical by the plane of the open and supported book has been indicated in Figure 5 by the letter A, and it has been found that the angle A may vary between limiting values which respectively approximate thirty degrees and sixty degrees. The present device is therefore understood to provide for an angular adjustability of the extending book as a distinct benefit and advantage.

Since it is generally desirable that the book be restored to its normal freely hanging position when a user is through with it, and a user may forget to release the book, means may be provided to automatically effect a release of the book after a predetermined period of time which would be slightly longer than that required by the average user. Means are accordingly provided to render the friction members 24 and 25 ineffective after the book has been supported for use beyond an average time of use therefor, such means being operative to angularly lower the book from its initial setting until the angle A is so small that a member 24 or 25 is rendered inoperative and the book is released.

As is particularly illustrated in Figures 5 to 7 inclusive, the friction member 24 is hollow and the curved wall of its cavity 31 is provided with a valved opening 32 at the side thereof which is generally opposite its wall-engaging point. A valve assembly 33 is mounted in the opening 32, said valve comprising a tubular body 34 mounted at the opening and a conical valve plug 35 which is operative against a seat 36 at the inner end of the body bore whereby the valve has a one-way action for admitting air to the cavity 31. A relatively weak spring 37 is constantly coactive between radial projections 38 at the outer end of the valve plug stem and an annular seat 39 provided in the body 34 whereby the valve plug is constantly urged to maintain a closed condition thereof. A relatively small passage 41 extends axially through the valve plug and its stem to provide a constantly open air inlet and outlet for the cavity 31. Since the passage 41 is operative independently of the valve 33, it will be understood that the passage 41 might be otherwise provided for the cavity 31.

While the member 24 is pressed against a wall by reason of the extended disposal of the book, the pressure of the book against the wall is arranged to gradually force the air from the cavity 31 through the passage 41 at a rate which is determined by the cross-section of said passage. When the member 24 is more or less flattened out, as is indicated in dotted lines in Figure 5, the resulting displacement of the cover to decrease the angle A below the smallest value thereof at which the member 24 is operative results in a release of the member to move upwardly and so release the friction member 25 and the book. The members 24 and 25 would, of course, be large enough and so disposed that the angle A will assume its critical, or release, value before the

member is fully compressed and without regard to the size of the angle A when the book is initially set in position for use. By reason of the lifting and release of the cover member 17 before the cover member 18 is released, the book will always close with the front member 17 outwardly of the wall, as is shown.

The hollow member 24 is arranged to inherently tend to maintain its expanded form in the manner of an atomizer bulb, whereby, whenever the member is freed of a pressure engagement with the wall, it expands to its normal form, such expansion being expedited by the opening of the valve 33 to admit air to the cavity 31 at a faster rate than it may enter the cavity through the restricted passage 41. If the described automatic release is not desired, the member 24 may be solid like the member 25 which is shown in section in Figure 8. On the other hand, if the closed book is not to assume the same position each time it is released, and the automatic release is desired, the member 25 may be and operate as the member 24. It will be understood that the described operation of the valve 33 permits an immediate repositioning of a supported book after its release; otherwise, a person would be required to wait unduly to remount the book in supported position.

In the embodiment of Figures 10 to 12 inclusive, the two friction members are alike and comprise suction cups 51 which are fixed to the different corners of cover 52 by means of bolts 53 and nuts 54, the nuts 54 being embedded in the bases of the cups. As is brought out in Figure 12, the circular wall-engaging edge of each suction cup 51 defines a plane which will be generally parallel to the opposed wall when the book 14' extends from the wall in the manner shown and described for the book 14. In the present instance, the suspension link 55 comprises a rod having hook-receiving eyes 56 provided at its extremities. As herein used, the suction cups are primarily operative as friction members, it being noted that leakage of air into their cavities will sooner or later eliminate the extra atmospheric pressure which initially assisted in holding them in forcible engagement with the wall.

From the foregoing description taken in connection with the accompanying drawings, the advantages of the construction and method of operation will be readily understood by those skilled in the art to which the invention appertains. While I have described the features and the principle of operation of a device which I now consider to be a preferred embodiment of my invention, I desire to have it understood that the showings are primarily illustrative, and that such changes may be made, when desired, as fall within the scope of the following claims,

I claim:

1. In a device for supporting a book at an upright wall to extend obliquely therefrom in a

position for reading, said book having relatively stiff cover sides, a flexible tension member connecting the book with the wall for the normal hanging support of the book from and at the wall, friction members at the free upper corners of the cover sides for operative engagement with the wall to secure the book in set position, and means automatically operative to render a said friction member inoperative to thereby effect the release of the book from its set position after a predetermined time.

2. A structure in accordance with claim 1, and wherein the means to render a friction member inoperative is incorporated in the structure of the said member.

3. In a device for supporting a book at an upright wall to extend therefrom in a position for reading, said book having relatively stiff cover sides, a tension member connecting the book with the wall for the normal hanging support of the book from and at the wall, and suction cups at the free upper corners of the cover sides for operative engagement with the wall to secure the book in a predetermined range of angular relations to the wall for its use.

4. A device for supporting a book provided with relatively stiff covers at and solely from an upright wall to extend from the wall in set position for reading and comprising a flexible tension member connecting the book with the wall for the normal hanging support of the book from and at the wall, corner caps receiving the free upper corners of the book covers and having flat and mutually parallel sides, and friction members carried by said caps at their outer sides and extending transversely outwardly from said sides for non-slipping engagement with the wall when the tension member is operative as a book-supporting means and the book covers are opened beyond a normal degree of opening thereof in which they are substantially coplanar.

5. In a device for supporting a book from a wall in extended relation thereto, said book having relatively stiff cover sides, a tension member connecting the book with the wall, and members providing friction surfaces at the free upper corners of the cover sides for cooperative engagement with the wall to secure the book in set extended position, a said member comprising a normally distended hollow body of resilient material provided with a constricted air outlet whereby it is arranged for its retarded collapse under the pressure of the member against the wall to finally render the member inoperative and so release the book from its set position after a predetermined period of time.

6. A structure in accordance with claim 5 wherein the hollow friction member is provided with a valved and relatively large air inlet for automatic opening solely during the resumption by the member of its normal form.

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