April 17, 1934. D. H. LINN 1,955,592

CARD INDEX

Filed June 8, 1933 2 Sheets-Sheet 1

Fig. 1.

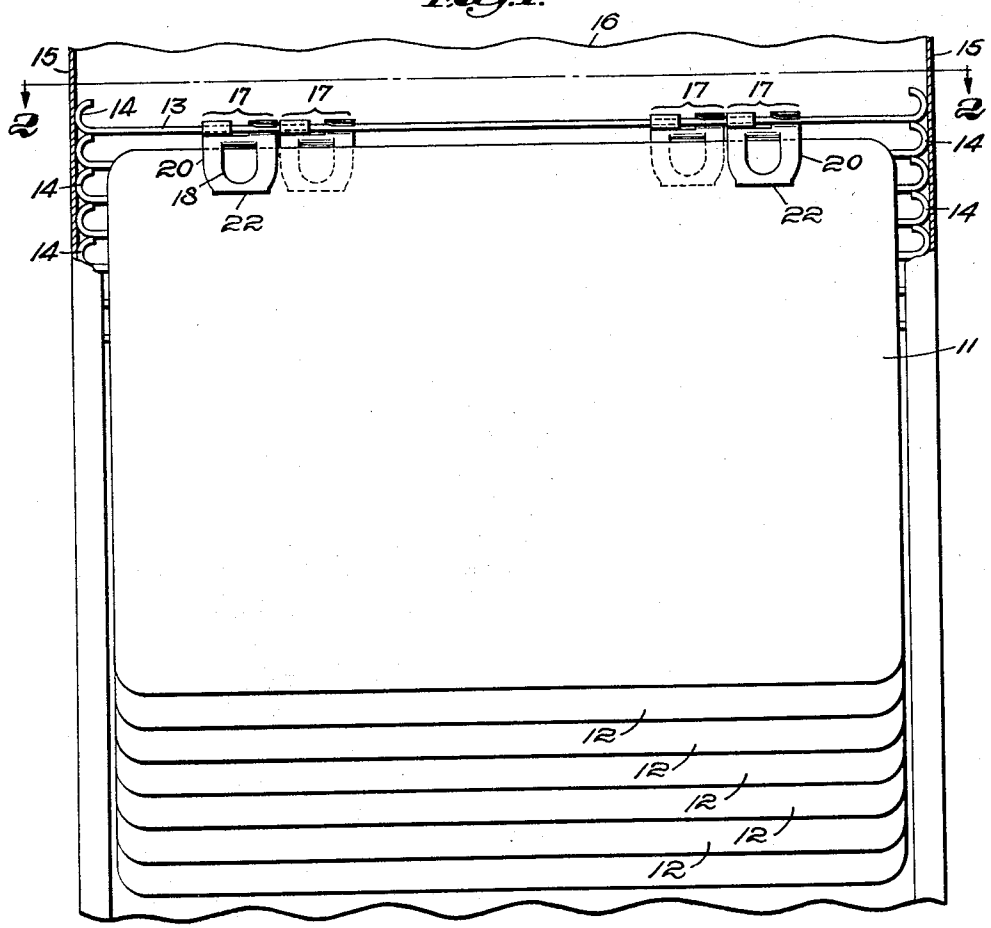

Fig. 2.

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Fig. 3.

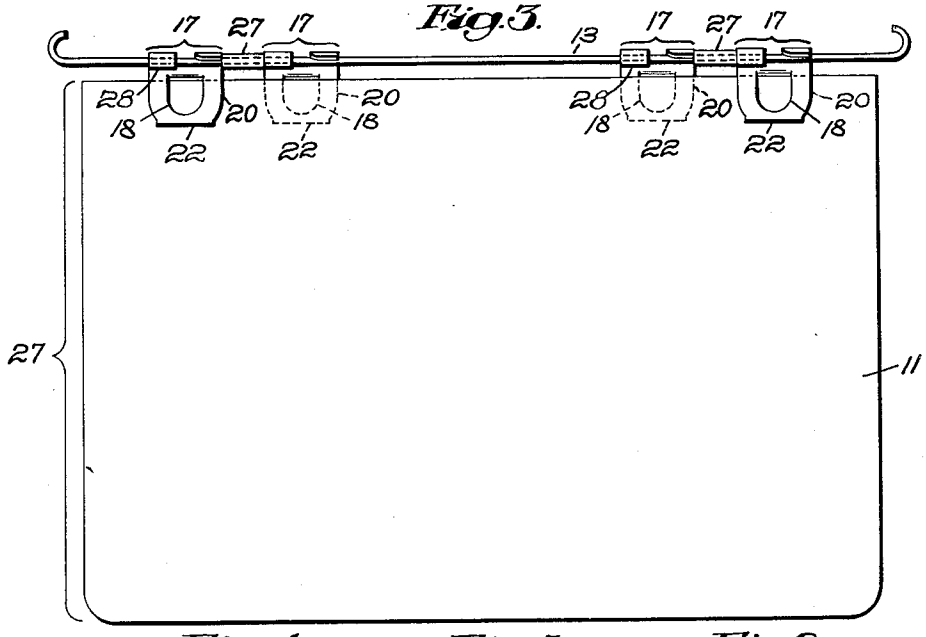


Fig. 4.

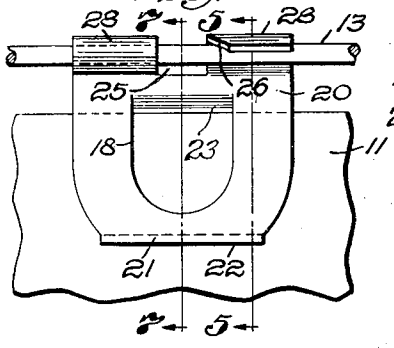


Fig. 5.

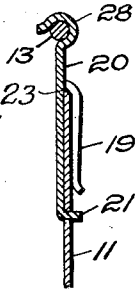


Fig. 6.

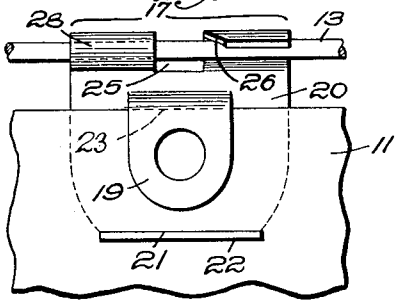


Fig. 7.

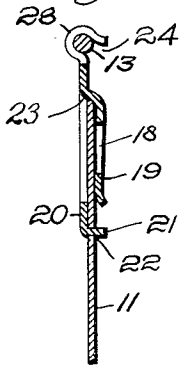


Fig. 8.

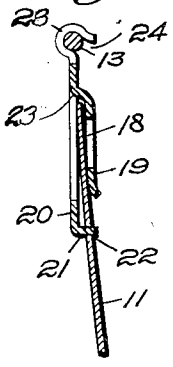
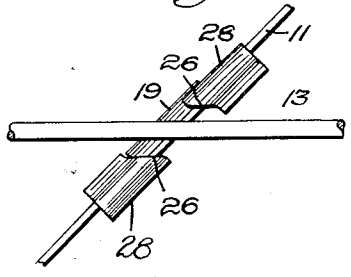


Fig. 9.



Inventor:
David H. Linn,
by Emery, Booth, Varney & Townsend.
Attys

Patented Apr. 17, 1934 1,955,592

UNITED STATES PATENT OFFICE

1,955,592

CARD INDEX

David H. Linn, Jamestown, N. Y., assignor to Postindex Company, Inc., Jamestown, N. Y., a corporation of Massachusetts

Application June 8, 1933, Serial No. 674,861

18 Claims. (Cl. 129—16.7)

This invention relates to card indexes, and is more especially concerned with indexes in which the cards or leaves are arranged with their identification-receiving margins in overlapping relationship, to constitute what is commonly known as a visible index.

The invention aims to provide a novel and improved mounting of the cards or leaves on card-holders, which in turn are mounted on a support variously termed a frame, panel or tray.

The invention will best be understood by reference to the following description, when taken in connection with the accompanying drawings of one specific embodiment thereof, while its scope will be pointed out more particularly in the appended claims.

In the drawings:

Fig. 1 is a front elevation, partly in section, of a card index embodying the invention;

Fig. 2 is a sectional view on line 2—2 of Fig. 1;

Fig. 3 is an elevation of a modification, in which the pintle is provided with sleeves fixedly secured thereto to prevent the hinge members from sliding lengthwise thereof;

Fig. 4 is an elevation, on a much enlarged scale, of a portion of the card, a portion of the pintle member of the associated card-holder, and the hinge member by which the card is hingedly mounted on the pintle;

Fig. 5 is a sectional view on line 5—5 of Fig. 4;

Fig. 6 is an elevation of the parts shown in Fig. 4, as viewed from the opposite direction;

Fig. 7 is a sectional view on line 7—7 of Fig. 4;

Fig. 8 is a sectional view, also similar to Fig. 7, illustrating the operation of attaching the card to or detaching it from the hinge member; and

Fig. 9 is a plan of a portion of the pintle member, of the card and the associated hinge member, illustrating the operation of attaching the hinged member to, or detaching it from the pintle member.

Referring to the drawings, and to the embodiment of the invention selected for illustration, there is shown a card index comprising a series of cards 11, arranged with their indentification-receiving margins 12 in overlapping relationship, the amount of exposure being predetermined by the spacing means of the holders presently to be described. In the present example, each holder comprises a length of resilient wire 13, having at its ends spacers 14, which predetermine the length of exposure of the card margins, and these spacers are received in channels 15 presented by a panel or frame 16, in which the holders are freely slidable lengthwise of the panel. Each holder may be removed from and sprung into the channels by being bowed to reduce its effective length, and of course the holders may be interchanged at will.

Each wire 13 constitutes a pintle, to which the associated card is hingedly attached by a plurality of hinge members 17 of novel construction, best shown in Figs. 4 to 9, inclusive. As shown, the hinge member comprises a resilient metal strip, which is pierced or slit as at 18, and extruded to form a tongue or arm 19, while the surrounding portion of the strip from which the tongue was punched constitutes a second arm 20. These two arms embrace and clamp the card between them, as shown in Fig. 7. The arm 20 is provided with a lug 21, perpendicular to the faces of the card, and snugly received in a slot 22 of corresponding size and shape punched in the card a suitable distance from and parallel with the adjacent edge of the card. This edge rests against an abutment 23 (see Fig. 7) presented by the tongue or arm 19. Inasmuch as the metal is resilient, its arms may be sprung apart (see Fig. 8) to permit the card to be conveniently attached to and detached from the hinge member.

The hinge member has two coaxial bearing portions 23, which turn on and about the pintle member 13, said bearing portions being provided with entrances 24, just large enough to permit the pintle member to be introduced into and be moved from the bearing portions. As shown, these entrances face in generally opposite directions, though they are not actually directly opposite or in line with each other (compare Figs. 5 and 7), for the reason that this arrangement of the entrances is very effective in preventing accidental detachment of the hinge member from the pintle member. The two bearing portions are separated from each other endwise by a space 25 (see Figs. 4 and 6), at least as great as the diameter of the pintle, and herein a substantially greater distance, and in this example, the adjacent ends of the bearing portions 23 are sloped or beveled as at 26 (see Fig. 9), to facilitate the attachment of the hinge member to the pintle member. Starting with these two parts in some such position as shown in Fig. 9, one is moved angularly relatively to the other until the pintle member and the bearing member approach a co-axial position, and the pintle member will enter the two entrances 24 in the bearing portion, and will occupy the position shown in Figs. 4, 5, 6 and 7. Assuming two hinge members to have been attached to a card, the latter is then attached to the pintle by attaching first one hinge

member and then the other to the pintle in the described fashion.

The construction is such that two or more cards, each with its properly arranged hinge members, may be applied to a single pintle, and in Fig. 1, there are shown for example two cards thus mounted upon a single pintle. Moreover, the construction is such that offsetting of the cards laterally may be accomplished by simply sliding them along their pintles.

If desired, however, the sliding of the hinge members on the pintle may be prevented by tightly fastening two sleeves 27 on and about the pintle, as shown in Fig. 3. Each sleeve is between two adjacent hinge members and predetermines the positions of both lengthwise of the pintle, thus keeping the cards in constant and accurate alignment.

In the case of a folded sheet, the construction is precisely as hereinbefore described, except that the sheet is simply slotted at the fold to receive the arms 20 of the hinge members.

Having thus described one embodiment of the invention, but without limiting myself thereto, what I claim and desire by Letters Patent to secure is:

1. In a card index, the combination of a card, and card holding means including a pintle, and a plurality of hinge members secured to said card and mounted on said pintle to turn about the axis of the latter, each hinge member having means interengageable with and disengageable from said pintle by turning movement in a direction transverse to said axis.

2. In a card index, the combination of a card, and card holding means including a pintle, and a plurality of hinge members secured to said card and mounted on said pintle to turn about the axis of the latter, each hinge member having means disengageable from said pintle by two movements, one a turning movement into a position in which said member is transverse to said axis and a subsequent, bodily movement of said member transverse to said axis in another direction.

3. In a card index, the combination of a card, and card holding means including a bar and a hinge member hingedly connecting said card with said bar and adapted to permit swinging movement of said card about an axis extending lengthwise of said bar, said hinge member having means normally positively interlocked with said bar against movement in a plane containing said axis out of interlocking engagement with said bar, said member being formed to provide for unlocking and removal from said bar by movement of said member to a position transverse to said axis.

4. A card holder comprising, in combination, a pintle member, and a hinge member, said hinge member having two coaxial, bearing portions which turn on and about said pintle member, said bearing portions being provided with differently facing entrances to receive said pintle, and said bearing portions being separated endwise by a space to receive said pintle.

5. A card holder comprising, in combination, a pintle member, and a hinge member, said hinge member having two coaxial, bearing portions which turn on and about said pintle member, said bearing portions being provided with entrances to receive said pintle, said entrances facing in different directions but not directly oppositely, and said bearing portions being separated endwise by a space to receive said pintle.

6. In a paper file, the combination of a card, and card holding means including a bar and a hinge member hingedly connecting said card to said bar to turn about an axis extending lengthwise of said bar, said bar and said hinge member having cooperative interlocking means constructed for relative turning movement transverse to said axis to unlock one from the other.

7. In a card index, the combination of a series of overlapping cards, a series of bars associated with said cards, respectively, a panel on which said bars are mounted, and means hingedly connecting each card to its associated bar, said means including a plurality of hinge members, each hinge member having means interlocked with such bar and movable first rotatively and then bodily transversely thereof into and out of interlocking engagement therewith.

8. In a card index, the combination of a card, and card holding means including a pintle, and a pair of hinge members hingedly connecting said card and said pintle, said pintle being provided with two sleeves fixedly related thereto to predetermine the positions of said hinge members on said pintle.

9. In a card index, the combination of two cards, and card holding means including a pintle, and two pairs of hinge members, each pair hingedly connecting one of said cards with said pintle, said pintle being provided with two sleeves in fixed position thereon, each sleeve being between and spacing a hinge member of one card and an adjacent hinge member of the other card.

10. In a card index, the combination of two cards, and card holding means including two pairs of hinge members, one pair secured to each card, the pair secured to one card being between and separated by spaces from the hinge members of the pair secured to the other card, a pintle on and about which said hinge members turn, and means in said spaces to determine the location of said hinge members on said pintle.

11. In a card index, the combination of two cards, and card holding means including two pairs of hinge members, one pair secured to each card, the pair secured to one card being between the hinge members of the pair secured to the other card, a pintle on and about which said hinge members turn, said hinge members being so constructed and arranged with relation to said pintle, that each pair of hinge members, with the attached card, can be removed from said pintle without removing the other pair of hinge members and the attached card, and means to prevent movement of each pair of hinge members lengthwise of said pintle when the other pair has been removed from said pintle.

12. In a card index, the combination of two cards, and card holding means including two pairs of hinge members, one pair secured to each card, the pair secured to one card being between the hinge members of the pair secured to the other card, and a pintle on and about which said hinge members turn, each hinge member being interlocked with said pintle and being provided with means enabling its removal from said pintle by swinging such member transversely of the axis of said pintle.

13. In a card index, the combination of a card, and card holding means including a pintle, and two hinge members secured to said card and mounted on said pintle to turn about the axis of the latter, each hinge member having means normally positively interlocked with said pintle, each member being formed to provide for un-

locking from said pintle by movement other than transversely of the axis of said pintle in a plane containing said axis and said card.

14. In a card index, the combination of a card, and card holding means including a pintle, and two hinge members secured to said card and mounted on said pintle to turn about the axis of the latter, each hinge member having bearing means normally positively interlocked with said pintle against movement transversely of the axis of said pintle in a plane containing said axis, said hinge member and its bearing means being so formed and arranged and related to said pintle as to provide for unlocking from said pintle by movement other than transversely of the axis of said pintle in a plane containing said axis and said card.

15. In a card index, the combination of a flexible card, and card holding means including a pintle, and two hinge members secured to said card and mounted on said pintle to turn about the axis of the latter, each hinge member having means normally positively interlocked with said pintle against all movement except movement about and lengthwise of said axis and except movement transverse to a plane containing said axis and said card, each member being formed to provide for unlocking and removal from said pintle by flexing of said card transversely of said axis and consequent movement of one hinge member to a position transverse to a plane containing said axis and said card.

16. In a card index, the combination of a card, and card holding means including a flexible pintle, and two hinge members secured to said card and mounted on said pintle to turn about the axis of the latter, each hinge member having means normally positively interlocked with said pintle against all movement except movement about and lengthwise of said axis and except movement transverse to a plane containing said axis and said card, each member being formed to provide for unlocking and removal from said pintle by flexing of said pintle to bring a portion of the latter to a position transverse to such member.

17. In a card index, the combination of a flexible card, and card holding means including a flexible pintle, two hinge members secured to said card and mounted to turn about the axis of the latter, and means on said pintle to limit movement of one hinge member lengthwise of the axis in one direction and of the other hinge member in the opposite direction, each hinge member having means normally positively interlocked with said pintle.

18. A card holding hinge member comprising two coaxial, bearing portions to receive a pintle, said bearing portions being provided with differently facing entrances to receive the pintle, said bearing portions being separated endwise by a space to receive the pintle.

DAVID H. LINN.