

[54] INDEXING POINTER FOR LIST FINDERS

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 216,645, Jan. 10, 1972, abandoned.

[30] Foreign Application Priority Data

Feb. 18, 1971 Japan..... 46-9190

[52] U.S. Cl. 40/104.01

[51] Int. Cl. G09f 11/00

[58] Field of Search 40/104.01, 67, 68, 68.4

[56] References Cited

UNITED STATES PATENTS

2,547,116 4/1951 Nelson et al. 40/104.01
2,794,282 6/1957 Sherman et al. 40/104.01

3,061,963 11/1962 Buckley, Jr. 40/104.01
3,192,658 7/1965 McGurn 40/104.01
3,405,466 10/1968 McFadyen et al. 40/104.01

Primary Examiner—J. H. Wolfe
Attorney, Agent, or Firm—Phillips, Moore,
Weissenberger, Lempio & Strabala

[57] ABSTRACT

A list finder comprises a holder having a plurality of stacked information cards mounted therein and a releasable one-piece, plastic cover pivotally mounted thereon. A U-shaped indexing pointer, composed of a flexible plastic material, is slidably mounted along an edge of the cover to selectively expose a chosen card upon release of the cover. The pointer is detachably mounted on the cover and combined guide and locating means are formed on the cover and on the pointer to facilitate such sliding and detachment desiderata. In addition, the holder preferably has a rectangular receptacle formed therein to accommodate a stack of memo sheets, beneath the information cards.

22 Claims, 8 Drawing Figures

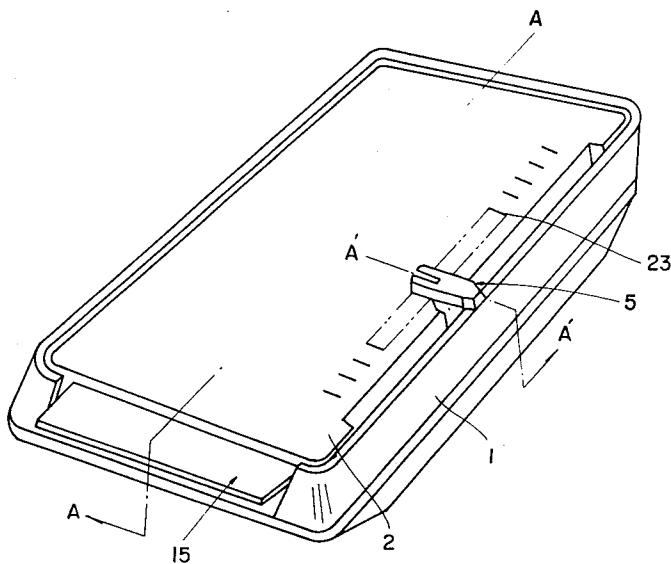


FIG. 1

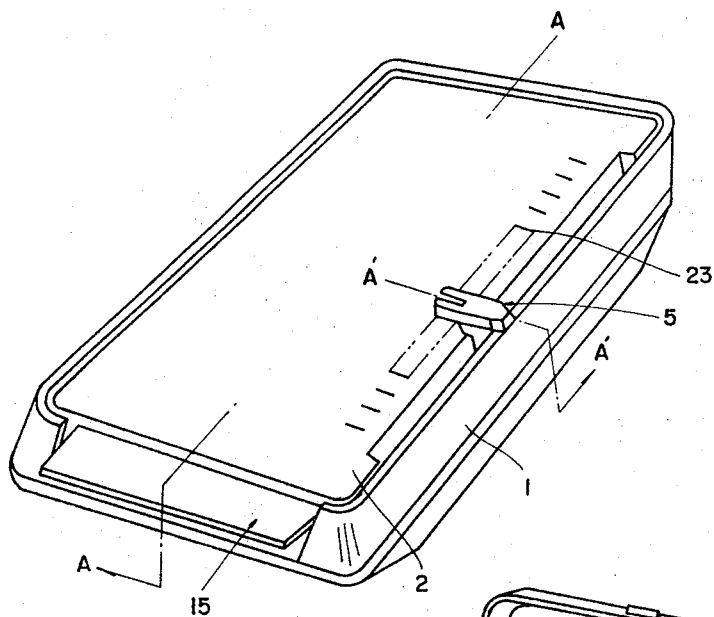


FIG. 2

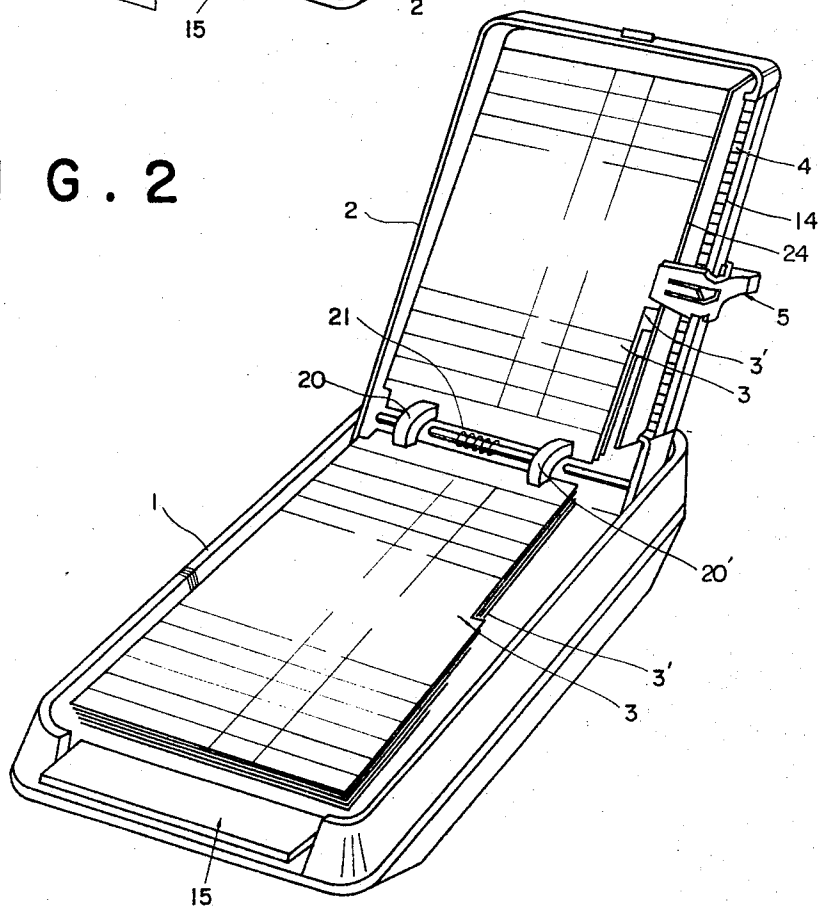


FIG. 3

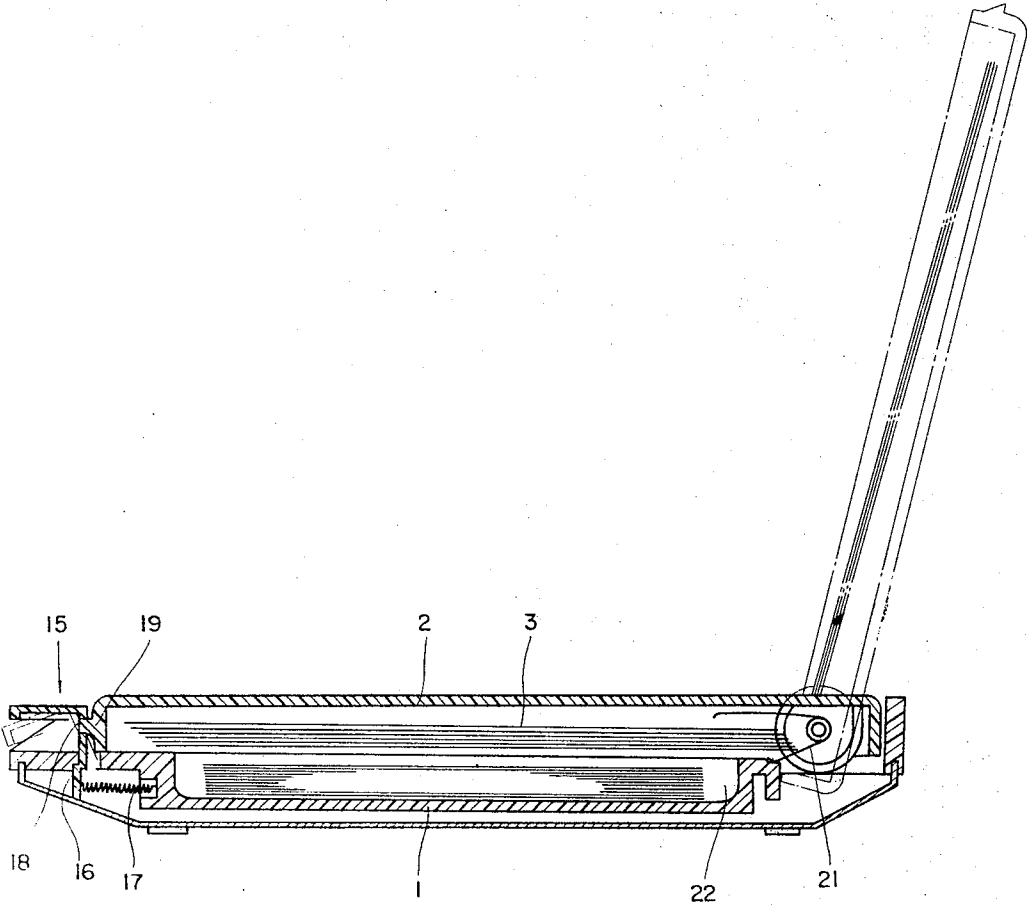


FIG. 4

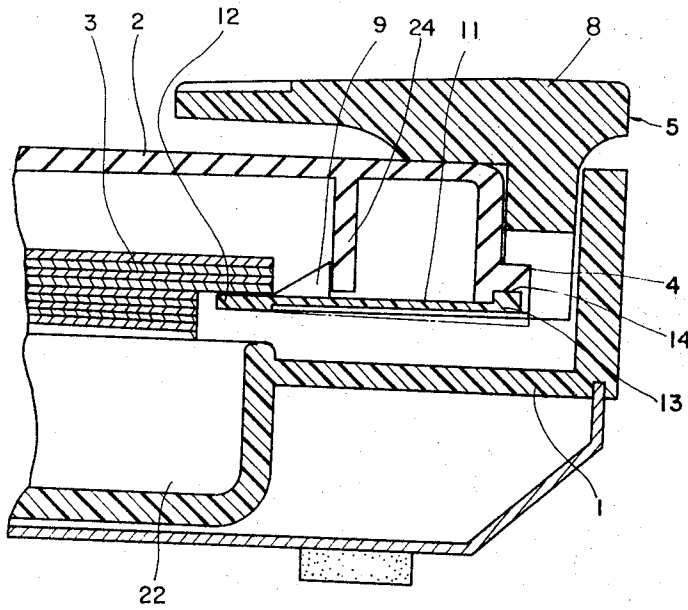


FIG. 5

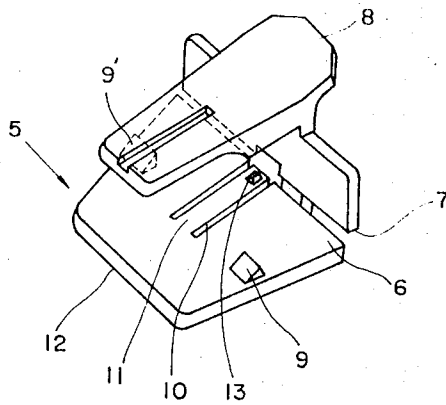


FIG. 6

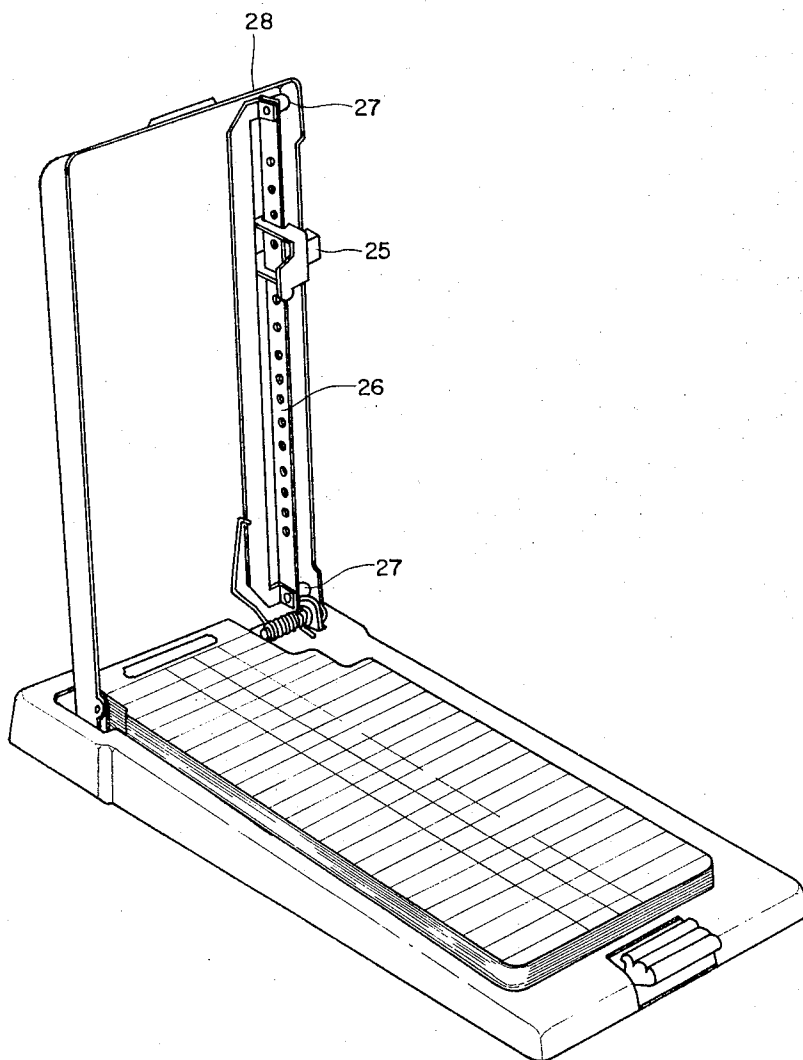


FIG. 7.

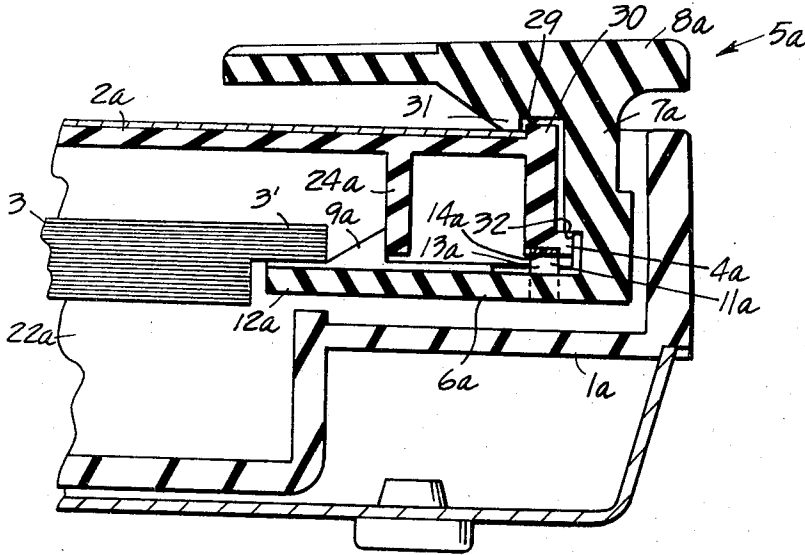
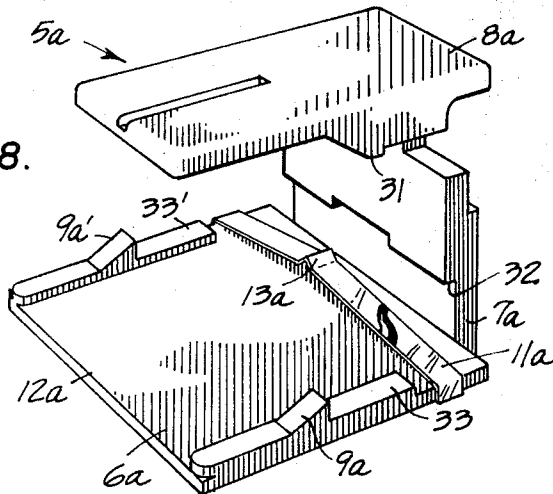


FIG. 8.



INDEXING POINTER FOR LIST FINDERS

CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of U.S. Pat. Application Ser. No. 216,645, filed on Jan. 10, 1972 by Chuzo Mori for "Index Apparatus," now abandoned claiming priority along with this application to Japanese Utility Model Application Ser. No. 9190/1971, filed in Japan on Feb. 18, 1971.

BACKGROUND OF THE INVENTION

List finders, such as telephone indexes, comprise a plurality of stacked information cards having names, addresses and/or telephone numbers printed thereon. The cards are mounted on a holder, having a cover pivotally mounted thereon to selectively expose the cards for information gathering purposes. In order to obtain a selected telephone number, for example, an indexing pointer is moved along the cover and adjacent to a "key" letter whereupon the cover is opened to obtain the desired information.

The indexing pointer for a conventional list finder, such as the one shown in FIG. 6 of applicant's drawings, is oftentimes mounted for sliding movements on a separate metallic bar secured to the cover. Such arrangement of the indexing pointer is expensive to manufacture and assemble and cannot be removed from the bar should replacement thereof be required. Additional prior art indexing pointers of this type are disclosed in U.S. Pat. Nos. 2,115,537; 3,192,658; and 3,405,466 and Swiss Pat. No. 345,871.

Conventional list finders are normally also accompanied by a separate memo pad. Such memo pad is normally utilized to jot-down notes during a telephone conversation, for example.

SUMMARY AND OBJECTS OF THE INVENTION

An object of this invention is to overcome the above, briefly described problems by providing an economical, non-complex and substantially noise-free list finder which is adapted to have a flexible U-shaped indexing pointer expeditiously attached to an edge of its cover during assembly and positively retained thereon for noise-free and trouble-free operation by combined guide and locating means. The list finder further comprises a holder having the cover pivotally mounted thereon and a plurality of stacked information cards removably mounted in the holder. The cover preferably comprises a molded one-piece construction composed of a plastic material. A first indexing pointer embodiment is formed in a like manner whereas in a second such embodiment the pointer has a leaf spring attached thereon for indexing purposes.

Another feature of this invention comprises a receptacle formed in the holder to retain a stack of memo sheets therein, beneath the information cards.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects of this invention will become apparent from the following description and accompanying drawings wherein:

FIG. 1 is a perspective view of a list finder, embodying this invention, shown in its closed condition;

FIG. 2 is a view similar to FIG. 1, but illustrating the list finder in its opened condition;

FIG. 3 is a longitudinal, sectional view of the list finder, taken along line A—A in FIG. 1;

FIG. 4 is an enlarged, cross-sectional view through an indexing pointer of the list finder, taken along line A'—A' in FIG. 1;

FIG. 5 is an isometric view of the indexing pointer;

FIG. 6 is a perspective view of a conventional list finder, shown in an opened condition; and

FIGS. 7 and 8 are views similar to FIGS. 4 and 5, respectively, illustrating a modification of the indexing pointer.

DETAILED DESCRIPTION

FIG. 1 illustrates a telephone index-type list finder comprising a base or holder 1 having a cover or lid 2 pivotally mounted on a rearward end thereof in a conventional manner. Upon opening of the cover to its FIG. 2 condition, a plurality of stacked information sheets or cards 3, having stepped-down cut-outs sequentially formed on their edges, are exposed to divulge information such as names, addresses and/or telephone numbers imprinted thereon. The base defines a receptacle for removably mounting the cards therein and the cover has a downwardly extending outer guide bar integrally formed thereon to define a longitudinally extending and upwardly facing ledge or bearing surface 4 on a lower end thereof (FIGS. 2 and 4).

The holder and cover each preferably comprise a suitably composed and moldable rigid plastic material with the cover having a one-piece construction. The holder has an upwardly extending outer wall integrally formed longitudinally along its side (FIG. 4) which is parallel to the cover's outer guide bar. When the cover is closed, its top surface assumes a substantially flush relationship with respect to the upper edge of the holder's outer wall to fully protect the cover.

The information cards are individually exposed by selectively sliding an indexing pointer 5 along an edge of the cover. The pointer, shown disassembled in FIG. 5, comprises a molded, one-piece construction having a generally U-shaped cross section. As will be hereinafter more fully described, the pointer is preferably composed of a resilient and slightly flexible plastic material to permit the pointer to be detached from the cover for assembly and replacement purposes.

Referring again to FIGS. 4 and 5, the pointer comprises a horizontally disposed base portion 6 having a vertically disposed side portion 7 integrally connected thereto by a pair of spaced ribs. An upper or pointer portion 8 is cantilevered on an upper edge of the side portion and has a line marking formed on a forward edge thereof for the visual indexing purposes hereinafter described. A pair of laterally spaced and upstanding positioning lugs 9 and 9' are integrally secured to the base portion.

A pair of parallel cut-outs 10 are formed through the base portion to define a cantilevered spring-like member 11. The base portion terminates at its opposite end at a card indexing portion 12 which underlies stepped-down cut-outs 3' formed on the edges of the cards, as shown in FIG. 4. A detent 13 is secured on the free end of member 11 to releasably snap into engagement with one of a series of longitudinally aligned indentations or recesses 14 (FIGS. 2 and 4) to provide spring-loaded detent means therewith. Upon selective movement of the indexing pointer along the cover, the detent means

cooperates with card indexing portion 12 of the base portion to provide the indexing function.

Referring to FIG. 3, the forward end of the cover may be manually released from base 1 by depressing a bar 15 which is cantilevered on the base by means of a vertically disposed support member 16. A coil spring 17 is mounted between the support member and the base to aid in the latching and unlatching function, due to the inherent resiliency of bar 15 when the bar is flexed between its solid and phantom line positions shown in FIG. 3. An aperture 18 is formed in support member 16 to normally receive a locking lug 19 integrally formed on a forward edge of the cover to provide a latch means when the list finder is in its closed position.

As shown in FIG. 2, a pair of semi-ring shaped binders 20 and 20' project through the cards to retain them in the list finder. As shown in FIG. 3, upon depression of bar 15 to release locking lug 19 from aperture 18, a torsion spring 21 cooperates therewith to provide opening means for automatically raising the cover to its phantom-line position. The base preferably has a rectangular receptacle formed therein to retain a plurality of stacked memo sheets 22.

Thus, when the pointer is moved downwardly to its extreme position towards a forward end of the cover in FIG. 1, opening of the list finder will expose the memo sheets for use during a telephone conversation, for example. As schematically illustrated in FIG. 1, indicia means 23 may be formed on the cover to selectively align pointer portion 8 of the indexing pointer therealong for accurate information gathering purposes.

As clearly illustrated in FIG. 4, the cover has a longitudinally and downwardly extending inner guide bar 24 integrally secured thereon in parallel relationship to the outer guide bar. The inboard side of the inner guide bar abuts opposed flat bearing surfaces of lugs 9 and 9' to guide and prevent rightward movement of the indexing pointer relative to the cover and to precisely position card indexing portion 12 of the indexing pointer under the cards. As will be hereinafter described, the lugs have a height which is sufficiently short to release them from their abutment with the inner guide bar upon downward flexing of base portion 6.

Ledge 4 engages the lower end of side portion 7 of the indexing pointer in bearing contact to precisely locate detent 13 in a particular indentation 14, formed on the underside of the outer guide bar of the cover. The above-described structures cooperate to provide a combined guide and locating means on the edge of the cover and on the pointer for permitting the pointer to slide smoothly along such edge and for normally preventing removal of the pointer from the cover.

As described above, the pointer is sufficiently flexible and suitable tolerances are provided between the pointer and cover to permit expeditious removal thereof laterally from the cover, when it is opened. Such removal is effected by merely flexing base portion 6 and cantilevered member 11 downwardly to slightly expand the pointer to release lugs 9 and 9' and detent 13 from the cover. A new pointer may be reinstalled on the cover in a reverse manner to replace a damaged or otherwise malfunctioning pointer by merely snapping the lugs and detent into their respective FIG. 4 positions.

In contrast thereto FIG. 6 illustrates a conventional list finder wherein a metallic indexing pointer 25 is slidably mounted on a metallic guide bar 26, secured by

rivets 27 to a cover 28. Such a complex conventional construction is expensive and cumbersome to manufacture and does not provide the above-described replacement desiderata nor does it provide such noise-free and trouble-free operation.

FIGS. 7 and 8 illustrate a modification of the indexing pointer wherein like numerals depict corresponding constructions having similar functions. However, like numerals appearing in FIGS. 7 and 8 are accompanied by letters *a* to clearly identify modified constructions. The constructions illustrated are fully adaptable for use in the list finder illustrated in FIG. 1.

Indexing pointer 5a, slidably mounted on the edge of a cover 2a, pivotally attached to a holder 1a, comprises integrally connected base, side and pointer portions 6a, 7a and 8a, respectively. A pair of lugs 9a and 9a' abut the inboard surface of an inner guide bar 24a whereas a card indexing portion 12a of base portion 6a underlies stepped-down cut-outs 3' of information cards 3 for indexing purposes. A groove 29 is formed longitudinally along the underside of pointer portion 8a to receive an upwardly facing positioning tongue 30 formed longitudinally along the upper edge of the cover. Such tongue and groove arrangement normally prevents the pointer portion from moving laterally relative to the cover.

The groove defines a downwardly facing ridge 31 on the pointer portion which engages the top of the cover in bearing contact therewith. A downwardly facing bearing surface 32, disposed vertically downwardly from groove 29, engages an upper bearing surface of ledge 4a of the cover to aid in the guiding and locating function. A pair of raised, parallel bars 33 and 33' are formed integrally on base portion 6a and terminate at their forward ends, short of side portion 7a to define a recess therein.

A leaf spring 11a is clamped on the base portion in such recess means and has a V-shape, terminating at its apex in an upwardly facing detent 13a to provide a spring-loaded detent means therewith. The detent, as shown in FIG. 7, sequentially engages an indentation 14a for retaining the indexing pointer in a chosen position along the cover for indexing purposes. From the above description it can be seen that lugs 9a and 9a', groove 29, ridge 31, surface 32, ledge 4a and the tolerances provided between the indexing pointer and the cover also provide combined guide and locating means. Also, the pointer may be assembled on or removed from cover 2a by merely flexing it into a slightly expanded condition to release lugs 9a and 9a', ridge 31 and detent 13a from the cover.

What is claimed is:

1. A list finder in combination with a removably insertable indexing pointer comprising
 - a holder,
 - a plurality of stacked information cards mounted on said holder,
 - a cover pivotally mounted on said holder,
 - opening means for selectively raising said cover to expose a selected one of said information cards,
 - said indexing pointer, composed of a flexible material and having a generally U-shaped cross section and a one-piece unitary construction, slidably mounted on an edge of said cover, and
 - combined guide and locating means on the edge of said cover and on said pointer for permitting said indexing pointer to slide smoothly along such edge

whereby upon flexing of said indexing pointer to a slightly expanded condition it can be selectively removed from or inserted on the edge of said cover.

2. The list finder of claim 1 wherein said indexing pointer comprises horizontally disposed base and pointer portions respectively underlying and overlying the edge of said cover and integrally connected together by a vertically disposed side portion disposed on an outboard side of said cover.

3. The list finder of claim 2 wherein said cover comprises a pair of downwardly extending and parallel inner and outer guide bars extending longitudinally along said cover and wherein said guide and locating means comprises said side portion being positioned adjacent to said outer guide bar and at least one positioning lug secured on said portion to abut an inboard side of said inner guide bar, said positioning lug having a height sufficiently short to release it from its abutment with said inner guide bar upon downward flexing of said base portion.

4. The list finder of claim 3 wherein said guide and locating means further comprises an upwardly facing ledge integrally formed on a lower end of said outer guide bar and a downwardly facing bearing surface formed on said side portion to slidably engage said ledge.

5. The list finder of claim 4 wherein said guide and locating means further comprises means forming a groove longitudinally along an underside of said pointer portion and an upwardly facing tongue formed longitudinally along an upper edge of said cover, said tongue disposed in said groove.

6. The list finder of claim 3 further comprising a series of longitudinally aligned indentations formed on the underside of said outer guide bar and spring-loaded detent means on the upper side of said base portion to releasably engage a selected one of said indentations upon movement of said indexing pointer along said cover.

7. The list finder of claim 6 wherein said detent means comprises a cantilevered member formed out of said base portion and a detent integrally formed on a free end of said cantilevered member, adjacent to said side portion.

8. The list finder of claim 6 wherein said detent means comprises a V-shaped leaf spring attached on said base portion to have its apex face upwardly towards said indentations and a detent integrally formed on said apex.

9. The list finder of claim 8 further comprising recess means formed on said base portion for preventing movement of said leaf-spring away from said vertical portion.

10. The list finder of claim 9 wherein said recess means is defined by a pair of laterally spaced ribs integrally formed on said base portion and terminating short of said side portion.

11. The list finder of claim 2 wherein edges of said information cards have stepped-down cut-outs sequentially formed thereon and wherein an extension of said base portion underlies said cut-outs whereby a selected one of said cards will be exposed upon selective movement of said indexing pointer.

12. The list finder of claim 2 further comprising indicia means formed longitudinally along said cover, adjacent

to the edge thereof and wherein said pointer portion is positioned adjacent to said indicia means.

13. The list finder of claim 1 wherein said opening means comprises a vertically disposed support member secured to a forward end of said holder to extend upwardly adjacent to a forward end of said cover, a depressable opening bar secured to said support member in cantilevered relationship thereon and latch means cooperating between the forward end of said cover and said support member for selectively releasing said cover from said holder upon manual depression of said opening bar.

14. The list finder of claim 13 wherein said latch means comprises an aperture formed in said support member and a releasable locking lug integrally formed on a forward end of said cover and normally received in said aperture.

15. The list finder of claim 13 wherein said opening means further comprises spring means mounted between said holder and said cover for automatically raising said cover to an open position upon release of said latching means.

16. The list finder of claim 1 further comprising means forming a receptacle in said holder, beneath said cards, adapted to retain a stack of memo sheets therein, said indexing pointer positionable on said cover to expose said memo sheets when it is positioned in an extreme position towards a forward end of said cover.

17. The list finder of claim 1 wherein said holder and said cover each substantially constitute a plastic material.

18. A list finder in combination with a removably insertable indexing pointer comprising

a holder having an upwardly extending outer wall formed longitudinally along one side thereof, a plurality of stacked information cards mounted in said holder,

a cover pivotally mounted on said holder and having an outer guide bar extending longitudinally along said cover and downwardly in at least general parallel relationship with respect to said outer wall, and

said indexing pointer, composed of a flexible material and having a generally U-shaped cross section and a one-piece unitary construction, slidably mounted on an edge of said cover and comprising horizontally disposed base and pointer portions respectively underlying and overlying the edge of said cover and integrally connected together by a vertically disposed side portion disposed on an outboard side of said edge, said side portion normally disposed laterally between said outer wall and said outer guide bar.

19. The list finder of claim 18 wherein said cover further comprises an inner guide bar extending longitudinally along said cover and downwardly in parallel relationship to said outer guide bar and further comprising combined guide and locating means on the edge of said cover and on said indexing pointer for cooperating with said inner and outer guide bars for permitting said indexing pointer to slide along such edge and for normally preventing removal of said pointer from said cover.

20. The list finder of claim 19 wherein said guide and locating means comprises said side portion being positioned closely adjacent to said outer guide bar and at

least one positioning lug secured on said base portion to abut an inboard side of said inner guide bar.

21. The list finder of claim 20 wherein said guide and locating means further comprises an upwardly facing ledge integrally formed on a lower end of said outer guide bar and a downwardly facing bearing surface formed on said side portion to slidably engage said

ledge.

22. The list finder of claim 18 wherein an upper edge of said outer wall is substantially flush with the top surface of said cover when said cover is in its normally closed position.

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