

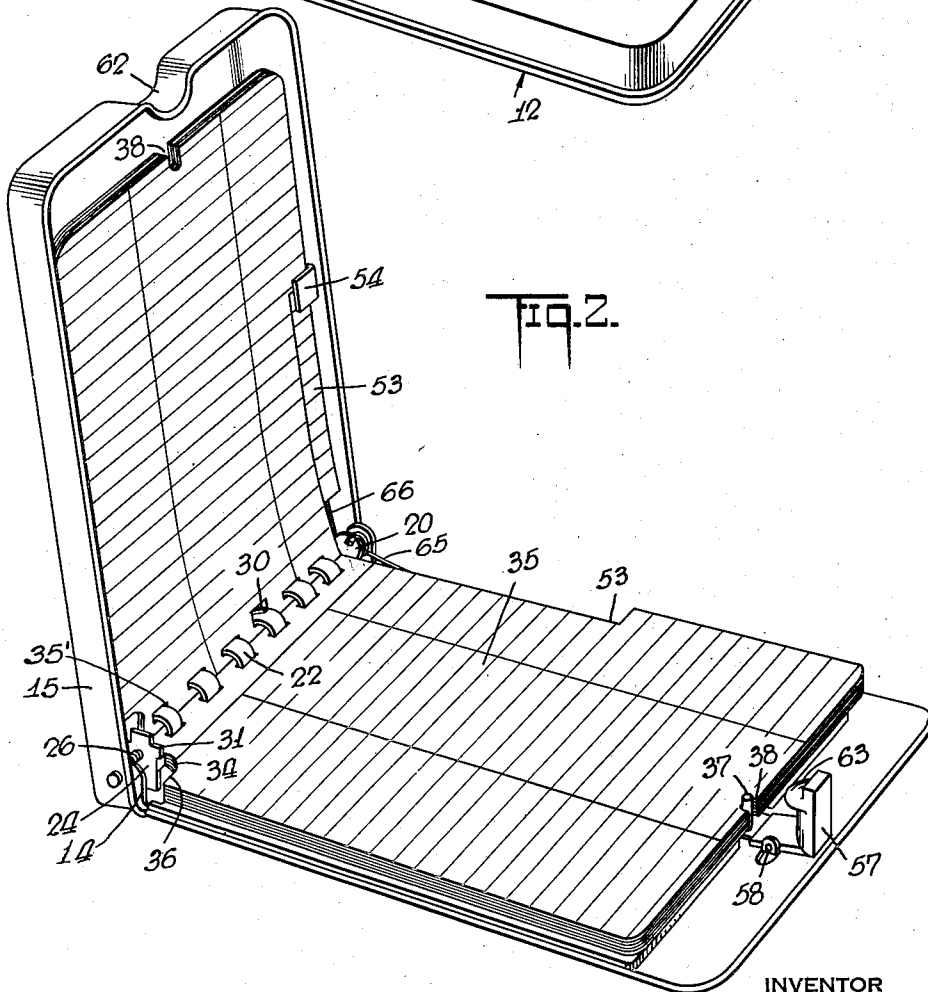
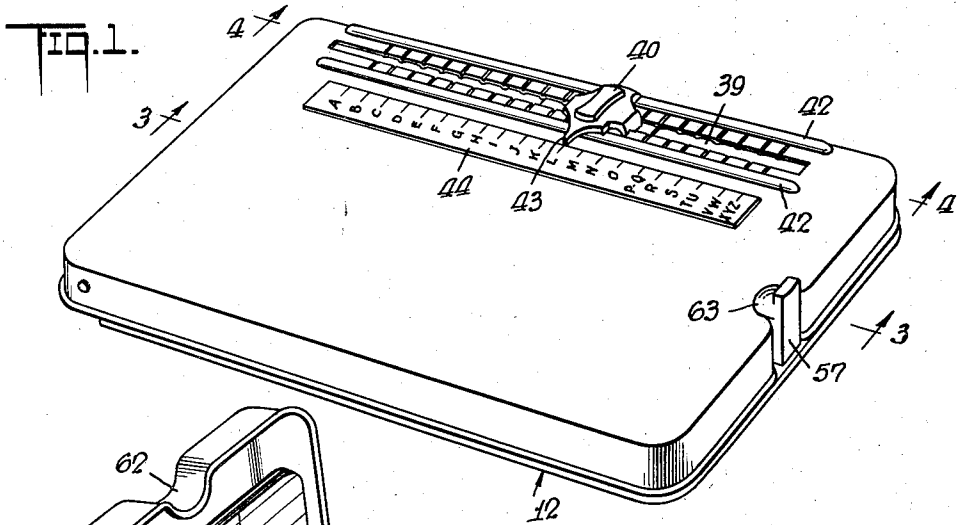
Nov. 20, 1951

S. I. BERGER  
SELECTOR BINDER

2,575,482

Filed Dec. 12, 1945

3 Sheets-Sheet 1



INVENTOR

*Samuel I. Berger*

BY

*Dean Fairbank & Hirsch*  
ATTORNEYS

45-275

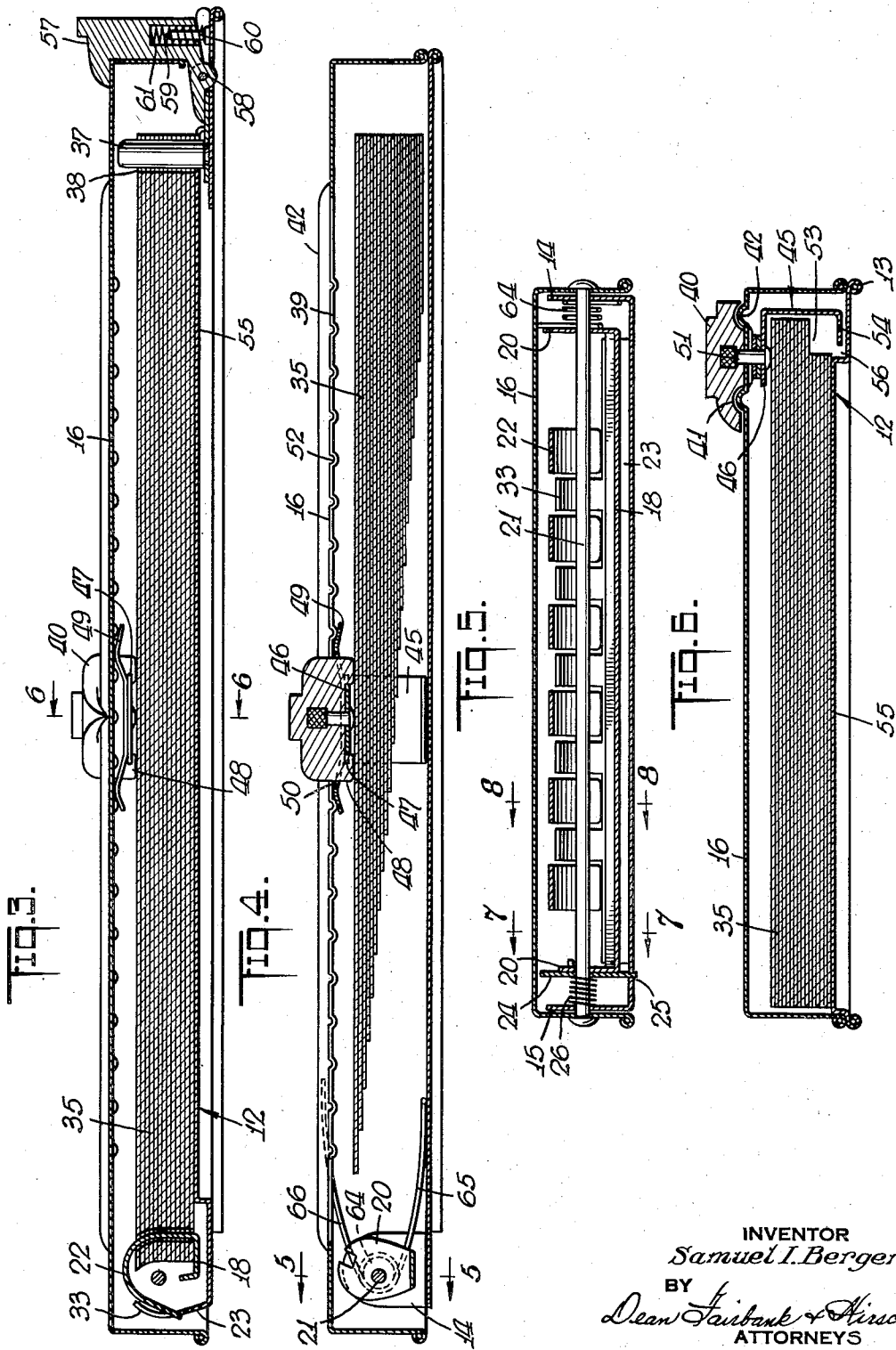
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S. I. BERGER  
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3 Sheets-Sheet 2



INVENTOR  
*Samuel I. Berger*  
BY  
*Dean Fairbank & Hirsch*  
ATTORNEYS

45-275

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3 Sheets-Sheet 3

FIG. 7.

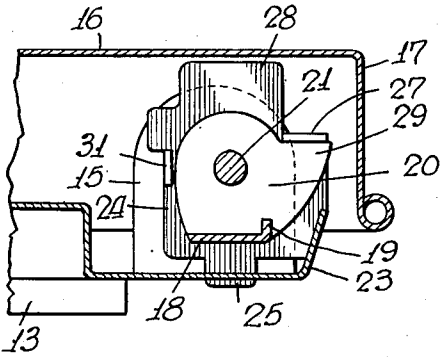


FIG. 8.

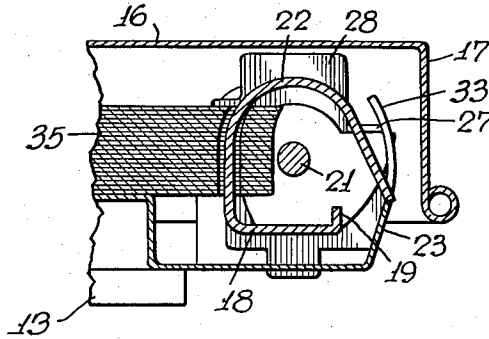


FIG. 9.

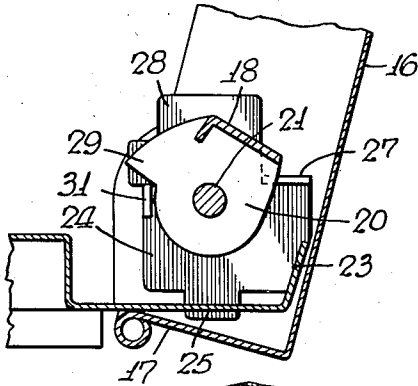


FIG. 10.

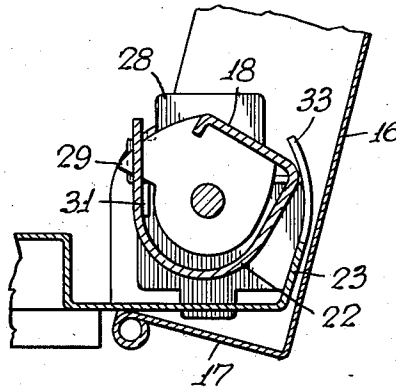
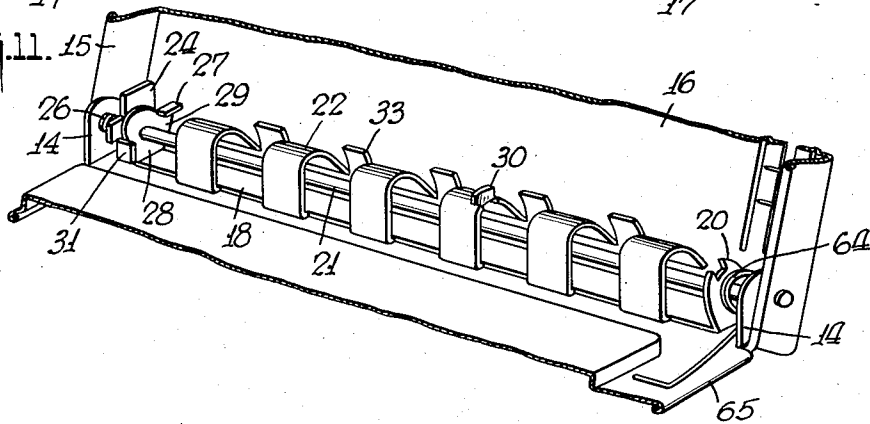


FIG. 11.



INVENTOR  
Samuel I. Berger  
BY  
Dean Fairbank & Hirsch  
ATTORNEYS  
45-215

## UNITED STATES PATENT OFFICE

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## SELECTOR BINDER

Samuel I. Berger, Newark, N. J.

Application December 12, 1945, Serial No. 634,449

23 Claims. (Cl. 40-104)

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The present invention, while embodied in a telephone index of the loose leaf type, is of more general application to loose-leaf binder adapted for telephone index use, of simple, inexpensive and rugged construction, attractive appearance and complete efficacy for dependable instant opening to the selected sheet and which securely holds the sheets in position but readily admits of removal and replacement of the sheets without danger of deranging the apparatus.

In the accompanying drawings in which is shown one of various possible embodiments of the several features of the invention,

Fig. 1 is a perspective view showing the device in closed position,

Fig. 2 is a view similar to Fig. 1, showing the device in open position,

Fig. 3 is a longitudinal sectional view taken on line 3-3 of Fig. 1,

Fig. 4 is a longitudinal sectional view taken on line 4-4 of Fig. 1,

Fig. 5 is a transverse sectional view taken on line 5-5 of Fig. 4,

Fig. 6 is a transverse sectional view taken on line 6-6 of Fig. 3,

Fig. 7 is a transverse sectional view taken on line 7-7 of Fig. 5, showing the binder in open position,

Fig. 8 is a view similar to Fig. 7, taken on line 8-8 of Fig. 5,

Fig. 9 is a view similar to Fig. 7, showing the bail in open position,

Fig. 10 is a view similar to Fig. 8, showing the bail in open position, and

Fig. 11 is a perspective view on a larger scale showing the sheet holder in locked position with the sheets removed, the better to disclose the details.

Referring now to the drawings, the base of the telephone index is a rectangular plate 12 preferably rounded at its forward corners and having a continuous downturned rim 13 along its forward and lateral edges, which imparts stiffness and security thereto as well as finished and ornamental appearance. At the rear end of the base there are a pair of opposed upstanding ears 14 embraced by the lateral flanges 15 of a flanged cover 16. Pivot means extends through the ears and flanges to mount the cover in hinged relation. The cover when open, extends at its rear flange 17 under the base 12 below the rear end thereof, which, as shown, is devoid of the downturned rim flange 13 at that region.

At the hinge end of the device is the sheet holder or retainer. In a preferred embodiment this comprises a sheet metal bail having preferably a trough-shaped cross bar 18 turned inward at 19 at its rear edge for stiffness, and having

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unitary therewith the lateral bail legs 20. The bail is desirably of nearly the width of the base and the bail legs are pivotally mounted coaxially with the cover hinge. In a simple embodiment shown, a pivot pin 21 may extend transversely through the cover flange 15 and the base ears 14, and through the bail legs 20, as shown.

Preferably the forward edge of the bail has upstanding fingers 22, equally spaced from each other and curved, as shown, into generally a U-shape, the ends of said fingers nearly abutting the upwardly curved rear flange 23 on the base in locking position of the bail.

The bail 18-20 is preferably latched in locked position by means of a latch plate 24 and that plate is desirably hinged at its lower edge by means of a unitary lug 25 fitting in a corresponding slot in the base. The latch plate 24 is urged against one of the bail legs 20 by a coil spring 26 about the pivot pin 21. The latch plate is also provided with an inturned horizontal lug 27 to the rear of the upstanding finger tab 28 thereof. That lug arrests the forward unlocking movement of the sheet holding bail 18-20 by engagement therewith of a tooth 29 of the bail leg in the plane of the latter.

Desirably the bail is provided at one of its fingers 22 with an upstanding tab 30 for manipulation, by which the bail can be moved forward about its pivot 21 upon release of the latch 24, thereby to facilitate application and removal of perforated sheets. Preferably, the latch 24 is provided with an inturned lug 31 forwardly of the finger tab 28 which lug extends in the path of forward rocking movement of tooth 29 on bail leg 20 and so defines the position of the bail when in position for removal or application of a stack of sheets or cards in which position, as best shown in Fig. 10, the free ends of fingers 22 extend upward. The stack of sheets 35 has perforations 35' through which fingers 22 extend, and the perforation for the finger equipped with tab 30 is widened to permit passage of the latter. Preferably also the rear flange 23 of the base has upstanding curved fingers 33 thereon which intervene between the fingers 22 on the bail. Desirably the latch lug 31 is engaged by the lateral edges 34 of the stack of sheets 35 when in place and assists in maintaining the latter in registry. Desirably the sheets are notched at 36 at their upper left hand corner for accommodating latch 24. Desirably also the base has an upstanding stud 37 fitting in corresponding notches 33 in the forward edges of the stack of sheets, further to assist in maintaining them in registry.

As thus far described, the device with or without the cover, is useful as a loose leaf binder of more or less general application.

The invention is, however, shown in one specified application as a telephone index, for which purpose, and for like analogous purposes, the base and cover are modified to attain speed and convenience of finding the selected sheet.

To this end the cover is provided with an index near one edge thereof, comprising preferably a longitudinal slot 39 which accommodates the index button 40 of plastic, if desired, which is provided with depressions 41 in its under surface riding along embossed tracks or runways 42 in the cover, laterally of the slot 39 and at opposite sides thereof. A pointer or index 43 integral with the button rides along the sequence of letters or numbers 44 imprinted at one side of the inner track 42. A sheet metal lifting hook 45 of U-shape has one leg 46 extending transversely across the inner face of the cover 16 and is lodged at its lateral edges in corresponding notches 47 near the inner ends of fingers 48 protruding from the button 40 downward through slot 39. A spring leaf 49 longitudinally of the slot 39 and transversely of the hook 45, extends along the under surface of the cover 16 and has a central longitudinal slot 50 straddling the lugs 48 on the button 40, a fastener stud 51 through hook lug 46 affixing the latter to the plastic button 40 and thereby confining the spring 49 in position. Preferably the cover is transversely embossed as at 52 at the various letters and numerals, so that in moving the button along the slot 39, the spring 49 will ratchet along the embossments and be also impositively retained in position of adjustment.

The index sheets 35 are laterally cut away as at 53 below the hook 45, the "A" sheet having the shortest notch, the "Z" sheet the longest notch, and the intervening sheets having notches of graduated intervening lengths. The base plate 12 is preferably embossed slightly so as to provide a raised platform 55, upon which the sheets 35 rest with their notched edges protruding, and to afford clearance at 56 laterally of the platform below the entire stack of sheets, for the lifting end 54 of the lifting hook 45. Platform 55 also aids in stiffening the base.

As a further convenience, a cover latch 57 is provided for maintaining the cover closed, and spring means is provided to automatically open it upon release of the latch. Desirably the cover latch comprises an L-shaped button of plastic pivoted about a pin 58 at the forward end of the base 12 beyond the raised platform 55 and urged to upper or latching position by a coil spring 59 about stud 60 which rises from near the forward edge of the base and is telescoped into a corresponding socket 61 in the cover latch. Desirably also the cover 16 and flange are provided with a notch 62 at the forward edge which accommodates the latch 57, the nose 63 of the latter overlapping the cover in closed position. The opening impulse may be produced by a coil spring 64 about the hinge pin 21 beyond the bail at the side opposed to latch 24, said spring having an inturned end 65 reacting against the base and the opposite extremity 66 reacting against the cover.

The upstanding stud 37 is desirably mounted on the forward end of the cover latch 57 and it extends as above described into corresponding U notches 38 in the forward edges of the sheets of the stack.

The operation will be apparent but will be briefly summarized. To select any sheet, the button 40 is shifted along slot 39 to the corresponding letter 44 and the cover latch 57 is de-

pressed, whereupon the spring 64 will urge the cover 16 to open position with the hook 45 lifting all sheets 35 above that of the selected letter and exposing the selected sheet. The cover may be closed after use and the cover latch 57 will snap thereover.

When it is desired to replace sheets, the button 40 is first moved to the lowermost or forward extremity, and upon release of the cover latch 57, the entire stack is lifted with the cover 16. Thereupon the latch 24 is shifted to the left by pushing against its finger tab 28. Finger piece 30 is then engaged to rock the sheet holding bail 18—20 forward until its tongue 29 is arrested by the lug 31 as shown in Fig. 9, at which time the U-shaped fingers 22 will extend upward and the stack of sheets or cards may readily be lifted from place and as readily replaced. Thereupon the sheet holding bail 18—20 is merely turned backward until the tongue 29 passes over the latch lug 27, thereby latching the sheet retaining bail in position. In that position the free ends of the U-shaped fingers 22 abut against the rear flange 23 of the base, and the rear fingers 33 on said flange intervene between said U-shaped fingers, so that the sheets are securely held against removal.

The sheets are also automatically registered in position in the insertion thereof, by the engagement of the lug 31 on the latch 24 with the left lateral edges 34 thereof and of the stud 37 on the cover latch 57 with the notches 38 in the forward edges of the sheets 35.

The sheet binder feature of the invention may be utilized, it will be understood, with a narrow base strip along the hinge and without either the base or the cover and may simply serve as the binder of the book, or if desired, it may be used with a base 12 but without a cover, but preferably both base and cover are used as set forth.

It will be seen that the base is relatively flat, so that desired entries may be readily and comfortably made upon any sheet thereon without interference from an upstanding flange.

As many changes could be made in the above construction, and many apparently widely different embodiments of this invention could be made without departing from the scope of the claims, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A loose-leaf binder, comprising a base, a cover hinged thereto, a bail extending the width of said binder, said bail having a multiplicity of fingers unitary therewith and extending transversely therefrom and adapted to extend through corresponding holes in the sheets to be bound, and spring pressed latch means pivoted to the base at one end thereof and having an inturned lug abutting an edge of the bail in sheet locking position.

2. A loose-leaf binder, comprising a base having upstanding ears near the rear thereof, a cover having a flange straddling said ears, and a hinge pin through said ears and flange hinging the cover to the base, a sheet holding bail hinged on said pin and extending the width of said base, said bail having fingers unitary therewith extending forward through perforations in the sheets to be bound, a releasable latch on said base

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for retaining said bail in sheet locking position, said bail having means to facilitate moving the latter about the pivot pin upon release of the latch for conveniently removing the sheets.

3. The combination recited in claim 2 in which the bail is of sheet metal and the ends of the fingers about the base when in operative position.

4. A loose-leaf binder, comprising a base having upstanding ears, a flanged cover, a hinge pin across the width of said cover and extending through said ears, a sheet metal holder for perforated sheets to be held, said holder being pivoted on said hinge pin and comprising a cross bar extending the width of said binder, a latch plate pivoted to said base, and having a flange engaging said holder and retaining it from rocking about said pin relative to the cover, said holder having upstanding fingers unitary with the forward edge thereof for accommodating the perforated sheets thereon, stop means engaging the outer ends of the fingers of said holder, and means limiting the angle through which the holder can be swung about the hinge pin upon release of the latch, thereby to displace the fingers for the free ends thereof to extend upwardly for facility in removal of the perforated sheets from the binder.

5. A loose-leaf binder, comprising a base having ears protruding upwardly from the rear end thereof, a cover having lateral flanges straddling said ears, and pivot means through said ears and flanges for hinging the cover to the base, a sheet metal holder for perforated sheets, comprising a bail extending substantially the width of said cover and pivoted about said pivot means, said bail having fingers unitary therewith extending at right angles to said bail, said fingers being curved about the bail for their free ends to coact with said base, means on said base latching said bail in sheet locking position, and means limiting the rocking displacement of said bail upon release of the latch to dispose the outer parts of said fingers in upright position for facility in removal and replacement of the sheets.

6. A loose-leaf binder, comprising a base having lateral upstanding ears near the rear thereof, a cover having lateral flanges, a hinge pin extending transversely through said ears and said flanges, a sheet holder comprising a unitary sheet metal blank in the form of a bail pivoted on said hinge pin, having fingers unitary therewith protruding from the forward edge thereof, over which perforated sheets are to be mounted, said fingers having their roots at right angle to said bail and being curved obliquely thereabout substantially to abut the base in closed position, and a releasable latch on the base for maintaining the bail locked in closed position, said bail having means to facilitate rocking the same about the pin upon release of the latch, and means in the path of said bail to limit the rocking displacement thereof for disposing the outer parts of the fingers to extend substantially upward for facility in removing and replacing sheets.

7. A loose-leaf binder, comprising a base having lateral ears, and an upstanding rear flange, a cover having lateral flanges, a transverse hinge pin through the ears and the flange, a sheet holder, including a unitary blank of sheet metal in the form of a bail pivoted upon said hinge pin, said bail having a plurality of sheet metal fingers extending at right angles thereto, latch means pivoted to said base near one side thereof and including a ledge overlapping the edge of the bail and locking the same to the base, with the ends

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of the fingers substantially engaging the rear flange of the base.

8. A loose-leaf binder, comprising a sheet holding bail having fingers to extend through corresponding perforations in the stack to be bound, a latch coacting with said bail to lock the same in closed position, said latch having stop means to coact with the bail to define the open position thereof for introduction or replacement of sheets, said bail having a stop shoulder engaging an inturned lug on the latch in locked position and engaging another inturned lug on the latch in open position of the bail.

9. A loose-leaf binder, comprising hinged enclosure plates, a sheet holder comprising a bail having legs, said bail being affixed to one of said enclosure plates, said bail having fingers over which the perforations of the sheets are mounted, a latch piece hinged to one of said plates and spring urged against one of the bail legs, said latch piece having inturned lugs at right angles to each other, said bail leg having a stop shoulder arrested by one of said lugs in sheet locking position and limited by the other lug in open position.

10. A loose-leaf binder, comprising a base, a sheet mounting bail having legs pivoted with respect to the rear end of said base, a sheet metal latch having a pivoting lug in said base, a spring urging said latch against one of said legs, said latch having an inturned lug and said bail leg having a tooth in the plane thereof arrested by said lug in locked position, said latch having a second inturned lug limiting the rotary displacement of said bail about the pivot to open position.

11. A loose-leaf binder, comprising a base, a sheet mounting bail pivoted to said base near the rear edge thereof, said bail having spaced fingers extending from the forward edge thereof in a U-curve and accommodating sheets at the perforations thereof, the rear of said base having upstanding curved fingers intervening between the fingers of said bail in closed position of the latter, releasable latch means for retaining the bail in said closed position, and means on said bail for rocking the latter to open the same to sheet release position upon release of the latch.

12. A loose-leaf binder, comprising a relatively flat base, upstanding ears near the rear thereof, a flanged cover embracing said ears, a transverse pin through said cover and said ears, a sheet holder of sheet metal comprising a bail having fingers protruding from the forward edge thereof and extending rearward in a generally U-curve in spaced relation for accommodating sheets to be bound, and a spring pressed releasable latch coacting with one end of the bail and retaining the latter in locked position.

13. A sheet index device, comprising a base, a cover hinged thereto, a holder for perforated sheets, said holder being of sheet metal hinged to said cover said holder having fingers integral therewith protruding through the perforated sheets, said holder being releasably latched to said base, means latching said cover closed, spring means urging said cover to open position upon release of the cover latch, and a selective slide on said cover having a lifting hook coacting with a stack of sheets for selectively lifting the upper part of the stack upon opening of the cover, and leaving unaffected the lower part of the stack.

14. A loose-leaf binder, comprising a relatively flat base, upstanding ears near the rear thereof, a cover having a flange embracing said ears, a transverse pin through said flange and said ears, a sheet holder of sheet metal comprising a bail

having legs, fingers protruding from the forward edge of said bail and extending rearward in a generally U-curve in spaced relation for accommodating sheets, a spring pressed releasable latch coacting with one end of the bail and retaining the latter in locked position, one of the fingers on the bail having a finger piece for facility in turning the bail to paper release position upon disconnecting the latch, said latch having a stop coacting with the bail leg to limit the opening movement thereof.

15. A loose-leaf binder, comprising a base having a platform for supporting perforated sheets, a paper retainer at the rear of said base comprising a bail having legs pivoted to said base for horizontal pivotal movement thereabout, said bail having spaced curved fingers for mounting sheets at the perforations thereof, a latch plate pivoted to said base and having a stop coacting with one of the legs of the bail for locking the same in sheet retaining position, said latch having an inturned lug coacting with lateral edges of the mounted sheets to help position the same.

16. A loose-leaf binder, comprising a flat base having a sheet-supporting platform, a sheet holder at the rear of said base comprising a bail having legs pivoted to said base for horizontal pivotal movement thereabout, said bail having spaced curved fingers for mounting sheets at the perforations thereof, a latch plate pivoted to said base and having a stop coacting with one of the legs of the bail for locking the same in sheet retaining position, said latch having an inturned lug for coaction with lateral edges of the sheets to help position the same, and an upstanding stud near the forward edge of said base for coaction with corresponding notches in the stack of sheets for further aid in positioning the same.

17. A loose-leaf binder, comprising a base having upstanding ears near the rear thereof, a sheet holding bail with legs pivoted with respect to said ears, and fingers upstanding from the forward edge of said bail for a stack of perforated sheets, a latch pivoted to said base having a lug coacting with one of the bail legs for latching the bail in sheet retaining position, the rear edge of said base having upstanding curved fingers intervening between those of the bail.

18. A loose-leaf binder, comprising a base plate, a flanged cover hinged to the rear of said base plate, a sheet retaining bail having legs near the lateral edges of said base and hinged coaxially with said cover, said bail having upstanding U-shaped fingers and a latch pivoted to said base having an inturned lug coacting with one of said legs for latching the bail in sheet retaining position.

19. The combination recited in claim 18, in which the rear edge of the base has upstanding curved fingers intervening between those on the bail and the base has an upstanding stud to be straddled by corresponding notches in the forward edges of the sheets.

20. The combination recited in claim 18, in which the latch has an inturned finger rising from the base for coaction with the corresponding lateral edge of the stack of sheets to assist in positioning the latter.

21. A loose-leaf index, comprising a base having a platform rising slightly therefrom, ears rising from near the rear edge thereof, a flanged cover pivoted to said ears, an index button slidable along said cover and having a hook depending therefrom, said hook extending in closed position of the device laterally of said platform and

above the lateral edge of said base, said platform terminating short of the forward edge of said base and cover, a cover latch pivoted to said base near the forward edge thereof, said cover having a notch in the forward edge thereof to accommodate said latch, said latch having an upstanding stud on the inner part thereof for accommodation in a corresponding notch in the sheets to be carried by the binder.

22. An article of the character described, comprising a relatively flat base having upstanding ears near the rear thereof, a flanged cover, a transverse pivot pin through said ears and opposite flanges of the cover and pivoting the latter to the base, a sheet holder comprising a bail having legs pivoted on said pin and curved fingers extending forward therefrom through corresponding apertures in the stack of sheets, a latch plate having a pivoting tongue through said base, a coil spring about said pivot pin urging said latch to closed position against an end of the bail, said latch having an inturned latching lug and said bail having a tooth engaged by said lug to lock the bail, the base having an upstanding rear flange engaged by the ends of said tongues to limit the movement of said bail beyond locking position, said latch having another lug engaged by the tongue on said bail to limit the opening movement of the latter.

23. An article of the character described, comprising a relatively flat base having upstanding ears near the rear thereof, a flanged cover, a transverse pivot pin through said ears and opposite flanges of the cover and pivoting the latter to the base, a sheet holder comprising a bail having legs pivoted on said pin and curved fingers extending forward therefrom through corresponding apertures in the stack of sheets, a latch plate having a pivoting tongue through said base, a coil spring about said pivot pin urging said latch to closed position against an end of the bail, said latch having an inturned latching lug and said bail having a tooth engaged by said lug to lock the bail, the base having an upstanding rear flange engaged by the ends of said tongues to limit the movement of the bail beyond locking position, said latch having another lug engaged by the tooth on said bail to define the open position of the latter, said latch having an operating finger protruding therefrom for releasing the latter, said bail having a finger piece to facilitate moving the latter to and from sheet locking position, and said base having upstanding curved fingers beyond the rear flange thereof, intervening between the fingers on the bail.

SAMUEL I. BERGER.

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