Oct. 6, 1942. V. HAVEL 2,297,958

LOOSE LEAF CONSTRUCTION

Filed March 16, 1942 3 Sheets-Sheet 1

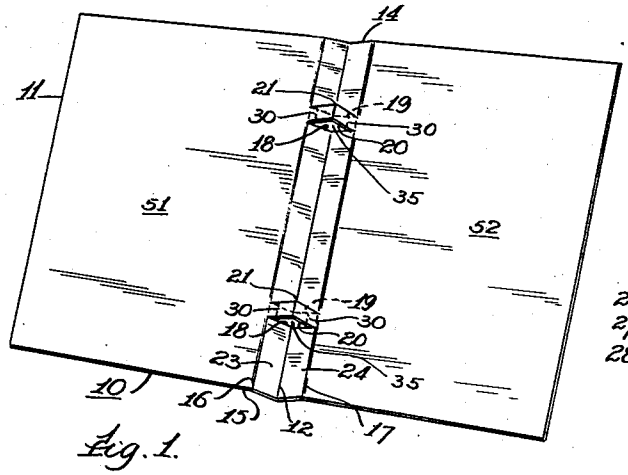



Fig. 1.

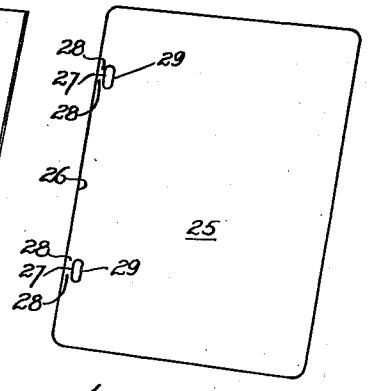



Fig. 2.

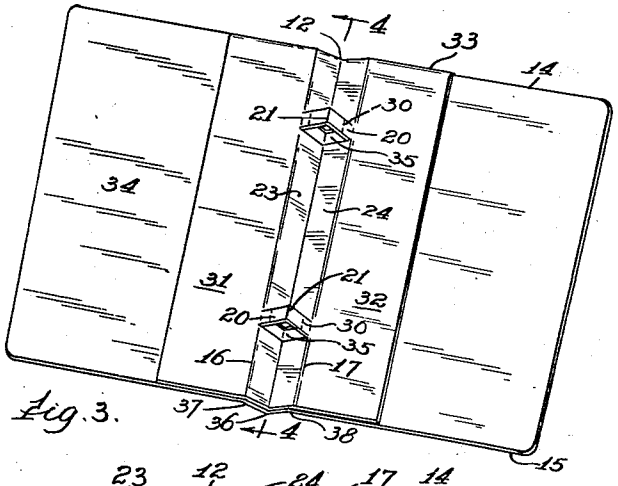



Fig. 3.

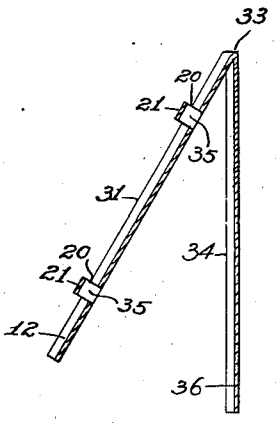



Fig. 4.

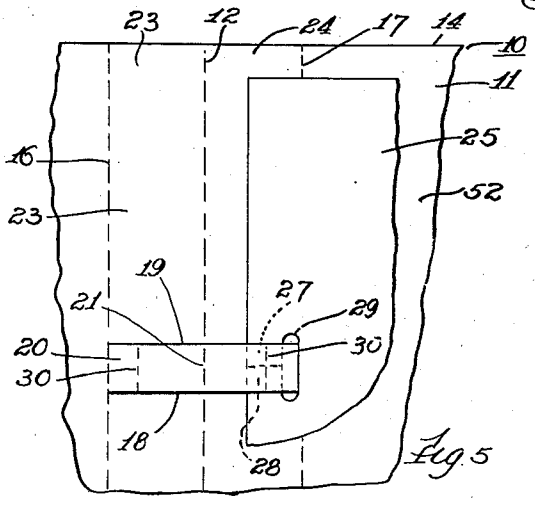



Fig. 5

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LOOSE LEAF CONSTRUCTION

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Fig. 6.

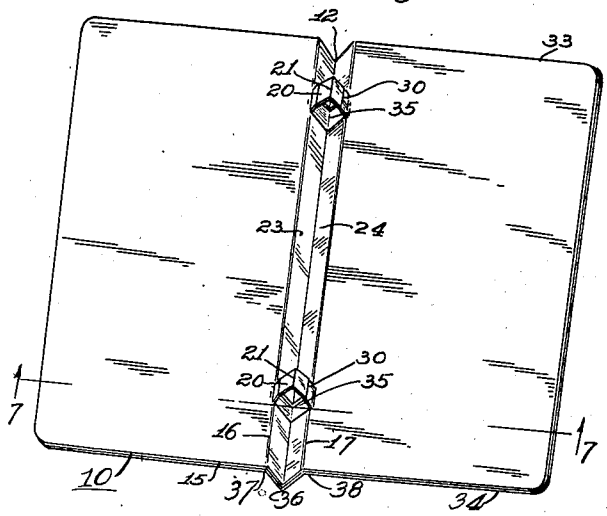
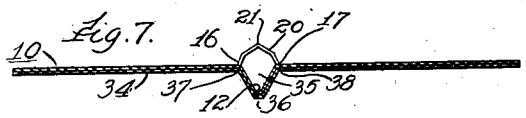



Fig. 7.



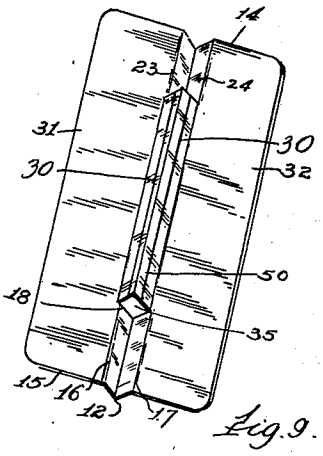




Fig. 9.

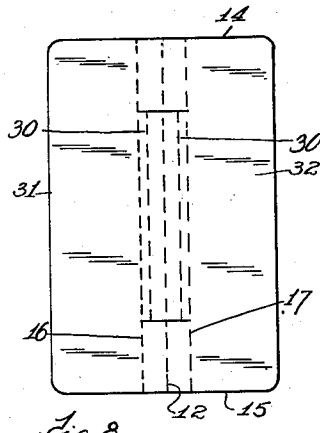



Fig. 8.

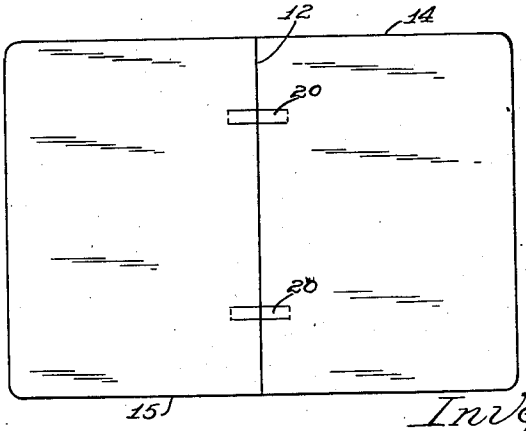



Fig. 10.

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LOOSE LEAF CONSTRUCTION

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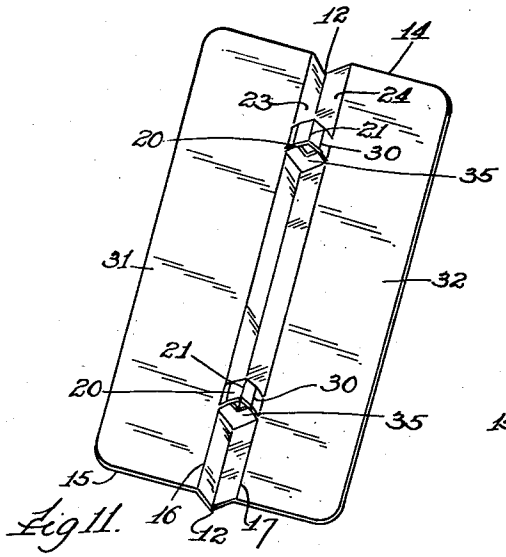



Fig 11.

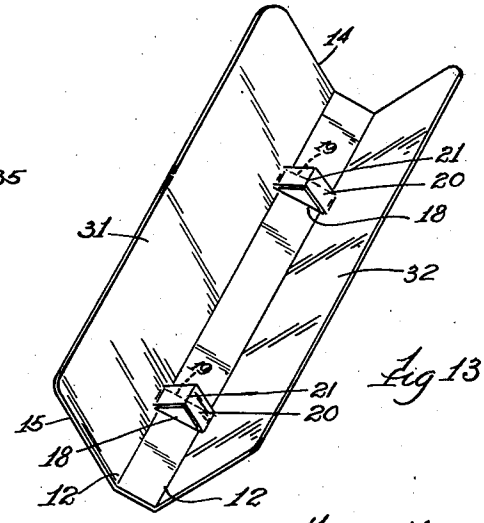



Fig 13.

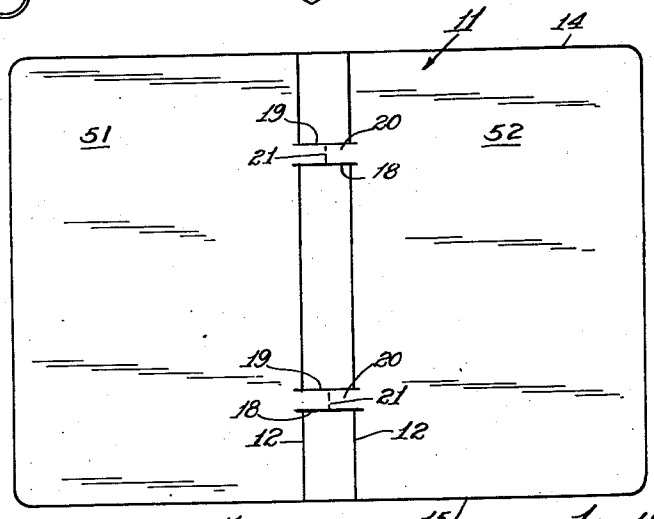
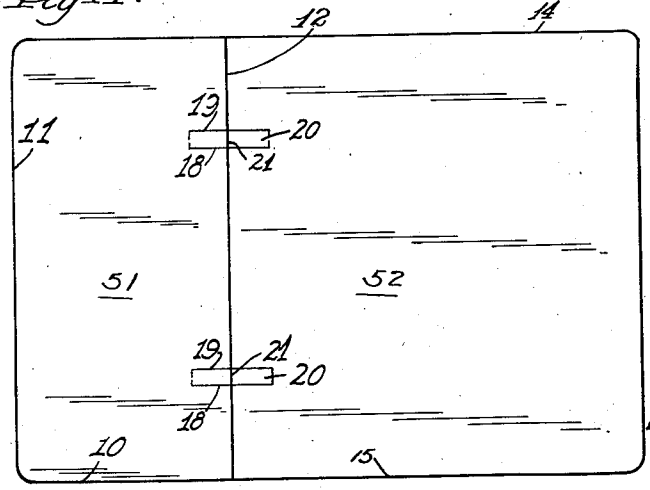



Fig 12.

Fig 14.




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Patented Oct. 6, 1942

2,297,958

# UNITED STATES PATENT OFFICE

2,297,958

## LOOSE-LEAF CONSTRUCTION

Victor Havel, Chicago, Ill., assignor, by direct and mesne assignments, to L. L. Paper Products Inc., Chicago, Ill., a corporation of Illinois

Application March 16, 1942, Serial No. 434,973

17 Claims. (Cl. 129—41)

This invention relates to a paper loose-leaf construction.

Among the objects of my invention is to provide a binder made entirely out of paper, Bristol board, cardboard, pasteboard or the like into which leaves may be freely inserted, turned and withdrawn and which will hold said leaves firmly and prevent accidental displacement. Another object is to create a binder having a cover and leaf holding elements formed from the binder itself without additional or extraneous materials. Another object is to supply a binder economical of manufacture, made of materials procurable during times of scarcity or war, which will function satisfactorily and be lasting in wear and such other objects, advantages and capabilities as will later more fully appear and which are inherently possessed by my invention.

While I have shown in the accompanying drawings preferred embodiments of my invention, yet I wish it understood that the same are susceptible of modification and change without departing from the spirit of my invention.

Referring to the drawings, Fig. 1 is a perspective view of one embodiment of my cover binder; Fig. 2 is a perspective view of my sheet; Fig. 3 is a perspective view of another embodiment of my cover with an abbreviated binder; Fig. 4 is a sectional view on line 4—4 of Fig. 3; Fig. 5 is a detailed plan view showing a portion of the sheet engaging one of my holding elements; Fig. 6 is a perspective view of another embodiment of my cover binder; Fig. 7 is a sectional view on line 7—7 of Fig. 6; Fig. 8 is a top plan view of a blank illustrating the scores providing an enlarged strap; Fig. 9 is a perspective view of the enlarged strap in creased open position; Fig. 10 is a top plan view of my cover binder without the spaced scores.

Fig. 11 is a perspective view of my abbreviated stub construction with a plurality of straps; Fig. 12 is a top plan view of a sheet for my cover binder with slightly spaced scores; Fig. 13 is a perspective view of an abbreviated binder with slightly spaced scores in creased open position; and Fig. 14 is a top plan view of a sheet for my cover binder with a single off-center score.

One embodiment selected to illustrate my invention comprises a cover 10 formed of sheet 11 of Bristol board, cardboard, pasteboard or other firm paper material. A longitudinal score 12 extends from the center of the upper edge 14 of sheet 11 to the center of the lower edge 15. Equally spaced from score 12 on opposite sides thereof are parallel longitudinal scores 16 and 17.

A pair of spaced, laterally extending cuts 18 and 19 extend between scores 16 and 17 to form a strap 20. A longitudinal score 21 is provided on strap 20. In Fig. 1 I have shown a pair of spaced straps 20 on the upper and lower portions of the cover 10 and in Fig. 9 I have provided a single strap 50 of greater longitudinal extent located in the center of the cover. I may provide any desired number of straps without departing from the spirit of my invention.

For use, cover 10 is bent inwardly on score 12 to form front and back portions 51 and 52 respectively. Straps 20 are bent outwardly on scores 21 permitting them to extend diagonally upwardly when the cover is in open position as shown in Fig. 1. A slight bending outwardly on scores 16 and 17 permits spaced columns 23 and 24 to slope diagonally downwardly toward center score 12 when the cover is in open position as shown in Fig. 1.

In this open position the straps 20 (and strap 50) are adapted to receive, permit turning of or unload properly cut sheets of paper 25. The sheets of paper 25 have at their inner side edges 26 a cut 27 extending through arms 28 on either side thereof to a slot 29. The cut 27 permits moving of the sheet 25 until the strap 20 is within the slot 29. Accidental removal is prevented for practical purposes by arms 28 engaging strap 20.

Additional longitudinal scores 30 are provided on straps 20 and 50, spaced laterally from score 21 to permit straps 20 and 50 to be bent outwardly thereon for the accommodation of desired thicknesses of paper sheets 25 loaded within cover 10.

Another embodiment of my invention shown in Fig. 9 discloses the front and back portions of the cover substantially abbreviated to form stubs 31 and 32. These stubs may be attached to the inner portions of the front and back of any suitable cover by adhesives, staples or any other suitable fastening means.

Another embodiment of my invention shown in Fig. 6 discloses an enlarged sheet with a lateral score 33 in the place where upper edge 14 is found on the previously described smaller sheet. The large sheet is bent inwardly on score 33 to form an outer cover 34. This construction is desirable in that outer cover 34 covers the openings 35 below straps 20 and 50, protects the same from damage and presents a stronger cover with improved appearance. That portion of the sheet which forms the outer cover 34 has a central longitudinal score 36 so that outer cover 34 may

be bent inwardly thereon to co-operate with the inward bending of inner cover 10 on score 12. Likewise longitudinal scores 37 and 38 spaced laterally from score 36 are provided on the outer cover 34 on which said outer cover is bent slightly outwardly to co-operate with the slight outward bending of inner cover 10 on corresponding scores 16 and 17.

The embodiment shown in Fig. 3 is also formed from an enlarged sheet, bent inwardly on score 33 to form an outer cover 34 and an inner portion abbreviated to form stubs 31 and 32. The scores on the outer cover and inner portion are the same as the outer and inner covers of Fig. 6.

While I prefer that score 12 be centrally or substantially centrally positioned on sheet 11, because it is desirable to have front and back portions of the covers the same or substantially the same, yet score 12 may vary therefrom without departing from the spirit of my invention. In Fig. 14, score 12 is shown drawn from one edge to an opposite edge of sheet 11 and offset from the center of sheet 11.

In another embodiment of my invention as shown in Fig. 12 I may provide instead of single score 12, a pair of slightly spaced scores 12, the sheet 11 to be bent inwardly on each of said scores to form front and back covers 51 and 52. A similar embodiment is shown in Fig. 13, but with abbreviated portions beyond said scores 12 forming stubs 31 and 32. Spaced cuts 18 and 19 extend across spaced scores 12 to form a strap 20. While I prefer two spaced straps 20 yet one or more straps may be used as within the contemplation of my invention.

Having thus described my invention, I claim:

1. A loose-leaf construction comprising a cover binder formed of a sheet of paper, said sheet having a longitudinal central score, said sheet bent inwardly on said score to form the front and back portions of the cover, said sheet having a pair of longitudinally extending scores laterally spaced from and on either side of said central score and forming spaced columns, said sheet bent slightly outwardly on said spaced scores so that when said cover is in open position said columns extend diagonally downwardly, said sheet having within its upper and lower portions spaced pairs of spaced cuts extending laterally between said spaced scores to form straps, each of said straps having a central longitudinally extending score, said straps bent outwardly on said scores so that when said cover is in open position said straps extend diagonally upwardly from the diagonally downwardly extending columns for the reception, withdrawal and turning thereon of sheets of paper.

2. A loose-leaf construction comprising a cover binder formed of a sheet of paper, said sheet having a longitudinal central score, said sheet bent inwardly on said score to form the front and back portions of the cover, said sheet having a pair of longitudinally extending scores laterally spaced from and on either side of said central score and forming spaced columns, said sheet bent slightly outwardly on said spaced scores so that when said cover is in open position said columns extend diagonally downwardly, said sheet having a pair of spaced cuts extending laterally between said spaced scores to form a strap, said strap having a central longitudinally extending score, said strap bent outwardly on said scores so that when said cover is in open position said strap extends diagonally upwardly from the diagonally downwardly extending columns for the reception, withdrawal and turning thereon of sheets of paper.

3. A loose-leaf construction comprising a cover binder formed of a sheet, said sheet having a longitudinal central score, said sheet bent inwardly on said score to form the front and back portions of the cover, said sheet having at its upper and lower portions spaced pairs of spaced cuts extending laterally across said score to form straps, each of said straps having a central longitudinally extending score, said straps bent outwardly on said score so that when said cover is in open position said straps extend diagonally upwardly from said sheet for the reception, withdrawal and turning thereon of sheets.

4. A loose-leaf construction comprising a cover binder formed of a sheet, said sheet having a longitudinal central score, said sheet bent inwardly on said score to form the front and back portions of the cover, said sheet having a pair of spaced cuts extending laterally across said score to form a strap, said strap having a central longitudinally extending score, said strap bent outwardly on said score so that when said cover is in open position said strap extends diagonally upwardly from said sheet for the reception, withdrawal and turning thereon of sheets.

5. A loose-leaf construction comprising a sheet having a lateral score, said sheet bent inwardly on said score to form an outer cover and an inner cover, each of said inner and outer covers having a longitudinal central score, said covers bent inwardly on said scores to form the front and back portions of said covers, each of said covers having a pair of longitudinally extending scores laterally spaced from and on either side of said central scores and forming spaced columns, said covers bent slightly outwardly on said spaced scores so that when said covers are in open position said columns extend diagonally downwardly, said inner cover having within its upper and lower portions spaced pairs of spaced cuts extending laterally between said spaced scores to form straps, each of said straps having a central longitudinally extending score, said straps bent outwardly on said scores so that when said covers are in open position said straps extend diagonally upwardly from the diagonally downwardly extending columns for the reception, withdrawal and turning thereon of sheets.

6. A loose-leaf construction comprising a sheet having a lateral score, said sheet bent inwardly on said score to form an outer cover and an inner binder, said cover and said binder each having a longitudinal central score, said cover and said binder bent inwardly on said scores, said cover and said binder each having a pair of longitudinally extending scores laterally spaced from and on either side of said central score and forming columns, said cover and said binder bent slightly outwardly on said spaced scores so that when said cover and said binder are in open position said columns extend diagonally downwardly, said binder having an abbreviated side portion of less lateral extent than the cover, said binder having at least one pair of spaced cuts extending laterally between said spaced scores to form a strap, each strap having a central longitudinally extending score, each strap bent outwardly on said score so that when said cover and said binder are in open position each strap extends diagonally upwardly from the diagonally downwardly extending columns for the reception, withdrawal and turning thereon of sheets.

7. A loose-leaf construction comprising a cover

binder formed of a sheet, said sheet having a substantially central score extending from one edge of said sheet to the opposite edge, said sheet bent inwardly on said score to form the front and back portions of the cover, said sheet having a pair of secondary scores extending from one edge of said sheet to the opposite edge, said secondary scores spaced from and on either side of said central score and forming spaced columns, said sheet bent slightly outwardly on said spaced scores so that when said cover is in open position said columns extend diagonally downwardly, said sheet having at least one pair of spaced cuts extending between said secondary scores to form a strap, each strap having thereacross a substantially central score, each strap bent outwardly on said score so that when said cover is in open position each strap extends diagonally upwardly from the diagonally downwardly extending columns for the reception, withdrawal and turning thereon of sheets.

8. A loose-leaf construction comprising a cover binder formed of a sheet, said sheet having a substantially central score extending from one edge of said sheet to the opposite edge, said sheet bent inwardly on said score to form the front and back portions of the cover, said sheet having at least one pair of spaced cuts extending across said score to form a strap, each strap having thereacross a substantially central score, each strap bent outwardly on said score so that when said cover is in open position each strap extends diagonally upwardly from said sheet for the reception, withdrawal and turning thereon of sheets.

9. A loose-leaf construction comprising a sheet having a score extending from one edge of said sheet to the opposite edge, said sheet bendable inwardly on said score, said sheet having at each side of said score a stub, said stubs adapted to be attached to a cover, said sheet having therein at least one pair of spaced cuts extending across said score to form a strap, each strap having thereacross a substantially central score, each strap bent outwardly on said score so that it extends diagonally upwardly in open position for the reception, withdrawal and turning thereon of sheets.

10. A loose-leaf construction comprising a sheet having a score extending from one edge of said sheet to the opposite edge, said sheet bent inwardly on said score to form an outer cover and an inner cover, each of said inner and outer covers having a substantially central score, extending from one edge of said covers to the opposite edge, said covers bent inwardly on said scores to form the front and back portions of said covers, each of said covers having a pair of secondary scores extending from one edge of said covers to the opposite edge, said secondary scores spaced from and on either side of said central scores and forming spaced columns, said covers bent slightly outwardly on said spaced scores so that when said covers are in open position said columns extend diagonally downwardly, said inner cover having at least one pair of spaced cuts extending between said secondary scores to form a strap, each strap having thereacross a substantially central score, each strap bent outwardly on said score so that when said covers are in open position each strap extends diagonally upwardly from the diagonally downwardly extending columns for the reception, withdrawal and turning thereon of sheets.

11. A loose-leaf construction comprising a sheet having a score extending from one edge of said sheet to the opposite edge, said sheet bent inwardly on said score to form an outer cover and an inner cover, each of said inner and outer covers having a substantially central score extending from one edge of said covers to the opposite edge, said covers bent inwardly on said scores to form the front and back portions of said covers, said inner cover having at least one pair of spaced cuts extending across said score to form a strap, each strap having thereacross a substantially central score, each strap bent outwardly on said score so that when said covers are in open position said straps extend diagonally upwardly for the reception, withdrawal and turning thereon of sheets.

12. A loose-leaf construction comprising a sheet having a score extending from one edge to the opposite edge of said sheet, said sheet bent inwardly on said score to form an outer cover and an inner binder, said cover and said binder each having a score extending from one edge to the opposite edge of said cover and binder, said cover and said binder bent inwardly on said scores, said cover and said binder each having a pair of secondary scores extending from and on either side of one edge to the opposite edge of said cover and binder, said secondary scores spaced from said central score and forming columns, said cover and said binder bent slightly outwardly on said spaced secondary scores so that when said cover and said binder are in open position said columns extend diagonally downwardly, said binder having abbreviated portions of less extent than the cover, said binder having at least one pair of spaced cuts extending between said spaced secondary scores to form a strap, each strap having thereacross a substantially central score, each strap bent outwardly on said score so that when said cover and said binder are in open position each strap extends diagonally upwardly from the diagonally downwardly extending columns for the reception, withdrawal and turning thereon of sheets.

13. A loose-leaf construction comprising a sheet having a score extending from one edge to the opposite edge of said sheet, said sheet bent inwardly on said score to form an outer cover and an inner binder, said cover and said binder each having a score extending from one edge to an opposite edge of said cover and binder, said cover and said binder bent inwardly on said scores, said binder having abbreviated portions of less extent than the cover, said binder having at least one pair of spaced cuts extending across said binder score to form a strap, each strap having thereacross a substantially central score, each strap bent outwardly on said score so that when said cover and said binder are in open position each strap extends diagonally upwardly for the reception, withdrawal and turning thereon of sheets.

14. A loose-leaf construction comprising a sheet having a pair of spaced substantially centrally positioned scores extending from one edge of said sheet to the opposite edge, said sheet bent inwardly on said scores, said sheet having at least one pair of spaced cuts extending across said scores to form a strap, each strap having thereacross at least one score, each strap bent outwardly on each score so that it extends diagonally upwardly in open position for the reception, withdrawal and turning thereon of sheets.

15. A loose-leaf construction comprising a

sheet having a pair of spaced substantially centrally positioned scores extending from one edge of said sheet to the opposite edge, said sheet bent inwardly on said scores, said sheet having beyond each of said scores a stub, said stubs adapted to be attached to a cover, said sheet having at least one pair of spaced cuts extending across said scores to form a strap, each strap having thereacross at least one score, each strap bent outwardly on each score so that it extends diagonally upwardly in open position for the reception, withdrawal and turning thereon of sheets.

16. A loose-leaf construction comprising a sheet having at least one substantially central score extending from one edge of said sheet to the opposite edge, said sheet bent inwardly on said score to form front and back portions, said sheet having at least one pair of spaced cuts extending across said scores to form a strap, each strap having thereacross a substantially central score, each strap bent outwardly on said score so that it extends diagonally upwardly in open position for the reception, withdrawal and turning thereon of sheets, each strap having additional scores spaced from and on either side of the substantially central score, said strap also bent outwardly on said spaced scores.

17. A loose-leaf construction comprising a sheet having at least one score extending from one edge of said sheet to the opposite edge, said sheet bent inwardly on at least one score provided to form front and back portions, said sheet having at least one pair of spaced cuts extending across each score provided to form a strap, each strap having thereacross a score, each strap bent outwardly on said score so that it extends diagonally upwardly in open position for the reception, withdrawal and turning thereon of sheets.

VICTOR HAVEL.