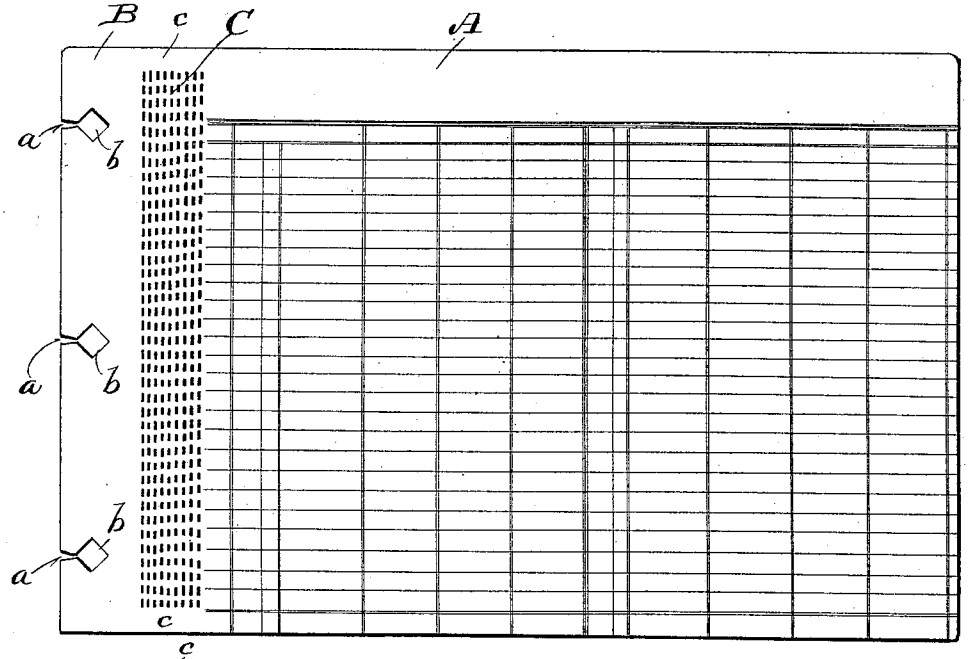
No. 631,127. Patented Aug. 15, 1899.

H. G. RAZALL.

LEAF FOR BOOKS.

(No Model.) (Application filed Sept. 23, 1897.)

Fig. 1.



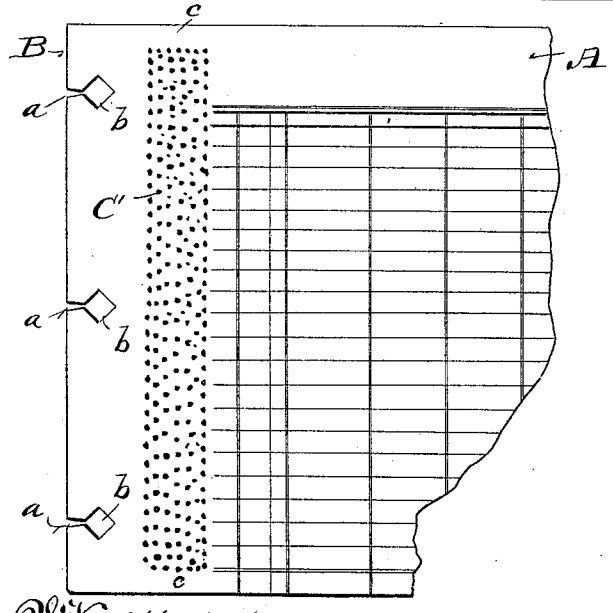


Fig. 2.

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UNITED STATES PATENT OFFICE.

HENRY G. RAZALL, OF MILWAUKEE, WISCONSIN.

LEAF FOR BOOKS.

SPECIFICATION forming part of Letters Patent No. 631,127, dated August 15, 1899.

Application filed September 23, 1897. Serial No. 652,676. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. RAZALL, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Sheets for Loose-Leaf Ledgers, Temporary Binders, and other Books; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has especial reference to the loose sheets employed in what are commonly known as "perpetual or loose-leaf ledgers"—such, for example, as shown in my Patent No. 612,436, dated October 18, 1898, although not necessarily confined thereto; and it consists in certain peculiarities in the construction of said sheets, as will be fully set forth hereinafter and subsequently claimed.

In the drawings, Figure 1 is a plan view of one form of my said loose sheets. Fig. 2 is a like view of a portion of one of said sheets, illustrating another form thereof.

The object of my present invention is to simplify and cheapen the cost of production of such sheets without impairing their strength, durability, and usefulness, as well as to guard against fraud; and to these ends I construct my said sheets in the manner illustrated in the present drawings and herein presently described. Heretofore such sheets have been made in various ways, one form merely consisting of a properly-ruled sheet of paper with end openings, slits, or notches for ready individual attachment to and detachment from the binder or retaining device of the ledger; but inasmuch as it is generally desired that these ledgers shall open back flatly these one-piece sheets have been found objectionable, as being too thick in use adjacent to the secured end, and to obviate this a sheet has been constructed with two pieces of paper united by a thinner fabric of cloth, constituting, in effect, a flexible hinge, or with other combinations of paper and cloth—such, for example, as is illustrated and described in my said prior patent application hereinbefore referred to. While such sheets answer admirably when legitimately used, they are open to the objection that the ruled outer portion of the sheet is sometimes capable of fraudulent removal, (while the rear or inner ends are still locked in the ledger, as described in my said prior patent application,) as by moistening the described thin cloth fabric and after the adhesive substance is thereby permeated by said moisture removing the ruled outer portion of the paper and substituting in place thereof another portion with different entries thereon, whereas by my present invention all of the advantages of the described compound cloth-and-paper sheets are retained and the objection herein noted avoided, thus making not only a cheaper sheet and one equally as strong and serviceable, but, furthermore, producing an article which cannot be tampered with without affording evidence thereof.

Referring to the drawings, A represents the main portion of one of my described loose sheets for a "loose-leaf ledger" properly ruled, preferably on both sides thereof, for the necessary or usual entries. B represents the rear or inner end of such sheet integral with the said main portion A and provided along its edge with slits *a a a* and communicating openings *b b b*, of any desired or necessary number or form, or with a series of openings only, or simply notched, according to the particular construction of the sheet-retaining devices in the binder or ledger to which they are to be applied. C, Fig. 1, represents series of indentations, and C′, Fig. 2, corresponding series of minute perforations arranged closely together between the rear or inner end B of the sheet and the main portion A thereof, there being a substantial portion of the sheet left free from such indentations or perforations above and below the described assembled series thereof C or C′, as shown at *c c*. By this construction the sheet will turn back as readily and lie as flatly as if the former thin-cloth "hinge" construction had been followed, while at the same time the portion A cannot be detached from the portion B of a sheet without leaving evidence thereof, whether a new portion A is or is not substituted for that removed.

While the forms of my present invention illustrated in the accompanying drawings are especially designed, as stated, for loose-leaf ledgers and temporary binders, it is obvious that the advantages of the partially indented or perforated construction shown and described are applicable to sheets or leaves

of books which are permanently bound, and hence I do not limit myself to the indicated use, nor to the construction of inner or rear end openings and edge slits shown and described, as my closely-assembled series of indentations or perforations arranged adjacent to the secured end of the sheet and with a substantial margin of the sheet above and below the same afford a useful and, I believe, a novel hinge for the described purpose of ready flat opening.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A leaf for ledgers, temporary binders and other books, comprising a sheet of paper formed with a plurality of closely-assembled series of indentations or minute perforations adjacent to one end thereof and with a substantial portion of the sheet left free therefrom above and below the said assembled series, substantially as set forth.

2. A leaf for ledgers, temporary binders and other books, comprising a sheet of paper, with proper account-rulings on the main portion thereof, one end being free from such rulings; a plurality of closely-assembled series of indentations or minute perforations vertically disposed across the unruled portion next the ruled portion, and with a substantial portion of the sheet left free therefrom above and below the said assembled series; and notches, slits or openings, arranged in a vertical series, in the said unruled portion between the said assembled series of indentations or perforations and the adjacent end edge of the sheet, substantially as set forth.

3. A leaf for ledgers, temporary binders, and other books, comprising a sheet of paper having several lines of indentations or perforations transversely arranged adjacent to one end of said leaf or sheet.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

HENRY G. RAZALL.

Witnesses:
H. G. UNDERWOOD,
B. C. ROLOFF.