

Aug. 4, 1925.

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C. J. DUNBAR

LOOSE LEAF BINDER AND POSTER

Filed Sept. 25, 1923

2 Sheets-Sheet 1

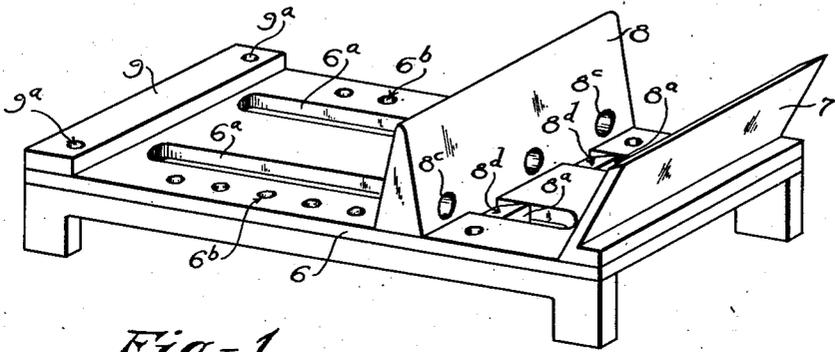


Fig-1

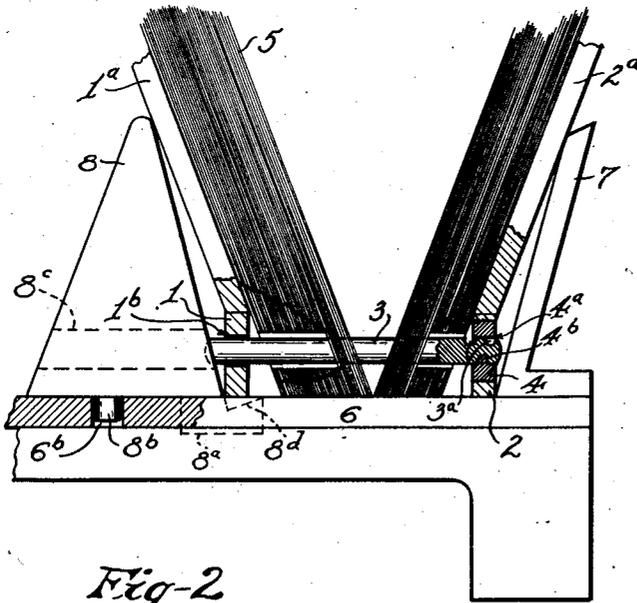


Fig-2

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2 Sheets-Sheet 2

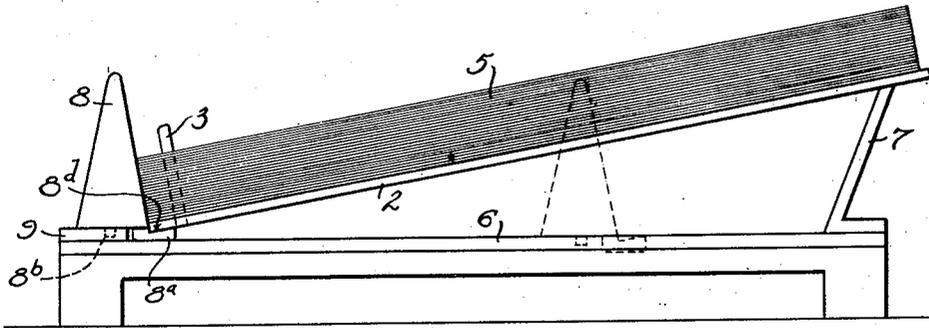


Fig-3

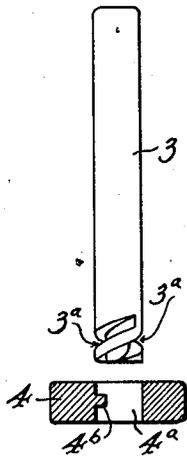


Fig-4

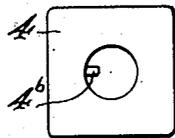


Fig-5

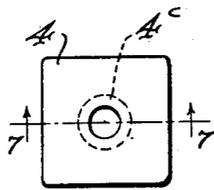


Fig-6



Fig-7

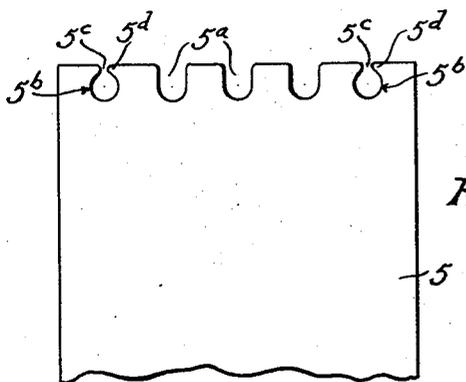


Fig-8

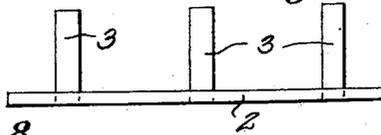


Fig-9

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Patented Aug. 4, 1925.

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UNITED STATES PATENT OFFICE.

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LOOSE-LEAF BINDER AND POSTER.

Application filed September 25, 1923. Serial No. 684,872.

To all whom it may concern:

Be it known that I, CHARLES J. DUNBAR, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Loose-Leaf Binders and Posters, of which the following is a specification.

My invention relates to improvements in loose leaf binders and posters, and more particularly to that type in which typewritten record sheets are arranged and temporarily bound in such a manner as to permit of the ready removal or insertion of sheets without undue wear on the latter and without disturbing the arrangement of the remaining sheets.

The primary object is to provide a generally improved loose leaf binder and posting apparatus which will be exceedingly simple in construction, cheap of manufacture, and efficient in use.

A further object is the provision of a loose leaf binder of the post type in which one or more leaves may be readily removed without the removal of the binder posts when the binder is adjusted to loosen the leaves or segregate the same into blocks on the posting stand or rack.

A still further and important object is the provision of an improved support or stand provided at one end with a fixed guide or abutment adapted to support a ledger base or bottom cover and its leaves in either a vertical or leaf-segregating and blocking position, or in an inclined horizontal or posting position, together with an improved follower guided on said support or stand and to cooperate with said fixed guide or abutment in supporting said ledger base cover and leaves in either of said positions and in forming a posting tray in the first-mentioned position.

A still further object is the provision of an improved binder and binder support or stand having their parts so arranged and disposed relative to each other as to permit of the utilization of the covers of the binder as tray elements in receiving and aligning the leaves upon which entries are made, permitting ready transfer and rearrangement of such leaves by detachment and replacement thereof.

It is a further and important object to provide a ledger with improved detachable or remountable leaf-registering and offset-

ting posts, together with loose leaves having an improved form and arrangement of notches and perforations with constricted slots at the butt edges adapted to engage the posts so that all the leaves may be arranged in alignment or certain of the leaves may be placed in offset relation with reference to such aligning or registering leaves and all the leaves locked in the binder in either arrangement.

With the above mentioned and other ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in one of its embodiments in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Figure 1 is a perspective view of the improved loose leaf binder support or stand, the relatively movable member or follower block being moved toward and in cooperative relation to the fixed member for engaging and holding the connected ledger covers in a vertical or tray-forming position.

Fig. 2, an enlarged fragmentary end elevation of the same with the loose leaf ledger supported therein for segregating the leaves into blocks or sections, and for offsetting, and the like, certain portions being broken away for clearer illustration of the connected parts.

Fig. 3, an enlarged side elevation of the improved support or stand, the follower block being in its fully extended or vertically offset fixed position for supporting the lower or pin-carrying binder member and the attached ledger base cover in a posting position.

Fig. 4, an enlarged detailed side elevation of one of the improved detachable leaf-registering or offsetting posts, and the post-receiving socket in disassembled position preparatory to the insertion or just after the removal of the improved post.

Fig. 5, a top plan view of the post-receiving or socket member shown in Fig. 4.

Fig. 6, a top plan view of a slightly modified form of post-receiving socket members, detached.

Fig. 7, a cross sectional view of the same taken on line 7—7 of Fig. 6.

Fig. 8, a fragmentary top plan view of one of the loose leaves or sheets provided with an improved form and arrangement of

post-receiving recesses and of eyes or openings having constricted slots adapted to cooperate with the leaf-registering and off-setting posts.

5 Fig. 9, an end view of the lower binder member, the binder posts being shown mounted in their normally spaced relation.

Similar numerals of reference designate like parts throughout all the figures of the 10 drawings.

The clamping or binder members 1 and 2 may be of any suitable and convenient construction and so likewise the hinged upper and lower cover members 1^a and 2^a respectively. 15 The upper or follower binder member 1 is provided with post-receiving openings 1^b, to removably receive and contain the binder posts, hereinafter referred to. The upper binder 1 and its cover 1^a are movable 20 relatively to the lower or base member 2 and its cover 2^a, the post-receiving and containing openings 1^b being slidable on the posts and being secured in any desired adjusted position by suitable post-engaging and clamping mechanism, but such mechanism forming no specific part of the present 25 invention, the same need not be shown or described in detail.

As a means of mounting and demounting 30 the binder posts 3, in the base or bottom binder member 2, the latter is preferably provided on its interior with post-receiving socket members or blocks 4, provided with post-receiving sockets or openings 4^a, to 35 removably receive and contain the lower ends of the binding posts 3.

As a means of conveniently inserting and locking or of unlocking and removing the 40 binder posts 3, the latter are preferably provided at their lower ends with spirally arranged grooves 3^a, preferably of square shape in cross section, said spiral grooves or 45 threads 3^a being adapted to receive and engage with a square shaped projection 4^b in the socket opening 4^a. If desired, however, the projection pin 4^b may be replaced by spirally arranged screw threads 4^c, to receive the grooves 3^a of the pins 3, as illustrated in Figs. 6 and 7 of the drawings.

50 Referring now to the improved loose leaf or sheet 5, having intermediate slots or recesses 5^a, and post-receiving eyes or openings 5^b, provided with constricted slots 5^c, as shown most clearly in Fig. 8 of the drawings, it will be understood that the intermediate 55 recesses 5^a and the eyes and slots 5^b and 5^c are adapted to receive and cooperate with the intermediate and end posts 3, respectively, in the leaf-registering and off-setting operation. The inner ends of the 60 recesses 5^a and the eyes or openings 5^b are approximately of the diameter of the posts 3 and it will be seen that the constricted slots 5^c are formed or defined by the oppositely arranged rounded tabs 5^d, and it will

be obvious that the natural flexibility of the tabs 5^d is such that when not compressed or restrained by adjacent sheets or leaves such tabs will be able to pass about the binder 70 posts 3 in the insertion or removal of a single sheet when the binder posts are in position and the sheets are loosened or segregated into blocks, as shown for example in Fig. 2 of the drawings.

When used as an ordinary ledger and it 75 is desired to retain the sheets 5 in position as against longitudinal movement or detachment relatively of the binding posts 3, three of such posts are used as shown. When it is desired to offset certain of the leaves or 80 sheets, the two end posts are preferably removed, leaving the median or middle post to stand and utilizing the same as an offsetting post in connection with the three intermediate slots or recesses 5^a, and should it be 85 desired to lock the registering leaves in position in connection with the offset leaves, one or more of the end posts may be inserted.

Referring now to the improved support or 90 stand for a loose leaf ledger adapted to support the covers of the latter in a vertical position as tray members, as shown in Fig. 2 of the drawings, or to carry the pin-carrying 95 or lower binder member 2, and the lower or base cover member 2^a in a posting position, as shown in Fig. 3 of the drawings, it will be seen that a base or support 6, is provided having relatively fixed and movable members 100 7 and 8, respectively, adapted when in one position to support the ledger covers 1^a and 2^a, respectively, in a tray-forming position and in another position to support the base or bottom cover 2^a in a horizontally 105 inclined or posting position. The abutment or fixed member 7 preferably extends upwardly and outwardly, as shown, at one end of the support or base 6, and the relatively movable member 8 is preferably in the form of a follower block slidably and adjustably 110 mounted on the base 6 and movable toward and from the fixed or abutment member 7. As a convenient means of guiding and adjusting the follower 8, the latter is preferably provided on its under side with guide 115 and stop members, said guide members, in the present instance, consisting in forwardly extending guides or blocks 8^a arranged, in the present instance, in longitudinally extending guide-ways or slots 6^a. As a means 120 of securing the follower 8 in variable positions, the stop members, in the present instance, comprise depending stop pins or projections 8^b, adapted to extend into suitably spaced stop pin receiving openings 6^b, arranged longitudinally at the sides of the 125 guide slots 6^a. As a means of further supporting the upper binder member 1 of the loose leaf ledger in a tray-forming position and particularly as a means of moving the 130

follower block into cooperative relation to the ledger irrespective of variations in the lengths of the posts 3 and of variations in the thickness of the loose leaf ledger, the follower block is preferably provided with post-receiving openings 8^c, to receive the tops of the posts 3, as shown most clearly in Fig. 2 of the drawings.

As a means of conveniently carrying and supporting the lower binder member 2 and the base cover 2^a in proper relative position to the abutment 7 and the follower 8 when the latter is in its extended or elevated position for supporting the leaves in a posting position, as shown in Fig. 3 of the drawings, the guide blocks 8^a are preferably in the specific form of offset ledges having notches 8^d on their upper portions and the rear end of the base or support 6 is provided with a vertically offset or elevated member 9, provided at its opposite ends with openings 9^a, to receive the stop pins 8^b of the follower when the latter is set up in its extended or posting position.

Having thus described one of the embodiments of my invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, what I claim and desire to secure by Letters Patent is,—

1. A loose leaf for temporary binders provided with post-receiving eyes having constricted slots and a plurality of intermediate equally spaced leaf-offsetting recesses intersecting the butt ends thereof.

2. A leaf for loose leaf binders provided with marginal post-receiving eyes terminating in constricted slots defining oppositely arranged inwardly extending flexible tabs and offsetting recesses between said eyes.

3. In combination with a binder, including ledger binder members and covers, one of said binder members having end and intermediate binder posts, a support having relatively fixed and movable members said movable member having openings to receive said posts, said fixed and movable members being adapted when in one position to support the ledger covers in a tray-forming position and in another position to support the base cover in a posting position.

4. A loose leaf for temporary binders provided with equally spaced marginal post-re-

ceiving eyes and recesses, the latter comprising leaf offsetting recesses equally spaced and arranged between said eyes and said eyes being bounded on their rear side by rounded tabs defining constricted slots on the base margin of said leaves.

5. In combination with a loose leaf binder, including movable binder members, one having binder and leaf-offsetting posts, a support for said binder members, and loose leaves provided with marginal post-receiving eyes and intermediate offsetting recesses adapted to receive the binder and leaf offsetting posts, respectively, said eyes terminating in constricted slots defined by rounded flexible tabs adapted to secure the leaves as a whole and permit individual leaves to be removed therefrom when said binder members are loosened.

6. In a loose leaf binder, in combination with a binder member carrying three equally spaced demountable binder and intermediate posts, a plurality of loose leaves provided with marginal post-receiving eyes having constricted slots and a plurality of intermediate equally spaced offsetting recesses all adapted to receive said binder and intermediate posts, respectively, said constricted slots defining rounded flexible tabs adapted to secure the leaves as a whole and to permit individual leaves to be removed therefrom when the binder members are loosened.

7. In combination with a loose leaf binder, including movable binder members and covers, one of said binder members having end binder posts and an intermediate leaf-offsetting post, a support for holding said binder members and covers in a tray-forming position, and loose leaves provided with marginal end binder post receiving eyes and three intermediate equally spaced leaf-offsetting recesses adapted to receive the end binder and the intermediate leaf-offsetting posts, respectively, said eyes terminating in rounded flexible tabs extending toward each other forming constricted slots adapted to secure the leaves as a whole and permit individual leaves to be removed therefrom when said binder members are loosened.

In testimony whereof I have affixed my signature.

CHARLES J. DUNBAR.