

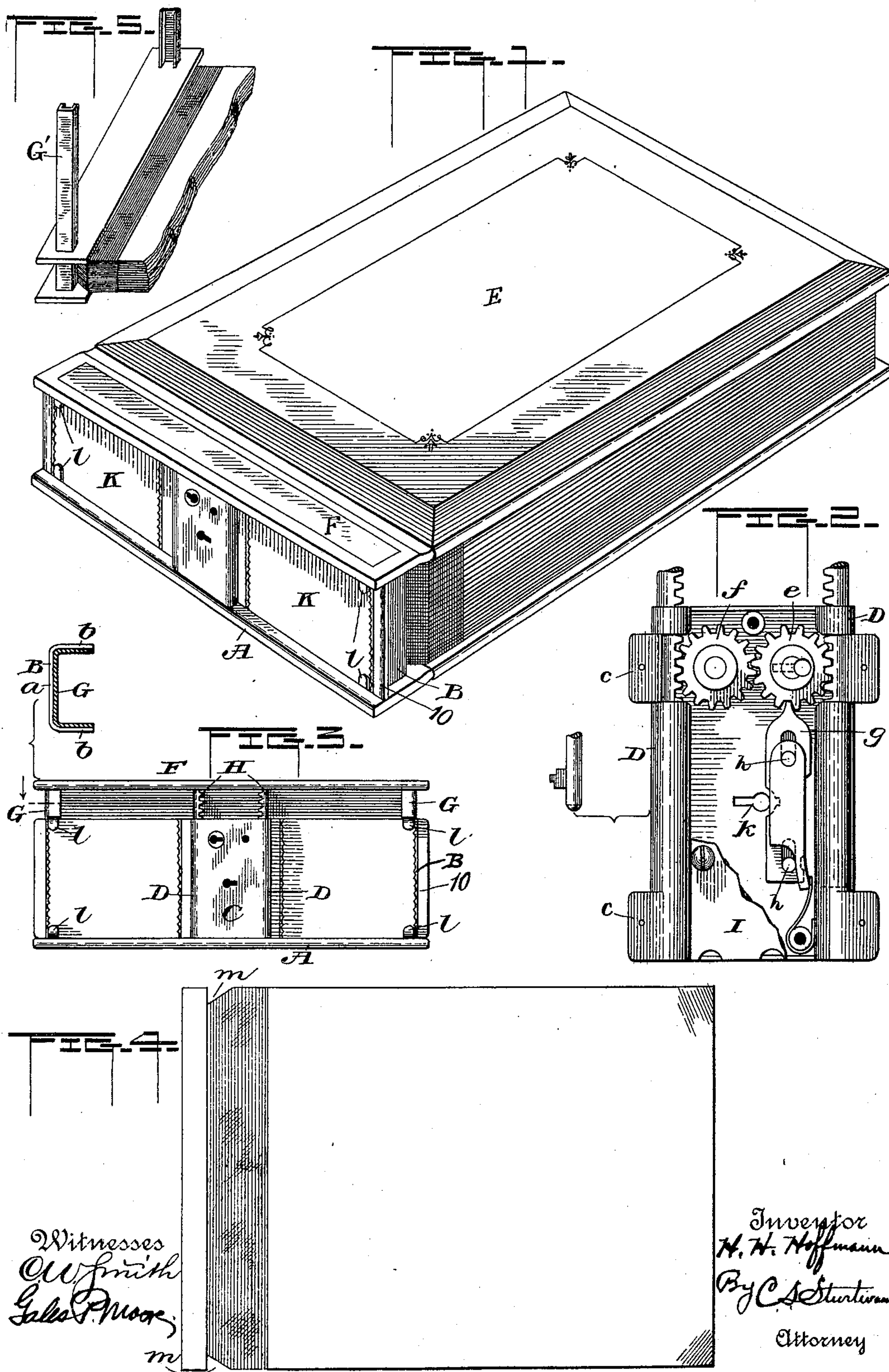
(No Model.)

2 Sheets—Sheet 1.

H. H. HOFFMANN.
PERPETUAL LEDGER.

No. 568,251.

Patented Sept. 22, 1896.



UNITED STATES PATENT OFFICE.

HERMAN H. HOFFMANN, OF CHICAGO, ILLINOIS.

PERPETUAL LEDGER.

SPECIFICATION forming part of Letters Patent No. 568,251, dated September 22, 1896.

Application filed March 5, 1896. Serial No. 581,909. (No model.)

To all whom it may concern:

Be it known that I, HERMAN H. HOFFMANN, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Perpetual Ledgers, of which the following is a description, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

My invention relates to an improvement in temporary binders, and I have designed the form herein shown, described, and claimed for use especially in connection with flat-opening leaves which may be readily removed and replaced by new ones and the binder then locked firmly upon the leaves, forming a complete flat-opening book.

As usually constructed temporary binders comprise two covers, rods secured to an edge of one of said covers and adapted to be inserted through suitable openings in the corresponding edge of the other cover, and means for detachably securing or locking said removable cover to said rods at any desired point on said rod, the temporary files being placed over the rods between the covers and bound together by forcing the edge of the top cover firmly thereupon and securing or locking said cover in position. An application of such a binder just referred to has been heretofore made to what are known in the trade as "perpetual ledgers," that is, flat-opening account-books in which the leaves are all separately placed in said binder and may be removed and replaced at will. In said temporary binders as usually constructed the leaves are provided with perforations fitting down over the rods, and when it is desired to remove any particular leaf a separate transfer-wire is used, upon which all leaves preceding the one to be removed are placed and the latter then slipped off the rods, the other leaves being then turned back to proper position. These binders are open to objection by reason of the inconvenience and amount of time required in using the transfer-wires for removing and putting in the leaves, and to obviate these defects it has been proposed to provide a temporary binder comprising a base-piece with triangular-shaped vertical posts attached thereto, a top

piece having correspondingly-beveled downwardly-projecting posts having a sliding engagement with the first-mentioned posts, and to have the flat-opening leaves of the book provided with beveled notches on each edge adapted to engage said triangular posts. By this construction, by raising the top cover slightly, leaves can be extracted or inserted by merely giving them a slight bend and drawing the notches away from engagement with the posts. This construction just described is, however, open to the objection that the leaves must be notched at the rear central portion to make room for the locking device, and, furthermore, no arrangement is provided for protecting the outer edges of the leaves from dust or dirt.

The object of my invention is to obviate the difficulties existing in both of the devices as above described; and to this end it consists, primarily, of a base-piece and a top piece, one of said parts being provided at either end with vertical boxes or chambers closed except on one side and adapted to receive the stubs of the leaves; secondly, it includes, in addition to the above, removable backs for the books whereby the entire rear edges of the leaves may be protected, and, finally, it includes a new locking device and a novel arrangement for manipulating the top cover to raise the same to allow of insertion and removal of said other leaves.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a temporary binder embodying the invention. Fig. 2 is a view, partly in section, of the locking mechanism. Fig. 3 is a rear view of the binder; Fig. 4, a plan view of a flat-opening leaf preferably used in connection with this binder. Fig. 5 is a perspective view of a binder to which leaves may be transferred after an account has been closed or a leaf filled up; and Fig. 6 is a perspective view, partly in section, showing a complete view of a temporary binder embodying my invention.

In the drawings, A represents an under cover or base-piece of a temporary file, which may be of any approved construction; or, if it is not desired to have an under cover, this may consist merely of a metal base-piece having secured to it the upwardly-extending

posts B, herein shown as composed of the rear portion *a* with the laterally-extending flanges *b*, forming a chamber closed on three sides, as shown clearly in Fig. 3. Adjacent the edge of the base-piece A and preferably in a vertical plane corresponding with the vertical plane of the rear flange of the post B is a plate C, bent to form the hollow posts D, these posts being provided with the lateral flanges *c* for the purpose hereinafter referred to.

E represents as a whole the upper cover constructed in the usual manner, and projecting downwardly from the under side of the binding-piece F of this cover are posts or chambers G, adapted to engage with and slide within the posts or chambers B on the base-piece, and by this arrangement when the leaves are put in position the upper cover or binding-piece may be forced toward the base-piece, the edges of the stubs of the leaves being cut a proper size to fit within the chambers or casings G, and thus be prevented from longitudinal movement and protected from dust or dirt. Also projecting downwardly from the binding-piece F are toothed rods H, which slide up and down within the hollow posts D.

I is a removable plate attached to the plate C, the two forming between them a casing in which are pivoted, near the upper end, two gear-wheels *e f*, meshing with each other and with the teeth on the posts H. One of these gear-wheels has a hub passing through it arranged to receive a key by which it may be turned, so that by turning said gear-wheel with the key the two posts may be made to ride up or down. To prevent any improper tampering with the binder, a locking-dog *g* is provided, slotted to slide back and forth on pins *h*, this dog having a pointed end adapted to engage with the teeth of the gear-wheel *e*. The same key which fits the gear-wheel *e* and rotates it also fits the keyhole *k* and engages with the locking-dog to move it into or out of engagement with the teeth of the wheel *e*. When it is desired to remove or insert a leaf, the dog is unlocked from engagement with the wheel *e*, the key taken out and inserted in the hub of the wheel *e*, and the latter turned to raise the upper cover.

In order to protect the rear edges of the sheets from dust or dirt, removable pieces or backs K, of leather or suitable material, may be provided, which are guided into proper position and held at one end by the clamping-flanges *l*, secured to the posts B, and which, at their opposite ends, rest on the flanges of the lock-casing heretofore referred to.

The numeral 10 represents flanges extending between the members, but which form no part of the invention.

In connection with this binder I have illustrated a special form of leaf which I have found preferable, and it is constructed as shown in Fig. 4, having a hinge of linen or muslin pasted to the rear edge of the leaf and having a rectangular reinforcing-strip on the

rear edge of the hinge, said hinge being notched, as shown at *m*, but leaving the lateral rear edge of the hinge and reinforce squared to fit quite closely within the chamber or casing G.

In Fig. 5 I have shown a transfer-ledger which I have found of value in connection with my improved device. In this construction only posts G' are used and they are made considerably longer than those on the ordinary perpetual ledger.

It will be understood that any ordinary locking mechanism may be used to secure the upper binding-piece upon these posts, and I have not herein deemed it necessary to illustrate such locking means, the principal object of illustrating this transfer-ledger being to show that the same idea of having the flanged posts forming a recess to receive and guide the projecting ends of the rear edges of the leaves may be applied to this transfer-ledger as well as to the perpetual ledger, but it will be understood that any suitable arrangement for securing the upper cover in position may be provided.

To remove or insert a leaf, all that it is necessary to do is to unlock the binder, move up the top piece, lay the book on its back, and open, and it will be found that there is sufficient play to separate the leaves at any desired place, so that by curving any leaf a little it may be easily lifted out.

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

1. A temporary binder comprising a base-piece, a top piece, said parts being vertically movable relatively to each other, vertical casings open on one side arranged between said base and top pieces adapted to receive the ends of the rear edges of the leaves; substantially as described.

2. A temporary binder comprising a base-piece, a top piece, said parts being vertically movable relatively to each other, vertical casings open on one side arranged between said base and top pieces adapted to receive the ends of the rear edges of the leaves and means extending between the casings for protecting the rear edges of the leaves; substantially as described.

3. A temporary binder comprising a base-piece, having vertical plates with lateral flanges secured thereto, forming casings open on one side, a top or binding piece provided with correspondingly-formed downwardly-projecting flanged plates having sliding engagement with the first-mentioned casings and leaves whose rear edges at the end are adapted to lie within the casings; substantially as described.

4. A temporary binder comprising a base-piece, having vertical plates with lateral flanges secured thereto, forming casings open on one side, a top or binding piece provided with correspondingly-formed downwardly-projecting flanged plates having sliding en-

gagement with the first-mentioned casings, leaves whose rear edges at the end are adapted to lie within the casings and means for locking the top piece in any desired position; substantially as described.

5 5. A temporary binder comprising a base-piece, a top piece, flanged plates secured at either end of the said pieces and sliding one within the other, and leaves having notched
10 stubs forming projecting edges adapted to fit between the flanges of said plates; substantially as described.

15 6. A temporary binder comprising a base-piece, a top piece, flanged plates sliding one within the other at the ends, one of said plates having guiding-clamps as *l*, a central lock-inclosing casing having lateral flanges, and removable pieces fitting within the guiding-clamps and held thereby adjacent one
20 end and resting at the opposite end on the lateral flanges; substantially as described.

7. A temporary binder comprising the inclosing casing, the toothed rods *H* sliding therein, the toothed wheels engaging the teeth of the rods *H*, the sliding dog adapted
25 to engage one of the toothed wheels, and means for manipulating the sliding dog and the toothed wheels; substantially as described.

8. A binder comprising a base member, a binding member, said members having ver-
30 tical movement relative to each other vertical casings located between said members, having recesses constructed to receive and protect the lateral projections on the rear side
35 edges of the leaves to be inserted in the binder, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HERMAN H. HOFFMANN.

Witnesses:

J. IRA COLLINS,
CARRIE E. BOLTON.