

N^o 21,882



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COMPLETE SPECIFICATION.

“Improvements in and relating to Loose Leaf Ledgers, Binders and the like.”

I, OSMOND BLYTH WADE, of “Sibertswold,” Hadley Road, New Barnet, in the County of Hertford, Manufacturer, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement;—

- 5 This invention relates to loose leaf binders, ledgers and the like of the type in which the leaves are threaded upon pins secured to a suitable frame and has for its object to provide an improved loose leaf binder in which the insertion or removal of leaves either singly or in a large number at a time, is greatly facilitated.
- 10 This invention consists of a loose leaf binder in which the leaves are retained in a non-telescopic frame adapted to enable single leaves or a large number of leaves to be readily inserted or removed at a time, and locking means are provided to retain the leaves in position.
- The invention also consists of the improved loose leaf binder or ledger herein-
- 15 after described.
- Referring now to the accompanying drawings which form part of this specification,
- Figure 1 is a front elevation view of the binder.
- Figure 2 is a section through the binder and leaves, on the line, A B, of
- 20 Figure 1,
- Figure 3 is a part section plan of the binder on the line C D, of Figure 1.
- Figures 4 and 5 show the details of pins and telescopic tubes.
- Figure 6 shows the details of the bar carrying the pins, while
- Figure 7 is a view of the back edge of a loose leaf.
- 25 In carrying my invention into effect according to one form I provide a framing, *a*, formed of comparatively thin gauge sheet brass or other suitable metal and consisting of a vertical part and a horizontal part or foot.
- Attached to this foot by screws, solder or other suitable means is a bar, *b*, having formed upon or attached to it three pins, *c*, *c*, and *c*¹, the two outside
- 30 pins being plain except for the small studs, *d* and *d*. The centre pin which is somewhat larger in diameter has cut upon it a screw thread which is preferably of a quick pitch or may be double threaded, the threads on two opposite sides being cut away for one quarter of the circumference, thus giving an interrupted screw thread.
- 35 Slidably fitted to the two outside pins *c*, *c*, are tubes *e*, *e*, having slots, *f*, *f*, cut in their sides, these slots running vertically for a distance then horizontally and then vertically again, and acting in conjunction with the studs, *d*, *d*, after the manner of bayonet joints. The tubes, *e*, *e*, are stopped at their upper ends with caps provided with studs, *g*, *g*.
- 40 To the upper edge of the vertical part of the frame, *a*, is hinged the flap, *h*, having holes to pass over the studs, *g*, *g*, on the tops of the tubes, *e*, *e*, and a raised part at the middle of its length for a purpose hereinafter explained. Attached to the raised part on the underside of the flap, *h*, is a sliding catch, *j*, having prongs which engage notches, *k*, in the top of the screw-threaded pin, *c*¹.

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thus locking the flap, *h*, when turned down into a horizontal position upon the tops of the tubes, *e, e*, and the top of the centre pin, *c*¹.

A bar, *l*, is provided having holes large enough to allow it to pass freely upon the centre pin, *c*¹ and also upon the tubes, *e, e*, when the latter are in position on the side pins, *c, c*.

At the middle of the length of the bar, *l*, and directly over the hole through which the screwed pin, *c*¹, passes, is mounted a member, *m*, having a screwed hole through it. This member is attached to the bar, *l*, in such a way that while securely connected to the bar it is capable of rotation round the screwed pin, *c*¹. The threads of the screwed hole in this member are cut away in a manner similar to those of the pin, *c*¹, the effect of this being to allow the bar, *l*, carrying the member, *m*, to pass freely up or down the pin, *c*¹, by a straight line motion.

A locking device, *n*, is provided on the bar, *l*, to lock the member, *m*, in the position in which its threads are engaged with those of the pin, *c*¹.

The apparatus is used as follows: The catch, *j*, is drawn back allowing the flap, *h*, to be turned up by means of a key the lock, *n*, is unlocked and the ring, *m*, rotated a quarter turn, the bar, *l*, is now free and may, when the tubes, *e, e*, have been withdrawn from the pins, *c, c*, be lifted up clear of the pins, *c, c*, and centre pin, *c*¹.

The loose leaves which it is desired to bind may now be threaded upon the pins, *c, c*, and *c*¹, the bar, *l* replaced, also the tubes, *e, e*, upon the pins, *c, c*. If now the ring, *m*, be rotated a quarter turn while the bar, *l*, is pressed down, the leaves will be pinched between the bars, *b* and *l*, more or less according to the pitch of the thread on *c*¹, the ring, *m*, may be secured in this position by means of the lock, *n*.

When it is desired to remove from or insert into the heart of the pile of leaves one or a small number of leaves, it is unnecessary to completely remove the tubes, *e, e*, as they may be raised until stopped by the studs, *d, d*, as shown in Figure 4, thus exposing the pins, *c, c*, and allowing the leaves to be separated sufficiently to permit of the removal or replacement being effected, by simply pulling out or pushing in the leaf or leaves required.

When the number of leaves to be inserted or removed, is small, they may be handled as just described owing to the corners of the leaves around the holes, *z, z*, see Figure 7, being flexible enough to bend easily and so allow the pins, *c, c*, to pass into the holes, *z, z*, through the slots, *x, x*, in the leaves, *y*.

When, however, the number of leaves to be handled is large the flap, *h*, is bent up, the tubes, *e, e*, and bar, *l*, are removed and the leaves lifted directly off from or on to the pins, *c, c*, and *c*¹. It is for the purpose of facilitating this operation that the flap, *h*, is made hinged. When the binder is full of leaves the bar, *l*, will lie close under the flap, *h*, and in order to accommodate the lock, *n*, the flap, *h*, is made raised at the centre, as hereinbefore described.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A loose leaf binder, ledger or the like in which the leaves are retained in a non-telescopic frame adapted to enable single leaves or a large number of leaves to be removed or inserted at a time, and in which locking means are provided to securely retain the leaves, substantially as described.

2. A loose leaf binder, ledger or the like as set forth in Claim 1, consisting of a non-telescopic frame carrying at its upper part a flap adapted to engage the tops of the telescopic pins upon which the leaves are threaded, said flap being hinged to facilitate the handling of a large number of leaves at one time, and having means to secure it to the centre pin, substantially as described.

3. A loose leaf binder or the like as set forth in Claim 1 consisting of a non-

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telescopic frame carrying at its lower part a bar provided with three upright pins, the centre pin having an interrupted screw thread, tubes slidably mounted upon the two outside pins and having slots to co-act with studs on the pins for the purpose of securing the tubes upon the pins, substantially as described.

- 5 4. A loose leaf binder or the like as set forth in Claims 1 and 3, having a bar adapted to slide upon the centre pin and upon the tubes mounted on the two outside pins, said bar having securing means such as a nut with an interrupted screw thread mounted at the hole through which the centre pin passes and adapted to co-operate with the latter to secure the bar in position and means for
10 holding the nut in its engaging position, substantially as described.

5. The improved loose leaf binder, ledger or the like hereinbefore described with reference to the accompanying drawings.

Dated this 3rd day of October, 1907.

MARKS & CLERK,

18, Southampton Buildings, London, W.C.

13, Temple Street, Birmingham, and

30, Cross Street, Manchester;

Agents.

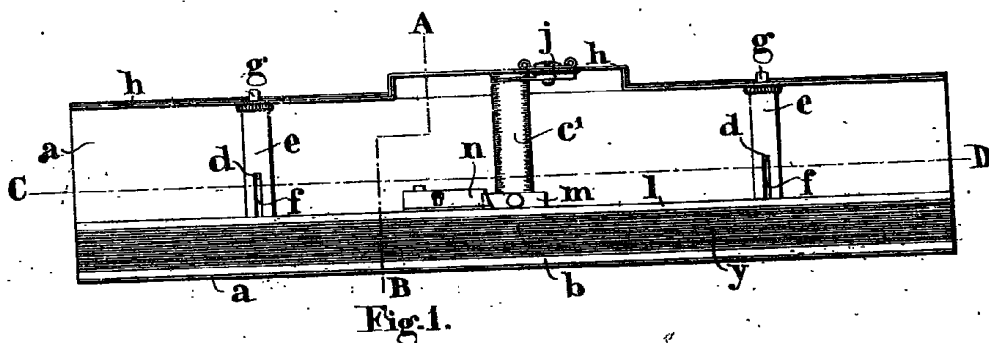


Fig. 1.

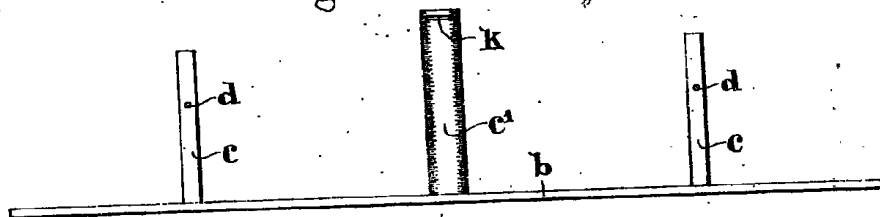


Fig. 6.

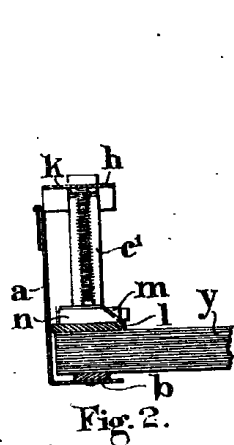


Fig. 2.

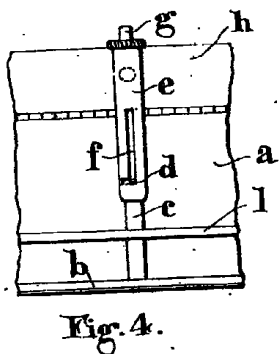


Fig. 4.

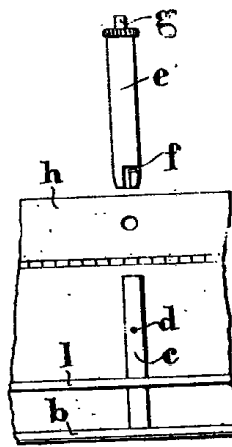


Fig. 5.

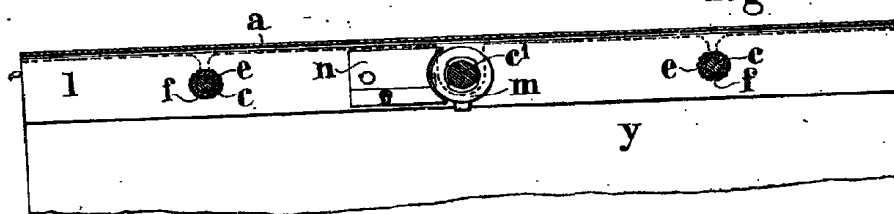


Fig. 3.

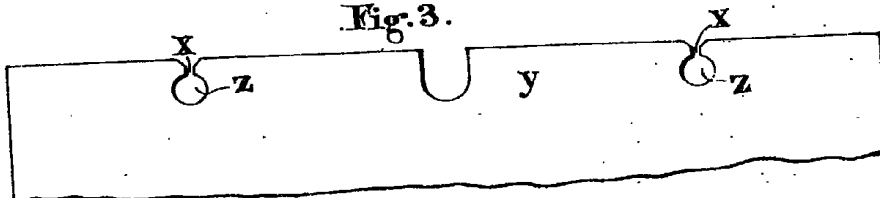


Fig. 7.

[This Drawing is a reproduction of the Original on a reduced scale.]

