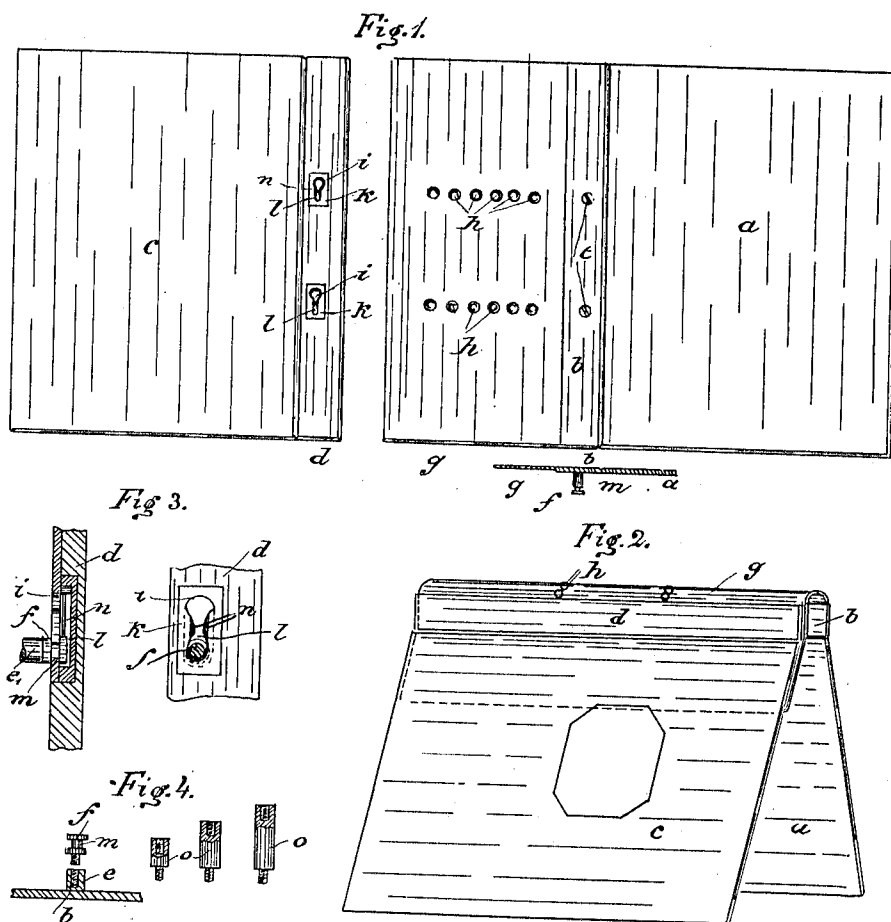


A. KRAUTHEIM.
ARRANGEMENT FOR FILING LOOSE LEAVES.
APPLICATION FILED JUNE 27, 1910.

1,020,990.

Patented Mar. 26, 1912.



Witnesses:
F. E. Kehlen.
Ger. C. Hemmcke,

Inventor:
Alexander Krauthheim
By B. Singer
att.

UNITED STATES PATENT OFFICE.

ALEXANDER KRAUTHEIM, OF FRANKFORT-ON-THE-MAIN, GERMANY.

ARRANGEMENT FOR FILING LOOSE LEAVES.

1,020,990.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed June 27, 1910. Serial No. 569,233.

To all whom it may concern:

Be it known that I, ALEXANDER KRAUTHEIM, a subject of the Emperor of Germany, residing at Frankfort-on-the-Main, Germany, have invented new and useful Improvements in Arrangements for Filing Loose Leaves.

The present invention relates to an arrangement which allows of securing documents and the like in a detachable manner between two covers.

Compared with similar arrangements the present invention has the advantage, that the capacity can be varied at will without any springs being required which always form only very unreliable accessories. The file according to the present invention may thus be used for filing any number of loose leaves.

The essential feature of the present invention consists in two independent book covers being connected with each other by means of knobs, which at the same time serve to receive the leaves or documents filed, and which are introduced into slotted metal plates.

In the accompanying drawings the invention is exemplified in various constructional forms.

Figure 1 is a constructional form, in which next to the filing pins, which serve at the same time as means for connecting the two independent covers with each other, a suitably perforated extension piece is provided which forms the back of the file. The arrangement according to Fig. 1 thus shows the two independent covers and a section through the strip carrying the filing pins. Fig. 2 is a perspective view of the same arrangement the covers being connected with each other. Fig. 3 shows the means of connection on an enlarged scale in section and plan; the head of the pin is shown in cross section. Fig. 4 shows the single extension pieces for the filing pins and the head, partly in sectional view.

With reference to the drawings *a* is in Fig. 1 the cover, which is attached to a strip *b* on which the filing pins *e* are secured. To strip *b* is attached an extension piece *g* made of a suitable pliable material. In this extension piece holes *h* are provided in parallel rows and at a given distance from each other. The second cover *c* is likewise attached to a strip *d* in which metal plates *k* are fitted,

which cover a recess in said strip, Fig. 3. In this recess springs *n* are fitted, which approach each other with their central parts. The plate *k* covering said recess is slotted in such a manner, that the slot is enlarged at one end to form a circular hole adapted to allow of the introduction of the head of the filing pins. This circular hole *i* is extended toward the other end, contracting in such a manner that the pin can slide therein with its groove provided below the head. The pin itself consists of cylindrical sections *o* of different length, which are fitted according to requirement into the short cylindrical stud *e*, rigidly attached to strip *b*. Each cylindrical pin or stud respectively *e* and *o* has a recess or bore in which a female thread is cut. The extension pins *o* have screw threaded pins corresponding with said female threaded holes, into which they may be screwed. The filing pins terminate both *e* and *o* in a head *f*, adapted to be screwed into the uppermost pin section and having a circular groove at *m*.

The arrangement is operated as follows: According to the number of leaves to be filed the head *f* is either screwed into stud *e* or, if the number of leaves be a large one, first one or several of the extension pins *o* are screwed into the stud *e*. At the top of the thus composed pin *e* the head *f* is then secured. Each leaf to be filed has been previously punched with two holes at a distance from each other equal to that of the two filing pins and of such a size, that the leaves can be conveniently passed over the head *f*. Then the extension *g* is passed around the edges of the leaves thus filed and drawn tight until, the said leaves being pressed well down, a pair of the holes *h* can be fitted on the filing pins *e*. Thereupon the second cover *c* is placed in such a manner on top of the leaves filed, that the enlargements *i* of its slots fit over the heads *f* of the pins *e*. The heads *f* therewith enter into the recess and now the cover *c* can be moved in such a manner with respect to cover *a*, that the slots in plates *k* slide along the groove *m* in head *f*, which forces back the springs *n* and finally abuts against the far end of the slot at *l*. The springs *n* again move forward in the slot *l* and thereby prevent the cover *c* from moving with respect to cover *a*.

Fig. 2 shows the book after the covers *a* and *c* have been secured.

I claim:

1. A loose leaf binder comprising in combination, a cover having a hinged strip provided with bayonet stud receiving openings, 5 a second cover provided with a hinged strip having studs thereon adapted to be inserted in said openings and provided with a flexible flap connected with said strip and adapted to cover the backs of the leaves and lie 10 between the top thereof and said first named cover, said flap having a plurality of openings adapted for engagement with said studs at points thereon between the leaves and said first named cover, substantially as described. 15
2. A loose leaf binder comprising in combination, a cover provided with a hinged

strip having studs thereon, a flexible flap connected with said strip provided with means for adjustable engagement with said studs to hold the flap abreast of the backs 20 of the leaves and upon the tops thereof, and a second cover provided with means for engaging the ends of the studs and arranged to lie upon said flap and the upper loose leaves of the binder, substantially as described. 25

In witness whereof I have hereunto set my hand in presence of two witnesses.

ALEXANDER KRAUTHEIM.

Witnesses:

JEAN GRUND,

CARL GRUND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."