Oct. 1, 1929. J. LOEB 1,730,154

CUPBOARD, BOOKCASE, OR THE LIKE

Filed March 1, 1928 2 Sheets-Sheet 1

Fig. 1

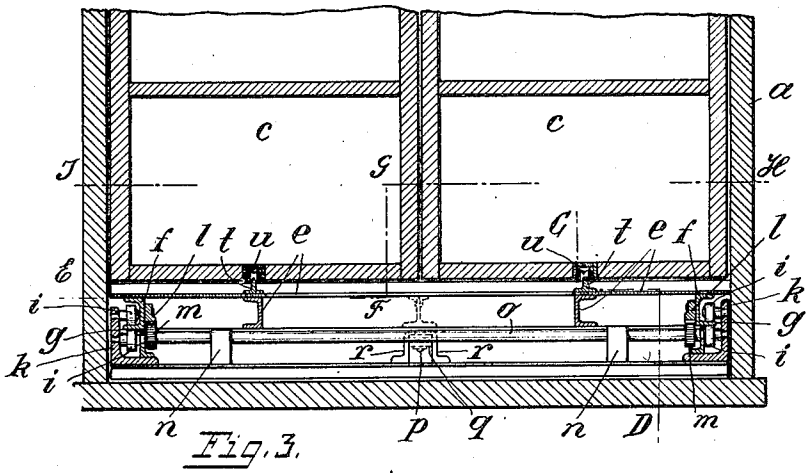
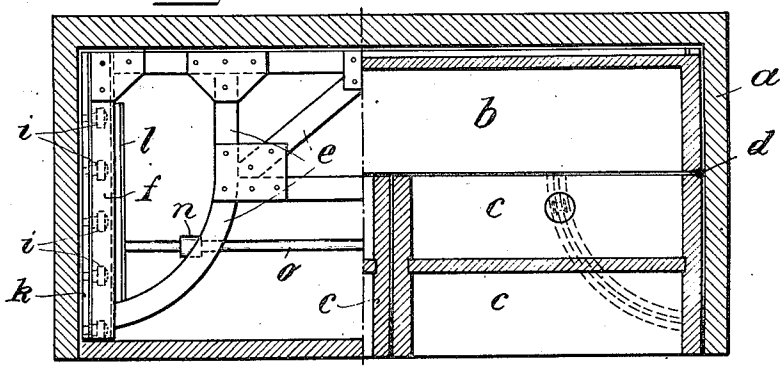


Fig. 3.



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Filed March 1, 1928 2 Sheets-Sheet 2

Fig. 2

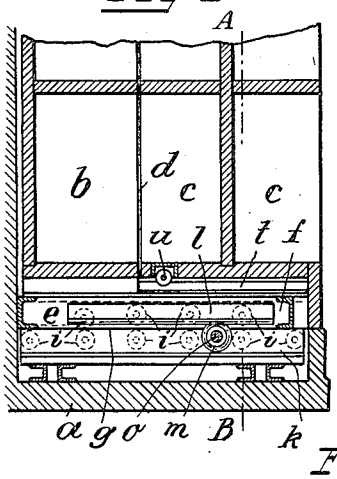


Fig. 5

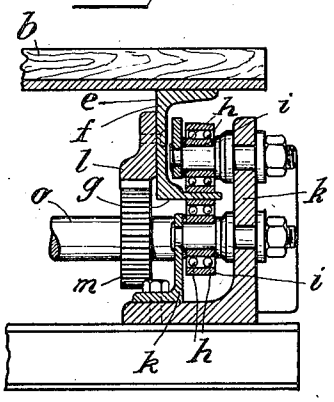
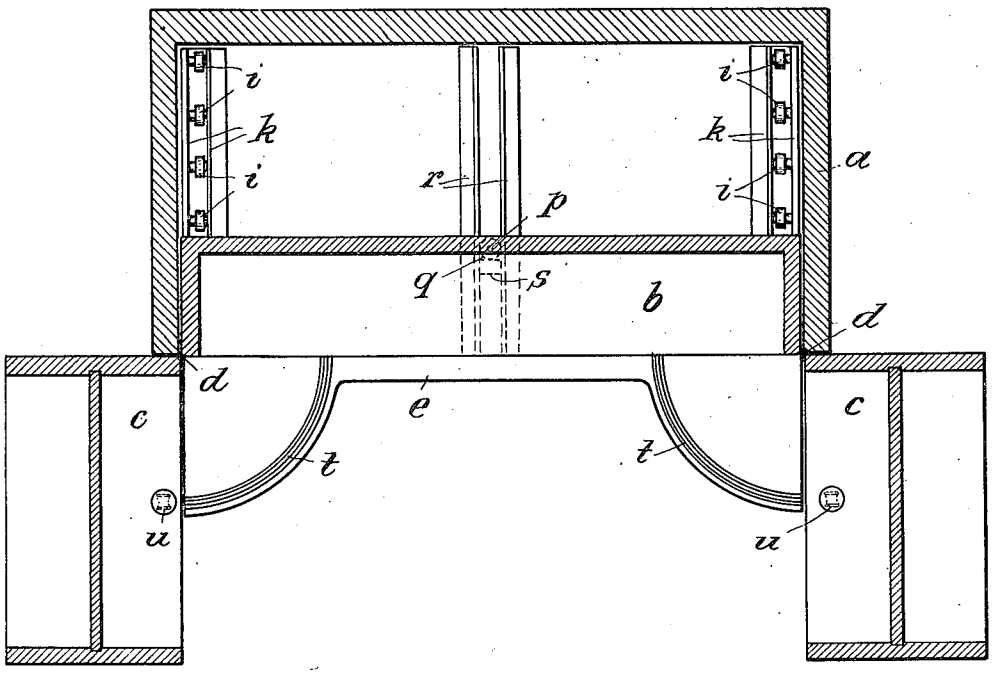


Fig. 4



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UNITED STATES PATENT OFFICE

JAMES LOEB, OF MURNAU, BAVARIA, GERMANY

CUPBOARD, BOOKCASE, OR THE LIKE

Application filed March 1, 1928, Serial No. 258,266, and in Germany March 10, 1927.

The present invention relates to cupboards, bookcases or the like.

Bookcases, filing or the like cupboards are already known, having drawer compartments arranged behind one another, the fronts of which can be swung out like a door.

The present invention consists in that the rear compartments carry supports for the front pivoting compartment.

An advantage is thus derived from this that the strain on articulated connections between the rear compartments and the pivoting compartments is lessened so that the pivoting compartments can be heavily loaded.

The arrangement is preferably carried out in such a way that the rear compartments are rigidly connected with a known type of frame, running on balls or rollers and carrying the supporting member on its extension. The pivoting compartments are guided on the support members by balls or rollers.

The frame itself at the same time carried known ratchet bars for uniform transmission on both sides of the compartments and also known guide bars fitted between stationary roller systems.

One form of construction of the improved type of cupboard is shown in the accompanying drawings in which:

Fig. 1 is an elevation in section along the line AB in Fig. 2.

Fig. 2 is a section along the line CD in Fig. 1.

Fig. 3 is a section along the line EFGH in Fig. 1.

Fig. 4 is a section along the line JGH in Fig. 1 with the cupboard opened and

Fig. 5 is a detail view of Fig. 1 on a larger scale.

Two compartment frames *b* and *c*, located one behind the other, are arranged in the frame *a* of the cupboard, the front one *c* being divided into two wings and articulated to the rear compartment *b* by hinges *d*, so that they can be swung out like a door. The frames *b* and *c* are supported by a frame *e* of profile iron which is rigidly connected with the rear frame *b*, and by means of which the frames *b* and *c* are movably guided in the cupboard frame.

The two side members of the frame *c* are constructed as guide bars *f*, in the form of channel iron, the horizontal lower members *g* of which form the slide faces. A series of rollers *i* running on balls *h* (Figure 5) are mounted above and below these members *g*, the axles of these rollers being carried by bearings *k* formed of profile iron, secured to the frame *a* of the cupboard. The members *g* are thus guided at top and bottom by a plurality of rollers, so that the compartment frames can be comparatively easily moved, even when completely loaded.

Ratchet bars *l* are mounted on the guide bars *f* (Figures 1 and 5) and mesh with toothed wheels *m* carried by a shaft *o*, running in bearings *n* in the cupboard frame *a* and positively connected together by the same so that on moving the compartment frames *b*, *c*, the movement is uniformly distributed on both sides of the cupboard and jamming of the frames *b* and *c* is avoided.

The frame *e* carries centrally of the cupboard, a roller *q*, running on a vertical axle *p* (Figures 1 and 4) and guided between two guide bars *r*. The compartment frames *b* and *c* are thus held centrally of the cupboard and prevented from giving sideways by this roller *q*, so that the sides of the compartments do not set up any friction on the sides of the cupboard frame *a*. When the compartment frames are drawn out, the roller *q* contacts with a stop *s*, located between the bars *r*, which limits the outward movement of the compartment.

Arcuate bars *t*, acting as guides for the pivoting wings of the front compartment frame *c*, are mounted at the top of the frame *e* (Figure 4). Rollers *u* are provided in the compartment *c* (Figures 1, 2 and 4) for this purpose, and slide on the rails *t*, so that the friction on swinging out the front wing *c* is also reduced.

A folding table may also be hinged on to the rear compartment frame *b*, which folds out when the cupboard is open and can be used as a writing or work table, the user being protected from disturbance by anyone working alongside, by the swung-out wings of the front compartment *c*. The space for such a

table can be formed by a recess in the back of the wing compartments *c*, into which the table folds when the cupboard is closed..

The friction is reduced by the arrangement according to the invention, to such an extent that the cupboard even when filled, can be opened with relatively small expenditure of energy, no guide elements projecting from the fixed cupboard frame in the position of rest being used.

In manufacturing the cupboard according to the invention, thin steel or the like plates can be used advantageously instead of wood, whereby the mass production of the cupboard is considerably cheapened.

The cupboard can also be constructed in the form of a show case with glass in metal (bronze or the like) frames for display purposes.

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 cupboard, bookcase or the like, comprising a rear compartment, front compartments movably connected to said rear compartment, a reciprocable frame to which said rear compartment is rigidly connected, said frame having extending portions acting as supports for the front compartments when the latter are moved in relation to the rear compartment.

2. A cupboard, book case or the like, comprising the combination with the elements claimed in claim 1, of roller bearings on which said frame moves and roller bearings interposed between the bottoms of the front compartments and the extending portions of the frame.

In testimony whereof I hereunto affix my signature.

JAMES LOEB.