Oct. 21, 1930. J. KRELL 1,779,004

CARD FILE OF THE SIGHT TYPE

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Fig. 1.

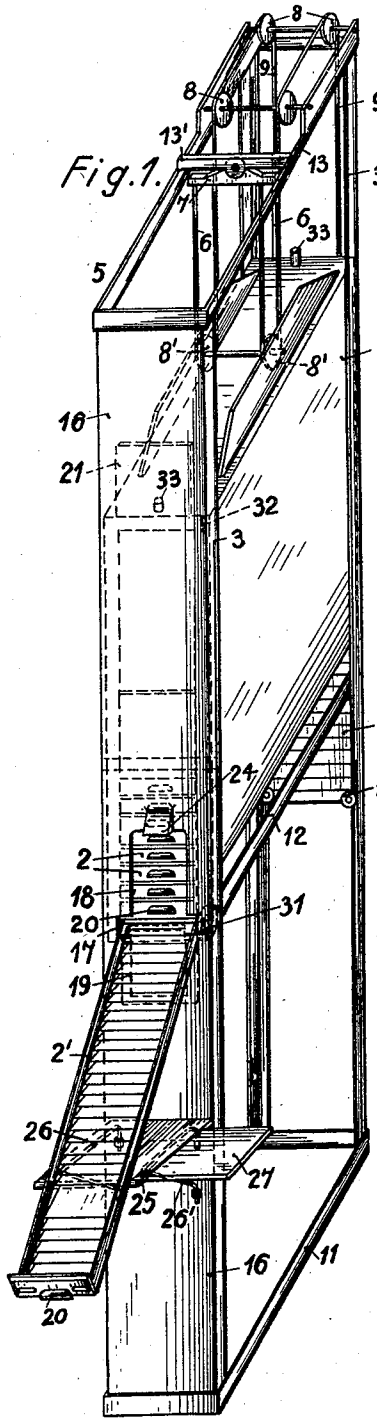


Fig. 5.

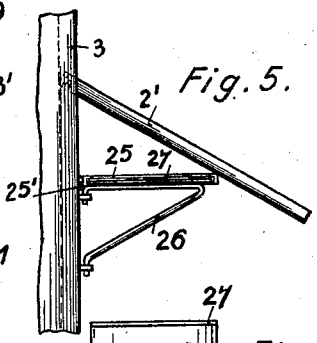


Fig. 6.

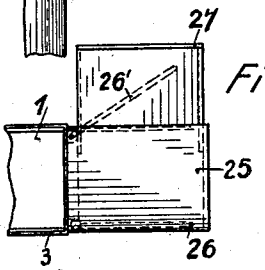


Fig. 7.

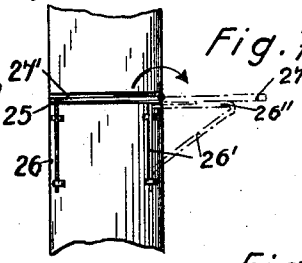


Fig. 9.

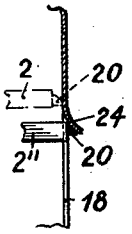
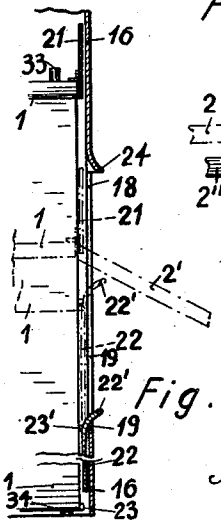


Fig. 8.



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Fig. 3.

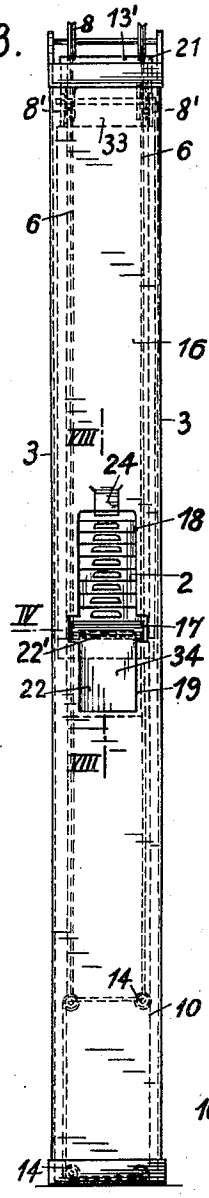


Fig. 2.

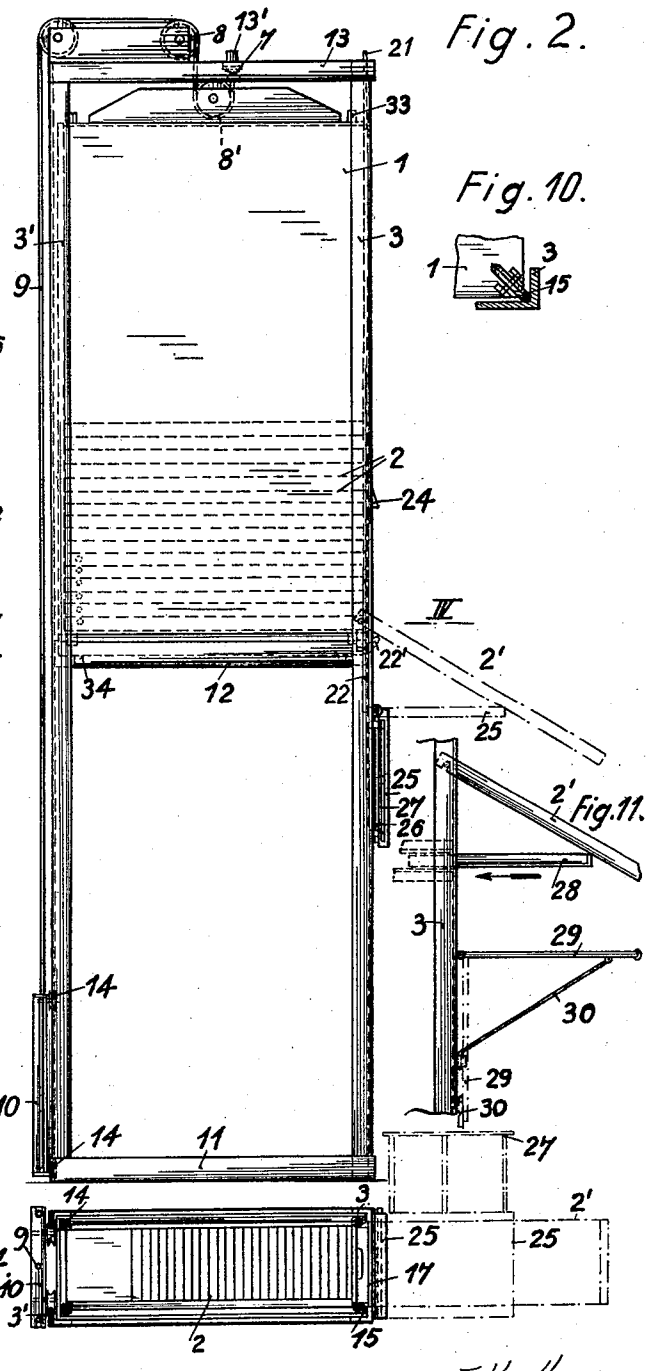


Fig. 10.

Fig. 11.

Fig. 4.

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Fig. 12.

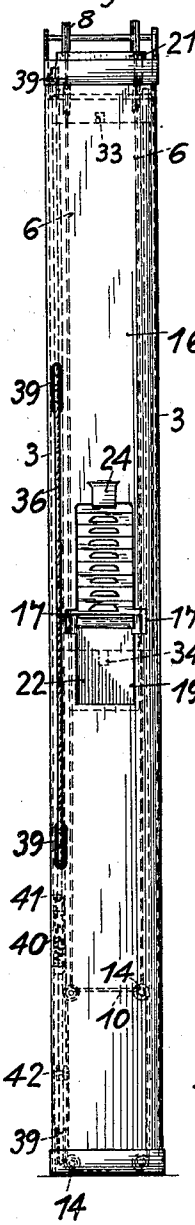
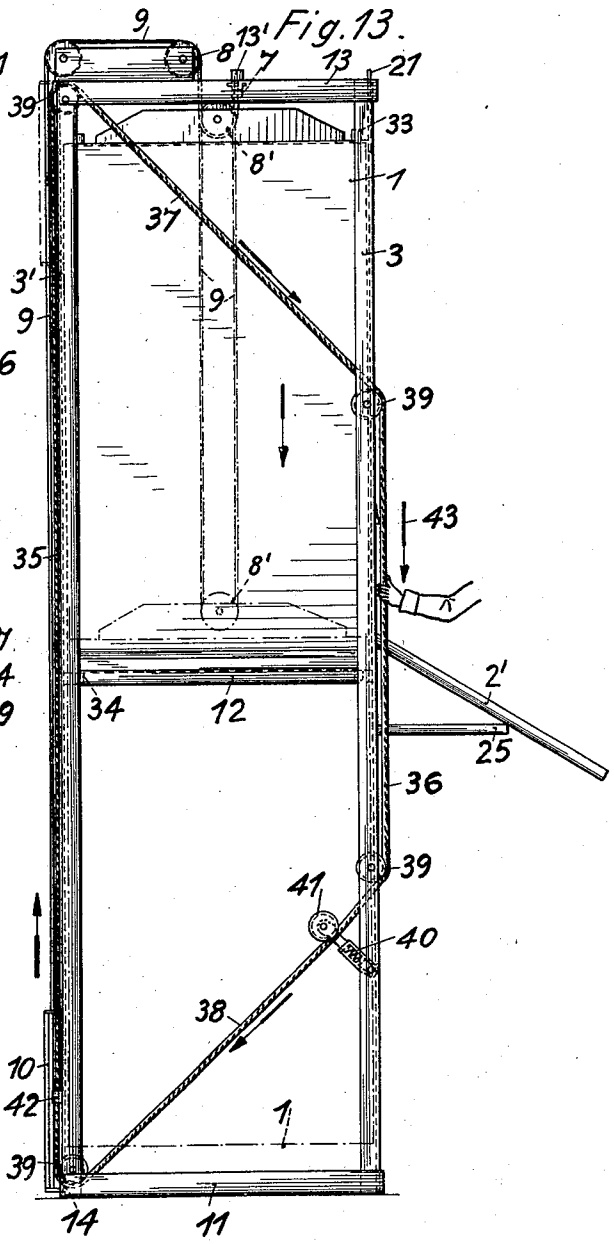


Fig. 13.



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Attys.

Patented Oct. 21, 1930 1,779,004

UNITED STATES PATENT OFFICE

JOSEPH KRELL, OF BERLIN-ZEHLENDORF, GERMANY

CARD FILE OF THE SIGHT TYPE

Application filed October 4, 1928, Serial No. 310,373, and in Germany March 18, 1927.

My invention relates to card files of the "sight" type in which cards are held in superimposed holders in a casing and may be selectively pulled out to expose any required card.

It is an object of my invention to improve a file of this type with a view to the facilitation and simplification of its operation and to this end I provide a casing for a set of superimposed card holders, and a frame in which the casing is adapted to be displayed so as to present its holders to the operator in a convenient position.

In the normal type of file the casing for the holders is stationary and the number of card holders in the casing is limited by considerations of convenience as it is desirable that the operator who may be standing or sitting, should be able to inspect the cards on any pulled-out holder without change of position, for instance, an operator who is sitting should not be under the necessity of standing up for reaching any one of the holders. In view of this, the height of the file is limited and, when many cards are to be filed, a corresponding number of files must be arranged in juxtaposition, making the plant inconveniently large.

I overcome this drawback of the present system by the aforesaid combination of a movable casing for the card holders with a stationary frame. In a preferred embodiment of my invention the frame is vertical and the casing moves vertically therein, its weight being balanced, or substantially balanced, by any suitable means. The front end of the casing is provided with a slotted end plate and the casing is arrested in such a position with respect to the slot in the end plate that the desired card holder is free to be pulled out.

In this manner the operation of the file is facilitated very much as by moving the casing in the frame the operator has any card presented in a convenient position, and the height of the casing is practically unlimited. Under normal conditions of size it will be made so high that in its initial position the upper holders are in position for inspection but for casings of still greater height a raised seat or platform may be provided for the operator.

In the accompanying drawings a card file according to my invention is illustrated by way of example.

In the drawing

Fig. 1 is a perspective illustration of a complete file,

Fig. 2 is an elevation, viewed from the left in Fig. 1,

Fig. 3 is an end elevation, viewed from the right in Fig. 2,

Fig. 4 is a sectional plan view on the line IV—IV in Figs. 2 and 3,

Figs. 5 to 11 illustrate details, partly on a larger scale,

Fig. 5 is an elevation,

Fig. 6 is a plan view, of a bracket for supporting a pulled out holder,

Fig. 7 is an elevation of a modified bracket,

Figs. 8 and 9 are sections on the line VIII—VIII in Fig. 3,

Fig. 10 is a detail section, also on the line IV—IV, but drawn to a larger scale,

Fig. 11 is an elevation of a modified supporting bracket,

Fig. 12 is an end elevation, and

Fig. 13 is a side elevation, of a tackle for moving the casing in the frame.

Referring now to the drawings, and first to Figs. 1 to 4, 5 is a frame which may be built up from four vertical angle section bars 3, 3 at its front, and 3′, 3′ at its rear end, 16 is a front-end cover plate secured to the front bars, 3, 3, and having a slot 17 which is so wide as to permit a holder to pass, and extension slots 18, 19 above and below the slot 17 which are less wide, and 11, 12, 13, and 13′ are braces in the frame 5.

1 is a rectangular casing which may be built up from angle sections and plate and is adapted to move between the vertical bars of the frame 5, 15 are guiding rollers at the four edges of the casing which are so arranged as to engage in the inner vertices of the vertical frame bars, as best seen in Fig. 10, 33 and 34 are rubber buffers at the top and bottom of the casing, respectively, for breaking the shock when the casing arrives in one of its final positions, 8, 8 are two pairs of cable

pulleys arranged on shafts in the upper braces 13, 13 of the frame 5, 8′, 8′ are pulleys on a shaft which is carried on the top of casing 1, 6 is the front reach, 9 is the rear reach of a cable carried on the pulleys, 7 is a rocking beam on a transverse brace 13′ of the upper braces 13, 13, 10 is a balance weight adapted to move between the rear vertical bars 3′, 3′, and 14 are rollers on the weight which run on the flanges of the bars. The front reach 6 of the two cables is secured to either end of the rocking beam 7, and the rear reaches 9 are secured to the weight 10.

2 are card holders in the casing 1 which at their front ends are provided with handles 20 and at their rear ends with the usual means for preventing complete removal of the holders from the casing 1.

As mentioned the slot 17 is so wide as to allow a holder to pass and when it is desired to inspect a given card in the casing the casing is adjusted so as to place the required holder in position behind the slot 17, and this holder, 2′, is now pulled out at the slot 17. The holders preceding and following the holder 2′ are exposed in the extensions 18, 19 but cannot be pulled out, but their being thus exposed facilitates the location of the required holder.

Preferably the front end plate 16 extends down to the bottom of the frame 5 so as to prevent insertion of a foot at this point. Under certain conditions, however, the plate 16 may be dispensed with altogether and the slots 17, 18, 19, or only the slot 17, are then replaced by suitable recesses in the flanges of the front bars 3, 3.

It will be understood that the casing is locked against displacement in the frame 5 while a holder 2′ is projecting from the slot 17. In order to indicate that in the upper and lower final positions of the casing 1 no more holders 2 are preceding or following, plates 21 and 22 are provided for covering the extensions 18 and 19. The plate 21 is secured at the top of the casing 1 and covers the recess 18 in the lower final position of the casing. The plate 22 which has a lip 22′ at its upper end by which it is supported on the upper edge 19′ of the extension 19, as best seen in Fig. 8, is slidably carried in the frame 5 and is raised by pins 23 at the bottom of casing 1 so as to cover the recess 19 when the casing moves into its upper final position as shown in dotted lines in Fig. 8. When the casing returns to its initial position the plate 22 slides back by gravity.

It may happen that a holder is not pushed home properly after inspection as shown at 2″ in Fig. 9 and in order to prevent interference with the displacement of the casing 1 in such cases, I provide a lip 24 at the upper edge of the extension 18 which will push any holder that might project. The same function is performed by the edge 22′ of the plate 22 upon downward displacement of the casing 1.

Means may be provided for supporting a holder 2′ after it has been pulled out, in the inclined position shown in Fig. 1. To this end, as illustrated in Figs. 5 to 7, I may hinge to the front plate 16 a plate 25, with trunnions 25′ and in combination with two brackets 26, also hinged to the plate 16, by which the plate 25 is held in its horizontal or operative position. 27 is a table for the reception of writing materials or the like which may be guided on the plate 25 and pulled to one side of the plate, as shown in Fig. 6, or hinged to one edge of the plate 25, as shown in Fig. 7 at 27′. In this case, I may provide a bracket 26′ with a projection 26″ for supporting the table 27.

Instead of a plate hinged on the front plate 16, I may provide a slide 28 as shown in Fig. 11 which is pulled out of the frame 5. 29 is a table arranged below the slide 28 which may be fixed or hinged to the plate 16 and in the latter case is equipped with a hinged brace 30.

In order to prevent access of unauthorized persons, I may provide a lock 31 the bolt of which is adapted to enter a slot 32 at the upper end of the casing 1 when such casing is in its lower final position.

Referring now to Figs. 12 and 13, the tackle for moving the casing 1 is attached to the balance weight 10.

As will appear from Fig. 12, an endless cable is arranged at the left of the frame 5 but I am not limited to this position of the cable.

It comprises a rear reach 35, a front reach 36, at the front and rear faces of the frame 5, respectively, and intermediate reaches 37, 38 which are preferably inclined. The cable is moving on four pulleys 39 in the frame 5 and is held under tension by a tensioning pulley 41, with a spring 40.

42 is a hook or other attachment at the balance weight 10 to which the rear reach 35 is attached and at which the two ends of the cable may be connected, if desired.

The front reach of the cable, 36, extends along the front face of the frame 5, as will appear from Fig. 13.

By pulling down this reach in the direction of the arrow 43, Fig. 13, the weight 10 is raised and the casing 1 is lowered.

Preferably the cable is operated with the left hand. The operation is very convenient and requires but little effort. When the casing 1 has been placed in the desired position with respect to the slot 17 the required card holder 2 is pulled out of the casing with the right hand, and the casing 1 is locked in position by the pulled-out card holder, as described.

To raise the casing after the card-holder

has been pushed home, the cable reach 36 is raised.

It is understood that any number of frames 5, at one casing 1 each, may be arranged in juxtaposition, and, if desired, connected with each other by rigid means.

I claim:

1. A sight card file comprising a frame, a front end plate on said frame having a slot consisting of a part of such width as to allow a holder to pass through it, and an extension of reduced width above and below said slot, a casing adapted to be displaced in said frame, holders in said casing adapted to be pulled out through said wider part, and means operatively connected with said casing for covering said extensions.

2. A sight card file comprising a frame, a front end plate on said frame having a slot consisting of a part of such width as to allow a holder to pass through it, and an extension below said slot, a casing adapted to be displaced in said frame, holders in said casing adapted to be pulled out through said wider part, and a slide adapted to cover said extension and to be operated by said casing so as to cover said extension when raised with said casing, and to return to its initial position when said casing is lowered.

3. A sight card file comprising a frame, a casing within said frame movable vertically up and down therein, a series of card filled drawers in said casing and a weight connected to said casing of sufficient weight to completely balance the weight of said casing and contents, a sheet metal strip covering the front of the frame and provided with an opening and also provided above and below said opening with additional openings of the height of several drawers, a metal plate for covering said upper opening when the casing is in its lower position, a second metal plate for covering the lower opening when the casing is in its upper position, said second plate having a curved upper edge which projects over the lower edge of the opening and said second plate when the casing ascends being carried along thereby into such position that it covers the lower opening and which will slide down automatically because of gravity when the cabinet descends.

4. A sight card file comprising a frame, a casing within said frame movable vertically up and down therein, a series of card filled drawers in said casing and a weight connected to said casing of sufficient weight to completely balance the weight of said casing and contents, a plate secured to the front of said frame, having a slot therein through which drawers may be pulled, and also having an opening above and below said slot in order to view the drawers in immediate proximity to the drawer pulled out, the upper edge of said upper opening and the lower edge of the lower opening in said plates having forwardly projecting lips which will act to push in the drawers which may slightly project from the casing upon movement of the casing up or down.

In testimony whereof I affix my signature.

JOSEPH KRELL.