Nov. 5, 1929. P. A. FRAZIER 1,734,618

SHEET HOLDER

Filed Aug. 27, 1928

Fig. 1.

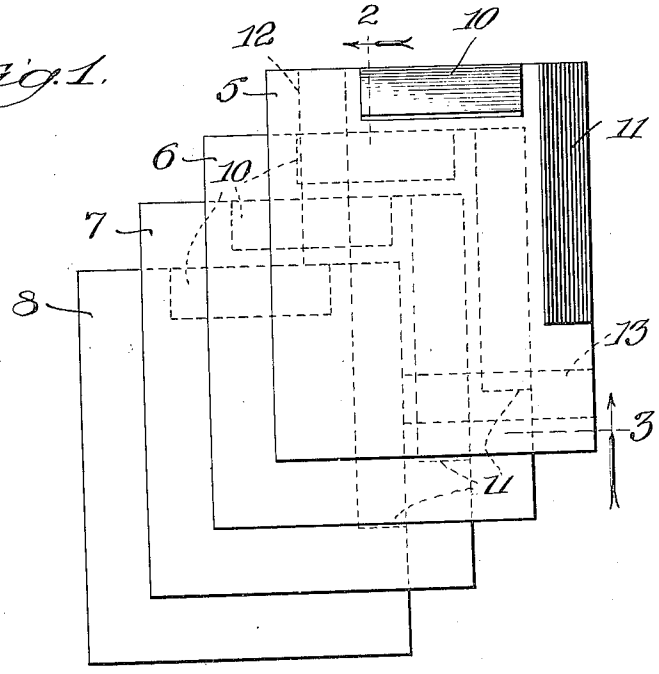


Fig. 2.

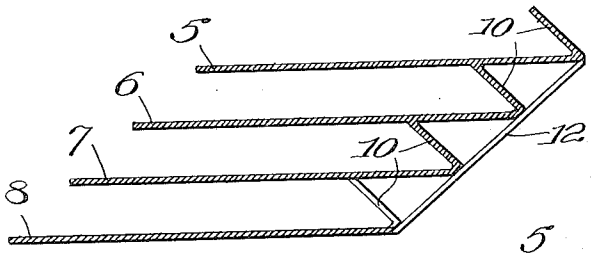


Fig. 3.

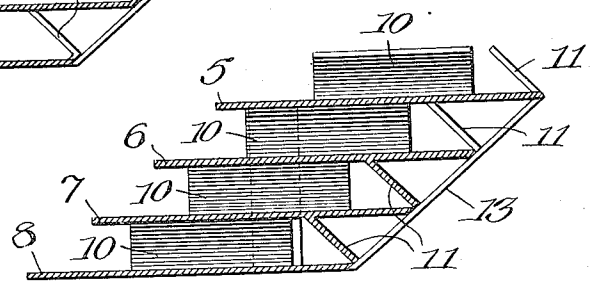
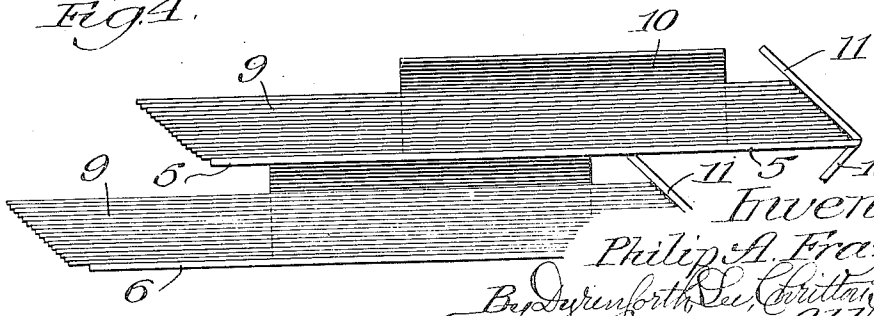


Fig. 4.



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UNITED STATES PATENT OFFICE

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SHEET HOLDER

Application filed August 27, 1928. Serial No. 302,422.

My invention relates, more particularly, to holders for piles of different kinds of sheets from which sheets are to be selectively drawn and more particularly, though not exclusively, to holders for different kinds of sheets which are to be assembled, by insertion, in a predetermined order, with sets of other sheets, as for example, signatures comprising elements of which books are to be formed.

My primary object is to provide a holder of such construction that the operator may, with the maximum ease and without undue reaching, withdraw the different kinds of sheets from the piles thereof and in the proper order for assembly into the desired sets and in the case of inserts to complete signatures, by insertion of the sheets into the desired locations in the signatures.

Referring to the accompanying drawing:—

Figure 1 is a plan view of a holder constructed in accordance with my invention.

Figure 2 is a section taken at the line 2 on Fig. 1 and viewed in the direction of the arrow.

Figure 3 is a section taken at the line 3 on Fig. 1 and viewed in the direction of the arrows; and

Figure 4, a broken, enlarged, view in front elevation of the holder with piles of sheets inserted therein.

The holder, shown as designed for the supporting of four separate piles of sheets and constituting by its features of construction the preferred embodiment of my invention, comprises a plurality of parallel sheet-supporting plates 5, 6, 7 and 8 arranged one above the other in spaced relation, and offset, or stepped, relative to each other both forwardly and laterally as shown, these plates being preferably of smaller area than the sheets which they are to support, whereby the sheets, when positioned in the holder, will extend at edges thereof outwardly beyond adjacent edges of these plates preferably not only in a forward direction but also laterally beyond the left-hand edges of these plates as represented in Fig. 4 wherein the piles of sheets are indicated at 9.

At the back and at the right-hand side of each plate, in the particular construction shown, are provided stop means in the form of abutments, for engagement with the adjacent edges of the piles of sheets placed in the holder, to cause the sheets of each pile thereof to assume the overlapping, stepped, or fan, condition at the forward and left-hand edges of each pile thereof, as represented of the left-hand edges of the two piles of sheets shown in Fig. 4.

The stop, or abutment, means referred to comprise, in the particular construction illustrated, plates 10 and 11 disposed along the rear and right-hand edges of each plate 5, 6, 7 and 8, respectively, these plates inclining upwardly toward the centers of these plates at the angle at which it is desired the forward and left-hand edge portions of the piles of sheets extend, to provide for the desired degree of overlap of adjacent ones of the sheets.

The plates 5, 6, 7 and 8 may be connected together by any suitable means to cause them to be maintained in the desired spaced apart relation. In the construction shown these means comprise the strips 12 and 13 which extend upwardly across the rear and right-hand edges of the plates 5, 6, 7 and 8 and the lower edges of the abutment plates 10 and 11, these several parts being soldered at their mutual contacting portions and the upper edges of those of the plates 10 and 11 which are located between the sheet supporting plates being soldered to the plates above them.

It will be understood from the foregoing that the abutment means described, upon introducing the piles of sheets into the several sheet-receiving compartments of the holder, operate automatically to cause the sheets of each pile to assume the overlapped, stepped, or fan, condition described.

The sheets of the several piles thereof are thus so positioned by the holder that the operator may readily draw the uppermost sheets from the piles thereof selectively, and in succession if desired, without the likelihood of drawing with them the sheets therebeneath, the close and compact grouping of the several sheet-supporting plates minimizing the amount of reaching required of the operator in the transfer of the sheets from

the holder to the point of assembly and the separation of the piles of sheets, by separately confining them in the several compartments of the holder, preventing accidental intermingling of the sheets of the different piles.

While I have illustrated and described a particular construction embodying my invention, I do not wish to be understood as intending to limit it thereto as the same may be variously modified and altered without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is:

1. A sheet-holder comprising a sheet-supporting portion and inclined means positioned to be engaged by adjacent edges of each sheet of a pile thereof applied to the holder and operating to cause sheets to assume fan condition in a plurality of directions at angles to each other.

2. A sheet-holder comprising a plurality of sheet-supporting portions arranged one above the other and means positioned to be engaged by adjacent edges of each sheet of the piles thereof applied to said sheet-supporting portions and operating to cause the sheets of the several piles to assume fan condition in a plurality of directions at angles to each other.

3. A sheet-holder comprising a plurality of sheet-supporting portions arranged one above the other in stepped relation in a plurality of directions at angles to each other and means positioned to be engaged by the edges of each sheet of the piles thereof applied to said sheet-supporting portions and operating to cause the sheets of the several piles to assume fan condition in a plurality of directions at angles to each other.

4. A sheet-holder comprising a plurality of sheet-supporting portions arranged one above the other in stepped relation in a plurality of directions at angles to each other and a series of sheet-forming members located at the rear and at one side of the holder for cooperation with said portions, each series of said members inclining upwardly and rearwardly.

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