May 19, 1931. G. SPOHN 1,806,125

FOLDING DEVICE FOR LETTER SHEETS

Filed May 6, 1929 2 Sheets-Sheet 1

Fig. 1.

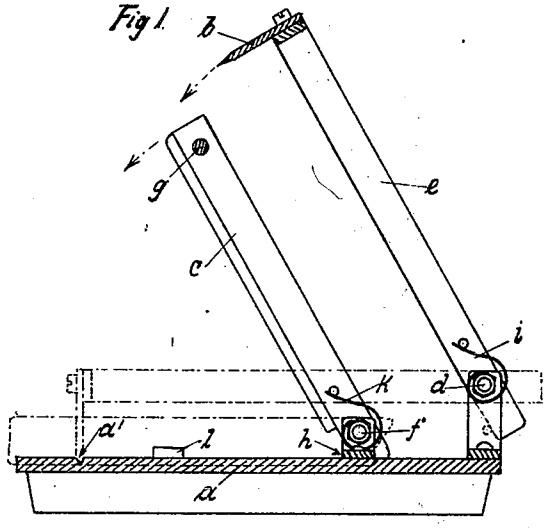


Fig. 2.

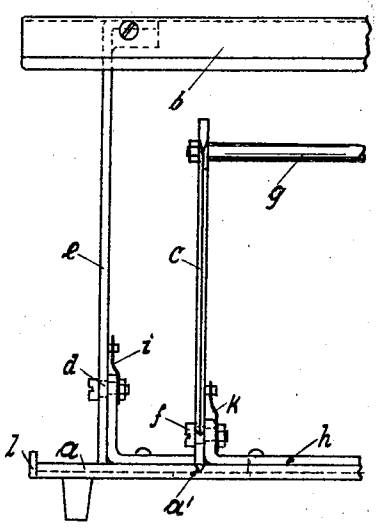


Fig. 3.

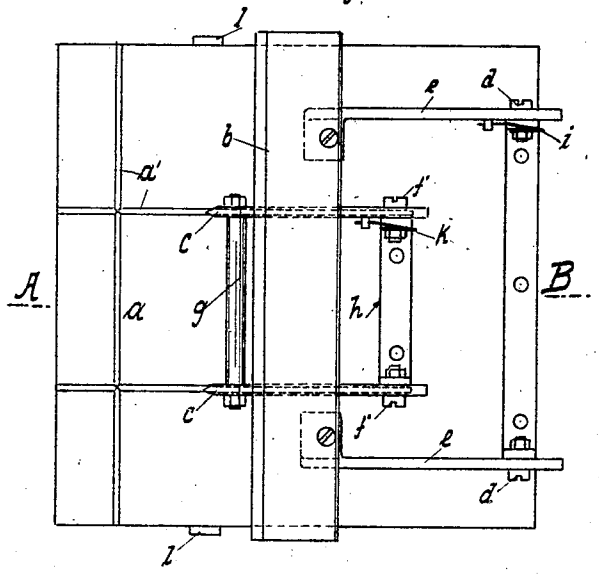
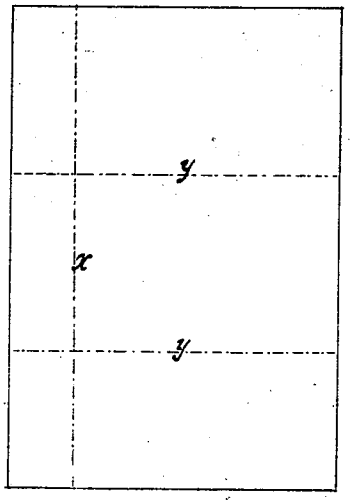


Fig. 4.



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FOLDING DEVICE FOR LETTER SHEETS

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Fig. 5

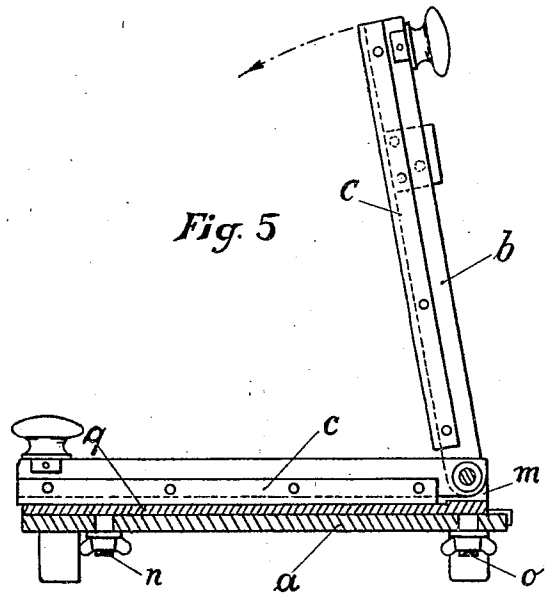


Fig. 6

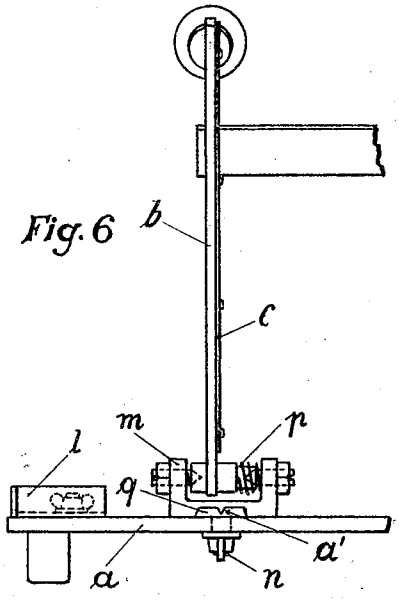
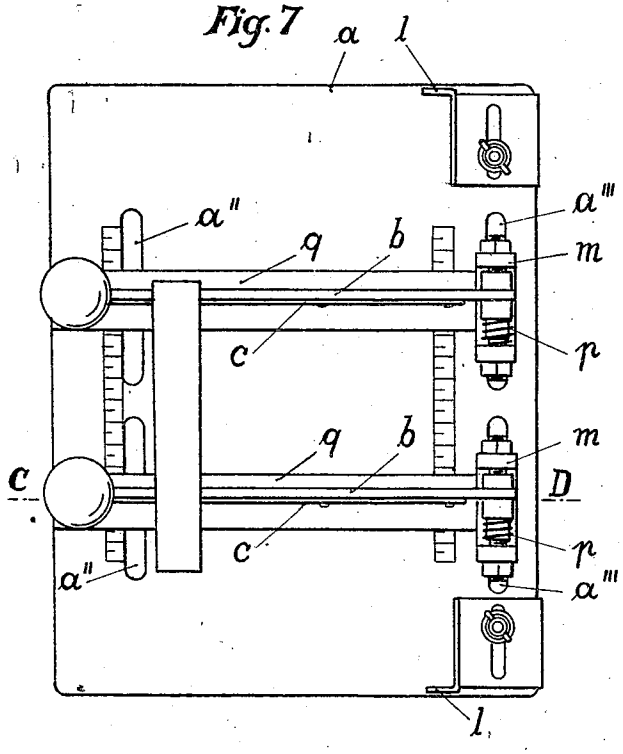


Fig. 7



Inventor:

Gottlob Spohn

Patented May 19, 1931 1,806,125

UNITED STATES PATENT OFFICE

GOTTLOB SPOHN, OF PFORZHEIM, GERMANY

FOLDING DEVICE FOR LETTER SHEETS

Application filed May 6, 1929, Serial No. 360,938, and in Germany May 9, 1928.

My invention relates to improvements in folding devices and the object of my improvement is to provide a device for folding letter sheets which is of very simple construction and adapted for hand manipulation.

I attain this object by the mechanism illustrated in the accompanying drawings in two different constructional examples.

Fig. 1 shows the folding device with stationary folding bars in cross section in the direction A—B of Fig. 3, Fig. 2 a part front elevation and Fig. 3 a plan view of the same constructional example. Fig. 4 shows the folded letter sheet. Fig. 5 shows the folding device with adjustable folding mechanism in cross section in the direction C—D of Fig. 7; Fig. 6 a part front elevation and Fig. 7 a plan view of this constructional example.

Similar letters refer to similar parts throughout the several views.

The device of the first constructional example consists mainly of the supporting plate *a*, which in accordance with the folds to be produced, is provided with gutter-like depressions *a'*, and also of the folding bars *b* and *c* jointed like levers on this plate and which can be pressed into the folding depressions *a'*. While the bars *c* for the transverse folds are jointed directly at *f*, so that they can rotate, in the present case the bar *b* for the longitudinal fold is fixed to lever arms *e* which have their pivotal point at *d*. The folding bars *c* and also the levers *e* of the folding bar *b* are drawn up into the raised position shown on the drawings by the springs *k* and *i* respectively.

The process in folding the letter sheets is as follows: The ready written letter—or several simultaneously—are placed on the supporting plate *a* in such manner that in front they lie against the holder *h* of the bars *c* and laterally between the stops *l*. Thereupon either the lengthwise folding bar *b* or the two transverse folding bars *c* which are connected by the grip bar *g*, first is drawn down into the position shown in dot and dash lines in Fig. 1 of the drawing, is pressed down into the corresponding folding gutter *a'* and is then allowed to return to the raised position. The part of the letter which has now been broken is completely turned over by a stroke of the hand, the second folding bar is drawn down and pressed into the folding gutter and when the folding bar passes up again the letter sheet or sheets have been accurately folded for the envelope in question.

In Fig. 4 the line *x* shows the fold made by the lengthwise folding bar *b* and the lines *y* the folds produced by the transverse folding bars *c* in the letter sheet.

For certain forms of letter sheets or envelopes it is sufficient if the folding bars are stationary. If, however, the device is to be capable of serving for different sizes then the folding bars, and the folding gutters also are made adjustable, as shown by the constructional example of Figs. 5, 6 and 7.

In this case the supporting plate *a* itself is not provided with folding gutters but with rails *q* having furrows *a'* and being adjustable in slots *a''* and *a'''* of the supporting plate *a* to which they may be secured by the screws *n*, *o*, and so retained in their desired position.

As the brackets *m* to which the levers *b* are rockingly jointed, are fixed to the rails *q*, the folding gutters *a'* and the folding blades *c* will be adjusted simultaneously.

The springs *p* serve to draw up the levers *b* into the raised position. The stops *l* are adapted to retain the letter sheets in their desired position. They are adjustable.

In the present constructional example the device is provided only with transverse folding bars.

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 device for folding letter sheets, comprising the table plate *a*, provided with the folding gutters *a'*, the brackets on the upper side of the table plate with the hand levers and folding bars *b*, *c*, registering with certain of said gutters and adapted to cooperate with them.

2. A device for folding letter sheets, com-

prising a table plate with adjustable rails, provided with folding gutters and carrying folding bars registering with the corresponding folding gutters and adapted to cooperate with them.

In testimony whereof I have hereunto subscribed my name.

GOTTLOB SPOHN.