

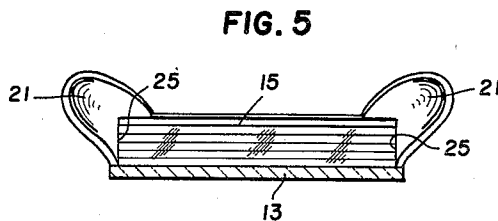
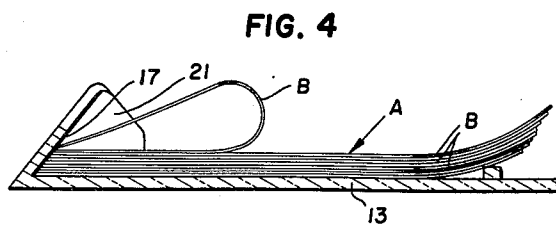
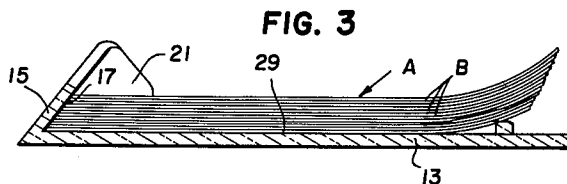
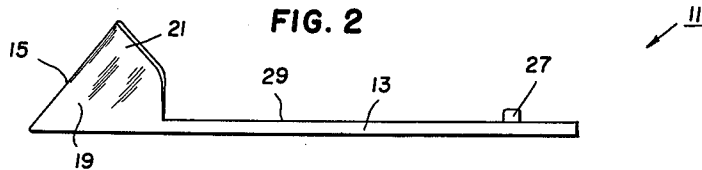
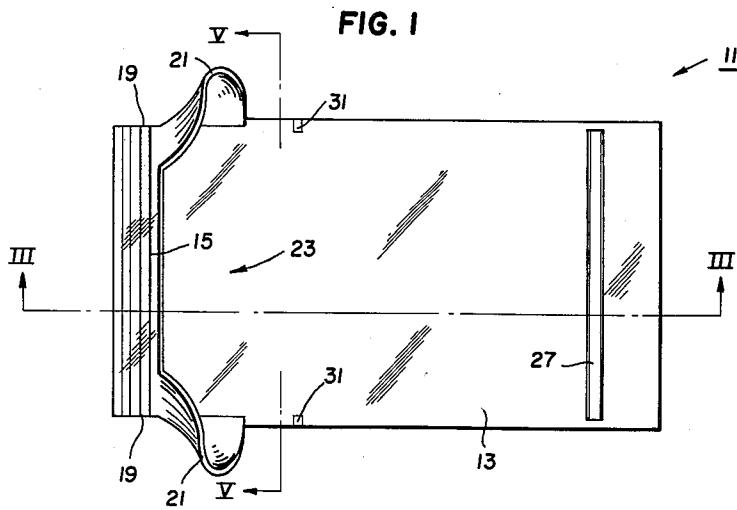
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DEVICE FOR FOLDING SHEETS OF PAPER AND THE LIKE

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DEVICE FOR FOLDING SHEETS OF PAPER AND THE LIKE

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6 Claims. (Cl. 270—61)

This invention relates to a device adapted to be used for folding sheets of paper, such as church bulletins, stationery, pamphlets, and the like.

In folding any quantity of sheets of paper by hand, there are a number of problems involved. For example, it has been a practice for many churches to mimeograph the information pertaining to a particular Sunday's services on the blank side of a flat sheet of paper having a standard printed cover on the opposite side thereof. Also, some churches use paper that is blank on both sides, in which case they mimeograph both the cover and the information. After mimeographing, the sheet is then folded into a booklet form with the information on the inside and the cover on the outside. In folding these sheets it is a time consuming task to separate the individual sheets and align the edges together during the process of folding. The present invention is directed towards overcoming the above mentioned and other problems and disadvantages encountered in the folding of sheets of paper and the like.

Thus, one of the objects of the present invention is to provide a device for use in folding sheets of paper and the like which makes the task much easier and quicker.

A further object is to provide such a device which is adapted to align accurately the edges of the sheets of paper without any particular effort or attention on the part of the person doing the folding.

A further object is to provide such a device which is adapted to cause the individual sheets of paper to be so arranged that the rearward edge of the top sheet is easily grasped to start the folding process.

A further object is to provide means in such a device for aiding in the folding of sheets of paper where more than one fold is desired.

A further object is to provide a device for conveniently storing stationary, and from which device the stationary can easily be dispensed.

A further object is generally to improve the design and construction of devices for use in folding sheets of paper and the like.

The means by which the foregoing and other objects of the present invention are accomplished and the manner of their accomplishment will be readily understood from the following specification upon reference to the accompanying drawings, in which:

FIG. 1 is a plan view of the device of the present invention.

FIG. 2 is a side elevational view thereof.

FIG. 3 is a sectional view taken as on the line III—III of FIG. 1 and showing a stack of sheets of paper in the device.

FIG. 4 is a view similar to FIG. 3 but showing the top sheet of paper in the process of being folded.

FIG. 5 is a sectional view taken as on the line V—V of FIG. 1.

Referring now to the drawings in which the various parts are indicated by reference characters, the device 11 of the present invention is preferably, though not necessarily, integrally formed of a suitable material, as plastic, wood or the like, and comprises a substantially rectangular flat base 13, adapted to rest on a supporting surface, not shown. In order to facilitate the description of the present invention, the end of device 11 and base 13 on the lefthand side, as viewed in FIGS. 1—4, will be denoted the

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forward end, and the end on the righthand side will be denoted the rearward end.

An abutment member 15 is preferably integrally attached to base 13 adjacent the forward end of the base and is inclined upwardly and rearwardly from the base for a purpose later to be described. Abutment member 15 extends preferably across the width of base 13, and the inside surface 17 of the abutment member is substantially a flat and smooth surface.

A pair of vertical members 19 are preferably integrally attached to base 13 and upstand therefrom adjacent opposite sides of abutment member 15. Also, vertical members 19 are preferably integrally attached along the forward edges thereof to abutment member 15.

Additionally, device 11 includes a pair of arcuate guide members 21 which are preferably integrally formed respectively with vertical members 19, with the opposite sides of abutment member 15, and with a portion of base 13 adjacent the side edges thereof. Guide members 21 respectively lead rearwardly, upwardly and outwardly relative to vertical members 19, the sides of abutment member 15, and the side edges of base 13. Stated another way, guide members 21 are transversely spaced apart adjacent the forward portion of device 11 and diverge upwardly and rearwardly from vertical members 19, abutment member 15, and base 13 to establish a funnel-like opening 23 leading from the rearwardly opening space defined by inside surface 17 and the respective inside surfaces 25 of vertical members 19. The distance between vertical members 19 is only slightly greater than the width of the stack A of sheets B of paper to be folded so that when the stack A is placed in the device 11, as shown in FIG. 3, with the forward edges of the sheets B in engagement with abutment member 15 and between vertical members 19, as far as lateral alignment is concerned, the sheets B will be substantially in alignment. In other words, with the distance between vertical members 19 being as above described, the sheets B of paper will substantially exactly fit therebetween so that the side edges of the sheets are in vertical alignment. Thus, when the term "lateral alignment" is used, it is deemed to mean the above mentioned condition when the side edges of the paper are in vertical alignment. When the term "longitudinal alignment" is used, it will be deemed to refer to the relationship of the forward edges of the sheets B. The stack A is assumed to be sheets B of paper of substantially the same size so that, in reference to the longitudinal alignment, when the forward edges of the sheets B are in vertical alignment, then it follows that the rearward edges will also be in vertical alignment. When a longitudinally aligned stack A of sheets B are placed in device 11 and are moved forwardly so that the forward edges of the sheets B are abutted with abutment member 15, the stack, in reference to the longitudinal alignment, will no longer be in vertical alignment, but will be "angularly aligned," as shown in FIG. 3. In other words, the forward and rearward edges of stack A will be inclined rearwardly at the same angle as inside surface 17. Stated another way, stack A will be so arranged that each sheet B extends slightly rearwardly of the next lower one in position to be easily separated therefrom. Thus, it can be seen that the top sheet B of paper can easily be separated from the stack A by merely running the finger upwardly along the rearward edge of the stack A until it comes in contact with the top sheet, which as heretofore explained is rearwardly of the next lower sheet and therefore can easily be grasped.

A transverse bar 27 is preferably integrally attached to base 13 on the upper side 29 thereof adjacent the rearward edge thereof. Bar 27 is in such a position that it underlies stack A adjacent the rearward edge

thereof, as best seen in FIGS. 3 and 4, which will cause a further fanning out of the edges of the sheets B to facilitate further the separation of the sheets B. Also, it will be understood that a slight downward pressure on stack A just forward of bar 27 will cause the edges of sheets B to fan out even more. In addition, it will be understood that bar 27 raises the rearward ends of sheets B off of upper side 29 so that the sheets can be more easily grasped, and particularly the bottom sheets.

In using the device 11 of the present invention, the stack A of sheets B are placed in the device 11 in abutment with member 15, and the rearward edge of the top sheet is grasped, as heretofore described. Then this top sheet is folded forwardly and inserted into funnel-like opening 23 until it is in abutment with member 15, as shown in FIG. 4. The folding is completed by pressing downwardly on the bight of the sheet to crease the sheet. It will be understood that in the above described folding operation the rearward edge of top sheet B is guided into substantially exact alignment with the forward edge of the sheet and any lateral misalignment will be corrected by guide members 21 as the sheet moves through the funnel-like opening 23. For example, in moving the rearward edge of the sheet B into funnel-like opening 23, if the person doing the folding has misjudged and has moved the paper too far to one side or the other, it will engage one of the guide members 21 and be moved back into correct lateral alignment, and when it abuts the member 15 it will be deflected downwardly into substantially exact alignment with the forward edge. Thus, the edge of the sheet B is quickly and easily funneled into the correct position by means of the guide members 21 and abutment member 15.

A pair of marks 31 are preferably provided on base 13 intermediate the length thereof to aid in folding sheets of paper, where more than one fold is desired, for example, in stationery where two folds are desired. It will be understood that in folding the sheet twice, the rearward edge of the sheet is grasped as heretofore described and folded forwardly until it is in alignment between marks 31, whereupon a crease is made, and then the next fold is done in the same manner as heretofore described relative to the single fold.

From the foregoing description it will be understood that a very convenient, handy and inexpensive device is provided for use in folding sheets of paper and the like which makes the task more accurate, much easier and quicker than heretofore possible.

Although the invention has been described and illustrated with respect to a preferred embodiment thereof, it is to be understood that it is not to be so limited since changes and modifications may be made therein which are within the full intended scope of this invention as hereinafter claimed.

I claim:

1. A device for folding sheets of paper and the like comprising a substantially flat base adapted to receive a stack of sheets of paper of substantially the same size to be folded thereon, an abutment member attached to said base adjacent the forward end of said base for abutting the forward edges of the stack of sheets of paper, a pair of vertical members attached to said base adjacent opposite sides of said abutment member, said vertical members being spaced apart by a distance only slightly greater than the width of the sheets of paper to be folded and adapted to receive the sheets therebetween in lateral alignment, and means adjacent said vertical members to provide a funnel-like opening for guiding the rearward edge of a sheet to be folded into alignment over the forward edge of the sheet.

2. A device for folding sheets of paper and the like comprising a substantially flat base adapted to receive a stack of sheets of paper of substantially the same size to be folded thereon, an abutment member attached to

said base adjacent the forward end of said base and inclined upwardly and rearwardly from said base whereby means is provided for abutting the forward edges of the stack of sheets of paper so that each sheet extends slightly rearwardly of the next lower one in position to be easily separated therefrom, a pair of vertical members attached to said base adjacent opposite sides of said abutment member, said vertical members being spaced apart by a distance only slightly greater than the width of the sheets of paper to be folded and adapted to receive the sheets therebetween in lateral alignment, and means adjacent said vertical members to provide a funnel-like opening for guiding the rearward edge of a sheet to be folded into alignment over the forward edge of the sheet.

3. A device for folding sheets of paper and the like comprising a substantially flat base adapted to receive a stack of sheets of paper of substantially the same size to be folded thereon, an abutment member attached to said base adjacent the forward end of said base and inclined upwardly and rearwardly from said base whereby means is provided for abutting the forward edges of the stack of sheets of paper so that each sheet extends slightly rearwardly of the next lower one in position to be easily separated therefrom, a pair of vertical members attached to said base adjacent opposite sides of said abutment member, said vertical members being spaced apart by a distance only slightly greater than the width of the sheets of paper to be folded and adapted to receive the sheets therebetween in lateral alignment; a pair of arcuate guide members respectively leading rearwardly, upwardly and outwardly from said vertical members whereby in the process of folding a sheet of paper the rearward edge of the sheet is adapted to be guided into alignment over the forward edge of the sheet.

4. A device for folding sheets of paper and the like comprising a substantially flat base adapted to receive a stack of sheets of paper of substantially the same size to be folded thereon, an abutment member attached to said base adjacent the forward end of said base and inclined upwardly and rearwardly from said base whereby means is provided for abutting the forward edges of the stack of sheets of paper so that each sheet extends slightly rearwardly of the next lower one in position to be easily separated therefrom, a transverse bar attached to said base adjacent the rearward end thereof adapted to support the stack of sheets of paper adjacent the rearward edges thereof whereby the rearward edges of the sheets are easier to grasp, a pair of vertical members attached to said base adjacent opposite sides of said abutment member, said vertical members being spaced apart by a distance only slightly greater than the width of the sheets of paper to be folded and adapted to receive the sheets therebetween in lateral alignment; a pair of arcuate guide members respectively leading rearwardly, upwardly and outwardly from said vertical members whereby in the process of folding a sheet of paper the rearward edge of the sheet is adapted to be guided into alignment over the forward edge of the sheet.

5. A device for folding sheets of paper and the like comprising a substantially flat base having an upper surface adapted to receive a stack of sheets of paper of substantially the same size to be folded thereon, an abutment member attached to said base adjacent the forward end of said base and inclined upwardly and rearwardly from said base whereby means is provided for abutting the forward edges of the stack of sheets of paper so that each sheet extends slightly rearwardly of the next lower one in position to be easily separated therefrom, a transverse bar attached to said base adjacent the rearward end thereof adapted to support the stack of sheets of paper adjacent the rearward edges thereof whereby the rearward edges of the sheets are easier to grasp, said bar being raised above said upper surface of said base whereby downward pressure exerted on the stack of the sheets of paper in

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the area forward of said bar makes it even easier to grasp the rearward edges of the sheets, a pair of vertical members attached to said base adjacent opposite sides of said abutment member, said vertical members being spaced apart by a distance only slightly greater than the width of the sheets of paper to be folded and adapted to receive the sheets therebetween in lateral alignment; a pair of arcuate guide members respectively leading rearwardly, upwardly and outwardly from said vertical members

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whereby in the process of folding a sheet of paper the rearward edge of the sheet is adapted to be guided into alignment over the forward edge of the sheet.

5 6. The device according to claim 5 in which at least one mark is provided on said base intermediate the ends thereof for use in indicating the place for a fold when more than one fold is made in the sheets of paper.

No references cited.