

Dec. 29, 1953

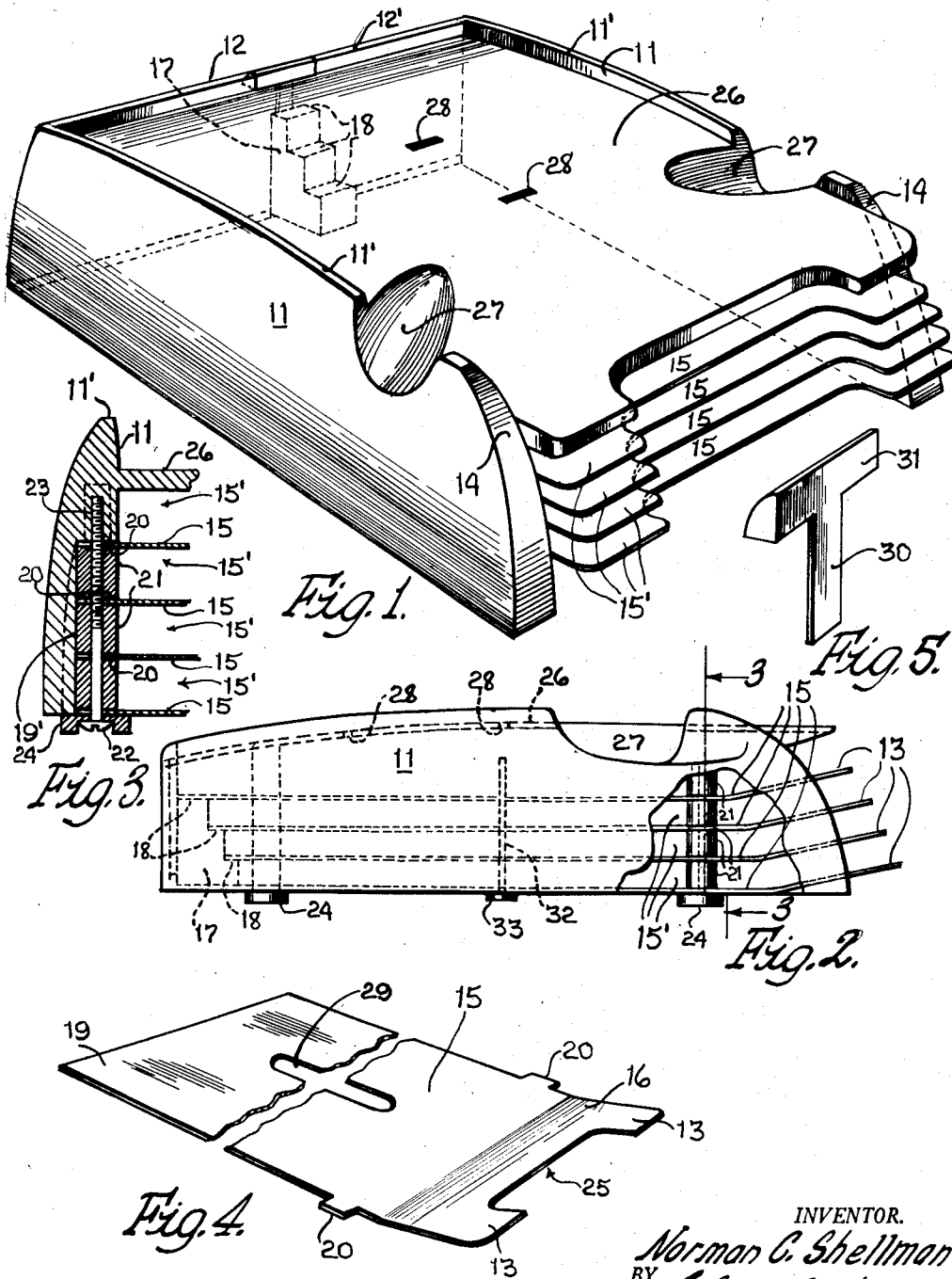
N. C. SHELLMAN

2,664,205

PAPER STORAGE AND MANIFOLDING DEVICE

Filed July 29, 1950

2 Sheets-Sheet 1



INVENTOR.
Norman C. Shellman
BY *Clarence E. Shady*
His Attorney.

Dec. 29, 1953

N. C. SHELLMAN

2,664,205

PAPER STORAGE AND MANIFOLDING DEVICE

Filed July 29, 1950

2 Sheets-Sheet 2

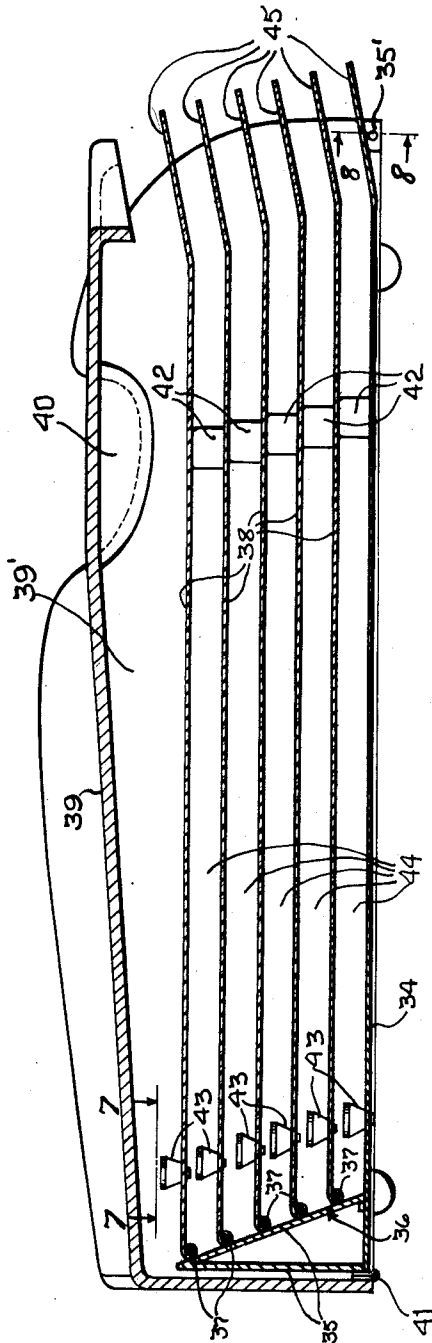


Fig. 6

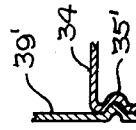


Fig. 8

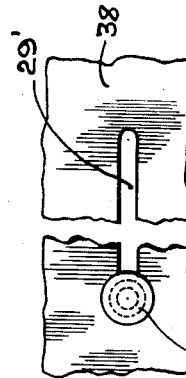


Fig. 7

INVENTOR.
Norman C. Shellman
 BY *Clarence E. Whady*
 HIS Attorney.

UNITED STATES PATENT OFFICE

2,664,205

PAPER STORAGE AND MANIFOLDING DEVICE

Norman C. Shellman, Wilmette, Ill.

Application July 29, 1950, Serial No. 176,709

2 Claims. (Cl. 211—55)

1

This invention relates to certain new and useful improvements in a paper storage and manifolding device especially constructed and designed for storing sheet paper in a manner such that the storing, removing and manifolding of the sheets may be accomplished with the minimum degree of labor and time without encountering the usual difficulties which ordinarily confront one in the manifolding of the sheets.

A principal object of the invention is to accomplish the foregoing result by a device which is relatively compact in construction and economical in manufacture.

Much time is devoted by a typist in manifolding sheets of paper with carbon sheets. The usual practice is for the typist or the stenographer to maintain a supply of such sheets in a drawer of the desk divided for that purpose. In order to manifold such sheets, she is required to remove the sheets individually and assemble them in proper registration with respect to each other before placing the manifolded or assembled sheets in the typewriter. Generally a large area of the surface of the desk is required to gather the sheets in alignment and then they must be carefully picked up and tamped along their edges and transferred to the typewriter. Frequently the sheets shift or slip and have to be realigned by repeating the above process. By the use of my device a stenographer or other person may accomplish this manifolding of the sheets quickly and easily and without slipping, soiling or otherwise marring such sheets. My device is of such a size as permits the same to be placed within convenient reach upon the desk or typewriter table.

Another object of this invention is to provide a device of this character by which the sheets of paper with carbon sheets therebetween may be automatically placed in alignment or registration with respect to each other during the manifolding operation of such sheets and when the required number of sheets are manifolded or assembled a positive and natural means of grasping and transferring the sheets to the typewriter is provided.

Other objects will appear hereinafter.

This invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

Fig. 1 is a perspective view of the invention;

Fig. 2 is a side elevational view with a sec-

2

tion of a side wall removed to show the interior of the device;

Fig. 3 is a sectional detail view taken substantially on line 3—3 of Fig. 2;

Fig. 4 is a perspective view of one of the storage compartment shelves embodied in the invention;

Fig. 5 is a perspective view of a sheet limiting member embodied in the invention;

Fig. 6 is a sectional detail view illustrating the invention in a modified form;

Fig. 7 is a fragmentary sectional detail view taken substantially on line 7—7 of Fig. 6; and

Fig. 8 is a fragmentary view taken substantially on line 8—8 of Fig. 6.

The several objects of this invention are accomplished by the preferred form of construction shown in the accompanying drawings and now to be specifically described.

The sheet paper storage and manifolding device embodying my invention comprises a structure including side walls 11 and a rear wall 12 preferably formed of such material as will best serve the purpose such, for example, thermoplastic material or the like, with the walls 11 and 12 integrally connected or formed together.

Between the side walls 11, with corresponding end portions 13 extending beyond the curved edge portion 14 of the side walls 11 in stepped formation and arranged in parallel spaced relation with respect to each other are shelves 15. These shelves 15 together with the side and rear walls 11 and 12 provide storage compartments 15' open at one end. The shelves 15 each have an upwardly and outwardly extending end portion 16 which facilitates "feathering" the sheets of paper arranged in the storage compartments. Such an arrangement also facilitates quick separation of the sheets of paper during the manifolding operation.

Extending from the wall 12 either as an integral or separate part thereof, as may best suit the purpose, is a block 17 of step formation to provide supporting ledges 18 for the inner end portions 19 of the shelves 15.

Formed in each of the side walls 11 is a recess or offset 19' into which lateral mounting lugs 20, formed on the shelves 15, project. Arranged between these lugs 20 and serving to support the shelves 15 in spaced relation with respect to each other are spacer blocks 31.

To secure the shelves 15 in spaced relation with respect to each other a screw 22 is projected through each set of spacer blocks and threaded as at 23 into the wall 11. Embracing this

3

screw and held thereon by the head of the screw is a resilient foot 24 which serves to prevent marring of the surface upon which the device is mounted. By threading the screw into the wall 11 the lugs 20 of the shelves 15 are securely clamped in place.

Each shelf in its forwardly extending portion provides a finger aperture 25 which permits the fingers to have access to the sheets of paper in the storage compartment.

The manifolding and aligning or registering of the sheets of paper takes place upon a top plate 26 disposed in spaced relation with the uppermost of the shelves 15 and preferably inclined rearwardly or toward the wall 12 so that sheets of paper placed upon this top wall will gravitate into registration with respect to each other and thereby be self-aligning. The top edges 11' and 12' of the side and rear walls 11 and 12 respectively extend a predetermined distance above the top surface of the plate 26 and serve to retain the sheets of paper upon the plate 26 during the manifolding and registering operation.

To assist in the quick and convenient removal of the manifoldd sheets from the top plate 26 I provide thumb apertures 27 in the side walls 11 and the top plate 26. These apertures are designed in such a way as to direct the thumb of each hand in an upward and rearward direction which completes the alignment of the sheets along their side edges, and at the same time lifts the assembled sheets from the top plate 26. This action provides a natural and positive grip of the sheets between the thumbs and fingers at a point where the sheets are balanced in the hands and can not easily slip out of alignment as they are transferred to the typewriter.

An arrangement is provided whereby the rearward positioning of the sheets of paper on the manifolding plate 26 is limited according to the length of the sheets. In the preferred form of construction I provide in the top plate 26 one or more slots 28 which register with slots 29 formed in the shelves.

A shank 30 is adapted to project through the slots 28 and 29 and thereby limit the storage compartments to the storage of sheets of a predetermined length. This shank 30 terminates in a cross head 31 which serves to limit the positioning of sheets of a predetermined length upon the plate 26.

As a modified form of construction for the above purpose there may be provided an elongated shaft 32 which projects through registered openings formed in the shelves 15 and thereby serves the purpose of the shank 30. This shaft 32 is provided as an integral part of a finger button 33 by which it is conveniently manipulated.

The manifolding shelf or top 26 and the storage compartment are rectangular in plan view to conform to the shape of the sheets of paper, however, the side walls 11 and 12 may be given a streamlined effect and may be provided with ribs and beadings for purposes of appearance and reinforcing.

In Figs. 6 to 8 inclusive I have shown a modified form of construction. In this form of construction there is provided at the inner end of the bottom plate or shelf 34 an upwardly extending wall 35 substantially V shape in cross section to provide an inclined wall portion 36. To this wall portion 36 is hinged at 37 each of the shelves 38 of a construction substantially the same as the shelves 15.

An enclosure body 39' is provided including a

4

manifolding table 39 having thumb apertures 40 substantially similar to the plate 26 and thumb apertures 27 respectively of the form of my invention shown in Fig. 1.

This body is hinged as at 41 to the adjacent edge of the plate 34. At the opposite or outer end of the plate 34 is provided a snap structure 35' for releasably latching the enclosing body 39' in place over the shelves.

The outer or front end portions of the shelves are spaced from each other by upstanding spaced studs 42 carried by each shelf.

To complete this form of construction adjustable parts or fingers 43 are slidably carried by each shelf to properly locate the sheets in the compartments 44 according to the length of the sheet and to position the outer ends of the paper sheets upon the upturned ends 45 of the shelves in position for ready access by the user.

The device may be formed of such material as will best serve the purpose.

From the foregoing description it will be apparent that I have provided a device which will be highly efficient for manifolding sheet paper and one which will solve many of the difficult problems of a typist or stenographer which normally reside in the manifolding operation.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A device for the purpose described comprising an enclosure having connected bottom and side walls, a cover comprising an integral top and rear wall hinged to one end portion of the bottom wall to dispose said top wall a predetermined distance below the top edges of the side walls, said bottom wall at its one end portion adjacent the hinge connection extending upwardly parallel to said rear wall and bent back upon itself to provide an inclined wall with respect to said bottom wall within said enclosure, a plurality of superimposed shelves arranged between said side walls in parallel relation with respect to each other and having corresponding outer end portions extending upwardly and outwardly beyond said top and side walls, the opposite end portions of said shelves being hinged at predetermined spaced apart points to said inclined wall to dispose said exposed ends thereof in step relation with respect to each other, and means carried by said shelves for limiting the distance of projection of sheets of paper thereon within said enclosure.

2. A device for the purpose described comprising an enclosure having connected bottom and side walls, a cover comprising an integral top and rear wall hinged to one end portion of the bottom wall to dispose said top wall a predetermined distance below the top edges of the side walls, said bottom wall at its one end portion adjacent the hinge connection extending upwardly parallel to said rear wall and bent back upon itself to provide an inclined wall with respect to said bottom wall within said enclosure, a plurality of superimposed shelves arranged between said side walls in parallel relation with respect to each

5

other and having corresponding outer end portions extending upwardly and outwardly beyond said top and side walls, the opposite end portions of said shelves being hinged at predetermined spaced apart points to said inclined wall to dispose said exposed ends thereof in step relation with respect to each other, and means carried by said shelves for limiting the distance of projection of sheets of paper thereon within said enclosure, said last-named means comprising upwardly extending fingers slidably arranged in slots formed in said shelves adjacent their hinged connections to said inclined wall.

NORMAN C. SHELLMAN.

5

10

15

Number
 882,817
 1,544,920
 1,577,893
 1,702,987
 1,727,011
 1,861,310
 1,867,738
 1,890,143
 1,951,972
 2,052,348
 2,194,802
 2,276,121

6

References Cited in the file of this patent
 UNITED STATES PATENTS

Name	Date
Dorsey -----	Mar. 24, 1908
Manley -----	July 7, 1925
Campbell -----	Mar. 23, 1926
Wilson -----	Feb. 19, 1929
Heileman -----	Sept. 3, 1929
Liebendorfer -----	May 31, 1932
Fraser -----	July 19, 1932
Bales -----	Dec. 6, 1932
Fraser -----	Mar. 20, 1934
Gillette -----	Aug. 25, 1936
Low -----	Mar. 26, 1940
Thorn et al. -----	Mar. 10, 1942