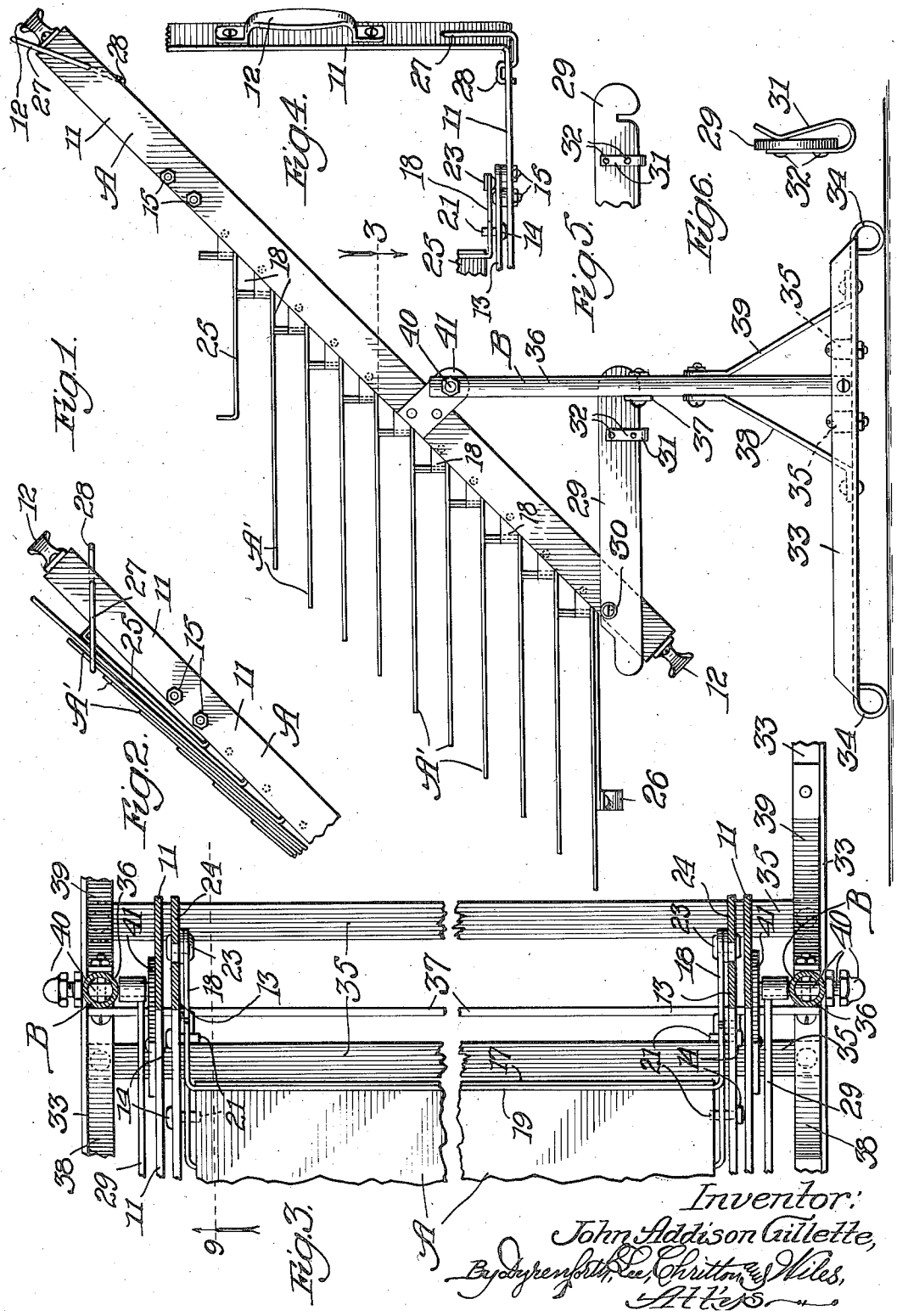
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COLLATING DEVICE

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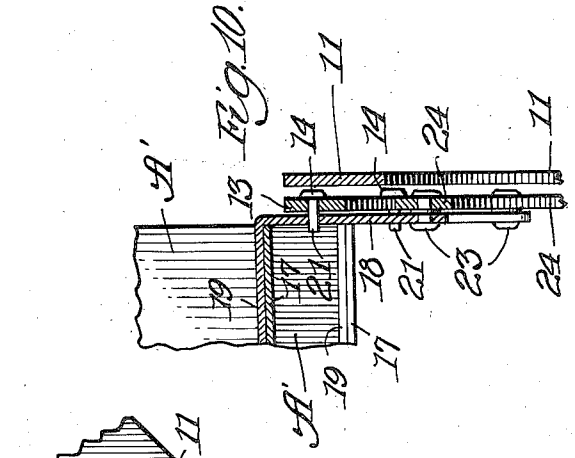


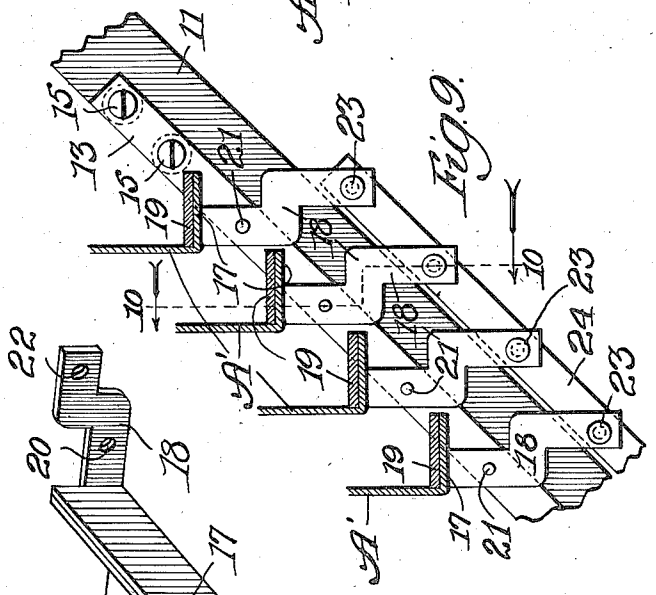
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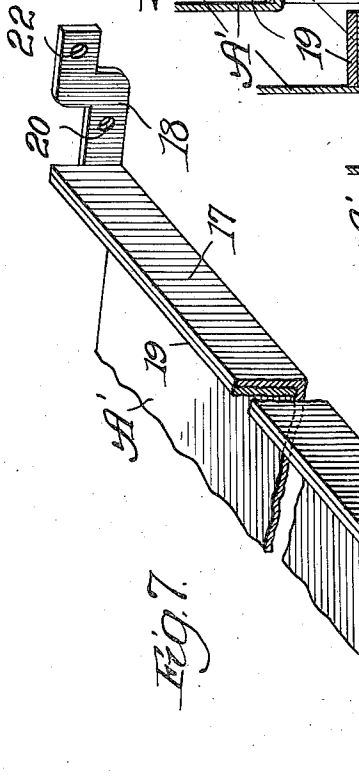
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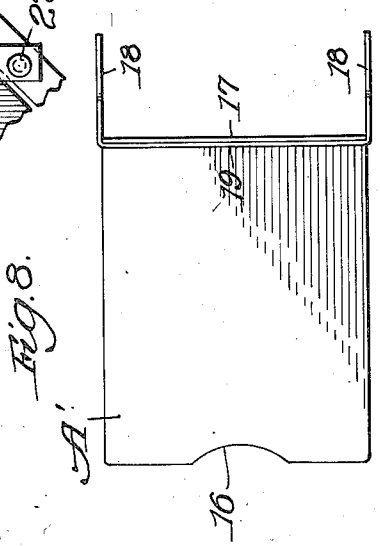
COLLATING DEVICE

Filed Oct. 23, 1935 2 Sheets-Sheet 2









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UNITED STATES PATENT OFFICE

2,052,348

COLLATING DEVICE

John Addison Gillette, Oak Park, Ill.

Application October 23, 1935, Serial No. 46,403

4 Claims. (Cl. 211—150)

This invention relates to a collating device for facilitating the assembly of a number of mimeographed sheets or the like, and more particularly to improved means for supporting a plurality of shelves in a device of this character in either extended or closed positions.

The primary object of the invention is to provide a substantial and durable device which may be folded up and occupy a minimum of space when not in use and yet be adapted to be extended into operative position, without difficulty.

The invention is illustrated in a preferred embodiment in the accompanying drawings in which—

Fig. 1 is a side elevational view of a device embodying the invention; Fig. 2, a broken elevational view showing the shelves in closed and latched position; Fig. 3, a broken plan sectional view taken as indicated at line 3 of Fig. 1; Fig. 4, a fragmentary plan view of the upper portion of the frame; Fig. 5, a broken elevational view of the rear end of a supporting link; Fig. 6, an end elevational view of the same; Fig. 7, a broken sectional view of the rear end of one of the shelves; Fig. 8, a plan view of the same; Fig. 9, a broken vertical sectional view taken as indicated at line 9 of Fig. 3; and Fig. 10, a broken sectional view taken as indicated at line 10—10 of Fig. 9.

In the embodiment illustrated, A designates a main frame provided with pivotally mounted shelves A'; and B a supporting structure.

The frame A is shown in the form of a rectangle made of a single strip of strap iron having its ends joined together at one end of the rectangle and provided at each end with suitable handles 12. To the inside of said frame are rigidly connected longitudinal straps 13 which are perforated and serve to clamp single headed studs 14 against the frame 11. The straps 13 are secured in place by means of bolts 15 and the studs 14 extend inwardly through the perforations and provide trunnions for pivotally supporting the shelves A'.

The shelves A', as shown in Figs. 7 and 8 may be made of sheet metal and are open at their front and side portions. If desired, the front edge portion may be provided with a suitable notch 16 to facilitate grasping sheets of stationery or the like resting thereon. Preferably the rear end of the shelf is turned upwardly as indicated at 17 and is connected by spot welding or the like to a pair of rearwardly extending arms 18 which may be described as S-shaped. These arms, if desired, may be integrally formed with a connecting member 19 which in turn is welded to the rear of the shelf. The lower portion of the arms 18 as shown in Fig. 7 are provided with perforations 20 which are impaled by the inwardly extending shank 21 of the capped studs. The other ends of the arms are provided with perforations 22 to receive rivets 23 and provide a pivotal connection with bars 24 which enable all of the shelves to be oscillated simultaneously into substantially the plane of the frame A as shown in Fig. 2 or be extended into the normal operative position indicated in Fig. 1. When in extended position each shelf above the bottom shelf rests on the top of the upturned rear portion 17 of the underlying shelf. This provides a stepped relation whereby each shelf is in partly superposed position and the shelves are readily accessible individually. The conformation of the arms 18 permits the shelves to be swung into the closed position indicated in Fig. 2 without interference. If desired, the top tray 25 may be mounted in a similar manner and is convenient to hold pencils, notes, or the like.

The bottom shelf is shown provided with an upwardly extending handle 26 which is convenient for moving all of the shelves simultaneously into extended or closed position. The frame is further provided at its upper end with a bail 27 having a downwardly extending arm 28 which prevents its being swung back farther than the position shown in Fig. 1. If the shelves A' are turned to the position shown in Fig. 2 and the frame swung from the inclined position shown, to a vertical position the bail will automatically drop down and latch the shelves in closed position so that there will be no danger of their opening accidentally.

The frame is further provided with a pair of links 29 which are pivotally connected to the frame at 30 and extend rearwardly to engage the supporting structure and hold the frame in inclined position. The links are shown provided with spring clips 31 which are riveted to the member at 32 and are adapted to snap over the frame 11 and prevent their being accidentally displaced when the device is folded up for storage.

The storage structure B may be of any suitable construction and is shown in the form of a pair of horizontal members 33 provided with feet 34 and rigidly connected with each other in spaced relation by means of a cross bar 35. A pair of tubular standards 36 are mounted on the members 33 and connected by a cross bar 37 and braced by a pair of members 38 and 39. The tops of the standards are provided with inwardly ex-

tending trunnions 40 which make a pivotal connection with downwardly extending ears 41 provided on the frame A.

As will be readily understood, the device is used to support groups of different pages and the operator may easily and quickly assemble a complete set by drawing one sheet from each shelf. To fold up the device the handle 26 is raised which will cause all of the shelves to swing to their closed position, and after the links 29 have been raised and snapped against the frame the frame may be tilted to vertical position which will cause the shelves to become latched by the bail 27 and the device may easily be carried to some out of the way position.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

I claim:

1. A collating device comprising: a supporting structure; a frame pivotally mounted in said structure provided with latching means for releasably holding said frame in inclined position; a plurality of laterally open shelves pivotally mounted in said frame so as to lie in substantially the plane of said frame when in closed position and when in extended position to lie in stepped relation with each shelf above the bottom resting on the upwardly extending rear edge portion of the adjacent underlying shelf.

2. A collating device comprising: a frame, a plurality of laterally open shelves having S-shaped rearwardly extending arms whose front legs are pivotally connected to said frame, and bars pivotally connected to the rear legs of said arms so that all of said shelves may be oscillated simultaneously from extended position into closed position with all of the shelves lying substantially in the same plane and the front legs of the arms coming into juxtaposition with the rear legs of the next succeeding arms.

3. A device as specified in claim 2, in which the frame is pivotally mounted in a suitable structure having means for holding said frame in inclined position, and said frame is provided with a bail pivotally mounted so as to automatically latch said shelves when the frame is swung upwardly with the shelves in closed position.

4. A device as specified in claim 2, in which the pivotal connections between the arms and frame comprise a plurality of studs having heads disposed between the side walls of the frame and longitudinal straps secured to said frame, said studs having inwardly directed shanks forming trunnions which impale said arms.

JOHN ADDISON GILLETTE.