R. T. BOURN.

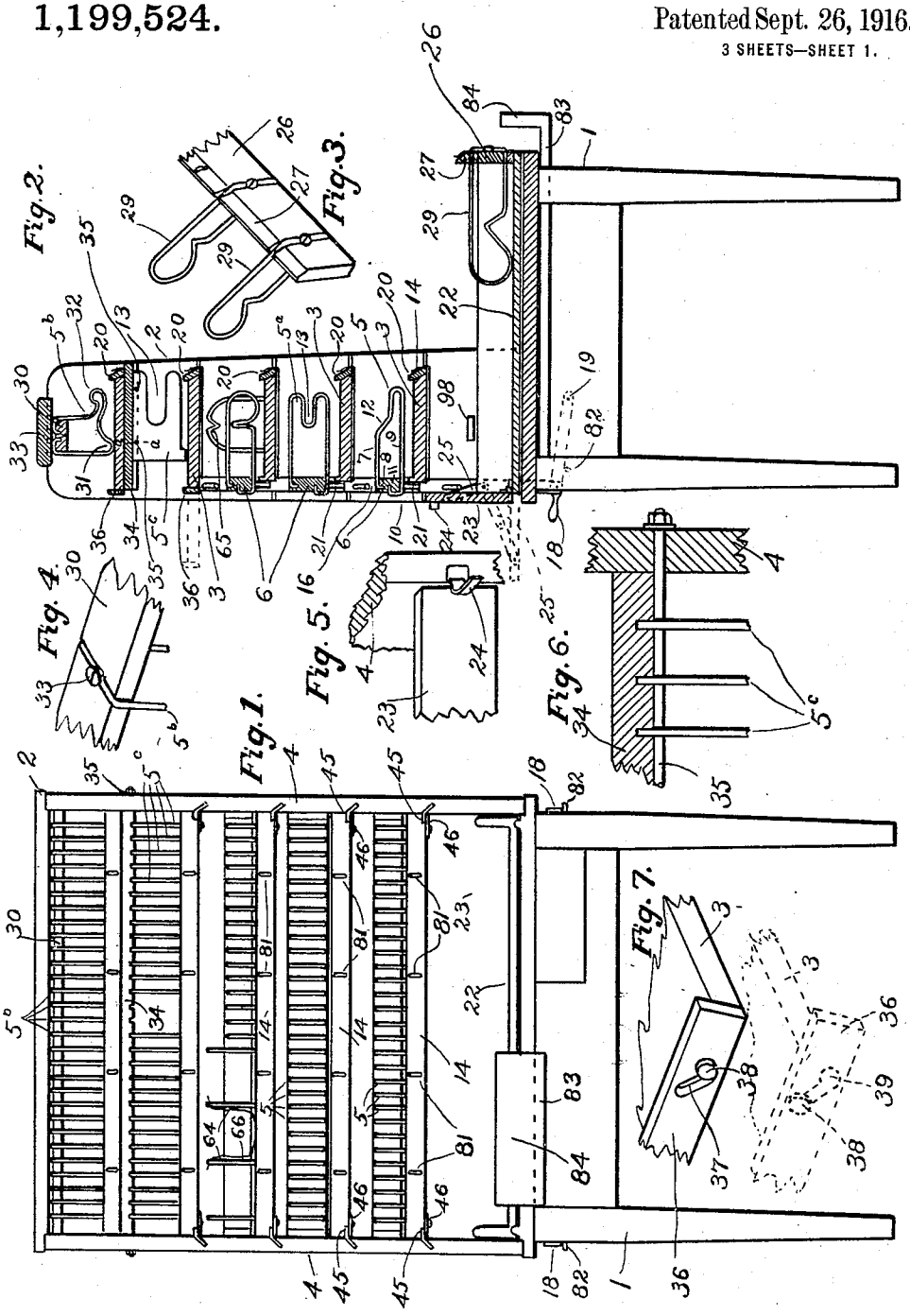
POST OFFICE FURNITURE.

APPLICATION FILED NOV. 5, 1913.

1,199,524.

Patented Sept. 26, 1916.

3 SHEETS—SHEET 1.



Witnesses.
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Robert T. Bourn.
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Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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3 SHEETS—SHEET 2.

Fig. 8.

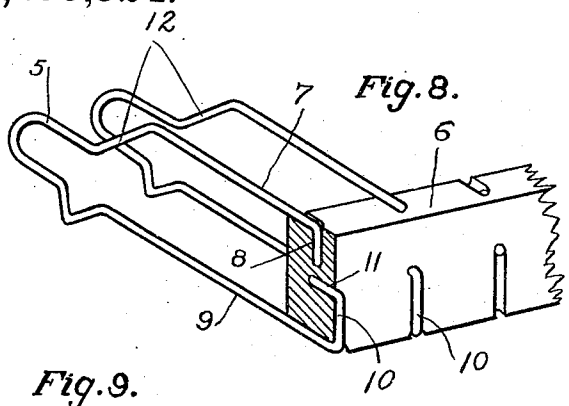


Fig. 10.

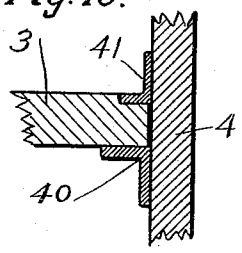


Fig. 9.

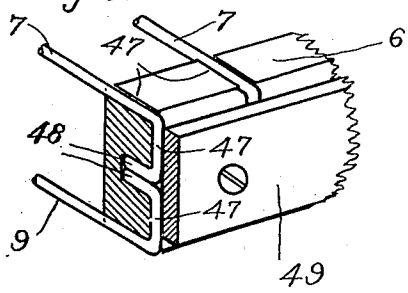


Fig. 11.

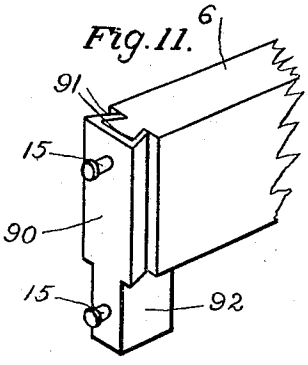


Fig. 12.

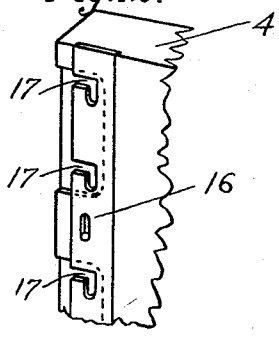


Fig. 13.

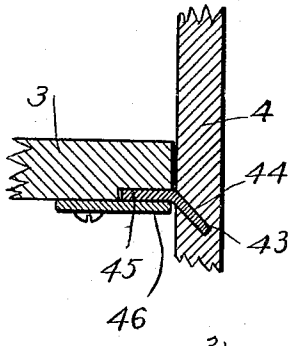


Fig. 14.

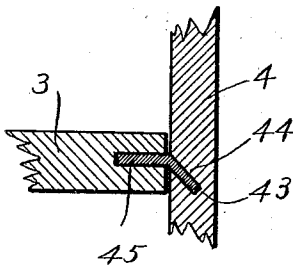
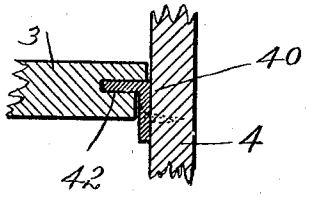


Fig. 15.



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3 SHEETS—SHEET 3.

Fig. 16.

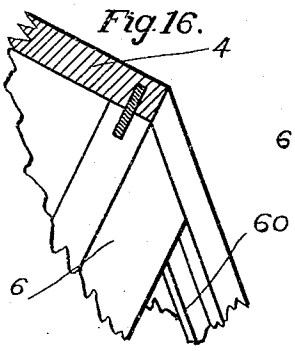


Fig. 17.

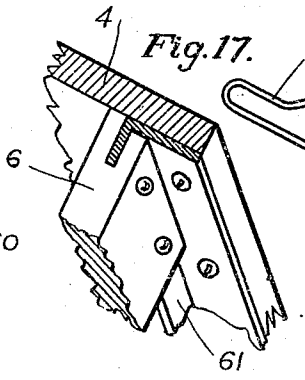


Fig. 18.

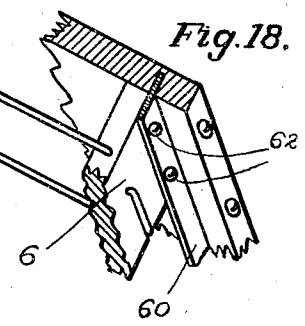


Fig. 19.

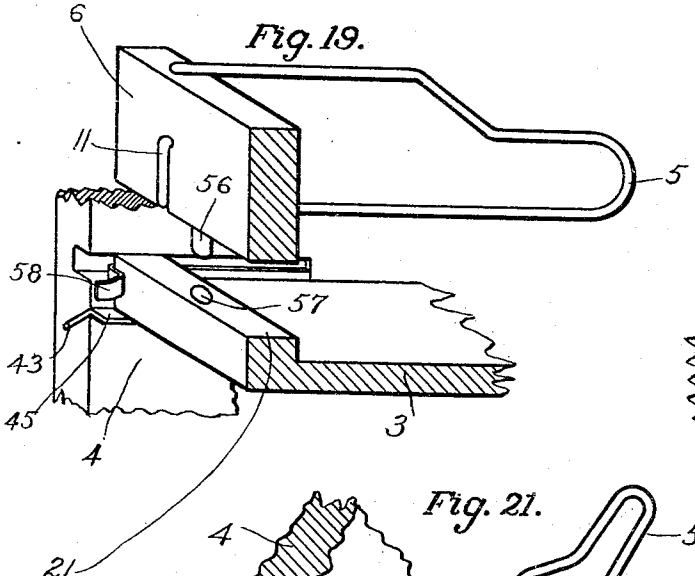


Fig. 20.

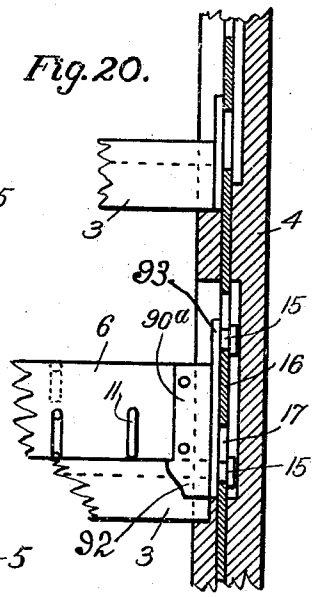
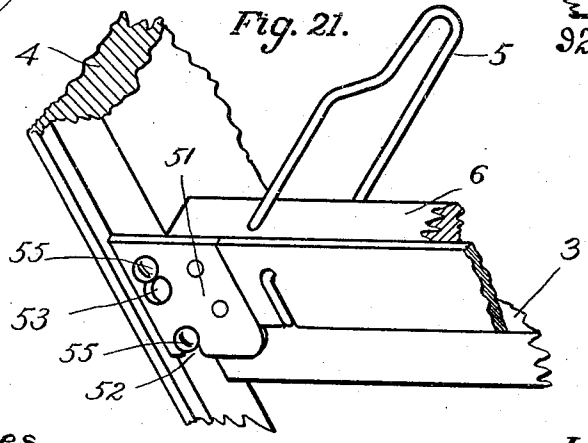


Fig. 21.



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UNITED STATES PATENT OFFICE.

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POST-OFFICE FURNITURE.

1,199,524. Specification of Letters Patent. Patented Sept. 26, 1916.

Application filed November 5, 1913. Serial No. 799,389.

To all whom it may concern:

Be it known that I, ROBERT T. BOURN, a citizen of the United States, residing at Templeton, county of Worcester, State of Massachusetts, have invented an Improvement in Post-Office Furniture, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to post-office furniture such as is used for sorting and routing up mail preparatory to its being delivered by the letter carrier.

The object of the invention is to provide an improved form of routing case by which the sorting and routing of the mail can be greatly facilitated, and which enables the post-office employees to save considerable time in the handling of the mail.

In order to give the proper understanding to the invention I have illustrated in the drawings some selected embodiments thereof, which I will proceed to describe.

The novel features of the invention will be pointed out in the appended claims.

Referring to the drawings, Figure 1 is a front view of a routing case made in accordance with my invention; Fig. 2 is a vertical sectional view through the routing case shown in Fig. 1; Fig. 3 is a detail perspective view of the device used for facing and sorting paper mail; Fig. 4 is a fragmentary perspective view of the partitions shown at the top of Fig. 2; Fig. 5 is a fragmentary detail view of the lock for the back of the table top; Fig. 6 is an enlarged sectional view on substantially the line *a*—*a*, Fig 2; Fig. 7 is a fragmentary perspective view showing the letter stop on the delivery side of the shelves; Fig. 8 is a fragmentary perspective view showing a shelf back with wire partitions supported thereby; Fig. 9 is a similar view showing a different embodiment of the invention; Fig. 10 is a fragmentary sectional view showing one form of shelf support; Fig. 11 is a detail fragmentary perspective view of the end of the shelf back; Fig. 12 is a detail view showing the locking trip for the shelf back; Figs. 13, 14 and 15 are sectional views showing different forms of shelf supports; Figs. 16, 17 and 18 are detail views showing different ways of securing the shelf back to the case; Fig. 19 is a fragmentary perspective view of a portion of a shelf and shelf back showing one embodiment of my invention; Fig. 20 is an enlarged sectional view on the line *b*—*b*, Fig. 2, showing the locking strip for the shelf back; Fig. 21 is a fragmentary perspective view of a shelf and shelf back showing another embodiment of my invention.

The device herein shown comprises a table 1 of some suitable or usual construction on which the mail is received while it is being sorted, and a routing case 2 which is situated above the table 1 and is provided with partitioned shelves on which the mail is placed as it is sorted. These shelves are shown at 3 and they are sustained by end uprights 4 of the routing case, as usual in post-office furniture of this character.

One of the objects of my invention is to provide a carrier's desk of the above-described type which is so constructed that the mail can be inserted into the compartments of the shelves from one side of the case 2 and can be removed from the case from the opposite side thereof. The advantage of this construction is that the mail can be sorted and loaded into the routing case by clerks in the post-office while the carriers are out on duty, and when the carriers return from one trip they can withdraw the sorted mail from the opposite side of the routing case and start out immediately on a second trip. This enables a considerable saving to be effected in the handling of the mail.

In order to provide a construction of routing case which permits the mail to be removed from the shelves on the opposite side of the case from that in which the mail is delivered to the shelves, several constructional features are necessary. If the shelves are provided with backs which support the partitions, it is necessary to provide for removing the backs to permit the mail to be withdrawn from the shelves. If, however, no backs are employed, then means must be provided for preventing the mail from being pushed through the case when it is being placed in the various compartments.

In Fig. 2 I have shown some of the partitions as secured to backs which are removable from the case, and other partitions as suspended from above the shelf. On the lower shelves in Fig. 2 the partitions are secured to backs and I have illustrated two

or three different types of partitions which may be used. On the lower shelf I have shown a partition 5 formed of wire, the partitions being secured to a back 6 which extends the length of the shelf. The upper leg 7 of the partition 5 has its rear extremity 8 downturned and entering a recess in the top of the back 6. The lower leg 9 of the partition extends beneath the back 6, the latter preferably being provided with a groove to receive the wire, and is upturned, as at 10, to overlie the back of the casing, the extremity 11 of the wire being bent inwardly to enter a recess in the back face of the back. This construction is clearly shown in Fig. 8, and the advantage of it is that any partition can be readily removed from the back by simply raising the upper leg thereof out of engagement with the back and then pushing the partition rearwardly to disconnect the portion 11 thereof from its recess in the back. The grooves in the top or the bottom of the back 6 serve to hold the wires firmly in their proper position.

The partitions shown in Fig. 8 and at the lower shelf in Fig. 2 are provided with the upwardly-inclined portion 12 between the front and back thereof which serves to guide the letters in an upright position as they are inserted in place.

The partitions 5^a shown in Fig. 2 are also made of wire but are shaped to present at their front end the finger openings 13 which provide access to the mail in the compartments in case it is desired to withdraw it. In other respects this partition 5^a is similar to that shown in Fig. 8.

The shelves 3 are provided on their edges with routing strips 14 as usual in devices of this nature, which routing strips guide the person in making the proper routing of the mail. As stated above, my improved carrier's desk is one which permits the mail to be removed from the opposite side of the case from that in which it is inserted and this requires that the backs 6 should be removable. This may be provided for in any suitable way without departing from the invention. One convenient construction is that shown in Figs. 2, 11, 12 and 20 wherein the backs 6 are provided at their ends with headed studs 15 that coöperate with locking strips 16 secured to the sides 4 of the case 2. These locking strips 16 are provided with L-shaped slots 17, as shown clearly in Fig. 12, said slots being properly spaced to receive the studs 15 on the backs 6. The backs are inserted in position by entering the studs 15 into the horizontal portion of the slots 17 and then giving the backs and the locking strips 16 a relative vertical movement to bring the studs into the vertical portions of the slots. The above-described relative vertical movement can be given either by moving the backs vertically or by moving the locking strips 16. If the locking strips 16 are rigidly secured to the uprights 4, then the backs may be placed in position by entering the studs 15 into the horizontal portions of the slots, and then dropping the backs to bring the studs into the vertical portions of the slots. The locking strips 16 may be movable vertically to provide for the locking and unlocking of the backs and this is a construction shown in Fig. 2. For moving the locking strips they are extended down below the table top and are pivoted to operating levers 18 which in turn are pivoted to the table, as at 19, said levers providing means for raising and lowering the strips, as will be obvious.

82 are removable stops to hold the levers 18 and locking strips 16 in their elevated positions.

It will be understood that the backs 6 for the shelves are constructed to be removed from the left-hand side of the case in Fig. 2. In using the device as thus far described the mail to be sorted and routed is placed on the table 1 and is delivered to the shelves 3 as it is sorted, the partitions 5, 5^a, etc., being in position during this sorting process. After the mail is sorted and routed the carrier can remove the shelf backs 6 with the partitions secured thereto and can then draw the shelves outwardly on the left-hand side of the routing case in Fig. 2, this being the side opposite to that at which the mail was delivered to the case, thereby making the mail accessible to be bundled up in usual way.

In order to insure that the mail will be retained on the shelf when the latter is drawn into the dotted line position Fig. 2, I propose to provide the edge of the shelf at that side of the case from which the mail is loaded onto the shelves (and which I will hereinafter refer to for convenience as the "loading" side) with a letter stop or ledge adapted to engage the lower edges of the letters and compel them to move forwardly with the shelf. This letter stop or ledge is shown at 20 and may be made in any suitable or approved way. I have also shown each shelf 3 as provided on the opposite or unloading side with a letter stop or ledge 21 which operates to hold the letters on the shelves in case they are withdrawn from the case 2 on the loading side.

In order to provide a convenient support for the mail after it has been removed from the shelves 3 and while it is being bundled up by the letter carrier, I propose to make the top of the table 1 with an extension which is located on the unloading side of the case 2 and on which the mail may be laid while it is being bundled up. The construction which I prefer is one in which the extension is a foldable one so that when folded up the desk will occupy a small space. In

the illustrated embodiment of the invention the table 1 is provided with a table top 22 having sufficient area to receive the mail which is to be sorted, and this top 22 has hinged to its unloading side an extension 23 which may be turned up into a vertical position, shown in Fig. 2, thereby to form a back for the table, or may be turned down into horizontal position, as shown in dotted lines Fig. 2 to provide a support for the mail as it is taken from the shelves 3. I have shown a spring catch 24 for locking the extension 23 in vertical position, said catch being accessible for operation from the unloading side of the carrier's desk. While any suitable means may be employed for holding the extension 23 in its horizontal position, I have herein illustrated for this purpose a pair of folding links 25 which are pivoted to the extension and to the sides 4, respectively. The table top 22 will also preferably be slidably mounted on the table so that it can be drawn bodily toward the unloading side of the table thereby to provide greater room for receiving the routed mail from the shelves than that afforded merely by the extension 23.

In order to assist the carrier in sorting and routing the paper mail, I propose to use a routing device which can be placed on the table top 22 and which divides said table top into compartments for receiving the mail as it is sorted. This routing device comprises a member 26 having a beveled edge 27 to receive a routing strip and provided with a plurality of partitions or divisions 29 which may be made of wire or any other suitable material and which extend laterally from the member 26. This routing device is placed on the table top 22 with the partitions 29 directed inwardly from the edge of the table, as shown in Fig. 2, and it furnishes a very convenient device for holding the individual pieces of paper or package mail in their proper positions during the routing operation.

I have shown on the upper two shelves in Fig. 2 partitions which are suspended from above, but which are not fastened to a shelf back as is the case with the partitions on the shelves below. The partitions for the upper shelf which are designated 5^b are shown as made from wire and are suspended from a cross piece 30 extending from one upright 4 to the other. These wire partitions 5^b are formed with the heel portion 31 which is situated closely adjacent the shelf, and with the toe portion 32 which projects forwardly and is located a slight distance above the shelf. The heel portion 31 prevents any letters from sliding under the partitions from one compartment to another. These partitions are shown as secured to the supporting strip 30 by passing the ends of the wire up over the top of the strip and then bending said ends downwardly to enter a recess in the top face of the strip. The ends of the wire are held in the strip by means of a screw 33. The shelf next below the top is provided with sheet metal partitions 5^c which are secured to and suspended from a supporting member 34 situated directly underneath the top shelf. These partitions 5^c are held in place by having their upper edges inserted into grooves formed on the underside of the supporting member 34, as best seen in Fig. 6, and the supporting member 34 is held in its proper position by tie rods 35 which extend from one upright 4 to the other and pass through the various partitions. The partitions 5^c are shown as formed with the finger openings 13.

Where the stationary partitions 5^b or 5^c are employed I propose to make them with a stop to engage the ledge 20 of the shelf, thereby to limit the withdrawing movement of the shelf. In the case of the shelves that are used with the removable backs 6, said shelves can be withdrawn entirely from the case 2 and laid on the table extension while the mail is being bundled up; but where the shelves are not capable of being entirely withdrawn from the casing, it is desirable to provide a ledge at the unloading side of the shelf which can be moved out of its operative position so as to facilitate the removal of the mail from the shelf. In Fig. 7 I have shown a ledge of this nature which comprises a strip or plate 36 and means for holding said plate on the shelf either with its upper edge sufficiently above the level of the shelf to constitute the desired stop, or in a position flush with the top of the shelf, as shown in dotted lines, Fig. 7. The means herein shown for this purpose comprises inclined slots 37 formed in the plate 36 through which extend headed studs or screws 38. The lower ends of the slots are provided with the recesses 39 that are shaped to receive the studs 38 when the plates are elevated, said recesses having such a shape as to hold the plate in its elevated position. This is the position it occupies when the mail is being placed on the shelves from the loading side. When the mail is to be withdrawn from the shelves the plates 36 are moved laterally to carry the studs 38 out of the recesses 39 when the plates will gravitate to their lowered position shown in dotted lines Fig. 7 with the top edge flush with the top of the shelf.

The shelves may be supported in the case 2 in any appropriate way. In Figs. 10, 13, 14 and 15 I have shown different constructions embodying the invention. In Fig. 10 the shelf 3 is shown as supported on an angle-iron runner or guide 40 which is secured to the upright 4. In this figure also a second guiding member 41, preferably of angle shape, is secured to the upright 4 and en-

gages the top of the shelf, the purpose of the guiding member 41 being to prevent the shelf from tipping down when it is partially withdrawn. In Fig. 15 I have shown a construction wherein the angle-iron member 40 operates in a groove 42 formed in the edge of the shelf 3, and with this construction the tongue-and-groove connection will prevent the shelf from tipping when it is withdrawn. In Figs. 13 and 14 I show a construction wherein the shelf is supported on a runner or guide member having the inclined portion 43 that is received in an inclined groove or saw-kerf 44 formed in the upright 4. This runner is shown as having the horizontally-extending part 45 which may either enter a groove formed in the edge of the shelf 3, as shown in Fig. 14, or may engage the bottom of the shelf, as shown in Fig. 13. If the latter construction is employed a guard member 46 will preferably be secured to the under side of the shelf, which guard member will engage the under side of the shelf support 45, and thus prevent the shelf from tipping when it is withdrawn.

In Fig. 9 I have shown a slightly different way of securing the wire partitions 5 to the back 6. In this embodiment of the invention both legs 7 and 9 of the wire partition extend through grooves, formed in the top and bottom of the back 6 and are bent laterally to overlie the back, as at 47, and the extremity of each leg is bent inwardly, as at 48, to enter a recess formed in the back side of the back. The partitions are secured to the back by a clamping strip 49.

In Fig. 21 I have shown another embodiment of my invention relating to the removable back. In this construction the removable back has secured to each end thereof a locking plate 51 which is provided at its lower edge with a notch 52 and near its upper portion with a key-hole slot 53. The uprights 4 are provided with headed studs 55 which coöperate with the notch 52 and slot 53 in locking the back in position. This back can be removed by lifting it sufficiently to bring the head of the stud 55 in line with the largest portion of the key-hole slot, and then moving the back rearwardly.

In Fig. 19 I have shown another embodiment of the invention wherein the backs 6 are held to the shelves 3 by means of dowel-pins 56 that are adapted to enter recesses 57 formed in the shelf. In this embodiment the back is locked to the shelf rather than to the uprights 4. The shelf in Fig. 19 is shown as locked in its normal position by means of a spring catch 58 which can be readily withdrawn whenever the shelf is to be pulled out.

In Figs. 16, 17 and 18 I have shown some other embodiments of my invention which illustrate a construction in which the shelf back is non-removable. In Fig. 16 the upright 4 is provided with a rib 60 extending vertically thereof and the shelf backs 6 are provided with grooves in their ends which receive the rib. This rib is shown in the form of a metal strip set into the inner face of the upright 4. In Fig. 17 the upright 4 has secured to its inner face an angle-iron 61, one leg of which constitutes a rib that enters the groove in the end of the shelf back 6. In Fig. 18 a construction similar to that shown in Fig. 16 is employed except that the shelf back is situated entirely in front of the rib 60 and is secured thereto by screws 62. In the construction shown in Figs. 16 and 17 the shelf back may be secured to the rib by suitable screws if desired.

In Figs. 1 and 2 I have also shown one of the shelves 3 as having enlarged compartments formed between the wire partitions 64. These compartments are designed to receive large mail, or may be used for the mail of some concern which has a very large mail. The partitions 64 are shown as provided in their upper edges with V-shaped notches 65 adapted to grip a cord or string 66 which may be laid in the compartment and used to bundle up the mail therein, the ends of the string 66 being firmly held in the notches 65 while the mail is being placed in the compartments.

The ends of the shelf backs 6 will preferably be incased in a metal member to which the pins 15 are secured. In Fig. 11 this metal end piece is shown at 90 and it is formed from sheet metal which is struck up so as to present the two sides 91 that are shaped to form between them a dove-tailed groove in which a dove-tailed rib formed on the end of the shelf back 6 is received. The member 90 extends below the shelf back, as shown at 92, and this projecting portion 92 constitutes a shelf stop which limits the movement of the shelf toward the left Fig. 2 when the back is in position. It will be noted that there are two pins or studs 15 in each shelf back, and I propose to place the lower stud at the projection 92. The advantage of this construction is that any blow which may be received against the shelf stop 92 by the shelf will be transmitted directly to the casing through the lower stud 15.

In Fig. 20 I have shown a little different embodiment of my invention wherein the metal end member is shown at 90^a and is made from a casting which presents a backing 93 to which the studs 15 are secured. These studs may be either cast integral with the member or riveted thereon. This member 90^a also extends below the shelf back, as shown at 92, to form a shelf stop.

While I have illustrated herein some embodiments of my invention, I do not wish to be limited to the constructional features shown.

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

1. In post-office furniture, the combination with a table, of a routing case situated above the table and comprising uprights, shelves supported by said uprights, and partitions dividing the shelves into compartments which are open on one side of the routing case for the insertion of mail, said shelves being capable of being withdrawn from the opposite side of the case and said opposite side of the case being unobstructed to permit of such withdrawal whereby the mail may be removed from said opposite side.

2. In post-office furniture, the combination with a table, of a routing case situated above the table and comprising uprights, shelves supported by said uprights, and partitions supported independently from the shelves and dividing the shelves into compartments which are open on one side of the routing case for the insertion of mail, said shelves being capable of being withdrawn from the opposite side of the case to permit the mail to be removed from said opposite side.

3. In post-office furniture, the combination with a table, of a routing case situated above the table and comprising uprights, shelves supported by said uprights, and partitions dividing the shelves into compartments which are open on one side of the routing case for the insertion of mail, said shelves being withdrawable from said case at either side and both sides of the case being unobstructed to permit of such withdrawal.

4. In post-office furniture, the combination with a table, of a routing case situated above the table and comprising uprights, shelves supported by said uprights, and partitions supported independently of the shelves and dividing them into compartments which are open on one side of the routing case for the insertion of mail, said shelves being withdrawable from said case at either side, and means to prevent the mail which is being inserted into the compartments from passing through to the opposite side of the case.

5. In post-office furniture, the combination with a table, of a routing case situated above the table and comprising uprights, shelves supported by said uprights, and partitions dividing the shelves into compartments which are open on one side of the case for the insertion of mail, said shelves being withdrawable from the opposite side of the case, and means associated with the shelves on the loading side to engage the mail and compel it to be withdrawn with the shelf.

6. In post-office furniture, the combination with a table, of a routing case situated above the table and comprising uprights, shelves supported by said uprights, and partitions dividing the shelves into compartments which are open on one side of the routing case for the insertion of mail, said shelves being withdrawable from the opposite side of the case, each shelf having a letter stop or ledge on its loading edge.

7. In post-office furniture, the combination with a table, of a routing case situated above the table and comprising uprights, shelves supported by said uprights, and partitions dividing the shelves into compartments which are open on one side of the routing case for the insertion of mail, said shelves being withdrawable from said case at either side and having on each edge thereof a letter stop.

8. In post-office furniture, the combination with a table, of a routing case situated thereabove, shelves sustained by said routing case, and removable from the back side thereof, removable backs for the shelves, and partitions sustained by said backs and dividing the shelves into compartments.

9. In post-office furniture, the combination with a table, of a routing case situated thereabove, shelves sustained by said routing case, removable backs for the shelves, and partitions sustained by said backs and dividing the shelves into compartments, said backs having projections extending from their ends and locking plates secured to the case for removably engaging said projections.

10. In post-office furniture, the combination with a table, of a routing case situated thereabove and comprising uprights, shelves supported by said uprights, a removable back for each shelf, partitions sustained by said back, each back having at each end thereof projections, locking plates in the uprights having slots to removably engage said projections, and means to shift the plates thereby to unlock or lock the backs.

11. In post-office furniture, the combination with a table, of a routing case situated thereabove, and comprising uprights, shelves supported by said uprights, and partitions dividing the shelves into compartments which are open on one side for the reception of mail, said shelves being withdrawable from the case at either side and said table top having on the opposite side a hinged extension adapted to be swung into vertical position to form a back.

12. In post-office furniture, the combination with a table, of a routing case situated thereabove and comprising uprights, shelves supported by the uprights, and partitions dividing the shelves into compartments which are open on one side of the case for the insertion of mail, said shelves being withdrawable from the opposite side of the case and said table having a top provided

with a foldable extension on said opposite side of the case.

13. In post-office furniture, the combination with a table, of a routing case situated thereabove and comprising uprights, shelves supported by the uprights and partitions dividing the shelves into compartments which are open on one side of the case for the insertion of mail, said shelves being withdrawable from the opposite side of the case and said table having a top provided with a hinged back adapted to swing from the vertical position into horizontal position in line with the table top.

14. In post-office furniture, the combination with a table, of a routing case situated thereabove and constructed to receive mail from one side and to permit the mail to be delivered from the opposite side, said table having a table top movably mounted on the table so as to be projected a greater or less distance on either side of the assorting case, and said top having an extension hinged thereto on the delivery side of the case which is adapted to be swung up into vertical position to form a back.

15. In post-office furniture, the combination with a table, of a routing case sustained thereby and a paper-routing device movably sustained by the table, said device comprising a member 26 having a beveled routing-strip-receiving member, and a plurality of partitions extending laterally therefrom.

16. In a device of the class described, the combination with a frame having shelves, of partitions dividing the shelves into compartments, some at least of said partitions having string-gripping means at their upper edges.

17. In a device of the class described, the combination with a frame having shelves, of partitions dividing the shelves into compartments, some at least of said partitions having V-shaped string-gripping notches in their upper edges.

18. In post-office furniture, the combination with a frame, of shelves movably supported thereby, and backs for the shelves, each back having at each end a depending projection to constitute a shelf stop.

19. In post-office furniture, the combination with a frame presenting two uprights, of shelves movably supported by said uprights, backs for the shelves, each back having at each end thereof a metal end member which incloses the end of the back, each end member presenting a portion which projects below the shelf back and constitutes a shelf stop.

20. In post-office furniture, the combination with a frame presenting two uprights, of shelves movably supported by said uprights, backs for the shelves, each back having at each end thereof a metal end member which incloses the end of the back, each end member presenting a portion which projects below the shelf back and constitutes a shelf stop, studs extending from the metal members, and locking strips sustained by the uprights and having locking engagement with the studs.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ROBERT T. BOURN.

Witnesses:
LOUIS C. SMITH,
THOMAS J. DRUMMOND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."