No. 852,304. PATENTED APR. 30, 1907.

W. A. TILLEY.

LETTER CASE.

APPLICATION FILED NOV. 6, 1906.

3 SHEETS—SHEET 1.

Fig. 1.

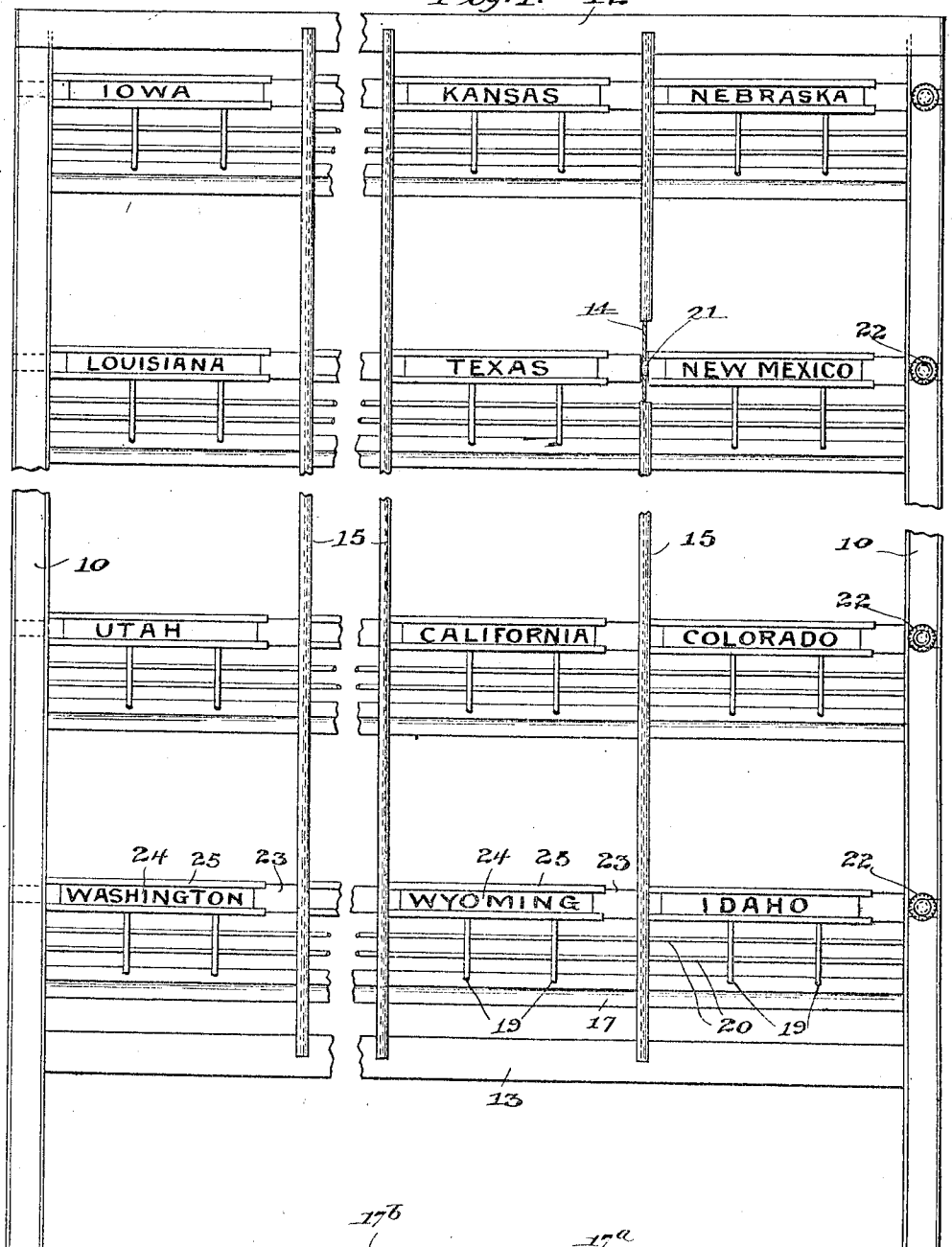
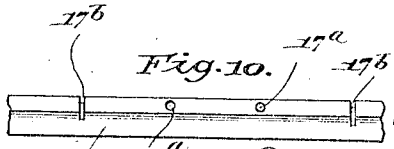


Fig. 10.



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3 SHEETS—SHEET 2.

Fig. 2

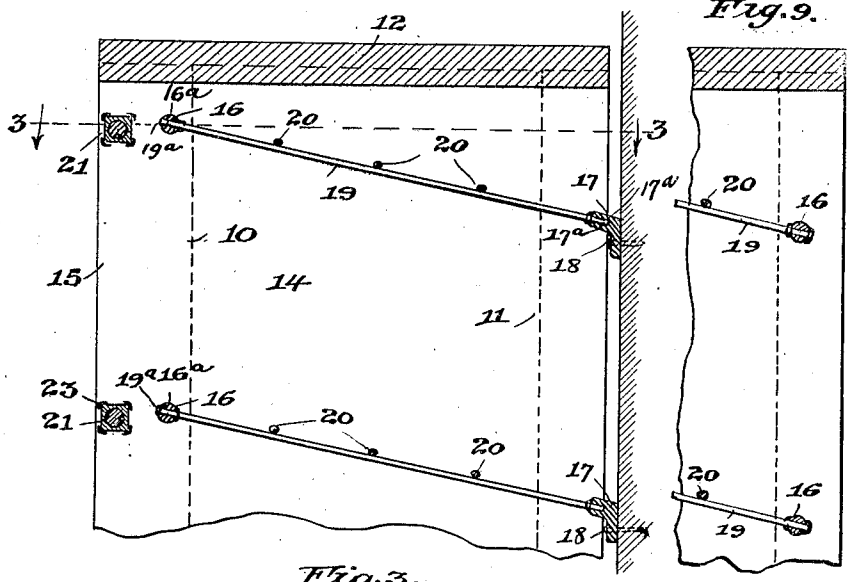
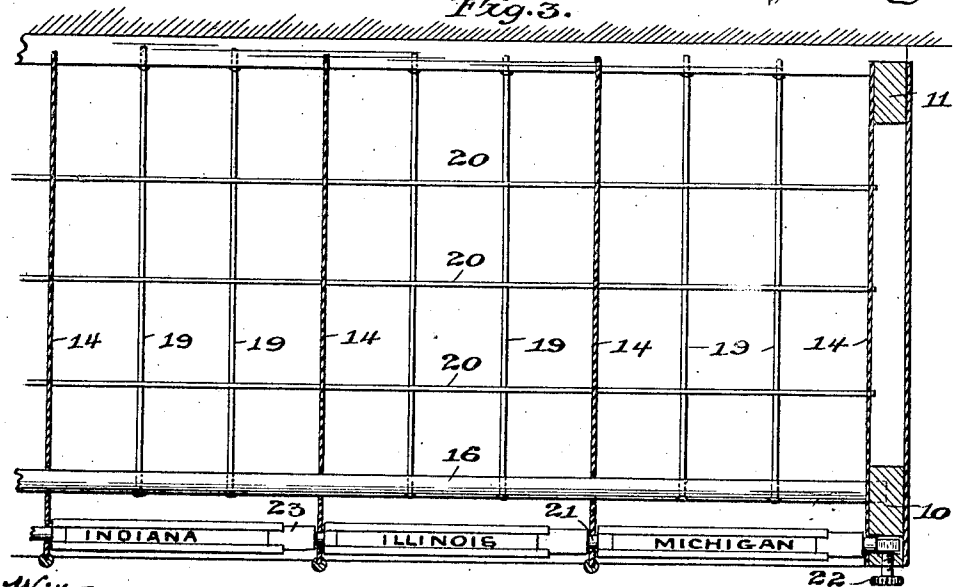


Fig. 9.

Fig. 3.



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3 SHEETS—SHEET 3.

Fig. 4.

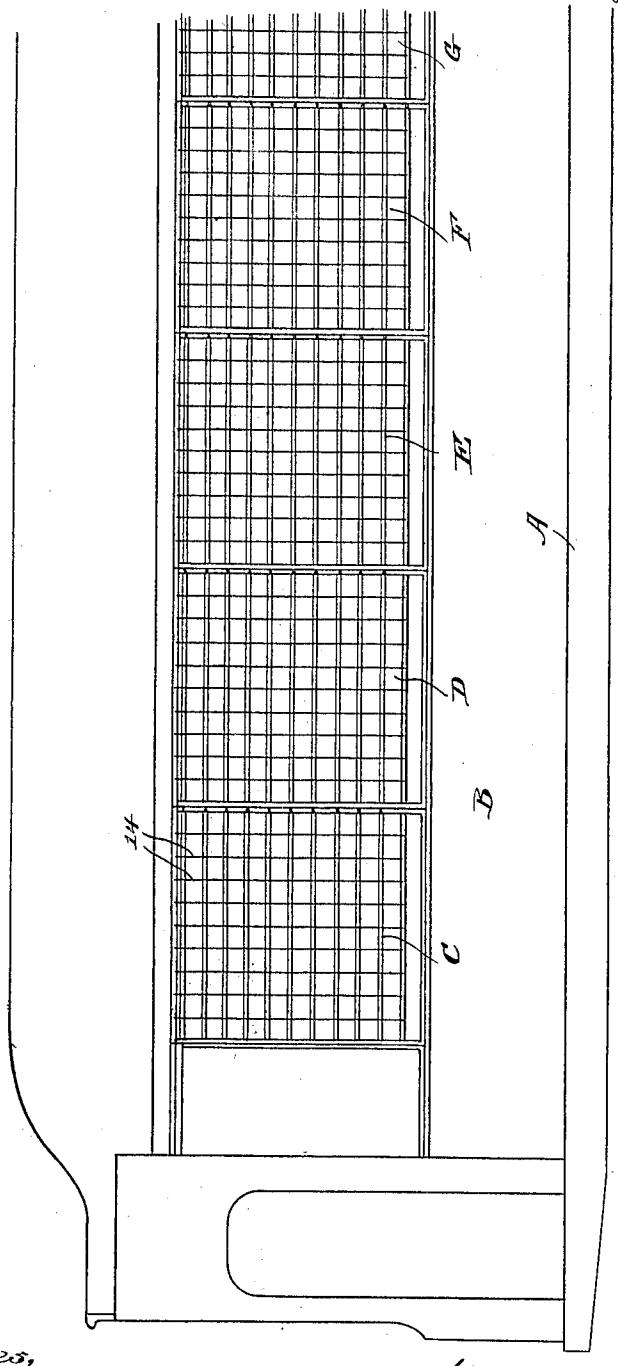


Fig. 5.

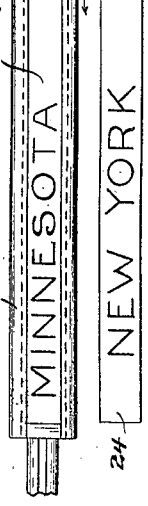


Fig. 6.

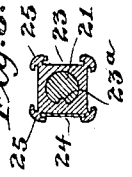


Fig. 7.

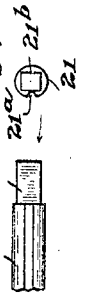


Fig. 8.

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UNITED STATES PATENT OFFICE.

WILLIAM A. TILLEY, OF SAN FRANCISCO, CALIFORNIA.

LETTER-CASE.

No. 852,304. Specification of Letters Patent. Patented April 30, 1907.

Application filed November 5, 1906. Serial No. 342,059.

To all whom it may concern:

Be it known that I, WILLIAM A. TILLEY, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, and temporarily residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Letter-Cases, of which the following is a specification.

This invention relates to the subject of letter cases, being more particularly, although not exclusively, adapted for postal cars of that type in which the mail is distributed *en route*, and has reference more particularly to improvements in the letter-cases in which the mail is distributed for subsequent delivery at various points along the line and beyond, or on connecting lines.

The modern trend in railway practice toward a replacement of the present wooden cars for steel cars, in passenger and mail service, as well as in freight service, is accompanied by a tendency also to substitute metal parts for wooden in the furnishings of the cars in so far as possible, with a view to rendering the entire equipment practically fireproof, and by the substitution of metal for wooden parts and furnishings minimize the damage from ordinary wear and tear, thus adding to the life of the car and lessening its cost in the long run.

My present invention is of the latter type; and consists partly of a new and improved construction wherein thin sheet metal vertical partitions are employed in combination with label-holders of a construction designed to stiffen and brace said partitions, and partly in a novel construction wherein the rear supporting strips for the horizontal partitions are designed to be secured to the wall of the car, thus performing the additional function of securing the letter-case to such wall.

Figure 1 is a front elevational view, broken out between its ends, of a letter-case embodying my present improvements; Fig. 2 is a vertical cross-sectional view through one of the letter-boxes; Fig. 3 is a horizontal sectional view on the line 3—3 of Fig. 2; Fig. 4 is an interior view of a portion of one side of a postal car, illustrating the sectional arrangement of the letter-case and omitting, for the sake of clearness, the other usual accessories; Fig. 5 is a side elevational view of a section of the label-holder; Fig. 6 is a cross-sectional view on the line 6—6 of Fig. 5; Fig. 7 is an end view of the spindle on which the label-holders are mounted; Fig. 8 is a plan or face view of a label detached; Fig. 9 illustrates a slight modification adapted to be employed in such cases as do not permanently engage a side or other wall of the car; and Fig. 10 is a side view of an angle-bar used in one form of the device.

I preferably construct my improved letter-case in a plurality of individual duplicate sections disposed along the side walls and across the corners and ends of the car, for convenience in replacing injured or damaged parts of the case when necessary. Referring, then, to an individual section, 10 and 11 may represent, respectively, front and rear upright metal strips or corner posts that are connected at their upper ends by a metal top plate or cover 12, and near their lower ends by front and rear cross-strips 13, thus forming a skeleton frame marking the outlines or boundaries of the case section.

14 designates each of a series of vertical sheet metal partitions that extend from front to rear of the case, said partitions preferably at their upper ends fitting into narrow grooves or mortises in the upper and lower cross-members 12 and 13, as clearly shown in Fig. 1. The front edges of said partitions are preferably enlarged and rounded, as by fitting a rounded bead 15 thereon (Fig. 3), which construction stiffens the partitions, but has for its principal purpose or function to prevent possible injury to the hand of the operator in tossing the letters into or removing them from the boxes.

The bottoms of the boxes, which are preferably downwardly inclined rearwardly slightly, in accordance with present practice, to prevent danger of accidental displacement of mail matter therefrom through lateral vibration of the sides of the car, are made of crossed wires, as follows. 16 designates each of a series of round rods or bars that extend between the opposite side walls of the case passing through apertures in the partitions 14 and supported at their ends in the posts 10. 17 (Figs. 2 and 10) designates each of a series of angle-strips that are secured horizontally to the side wall of the car, as by the screws 18, the projecting flanges of such angle-strips having at intervals transverse kerfs 17^b to receive and stiffen the rear vertical edges of the partitions 14, as clearly shown in Fig. 2; and said projecting flanges

also have formed therein at intervals apertures 17ª. The rod 16 is provided at corresponding intervals with holes 16ª, through which are passed wires 19, the lower and rear ends of which are inserted into the aperture 17ª of the angle-strips 17, in the manner clearly shown in Fig. 2, and secured therein by a drop of solder, or otherwise. The upper and forward ends of the wires 19 may be similarly secured in the holes 16ª so as to prevent the wires from pulling through said holes and at the same time present a smooth exterior surface on the rod 16. Overlying the wires 19 at right angles thereto and passing through apertures in the partitions 14 are a series of longitudinal wires 20; the wires 19 and 20 thus providing a reticulated form of bottom for the individual boxes of the case. The wires 19 may either underlie or overlie the wires 20; but the relative arrangement shown is preferred for the reason that the operator in distributing letters is apt to throw them upwardly against the top wall of the box, and by striking the wires 19 which extend in the direction in which the latter is inserted, no obstruction or impediment is offered to the latter.

Referring now to the improvement in label-holders, which in combination with the thin metal partitions 14 constitutes the leading and most important feature of my invention, 21 designates an integral or one-piece spindle having a longitudinal groove 21ª, which spindle is rotatably journaled in and between the front corner posts 10 and intermediate partitions 14 in front of and slightly below the level of the rod 16. The ends of the spindle are journaled in round holes in the corner posts, and are adapted to be engaged by set-screws 22 to hold the spindle and label-holders non-rotatable at any desired angle. Slidably mounted on the spindle between adjacent side walls or partitions 14 of the boxes are the label-holders proper, these latter comprising suitable lengths of longitudinally bored square metal bars 23. The bore of each bar is provided with an internal feather or spline 23ª adapted to slidingly engage the groove 21ª of the spindle and thus prevent relative rotation between said parts. Slideways are formed on the four outer sides or faces of the bar 23 to accommodate and support the label 24, which slideways may be conveniently formed by integral double flanges 25 formed on the four corners of the bar, the adjacent flanges on two adjacent corners together providing with the underlying face of the bar a slideway in which the label-strip 24 is readily inserted. It will be observed that the flanges 25 at one end terminate somewhat short of the adjacent end of the label-holder, which facilitates the insertion and withdrawal of the labels. By loosening the set-screw 22 the label-holders are readily turned to present any one of the four series of labels, as required by the route and direction of movement of the car and the destination of the mail being distributed, the turning up of the set-screw securing the label-holders rigidly in any fixed position against possible accidental turning or displacement under vibration of the car or contact with the heavy mail matter or the hand of the distributer. For example, when the mail for one State has been distributed, and removed from the case and disposed of in the mail pouches, the labels are turned which brings into view the case correctly labeled for the distribution of letters for another State, and so on. The printed slides will preferably be printed on both sides; then if need be the case can be used for eight different distributions by the simple operation of drawing out the printed slides from label-holders, reversing them and sliding them back in the holders. The universal angular adjustability of the label-holders affords an advantage in that the higher and lower rows can be turned so as to render the distributer's line of vision substantially normal thereto. It will be observed that the squared ends of the label-holders abut against and thus act as lateral braces or supports to the thin metal partition sheets to keep them from bending or warping.

Where the letter-cases are disposed permanently against the side walls of the car, the described construction involving the angle-strips 17 is highly desirable, since said strips not only afford the support for the rear ends of the bottoms of the letter-boxes, but also in effect secure the case in position against the wall. Where the cases are not thus adapted to be secured to the wall of the car, as in the instance of cases disposed across the corners or in front of door-ways, the angle-strips 17 are substituted, in respect to their function of supporting the bottoms of the boxes, by rear rods 16 (Fig. 9) similar to the front rods 16. This construction makes the bottom of the boxes wholly self-contained within the case.

The letter-case along each side wall of the car is preferably erected in a plurality of sections which correspond in construction to the section hereinabove described. This arrangement is clearly shown in Fig. 4, wherein A may designate the floor, B the side wall of the car, and C, D, E, F and G, individual sections of a letter-case disposed side by side. It will be evident that in case of injury to the car resulting in injury or destruction to one or more sections of the letter-case, such section or sections can be readily removed and replaced by new or repaired sections without involving the removal of such sections as are uninjured.

From the foregoing it will be observed that my invention provides a very compact letter-case, principally by reason of the fact

that the comparatively thick wooden partitions forming the side walls of the boxes of the old construction are replaced by thin metal partitions which enable a greater number of boxes to be used in a given space. The passing of the wires and steel rods forming the bottoms of the boxes through said partitions and the use of the angle-strips as described, and the passing of the steel spindle through all the metal sheets with a metal label-holder mounted thereon between each sheet, the ends of the holders abutting on the sheets, keeps them absolutely true and rigid, and produces a construction wherein the bottoms and side walls mutually reinforce and stiffen each other. The entire structure is thoroughly braced and tied together largely by reason of the fact that the longitudinally extending parts are carried through the vertical transverse walls and partitions, thus enabling material of comparatively light weight and thinness to be employed consistently with a high degree of rigidity and strength in the structure as a whole.

The invention is designed primarily for use in railway postal cars, but it can also be used to advantage in post-offices because the economy of space afforded thereby enables the distributer to distribute more rapidly to a larger number of boxes within a given radius. Also, by the use of the rotatable label-holder, the same case can be used at different times on different distributions by revolving the steel spindle on which the holders are mounted, thus bringing to view a different set of printed labels. Also, when changes are made, the old label can be quickly withdrawn and a new one slipped in, or, when the labels from constant use become dirty or indistinct, they can be replaced with fresh ones by simply sliding out the old ones and sliding in the new, an operation which requires but a second. The above points are particularly applicable to the railway postal cars because changes in the letter-case are constantly going on, and, owing to the smoke and dirt in mail cars, fresh labels are frequently in demand to replace those that have become worn and indistinct.

I claim:

1. In a letter-case, the combination with upright sheet-metal partitions forming the side walls of the boxes, of a transversely apertured front bar passed through said partitions, a transversely disposed rear angle-strip parallel therewith provided with means whereby it may be secured to the wall against which the case is placed, said angle-strip also having holes registering with the apertures of said front bar and cross-kerfs adapted to receive the rear edges of said partitions, wires disposed between and parallel with said front bar and rear strip and passed through said partitions, and other wires crossing said first-named wires and at one end secured in the apertures of said front bar and at the other end secured in the holes of said rear angle-strip, substantially as described.

2. In a letter case for postal cars, the combination with upright sheet-metal partitions forming the side walls of the boxes, of a spindle rotatably mounted in said partitions substantially in the plane of the front openings of the boxes, and a series of label-holders non-rotatably secured on said spindle, the ends of said label-holders abutting squarely against said partitions and serving to stiffen and brace the latter, substantially as described.

3. In a letter case for postal cars, the combination with upright sheet-metal partitions forming the side walls of the boxes, of a spindle rotatably mounted in said partitions substantially in the plane of the front openings of the boxes, and a series of label-holders polygonal in cross-section non-rotatably secured on said spindle and at their ends squarely abutting against said partitions, each of said label-holders having flanges on its corners forming slideways for the labels, said flanges terminating short of one end of the label-holder to facilitate the insertion and withdrawal of the labels, substantially as described.

4. In a letter-case, the combination with a plurality of vertical partitions forming the side walls of the boxes, of a plurality of horizontal angle-strips adapted to be secured to the wall against which the case is placed, said angle-strips having transverse kerfs receiving the rear edges of said vertical partitions, substantially as described.

5. In a letter-case, the combination with vertical sheet metal partitions forming the side walls of the boxes, and wires disposed longitudinally of the boxes and forming elements of the top and bottom walls thereof, of a series of horizontal angle-strips adapted to be secured to the wall against which the case is placed, said angle-strips having transverse kerfs receiving the rear edges of said vertical partitions, and apertures receiving the inner ends of said wires, substantially as described.

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