# United States Patent

**Young, Jr.**

[15] **3,704,791**

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[54] **WIRE CORRESPONDENCE TRAY**


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[52] **U.S. Cl.**.....**211/126,** 211/181, 220/97 A, 220/19

[51] **Int. Cl.**.....**A47f 3/14,** A47f 5/01

[58] **Field of Search**.....211/126, 128, 181, 10, 11; 220/97 A, 19



[56] **References Cited**

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*Attorney*—Shoemaker & Mattare



[57] **ABSTRACT**

A wire correspondence tray which is economically manufactured from strong wire and which includes a bottom, opposite sides, a back, and support means extending downwardly from opposite sides of the tray, said support means comprising a brace for the side portions of the tray and being flared downwardly and outwardly from the plane of the sides of the tray whereby a plurality of trays may be stacked one upon the other without creating stresses in the support portions of the tray. Detent means are provided in the side portions of the tray for cooperative association with the support portion of another tray to hold the trays in assembled relationship.


**3 Claims, 9 Drawing Figures**

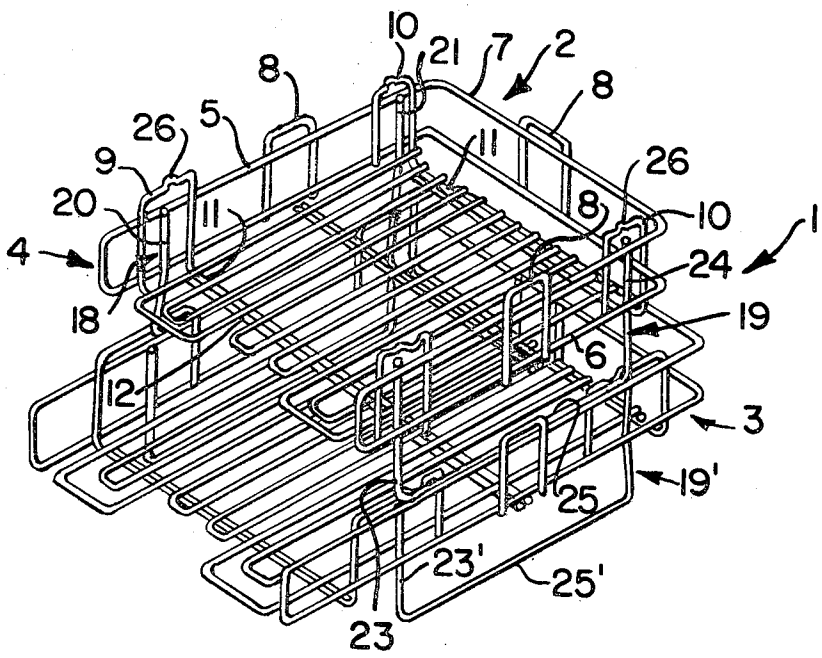


FIG. 1.

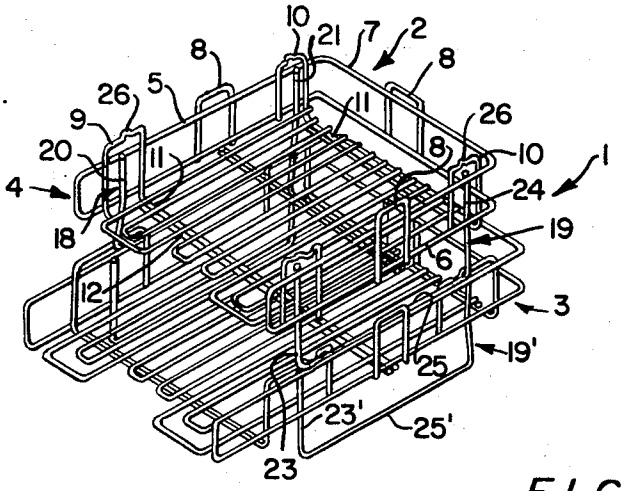



FIG. 2.

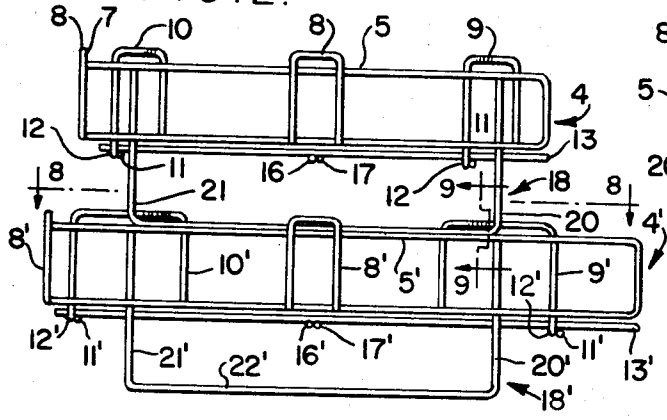



FIG. 3.

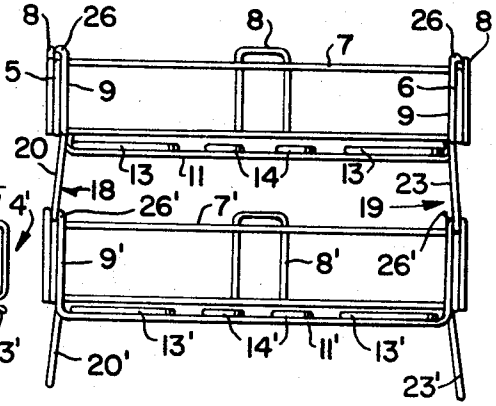



FIG. 5.

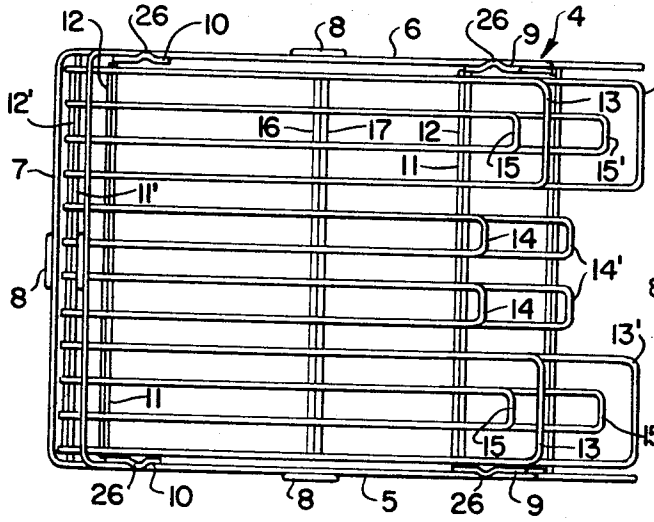



FIG. 4.

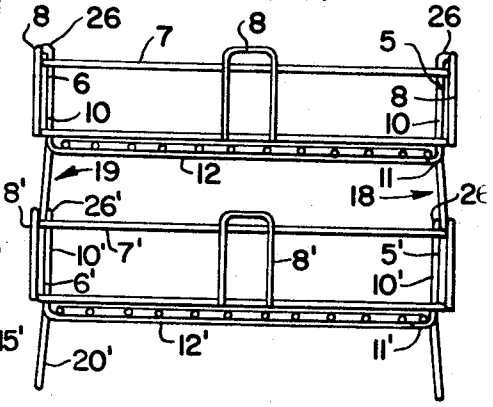


FIG. 6.

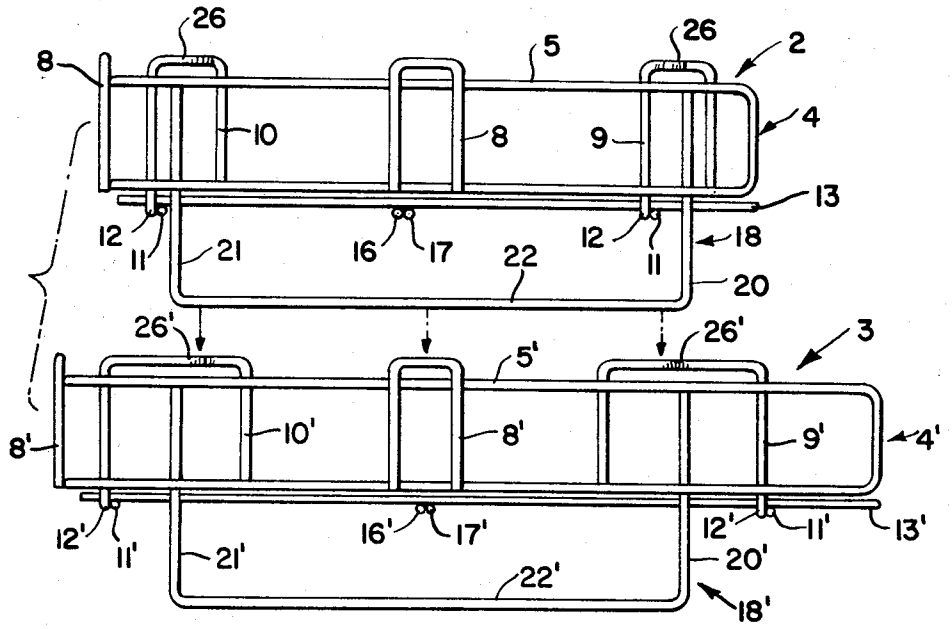



FIG. 7.

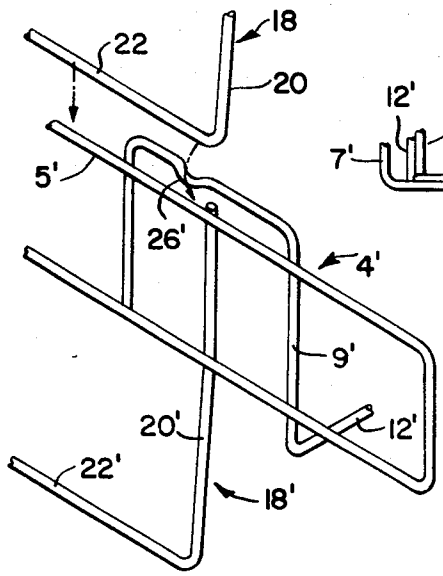



FIG. 8.

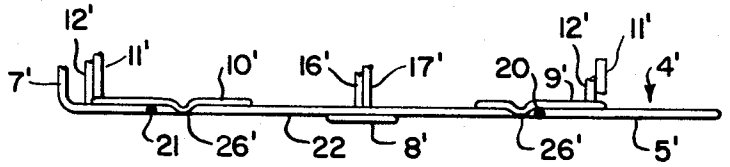
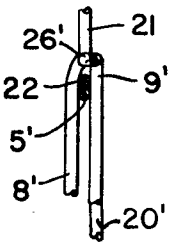



FIG. 9.



# WIRE CORRESPONDENCE TRAY

## BACKGROUND OF THE INVENTION

This invention relates to wire correspondence trays and is an improvement over the correspondence tray disclosed in U.S. Pat. No. 2,554,232.

Various means are known in the prior art for stacking correspondence trays one upon the other and such means include separate securing or fastening means or means integral with the trays themselves for releasably stacking one tray upon the other tray. Prior constructions which use separate fastening means are not entirely satisfactory since the stacking and unstacking of trays is more complicated and parts often become misplaced and lost. Also, when the means for securing the trays in stacked relationship is integral with the tray, such as the support portion of the tray, the support means or means for releasably securing the trays together is generally subjected to stresses and strains when the trays are stacked which eventually results in failure of the support portion of the tray.

The present invention provides a wire correspondence tray wherein means comprising an integral part of the tray is provided for releasably stacking one tray upon the other tray, said means including a support or stand for the tray which serves at the same time as a brace for the sides thereof, said support being flared slightly outwardly from the plane of the sides of the tray so that when adjacent trays are stacked one upon the other, the support is not subjected to stresses and strains and accordingly a much more durable and reliable construction is provided than exists in the prior art. Also, detent means are formed in brace portions on the sides of the tray for cooperative association with the supports of another tray assembled thereto.

## OBJECTS OF THE INVENTION

It an object of this invention to provide an economical correspondence tray formed of strong wire and including support means cooperable with means on the side portions of the tray whereby one tray may be stacked upon another tray.

It is another object of this invention to provide a correspondence tray formed of wire and including means for stacking one tray upon the other tray wherein the means for stacking the trays includes a support for the tray, said support being flared outwardly so that when one tray is stacked upon another tray, the support is not subjected to bending stresses.

It is further object of this invention to provide a correspondence tray formed of wire wherein a detent means is formed in a brace portion on the sides of the tray for cooperative association with the support portion of another tray.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top perspective view of a pair of stacked wire correspondence trays in accordance with the present invention.

FIG. 2 is a side view in elevation of the stacked trays shown in FIG. 1.

FIG. 3 is a front view in elevation of the trays shown in FIG. 2.

FIG. 4 is a back view in elevation of the trays shown in FIG. 2.



FIG. 5 is a top view of the stacked trays shown in FIG. 2.

FIG. 6 is an exploded side elevational view illustrating the manner in which the trays are stacked.

FIG. 7 is a detailed exploded view of portions of the sides and supports of the wire trays illustrating the manner in which the support for an upper tray is inserted in position on the side of a bottom tray.

FIG. 8 is a sectional view taken along line 8—8 in FIG. 2 illustrating the manner in which the support for a top tray is fitted within the detent means of a bottom tray.

FIG. 9 is a sectional view taken along the line 9—9 in FIG. 2 illustrating the manner in which the support of a top tray is contiguous with and rests in load bearing relationship upon the side of a bottom tray.

## Detailed Description of the Invention

Referring now to the drawings wherein like reference numerals refer to like parts throughout the several views, a pair of stacked correspondence trays in accordance with the present invention is indicated generally at **1** in FIG. 1 and comprises a top tray **2** of letter size or substantially 8 ½ by 11 inches and supported on a bottom tray **3** of legal size or substantially 8 ½ by 13 inches. The bottom tray **3** and the top tray **2** are substantially identical in construction, the major difference being simply that the bottom tray **3** is larger than the top tray **2**, and accordingly only one of the trays will be described in detail, description of one sufficing for both, corresponding elements in the other of the trays being indicated by the same reference numerals primed.

Referring now specifically to FIGS. **1** through **5**, the top or smaller tray **2** of the pair of trays will be described. A relatively long narrow rectangularly shaped wire loop **4** is bent at substantially right angles to the plane of the loop at two points intermediate the ends thereof to define opposite sides **5** and **6** and a back or end **7** for the tray. A plurality of substantially identical inverted U-shaped members **8** are soldered to the loop intermediate the ends of the opposite sides and back, respectively, to brace the sides and back of the tray. Each of the members **8** extends at is upper closed end upwardly beyond the top of the side of the tray. A pair of generally U-shaped combination brace and detent members **9** and **10** are soldered to each of the sides **5** and **6**, respectively, adjacent the opposite ends thereof and these members extend at their upper closed ends upwardly beyond the top of the side of the tray. One leg of each of the inverted U-shaped members **9** and **10** on the side **5** of the tray extends downwardly beyond the lower wire comprising the side **5** and is formed at right angles to the plane of the side **5** and extends toward the opposite side **6** of the tray to form a frame or brace **11** for the bottom of the tray. The inverted U-shaped members **9**, **10** on the side **6** of the tray have similarly formed frame or brace members **12** extending toward the side **5** of the tray in contiguous parallel relationship with the brace members **11**. The frame members **11**, **12** are substantially coextensive in length with one another and form a double brace for the bottom of the tray which is integral with the inverted U-shaped braces **9**, **10** on the sides of the tray. A plurality of generally U-shaped bottom wire members

are soldered to the frame members **11**, **12** with the closed ends of the U-shaped members disposed toward the front of the tray and the open ends of the U-shaped members substantially co-terminus with the back of the tray.

The construction of the bottom of the tray **2** is seen most clearly in FIG. **5** and comprises a pair of first relatively large U-shaped members **13** disposed at opposite sides, respectively, of the tray and a pair of relatively small U-shaped members **14** disposed in equally spaced relationship parallel to and between the relatively large members **13**. A pair of intermediate sized U-shaped members **15** are disposed inside the large U-shaped members **13** in spaced relationship thereto and a pair of elongate contiguous parallel intermediate bottom frame or brace members **16** and **17** are soldered to the underside of the U-shaped members **13**, **14** and **15** intermediate the ends thereof.

Each tray further includes at the opposite sides thereof, respectively, a generally U-shaped support **18** and **19**. The U-shaped support **19** on the side **5** of the tray comprises a pair of spaced parallel downwardly extending and outwardly inclined legs **20** and **21** extended in parallel spaced relationship between the legs of the U-shaped members **9**, **10** and soldered to the wires comprising the side **5** of the tray. A generally horizontally extending bight portion **22** joins the lower ends of the downwardly extending legs **20** and **21**, and comprises at the same time a support or stand for the tray and a means for attaching or stacking the tray to another tray. The support **19** at the opposite side of the tray similarly includes a pair of spaced parallel downwardly extending and outwardly inclined legs **23** and **24** and a bight portion **25** joining the lower ends thereof. The upper closed end of each of the U-shaped members **9**, **10** which extends upwardly beyond the sides **5** and **6** includes a relatively short laterally outwardly extending projection or detent **26** thereon formed intermediate the ends or sides of the U-shaped member.

As best seen in FIGS. **5** and **8**, the brace members **8** are disposed on the outside of side walls **5**, **6** and the members **9**, **10** are disposed on the inside of side walls **5**, **6**. Accordingly, when one tray is stacked upon another tray, as seen in FIGS. **2** and **3**, the bight portions **22** and **25** of the supports **18** and **19**, respectively, of the top tray **2** will be disposed on the inside of braces **8'** and on the outside of members **9'**, **10'** of the bottom tray **3** in contiguous, parallel load bearing relationship on the tops of the side walls **5'** and **6'** of the bottom tray **3**. The detent **26'** in members **9'** and **10'** of the bottom tray **3** latch or lock the bight portions of the supports in position to securely releasably hold two trays in assembled stacked relationship.

Attention is directed to FIGS. **3** and **4** wherein the outward flair of the supports **18** and **19** can best be seen. Due to the flair of the supports, the bight portions **22** and **25** of the top tray **2** are placed or disposed in the planes of the sides **5'** and **6'**, respectively, of the bottom tray **3** and accordingly when the top tray **2** is stacked on the bottom tray **3** the supports are not subjected to any stress.

Any desired number of trays may be stacked one upon the other or the trays may be used independently.

As best seen in FIGS. **2** and **6**, the outwardly inclined legs **20** and **21** of the support **18** of the top tray **2** are in substantial alignment with the outwardly inclined legs **20'** and **21'** of the support **18'** of the bottom tray **3** when the trays **2** and **3** are stacked one upon the other. Accordingly, any load transmitted from the top tray to the bottom tray would be carried by the supports of the bottom tray and a stronger assembly is thus realized.

As this invention may be embodied in several forms without departing from the spirit or essential characteristics thereof, the present embodiment is therefore illustrative and not restrictive and since the scope of the invention is defined by the appended claims, all changes that fall within the metes and bounds of the claims or that form their functional as well as conjointly cooperative equivalents are therefore intended to be embraced by those claims.

I claim:

**1**. A wire correspondence tray having a substantially flat, horizontal bottom, opposite, substantially vertical sides at opposite sides of said bottom, and a substantially vertical back at one end of said bottom, each said side having vertically spaced, horizontally extending upper and lower members, a first inverted U-shaped brace secured to the upper and lower members intermediate the ends of each side on the outside thereof and extending at the upper end thereof above the horizontally extending upper member of each said side, second and third inverted U-shaped braces secured to the upper and lower members of each side on opposite sides of said first U-shaped brace on the inside of each said side and extending at their upper ends above the horizontally extending upper member of each said side, said second and third U-shaped braces on each side having an outwardly projecting detent on the upper ends thereof, and a fourth, generally U-shaped combination brace and support secured to the upper and lower members of each side on the inside thereof and each having a pair of legs extending downwardly and outwardly from the upper member and having a horizontal bar at the lower ends of the legs spaced downwardly from the bottom of the tray, the bars extending over a major portion of the length of the tray, the bars of the supports on one tray adapted to be positioned on top of the upper member of the sides of another,substantially identical tray in parallel contiguous relationship thereto when said one tray is stacked on top of said other tray, and the lower ends of the legs of the support of said one tray being closely adjacent and in substantial vertical alignment with the upper ends of the legs of the support of the other tray.

**2**. A wire correspondence tray as in claim **1**, wherein the bottom comprises a plurality of horizontally disposed, elongate U-shaped members arranged in side-by-side parallel relationship and each terminating at the open end thereof substantially in the plane of said back, said U-shaped members being substantially coextensive in length with said sides.

**3**. A wire correspondence tray as in claim **2**, wherein a pair of transverse, elongate, contiguous bottom brace members are secured to the underside of the bottom between the opposite ends of the bottom, and each of the second and third U-shaped braces have a pair of downwardly extending legs, at least one leg of each said second and third brace having a portion extending

horizontally beneath said bottom from one side to the other side thereof and secured to said bottom.

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