June 23, 1964 W. C. BRASS 3,138,263

THERMOMETER CARRIER

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FIG.- 1

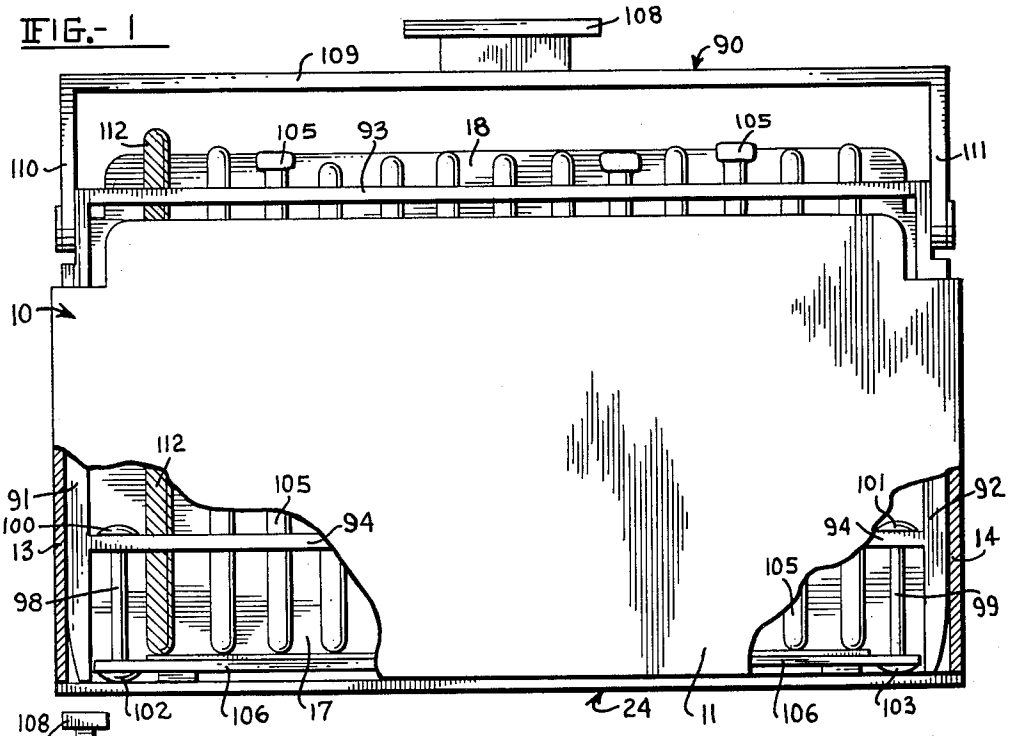


FIG.-2

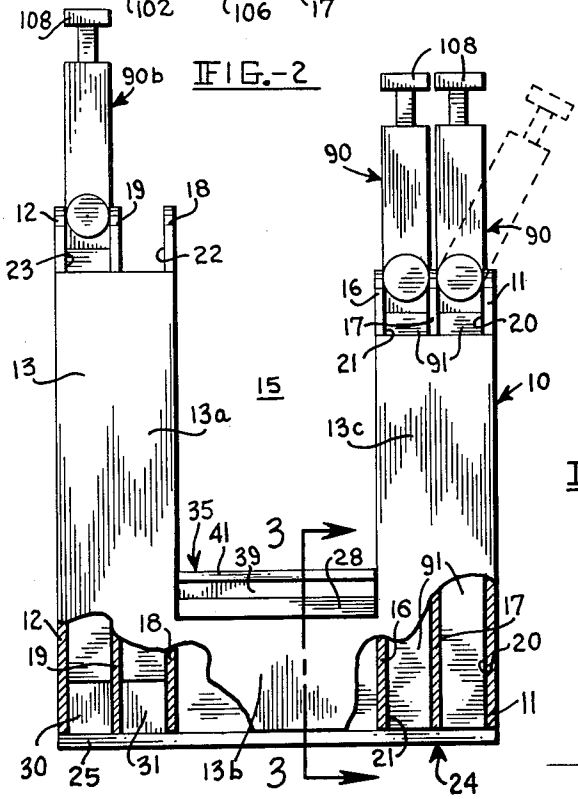


FIG.-4

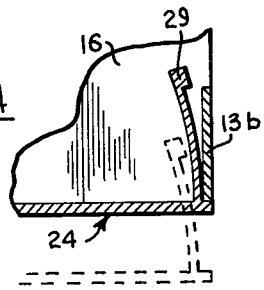
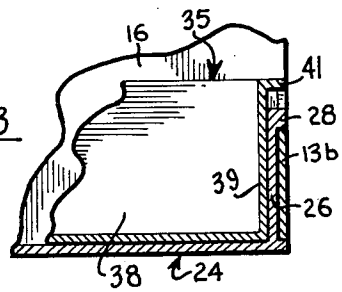


FIG.-3



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THERMOMETER CARRIER

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FIG.-5

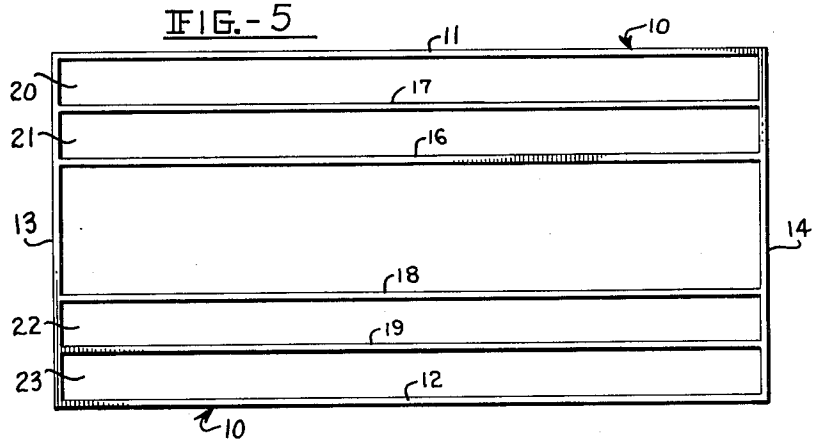
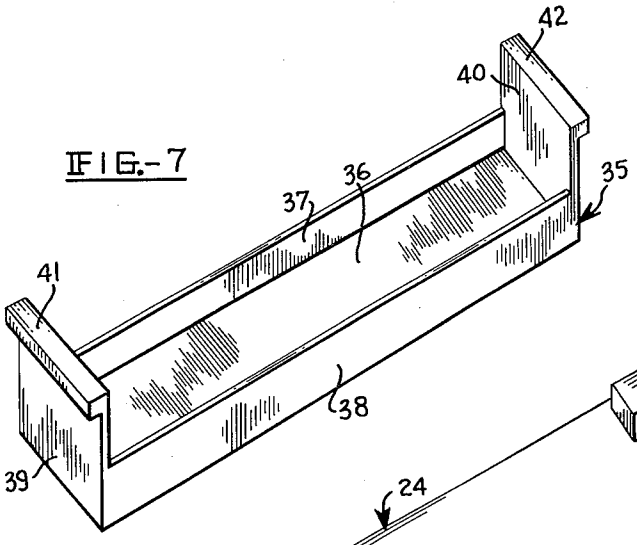


FIG.-7



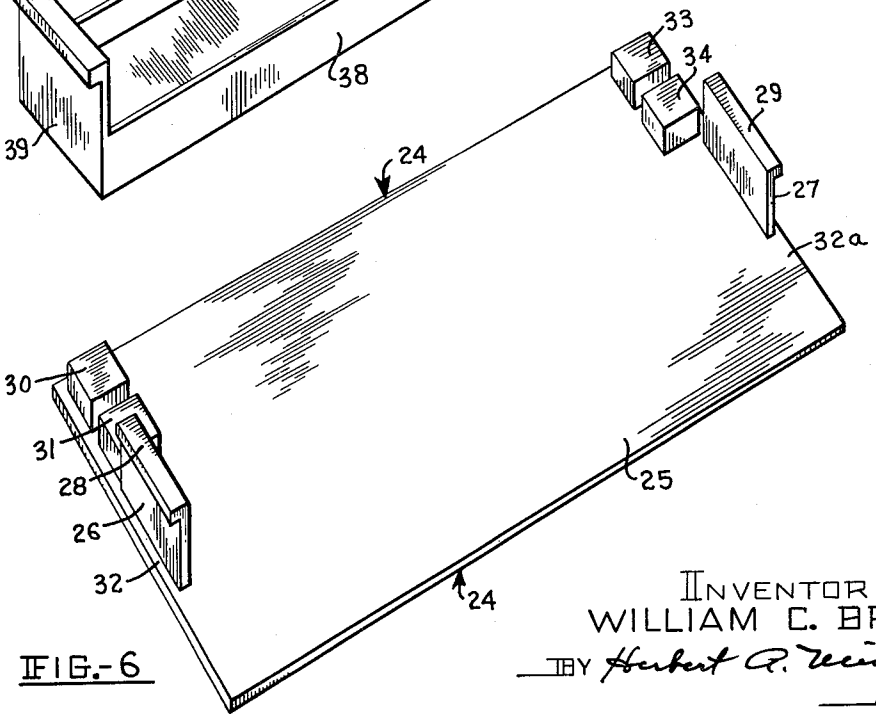


FIG.-6

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THERMOMETER CARRIER

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FIG.- 8

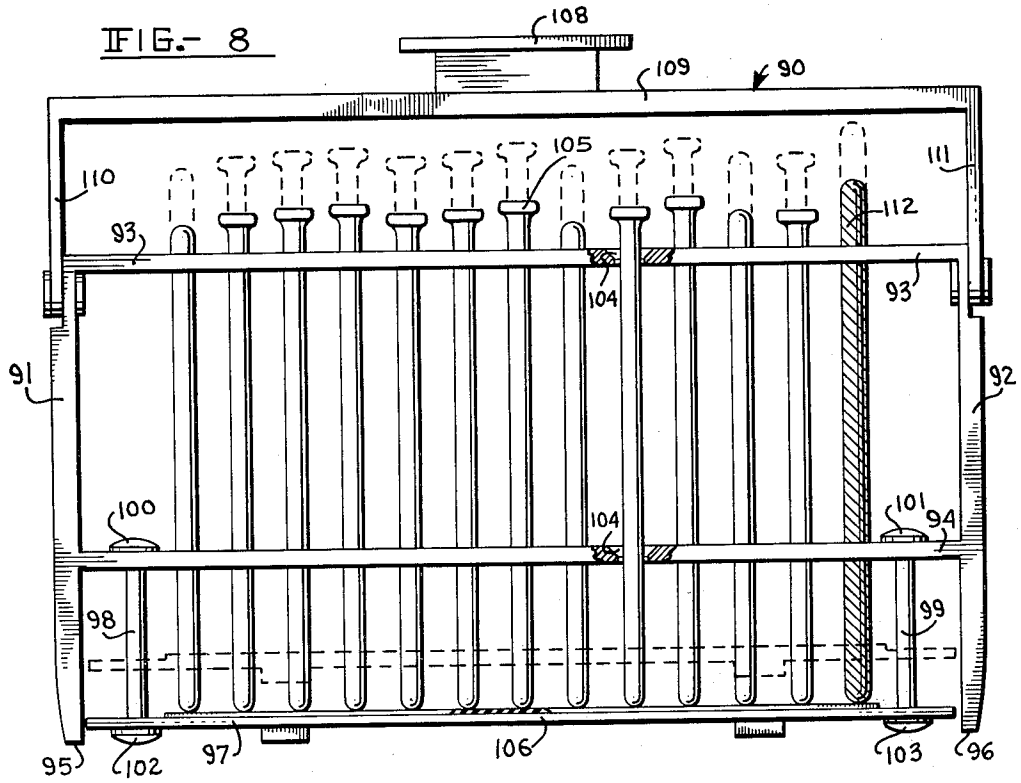
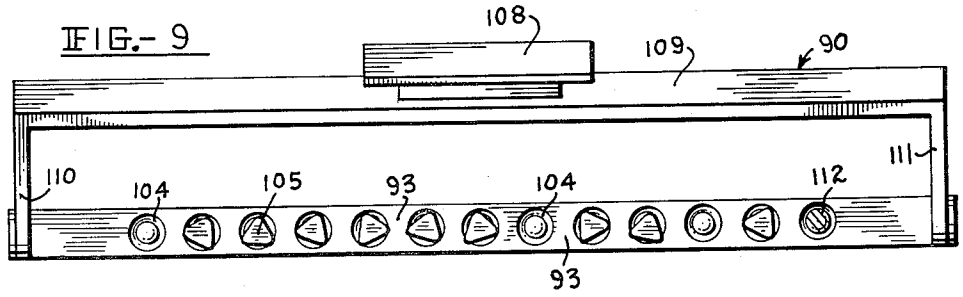


FIG.- 9



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3,138,263

THERMOMETER CARRIER

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Filed Jan. 11, 1963, Ser. No. 250,943
5 Claims. (Cl. 211—60)

This invention relates to a device for carrying a plurality of clinical thermometers, and finds a practical use in hospitals where nurses go from room to room or from patient to patient in a ward taking temperatures. Reference is made to my copending application for Clinical Thermometer Cleaning Device, filed December 6, 1962, Serial No. 242,658 of which this present application is a continuation in part.

The primary object of the invention is to provide a carrier wherein means are provided for carrying a plurality of clean, sterilized thermometers and with a storage space for used, contaminated therometers so that the person taking temperatures will have a visual indication of the state of the thermometers in order to insure that only sterile thermometers will be used in taking the temperatures.

A further primary object of the invention is to provide means for carrying a sufficient number of thermometers in one or more replaceable holders from which the sterile thermometers may be taken, and additional holders for receiving the contaminated thermometers, both groups, sterile and contaminated thermometers, being indicated by some visual device.

A further primary object of the invention is to provide a carrier of the utmost convenience, and in which there may be combined a tray or the like for holding instructions, sterile gauze or cotton, and the like, and also for recorded temperature data.

These and many other objects and advantages of the invention will become apparent to those versed in the art in the following description of one particular form of the invention, in which—

FIG. 1 is a view in side elevation and partial section of a device embodying the invention;

FIG. 2 is a view in end elevation and partial section;

FIG. 3 is a detail of a floor latching mechanism;

FIG. 4 is a detail similar to that of FIG. 3 with a section of a tray removed and a latch member in an operated position;

FIG. 5 is a view in bottom plan of the carrier frame;

FIG. 6 is a view in top perspective of the carrier, detachable floor;

FIG. 7 is a view in top perspective of a tray fitting within the carrier;

FIG. 8 is a view in front elevation of a thermometer holder; and

FIG. 9 is a view in top plan of the holder with a handle in a rocked to one side position.

A carrier frame generally designated by the numeral **10** has a front wall **11** generally rectilinear in shape. There is a rear wall **12** likewise rectilinear in shape, but somewhat higher than the height of the front wall **11**. There are end walls **13** and **14** respectively spacing apart these front and back walls **11** and **12**.

Each of these end walls **13** and **14** are essentially rectangularly U-shaped members, as best shown in respect to the end wall **13**, FIG. 2. That is, each of these walls **13** and **14** consists of an upright panel **13***a* running upwardly along the outer end of the wall **12** and extending a distance forwardly therefrom, and then dropping downwardly to an interconnecting portion **13***b* extending forwardly to the upright panel **13***c*, this formation leaving a rectangular opening designated by the numeral **15** between the panels **13***a* and **13***c*.

A vertically disposed wall **16** has its ends integrally connected with the panels **13***c* of the end walls **13** and **14**,

spaced rearwardly from the wall **11**. The vertical height of the wall **16** equals that of the wall **11**. An intermediate wall **17** is disposed between the front wall **11** and the wall **16** to be equally spaced therebetween, and to extend downwardly to a plane including the lower ends of the walls **11** and **16**.

A wall **18** interconnects the forward vertical edges of the panels **13***a* of the end walls **13** and **14**, and extends downwardly to the bottom of the interconnecting panel **13***b*. The height of this wall **18** is equal to the height of the rear wall **12**, these two walls being of greater height as above indicated than is the height of the walls **11**, **17**, and **16**. Intermediate the walls **12** and **18** is a wall **19** interconnected with the panels **13***a* and extending downwardly to the bottom of the panel **13***a* in each instance. Thus there are formed between the walls **11** and **16** vertical passageways and also there are formed between the walls **12** and **18** a pair of vertical passageways.

These passageways designated by the numerals **20**, **21** are in the front portion of the carrier and **22**, **23** in the rear portion. These passageways, **20**, **21** and **22**, **23** are rectilinear in cross-section, and are entirely open from top to bottom. A bottom floor generally designated by the numeral **24**, FIG. 6, consists primarily of a planar member **25**. Centrally disposed at each end of this member **25** are respectively upturned tongues **26** and **27** each having a top end portion outturned, designated respectively by the numeral **28** and **29**. These outturned ends **28** and **29** are disposed at that elevation to have them lap over the top edges of the cross panels **13***b*, FIGS. 2–4. These tongues **26** and **27** are elastic so that when the floor **24** is brought up against the underside of the carrier frame **10**, these tongues **26** and **27** will ride upwardly along the insides of the end wall portions **13***b* and have the overhanging portions **28** and **29** snap over those edges as a means of retaining the floor **24** in closed position across the underside of the frame **10**. Preferably the tongues **26** and **27** are set inwardly one toward the other from the respective ends of the floor member **25**, this distance from said end being substantially equal to the thickness of the end wall member **13***b*. The member **25** carries a pair of spacer blocks **30**, **31** adjacent one end of the member **25**, this end being designated by the numeral **32**. A like pair of spacer blocks **33** and **34** are located adjacent the end **32***a* of the member **25**, both sets of these blocks **30**, **31** and **33**, **34** being located to one side of the respective tongues **26** and **27** to have these blocks enter into the passageways **22** and **23**.

There is a tray generally designated by the numeral **35**, FIG. 7, which has a floor **36** and two upturned side walls **37** and **38**. The spacing apart of these side walls **37** and **38** is slightly less than the spacing apart of the walls **16** and **18**. The tray has end walls **39** and **40** extending across the ends of the side walls **37** and **38** respectively, and preferably each of these end walls **39** and **40** carry an overturned lip **41** and **42** respectively as means for gripping the tray to raise and lower it. The length of the tray from outside to outside of the end walls **39**, **40** permits the tray **35** to be placed between the end walls **16** and **18** freely to be carried on the floor member **25**.

The carrier so far described is designed to carry holders of the construction illustrated in FIGS. 8 and 9. This holder is identical to the holder **90** as described in my copending application above designated, and the same numerals as employed in that copending application relating to the holder are employed herein in the following description of the holder. This holder **90** has a pair of side legs **91** and **92**. The legs are normally vertically disposed and terminate in lower ends **95** and **96**. A bar **93** interconnects the top ends of these legs **91** and **92** and spaces them apart. A second bar **94** interconnects the legs **91** and **92** at a distance below the bar **93**, and at a

lesser distance above the leg ends 95 and 96. Aligned holes 104 are provided in the two bars 93 and 94, through which holes thermometers 105 are freely inserted into vertical positions as determined by these bars 93 and 94. A vertically shiftable bar 97 is provided across the lower end portion of the holder 90 and carried between the lower ends 95 and 96 of the side legs 91 and 92 by being suspended slidingly on the posts 98 and 99 in turn suspended from the bar 94. Heads 102 and 103 are provided on the bottom ends of the posts 98 and 99 to limit the down travel of the shiftable bar 97. The upper ends of the posts 98 and 99 may be fixed in the bar 94, or shiftably carried in permissible vertical travel by means of heads 100 and 101 respectively limiting down travel of the posts. These heads 100 and 101 bear against the top sides of the bar 94. The thermometers 105 rest by their lower, mercury reservoir ends, on this cross bar 97 which normally has a resilient cushioning member 106 on the top side to assist in preventing breakage of the thermometers.

As indicated in the present showing of the holder 90, twelve thermometers may be carried with an additional spacing provided for carrying an indicator stick 112. When the holder is carrying sterile thermometers, the stick would be of a green color and when the holder 90 is carrying contaminated thermometers, the stick selected as the indicator would be of a different color such as red. On the upper ends of the legs 91 and 92 hingedly connected respectively downturned legs 110 and 111 which carry across and integrally connected thereto a handle bar 109 from which vertically extends a handle of some sort, herein indicated as the handle 108.

The fore and aft width of the holder legs 91 and 92 are made to be such that they may be freely inserted into any one of the passageways 20, 21, 22, and 23. In the passageways 20 and 21, the lower leg ends 95 and 96 will rest on the floor member 25. However in the passageways 22, and 23, the lower ends 95 and 96 of the holder legs will rest on the blocks 30, 31 at common ends of the passageways 22 and 23 and on the blocks 33, 34 at the other ends. In this manner, holders 90 placed in the rearmost passageways 22 and 23 will have their holders 90 presented at a higher elevation than are the holders carried in the front passageways 20, 21.

This difference in elevation is provided to give a direct, visual indication of the positioning of sterile thermometers in the holders in the front passageways 20, 21 and the positioning of contaminated thermometers carrying holders in the back passageways 22 and 23. This prevents the carrier from being normally reversed in position as to front and back since always the lowermost carriers will indicate the positions of sterile thermometers.

As indicated in FIG. 2, when the carrier is in use, holders 90 one in each of the front passageways 20 and 21, will be carrying sterile thermometers. Each of these holders will carry the indicating pin 112. When a sterile thermometer is to be withdrawn, the handle 108 on the front holder 90 will be rocked forwardly to permit a thermometer 105 to be withdrawn from its holder and put into use. When that thermometer has been removed from the patient, it is then placed in a holder 90*b*, preferably the rearmost holder, which is in the rear upper bank of holders. Thus the distinction between the contaminated and the sterile thermometers is always visible, and is made in such manner as to be practically automatic with the operator. If the operator is required to keep records separately from some other pad or device, he or she may do so on forms or papers to be carried in the tray 35. Of course if the thermometer 105 is to be used as a rectal thermometer, it normally would be wiped off before being returned to the rear holder 90*b*, it being remembered however that never are oral and rectal thermometers carried in the same holder or in proximity with adjacent holders.

After the thermometers have been used in numbers as required, and the carriers brought back to some central station, the rearmost holders 90 are removed and placed in the cleaner as described in my copending application. Normally the carrier will start out with two empty holders in the rear passageway 23 with the two filled holders in the front passageways 20 and 21 if that many thermometers are required, the holders presently being designed to carry twelve thermometers. Then when one of the front holders 90 is emptied, it may be inserted in the front passageway 22 of the rear pair of passageways to receive the contaminated thermometers after the rear holder 90*a* has been filled.

Therefore, while I have shown my invention in the best form now known to me, it is obvious that structural changes may be made, I do not desire to be limited to that precise form beyond the limitations which may be imposed by the following claims.

I claim:

1. A clinical thermometer carrier comprising
a frame having a vertically disposed passage therethrough open at both top and bottom ends;
a floor detachably engaged to said frame and extending across the bottom of said passageway;
a thermometer holder freely positioned in said passageway;
said holder having means removably maintaining thermometers in vertically aligned positions and with upper ends of the thermometers presented adjacent the upper end of the passageway;
said frame having a second vertically disposed passageway open from top to bottom of dimensions to receive therein one of said holders; and
means retaining said holder in said second passageway at a higher elevation than that of the holder in the first passageway.

2. A clinical thermometer carrier comprising
a frame having a front pair of vertically disposed passageways and a rear pair of vertically disposed passageways;
all of said passageways being open at both top and bottom ends;
a floor extending across the under side of said frame and closing all of said passageways;
means detachably securing the floor to the frame;
spacers on said floor entering each of the pair of said rear passageways; and
thermometer holders maintaining thermometers in vertically aligned, spaced apart position;
said holders freely entering said passageways to have upper ends of the thermometers presented near the top ends of the respective passageways;
holders in the rear passageways being held at higher elevations than those in the front passageways by resting on said spacers.

3. The structure of claim 2, in which
said frame has a transverse and fore and aft opening thereacross between said front and rear passageways; and
said floor extends across said opening.

4. The structure of claim 3, in which there is in said frame
a front vertical wall;
a second vertical wall spaced rearwardly of the front wall, between which two walls there is one of the pair of said front passageways;
a third vertical wall spaced back of said second wall between which there is the other of the pair of front passageways;
a fourth vertical wall spaced across said opening from said third wall;
a fifth vertical wall spaced rearwardly of the fourth wall and defining one of the passageways of the rear pair;
a sixth vertical wall spaced back of the fifth wall and

defining therebetween the other passageway of the rear pair; and

frame end walls closing off said passageways at the vertical ends of said walls;

all of said passageways being rectilinear in horizontal section.

5. In a clinical thermometer holding device, a

pair of end frames;

divider walls extending vertically between and forming a part of said frame panels defining passageways therebetween open at both top and bottom ends thereof;

said divider walls being confined to fore and aft portions of the frames providing two sets of passageways with a space therebetween;

a floor removably carried across the undersides of said frames and divider walls, and across said space;

means on said floor extending upwardly therefrom and engaging said frames;

a removable tray carried in said space by said floor; and

ends of said tray being in juxtaposition with said floor engaging means and maintaining the engagement thereof with said frames until the tray is removed.

References Cited in the file of this patent

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