Dec. 14, 1965 N. G. WEITZMAN 3,223,245

MOUNTING AND DISPLAY STAND FOR A PLURALITY OF VENDING MACHINES

Filed July 10, 1964 2 Sheets-Sheet 1

FIG. 1

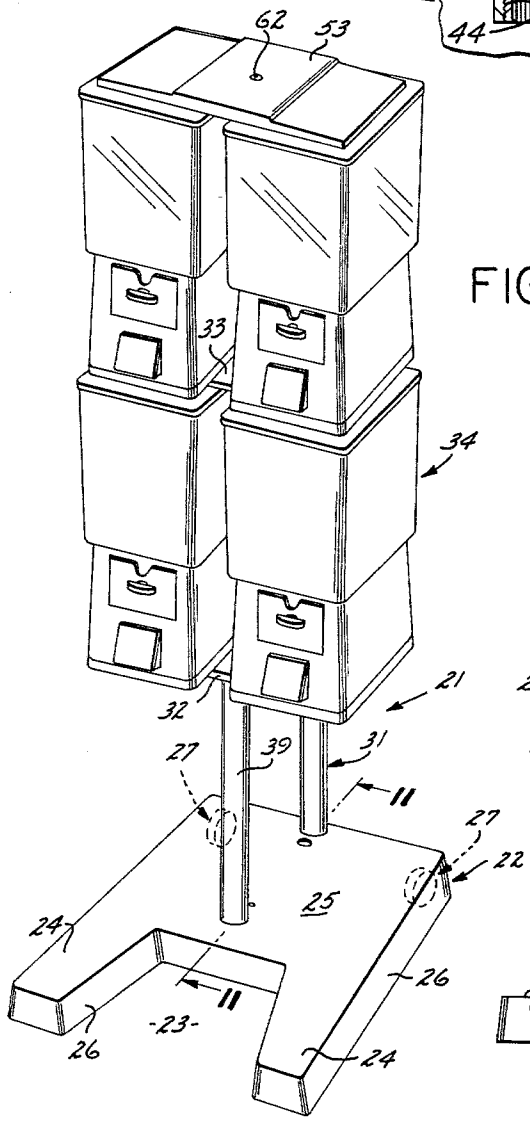
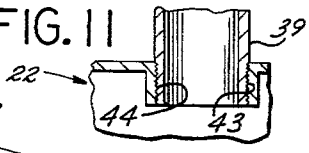


FIG. 11



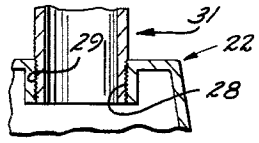


FIG. 2

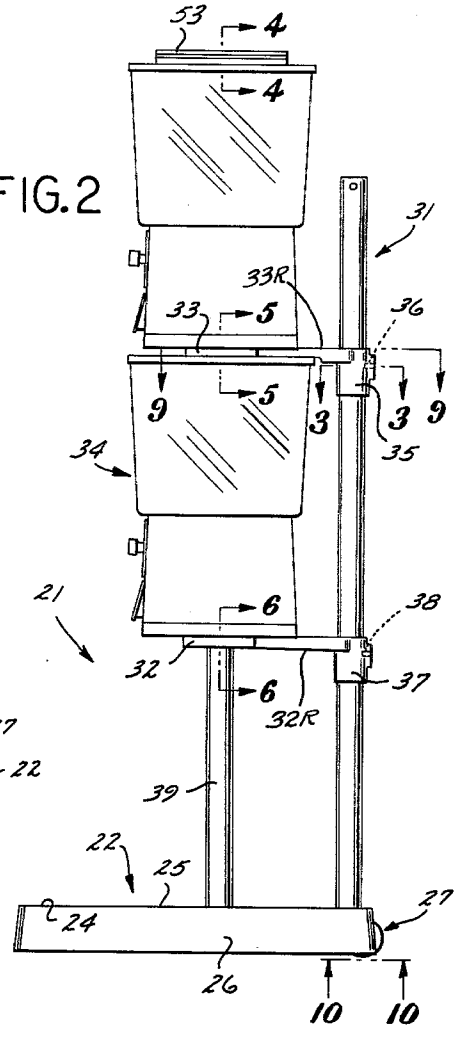
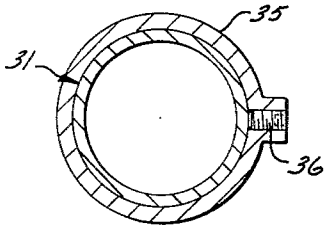


FIG. 3



INVENTOR.
NORMAN G. WEITZMAN

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FIG.4

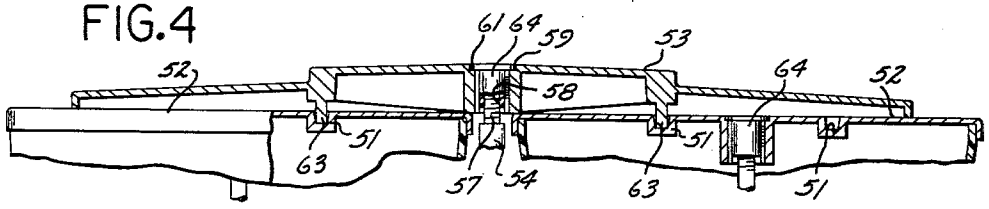


FIG.5

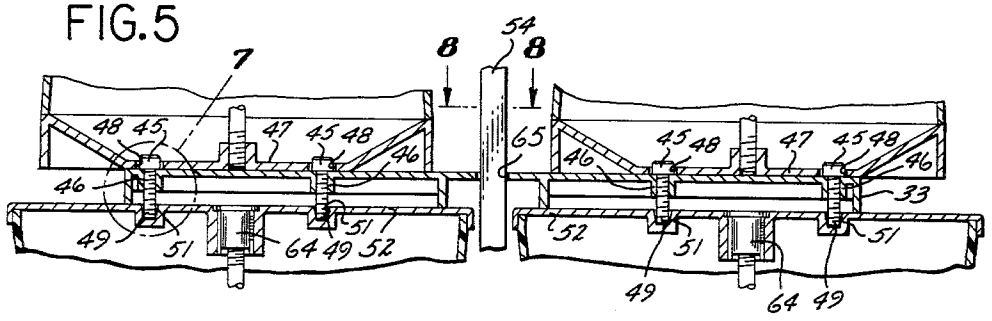


FIG.6

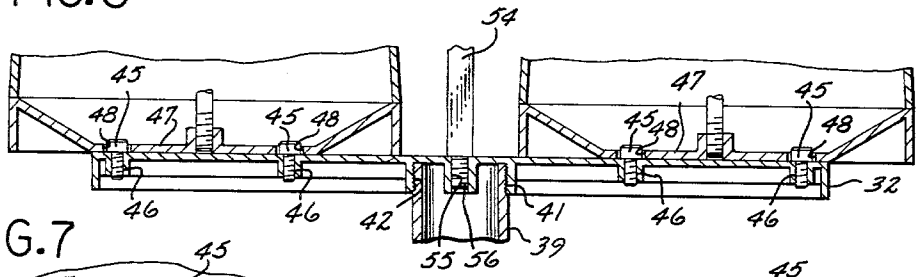


FIG.7

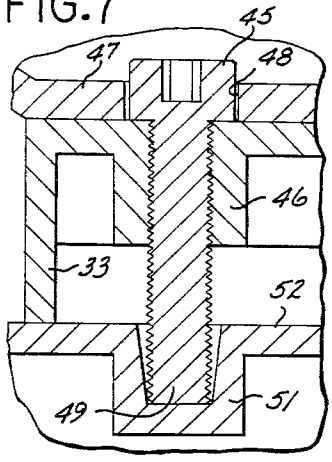
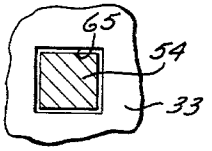


FIG.8



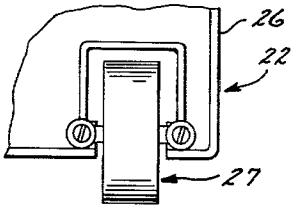


FIG. 10

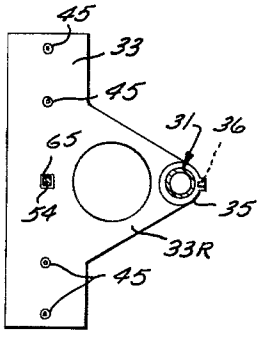


FIG.9

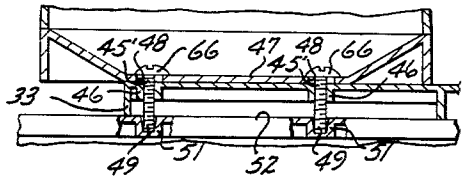


FIG. 12

INVENTOR.
NORMAN G. WEITZMAN

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3,223,245

MOUNTING AND DISPLAY STAND FOR A PLURALITY OF VENDING MACHINES

Norman G. Weitzman, 16401 Knapp St., Sepulveda, Calif.

Filed July 10, 1964, Ser. No. 381,649
12 Claims. (Cl. 211—4)

Generally speaking, the present invention relates to a mounting and display stand for a plurality of vending machines and, more particularly, to such a mounting and display stand provided with a plurality of substantially horizontally directed, vertically spaced, and vertically superimposed supporting shelf members, with each supporting shelf member, in one preferred form of the invention, being normally adapted to support two or more vending machines. The arrangement just described provides a very compact grouping of a plurality of vending machines arranged in several vertically spaced and vertically superimposed rows thereof and with the apparatus being arranged to firmly retain and positively lock all of said vending machines in said vertically spaced, vertically superimposed rows thereof and in a manner incapable of removal from the plurality of shelves of the mounting and display stand except by an authorized person, such as a maintenance or service man, who has a key adapted to unlock and release the locked relationship of the plurality of rows of vertically superimposed vending machines from the plurality of supporting shelves.

In other words, the novel mounting and display stand of the present invention is adapted to mount and display a plurality of vending machines at a display and vending location, such as in a market or other public place, for coin-operated vending operation by the general public, with all of the vending machines being firmly locked against undesired and unauthorized removal thereof or tampering with the interior thereof by unauthorized persons, but in a manner which will allow a maintenance or service man to quickly and easily unlock the apparatus so that one or more of the vending machines can be removed as units from the mounting and display stand and interchanged with, and replaced by, corresponding vending machines which contain full supplies of the product to be vended and which have their coin-receiving chambers completely empty.

The interchanged or replaced vending machines may then be quickly locked into non-removable and tamperproof relationship with respect to the mounting and display stand, and the vending machines which have been removed therefrom can be taken by the service or maintenance man back to a central depot for the emptying of the coin-receiving chambers thereof by an authorized person and for the recharging of the merchandise receptacles thereof with a full measure of the merchandise to be vended.

The above-described arrangement has the decided advantage that it allows each individual vending machine to be locked in a manner incapable of being opened by the maintenance or service man who removes same from the mounting and display stand and returns same to the central depot. Therefore, no "short count" of the money in the coin-receiving chamber of each of the vending machines can occur as a result of dishonesty or inaccuracy on the part of said maintenance or service man. It will be noted that with the arrangement just described, the money-receiving chambers of the vending machines are not opened until they are returned to the central depot where they are opened in the presence of several persons to insure absolute honesty and accuracy in the counting of the money removed from the vending machine coin-receiving chambers. Thus, an absolutely accurate accounting of monies received by the vending machines can be achieved.

Contrast the arrangement made possible by the present invention as just described above with the conventional prior art arrangement where the maintenance or service man normally is given a key which will open each of the vending machines itself, and he does so and removes the coins therefrom and reloads same with the merchandise to be vended. Thus, it is quite possible for the maintenance or service man to turn in a lesser amount of coins than the amount actually removed by him from the coin-receiving chambers of the vending machines on his route. This is possible because he is by himself and there is no checking or supervision of the coin count by any other person. However, this undesirable prior art situation which leads to inaccurate and reduced coin counts is completely overcome by the novel apparatus of the present invention since, as pointed out above, no coins are removed from any of the vending machines except at the central depot under the supervision of several individuals and under conditions such that the possibility of thievery and inaccuracy in the coin counting operation is virtually entirely eliminated.

Furthermore, it is a considerably faster operation for a maintenance or service man to merely remove and interchange vending machines as units than would be the case where the maintenance or service man must open each individual machine, remove the coins therefrom, and recharge the machine with merchandise, as has been the conventional prior art practice.

Therefore, it will normally be found that one maintenance or service man can maintain and service a larger number of vending machines, where they are mounted by the novel mounting and display stand of the present invention, than was the case with conventional prior art arrangements.

Additionally, there is less likelihood of contamination of the merchandise to be vended with the arrangement made possible by the present invention, since all of the merchandise remains in the central depot until the vending machines are brought into the central depot where they are refilled. This is a much more sanitary arrangement than the conventional prior art arrangement, where the service or maintenance man usually carries quantities of merchandise in his automobile or truck as he drives from one display stand location to another and opens and refills each of the vending machines along his route.

Additionally, the complete removal of individual vending machines and the interchanging thereof with replacement vending machines has certain other advantages with respect to repair, service, and maintenance of the physical and mechanical elements thereof since no repair will be attempted at the actual display stand location with the highly advantageous arrangement made possible by the present invention. In other words, all repair work will normally be done at the central depot, and all that is necessary for a service man to do is to replace any defective vending machine with a replacement vending machine as he makes his rounds on his route.

With the above points in mind, it is an object of the present invention to provide a novel mounting and display stand for a plurality of vending machines having any or all of the features referred to herein, generically and/or specifically, and either individually or in combination, and which is of relatively simple, inexpensive, compact, and easy-to-use construction capable of mass manufacture at relatively low cost whereby to be conducive to widespread use thereof.

It is an object of the present invention to provide a combination in accordance with the teachings hereof including the mounting and display stand and a plurality of vending machines in combination therewith and also to provide just the mounting and display stand, per se, or

individually as a subcombination form of the complete combination version of the invention.

Further objects are implicit in the detailed description which follows hereinafter (which is to be considered as exemplary of, but not specifically limiting, the present invention), and said objects will be apparent to persons skilled in the art after a careful study of the detailed description which follows hereinafter.

For the purpose of clarifying the nature of the present invention, two exemplary embodiments of the invention are illustrated in the hereinbelow-described figures of the accompanying two sheets of drawings and are described in detail hereinafter.

FIG. 1 is a reduced-size, three-dimensional view of one exemplary embodiment of the present invention showing it in mounted relationship with respect to four vending machines, although the invention is not to be construed as being specifically so limited since the invention may be modified to carry various different numbers of vending machines greater or lesser than the four shown in FIG. 1.

FIG. 2 is a right side elevational view of the apparatus of FIG. 1.

FIG. 3 is an enlarged fragmentary cross-sectional view taken in the direction of the arrows **3**—**3** of FIG. 2 and with all portions of the apparatus below and behind the plane of the section being removed for drawing simplification purposes.

FIG. 4 is an enlarged fragmentary sectional view taken in the direction of the arrows **4**—**4** of FIG. 2.

FIG. 5 is another enlarged fragmentary sectional view and is taken in the direction of the arrows **5**—**5** of FIG. 2.

FIG. 6 is another enlarged fragmentary sectional view and is taken in the direction of the arrows **6**—**6** of FIG. 2.

FIG. 7 is an enlarged fragmentary sectional detail of the portion of the apparatus included in the circle designated at **7** in FIG. 5 and is exemplary of the plurality of positioning and registration engagement means of the exemplary first form of the apparatus.

FIG. 8 is an enlarged fragmentary view taken in the direction of the arrows **8**—**8** of FIG. 5 with all portions of the apparatus below and behind the plane of the section being removed for reasons of drawing simplification and clarity.

FIG. 9 is a view which partly comprises a top plan view of the upper horizontally directed supporting shelf member of the apparatus, as taken in the direction of the arrows **9**—**9** of FIG. 2, and which is partly in cross section on the plane of said arrows **9**—**9** of FIG. 2.

FIG. 10 is an enlarged view taken in the direction of the arrows **10**—**10** of FIG. 2 and illustrates a typical wheel-mounting arrangement for one of the two wheels rollably mounting the base member—it being understood that the other wheel is similarly mounted.

FIG. 11 is an enlarged fragmentary, partly broken away, sectional view, taken in the direction of the arrows **11**—**11** of FIG. 1.

FIG. 12 is a fragmentary view similar to slightly less than the left half portion of FIG. 5, but illustrates a modified type of positioning and registration means which positively retains each vending machine with respect to the intervening shelf member.

Generally speaking, the exemplary first form of the invention illustrated in FIGS. 1–11 may be said to comprise a mounting and display stand, such as is generally designated at **21**, which includes a base member **22** which is shown in the exemplary form as being of generally rectangular shape as seen in top plan view with a centrally positioned trapezoidal cut-out portion at the front thereof, as indicated at **23**, whereby to effectively define two forwardly extending foot portions **24** which greatly add to the stability of the entire device, while the trapezoidal cut-out **23** allows customers to walk to a very closely frontally adjacent position with respect to the entire stand **21**.

In the exemplary first form of the invention illustrated, the base member **22** has a substantially flat top wall member **25** and a peripheral downwardly extending side wall member **26** around substantially the complete periphery thereof whereby to provide the proper height for the base member **22** without requiring the use of unnecessary material and thereby unnecessarily increasing the weight thereof. The base member **22** may be made of zinc or any other suitable metal. It may be made by sand-casting, die-casting, or any other suitable process. It will be noted that the rear end of the base member **22** is provided with wheel means, such as indicated at **27** (actually a pair of laterally spaced wheels **27**) to provide mobility for the entire device when it is tipped backwardly so that the supporting feet **24** project angularly upwardly from an underlying supporting surface while the wheel means **27** rest upon said supporting surface. This will, of course, enable the entire device to be merely wheeled along in any desired direction in the manner of a conventional hand truck or dolly.

The base member **22** is provided adjacent to the rear thereof with an interiorly threaded socket **28** threadedly receiving and firmly mounting the exteriorly threaded lower end **29** of a main vertical support member or standard generally indicated at **31**. In the exemplary form of the invention illustrated, said main vertical support member **31** is of hollow tubular construction and extends upwardly from the base member **22** at right angles to the top surface **25** thereof for the purpose of mounting and supporting a lower substantially horizontally directed supporting shelf member **32** and an upper substantially horizontally directed supporting shelf member **33** in vertically superimposed and vertically spaced similar horizontally directed relationship for the purpose of supporting a plurality of vending machines thereon, such as generally designated at **34**.

It will be noted that the plurality of horizontal supporting shelf members shown in the exemplary form of the invention as comprising the lower horizontal supporting shelf member 32 and the upper horizontally directed supporting shelf member 33 are mounted by the main vertical support member 31 in a manner such as to allow relative vertical adjustment thereof. This is for the purpose of making it possible to increase the vertical clearance between the lower supporting shelf member 32 and the upper supporting shelf member 33 when it is desired to remove either or both of the two lower vending machines 34 and/or to replace same with two similar vending machines, after which the vertical clearance between the lower and upper supporting shelves 32 and 33 will be returned to its normal vertical height which will positively lock the two lower vending machines 34 between the lower supporting shelf member 32 and the upper supporting shelf member 33 in a manner which will be described hereinafter.

In the exemplary first form of the invention illustrated the above-mentioned vertical-clearance-space-increasing relative vertical positional adjustment of the lower and upper supporting shelf members **32** and **33** is achieved by upward vertical movement of the upper supporting shelf member **33** along the main vertical support member **31** and the opposite vertical-clearance-space-decreasing adjustment of said two shelf members **32** and **33** is accomplished by downward vertical movement of the upper supporting shelf member **33** along the main vertical support member **31**. In the exemplary form illustrated, this is provided by reason of the fact that the upper supporting shelf member **33** has a vertically elongated collar **35** formed at the rear apex of the triangularly rearwardly projecting portion **33R** of said shelf member with said vertically elongated collar **35** being slidably positioned on the tubular main vertical support member **31** and being provided with locking socket head fastening set screw means **36**. This makes it possible to vertically adjust the position of the upper supporting shelf member **33** to any desired position along the vertical

length of the tubular main vertical support member **31** and to then firmly lock same in said adjusted position by means of the set screw means **36**.

It will be noted that the lower supporting shelf member **32** is of similar construction and has a similar vertically elongated collar **37** at the rear end **32R** which is provided with a similar locking set screw **38**. However, this is done for simplicity of manufacture since this will mean that all of the supporting shelf members will be identical or nearly so. Actually, the vertically elongated collar **37** and fastening set screw means **38** of the lower supporting shelf member **32** are effectively nonfunctional once the display stand **21** is fully assembled, since a forward portion of said lower supporting shelf member **32** is additionally and firmly fixedly supported by an auxiliary tubular support member **39** which has an exteriorly threaded upper end **41** received within the interiorly threaded socket **42** carried by the lower supporting shelf member **32** and which has an exteriorly threaded lower end **43** received within the interiorly threaded socket **44** formed in the base member **22** forwardly of the previously described rear socket **28** carrying the main vertical support member **31**. This provides a structure which makes assembly of the display stand **21** very simple and yet which provides an extremely rigid display stand once the apparatus has been assembled and the two vertical support members **31** and **39** fastened in the mounting relationship clearly shown in FIGS. 1 and 2 and once the lower elongated collar **37** and set screw means **38** have been firmly locked in position relative to the main vertical support member **31**.

The lower supporting shelf member **32** is provided with a plurality of upwardly directed or facing positioning and registration engagement elements adapted to be engaged with respect to corresponding positioning and registration engagement elements carried by the corresponding bottom portions of the corresponding lower vending machines **34** in superimposed engagement therewith for positive positioning and registration purposes. In the exemplary first form of the invention illustrated, there are four such upwardly directed and facing positioning and registration engagement elements, each shown as comprising a socket head screw **45** threadedly carried in an interiorly threaded vertically directed socket or boss **46** integrally carried by the supporting shelf member **32** at two pairs of laterally spaced locations where the bottom portions **47** of the two lowermost vending machines **34** are adapted to be received. It will be noted that, in the exemplary first form of the invention illustrated, the above-mentioned corresponding positioning and registration engagement elements are also four in number and comprise vertically directed holes or apertures **48** carried in said bottom portions **47** of the lower pair of vending machines **34** and adapted to receive the enlarged heads of the socket head screws **45** therein as is clearly shown in FIG. 6. Whenever this occurs, it will be understood that the two lowermost vending machines **34** are positively prevented from any kind of lateral or horizontal movement by reason of the engagement of the socket head screws **45** with the surrounding holes or apertures **48** in the bottoms **47** of the vending machines **34**. However, it will also be understood that relative vertical movement is not prevented and either of the two bottom vending machines **34** can be readily lifted directly upwardly so as to disengage the holes **48** from the heads of the socket screws **45**, thus allowing either or both of the two bottom vending machines **34** to be readily removed by direct upward vertical movement of said vending machines **34** off the underlying supporting shelf member **32**.

However, whenever such direct upward movement of the two lowermost vending machines **34** is prevented, it will be understood that said machines will be positively positioned and maintained in the registered predetermined relationships clearly shown in FIGS. 1, 2, and 6, by the four positioning and registration engagement elements **45** and the four cooperating positioning and registration engagement elements **48** just described in detail, which may be said to together effectively comprise positioning and registration means. Such prevention of vertical movement of the pair of lower vending machines **34** will be achieved by means described in greater detail hereinafter.

It should be noted that the upper supporting shelf member **33** is provided with four positioning and registration elements generally similar to those shown at **45** in FIG. 6 and that the upper pair of vending machines **34** is also provided with four positioning and registration engagement elements similar to those shown at **48** in FIG. 6. Therefore, these parts are similarly numbered in FIG. 5 and will not be again described in detail with respect to the portions identical to those described in connection with the lower shelf **32**. However, an additional set of registration elements is included in the showing of FIG. 5 and the additional portions will now be described in detail. Said additional portions of each of the four positioning and registration elements **45**, as shown in FIG. 5, comprises an extended lower end portion **49** of the threaded shaft of the socket screw **45** which is adapted to matingly cooperate with and be received by an additional set of positioning and registration engagement elements **51** (four in all) comprising downwardly depressed recess-defining bosses or sockets **51** formed in the top portions **52** of the two lower vending machines **34**. This arrangement, which is clearly shown in FIG. 5, not only locks the upper pair of vending machines **34** with respect to the upper supporting shelf member **33** but also locks the previously referred to two lower vending machines **34** with respect to said upper supporting shelf member **33** in a positively positioned and registered manner so that each of the two pairs of vending machines will be vertically superimposed in aligned relationship as clearly shown in FIGS. 1, 2, 5, and 7. In the case of FIG. 5, the positioning and registration engagement elements **45**, **48**, **49**, and **51**, all may be said to together comprise positioning and registration engagement means.

In order to firmly lock the four vending machines **34** together and with respect to the lower and upper supporting shelf members **32** and **33** so as to prevent disengagement of said vending machines **34** from said shelf members **32** and **33**, a cover member **53** is provided and is adapted to be positioned in top abutment with the top portions **52** of the upper pair of vending machines **34** and to be firmly forced thereagainst and held thereagainst by vertical tie rod means **54** which has an exteriorly threaded lower end **55** threadedly fastened within an interiorly threaded socket or boss **56** carried by the lower supporting shelf member **32**.

The upper end of the tie rod member **54** has an upper exteriorly threaded end **57** threadedly engaged within an interiorly threaded cylindrically shaped lock body member **58** which has an annularly extended cylindrical retaining collar **59** at the upper end thereof positioned in an enlarged counterbore **61** in the cover member **53**.

It will be noted that the cylindrical lock body member **58** may be rotated by inserting a key (not shown) in the key aperture **62** and then rotating said key, which will rotate the cylindrical lock body **58** and cause the threaded interior engagement thereof with the exteriorly threaded upper tie rod end **57** to apply tension to said tie rod membebr **54** whereby to positively force said cover member **53** downwardly against the top portions **52** of the upper pair of vending machines **34** whereby to draw the entire assembly of all four vending machines **34** together in a firmly locked manner and whereby to cause the positioning and registration engagement means shown in FIG. 4 to be positively engaged.

Said positioning and registration engagement means shown in FIG. 4 effectively comprises a pair of down-

wardly directed positioning and registration engagement elements **63** integrally carried by the cover member **53** and adapted to be forced into recess-defining bosses **51** of the upper portions **52** of the upper pair of vending machines **34** similar to those shown in the upper portion **52** of the lower pair of vending machines **34** in FIG. 5. Thus, it will be seen that applying tension to the tie rod member **54** by rotating the key in the key slot **62** as described above will draw all of the vending machines **34**, the lower and upper supporting shelf members **32** and **33**, and the cover member **53** toward each other with all of the previously described positioning and registration engagement means firmly locked together, thus providing a very strong and rigid assembly of all four vending machines **34**, the lower supporting shelf member **32**, the upper supporting shelf member **33**, and the cover member **53**.

However, it will also be readily understood that inserting a key in the key slot **62** and rotating same in the opposite direction so as to threadedly disengage the cylindrical lock body member **58** from the exteriorly threaded upper end **57** of the tie rod member **54** will allow the cover member **53** to be completely removed, and this will, of course, allow the upper pair of vending machines **34** to be removed by lifting them upwardly off the headed socket screws **45** carried by the upper supporting shelf member **33**.

Removal of the lower pair of vending machines **34** may be accomplished by merely loosening the locking set screw means **36** carried by the elongated collar **35** at the back end of the upper supporting shelf member **33**, and then vertically lifting same along the main vertical support member **31** to a height sufficient to allow the lower vending machines **34** to be directly lifted off the socket screws **45** carried by the lower supporting shelf member **32**. This operation may be facilitated by locking the set screw means **36** and the elongated collar **35** in said elevated position during the removal of the lower vending machines **34**, if desired.

Then, of course, similar replacement lower vending machines **34** may be re-engaged with respect to the lower headed socket screws **45** and the upper shelf member **33** can be moved down until the screw ends **49** are received within the bosses **51** of said upper shelf member **33**, which can then be locked by set screw means **36**, and the upper vending machines **34** can then be re-engaged with respect to the upper headed socket screws **45** and the cover **53** may be refastened over the top thereof by re-engaging the interiorly threaded cylindrical lock body portion **58** with the threaded upper end **57** of the tie rod **54** and tightening same by a key temporarily positioned in the key slot **62**.

Upon completion of the remounting and locking operation, of course, the key will be removed from the key slot **62** and the maintenance or service man will take the vending machines **34** which have been removed and replaced back to a central depot for removal of coins therefrom and for refilling of the upper receptacles thereof with merchandise to be vended. In this connection, it should be noted that each of the top portions **52** of each of the vending machines **34** is locked thereon by a lock **64** which is adapted to be unlocked by a key which is not in the possession of the service or maintenance man.

The above-described locking and unlocking operation of the cover means **53** with respect to the plurality of vending machines **34** is facilitated by reason of the fact that the tie rod **54** is of non-round cross-sectional configuration (square in the example illustrated) and passes through a correspondingly shaped aperture **65** in the upper supporting shelf member **33**, thus preventing said tie rod member **54** from rotating or being rotated. This, of course, means that the locking and unlocking of the cover member **53** with respect to the tie rod member **54** can only be achieved through the use of a key inserted in the key slot **62**, thus preventing any unauthorized tampering with the apparatus and possible removal of any of the vending machines **34** by unauthorized persons.

FIG. 12 is similar to the left portion of FIG. 5 and illustrates a slight modification of the positioning and registration engagement elements **45**—the rest of the engagement elements remaining the same as shown in FIG. 5. The slightly modified positioning and engagement elements which correspond to those designated at **45** in FIG. 5 are designated by the reference numeral **45'** in FIG. 12. However, all other parts have the same numbers as shown in FIG. 5. It will be noted that the modification of the positioning and registration engagement elements **45'** of FIG. 12 merely comprises the provision of enlarged round or oval heads **66** on the screws **45'** which are larger in cross-sectional diameter than the holes or apertures **48** in the bottom portions **47** of each of the four vending machines **34** so that the modified mounting screws **45'**, as shown fragmentarily in FIG. 12, must be placed in position with respect to the bottom portions **47** of all four of the vending machines **34** from the interior thereof prior to assembling, closing, and locking each of said vending machines **34**.

The modified arrangement of FIG. 12 is provided only where, for one reason or another, it is desired to firmly attach each of the vending machines **34** to the corresponding lower and upper supporting shelf members **32** and **33** so that they cannot be removed therefrom by direct upward vertical lifting in the manner described hereinbefore. This is normally for special purposes and normally may be employed when the entire mounting and display stand **21** is to be returned to the central depot as a unit, although this arrangement may be employed under certain other special conditions for use.

It should be noted that while each of the supporting shelf members, such as the lower one **32** and the upper one **33** illustrated in the figures, is shown as being adapted to support two vending machines, such as those illustrated at **34**, the invention is not specifically so limited, and not only may the number of such supporting shelves be varied, but the lateral width thereof may also be varied to accommodate, receive, and support a greater or lesser number of vending machines thereon, thus making it possible for the complete mounting and display stand to mount a relatively few vending machines or a very great number, as determined by variation in the specific design thereof for particular purposes.

It should be noted that the positioning and registration engagement means best shown in FIGS. 4–7 and described in detail hereinbefore comprises one specific exemplary but non-specifically limiting form thereof, and it should be clearly understood that the invention is not specifically limited thereto but is intended to broadly include and comprehend various other and different specific exemplary forms thereof which are substantially functionally equivalent thereto in that they will allow the quick and easy removal of any of the plurality of vending machines by direct disengagement therefrom to facilitate such vending machine removal when the cover is effectively unlocked from the tie rod. Another specific exemplary and non-specifically limiting form thereof is more particularly described, illustrated, and claimed in my copending patent application, entitled A Display and Mounting Stand for a Plurality of Vending Machines, Serial No. 381,734, filed on July 10, 1964, concurrently herewith.

It should be understood that the figures and the specific description thereof set forth in this application are for the purpose of illustrating the present invention and are not to be construed as limiting the present invention to the precise and detailed specific structure shown in the figures and specifically described hereinbefore. Rather, the real invention is intended to include substantially equivalent constructions embodying the basic teachings and inventive concept of the present invention.

I claim:

1. A mounting and display stand for a plurality of vending machines, comprising: a base member; a main vertical support member extending upwardldy from said base member and secured thereto at its lower extremity; at least two vertically superimposed and vertically spaced substantially horizontal shelf members for a plurality of vending machines including a lower shelf member for a plurality of vending machines, and secured to said vertical support member at a lower location, and an upper shelf member vertically spaced above and superimposed with respect to said lower shelf member and releasably and vertically adjustably secured to said main vertical support member at an upper location; a cover member adapted to be positioned in top abutment with a plurality of vending machines when their bottoms are supported on said upper shelf member; and vertical tie rod means having a buttom end portion secured to said lowermost shelf member and having a top end portion lockably securable to said cover member for locking a plurality of vending machines between said cover member and said upper shelf member and between said upper shelf member and said lower shelf member in a non-removable manner; said lower shelf member being provided with at least one upwardly facing positioning and registration engagement element for each vending machine adapted to be received thereover and engagingly cooperable with a corresponding positioning and registration engagement element adapted to be carried by a bottom portion of a vending machine when engaged therewith for positive positioning and registration purposes; said upper shelf member being provided with at least one upwardly and downwardly facing positioning and registration engagement element for each pair of vending machines adapted to be received in vertically superimposed relationship thereover and thereunder by said upper shelf member and on said lower shelf member, respectively, and engagingly cooperable with a corresponding positioning and registration engagement element adapted to be carried by the corresponding bottom and top portions of the corresponding upper and lower vertically superimposed vending machines and in vertical engagement therewith for positive positioning and registration purposes; said cover member being provided with at least one downwardly facing positioning and registration engagement element for each vending machine adapted to be positioned thereunder and carried by said upper shelf member and engagingly cooperable with a corresponding positioning and registration engagement element adapted to be carried by a top portion of a vending machine in underlying engagement therewith for positive positioning and registration purposes, each engageable pair of said positioning and registration engagement elements comprising means for positively positioning and maintaining registration of the plurality of vending machines in certain predetermined relationships with respect to said lower shelf member, said upper shelf member, and said cover member.

2. Apparatus as defined in claim 1, wherein said cover member is provided with a key-operated threaded tension-applying member threadedly cooperable with the upper end of said vertical tie rod means.

3. Apparatus as defined in claim 1, wherein said vertical tie rod means has an effective non-rotative-engagement portion keyed with respect to, and passing vertically through, said upper shelf member whereby to prevent rotation of said vertical tie rod means.

4. Apparatus as defined in claim 1, wherein said vertical tie rod means has a threaded upper end, said cover member being provided with a key-operated threaded tension-applying member threadedly cooperable with said threaded upper end of said vertical tie rod means, said vertical tie rod means having an intermediate non-rotative-engagement key portion keyed with respect to, and passing vertically through, said upper shelf member whereby to prevent rotation of said vertical tie rod means.

5. Apparatus as defined in claim 1, including an auxiliary vertical support member extending upwardly from said base member and secured thereto at its lower extremity at a position forward of the corresponding lower extremity of the main vertical support member, said auxiliary vertical support member having its upper end secured to said lower shelf member.

6. Apparatus as defined in claim 1, wherein each of said positioning and registration engagement elements carried by said shelf members and said cover member comprises an auxiliary male engagement element projecting vertically from the corresponding surface thereof, and wherein each of said positioning and registration engagement elements carried by said bottom and top portions of each vending machine comprises an auxiliary female recessed engagement element directed vertically from and into the corresponding surface of said bottom and top portions, respectively, of a vending machine when mounted on the shelves and cooperable to receive the corresponding one of said auxiliary vertically projecting male engagement elements therein.

7. Apparatus as defined in claim 6, wherein said cover member is provided with a key-operated threaded tension-applying member threadedly cooperable with the upper end of said vertical tie rod means.

8. Apparatus as defined in claim 6, wherein said vertical tie rod means has an effective non-rotative-engagement portion keyed with respect to, and passing vertically through, said upper shelf member whereby to prevent rotation of said vertical tie rod means.

9. Apparatus as defined in claim 6, wherein said vertical tie rod means has a threaded upper end, said cover member being provided with a key-operated threaded tension-applying member threadedly cooperable with said threaded upper end of said vertical tie rod means, said vertical tie rod means having an intermediate non-rotative-engagement key portion keyed with respect to, and passing vertically through, said upper shelf member whereby to prevent rotation of said vertical tie rod means.

10. Apparatus as defined in claim 6, including an auxiliary vertical support member extending upwardly from said base member and secured thereto at its lower extremity at a position forward of the corresponding lower extremity of the main vertical support member, said auxiliary vertical support member having its upper end secured to said lower shelf member.

11. A mounting and display stand for a plurality of vending machines, comprising in combination: a plurality of vending machines, each having a top and bottom portion; a base member; a main vertical support member extending upwardly from said base member and secured thereto at its lower extremity; at least two vertically superimposed and vertically spaced substantially horizontal shelf members for said plurality of vending machines including a lower shelf member for a lower part of said plurality of vending machines, and secured to said vertical support member at a lower location, and an upper shelf member vertically spaced above and superimposed with respect to said lower shelf member and releasably and vertically adjustably secured to said main vertical support member at an upper location; a cover member adapted to be positioned in top abutment with said top portions of an upper part of said plurality of vending machines when their bottom portions are supported on said upper shelf member; and vertical tie rod means having a bottom end portion secured to said lowermost shelf member and having a top end portion lockably securable to said cover member for locking said plurality of vending machines between said cover member and said upper shelf member and between said upper shelf member and said lower shelf member in a non-removable manner; each of said top and bottom portions of said plurality of vending machines being provided with at least one corresponding upwardly facing and downwardly facing positioning and registration

engagement elements, respectively; said lower shelf member being provided with at least one upwardly facing positioning and registration engagement element for each of said plurality of vending machines adapted to be received thereover and engagingly cooperable with a corresponding mating and downwardly facing one of said positioning and registration engagement elements carried by the bottom portion of a corresponding one of said plurality of vending machines in superimposed engagement therewith for positive positioning and registration purposes; said upper shelf member being provided with at least one upwardly and downwardly facing positioning and registration engagement element for each pair of said plurality of vending machines adapted to be received in vertically superimposed relationship thereover and thereunder by said upper shelf member and on said lower shelf member, respectively, and engagingly cooperable with corresponding mating downwardly and upwardly facing positioning and registration engagement elements carried by the corresponding bottom and top portions of the corresponding upper and lower vertically superimposed pair of said plurality of vending machines and in vertical engagement therewith for positive positioning and registration purposes; said cover member being provided with at least one downwardly facing positioning and registration engagement element for each of said plurality of vending machines adapted to be positioned thereunder and carried by said upper shelf member and engagingly cooperable with a corresponding mating one of said positioning and registration engagement elements carried by the top portion of a corresponding one of said plurality of vending machines in underlying engagement therewith for positive positioning and registration purposes, each engageable pair of said mating positioning and registration engagement elements effectively comprising means for positively positioning and maintaining registration of said plurality of vending machines in certain predetermined relationships with respect to said lower shelf member, said upper shelf member, and said cover member.

12. Apparatus as defined in claim **11**, wherein each of said positioning and registration engagement elements carried by said shelf members and said cover member comprises an auxiliary male engagement element projecting vertically from the corresponding surface thereof, and wherein each of said positioning and registration engagement elements carried by said bottom and top portions of each of said plurality of vending machines comprises an auxiliary female recessed engagement element directed vertically from and into the corresponding surface of said bottom and top portions, respectively, of each of said plurality of vending machines when mounted on the shelves and cooperable to receive the corresponding one of said auxiliary vertically projecting male engagement elements therein.

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CLAUDE A. LE ROY, *Primary Examiner.*

W. D. LOULAN, *Assistant Examiner.*