

Sept. 15, 1942.

V. J. LA PAGE

2,295,955

TOWEL WASHER AND DISPENSER

Filed March 9, 1942

2 Sheets-Sheet 1

FIG. 1.

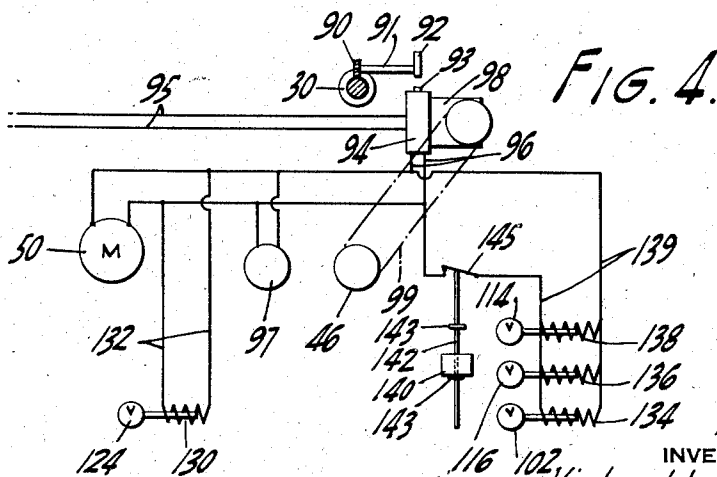
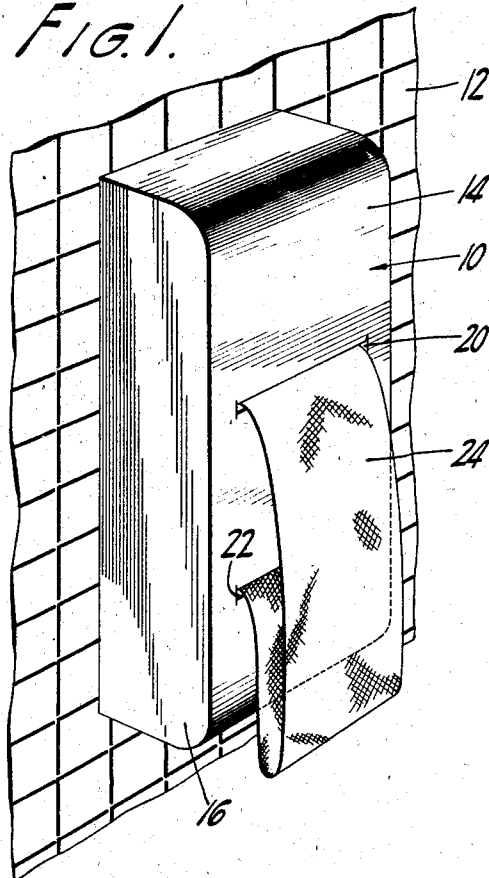


FIG. 4.

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2 Sheets-Sheet 2

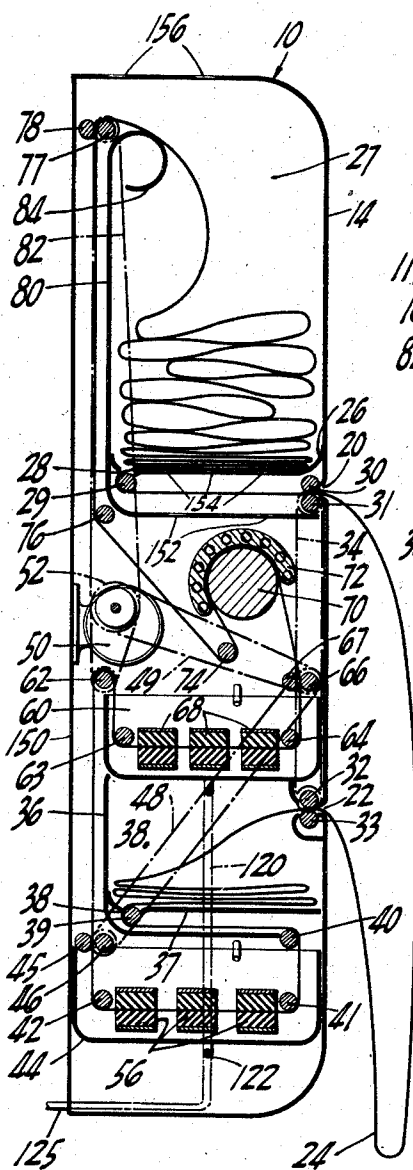


FIG. 2.

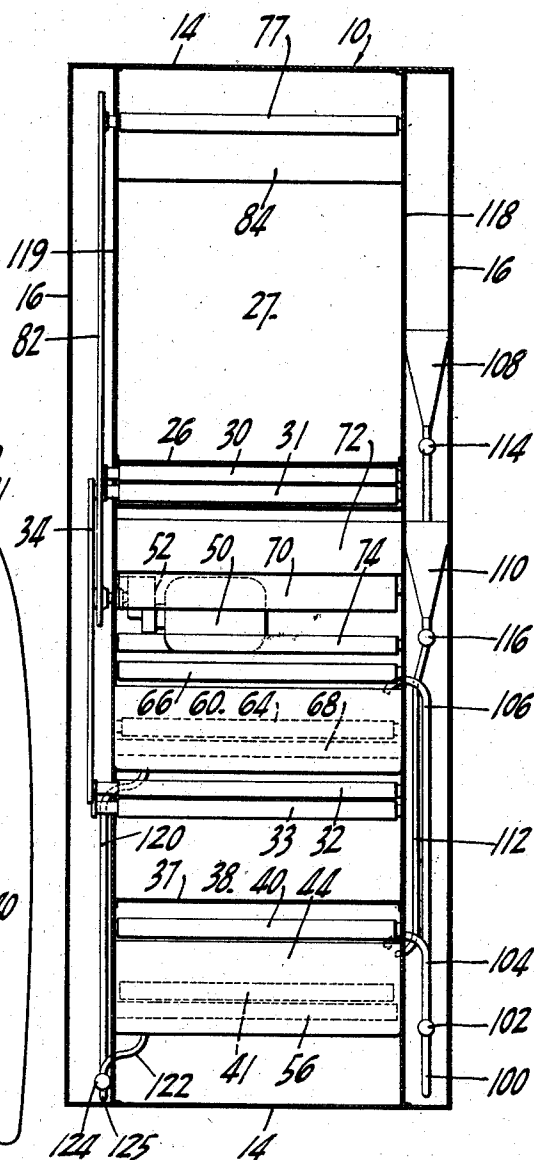


FIG. 3.

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UNITED STATES PATENT OFFICE

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TOWEL WASHER AND DISPENSER

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Application March 9, 1942, Serial No. 433,864

10 Claims. (Cl. 68—13)

This invention relates to towel dispensing cabinets for use in public wash rooms or the like, and more particularly to an improved form of cabinet containing an endless towel and means for automatically washing and ironing the latter as required to enable freshly cleaned towel portions to be continuously dispensed.

One of the objects of the invention is to provide a towel cleaning and dispensing cabinet of the character described which embodies automatic actuating mechanisms whereby the processes of washing and ironing successive portions of the towel are accomplished in improved manner. Another object of the invention is to provide a towel dispensing cabinet of the character described embodying novel features whereby it is arranged that the soiled towel portions will be periodically sterilized and washed and ironed in improved manner and made available for reuse in direct proportion to the user's demands upon the apparatus. Another object of the invention is to provide an apparatus of the character described which is adapted to normally function automatically and without attention by any attendant, and which is fool-proof in its operation and relatively simple and rugged in its design and structural formation. Another object of the invention is to provide an apparatus of the character described wherein the heat energy generated in conjunction with the ironing operations thereof is utilized to further assist in aerating and drying the freshly washed and ironed portions of the towel prior to their being dispensed for reuse. Other objects and advantages of the invention will appear from the specification hereinafter.

In the drawings:

Fig. 1 is a perspective of a towel dispensing apparatus of the invention as it might appear when mounted upon a room wall or other suitable support;

Fig. 2 is a vertical transverse section through the cabinet and mechanism contained therein;

Fig. 3 is a front elevation thereof with the cabinet front wall structure cut away; and

Fig. 4 is a wiring diagram of the electrical control circuits of the mechanism thereof.

The drawings illustrate the invention in conjunction with a cabinet 10 which is of box-like form such as is suitable to be mounted against a wall 12 (Fig. 1) of a public wash room or the like. The cabinet comprises a single piece front and top and bottom wall member 14 constructed of sheet metal or the like and arranged in co-operation with a pair of opposed side walls 16

of similar material. Thus, the casing 10 is adapted to enclose the working members of the apparatus and to provide a pleasing exterior appearance.

The casing 10 is provided at vertically spaced positions in its front wall portion with a towel feedout slot 20 and a towel return slot 22 between which is threaded a looped portion of an endless towel 24 so as to be presented to the users thereof for drying their faces and hands. The feedout slot 20 is disposed intermediately of the upper and lower end portions of the casing 10 and at a position below the level of a partition plate 26 extending horizontally and transversely of the casing interior so as to provide within the upper end portion of the casing an open chamber 27 adapted to contain an accumulation of freshly washed and ironed portions of the towel 24 in such manner as to be ready to be dispensed therefrom for the purposes of the users. The bottom plate 26 is slotted at 28 to permit the towel to be drawn therethrough so as to be discharged from the chamber 27, and a roller 29 is mounted upon the cabinet adjacent the slot 28 for guiding the towel therethrough and thence forwardly between a pair of pressure rollers 30—31 which are mounted upon the casing adjacent the feedout slot 20 of the front wall thereof.

A similar pair of rollers 32—33 are mounted within the cabinet adjacent the towel return slot 22 so as to be adapted to engage the towel therebetween as it returns to the interior of the cabinet, and the feedout rolls 30—31 are operatively connected to the towel-return rolls 32—33 by means of a suitable sprocket-chain device or other geared arrangement, as indicated at 34. Thus, it will be understood that whenever a user pulls upon the upper portion of the towel which is presented for use exteriorly of the cabinet, a freshly cleaned towel portion will be thereby withdrawn from the storage compartment 27, and the return rollers 32—33 will simultaneously operate to return an amount of soiled towel to the interior of the casing which is lineally equal to the amount of towel pulled through the rollers 30—31. Consequently, the same amount of towel will at all times be presented exteriorly of the cabinet.

A partition plate 36 arranged in parallel spaced relation with respect to the rear face of the cabinet and having a forwardly extending flange portion 37 is arranged within the lower portion of the cabinet to provide a soiled towel storage compartment 38 into which the return

rollers 32—33 are adapted to dispose the soiled towel portions when operating as explained hereinabove. The bottom plate portion 37 is slotted at 38 and a free roller 39 is arranged adjacent thereto for training the towel out of the compartment 38 and against successive guide rolls 40—41—42 so that as the soiled toweling is drawn out of the compartment 38 it passes downwardly therefrom into one end of a wash tank 44 and thence therethrough toward the opposite end thereof and thence upwardly through a pair of opposed pressure-applying rolls 45—46. The tank 44 is adapted to contain a washing solution comprising water and soap and disinfectant, or the like; and the rolls 45—46 are operatively connected by means of suitable chain or gearing drive devices as indicated at 48—49 to an electric motor 50 through means of a reduction gear drive device 52 which is coupled to the motor. Thus, it will be understood that whenever the motor 50 is operating the rolls 45—46 will be driven to draw the toweling upwardly therethrough; and thus the toweling will be pulled out of the soiled towel compartment 38 and caused to traverse the interior of the wash tank 44 so as to become thoroughly saturated with the washing and disinfecting solution.

Preferably, a series of scrubbers will be arranged within the wash tank 44 to operate upon the toweling as it passes therethrough to facilitate removal of soilage from the toweling. As illustrated at 56, the scrubbing apparatus may comprise a series of paired sponge rubber blocks arranged in opposed relation above and below the toweling so as to press the latter therebetween as it moves through the wash tank. Thus, the rubber blocks will scrub against the fabric of the toweling so as to provide mechanical assistance to the action of the cleansing solution, to the end that the soilage on the towel fabric will be effectively dislodged.

A rinsing tank 60 is mounted within the casing 10 above the level of the wash tank, and guide rolls 62—63—64 are arranged in conjunction therewith so as to guide the toweling to move upwardly from the wringing rolls 45—46 and over one edge of the rinse tank 60 and thence downwardly thereinto and thence across through the interior thereof and thence upwardly and out of the opposite end portion thereof. The tank 60 is adapted to contain a supply of fresh rinse water or the like, and a pair of wringer-driving rolls 66—67 are arranged above the towel discharge end of the rinse tank for pulling the toweling through the rinse tank after elevating it from the level of the wringer rolls 45—46. The wringer-driving rolls 66—67 are also coupled to the motor drive gear mechanism 49; and thus it will be understood that whenever the motor 50 is operating the rollers 66—67 will simultaneously pull the toweling through the rinse tank and wring it substantially dry as it emerges therefrom, while the rolls 45—46 are pulling a following portion of the toweling through the wash tank and wringing it substantially dry as it emerges therefrom. A series of scrubbing blocks 68, similar to the scrubbing blocks 56 are preferably arranged within the rinse tank to scrub the toweling as it travels through the rinse water for thorough dislodgement of soilage from the toweling.

It is arranged that as the toweling emerges from the rinse wringer rolls 66—67 it will train around a drum 70 which is rotatably mounted upon the casing to extend transversely of the in-

terior thereof. The drum 70 is provided with an electrical grid heat generating element (not shown) of any suitable form such as is well known in the electrical art; and a stationary shoe 72 of arcuate form is disposed to cooperate with the drum 70 so as to closely engage the toweling therebetween as it travels around the surface of the roller 70. The shoe 72 will preferably be also provided with a suitable heat generating element; and thus it will be understood that as the toweling moves around the drum 70 it is engaged and pressed between the heated drum and the heated shoe whereby it becomes thoroughly dried and ironed. Guide rollers 74—76—77—78 then guide the ironed toweling to travel upwardly adjacent the rear face of the cabinet and behind a false back wall plate 80 so as to be delivered into the interior of the clean towel storage chamber 27. For this purpose the rolls 77—78 are arranged in opposed relation so as to pressure-engage the toweling therebetween and are driven by the motor 50 through means of a chain or gear mechanism 82. The upper end of the partition wall 80 is smoothly curved over as at 84 to provide for smooth delivery of the clean towel portion into the storage chamber 27.

Thus, it will be understood that the apparatus provides an arrangement whereby a supply of freshly washed and ironed toweling is adapted to be stored in the upper chamber 27 from which it may be manually withdrawn by simply pulling upon the portion of the toweling projecting from the dispensing cabinet. As fresh toweling is withdrawn from the cabinet, an equivalent amount of soiled toweling is returned by the rollers 32—33 to the soiled towel compartment 38; and upon operation of the motor 50 the soiled toweling stored within the chamber 38 will be threaded first through the wash tank 44 and the scrubbers therein, and then through the rinse tank 60 and the scrubbers therein, and then through the ironer 70—72, and then delivered into the top end portion of the clean towel storage chamber 27 so as to be ready to be withdrawn again from the dispenser as required by the users.

It will be understood that the mode of withdrawal of clean toweling by users from the chamber 27 may be arranged to be either unrestricted or controlled, as may be preferred. For example, an automatically operating measuring device may be employed in conjunction with the rolls 30—31 so as to arbitrarily limit the length of toweling which may be pulled out of the container in one pulling operation. Or, if desired some coin-operated control mechanism may be employed in conjunction with the rolls 30—31 to provide a revenue in connection with the operation of the apparatus. In any case, devices for controlling the operation of dispensing the toweling in the above referred to manners are well known in the art, and may be employed in conjunction with the apparatus of the invention if desired.

It is preferred to provide the apparatus of the invention so that the towel washing and ironing operations thereof will automatically take place as required and in direct ratio to the use of the toweling. Therefore, the roller 30 which rotates in direct proportion to the extent of towel use is geared through a worm gear mechanism 90 as indicated in Fig. 4 to a shaft 91 carrying a radially extending control finger 92. The gear mechanism coupling the roller 30 to the control finger shaft 91 is so provided that the control finger 92 will execute a single revolution about

the axis of the shaft 91 whenever a predetermined quantity of toweling has passed through the rolls 30—31; and the control mechanism is so arranged that whenever the compartment 27 becomes substantially empty of clean toweling the control finger 92 will have been rotated to such position that it bears against the actuating member 93 of an electric switch 94 so as to close an electrical circuit including power inlet conductors 95—96 and power supply conductors 96—96.

The motor 50 is electrically coupled to the conductors 96—96, and the heating elements of the ironer devices 70—72 may be connected in parallel thereto as indicated at 97 (Fig. 4); or, the ironer elements may be connected to the control switch so as to be energized prior to energization of the motor 50. In any case it will be understood that when the control finger 92 actuates the switch 94 to circuit-closed position the heating elements of the ironing device will be energized and the motor 50 will then start to drive the soiled towel portions through the washing and rinsing and ironing mechanisms for final storage thereof in the clean towel chamber 27, as explained hereinabove. A counter device 98 is provided in connection with the switch 94 to control reopening thereof subsequent to closing of the switch by the control finger 92. The counter device 98 may be of any suitable type and is operably coupled to a roller having traction relation with the soiled towel portion moving through the washing-rinsing-ironing mechanisms so that subsequent to passage of a predetermined lineal amount of toweling through the washing apparatus the switch 94 will be reopened to stop the washing and ironing process. Thus, the counter device 98 will be coupled by means of a chain and sprocket arrangement, as indicated at 99, to a roller geared to the towel mechanism, as for example the roll 46; and the counter will be so provided that it will permit a length of toweling sufficient to equal the amount normally stored within the soiled towel chamber 38 to pass through the washing apparatus before reopening the switch 94 whereby the soiled towel chamber will be emptied during each washing-ironing operation and the fresh towel chamber 27 will be simultaneously refilled.

The invention embodies arrangements for periodically draining the wash and rinse tanks of soiled solutions and refilling them with fresh solutions as may be required to provide optimum cleaning action. For example as shown in Figs. 2 and 3, a fresh water inlet conduit 100 is provided with a control valve 102 and dispensing outlets 104—106 which are arranged to discharge fresh water from the conduit 100 into the wash and rinse tanks, respectively, whenever the valve 102 is opened. A soap container 108 and a disinfectant container 110 are provided to discharge into a common outlet conduit 112 leading into the wash tank 44; and valves 114—116 are arranged in conjunction with the soap and disinfectant containers, respectively, for controlling passage of their contents through the conduit 112 toward the wash tank. The cabinet 10 is provided with a partition 118 (Fig. 3) separating the water and soap and disinfectant dispensing apparatus from the towel containing portions thereof; and a similar partition 119 at the opposite side of the cabinet is provided to separate the chain-sprocket drive mechanisms of the apparatus from the towel containing portions thereof. Thus, the towel accommodating por-

tions of the cabinet are segregated from what might be termed the accessory mechanisms thereof for insuring against soiling contact of the toweling with the accessory or working mechanisms of the apparatus.

Soiled solution outlet conduits 120—122 lead from the rinse and wash tanks, respectively, through a common valve 124 and a discharge conduit 125 to some suitable point of discharge such as a sewer line of the adjacent building. The washing solution supply valves 102—114—116 and the soiled solution outlet valve 124 are arranged to be automatically actuated as may be required to maintain the washing and rinsing solutions in suitable condition at all times. Control of the valve devices may be provided in various manners, and by way of example the valve control system is illustrated in Fig. 4 as being directly coupled to the control system for the motor 50 and the ironer heating elements. To this end the soiled solution dump valve 124 is arranged to be actuated by a solenoid mechanism indicated at 130; and the valve 124 is normally biased to open position. Thus, whenever the solenoid 130 is energized the valve will be actuated to closed position, and conductors 132—132 are arranged to connect the solenoid 130 to the power outlet conductors 96—96 so that whenever the switch 94 is actuated to closed position the dump valve 124 will be simultaneously closed and maintained in closed condition as long as the washing and ironing processes are in operation.

The washing solution inlet valves 102—116—114 are arranged to be normally biased to closed positions, and are coupled to solenoid devices 134—136—138 respectively, all of which are connected in parallel through means of conductors 139—139 to the power outlet conductors 96—96 of the control switch 94. Thus, whenever the control switch 94 is actuated to energize the mechanism operating circuit the solenoids 134—136—138 will simultaneously act to open the valves 102—116—114 to permit fresh water to flow into the wash and rinse tanks and fresh soap and disinfectant materials to flow into the wash tank. It will of course be understood that the valve mechanisms controlling passage of the various ingredients of the washing solution will be arranged and regulated so that the ingredients will flow in the desired relative proportions to provide any prescribed composition of washing solution. A float 140 carrying a stem 142 is supported by bearings 143 and is so disposed that the float 140 rests freely upon the fluid within the wash tank 44. A knife switch 145 connected in the line of one of the conductors 139 is arranged to be moved between closed and opened positions upon rising of the float 140 to an elevation corresponding to the desired level of liquid within the wash tank 44 during washing operations.

Thus, it will be understood that whenever the control switch 94 is actuated to commence a washing-ironing cycle of operation, the dump valve 124 will be instantaneously closed and the feed-in-valves 102—116—114 will be simultaneously opened whereby fresh water will flow into the rinse tank and fresh water and soap and disinfectant will flow into the wash tank. When the level of solution in the wash tank reaches the prescribed elevation the float 140 will open the knife switch 145 to break the circuit energizing the solenoids 134—136—138, whereupon the feed valves 102—116—114 will be snapped

shut. The washing and ironing operations will then continue as explained hereinabove, and upon termination thereof as provided for by operation of the counter mechanism 98, the switch 94 will be opened to deenergize the entire system whereupon the dump valve 124 will be opened and the wash and rinse tanks drained of soiled solutions. It will of course be understood that the process of changing the solutions within the rinse and wash tanks may be controlled in any other modified manner, and that the solution changes may be arranged to occur at longer periods, if preferred.

Various changes may of course be made with respect to specific details of the apparatus. For example, if preferred, in lieu of the sponge rubber scrubbing blocks 56-68 of the wash and rinse mechanisms, corresponding series of scrubbing roller brushes may be employed. Also, a towel folding mechanism may be employed if preferred, within the clean towel storage chamber 27 whereby the freshly cleaned toweling may be regularly folded within the clean towel chamber preliminary to being dispensed therefrom for the purposes of the users. For this purpose any suitable standard form of fabric folding mechanism may be employed.

A particular feature of the invention is illustrated in Figs. 2 and 3 wherein air circulating apertures are illustrated as being provided in the rear wall plate of the cabinet at 150, and other air holes are provided in the plates 80-26 as illustrated at 152-154. Air outlet openings are provided in the top wall of the casing 10 as indicated at 156; and thus it will be understood that the heat generated by operation of the motor 50 and the ironer elements 70-72 will cause the atmosphere adjacent thereto to become heated, and that a thermo-syphon air circulating system will thereby be established whereby fresh air will be caused to constantly flow into the casing through the apertures 150 and thence to become heated before passing through the clean towel storage chamber 27 and out of the openings at the top thereof. Naturally, this constant stream of heated fresh air will result in complete aerating and drying of the freshly washed toweling; and "souring" of the washed toweling will be thereby avoided. Consequently, when the toweling is dispensed for the purpose of the users it will be in optimum condition.

Although only one form of the invention has been shown and described in detail, it will be apparent to those skilled in the art that the invention is not so limited but that various changes may be made therein without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel disposed substantially within said cabinet and having a looped portion extending therefrom for the purposes of the user, said cabinet being interiorly partitioned to provide separate chamber portions, one of said chamber portions being adapted to accommodate an accumulation of freshly washed and ironed toweling therein prior to being withdrawn for purposes of the user, another of said chambers being adapted to contain an accumulation of soiled toweling therein subsequent to being used, means engaging the toweling as it is withdrawn from said clean towel chamber and operably coupled to means engag-

ing the soiled portion of said toweling at its point of return into the cabinet for driving soiled toweling into said soiled towel chamber at equal rate and simultaneously to withdrawal of clean toweling from said clean towel chamber, wash tank means disposed within said cabinet adjacent said soiled towel chamber, rinse tank means arranged adjacent said wash tank means, towel ironing means disposed adjacent said rinse tank means, fresh water and soap and disinfectant supply means adapted to feed said wash and rinse tank means, means for automatically drawing the accumulated soiled toweling from said soiled towel chamber so as to pass successively through said wash tank means and said rinse tank means and said ironing means for delivery into said clean toweling chamber whenever the latter becomes substantially empty, and means for periodically and automatically changing the washing and rinsing solutions of said wash tank means and said rinse tank means without personal attention.

2. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel disposed substantially within said cabinet and having a looped portion extending exteriorly therefrom for the purposes of the user, wash tank means disposed within said cabinet, rinse tank means arranged adjacent said wash tank means, towel ironing means disposed adjacent said rinse tank means, means for automatically pulling the accumulated soiled toweling so as to pass successively through said wash tank means and said rinse tank means and said ironing means for dispensing delivery, and means for periodically and automatically changing the washing and rinsing solutions of said wash tank means and said rinse tank means without personal attention.

3. A towel washing and dispensing apparatus comprising a cabinet, a towel having a portion thereof extending from said cabinet for the purposes of the user, said cabinet being provided with separate chamber portions, one of said chamber portions being adapted to accommodate an accumulation of freshly washed and ironed toweling therein prior to being withdrawn for purposes of the user, another of said chambers being adapted to contain an accumulation of soiled toweling therein subsequent to being used, wash tank means disposed within said cabinet adjacent said soiled towel chamber, rinse tank means arranged adjacent said wash tank means, fresh water and soap and disinfectant supply means adapted to feed said wash and rinse tank means, means for automatically drawing the accumulated soiled toweling from said soiled towel chamber so as to pass successively through said wash tank means and said rinse tank for delivery into said clean toweling chamber whenever the latter becomes substantially empty, and means for periodically and automatically actuating said supply means for changing the washing and rinsing solutions of said wash tank means and said rinse tank means.

4. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel disposed substantially within said cabinet and having a looped portion extending exteriorly therefrom for the purposes of the user, wash tank means disposed within said cabinet, rinse tank means arranged adjacent said wash tank means, towel ironing means disposed adjacent said rinse tank means, means for automatically pulling the accumulated soiled toweling so as to pass successively through said wash tank means and said

rinse tank means and said ironing means for dispensing delivery, and means for periodically and automatically changing the washing and rinsing solutions of said wash tank means and said rinse tank means in accord with the extent of use of said toweling.

5. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel disposed substantially within said cabinet and arranged to be pulled therefrom for use and returned thereto and thus having a looped portion extending exteriorly therefrom for the purposes of the user, a wash tank disposed within said cabinet, a rinse tank arranged adjacent said wash tank, towel ironing means disposed adjacent said rinse tank, means for automatically pulling the soiled portion of said toweling so as to pass it successively through said wash tank and said rinse tank and said ironing means preliminary to dispensing delivery thereof and intermittently operable upon pulling of predetermined lengths of toweling from said cabinet, and means for periodically and automatically changing the washing and rinsing solutions of said wash tank and said rinse tank upon passage of predetermined length of toweling therethrough.

6. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel disposed substantially within said cabinet and having a looped portion extending therefrom for the purposes of the user, said cabinet being interiorly partitioned to provide separate chamber portions, one of said chamber portions being adapted to accommodate an accumulation of freshly washed and ironed toweling therein prior to being withdrawn for purposes of the user, another of said chambers being adapted to contain an accumulation of soiled toweling therein subsequent to being used, traction roller means engaging the toweling as it is withdrawn from said clean towel chamber and operably coupled to traction roller means engaging the soiled portion of said toweling at its point of return into the cabinet for driving soiled toweling into said soiled towel chamber at equal rate to and concurrently with withdrawal of clean toweling from said clean towel chamber, wash tank means disposed within said cabinet adjacent said soiled towel chamber, rinse tank means arranged adjacent said wash tank means, towel ironing means disposed adjacent said rinse tank means, fresh wash and rinse solution supply means adapted to feed said wash and rinse tank means, motor means operably associated with said toweling for automatically drawing the accumulated soiled toweling from said soiled towel chamber so as to pass it successively through said wash tank means and said rinse tank means and said ironing means for delivery into said clean toweling chamber whenever the latter becomes substantially empty, as the result of actuation of motor control means by said traction roller means, means for changing the washing and rinsing solutions of said wash tank means and said rinse means respectively subsequent to passage of a predetermined length of toweling therethrough, heat supply means associated with said towel ironing means and arranged to be energized by said traction roller means subsequent to a predetermined amount of rotation thereof, and float means associated with said wash-rinse tank means for operation upon attainment of a predetermined solution level therein to discontinue feeding of fresh wash and rinse solutions thereinto.

7. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel disposed substantially within said cabinet and having a looped portion extending therefrom for the purposes of the user, said cabinet being interiorly partitioned to provide separate chamber portions, one of said chamber portions being adapted to accommodate an accumulation of freshly washed and ironed toweling therein prior to being withdrawn for purposes of the user, another of said chambers being adapted to contain an accumulation of soiled toweling therein subsequent to being used, traction roller means engaging the toweling as it is withdrawn from said clean towel chamber and operably coupled to traction roller means engaging the soiled portion of said toweling at its point of return into the cabinet for driving soiled toweling into said soiled towel chamber at equal rate to and concurrently with withdrawal of clean toweling from said clean towel chamber, wash tank means disposed within said cabinet adjacent said soiled towel chamber, rinse tank means arranged adjacent said wash tank means, towel ironing means disposed adjacent said rinse tank means, fresh wash and rinse solution supply means adapted to feed said wash and rinse tank means, motor means operably associated with said toweling for automatically drawing the accumulated soiled toweling from said soiled towel chamber so as to pass it successively through said wash tank means and said rinse tank means and said ironing means for delivery into said clean toweling chamber whenever the latter becomes substantially empty, as the result of actuation of motor control means by said traction roller means, means for changing the washing and rinsing solutions of said wash tank means and said rinse tank means respectively subsequent to passage of a predetermined length of toweling therethrough, heat supply means associated with said towel ironing means and arranged to be energized by said traction roller means subsequent to a predetermined amount of rotation thereof, and float means associated with said wash-rinse tank means for operation upon attainment of a predetermined solution level therein to discontinue feeding of fresh wash and rinse solutions thereinto, said cabinet being formed with air circulating apertures below the level of said motor and ironing means and in the top of said clean towel chamber for thermosiphon circulation of fresh heated air through said clean towel chamber.

8. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel connected into said cabinet and having a looped portion extending therefrom for the purposes of the user, said cabinet being interiorly partitioned to provide separate chamber portions, one of said chamber portions being adapted to accommodate an accumulation of freshly washed and ironed toweling therein prior to being withdrawn for purposes of the user, another of said chambers being adapted to contain an accumulation of soiled toweling therein subsequent to being used, traction roller means engaging the toweling as it is withdrawn from said clean towel chamber and operably coupled to traction roller means engaging the soiled portion of said toweling at its point of return into the cabinet for driving soiled toweling into said soiled towel chamber at equal rate to and concurrently with withdrawal of clean toweling from said clean towel chamber, wash tank means disposed within said cabinet

adjacent said soiled towel chamber, rinse tank means arranged adjacent said wash tank means, towel ironing means disposed adjacent said rinse tank means, fresh wash and rinse solution supply means adapted to feed said wash and rinse tank means, electric motor means operably associated with a traction roller engaging said toweling for automatically drawing the accumulated soiled toweling from said soiled towel chamber so as to pass it successively through said wash tank means and said rinse tank means and said ironing means for delivery into said clean toweling chamber whenever the latter becomes substantially empty, electrically controlled means for changing the washing and rinsing solutions of said wash tank means and said rinse means respectively subsequent to passage of a predetermined length of toweling therethrough, electrical energy type heat supply means associated with said towel ironing means and arranged to be energized by said traction roller means subsequent to a predetermined amount of rotation thereof, and float means associated with said wash-rinse tank means for operation upon attainment of a predetermined solution level therein to deenergize the electric control means governing feeding of fresh wash and rinse solutions thereinto.

9. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel disposed substantially within said cabinet and having a looped portion extending therefrom for the purposes of the user, said cabinet being interiorly partitioned to provide separate chamber portions, one of said chamber portions being adapted to accommodate an accumulation of freshly washed and ironed toweling therein prior to being withdrawn for purposes of the user, another of said chambers being adapted to contain an accumulation of soiled toweling therein subsequent to being used, traction roller means engaging the toweling as it is withdrawn from said clean towel chamber and operably coupled to traction roller means engaging the soiled portion of said toweling at its point of return into the cabinet for driving soiled toweling into said soiled towel chamber at equal rate to and concurrently with withdrawal of clean toweling from said clean towel chamber, wash tank means disposed within said cabinet adjacent said soiled towel chamber, rinse tank means arranged adjacent said wash tank means, towel ironing means disposed adjacent said rinse tank means, fresh wash and rinse solution supply means adapted to feed said wash and rinse tank means, motor means operably associated with said toweling for automatically drawing the accumulated soiled toweling from said soiled towel chamber

so as to pass it successively through said wash tank means and said rinse tank means and said ironing means for delivery into said clean toweling chamber whenever the latter becomes substantially empty as the result of actuation of motor control means by said traction roller means, means for changing the washing and rinsing solutions of said wash tank means and said rinse tank means respectively subsequent to passage of a predetermined length of toweling therethrough, heat supply means associated with said towel ironing means and arranged to be energized by said traction roller means subsequent to a predetermined amount of rotation thereof, said cabinet being formed with air circulating apertures below the level of said motor and ironing means and in the top of said clean towel chamber for thermo-syphon circulation of fresh heated air through said clean towel chamber.

10. A towel washing and ironing and dispensing apparatus comprising a cabinet, an endless towel disposed substantially within said cabinet and having a looped portion extending exteriorly therefrom for the purposes of the user, said cabinet being interiorly partitioned to provide separate chamber portions, one of said chamber portions being adjacent the upper end of said cabinet and adapted to accommodate an accumulation of freshly washed and ironed toweling therein prior to being withdrawn for purposes of the user, another of said chambers being adapted to contain an accumulation of soiled toweling therein subsequent to being used, means engaging the toweling as it is withdrawn from said clean towel chamber and operably coupled to means engaging the soiled portion of said toweling at its point of return into the cabinet for driving soiled toweling into said soiled towel chamber at equal rate and simultaneously to withdrawal of clean toweling from said clean towel chamber, wash tank means disposed within said cabinet adjacent said soiled towel chamber, rinse tank means arranged adjacent said wash tank means, towel ironing means disposed adjacent said rinse tank means, means for automatically drawing the accumulated soiled toweling from said soiled towel chamber so as to pass successively through said wash tank means and said rinse tank means and said ironing means for delivery into said clean toweling chamber whenever the latter becomes substantially empty, and means for periodically automatically changing the washing and rinsing solutions of said wash tank means and said rinse tank means without personal attention.

VICTOR J. LAPAGE.