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APPARATUS FOR INSECT CONTROL

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Fig. 1.

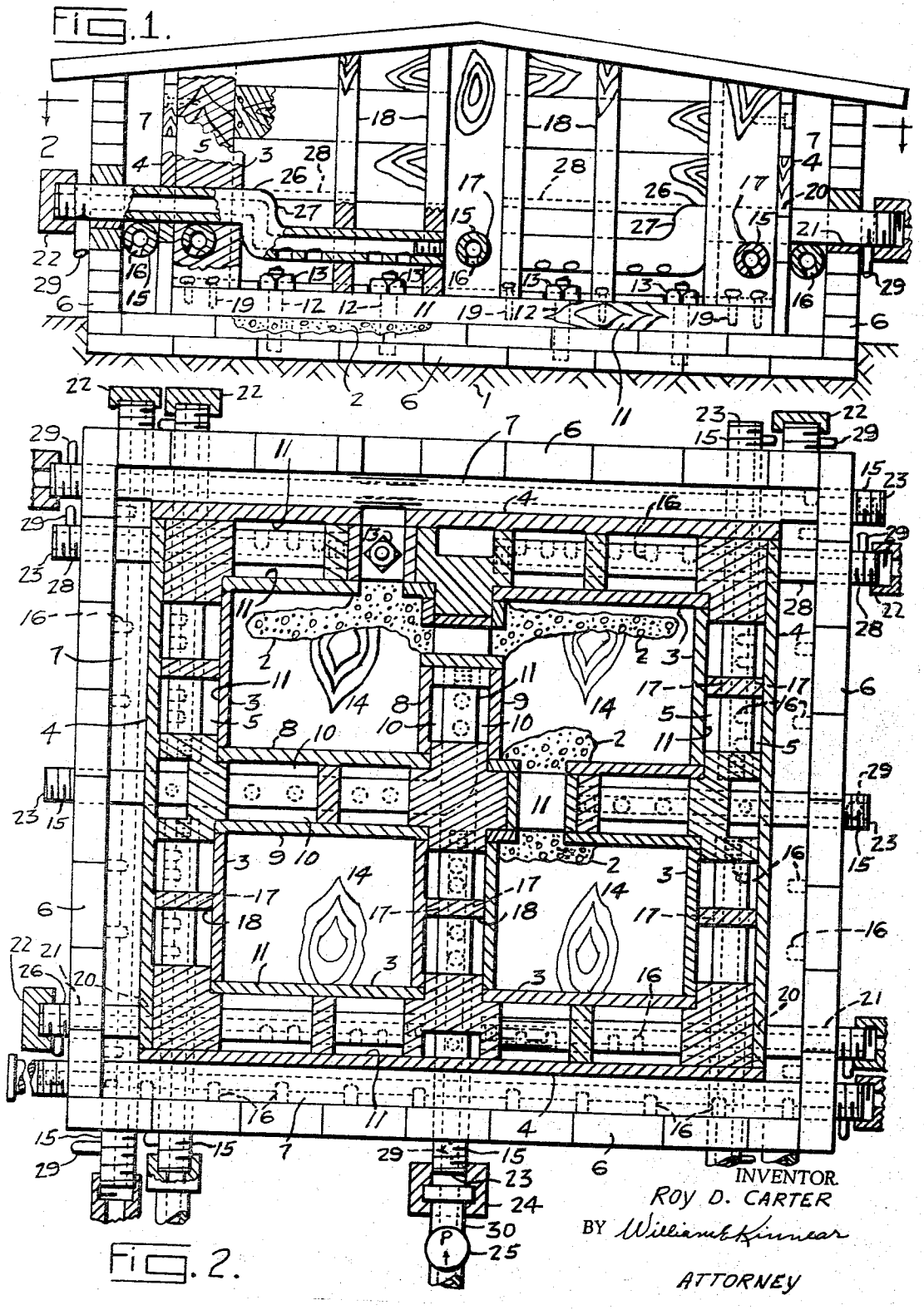

Fig. 2.

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This invention relates to new and useful improvements in apparatus for the prevention and extermination of insects which damage buildings and structures, particularly termites which come from the ground and initially bore into the lower wooden portions of buildings supported on impenetrable concrete slab or chain wall foundations built on ground.

An object of the invention is to provide apparatus so positioned and arranged with respect to buildings of the character described to periodically spray and coat with liquid insecticides the lower portions of the wooden or other substances of buildings which insects and the like initially attack and damage.

Another object of the invention is to provide perforated pipes positioned and arranged horizontally through and adjacent the bottom of the void spaces between the vertical main outer and inner vertical walls above the toe plates or other members of buildings of the character described through which pipes and the perforations thereof liquid insecticides are forced under pressure at desired intervals to spray and coat the surfaces of the usual wooden toe plates or other members below said inner and outer vertical walls, as well as, the lower portions of said vertical inner and outer walls, vertical wall studs or other structures below said pipes and above said toe plates.

A further object of the invention is to provide perforated pipes arranged and positioned horizontally through and adjacent the bottom of the multiple vertical main outer and inner walls of buildings of the character described with outermost vertical veneer walls spaced outwardly therefrom whereby the perforations in said pipes are spaced apart and disposed downwardly to spray and coat the surfaces of the vertical walls and toe plate or other structure below said pipes between said main outer and inner walls of said buildings.

A still further object of the invention is to provide perforated pipes arranged and positioned with respect to multiple vertical walls of buildings of the character described whereby said pipes may be oriented so that the liquid insecticide forced through the perforations of said pipes will spray onto and coat the surfaces of the inside of the outer walls and the toe plate or other surfaces or structures below said pipes.

A still further object of the invention is to provide perforated pipes arranged and positioned with respect to multiple vertical walls of buildings of the character described whereby said pipes may be turned during the spraying operation to coat surfaces of the lower walls adjacent to either one or both sides of said pipes as well as the toe plate or other surfaces or structure below said pipes.

These and other objects of the invention will in part be obvious and will in part be more fully disclosed in the specification, the drawings of which show one embodiment of the invention, in which:

FIG. 1 is a side view partly sectional showing concrete slab foundation built on the ground supporting building having wooden toe plate beneath and under the vertical wall studs with inner and outer wooden walls attached thereto and outer veneer wall outside the outer wooden wall to form multiple wall spaced apart leaving void spaces therebetween through which perforated pipes are horizonatally disposed and extend to outer sides of the building; and,

FIG. 2 is a sectional view taken on line 2–2 of FIG. 1 with the wooden floor partly broken away to show concrete slab therebelow.

The invention will be understood better by a more detailed description thereof reference being had to the accompanying drawings wherein like numeraled parts herein denote like numeraled parts therein in the various views. The numeral **1** denotes the ground on which impenetrable concrete slab foundation **2** is laid which supports building comprising wooden vertical inner wall **3** and opposing vertical wooden outer wall **4** between which are void spaces **5**. The concrete slab foundation **2** is impenetrable to termites boring therethrough. Between said wooden wall **4** and outermost vertical veneer walls **6** there are void spaces **7** therebetween, as well as, said building having the usual vertical opposed walls **8** and **9** forming cross partition walls interiorly of said building with void spaces **10** therebetween. Toe plates **11** underlie all walls around the perimeter of the building as well as the cross partition walls and are attached to the concrete slab foundation **2** by bolts **12** embedded into the slab **2** with the upper end thereof extending through holes in the wooden toe plates **11** and nuts **13** threadedly screwed to the upper threaded ends thereof. A wooden floor **14** covers the concrete slab **2** between the toe plates **11** and having outer veneer wall **6** built on concrete slab foundation **2**.

Pipes **15** having perforations **16** are horizontally disposed through holes **17** formed through and adjacent the lower ends of the vertical walls studs **18**. The studs **18** are nailed to the top of the toe plates **11** by nails **19**. Pipes **15** also extend through the void spaces **5** between the vertical wall studs **18**, wooden inner vertical walls **3** and the outer wooden walls **4**, and extend through void spaces **7** between the veneer walls **6** and the wooden outer walls **4** to create the spaces **7** therebetween which extends around the perimeter of the said wooden outer walls **4**. Pipes **15** also extend horizontally through holes **20** in the wooden outer vertical walls **4** and holes **21** through the vertical veneer walls **6**, and, said pipes **15** are provided with removable caps **22** screwed to the threaded ends **23** of said pipes **15**. One of said caps **22** is removed from one of the threaded ends **23** of pipes **15**, **26** or **28** and a threaded hollow housing **24** with swivel connection **30** is screwed to said threaded end **23** of pipes **15** which is connected to liquid pump **25**. The liquid pump **25** forces liquid insecticide through said pipes **15**, **26** or **28** and the perforations **16** thereof to spray and coat the surfaces to be treated to prevent and exterminate termites and the like which may attempt to enter and attack initially the wooden members of the building which are adjacent to and supported by the slab foundation **2**. A pipe **26** is shown in FIG. 1 of drawings and has a bend **27** so as to extend over straight pipes **15** which extend transverse thereto. However, it is preferred that all pipes be straight so that they can be oriented by handles **29** to spray and coat the surfaces desired to be treated with the insecticide. Where all pipes are straight some of the pipes are at higher level than the pipes transverse thereto for clear-

ance as shown, for example, by straight pipes **28** in FIG. 2 to be at higher level than tranverse pipes **15** therebelow.

The handles **29** are in alignment with the perforations **16** in the pipes **15** and **28** so that upon manual turning said pipes the operator thereof may determine exactly what surfaces are being sprayed and coated to insure coating all required surfaces. The toxic liquid insecticide is used at timely intervals in order to keep coated all wooden surfaces adjacent the concrete slab foundation **2** which are required surfaces to discourage or kill termites or the like attempting to enter and damage the wooden structure of the building. Termites are crawling organisms and the surfaces of the wooden areas adjacent the concrete foundation are thus kept coated with a toxic insecticide to prevent termites from ever entering or attacking the wooden or other materials adjacent and supported on said foundation.

It is obvious that many changes may be made in details of construction and arrangement of the various parts without departing from the spirit and scope of the invention.

What I claim as new and desire to secure by Letters Patent is:

1. In combination with an impenetrable foundation supporting a building thereon, said building including a frame with toe plates mounted on said foundation, opposed multiple vertical walls including main outer and inner vertical walls mounted on said frame above said foundation with void spaces between said vertical walls, pipes with perforations therein extending horizontally through said void spaces between said vertical walls of said building and positioned above said toe plates and the lower portions of said vertical walls whereby liquid insecticide pumped through said pipes under pressure will forcibly discharge through said perforations onto the inner surfaces of the lower portions of said vertical walls and the top of said toe plates and cause said discharged insecticide to flow down and around and beneath said toe plates and the bottom ends of said vertical walls and onto said foundation therebelow, said main outer and inner walls having vertical studs spaced at intervals therebetween, matching horizontal holes in said studs to receive and support said pipes, said perforations in said pipes spaced apart and in longitudinal alignment with each other for discharging toxic liquid insecticide forced therethrough to coat the inside surfaces of the outer walls adjacent the foundation of said building below said pipes.

2. In combination with an impenetrable foundation supporting a building thereon, said building including a frame with toe plates mounted on said foundation, opposed multiple vertical walls including main outer and inner vertical walls mounted on said frame above said foundation with void spaces between said vertical walls, pipes with perforations therein extending horizontally through said void spaces between said vertical walls of said buildings and positioned above said toe plates and the lower portions of said vertical walls whereby liquid insecticide pumped through said pipes under pressure will forcibly discharge through said perforations onto the inner surfaces of the lower portions of said vertical walls and the top of said toe plates and cause said discharged insecticide to flow down and around and beneath said toe plates and the bottom ends of said vertical walls and onto said foundation therebelow, said main outer and inner walls having vertical studs spaced at intervals therebetween, matching horizontal holes in said studs to rotatably receive and support said pipes, said perforations in said pipes spaced apart and in longitudinal alignment with each other for discharging toxic liquid insecticide forced therethrough to coat the inside surfaces of the inner walls adjacent the foundation of said building below said pipes.

3. In combination with an impenetrable foundation supporting a building thereon, said building including a frame with toe plates mounted on said foundation, opposed

multiple vertical walls including main outer and inner vertical walls mounted on said frame above said foundation with void spaces between said vertical walls, pipes with perforations therein extending horizontally through said void spaces between said vertical walls of said building and positioned above said toe plates and the lower portions of said vertical walls whereby liquid insecticide pumped through said pipes under pressure will forcibly discharge through said perforations onto the inner surfaces of the lower portions of said vertical walls and the top of said toe plates and cause said discharged insecticide to flow down and around and beneath said toe plates and the bottom ends of said vertical walls and onto said foundation therebelow, said main outer and inner walls having vertical studs spaced at intervals therebetween, matching horizontal holes in said studs to receive and support said pipes, said perforations in said pipes spaced apart and in longitudinal alignment with each other, handles on said pipes in alignment with said perforations for orienting said pipes to discharge liquid insecticides forced therethrough to coat the inside surfaces of said inner and outer walls and the surfaces of members below said pipes supported on said foundation.

4. In combination with an impenetrable foundation supporting a building thereon, said building including a frame with toe plates on said foundation, opposed multiple vertical walls including main outer and inner vertical walls mounted on said frame above said foundation with void spaces between said vertical walls, pipes with perforations therein and extending horizontally through said void spaces between said vertical walls of said building and positioned above said toe plates and the lower portions of said vertical walls whereby liquid insecticide pumped through said pipes under pressure will forcibly discharge through said perforations on the inner surfaces of the lower portions of said vertical walls and the top of said toe plates and cause said discharged insecticide to flow down around and beneath said toe plates and the bottom ends of said vertical walls and onto said foundation therebelow, said main outer and inner walls having vertical studs spaced at intervals therebetween, matching horizontal holes in said studs to receive and support said pipes, said perforations in said pipes spaced apart and in longitudinal alignment with respect to each other and in alignment with a handle means on said pipes so that when said pipes are rotated therewith aligns said perforations in said pipes in the desired oriented position to discharge liquid insecticide forced therethrough to coat the inside surfaces of said inner and outer walls therebelow and the surfaces of the toe plates below said pipes supported on said foundation, outermost vertical walls outside said first named outer walls with separate perforated pipes horizontally disposed in the spaces therebetween through which liquid insecticide is forced under pressure to discharge insecticide through said perforations in said last named separate pipes to coat the outside of said first named outer walls below said separate pipes and to coat the inside of said outermost vertical walls.

5. In combination with an impenetrable foundation supporting a building thereon, said building including a frame with toe plates on said foundation, opposed multiple vertical walls including main outer and inner vertical walls mounted on said frame above said foundation with void spaces between said vertical walls, pipes with perforations therein and extending horizontally through said void spaces between said vertical walls of said building and positioned above said toe plates and the lower portions of said vertical walls whereby liquid insecticide pumped through said pipes under pressure will forcibly discharge through said perforations on the inner surfaces of the lower portions of said vertical walls and the top of said toe plates and cause said discharged insecticide to flow down around and beneath said toe plates and the bottom ends of said vertical walls and onto said foundation therebelow, said main outer and inner walls

having vertical studs spaced at intervals therebetween, matching horizontal holes in said studs to rotatably receive and support said pipes, said perforations in said pipes spaced apart and in longitudinal alignment with respect to each other and in alignment with a handle means on said pipes so that when said pipes are rotated therewith aligns said perforations in said pipes in the desired oriented position to discharge liquid insecticide forced therethrough to coat the inside surfaces of said inner and outer walls therebelow and the surfaces of the toe plates below said pipes supported on said foundation, outermost vertical walls outside said first named outer walls with separate perforated pipes horizontally disposed in the spaces therebetween through which liquid insecticide is forced under pressure to discharge insecticide

through said perforations in said last named separate pipes to coat the inside of said outermost vertical walls below said separate pipes.

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