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TERMITE CONTROL

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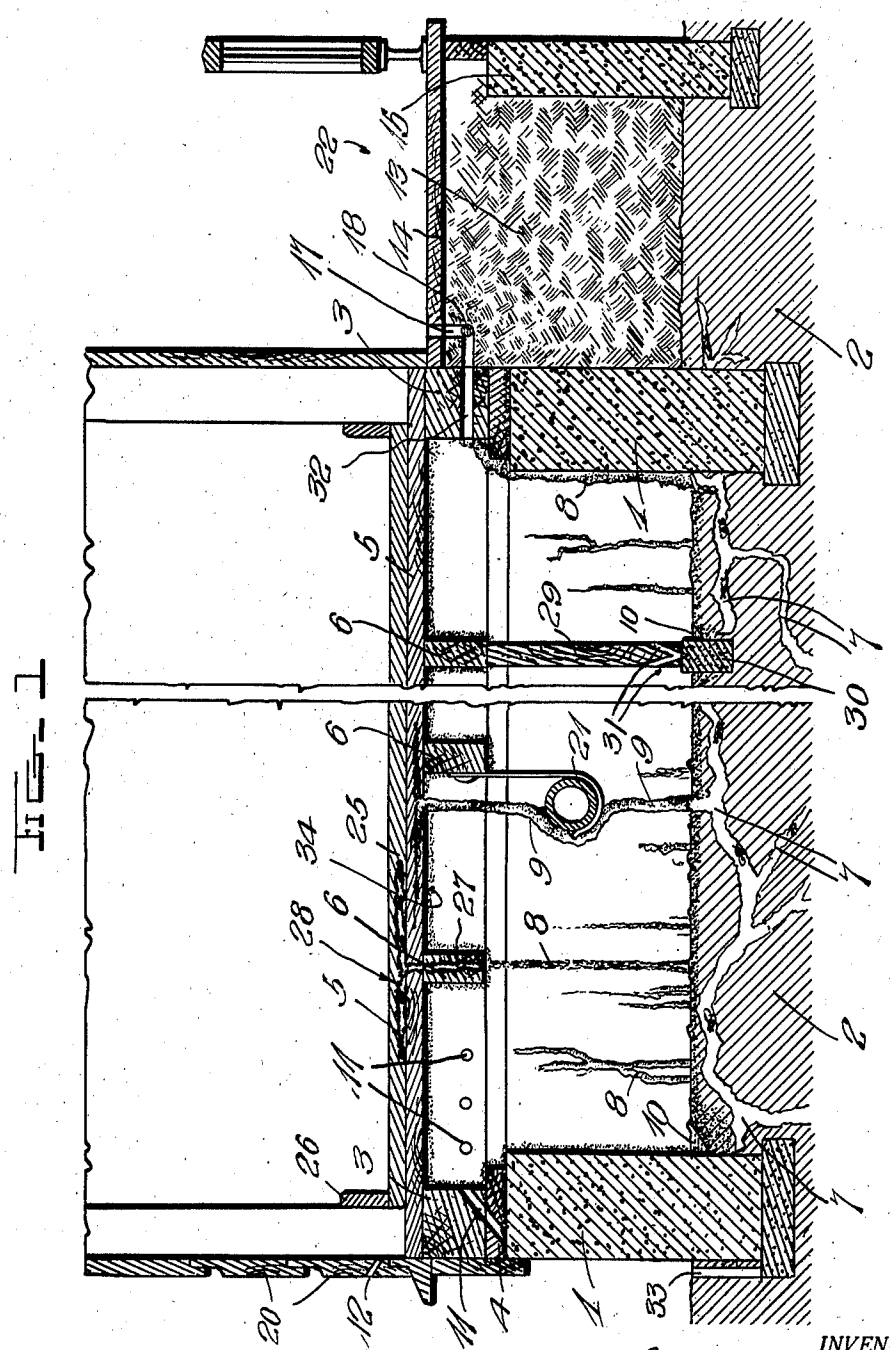

FIG. 1

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TERMITE CONTROL

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15 Claims. (Cl. 43—124)

My invention relates to a method for the control of termites, to prevent them from infesting wooden structures, such as the ordinary dwelling houses.

The type of termite that does the great damage in the temperate zones is known as the subterranean termite. It lives in well arranged chambers below the frost line and feeds almost entirely on wood or other cellulosic articles. It works preferably in the dark, usually starting in the wood on the side farthest from the light. It gradually eats away the interior of the wood, seldom destroying the surface or breaking through.

The subterranean type of termite requires moisture at regular intervals. It accordingly maintains a series of tunnels or hollow runways, that connect the moist earth with the wood structure of the building.

Recognizing that the place of nomal abode is in the moist earth under or near the building, I aim to exterminate the termites that already infest the wooden portion of the house and also prevent the re-entry of termites by laying down a blanket of a suitable non-volatile insoluble insecticide between the earth and all the possible avenues along or through which the termites might pass from the earth up into the wood.

Referring to the drawing for a more complete disclosure of the invention,

Fig. 1 is a diagrammatic section through the lower part of a frame house and its foundation.

The framework of the house rests on a suitable masonry foundation 1. On top of the foundation rests the wood sills 3, sometimes a wooden plate 4 being interposed. The subfloor 5 rests on the joists 6, and the top or finished floor 25 lays on the subfloor. The weather boards 20 are secured to the usual studding and the base board or moulding 26 is placed in the usual manner.

The termites live in ground nests leading to the subterranean channels 7 in the earth 2. In order to reach and work on the wood portion of the house, they may build towers 9 over pipes 21 in order to reach the wood. The termites may bore through the joists 6 as at 27 and up into the subfloor and the top floors as at 28.

In treating a structure, I find an insecticide such as is disclosed in the application of Frank H. Lyons, Ser. No. 547,791, filed June 29, 1931, to be admirably adapted for my purpose, although it will be clear that other insecticides having similar characteristics could be used.

A formula disclosed in that application that may be used consists of the following proportions of ingredients:

	Pounds
Alcohol	690
B-naphthol	432
Rosin	432
Orthodichlorobenzol	239
V. M. & P. naphtha	352

The B-naphthol is first dissolved in the alcohol, the rosin is added to the solution and then mixed with the naphtha and orthodichlorobenzol. This formula will kill termites by contact of the composition on the body of the termites, by ingestion and by the vapor of the toxicants. In addition, after the volatile solvents have evaporated, there will be left behind a toxic residue consisting of crystals of B-naphthol. The orthodichlorobenzol is a powerful volatile vapor toxicant.

In preparing to treat a house, all debris around and under the structure should be removed, such as wood, chips, paper and rubbish, for it is upon such that the termites feed.

The ground near the joists or sills should be leveled down to at least sixteen inches below the lower level of the joists, and should be raked to break the crust.

Wood stumps under the building should be removed. If this is impossible, a deep trench should be dug around the stump and the stump bored full of holes to receive the insecticide.

All concrete form boards should be removed.

Wood braces, posts or piers as at 29, in contact with the ground must be sawed off about one foot above the ground level and brick or concrete footings 30 inserted. If the wood supports are infested, they should be bored at 31 to receive the insecticide. The trenches 10, containing insecticide, around the footing, prevent the termites from coming up out of the ground and building tunnels up over the post. The insecticide in the holes in the post saturate the wood adjacent thereto, so that if the termites come up through the footing itself they cannot continue to eat up through the post.

All termite tunnels should be torn down, marking the points where they enter the ground below and the wood above. Each tunnel should be traced, if possible, to the termite nest by carefully digging in the ground.

Trenches 10, several inches deep should be dug in all ground adjacent to the inside area of foundation walls and around all piers and supports in contact with the ground to receive the insecticide solution.

Slanting holes 11 suitably spaced, should be bored in the infested sills 3, from underneath the building, to receive the insecticide solution to cover the top of the foundation wall to prevent termites from coming up inside the foundation wall. Holes 12 should also be bored from outside the building between the studding and just above the floor level to provide a secondary line of defense by saturating the top of the subfloor, the insecticide dripping through the cracks of the subfloor to the top and around the sills 3.

The ground areas adjacent to termite nests that have been located are heavily saturated with the insecticide solution. All trenches 10 along the foundations and around supports are filled with insecticide, giving extra heavy doses of insecticide at all points where termite tunnels have been noted. The insecticide is forced under pressure into all holes bored for the purpose on the inside area.

All the inside exposed and covered surfaces of the sub-floors, joists, sills, wood supports, foundation walls and ground are thoroughly wetted with the insecticide so that when it evaporates there remains behind a layer of crystals 34 on the wood. The work below the building may then be finished by gassing in order to fill the whole area below the building with the vapor of the insecticide.

The insecticide is then forced into all holes bored for the purpose, on the outside area and the holes then plugged. The insecticide is now sprayed or poured under the base boards, over door sills and under thresholds, if necessary.

In houses having a porch 22, it is quite the usual thing in construction, to fill in the space 13, with dirt and other refuse from the building operation. These are known as "dirt filled" porches and are known to be breeding places for termites. Usually the dirt fills the whole space between the floor 14 and the supporting wall 15. In order to protect the sill adjacent thereto, we bore a series of vertical holes 17 through the floor of the porch adjacent the sill and a horizontal hole 18, the full width of the porch. Holes 32 may also be bored through the sill from the inside, out under the porth into the dirt fill. Any one or more of these methods may be used in order to get the insecticide properly adjacent the woodwork under the porch. Insecticide is forced into these holes to saturate the dirt adjacent the sill 3 and thus set up a poison barrier in the dirt adjacent to the sill. The same treatment is applied to the sun rooms or similar structures where the concrete slab is laid directly on the ground and there is no opportunity for the operator to get underneath.

Adjacent the foundation wall 1, a hole 33 is made by driving an iron rod down into the earth. Trenching is not practical on the outside because the insecticide kills the shrubbery. By pouring insecticide in the holes 33, the earth around the foundation and the foundation itself becomes soaked with insecticide. This is usually necessary only where the foundation is made of brick and where because of faulty mortaring between the brick, termites may gain access through the brick foundation wall itself. In such cases it is permissible to saturate both sides of the foundation wall, by the trench on the inside and the hole on the outside.

From the above description, it will be clear that my method of termite control consists in (1) exterminating the termites with a poison gas emitted from the liquid insecticide and leaving behind a blanket of toxic crystals over every portion through which termites must pass to gain entrance, (2) poisoning the ground at and below the foundation proper, (3) boring into the infested parts and forcing the poison under pressure thereinto, and (4) spraying the entire underside of the structure.

In this way, I kill the termites that come in contact with the poison vapor and lay down two lines of a poison blanket or barrier of a non-volatile solid insecticide, one of these being on top of the ground and the other on the inner and underside of the structure. After the solvent has evaporated there will be a layer of solid B-naphthol on the ground and a coating of solid B-naphthol on the entire inner and underside of the structure.

I claim:

1. Method of termite control for wooden structures which comprises digging trenches in the ground closely adjacent to the foundation walls and around piers and supports in contact with the ground and putting in the said trenches an insecticide containing a normally solid toxicant in a volatile solvent that leaves behind the solid toxicant, on evaporation of the solvent, to completely poison the said ground.

2. Method of termite control for wooden building structures supported on the ground comprising removing from the ground underneath the structure all cellulosic materials, removing termite tunnels connecting the ground with the superstructure, digging trenches along the lines of contact of the foundation walls and supporting columns, filling the trenches with a liquid insecticide that contains a normally solid toxicant in a volatile solvent, and coating the entire exposed underside of the structure and the ground with said insecticide to leave behind on the wood and ground a coating of solid toxicant, on evaporation of the solvent, that serves as a barrier to the passage of the termites to and from the wooden structure.

3. Method of termite control for wood structures having "dirt filled" porches or the like which are provided with a masonry slab resting directly on the earth, the improvement consisting in protecting the wooden sill of the main structure adjacent the said porch by driving a series of holes into the earth surrounding and closely adjacent to the said sill and forcing into the said holes insecticide that leaves behind a non-volatile toxicant to thereby poison the earth adjacent the said sill and prevent the entrance of termites to the said structure.

4. Method of termite control for a building structure containing wood and supported on the ground comprising boring holes from the outside of the building adjacent the studding and above the floor level and feeding into the holes an insecticide that contains a non-volatile toxicant in a quantity sufficient to saturate the top of the subfloor of the building adjacent the studding and sills of the building, to thereby provide a poison barrier at this point to prevent passage of termites to and from the building and the ground.

5. Method of termite control for a building containing a wood superstructure supported on a foundation resting on the ground, comprising poisoning the ground closely adjacent to the foundation with an insecticide that contains a non-volatile toxicant and covering the top of the foundation at all points of contact of the wood superstructure and the foundation with said in-

secticide to thereby provide a double barrier to prevent passage of termites to and from the wood superstructure.

6. Method of termite control for a building containing a wood superstructure supported on a foundation resting on the ground comprising forming holes in the soil closely adjacent to the foundation and placing in the holes an insecticide containing a normally solid toxicant in a volatile solvent in a quantity sufficient to poison all of the said soil adjacent the foundation with solid toxicant, on evaporation of the solvent, to thereby act as a barrier to prevent passage of termites to and from the wood superstructure.

7. Method of termite control for a building with wood sills supported on a foundation resting on the ground, comprising boring holes in the wood sills adjacent their points of contact with the foundation, feeding into the holes an insecticide that contains a non-volatile toxicant in a quantity sufficient to cover the top of the foundation at all points of contact with the wood sills and thereby act as a barrier to prevent passage of termites to and from the wood superstructure.

8. Method of termite control for a building containing a wood superstructure supported on a foundation resting on the ground, comprising interposing at all points of passage for the termites to the wood superstructure, a barrier of an insecticide containing a normally solid toxicant in a volatile solvent, one of the said barriers being formed by complete poisoning of the soil closely adjacent to the foundation by thoroughly impregnating the said soil with the said insecticide, to thereby leave behind the solid toxicant, on evaporation of the solvent.

9. Method of termite control for a wooden building structure provided with wood sills supported on a foundation resting on the ground, comprising treating the entire wood underside of the structure adjacent the ground, including the bottom of the sills resting on the foundation, with an insecticide containing a normally solid toxicant in a volatile solvent, in such quantities as to leave behind on the entire underside of the structure and the sills, a coating of solid toxicant, on evaporation of the solvent, at every point through which termites might travel from and to the ground in their passage to and from the building and which serves as a poison barrier to the passage of the termites.

10. Method of termite control for a wooden building structure provided with wood sills supported on a foundation resting on the ground, comprising treating the entire wood underside of the structure adjacent the ground, including the bottom of the sills resting on the foundation and the entire area of ground under the structure with an insecticide containing a normally solid toxicant in a volatile solvent, in such quantities as to leave behind on the entire underside of the structure and the sills and the entire surface of the ground under the structure, a coating of solid toxicant, on evaporation of the solvent, at every point through which termites might travel from and to the ground in their passage to and from the building and which serves as a double poison barrier to the passage of the termites.

11. Method of termite control for a wooden building structure supported on a foundation resting on the ground, comprising treating the entire area of the ground under the building and adjacent the underside of the foundation with an insecticide containing a normally solid toxicant and a volatile solvent, in such quantities as to leave behind on the entire surface of the ground, on evaporation of the solvent, an unbroken coating of solid toxicant, at every point through which termites might travel from and to the ground in their passage to and from the building and which serves as a poison barrier to the passage of the termites.

12. In combination, a wooden building structure provided with wood sills supported on a foundation resting on the ground and having a coating of a solid toxicant on its entire underside, at every point through which termites might travel from and to the ground in their passage to and from the wooden building structure, including the bottom of the sills resting on the foundation.

13. In combination, a building structure containing wood and supported on the ground, and an unbroken coating of a solid toxicant on the entire surface of the ground under and closely adjacent to the building structure at every point through which termites might travel from and to the ground in their passage to and from the wooden building structure.

14. In combination, a building structure containing wood and supported on the ground and having a coating of a solid toxicant on its entire underside and a similar unbroken coating on the ground under the building structure, the said coatings being at every point on the structure and on the entire surface of the ground below the structure through which termites might travel from and to the ground in their passage to and from the said structure, the said coatings serving as a double poison barrier to the passage of termites.

15. Method of termite control for a building structure containing wood and supported on the ground, comprising driving a series of holes in the ground adjacent to the wood portions of the structure in contact with the ground, and filling the said holes with an insecticide containing a normally solid toxicant in a volatile solvent, to leave behind a solid toxicant, on evaporation of the solvent, to thereby completely poison the ground adjacent the said portions of the structure with the solid toxicant to prevent passage of termites to and from the said structure.

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