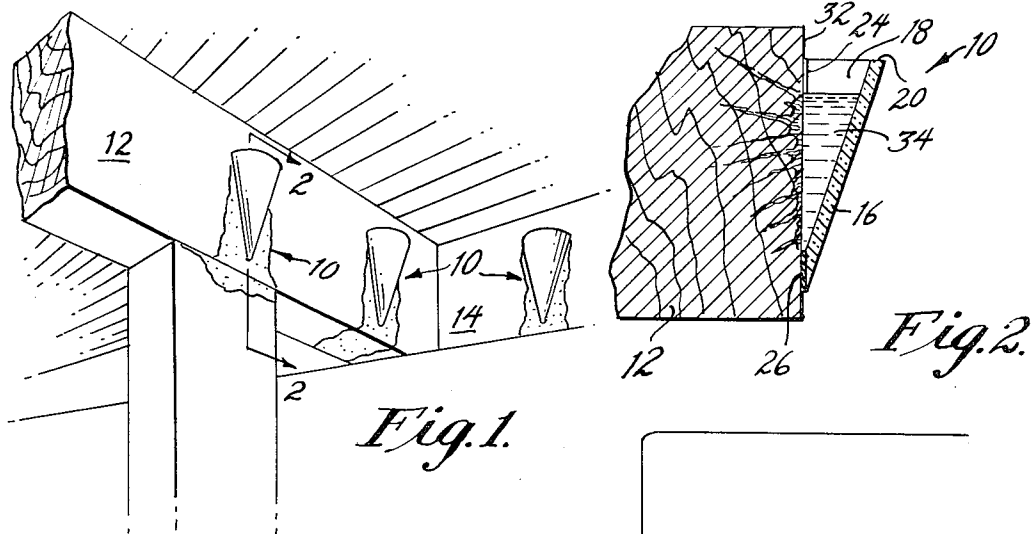
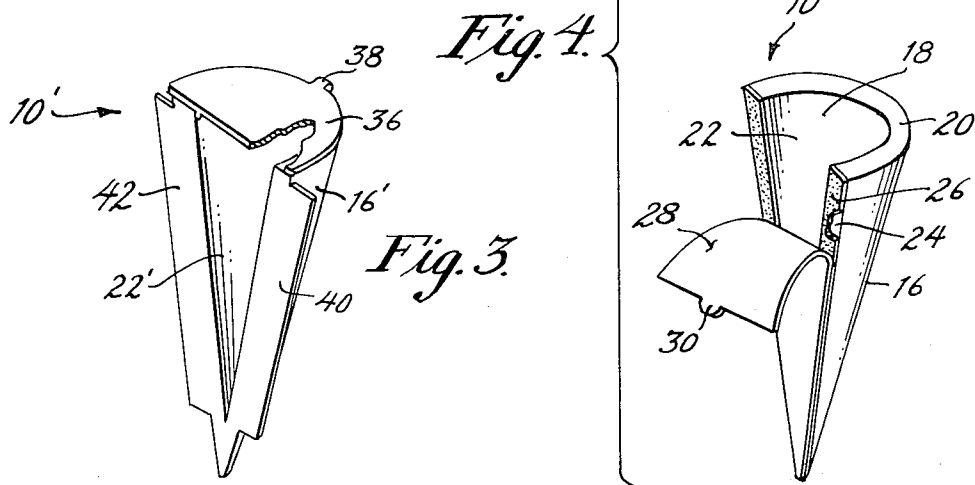
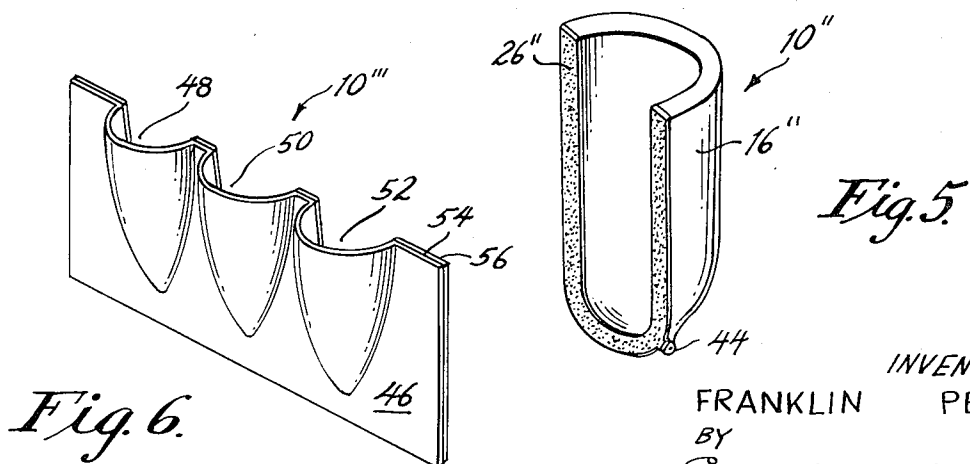


Sept. 19, 1972

F. PEACE
 APPARATUS FOR APPLYING EXTERMINATING AND
 PRESERVATIVE COMPOSITIONS FOR WOOD
 Filed Oct. 26, 1970

3,692,469



INVENTOR
 FRANKLIN PEACE
 BY
 Seidel, Gonda & Goldhammer
 ATTORNEYS.

1

2

3,692,469

APPARATUS FOR APPLYING EXTERMINATING AND PRESERVATIVE COMPOSITIONS FOR WOOD

Franklin Peace, Philadelphia, Pa., assignor to National

Volume Sales Corporation, Philadelphia, Pa.

Filed Oct. 26, 1970, Ser. No. 84,094

Int. Cl. B27k 3/02

U.S. Cl. 21—63

13 Claims

ABSTRACT OF THE DISCLOSURE

A container for a wood-penetrating preservative and insecticide composition. Composition in the container contacts a wood member to be treated, and penetrates into it. In one embodiment, the composition is dispensed from the container by gravity feed through a small opening. Adhesive material or conventional fasteners may be used to fasten the container to a member to be treated. The composition, when substantially viscous, may be retained in the container prior to use by means of a removable sealing member.

This invention relates to an apparatus and method for applying preservative and exterminating compositions to wood. More particularly, this invention relates to a method and apparatus wherein a quantity of preservative material is placed in a container, which may be readily applied to a surface to be treated, in such a manner that the composition contacts and penetrates the surface.

In one currently used method of preserving wood, a viscous composition containing a rot preventative, an insecticide, and suitable solvents and emulsifiers is applied to the treated member by surface application using a brush, trowel, mitt or the like, or by means of a caulking gun. As an alternative, holes are drilled in the member to be treated, and the composition placed in holes by means of a caulking gun.

The foregoing techniques have certain shortcomings. For example, the surface application techniques necessarily leave a surface of the treatment material exposed to random contact by humans or pets. This is a serious matter, since the compositions involved are highly toxic, and may be absorbed through the skin. In the latter technique, it is necessary to drill holes in the treated members, and this is highly undesirable. Indeed, the principal purpose of treatment is to prevent weakening of the member, which necessarily occurs when holes are made.

In view of the foregoing, it is an object of this invention to provide an apparatus and method for applying exterminating and preservative compositions to wood, wherein the compositions are retained in contact with the wood in a positive manner, to facilitate penetration of the wood.

It is another object of this invention to provide an apparatus and method wherein an exterminating and preservative composition is fed by gravity, and penetrates wood to be treated with the aid of capillary action.

It is another object of this invention to provide an apparatus and method wherein an insecticide and preservative composition is applied to wood, but not exposed to accidental contact.

It is yet another object of this invention to provide an apparatus and method wherein an insecticide and preservative composition is applied to wood without the need for drilling.

It is another object to provide an apparatus and method wherein the quantity of a wood treating composition remaining in a container is readily apparent by visual inspection.

It is still another object to provide an apparatus where-

in a supply of wood treating composition in a container may be replenished from time-to-time.

Other objects will appear hereinafter.

The foregoing and other objects are realized in one presently preferred form of the invention by apparatus comprising a vertically oriented hollow container adapted to receive and retain a quantity of liquid composition therein. The container has a mouth portion for admitting liquid to its interior and an open side wall portion. Means are provided for affixing the container to a surface of a member to be treated so that said open side wall portion sealingly engages the surface. Composition in the container contacts the surface at the open side wall portion when said container is affixed to the member. In one form of the apparatus, a layer of adhesive is provided on a lip around the opening, and serves to adhere the container to the surface of a treated member. In another form, a flange is provided for nailing or screwing of the container to the treated member. The container may be made large enough to extend from top to bottom of a beam, thus blocking the passage of wood-destroying insects, such as termites from passage within the beam. The container may also be made to release the liquid through a pin hole opening, to be absorbed by the beam and distributed by capillary action, or to remain on the surface of the beam.

The container may be of a conical shape, the angled side of the container serving to direct the composition toward the treated surface. Also, the container may be made transparent, so that a simple visual inspection can determine whether or not, and to what extent, the composition has been absorbed.

For the purpose of illustrating the invention, there is shown in the drawings forms which are presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

FIG. 1 is a perspective view, showing apparatus in accordance with the invention applied to a wooden joist and a beam.

FIG. 2 is a cross-sectional view taken along the line 2—2 in FIG. 1.

FIG. 3 is a perspective view, partly broken away, showing one form of an apparatus in accordance with the invention.

FIG. 4 is an exploded perspective view, showing another form of the apparatus.

FIG. 5 is a perspective view of another embodiment of an apparatus in accordance with the invention.

FIG. 6 is a perspective view of still another embodiment of the invention.

Referring now to the drawings in detail, wherein like numerals indicate like elements, there is seen in FIG. 1 apparatus, designated generally by the reference numeral 10, applied to a joist 12 and a beam 14.

Referring to FIGS. 2 and 4, the apparatus 10 includes a hollow container 16, having an open mouth portion 18, seen in FIG. 4. The mouth portion 18 is surrounded by a peripheral planar lip 20. The container 16 also includes an open side wall portion 22, surrounded by a peripheral lip 24.

A layer of adhesive 26, preferably of the pressure-sensitive type, overlies the peripheral lip 24. A sealing member 28 of foil or sheet plastic polymeric material is bonded to the lip 24 by the adhesive 26. The sealing member 28 may be provided with a tab, such as the tab 30 to facilitate separation of the sealing member 28 from the lip 24.

Referring to FIG. 2, the apparatus 10 is seen in place affixed to a vertical surface 32 of the joist 12. The adhesive 26 couples the peripheral lip 24 to the surface 32, and effects a seal therebetween. The adhesive 26, it should be understood, is sufficiently thick to accommodate minor

3

irregularities such as grain, saw marks, or the like on the surface 32.

Within the container 16 is a quantity of wood-treating composition 34. One suitable composition is the viscous substance described in U.S. Patent 2,708,640 which contains a penetrating fungicidal compound (pentachlorophenol), an insecticide (heptachlor), suitable solvents and emulsifiers, and water. Other compositions which may occur to those skilled in the art may be used, if desired. The composition 24 may be described as a preservative and insecticide, it being understood that the apparatus 10 may be used to apply any suitable substance which affords protection from fungi or insects.

When the container 16 is positioned as shown in FIG. 2, the composition 34 flows downwardly along the lower wall of the container 16, toward the open side wall portion 22, and into contact with the surface 32.

The composition 32 ultimately penetrates the joist 12 by capillary action, and protects the joist 12 from damage due to wood-boring insects, such as termites, or due to attack by organisms of the sort which cause dry rot and other forms of wood decay. The composition tends to migrate downwardly due to gravity, and to protect the lower parts of treated members. Such parts are especially susceptible to attack by termites and to decay. Because of the height of the container 16, however, the composition 34 penetrates the joist 12 from top to bottom. This prevents progress of destructive agents or conditions along the length of the member.

If the container 16 is made of transparent material, a rapid visual inspection is all that is required to determine whether the composition 28 has in fact been absorbed into the treated member. The container can be refilled periodically.

Referring now to FIG. 3, there is seen a modified form of the apparatus, wherein elements corresponding to those previously described are designated by like primed reference numerals. Thus, the apparatus 10' includes a container 16', the mouth of which is covered by a movable flap 36. The flap 36 may be molded integrally with the container 16', and connected to it by a hinge portion 38. It should be understood that the above-described apparatus 10 may be provided with a cover member similar to the flap 36, if desired. The container 16' also includes outwardly extending flanges 40 and 42, which may receive fasteners such as nails, screws or the like, to secure the container 16' to a treated member.

Referring to FIG. 5, there is seen another modified form of the apparatus, wherein elements corresponding to those previously described are designated by like double-primed reference numerals. Thus, the apparatus 10'' comprises a container 16'', which may be applied to a surface by adhesive 26''. The container 16'' includes a pinhole opening 44 through which insecticide compositions may drip at a slow rate. The composition may be scented to attract insects, if desired. Suitable insecticides are commercially available.

FIG. 6 illustrates still another modified form of the apparatus. The apparatus 10''' comprises a unitary member 46 containing a plurality of cavities 48, 50, 52. The cavities 48, 50, 52 are surrounded by a planar surface 54. The surface 54 is covered with a layer of adhesive 56. The member 46 may be applied to the surface of a treated member in much the same way as the above-described apparatus 10, but provides a wider area of coverage.

The container 16 and member 32 can be made by conventional forming techniques. For example, these elements may be injection or vacuum molded. Other techniques will occur to those skilled in the art.

In one of its aspects, the present invention involves a novel method for applying preservative compositions to wood. Such method comprises the steps of providing a container, such as the container 16 or member 46, having an open mouth portion (e.g. 18), and an open side wall, placing a quantity of a liquid preservative or insecticide

4

composition in the container; and fastening the container to a surface of a member to be treated so that the open side wall sealingly engages the surface. In the forms of the invention described above, sealing engagement is accomplished by means of the adhesive 22, 56. It is consistent with the present method to apply the containers to the surface by means of nails, screws, or other fasteners extending through a lip or flange, such as flanges 40, 42.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

I claim:

1. Apparatus for applying preservative and insecticide compositions comprising a hollow container adapted to receive and retain a quantity of a liquid composition therein, said container having a mouth portion thereon for emitting composition to the interior of the container and an open side wall portion, means for affixing said container to a surface so that the open side wall portion sealingly engages the surface and the interior of the container is in fluid communication with the surface, so that the composition and the container contacts the surface when the container is affixed to the member, said container being widest adjacent its mouth portion and includes an angled side wall portion juxtaposed to the open side wall portion, whereby the composition flows by gravity towards said open side wall portion when the container is affixed to a vertical surface, and at least one capillary opening adjacent the bottom of the container to permit passage of the liquid composition to the exterior of the container.

2. Apparatus comprising a hollow container adapted to receive and retain a quantity of a treating composition therein, said container having a mouth portion thereon for admitting composition to the interior of the container and an open side wall portion, means for affixing said container to a supporting surface so that said open side wall portion sealingly engages the surface and the interior of said container is in communication with the surface, and at least one passage extending through the container to permit escape of said composition from within the container.

3. Apparatus in accordance with claim 2 wherein said container is a cone half and a semi-circular cover at the mouth portion which is the large diameter end of the cone half.

4. Apparatus in accordance with claim 2, wherein the container is transparent so that the quantity of liquid composition therein may be observed.

5. Apparatus for applying preservative and insecticide compositions to wood comprising a hollow container adapted to receive and retain a quantity of a liquid composition therein and being a cone half, said container having a mouth portion thereon at the large diameter of the end of the cone half for admitting composition to the interior of the container, said container having an open side wall portion, means for affixing said container to a surface of a member to be treated so that the open side wall portion sealingly engages the surface and the composition in the container contacts the container when the container is affixed to the member, said open side wall portion including a planar lip, said means for affixing the container to the surface including a layer of adhesive on said lip, and a selectively removable sealing member coupled to said lip by said adhesive and overlying said open side wall portion to retain the composition in the container prior to use.

6. Apparatus in accordance with claim 5 including a unitary member having a plurality of said containers side-by-side, each container being a cone half separated from the adjacent cone half by said planar lip.

7. Apparatus in accordance with claim 5, wherein the container is transparent so that the quantity of liquid composition therein may be observed.

8. Apparatus in accordance with claim 5, and a can

5

member coupled to said container and adapted to close said mouth portion.

9. Apparatus in accordance with claim 5, wherein said container is widest adjacent said mouth portion, and includes an angled side wall portion juxtaposed to the open side wall portion, whereby the preservative composition flows by gravity toward said open side wall portion when the container is affixed to a vertical surface.

10. Apparatus in accordance with claim 9, wherein said open side wall portion includes a planar lip, a layer of adhesive disposed on said lip and adapted to sealingly couple the lip to the surface, and a selectively removable sealing member normally coupled to said lip by said adhesive and overlying said open side wall portion to retain the liquid composition in the container prior to use.

11. Apparatus in accordance with claim 10, wherein the container is transparent so that the quantity of liquid composition therein may be observed.

12. Apparatus in accordance with claim 9, and outwardly extending flanges coupled to said lip to facilitate affixation of said container to a surface.

6

13. Apparatus in accordance with claim 12 wherein the container is transparent so that the quantity of liquid composition therein may be observed.

References Cited

UNITED STATES PATENTS

1,080,460	12/1913	Kleckner	47—57.5
1,240,733	9/1917	Kleckner	21—73 X
3,124,904	3/1964	Mauget	21—7 UX
2,404,272	7/1946	Childers	21—63
1,507,103	9/1924	Bagwell	52—168
1,969,617	8/1934	Link	52—168
2,462,486	2/1949	Gregory	21—71
2,969,612	1/1961	Loree	47—57.5 X

MORRIS O. WOLK, Primary Examiner

D. G. MILLMAN, Assistant Examiner

U.S. Cl. X.R.

52—168; 118—407; 206—56 AA, DIG. 18