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G. W. GRING

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INSECT POISON FEEDER

Filed Dec. 5, 1927

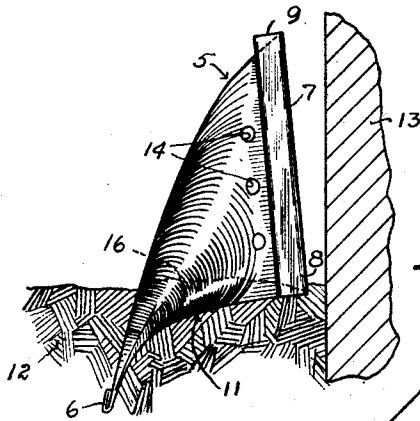


Fig 1

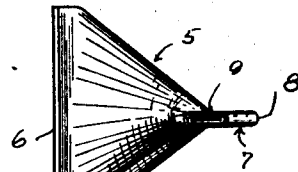


Fig 2

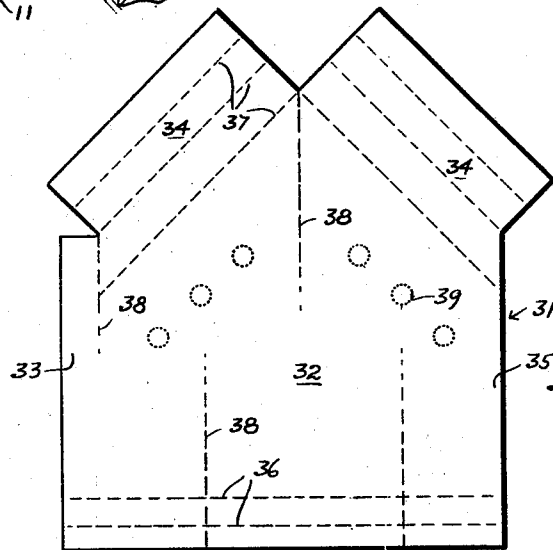


Fig 3

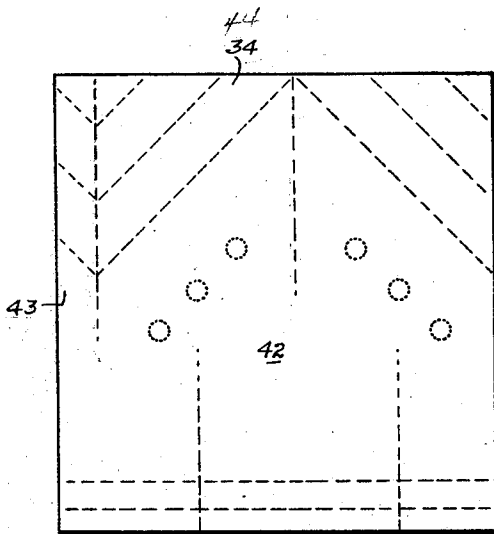


Fig 4

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INSECT POISON FEEDER

Application filed December 5, 1927. Serial No. 237,690.

My invention relates to insect poison feeders, and particularly to feeders designed to be thrown away when emptied.

An object of the invention is to provide a feeder of the character described which is particularly adapted for use in exposed out-of-door locations.

Another object of the invention is to provide a feeder of the class described in the form of an envelope paper or the like, yet will maintain its operative shape when operatively disposed.

A further object of the invention is to provide a feeder which, while providing openings to render the contents accessible to insects, is so formed as to protect the openings from the entrance of water from above and from the greater part of its horizontal circumference.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawings and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawings,

Figure 1 is a view showing the feeder and a typical installation thereof.

Figure 2 is a plan view of the feeder.

Figures 3 and 4 disclose different blanks from which the feeder is arranged to be formed.

Essentially, and as shown, the feeder of my invention comprises an envelope 5 of water proofed paper or the like having seam portions 6 and 7 at opposite ends thereof.

Preferably, the seam portions 6 and 7 are straight and relatively stiff, and comprise folded over portions of the material of the envelope whereby the provision of separate binding members at the seams is avoided. It is noted that by forming the poison container of paper or other relatively inexpensive material, the same may be conveniently and profitably thrown away when emptied,

and the handling of poisons for recharging most of the present types of poison feeders is avoided.

The seams 6 and 7, it will now be particularly noted, are transversely related with respect to the longitudinal axis of the envelope, such axis being conveniently thought of as a line joining the mid-points of the two seams. Preferably, and as shown, the seam 6 is perpendicular to said axis while the seam 7 is oblique thereto, making therewith an angle of approximately forty-five degrees. In this manner, the sides of the envelope are held in spaced relation between the ends thereof, it being noted that one end 8 of the seam 7 is closer to the seam 6 than is the other end 9 of seam 7. Owing to this relation of the seams, it is further noted that the envelope will assume the general shape shown in Figure 1 wherein a triangular side portion 11 between the seam 6 and the end 8 of the seam 7 will tend to be more or less flat and perpendicular to the seam 7.

It will now be noted that the envelope of my invention is particularly arranged for out-door installation in and on relatively loose material at the foot of a wall, a preferred installation being shown in Figure 1 wherein a portion of the envelope is shown buried in the soil 12 at the foot of a wall 13. Preferably, and as shown, the seam 6 and the immediately adjacent envelope portion would be buried in the soil with the envelope portion 11 generally horizontal and with the seam 7 extending upwardly from the soil. In this manner, the envelope portion 11 is arranged to provide a direct support for the contents of the envelope, and the seam 7 is substantially vertically disposed.

Openings 14 are provided in the envelope to permit the ingress and egress of the insects to be poisoned to and from the interior of the receptacle. These openings 14 are preferably provided closely adjacent the seam 7, and when, as shown, more than one is provided in each of the envelope side portions which terminate at such seam, they are aligned in rows parallel to said seam. With such an arrangement, the openings 14 lie behind and beneath the bulge of the envelope which is

defined generally in the line between the upper end 9 of the seam 7 and the ends of the seam 6, and the side portions at the openings are those which face somewhat toward the wall 13. It will now be noted that feeders such as here shown would frequently be installed in soil to which water would be applied, as, for instance, in the soil of a garden, and that when a feeder is located as shown, water directed thereagainst from points outwardly of the wall would strike only the imperforate parts of the envelope. In this manner the danger of introducing water through the openings 14 is practically nil, since the water seldom, if ever, would be directed along the wall.

The envelope of my invention, it will now be noted, is arranged to be formed of a suitable blank of paper or the like, different forms of blank being shown in Figures 3 and 4. In Figure 3, a blank 31 is shown, such blank providing a generally central portion 32 providing the walls of the envelope, a tab 33 at a side of the portion 32, and extensions 34 at the upper end of the blank arranged to cooperate in a manner to be hereinafter described for forming the seam 7.

To form the envelope of my invention with the blank 31, the blank is first formed cylindrically with the tab 33 disposed against and secured along the opposed edge 35 of the blank in any suitable manner, as by gluing. Opposed side portions at the bottom of the cylinder are next drawn flat together and folded over as along fold lines 36 to seal the bottom of the envelope and provide the seam 6, a suitable adhesive being preferably applied to the folds whereby the seam 6 will remain as formed. The poisoned food 16, which is preferably of a thick sugar syrup consistency, is now placed in the envelope and the blank extensions 34 then placed together and folded over along fold lines 37 to form the seam 7 in the same manner as was used in forming the seam 6, it now being noted that the distortion of the cylinder to provide the seams 6 and 7 is such that these seams are preferably mutually perpendicular. As shown in Figure 3, the formation of the seams 6 and 7 would involve a slight creasing of the blank along lines 38 emanating from the ends of the respective seams. Preferably, and as shown, the last fold line 37 is inwardly of and parallel to the line of juncture of the extensions 34 with the blank portion 31 whereby a positive seal is provided at the juncture of the seam 7 with the lines 38. In this manner, sealed joints are provided at the seams 6 and 7 and such seams function as efficient stiffening members for the envelope.

The openings 14, it will now be noted, are provided for when the blank is formed. As here shown, the openings 14 are not primarily punched through the blanks, but are out-

lined therein by weakening the material of the envelope at the proper points as by perforations 39. In this manner, any desired number of the openings 14 may be provided merely by projecting a sharp instrument against the material of the envelope at such perforations, and the poison composition is protected against becoming dried out prior to an operative installation of the envelope. It will be noted, however, that a complete punching out of the openings 14 may be effected when the blank is formed, without departing from the spirit of my invention.

In Figure 4, the blank 41 is shown as a rectangle having portions 42, 43, and 44 corresponding respectively to the central portion 32, tab 33, and extensions 34 of the blank 31 shown in Figure 3. In forming an envelope with a blank 41, it is noted that the seam 7 will comprise eight thicknesses of material at its center and only four at its ends, whereas with the blank 31, the seam 7 will comprise at least eight thicknesses for its entire length. The chief advantage of this form of blank lies in the fact that there will be no waste in the production thereof, it being noted that the irregular shape of the blank 31 would necessitate some waste of material.

I claim:

1. An insect poison feeder comprising an envelope for poison formed as of a tubular member by flattening out opposite end portions of the member to form seams, one of said seams being perpendicularly related to the longitudinal axis of the member and the other of said seams being appreciably inclined to said axis, said envelope having an insect entrance opening therein between the ends thereof.
2. An insect poison feeder comprising an envelope for poison formed as of a tubular member of flexible material by flattening out the end portions of the member to form seams, one of said seams being perpendicularly related to the longitudinal axis of the member and the other of said seams being inclined to said axis, said envelope having an insect entrance opening therein between the ends thereof and extending transversely of said first seam.
3. An insect poison feeder comprising an envelope for poison formed as of a tubular member of flexible material by flattening out the end portions of the member for forming straight seams, one of said seams being appreciably inclined to and intersecting the longitudinal axis of said envelope, said envelope having an insect entrance opening therein.
4. An insect poison feeder comprising an envelope for poison formed as of a tubular member of flexible material by flattening out and folding the end portions of the member to form straight seams, one of said seams

being perpendicularly related to the axis of the member and the other of said seams being inclined to said axis and perpendicularly related to said first seam, said envelope being
5 arranged to have a predetermined portion adjacent said last seam displaced to provide an entrance to the interior of the envelope.

5. An insect poison feeder comprising an envelope for poison formed as of a tubular
10 member by flattening out and folding the end portions of the member to form straight seams for closing the envelope, one of said seams being appreciably inclined to said axis, said envelope being arranged to have pre-
15 determined portions thereof adjacent said last seam displaced to provide a row of entrance openings lying parallel to said seam.

6. An insect poison feeder comprising an envelope for poison formed as by flattening
20 out and folding the end portions of a tubular member to form straight seams for closing the envelope, one of said seams being perpendicularly related to the axis of the member and being arranged to be buried in a sup-
25 porting medium for the feeder, and the other of said seams being appreciably inclined to said axis and being arranged to extend substantially vertically from the supporting medium when said first seam is buried
30 therein.

7. An insect poison feeder for disposal on and in a relatively loose supporting medium comprising an envelope for poison formed as by flattening out and folding the end por-
35 tions of a tubular member to form straight seams for closing the envelope, one of said seams being appreciably inclined to the axis of the member, and the other of said seams and the adjacent envelope portion being ar-
40 ranged to be buried in said medium to dispose said first seam to extend substantially vertically from said medium.

8. An insect poison feeder for disposal on and in a relatively loose supporting medium
45 comprising an envelope enclosing poison and having perpendicularly related end seams, said envelope being arranged to have one of said seams buried in said medium to dispose the other seam to extend vertically from
50 the medium and being provided with entrance openings for insects adjacent said last seam.

In testimony whereof, I have hereunto set my hand at Oakland, California, this 21st
55 day of November, 1927.

GEORGE W. GRING.