

Bruce's, Gray & Co.

Description of Parasites,  
upon Fruit & Ornamental  
Trees & Shrubs.

Polysolve Preparations



SAVE YOUR ORCHARDS  
AND  
ORNAMENTAL TREES.



**Polysolve Preparations**  
FOR  
**DESTROYING INSECTS.**

Adopted by Department of Public Parks of the City of New York.

✓  
BRUSTLEIN, SURY & CO.,

Sole Proprietors and Manufacturers,

No. 11 DEY STREET, NEW YORK.

P. O. Box 3348.

## TESTIMONIAL.

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Certificate from Prof. E. B. SOUTHWICK, Botanist and Entomologist of CENTRAL PARK, NEW YORK, on the "Polysolve Preparations," used in the Central and City Parks of New York.

Messrs. BRUSTLEIN, SURY & CO.

Gentlemen:—I have used your Polysolve Preparations for Insect Destruction in the Central and City Parks of New York and have found it all that could be desired.

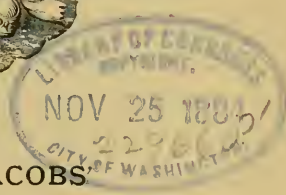
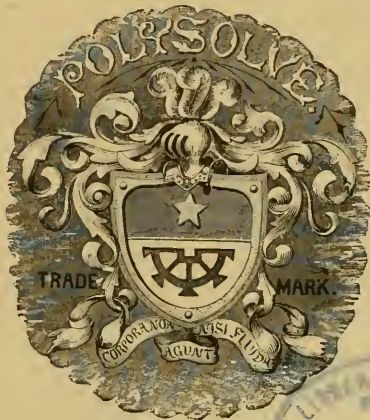
Several Thousand trees have been treated with it, such as the oak, hickory, butternut, elm, apple, willow, poplar, plum, pear, quince, thorn, horse-chestnut, ash, maple, catalpa, pine, etc., in fact any tree infested with the scale insect or wooly aphid has been put in the best condition, and all trees so treated have shown a marked difference in growth and appearance even in one summer. I have also used it for cleaning trees that are covered with minute fungi and green moss, often so abundant in moist shady situations. For the prevention of wood boring and bark burrowing insects depositing their eggs and for the destruction of the eggs and larvae, I believe this preparation will be most useful. I have been and am still treating trees subject to their attack and expect to get satisfactory results, as the Polysolve Preparation remains on the tree for some time it must destroy any eggs or larvae, it comes in contact with. I only wish that every farmer, fruit-grower and owner of trees and shrubs could use this remedy which has done such effectual work in the Parks of New York.

Respectfully,

E. B. SOUTHWICK,  
*Entomologist in charge.*

Arsenal Building Central Park, }  
September 20, 1884. }

DESCRIPTION OF PARASITES  
WHICH PREY UPON  
FRUIT AND ORNAMENTAL TREES  
and Shrubs.



Dr. MÜLLER JACOBS

POLYSOLVE PREPARATIONS

For Destroying Insects injurious to Vegetation.

✓ SOLE PROPRIETORS AND MANUFACTURERS

BRUSTLEIN, SURY & Co.,

No. 11 Dey Street, New York.

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Fertilizers of H. J. BAKER & BROTHER, . . . . .	3d and 4th " "

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## I. Save your Orchards and Ornamental Trees.

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To understand the relation insects bear to each other and to the trees and plants upon which they prey, has been a constant study for many years by some of the most eminent and learned men of Europe and this country.

The disastrous results of their workings make it necessary that those who own valuable orchard and shade trees should know what is for their best interest, and how to successfully contend with these pests that annually destroy their crops and every year lessen the utility of tree growth.

Although individual insects are small and therefore seem of little moment, yet a great number of them combined makes the matter one of importance and requires serious consideration. The number of species is so large, and their facundity so enormous, that often in a few days they will so increase as to be able to destroy whole sections of country and despoil the fruit grower and farmer of his whole and often his only subsistence. To counteract this destructive influence men have been studying and experimenting for years. Many of the states have already established Entomological Bureaus, and the work of the Entomological Department at Washington, in Charge of Prof. C. V. Riley is doing a great and beneficial work for this country, and already very satisfactory results have been obtained.

Millions of dollars worth of property are annually destroyed in this country by "destructive insects."

B. D. Walsh, who is considered good authority, gives it as his opinion that the United States lose annually three hundred millions of dollars (\$300,000,000) by destructive insects alone.

There does not seem to be a country in the world where insects are as destructive as in this, and therefore in no country is it of more importance to see that proper measures are taken to keep them in subjection.

Every farmer and fruit-grower should see to it that no insect infests his trees and plants. A little knowledge and care in this respect will largely increase his crops and therefore make all of more value.

There seems to be scarcely anything exempt from insect ravages. The air and water teem with countless myriads, and in the vegetable growth every part of the tree and plant is infested with them; in the seed, stalk, bark, pith, twig, flower, bud, leaf, root, in fact every portion gives food to innumerable numbers of insects, and all at the expense of plant-life. Dr. Packard states that about seventy-five species of insects prey upon the apple-tree, and nearly as many upon the plum, peach, and cherry. Fifty species attack the grape-vine. Thirty species destroy our garden vegetables. Fifty species prey upon our cereals and grass. Fifty species infest the oaks. Twenty or more the elm. Seventy or more the walnut, and nearly a hundred prey upon the pine. Prof. J. A. Lintner, the New York State Entomologist, enumerates one hundred and seventy-six species working upon the apple-tree alone. Is it a wonder that the orchards so often fail, when the trees have such a host of enemies to contend with, and is it not important that farmers and tree-growers should know when and how to deal with their enemies?

Great numbers of insects are brought to us from foreign countries in almost every imported article, therefore the United States must suffer from their ravages unless measures are taken to subdue them and keep them in subjection.

The Polysolve Preparations are therefore of especial benefit for their destruction and for keeping the bark clean and in a healthy condition.



## II. What is Polysolve?

The name "Polysolve" has been applied by the inventor to a new and powerful SOLVENT AND DILUENT suitable for a variety of substances. When concentrated, it forms a clear light yellow, oily, viscid and neutral liquid (specific gravity 1.023). It is soluble in alcohol, in all proportions, and is mixable with a small quantity, say one or two parts of water, without losing its oily character. With a large quantity of water it produces a clear or faintly opalescent, foamy solution, remarkable for its extreme affinity for water and penetrability. The chief property of "POLYSOLVE" is this, that it may be combined with relatively large quantities of a great variety of substances which are powerful agents on organic matter, but could not heretofore be introduced for general use on account of being either insufficiently soluble or in other regards not easy to handle.

Specially in agriculture and horticulture many chemicals have been known long ago to have properties for destroying scales, larvae, and insects of every description, but their use has been hindered by the form in which they were brought on the market.

Such chemicals which could not be dissolved in water, at any rate, are now brought to everybody's use in a soluble state by being prepared in Polysolve.

The solutions or mixtures thus produced — which constitute the "Polysolve Preparations" — have the



Section of limb of Willow, the upper portion covered with scale insects, the lower portion as it appears after the cleaning with the Polysolve Preparation No. 1, Red Label.—Drawn from nature.

property of penetrating with the utmost ease into the interstices of membranes, the skin of insects for instance, etc., and are, therefore, extremely suitable for destroying the vermin which infests our parks and orchards; they may be employed in any desired concentration, with or without the addition of water, but it will be found that the proportions given in this pamphlet for each special case will be most effective when strictly observed, being based on extensive practical experiences.

The Polysolve itself used for the preparations, has also a very wholesome effect on the trees and shrubs, having all the properties and especially the cleaning power of the best soap.

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### III. Description of some of the Parasites which prey upon Fruit and Ornamental Trees and Shrubs.

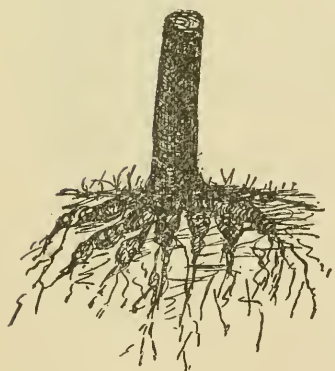
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#### I. The Apple-root Plant-louse.

*Schizoneura lanigera* (Hausm.)

This is a very destructive insect to young apple-trees, living upon the roots, from which they take the sap, causing excrescences to grow upon them, soon killing the tree unless measures are taken to destroy them.

**The Polysolve Preparation No. 2, Blue Label,** will effectually kill them by first excavating the earth from about the tree, so as to make the soil loose, then by pouring in a small quantity of the preparation the insects will be immediately killed.

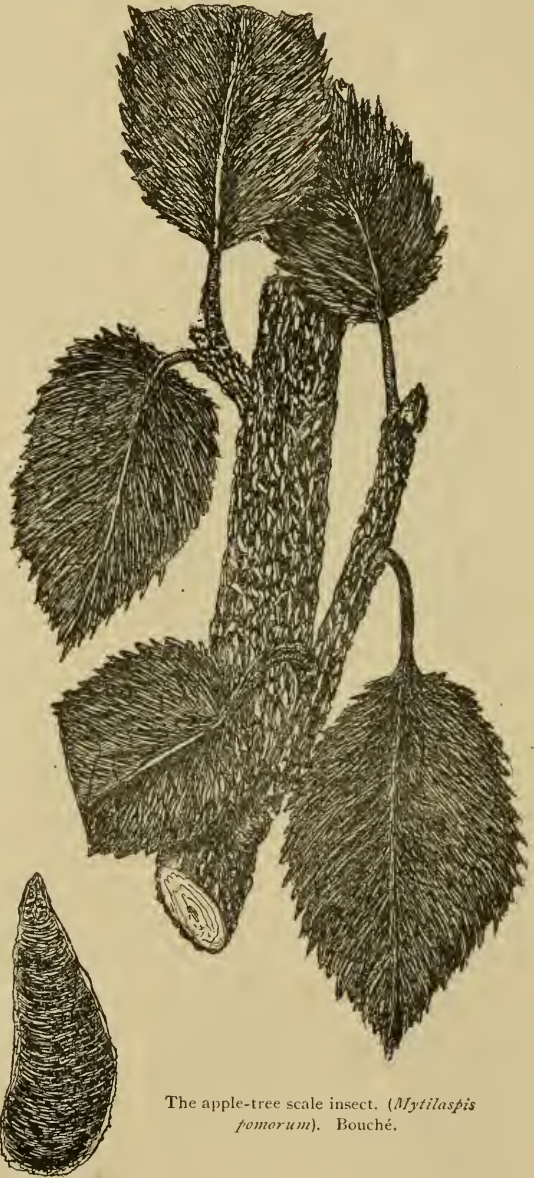


Roots of young Apple-tree, infested with  
the Apple-root Plant-louse.  
*Schizoneura lanigera*.—Hausm.

## 2. The Oyster-shell Bark-louse.

*Mytilaspis pomorum*. Bouché.

This is one of the most destructive insects we have on the apple. It also infests the *ash*, *willow*, *poplar*, *tamarisk*, and many other species of trees. This insect is so small and so near the color of the bark of the tree that it is often difficult to detect it. Many fruit and ornamental trees are infested with these pests and the owners are unaware of the fact that their trees are having their life taken from them by these parasites and what should go to the nourishment of the tree and the perfection of its fruit is taken up by these millions of suckers, imbedded in the bark. The tree therefore instead of doing its special work is only feeding these insect enemies. *Every apple, fruit, and ornamental tree should have its trunk and main branches thoroughly cleaned with POLYSOLVE PREPARATION No. 1, Red Label.* A good coat of it should be given



The apple-tree scale insect. (*Mytilaspis pomorum*). Bouché.

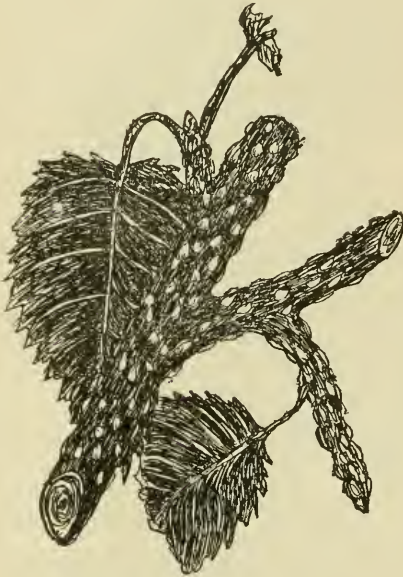
The scale, magnified.

and allowed to stand about five minutes, then

another coat applied, and the whole cleaned off with the steel-brushes which will leave the bark smooth and clean and in a healthy condition. The Preparation at once kills the insects and loosens the scales causing them to come off readily.

### 3. The Scurfy Bark-louse.

*Chionaspis furfurus*. Fitch.



The scurfy bark-louse (*Chionaspis furfurus*).  
Fitch.



Scurfy bark-louse,  
male, magnified.



Scurfy bark-louse,  
female, magnified.

This scale insect is found chiefly on the apple and pear and is very destructive. The limbs and trunk have a scurfy appearance and the tree is often so weakened that it is of little value.

A thorough cleaning with the POLYSOLVE PREPARATION NO. 1, red label, as directed for the oyster shell bark-

louse, will rid the tree of this pest and leave it in a healthy condition.

Fig. 1 is a branch covered with this scale. Fig. 2 the male scale; and Fig. 3 the female.



Round-headed apple-tree borer, *Sapenda candida*.  
Fabr.



### 4. The Round-headed Apple-tree Borer.

*Sapenda candida*. Fabr.

This destructive insect is now well known and great numbers of trees are annually lost by its working. It is found chiefly on the apple, but also works on the june berry, mountain ash, quince, pear and thorn. One of the best remedies is to wash the tree trunks and lower limbs with the preparation just before

they lay their eggs, which is the later part of June and the first of July; this will keep them from depositing them on the bark, and if any should be so deposited the young larvae will be killed after hatching and when it commences to eat into the bark. *The POLYSOLVE PREPARATION No. 3, Green Label*, is specially prepared for this purpose and should be used on all apple and other trees as above directed.

## 5. The Apple-bark Beetle.

*Monarthrum mali.* (Fitch.)

These destructive insects burrow under the bark of the apple-tree and are frequently so numerous as to be the means of killing them. The trees after putting forth their leaves in spring are often seen to wither suddenly and die. The probable cause is this insect. If the *POLYSOLVE PREPARATION No. 3* be applied to the bark about the middle of July, it will have the effect of killing any eggs that may be deposited thereon, and will prevent its destruction by the beetle.

## 6. The Flat-headed Apple-tree Borer.

*Chrysobothris femorata.* (Fabr.)

This destructive insect is distributed very extensively all over the country, the female laying her eggs in the crevices of the bark of the apple-tree. In the South it makes its appearance in May, and in the North in June and July. *The POLYSOLVE PREPARATION No. 3*, applied the last of April in the South, and the middle of June in the North, will prevent its destructive influence.

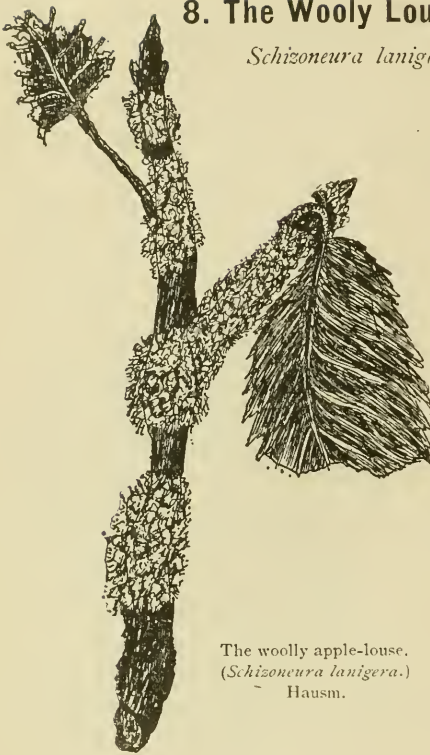
## 7. The Long-horned Borer.

*Laplostylus aculifer.* (Say.)

This insect burrows under the bark of the apple-tree, making long narrow winding tracks often in such numbers as to kill the tree. *The POLYSOLVE PREPARATION No. 3*, applied the first of August will kill any eggs that may have been deposited, and prevent the female laying her eggs if she has not already done so.

## 8. The Woolly Louse of the Apple.

*Schizoneura lanigera.* (Hausm.)



The woolly apple-louse.  
(*Schizoneura lanigera.*)  
Hausm.

This insect is very destructive to the apple-tree, it is the same species that attacks the root, but in this form it lives upon the shoots forming patches of a white substance resembling cotton. The insects live upon the sap and by their irritation large excrescences are formed upon the limbs, as is upon the roots. *The POLYSOLVE PREPARATION No. 1, Red Label, is a most effectual remedy, one or two applications should be made and if on large limbs the steel-brush can be used.*



The woolly apple-louse. Magnified.

Fig. 1 is a branch affected by these insects, and Fig. 2 one of the insects, magnified.

## 9. The Peach-tree Bark-louse.

*Lecanium persicae.* (Fabr.)

This is a small, black, hemispherical scale insect that infests the peach, feeding upon its sap, weakening the tree so that it is of no use for fruit and eventually dies of exhaustion. A thorough cleaning with the POLYSOLVE PREPARATION No. 1, Red Label, will restore it to a healthy condition if not too far gone already. Every peach orchard should be twice a year cleaned with the preparation as it kills all insects harboring underneath the bark and leaves the trunk clean and bright.

## 10. The Pear-tree Borer.

*Aegeria pyri.* (Harris.)

This is a small moth, the larvae of which burrows under the bark of the pear-tree. It can be found by the casting which it throws out from its

burrows. It feeds chiefly on the inner bark, weakening and often killing the tree. The Polysolve Preparation No. 3, applied in April will prevent the moth laying her eggs, and a thorough soaking of the bark with it will kill any larvae that it may reach.

## II. The Pear-tree Bark-Louse.

*Lecanium pyri.* (Schrank.)

This scale insect is found on the trunks and branches of the pear-tree and is often so numerous as to kill the tree. They are difficult to detect as they are near the color of the bark and will be found most abundant on the under side of the limbs. Every pear-tree should be thoroughly washed with the Polysolve Preparation No. 1, red label, and thoroughly cleaned off with the steel-brush which will leave it clean and healthy.

## 12. The Peach-tree Borer.

*Aegeria exitiosa.* (Say.)

This is one of the most destructive insects we have to deal with, often destroying whole orchards of the peach. The female deposits her eggs on the bark near the ground, the young larvae, when hatched, works its way into the bark and downwards to the roots. Its work can be detected by the castings and exudation of gum; a thorough soaking of this portion of the tree with Polysolve Preparation No. 3, will kill the young larvae and prevent egg deposit.



The Broad Scale. (*Lecanium hesperidum.*) Linn.  
On the Orange.

## 13. The Broad Scale.

*Lecanium hesperidum.* (Linn.)

This is a very common scale insect in the South and portions of the West and is found on the twigs of the orange and a great variety of other trees and shrubs. The trees infested with these parasites have a sickly appearance and unless removed will eventually kill them. *No tree or shrub having scale insects upon it can flourish and should be thoroughly cleaned with the Polysolve Preparation No. 1, red label,\* and after cleaning another coat given it, so as to kill any insect that may be in the crevices, etc.*

## 14. The Barnacle Scale of the Orange.

*Ceroplastes cirripediformis.* (Comstock.)

This is one of the numerous scales that infests the orange and in the South also the quince-trees. These insects can be effectually killed by the use of the POLYSOLVE PREPARATION No. 1, red label.

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## 15. The Black Scale.

*Lecanium oleae.* (Bernard.)

Another scale destructive to the orange, and is said to also live on the apple, pear, plum, etc. A thorough coating of the POLYSOLVE PREPARATION, No. 1, red label, will kill them at once and they can be easily removed.

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## 16. The Divaricated Buprestis.

*Dicerca divaricata.* (Say.)

This insect lays its eggs upon the cherry-tree. The young larvae boring in the bark, living on the sap-wood. The POLYSOLVE PREPARATION, No. 3, should be applied in June, July and August. So as to prevent any young larvae from hatching.

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## 17. The Cherry-tree Scale.

*Aspidiotis cerasi.* (Fitch.)

This insect appears like a small blister on the limbs of the wild and cultivated cherry and can be effectually killed with POLYSOLVE PREPARATION, No. 1, red label.

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## 18. The Cherry-tree Bark-louse.

*Lecanium cerasifex.* (Fitch.)

This bark-louse adhering to the trunk and branches of the cherry-tree can be also effectually killed with the POLYSOLVE PREPARATION, No. 1, red label, and afterward cleaning with the steel brush.

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## 19. The Quince Scale.

*Aspidiotus cydoniae.* (Comstock.)

This scale of a whitish color is easily detected on the quince-trees, it is often so abundant as to weaken them and cause their death. POLYSOLVE PREPARATION, No. 1, will effectually destroy them.



As many who will read this have fine shade and ornamental trees, a few of the most prominent and the insects affecting them are here added.

## 20. The White Oak Scale-Insect.

*Lecanium quercifex.* (Fitch.)

This scale can be found adhering to the bark of the limbs. A coat of POLYSOLVE PREPARATION, No. 1, red label will effectually remove them. After two applications use the steel brush.

## 21. The Black Oak Scale-Insect.

*Lecanium quercitrionis.* (Fitch.)

A small scale adhering to the limbs and small branches of the black oak. POLYSOLVE PREPARATION, No. 1, used as above, will effectually clean them.

## 22. The Oak Blight.

*Eriosoma querci.* (Fitch.)

A species of wooly aphid on the oaks. These can be removed by simply washing the affected places with POLYSOLVE PREPARATION, No. 1.

## 23. The Wooly Elm-tree Louse.

*Eriosoma Rileyi.* (Thomas.)

This wooly aphid is found in large clusters on young elm-trees, causing a knotty excrescence to grow and looking like patches of cotton all over the trunk and branches. One application of POLYSOLVE PREPARATION, No. 1, will effectually remove them all.

## 24. The Hickory Bark-louse.

*Lecanium caryae.* (Fitch.)

This scale is found chiefly on the limbs of the hickory and can be effectually and quickly removed with the Preparation No. 1, and steel brush.

## 25. The Hickory Blight.

*Eriosoma caryae.* (Fitch.)

This insect appears as a soft, white down on the branches of the hickory, and these white masses contain myriads of small plant-lice, which live upon the sap of the tree. POLYSOLVE PREPARATION No. 1, applied with the brush alone is sufficient to entirely remove them and kill any eggs or larvae remaining.

## 26. The Butternut Bark-louse.

*Aspidiotis juglandis.* (Fitch.)

Small, pale brownish scales fixed to the bark of the limbs of the butternut, remove with Preparation No. 1 and steel brush.

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## 27. The Butternut Scale Insect.

*Lecanium juglandifex* (Fitch.)

A dull yellow scale adhering to the under side of the limbs of the butternut. Use as above POLYSOLVE PREPARATION NO. 1, *Red Label*.

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## 28. The Locust Borer.

*Cyrtene picta.* (Drury.)

This pest so prevalent all over the country probably does more injury than any other insect of its kind. Its larvae destroying young and even old locust trees by completely cutting them off, often after a high wind the locust limbs will be found lying on the ground, and upon examination they will be found to have been bored off by the larvae of this beetle. This is one of the hardest insects to contend with, and the trees need to be carefully guarded while young. The POLYSOLVE PREPARATION NO. 3, put on in August and the first of September will prevent the beetles from depositing their eggs.

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## 29. The Poplar, Ash and Willow

are affected with the scale insect *Mytilaspis pomorum*, (Bouché) and should be treated with PREPARATION No. 1, and after one or two applications thoroughly cleaned with a steel brush.

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## 30. Green Moss

and *minute fungi* of all kinds is effectually cleaned off of all varieties of trees and no tree should be left to nourish any parasite, if it is expected to appear fine and healthy and produce fruit.

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## IV. The Polysolve Preparations for Destroying Insects.

### **No. 1. RED LABEL.**

For Scale insects, infesting the trunks and branches of trees, apply the Polysolve Preparation No. 1, red label, with a common white-wash brush and after letting it remain for about five minutes make another application and clean thoroughly with the steel brushes. After having thoroughly cleaned the bark make another application so as to be sure all remaining eggs or young are killed. Your tree will at once present another appearance and no one after using it will ever let their trees go over six months without a thorough cleaning with this preparation. It is not expensive and a small quantity after being mixed as directed will go a long way.

To one pound Polysolve Preparation No. 1, red label, add one to one and a half gallons of water.

### **No. 2. BLUE LABEL.**

For insects destroying the roots of trees and plants the Polysolve Preparation No. 2, blue label, has worked very successfully. The earth is loosened and a small portion of the preparation poured around the plant at once killing the insects and leaving the roots clean and in a condition to again give proper nourishment to the tree. One application is usually sufficient and when a young tree shows signs of weakness and no insects can be found upon it, the probabilities are something is at work at its roots and should at once be dug around, and some of the Blue Label Preparation put in.

To one pound Polysolve Preparation No. 2, blue label, add one to one and a half gallons of water.

### No. 3. GREEN LABEL.

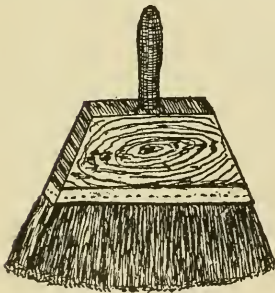
For the Apple-tree Borer and all insects that lay their eggs upon the trunk and branches. Two good applications of the Polysolve Preparation No. 3, green label, will prevent the insects from laying their eggs upon the bark, and if any should hatch, the young larvae will be destroyed as soon as it begins to eat its way into the bark. Two good coats should be given as directed in pamphlet. This may seem like a great deal of work, but when one understands that one man can do a great many trees in a day, and also that the orchards are thereby benefited and saved and made to return more fruit, the work is of little moment and the cost very small.

To one pound Polysolve Preparation No. 3, green label, add one gallon of water.

**NOTICE:** — Keep the cans closed with a plug in order to preserve the preparations. Any remaining diluted solution should likewise be kept in a closed receptacle if not used up the same day.

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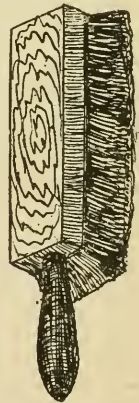
## V. Implements for applying the Preparations.



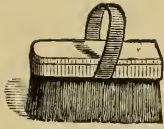
Brush for using Polysolve Preparations.

The brush used can be a common white-wash or kalsomining brush, or any large flat brush, as the work can be done quicker if the brush is a large one; one of the best brushes is the large flat one used by painters.

The steel brushes are similar to those used for cleaning castings; they are also most useful for many purposes. For tender branches the steel brush may be too hard and a bass root brush will be found preferable, or for quite delicate work a common rice brush.

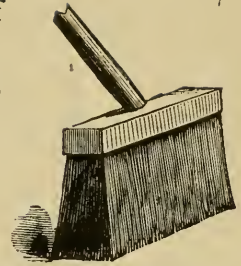


Steel brush No. 5 for cleaning trees, after using the Polysolve Preparations.



Steel brush No. 4.

For the convenience of our customers we are prepared to furnish the brushes illustrated in this pamphlet.



Bass wood brush No. 10.



Steel brush No. 7.

**PRICES :**  
No. 4, 5, 6 and 10,  
each, \$0.50  
“ 7, . . . . . “ 2.00

(No. 7 is a round steel brush with long handle and very useful for cleaning big trees.)



Steel brush No. 6.

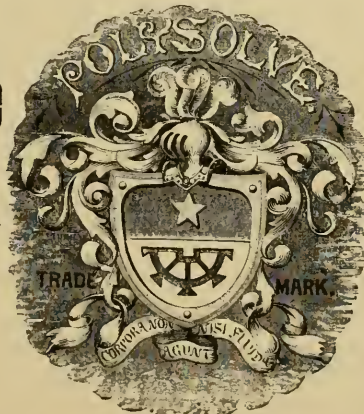
## VI. Cost of applying Polysolve Preparations on trees.

With one pound of Polysolve Preparation, mixed with one to one and a half gallons of water, from 25 to 50 trees, according to size, can be treated. The application thus costing but a few cents per tree and often insuring the crop of fruit by giving the trees an opportunity to grow and utilize the sap for leaf, flower, and fruit production rather than for the feeding of millions of parasites too often found upon them.

**The Polysolve**

are sold in square tin

Trade



**Preparations**

cans which bear our

Mark.

*Price per One Pound Can, \$1.00.*

## VII. Index to Insects.

SCIENTIFIC NAMES.	COMMON NAMES.	Page.
<i>Aegeria pyri</i> (Harris) . . . . .	Pear-tree Borer. . . . .	10
“ <i>exitosa</i> (Say) . . . . .	Peach-tree Borer. . . . .	11
<i>Aspidiotus cerasi</i> (Fitch) . . . . .	Cherry-tree Scale Insect. . . . .	12
“ <i>cydoniae</i> (Comstock) . . . . .	Quince-tree Scale Insect. . . . .	12
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<i>Coreplastes cirripediformis</i> (Comstock) . . . . .	Orange Barnacle Scale. . . . .	12
<i>Chrysobothris femorata</i> (Fabr) . . . . .	Apple-tree flat-headed Borer. . . . .	9
<i>Chionaspis furfurus</i> (Fitch) . . . . .	“ scurfy Bark-louse. . . . .	8
<i>Dicercia divaricata</i> (Say) . . . . .	Divaricated Buprestis. . . . .	12
<i>Eriosoma querei</i> (Fitch) . . . . .	Oak Blight-louse. . . . .	13
“ <i>Rileyi</i> (Thomas) . . . . .	Elm-tree Woolly Aphis. . . . .	13
“ <i>caryae</i> (Fitch) . . . . .	Hickory Blight-louse. . . . .	13
<i>Lecanium cerasifex</i> (Fitch) . . . . .	Cherry-tree Bark-louse. . . . .	12
“ <i>hesperidum</i> (Linn) . . . . .	Orange Broad Scale. . . . .	11
“ <i>oleae</i> (Bernard) . . . . .	“ Black Scale. . . . .	12
“ <i>quercifex</i> (Fitch) . . . . .	White Oak Scale Insect. . . . .	13
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“ <i>pyri</i> (Schrank) . . . . .	Pear-tree Bark-louse . . . . .	11
“ <i>caryae</i> (Fitch) . . . . .	Hickory Bark-louse . . . . .	13
“ <i>juglandifex</i> (Fitch) . . . . .	Butternut Scale Insect . . . . .	14
“ <i>persicae</i> (Fabr) . . . . .	Peach-tree Bark-louse . . . . .	10
<i>Leptostylus aculifer</i> (Say) . . . . .	Apple-tree long horned Borer . . . . .	9
<i>Mytilaspis pomorum</i> (Bouché) . . . . .	Apple oyster-shell Bark-louse . . . . .	7
<i>Monarthrum mali</i> (Fitch) . . . . .	Apple Bark Beetle. . . . .	9
<i>Schizoneura lanigera</i> (Hausm.) . . . . .	Apple Woolly Louse . . . . .	10
“ “ “ . . . . .	“ “ “ Root type . . . . .	6
<i>Saperda candida</i> (Fabr) . . . . .	Apple-tree round-headed Borer . . . . .	8

VIII. Index to Trees with Common Names of  
Insects found upon them.

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## IX. Remarks on Insects, destroying Shoots and Leaves.

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**As the fall and winter is the best time to deal with scale insects this pamphlet, issued at this season, treats of their destruction chiefly.**

The Preparations can be used for all insects infesting trees and shrubs and working on the tender shoots and leaves. As this will be more especially spring and summer work the preparations will be prepared and ready for use as needed.

**The Polysolve Preparations should be used for cleaning the trunks and limbs of all trees as it insures a clean and healthy bark and leaves no doubt as to the absolute certainty, that no insects are harboring under the scales and in the crevices of the bark. Many farmers and fruit-growers scrape their apple-trees, thereby taking off the old bark, which is a good practice if a coat of Polysolve be given, the trunk before scraping the whole will be softened and more easily removed and all insects that are on the bark be killed, when otherwise they would be left to again infest the tree.**

---

**See Testimonial on second page of cover.**



Destroy the Insects by all means!

*But do not stop here.*

In order to obtain the largest yield, and fruit of the finest flavor, your trees require proper

**PLANT FOOD.**

This is just as true of trees, as it is of the various farm crops.

## H. J. BAKER & BRO'S Complete Manures

FOR

**FRUIT-TREES, GRAPE VINES, ORANGE-TREES,**

like their Complete Manures for each separate crop, are arranged to furnish just the plant food the tree requires, in order to obtain the best development, most vigorous and healthy growth, and most luscious fruit. They are the result of years of experiment, are composed of chemicals furnishing the various elements required in their most available form, and have been thoroughly tried with the most successful results.

---

**A SINGLE TRIAL WILL CONVINCING YOU.**

---

Those who have used them write :

DE LAND, FLA., September 28, 1883.

I applied H. J. BAKER & BROS' Fertilizer to Mr. Bradley's grove. The result was wonderful, both on the old trees and on the nursery stock. I want more of it the coming season. It is the best I have used during eight years engaged in orange culture  
D. M. COONEY.

SANFORD, FLA.

*Dear Sirs,*—In reply to your inquiry as to the results of "Baker's Orange Tree Fertilizer," I will say I consider it *decidedly the best*. I have used several kinds, and have found none to *equal* it. The past season I applied it on 40 acres of half-dead trees, and now they are so green and healthy they look almost black. I shall want more of it next season.  
Truly yours,  
A. C. HARRIS.

*Dear Sirs,*—I used about 450 lbs. per acre of your "Grapevine Manure" on my vineyard about the first of August last. The soil is a sandy loam, in good condition. The vines had an *extraordinary* heavy crop on, and ripened every cluster, and the wood is in fine condition. I am well satisfied with the results.

Ulster Co., N. Y.

SANDS HAVILAND.

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## **PEACH YELLOW CURE**

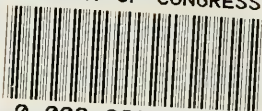
A special manure for Peach-trees, will cure the "Yellows," render the trees healthy and greatly stimulate their growth and fruit producing power.

Our pamphlet "FACTS FOR FARMERS" giving full information as to above manures, mailed free.

**H. J. BAKER & BRO.,** 215 Pearl St., N. Y.

Established 1850.

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H. J. BAKER & BRO.,

215 Pearl Street, New York.

# COMPLETE MANURES

*made for each separate crop, furnish just  
the plant food required for each and  
produce wonderful crops.*

They contain no useless material.

They avoid the introduction of weeds or weed seeds.

They contain the full percentage of the fertilizing elements claimed.

They serve to improve the quality of the land, and to restore poor soil to a good condition.

All the ingredients are readily available as plant food. No powdered leather, ground horn, or other cheap form of Nitrogen is used.

They are made especially to furnish the plant food necessary for each crop named without the aid of other materials.

The proportion of the ingredients is so regulated as to furnish the required elements in the proper amount for the growth of each crop at the least cost.

They will produce better crops than Stable Manure, and at less cost, provided the manure has to be bought or hauled any distance.

Their lasting properties are superior to Stable Manure, supposing the same money value of each is used.

Their concentrated form makes them easy of transportation.

A FULL LINE OF

## AGRICULTURAL CHEMICALS,

OF STRICT PURITY CONSTANTLY ON HAND.

**"AA" Ammoniated Superphosphate. Pelican Pure Fertilizer.**

*WE MANUFACTURE BOTH THE ABOVE FROM BONE.*

STRICTLY PURE GROUND BONE A SPECIALTY.

Our pamphlet "FACTS FOR FARMERS" mailed free.



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