DISCUSSION UPON THE PRECEDING PAPER AND HIGH GRADE CANDY AS A SIDE-LINE.—(Printed in September issue.)

MR. C. W. TOBEY:—"The two papers just read are very interesting and useful ones, but that although, as one of the authors said, 'Cleanliness was next to Godliness,' there is one thing I cannot understand about the candy business, and that is, if you take the ordinary candies and put them in a jar with a card stating the price, they will remain there until they are stale; while if you take a hundred pounds of the same candy and expose it for sale in one of these large, open pails, nine out of ten of his customers would say, 'Give me a dime's worth or a nickel's worth.' This shows that cleanliness is not always appreciated. In the cheap stores, where all kinds of candies are exposed to dust more candy is sold, a hundred times more, than is sold in stores that keep goods in a cleanly condition. Sometimes it seemed as though filth was at par. While I believe in sanitary methods, yet the people will buy the goods displayed in pails when they will not purchase those from jars. Therefore, the way to sell the goods is not the sanitary way."

MR. NITARDY:—"I think Mr. Apple's points are well-made and so was that of Mr. Tobey. There is a compromise between the two methods which our firm has adopted. We buy our candy in bulk and then place it in paper sacks priced at five and ten cents. These sacks are printed with the name of the article and the firm's imprint and price. These we place in trays near to the cash-register and when the customer pays his bill, he will often be attracted to them and buy one. We sell a large amount in this way."

MR. FENNEL:—"The public are not discriminating. They see this candy exposed in these cheap, department stores and they think it is good enough, but when they go into a drug-store they expect cleanliness and a better quality of goods."

MR. HOLZHAUER:—"I believe that the candy-business of the future will be done by the drug-store. The tendency is in that direction. Some time ago I placed in my store a wheelbarrow which I filled with horehound drops. The amount of these which I sold was something incredible. I bought them in five-barrel lots and sold tons of them in that winter. The only objection was that when the candy became a little discolored the loss was high, for people would not then purchase it. People not only want to see the candy, but they like to sample it. Concerning high-priced candy the attention of patrons must be called to it. It will not sell itself. Every druggist can make a good business in high-priced candy if he will devote attention to it."

CHAIRMAN MASON:—"It appears to me that the tendency of the last four or five years has been in the direction of higher-priced goods. In many cases it is the attractive package that sells the goods at a higher price."

MR. WEAVER:—"Mr. Mason is right about the package selling the goods in a great many cases. I do not really believe that the candy of the dollar package is much better, but it is more attractive to the young man who is going to present it to a young lady and wants something nice."

MR. APPLE:—"The particular point I wished to make was as to the unsanitary method of displaying such goods. We must not lose sight of the fact that primarily we are pharmacists and are expected to know more about the dangers of exposing goods to contamination. If pharmacists wish to be termed the hand-maid of medicine, we should, in every way, try to show that they possess a knowledge greater than that possessed by the ordinary tradesman. It would doubtless be very easy for a druggist to secure from their candy-dealers pails with a glass cover and this would protect them and keep them in a sanitary condition."

AN OPPORTUNITY FOR DRUGGISTS TO HANDLE INSECTICIDES, DISINFECTANTS, SPRAYS, ETC.

E. V. HOWELL.

The object of this paper is to present the opportunity of druggists in this line of work, and to lay stress on two points.

First. The commercial advantages of this field of work. Second. To show that *not* to take advantage of this opportunity is a *loss* to the profession in these particulars: First. Loss of the profit that may be derived from this trade; Second. Loss of *other* trade *because* this work, professionally belonging to the druggist, is taken up by others who then naturally add similar products and thus encroach on the legitimate field of trade of the druggist.

The manufacture and sale of insecticides, etc., involving as it does a knowledge of poisons, should be permitted to only those qualified by training and experience to dispense them. The fact that in a large number of cases only a small amount of an insecticide is wanted and that to avoid the trouble in purchasing and preparing this small quantity the public at large is willing to pay a handsome profit to those putting up the ingredients in small packages properly labelled with directions for making, gives the opportunity for *professional work* to the druggist and a profit besides.

For instance, Bordeaux mixture costs about one cent per gallon. If a druggist prepares a small box of powdered blue stone, and a small box of lime with directions for making Bordeaux mixture he can derive a profit satisfactory to himself and to his customer. From the formulas following you can see the advantages of small packages for this line of trade.

As to the second point, the disadvantages of not preparing for this work: In my state (North Carolina) we have to have an exception made in our Pharmacy Act to permit grocers, and general stores to handle non-poisonous domestic remedies. The continual protest of our druggists to this encroachment on their trade is to a large extent the fault of the druggist. First. Because they have not demanded sufficient education and training for their work to *compel* the public to recognize them as a profession. As an example of this fact, I may cite the statement that has been made; that a clerk in a grocery store is as well qualified to handle patent medicines, borax, salts, castor oil, etc., as the druggist with some experience at a soda fountain and four months of hasty preparation for a board examination which he passes, has to handle prescriptions, poisons, etc. This failure to properly train and educate our pharmacists certainly weakens our position in regard to demanding and defining a legitimate field for the qualified druggist.

Again, the druggists in my state neglected the opportunity of furnishing to farmers borax for curing their meat, at a small profit, copper sulphate for soaking their oats and wheat, saltpeter for curing meat, etc., Paris Green for tobacco worms, pepper for preserving hams, etc.

What has been the result? Not only a loss of the small profit on this trade but the serious situation has developed that grocers have quickly added these products together with a long line of allied articles and have thus become entrenched behind a wall of protection—"handles products that his customers expect him to carry."—It is from this fortified position, one given to him without resistance, that many of our druggists wish to dislodge him.

Not until the public is convinced that pharmacy is more of a profession will this effort to dislodge have any degree of success.

Right here it might be well said, that the argument that the drug business is 90% commercial and 10% professional does not annihilate or even affect the proposition of better professional training. The training and examinations are for public safety, and the 10% of this business or the 1% of that, must be safeguarded as rigidly as if all of our business was professional, for the 10% here and the 1% there when added up makes *all* of the part that must be safeguarded.

If the druggist does not attach this line of trade, the tree-doctor, the garden-doctor, the bug-doctor, etc. will arise in your section. He will and has a right to

take this trade if you don't want it. If by your neglect he engages in this work, at least do not then begin to make efforts to restrict, hamper or dislodge him from a field you wilfully or unthoughtfully abandoned. It does harm to your own profession at a late day to attack certain fields of trade that should have been acquired by exploitation, and not reserved by restriction. It is this class of legislative work that meets with resistance although there is merit in the general scope of the work.

It is hoped that these suggestions and the few formulas given will call attention to a line of work that I believe should fall to the druggist professionally and should offer an excellent opportunity for profitable business. In the following formulas, especial attention is directed to the point of putting up each ingredient in small, neat packages of just the amount needed for small operations. A rose bush needs spraying, have a package prepared that makes a gallon or so. The small cost and the convenience in making will attract many to the experiment of spraying the rose. With simple directions for making and a list of diseases and the spray suitable for such diseases prepared, we have an opportunity of doing *professional work* with a *good profit,* resulting in excellent advertising.

BORDEAUX MIXTURE.

Blue Stone	560 grains
Lime	831 grains
Water to make	1 gallon

Dissolve the Blue Stone in one-half gallon of water in one vessel, slake the Lime in another vessel and dilute with enough water to make half a gallon, pour them together simultaneously into a suitable vessel and a blue solution should be formed.

Cost.—Per fifty-two gallons, forty-one and a half cents. Per gallon, four-fifths of one cent.

Uses.—Apple Leaf Rust, Apple Scab, Bitter Rot of Apple, Black Rot, Downy Mildew, Leaf Blight, Anthracnose, Wilt, Powdery Mildew, Black Spot Canker, Brown Rot, Fruit Bloth, Leaf Curl, Black Knot, Flyspeck.

BORDEAUX MIXTURE WITH ARSENICALS.

Bordeaux Mixture	1 gallon
Paris Green	70 grains

Make the Paris Green into a thick paste with water and add to the Bordeaux Mixture previously prepared. Should be strained before being used.

Cost.—Per fifty-two gallons, fifty-two cents. Per gallon, one cent.

Uses.—Codling Moth, Common Asparagus Beetle, Cucumber Beetle, Flea Beetle, Picle Worm, Three-Lined Leaf Beetle, Squash Bug, Canker Worm, Gypsy Moth, Plum Curculio, Squash Vine Borer.

BED BUG KILLER.

Camphor	12½ ounces
Paraffin Wax	12½ ounces
Rape Seed Oil	25 ounces
Benzine to make	1 gallon

Mix them.

Cost.—Per gallon, 96 cents.

BISULPHIDE OF CARBON.

Uses.—The Black Grain Weevil, Common Bean Weevil, Pea Weevil, Augumois Grain Moth, Croton Bug, Fruit Bark Beetle, Grain Weevils.

KEROSENE EMULSION, WITH WHALE OIL SOAP.

Kerosene	85.3 ounces
Whale oil soap	2.6 ounces
Water	42.6 ounces

Dissolve the soap in the water by the aid of heat, then immediately add the kerosene, make Emulsion by churning.

Cost.—Per fifty-two gallons, $3.79. Per gallon, seven and three-tenths cents.

Uses.—The Harlequin Cabbage Bug, White Grubs, the San Jose Scale, the Scruffy Scale, the Oyster Shell Bark Louse, the Woody Aphis, the Onion Maggot, Apple Root Plant Louse, Chinch Bug, Grape Phylloxera, Grape Vine Leaf Hopper, the Hop Plant Louse, Pear Tree Psylla, Red Orange Scale, the California Live Oak Scale.

KEROSENE EMULSION, WITH IVORY SOAP.

Kerosene	85.3 ounces
Ivory Soap	2.6 ounces
Water	42.6 ounces

Shave the soap in thin pieces into the water. Heat until the soap is dissolved. Remove the heat and add the kerosene, then churn thoroughly. This makes a 66% Emulsion.

For 10% Emulsion, add 5⅔ gallons of water.
For 15% Emulsion, add 3⅓ gallons of water.
For 20% Emulsion, add 2⅓ gallons of water.
For 50% Emulsion, add ⅓ gallons of water.

Cost.—Per fifty-two gallons, $3.79.

Uses.—Used for the same insects as Kerosene with Whale oil soap.

LIME, SULPHUR AND SALT WASH.

Lime (unslaked)	6.4 ounces
Sulphur	4.8 ounces
Salt	3.2 ounces
Water to make	1 gallon

Slake the lime, then add the sulphur and salt and heat to boiling.

Cost.—Per fifty-two gallons, seventy-eight cents. Per gallon, one and a half cents.

Use.—Used in spraying trees before the leaves appear.

LICE EXTERMINATORS.

Naphthalin	3½ ounces
White Wax	1½ ounces
Cocoanut oil	5¾ ounces
Petrolatum	5¾ ounces
Oil Bergamont	1½ drams
Oil Cloves	1½ drams
Oil Cinnamon	1½ drams
Oil Lemon	50 minims

Mix the fats and add the Naphthalin, stir until the latter is dissolved, allow to cool, then incorporate the oils.

Cost for above formula, thirty-six cents.

MANGE CURE.

Whale oil	100 ounces
Sulphur	6 ounces
Tar oil	12 ounces
Crude oil to make	1 gallon

Shake well and rub once a day.

Cost.—Per gallon, sixty cents.

NAPHTHALIN SOLUTION.

Naphthalin	10 ounces
Oil of Lavender	16 ounces
Alcohol to make	1 gallon

Mix them.

Cost.—Per gallon, $5.07.

Use.—A lotion for Mosquito Bites.

PARIS GREEN AND WATER FORMULA.

Paris Green	48 grains
Lime (slaked)	48 grains
Water to make	1 gallon

Mix the Lime with enough water to make a thin paste and pour into half of the water, stir thoroughly. Do likewise with Paris Green.

Cost.—Per fifty-two gallons, eight cents. Per gallon, seven-tenths of one cent.

Use.—Army Worm, Asparagus Beetle, Apple Leaf Skelétonizer, Blister Beetles, Bag Worm, Celery Caterpillar, Celery Looper, Celery Leaf Tyer, Cotton Worm, California Devanting Locust, Elm Leaf Beetle, Irish Potato Beetle, Strawberry Weevil, the Cabbage Plutella, the White Cabbage Butterfly, the Cabbage Plusia.

POTASSIUM SULPHIDE FORMULA.

Potassium Sulphide	145.5 grains
Water to make	1 gallon

Mix them.

Cost.—Per fifty-two gallons, fifteen cents. Per gallon, three-tenths of one cent.

Use.—Red Spider.

RESIN WASH ADHESIVE.

Powd. Resin	1 pound
Concentrated Lye	3.2 ounces
Fish oil	5 ounces
Water to make	1 gallon

Place the Oil and Resin in one quart of water and boil until the Resin is thoroughly softened. Dissolve the Lye in a separate vessel and add it slowly to the Resin Mixture, stirring constantly until well mixed. Then add enough water to make the whole measure one gallon. Continue the boiling until the mixture will mix readily.

Cost.—Fifty-two gallons, $3.64. Per gallon, seven cents.

Uses.—With a few plants like cabbage and collards which have very smooth foliage, difficulty is often experienced in making poison mixtures adhere and for this purpose this mixture is used.

RESIN AND SULPHUR SOLUTION.

Sulphur	1½ pounds
Powd. Resin	580 grains
Caustic soda	1 pound
Water to make	1 gallon

Mix Sulphur and Resin and make into a thick paste with water. Dissolve the caustic soda in water and add to the first mixture, stir, after boiling ceases and the mixture has acquired a brownish color add half a gallon of water and stir well, finally add water enough to make one gallon.

Cost.—Fifty-two gallons. $5.94. Gallon, nine and a half cents.

Uses.—Red Scale, San Jose Scale.

RESIN LIME MIXTURE.

Resin Mixture	7.4 ounces
Milk of Lime	19.2 ounces
Paris Green	87.5 grains
Water to make	1 gallon

Add water to the Resin Mixture and mix thoroughly, add the Milk of Lime and then the Paris Green, previously made into a thick paste with water. This mixture must be freshly prepared when wanted.

Cost.—Fifty-two gallons, thirty-six cents. Per gallon, seven-tenths of one cent.

Uses.—Cabbage Webworm, Imported Cabbage Worm, Native Cabbage Worm.

SOLUTION ARSENATE OF LEAD.

Acetate of Lead	96.3 grains
Arsenate of soda	35 grains
Water to make	1 gallon

Dissolve the Lead Acetate and Sodium Arsenate each separately in three ounces of water in wooden vessels, then add water enough to make one gallon.

Cost.—Fifty-two gallons, sixteen cents. Per gallon, three-tenths of one cent.

SOLUTION MERCURIC CHLORIDE.

Bichloride Mercury	72 grains
Water to make	1 gallon

Dissolve the Bichloride Mercury in about one quart of water by the aid of a gentle heat, then add water enough to make one gallon.

Cost.—Per gallon, one cent.

Use.—Used to disinfect the knife or other tools in cutting out Pear Blight.

SOLUTION COPPER CARBONATE AMMONIATED.

Stronger ammonia water	1 ounce
Copper Carbonate	53 grains
Water to make	1 gallon

Make the copper carbonate into a thin paste with water and slowly add the ammonia water, then add enough water to make one gallon.

Cost.—Fifty-two gallons, $1.56. Gallon, three cents.

Use.—This insecticide is mainly used as a substitute for Bordeaux Mixture upon ornamental plants and maturing fruits as it does not leave the stain that Bordeaux Mixture leaves. It is also inferior as a fungicide.

Destructive to Powdery Mildew.

SOLUTION AU CELESTE MODIFIED.

Blue Stone	512.5 grains
Ammonia Water, 10%	3.2 ounces
Sal Soda	1.8 ounces
Water to make	1 gallon

Dissolve the Blue Stone in two quarts of water, add the Ammonia water and dilute with water to one gallon and dissolve in the Sal Soda.
Cost.—Fifty-two gallons, $2.60. Per gallon, 5 cents.
Use.—This wash should not be used on the foliage of stone fruits and should be applied to other growing plants only with due caution.

SOAP SOLUTION.

Laundry Soap	6 ounces
Water to make	1 gallon

Reduce the soap to fine shavings and dissolve by the aid of heat in one-half gallon of water, then add enough water to make one gallon.
Cost.—Fifty-two gallons, $1.95. Gallon, three and seven-tenths cents.
Uses.—Apple Tree Borer, Fluted Scale, Melon Plant Louse, Pear Tree Slug, Red Spider.

SOLUTION OF LARKSPUR AND BICHLORIDE MERCURY.

Fluidextract Larkspur	8 ounces
Bichloride Mercury	28 grains
Water to make	1 gallon

Mix them.
Cost.—Per gallon, $1.76.
Use.—Crab.

SOLUTION FOR ITCH.

Lime	1 pound
Sulphur	2 pounds
Water	1 gallon

Mix and boil one hour, then strain.
Cost.—Per gallon, nine cents.

To obtain the best results from the use of a fungicide, it is necessary that it should reach all parts of the plants subject to the attacks of the fungous parasites. Many devices for accomplishing this object are now on the market. All these fall within three principal groups, namely, knapsack pumps, hand pumps, and horse-power pumps. The knapsack pumps are designed especially for low growing crops, such as grapes. The hand-power pumps can be used in a number of ways and if strong and durable are probably the most useful of all the various styles of apparatus. The horse-power sprayers are designed to be drawn by one or more horses and operated by the same means. All these machines must be provided with nozzles that will furnish a mist-like spray and at the same time be easy to clean of any obstruction that may clog the necessarily small opening. There is no form of nozzle that so well fills these requirements as the Vermorel, which is now sold with nearly all spraying outfits. Where good labor is cheap and the crop is mainly grapes and low growing plants, the knapsack form of sprayer will probably be found as economical as any apparatus. For orchard work however, more powerful machinery will be required. Probably the most satisfactory form of apparatus for this kind of work consists of a strong force pump, mounted upon a barrel or hogshead. If mounted upon these, arrangements will have to be made to conveniently draw them through the orchards. The horse-power sprayers are nearly all complicated and expensive, moreover they can not be used satisfactorily under as many different conditions as the hand pumps mounted on suitable reservoirs. They may therefore, be dismissed with the statement that it is only in exceptional cases, as, for example, in case of an orchard of several hundred acres on level ground, that it will pay to use them.

With reference to the cost of the several kinds of apparatus mentioned it may be said that good knapsack pumps, complete in every detail may be obtained at

$10 each. The cost of a first-class orchard outfit should not exceed $25. Some kinds, in fact, may be fitted up for $10 or $12.

There are many farmers and many others who grow a miscellaneous line of fruits, such as a few grapes, pears, apples, etc.; in such cases it is desirable to have an inexpensive and effective apparatus that will answer for the various crops. The hand-pump which consists of a small force pump provided with a long piece of discharge hose and a cyclone nozzle. The whole outfit can be purchased and put together for $5, and will be found in every way superior to the many forms of syringes on the market. The pump is strong and durable and although small, it will throw a solid stream, the size of a lead pencil, for more than thirty feet. It may be used for trees of all kinds, as well as for vines and low growing crops.

I have clearly shown the preparation, use and cost of some of the most important insecticides. We know that insects do untold damage to the fruit and vegetable crops of practically every farmer in the country. Having shown that the cost is practically nothing and if insecticides are used they will save the farmers of the country a vast amount of money each year, it clearly follows that insecticides should be put within the reach of every farmer, and it seems to me that the druggists as a side-line and almost a part of his business is the one man above all others to supply this vitally needed remedy for the farmer. This naturally falls within the scope of the druggist and if he will avail himself of the opportunity of thus aiding the agriculturist, he will receive an abundant return.

THE ADVERTISING METHODS I USE.

HAROLD N. BRUUN.

It has been said, "the merchant or manufacturer who fails to advertise is very much like the bashful beau who throws his best girl silent kisses in the dark. He may know what he is doing, but no one else does." To know what one is doing is necessary, but to know why one is doing a certain thing, is of great importance.

In discussing my advertising methods, I will not dwell long upon the methods themselves as they are neither new nor original, but will endeavor to tell you my reasons for using them, which I believe will be of more interest to you.

I am located in a foreign neighborhood in a large city. A large percentage of my customers are illiterate. They are working people, employed in shops, factories and in heavy work. The average income of the family, according to J. W. Jenks and W. J. Lauck, in *"The Immigration Problem in the United States,"* is about eight hundred dollars a year. Their needs are simple.

The Problem:—What kind of goods are these people using now? What class of goods do they not use, but should use? How can I command their attention and interest them in my wares?

The Drug Store Paper:—This I use for the following reasons: The children of the foreigner attend school and the older people are eager to advance their