shallow pans above or on top of grain or other vegetable foods the fumes sink, and being poisonous will kill the insects. It is specially valuable for the fumigation of peas infested with weevils, or grain infested with weevils and other insects. It is also used for the destruction of house-hold pests such as clothes' moth, etc.

One pint of the liquid is sufficient for 100 bushels of peas or grain, or 1,000 cubic feet of space. It is inflammable.

(*b.*) *Hydrocyanic Acid Gas.*—This gas is liberated when diluted sulphuric acid is added to potassium cyanide. It is a deadly poisonous gas, and great care should be taken in its use as an insecticide.

It came into use in California for the fumigation of citrus and olive trees. Later it was introduced into eastern nurseries for the treatment of San Jose Scale on dormant nursery stock, and for the control of flour mill pests, and in some cases, greenhouse and household pests.

The simplest formula is:—

Cyanide of potash (90 per cent. pure) 1 ounce; Sulphuric acid (sp.gr. 1.53) 1 fl. ounce; Water, 4 fl. ounces.

This gas is lighter than air and diffuses very rapidly.

(*c.*) *Sulphur Fumes.*—The destructive action of sulphur is largely due to the readiness with which it oxidizes to sulphur dioxide, a gas fatal to many forms of insect life. Mites are controlled in greenhouses by the dusting of fine sulphur on the surfaces of the leaves.

When sulphur is burned on a hot plate over a low flame sulphur dioxide is rapidly formed, recognized by its suffocating odor. This is, perhaps, the simplest method of dealing with ordinary household pests such as bed-bugs, fleas, and other forms.

Combined with a soap, sulphur is used as a wash for mange which is caused by a mite.

(*d.*) *Tobacco.*—Tobacco fumes are destructive to aphids on greenhouse and household plants. They are liberated by the application of heat to certain Nicotine Extracts, Nicotine Paper, or finely divided tobacco powders. These "fumigating" powders and extracts may now be had in the market and are convenient methods of dealing with house plants.

4. The Application of Repellant Substances.

Several substances are known to act as "repellents" to insects, and may sometimes be used to advantage in preventing insect attack. Among such substances are:—(*a.*) Bordeaux mixture; (*b.*) Tobacco