

## Tobacco, Its Chemistry.

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MOST of us, when we notice a young student contentedly smoking his consoling pipe and blowing dense clouds of tobacco smoke heavenward are very well aware that, the young gentleman is acquiring or has already acquired a noxious habit and a devotion to My Lady Nicotine, which habit and devotion will most certainly do him more harm than good.

But in reality how few know all the deleterious substance that tobacco contains. We are all aware that tobacco is in a certain way poisonous, and that by drawing the smoke into the throat and lungs harm is done. The vast majority claim that it is the poisonous substance known as nicotine causes all the harm, and this drug they also claim is present in the tobacco in large quantities. Both of which statements are rather erroneous. In urging proof they invite the smoker to blow a mouthful of smoke through a white cloth, for instance through his handkerchief. After the smoker has complied there appears on the linen a brownish yellow spot. They point to this spot and with a triumphant look say behold the nicotine. Indeed this trick of blowing tobacco smoke through a handkerchief is so ancient that it is almost in the category of the classics. As an experiment that test is a fraud. The stain we see is no more caused by nicotine than fruit juice. That brown stain is simply due to the condensation of tar that has just been distilled from the woody fibre of the tobacco. Also the brownish juice which collects in the stem and bowl of the pipe is found upon analysis to be a mixture of tar and water, and is not, as commonly supposed, a quantity of nicotine.

Concerning the quantity of nicotine and other poison that the user of the weed absorbs there are a great many fallacies current. The truth is that the quantity absorbed by the smoker is very small. Experiments have shown that from a hundred grains of tobacco leaf about two grains of poisonous substance may be drawn into the mouth. The poisons may be drawn into the mouth but is the quantity entirely absorbed? There are numerous agents which affect the percentage of poisons in the smoke, such as the rapidity of burning, the shape and length of the pipe, the material of the pipe, etc.